

ROYAL NEW ZEALAND AIR FORCE

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ROYAL NEW ZEALAND AIR FORCE

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Rabaul under bombardment, February 1945

Rabaul under bombardment, February 1945

ROYAL NEW ZEALAND AIR FORCE

[TITLE PAGE]

*Official History of New Zealand
in the Second World War 1939–45*

**ROYAL NEW ZEALAND
AIR FORCE**

Squadron Leader J. M. S. ROSS

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ROYAL NEW ZEALAND AIR FORCE

PREFACE

Preface

BETWEEN September 1939 and August 1945 rather more than 55,000 New Zealanders joined the Royal New Zealand Air Force. Of these, over 10,000 were transferred and served with the Royal Air Force, in whose ranks, along with airmen from the other members of the Commonwealth, they were to be found in every theatre of war and in almost every unit. Their story is being told by Wing Commander H. L. Thompson in his history of *New Zealanders with the Royal Air Force*. Of the other 45,000, nearly 15,000 served overseas at some time or other in the **Pacific** theatre and the others were engaged in manning the base establishments at home and in training those who were destined for overseas service.

The object of this volume is twofold: to record the development of the Royal New Zealand Air Force in New Zealand from the time of its earliest beginnings; and to give an account of the part New Zealand airmen played, first in the unsuccessful defence of **Singapore** in 1941–42 and then, in conjunction with the American and Australian forces, in the defeat of the Japanese in the South and South-West **Pacific**.

In the eyes of the world the **Pacific** campaigns of 1942–45 were often over-shadowed by the cataclysmic events taking place elsewhere; but it may well be that posterity will see a greater significance than we do now in this, the defeat of the first attempt by a major Asian maritime power to extend its sphere of domination southward. New Zealanders played a small but important and, at times, vital part in the campaigns. I have tried to describe their role against a background of the general conduct of the war in the area.

Much of the material used has been taken from official documents and files; but such sources rarely tell a complete story. I have been

fortunate in being able to fill in many gaps with first-hand information, not only on the **Pacific** campaigns but also on the early formative years of the **Air Force**, from those who took part in the events described. I have to thank all those who helped in that respect.

My thanks are due also to the staffs of the **War History Branch** and the RNZAF Historical Records Section for their unfailing co-operation and support. **W. A. Glue**, as sub-editor, **J. D. Pascoe**, as illustrations editor, and **Miss J. Hornabrook**, who compiled the index, have contributed greatly in the production of the book. The maps used are the work of the Cartographic Section of the Lands and Survey Department. I owe a particular debt to **J. D. Carmichael**, **B. G. Clare**, **F. A. Ponton**, and **D. J. Rutherford**, who did much of the preliminary research work and condensed a vast mass of material into narratives which, while forming the basis for a large part of this history, are in themselves valuable records of the wartime operations and administration of the Royal New Zealand Air Force. I should also like to thank those senior officers, especially **Air Vice-Marshal Sir Leonard Isitt**, **Air Vice-Marshal Sir Arthur Nevill**, and **Air Commodore S. Wallingford**, who read the completed text and offered extremely helpful criticism.

J. M. S. Ross

WELLINGTON

January 1955

ROYAL NEW ZEALAND AIR FORCE

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ROYAL NEW ZEALAND AIR FORCE

CHAPTER 1 – INTRODUCTORY, 1909-18

CHAPTER 1

Introductory, 1909-18

THE Royal New Zealand Air Force in its present form dates from 1 April 1937, when the Air Force Act and the Air Department Act were passed. The first created the **Air Force as a separate branch of the Armed Services, and the second created a new Department of State to administer it.**

The history of service aviation in New Zealand, though, goes back to the early nineteen-twenties, while the idea of an air force began before the First World War. The passing of the **Air Force Act was the culmination of years of effort by a few farseeing enthusiasts, who for more than two decades fought against official and public apathy for the recognition of New Zealand's air defence needs. Looking back, their early achievements may seem slight in comparison with what came later; but they laid the foundations of a service which from 1939 to 1945 made itself a reputation second to none in the world.**

One of the first New Zealanders to appreciate the possibilities of aircraft was the Hon. Henry Wigram. ¹ While on a visit to England in 1908 he was greatly impressed by some of the pioneer flights which were then being made, and when he returned to New Zealand he was imbued with an enthusiasm for aviation which lasted to the end of his life.

Speaking in the Legislative Council in 1909, he urged the Government to form a Flying Corps as part of the country's defence forces. As no powered aeroplane had yet flown in New Zealand and as flying was everywhere still in its infancy, the idea was revolutionary. Nevertheless, the seed took root, and in 1911 the proposal was considered by the Army. In 1912 the Officer Commanding the **New Zealand Military Forces ² reported that preliminary arrangements had been made to send a number of officers and non-commissioned officers to England for training.**

¹ Sir Henry F. Wigram, Kt; born England, 1857; settled in **Christchurch**, 1883; member of Legislative Council, 1903–20; knighted in 1926 for services to aviation; died 6 May 1934.

² Gen Sir Alexander J. Godley, GCB, KCMG, Legion of Honour (Fr); born 4 Feb 1867; joined Royal Dublin Fusiliers 1886; served in South African War; GOC NZ Forces 1910–14; GOC **1 NZEF** 1914–19; C-in-C British Army of the Rhine, 1922–24; Governor and C-in-C, Gibraltar, 1928–33; retired 1933.

Later in the same year Lieutenant Burn, NZSC, ¹ was sent to train as a pilot at the newly formed **Central Flying School**, Upavon, on the Salisbury Plain. He returned to New Zealand shortly before the beginning of the First World War.

By 1913 aviation overseas had made considerable progress, and aircraft, although still largely in the experimental stage, were considered to be sufficiently useful and reliable to have real military value. **Britain**, **France**, and **Germany** all started to pay increased attention to the development of their air corps.

In Britain a group of business men formed a committee known as the Imperial Air Fleet Committee, 'to strengthen the resources of the Empire in aerial craft, in view of the great advances made in this direction by foreign powers.' A subscription list was opened by the *Evening Standard* for the purchase of aircraft for the Dominions, and the first one bought was presented to the New Zealand Government.

The machine was a two-seater monoplane ² which had been designed by Bleriot for Gustav Hamel's record-breaking non-stop flight from **Dover** to **Cologne** in April 1913. It was christened 'Britannia' by Lady Desborough, wife of the president of the Imperial Air Fleet Committee, and shipped to New Zealand where it arrived in September.

Meanwhile it had been announced that New Zealand would use the aircraft as the nucleus of an Aviation Corps. Its arrival, however, raised

some problems for the Government. Lieutenant Burn was still in England, and no member of the Military Forces in New Zealand was competent either to fly it or to service it. The Government apparently was a little awed by the modern marvel which it had acquired. The Minister of Defence, Mr J. Allen, wrote to the Aviation School at **Farnborough**, asking what should be done with the machine and how New Zealand could make the best use of it. 'I presume that a shed will be necessary would it also be necessary that before anybody mounts in the machine, they should get some experience of the air currents as you teach your men by sending them up in a balloon?'

Instructions were received from the Aviation School, together with the discomfoting advice that 'this machine is a highly

¹ **Lt W. W. A. Burn**, m.i.d.; born **Melbourne**, 17 Jul 1891; went overseas in 1915 as a member of the first Australian Squadron for flying duties with Indian Armed Units in Mesopotamia; shot down and killed, 1915.

² Specification: 'Bleriot Monoplane -X1-2 type; 2 seats for pilot and passenger arranged tandem fashion. The motor is the latest 80 hp Gnome Engine. The length of the machine is 28 feet and the span 30 feet. The weight about 860 lb. when empty, and it is guaranteed to fly at a speed of over 70 miles an hour in calm air.'

efficient military machine, but on account of its speed it is not suitable for a novice.'

There were claims from various parts of the country for the location of the first aerodrome. **Wigram**, who continually urged the Government to develop aviation, pressed the case for putting it at **Sockburn**, near **Christchurch**. However, it was another four years before **Sockburn** was developed as an aerodrome.

'**Britannia**' was put on show at the Auckland Exhibition at the end of

1913, and later made several flights over the city, piloted by **J. J. Hammond**, of Feilding, who had learned to fly overseas. Hammond can thus be regarded as New Zealand's first official test pilot. He was also the first to be dismissed for giving unauthorised rides. While a number of official guests were waiting to be given their first flight, he preferred to take as a passenger a young lady from a visiting theatrical company. Even in those days such a practice was frowned upon, and he lost his appointment. The aircraft was then dismantled and sent to **Wellington** to be stored until the return of Lieutenant Burn.

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Henry Wigram.

The Walsh brothers had at first tried to build a land plane, but after a series of unhappy experiences had decided to try their hand at a flying boat. It was still under construction when war broke out and was finally launched at Bastion Point, [Auckland](#), on New Year's Day, 1915. After a number of successful trials they considered that they could use it to train pilots. Leo Walsh approached the Government for assistance, but nothing except moral support was forthcoming. However, a signal was sent to the Imperial Government asking whether New Zealand trained pilots would be acceptable to the RFC, and what qualifications they would require. The Imperial Government replied that all suitable candidates qualifying for the Royal Aero Club's certificate in New Zealand would be accepted for commissions in the RFC. First-class fares to England would be paid, and a refund of £75 towards the cost of training would be made to each candidate when he arrived in England. Pay would commence as for second-lieutenants in the RFC from the date of embarkation in New Zealand. The Home Government asked that as many candidates as possible should be sent immediately. The Royal Aero Club agreed to issue certificates to candidates qualifying at the school, and suggested that the qualifying flights should be witnessed by military officers appointed by the [New Zealand Government](#).

The negotiations with the Imperial Government occupied most of the year 1915, and in the meantime applications for training were so numerous that the Walshs formed a limited liability company to finance the purchase of two more aircraft. In addition they built another themselves, so that by early in 1916 they had a flight of four. The staff of the school at this time comprised:

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The Flying Training School at **Sockburn**, operated by the **Canterbury Aviation Company**, was formed in 1917. Like the Walshs, the company had applied to the **New Zealand Government** for assistance and had been refused, and, like them, it had entered into an agreement with the British Government. Training started in June with one aircraft, a Caudron II with a sixty-horsepower Anzani engine. The instructor was **C. M. Hill**, who had come from the Hall Flying School at Hendon, and the ground staff consisted of **J. G. Mackie** (airframes) and **J. E. Moore** (engines). By the end of the war two more instructors were employed: **B. Dawson**, on loan from the Flying School at Kohimarama, and **J. C. Mercer**, who had been one of Hill's first pupils.

The first course, which lasted five weeks, consisted of six pupils, all of whom qualified for their pilots' certificates on 24 August 1917. Altogether 180 pilots were trained at the school by the end of the war. Of these, 156 had gone overseas and were commissioned in the RFC, RNAS, or **RAF** when the Armistice was declared.

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instruction before a pupil did his first solo was from three to four hours, and after another three hours' flying he was ready for his passing-out test.

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Besides the men who were trained at Kohimarama and [Sockburn](#), several hundred other New Zealanders served during the First World War in the RFC, RNAS or [RAF](#), either in the air or on the ground. When they returned after the war many of them kept their interest in flying, and from their ranks came the first members of the New Zealand Air Force.

The first air VC ever to be awarded was won by a New Zealander, Second-Lieutenant W. B. Rhodes-Moorhouse, RFC, the son of Edward Moorhouse, an early pioneer. During a bombing raid at Courtrai, he came down to 300 feet to hit his objective and was severely wounded by rifle and machine-gun fire. He flew back over 35 miles to his base to make his report, but died the next day in hospital. His posthumous VC was awarded in May 1915.

ROYAL NEW ZEALAND AIR FORCE

[SECTION]

THE Royal New Zealand Air Force in its present form dates from 1 April 1937, when the Air Force Act and the Air Department Act were passed. The first created the **Air Force as a separate branch of the Armed Services, and the second created a new Department of State to administer it.**

The history of service aviation in New Zealand, though, goes back to the early nineteen-twenties, while the idea of an air force began before the First World War. The passing of the **Air Force Act was the culmination of years of effort by a few farseeing enthusiasts, who for more than two decades fought against official and public apathy for the recognition of New Zealand's air defence needs. Looking back, their early achievements may seem slight in comparison with what came later; but they laid the foundations of a service which from 1939 to 1945 made itself a reputation second to none in the world.**

One of the first New Zealanders to appreciate the possibilities of aircraft was the Hon. Henry Wigram. ¹ While on a visit to England in 1908 he was greatly impressed by some of the pioneer flights which were then being made, and when he returned to New Zealand he was imbued with an enthusiasm for aviation which lasted to the end of his life.

Speaking in the Legislative Council in 1909, he urged the Government to form a Flying Corps as part of the country's defence forces. As no powered aeroplane had yet flown in New Zealand and as flying was everywhere still in its infancy, the idea was revolutionary. Nevertheless, the seed took root, and in 1911 the proposal was considered by the Army. In 1912 the Officer Commanding the **New Zealand Military Forces ² reported that preliminary arrangements had been made to send a number of officers and non-commissioned officers to England for training.**

¹ Sir Henry F. Wigram, Kt; born England, 1857; settled in **Christchurch**, 1883; member of Legislative Council, 1903–20; knighted in 1926 for services to aviation; died 6 May 1934.

² Gen Sir Alexander J. Godley, GCB, KCMG, Legion of Honour (Fr); born 4 Feb 1867; joined Royal Dublin Fusiliers 1886; served in South African War; GOC NZ Forces 1910–14; GOC **1 NZEF** 1914–19; C-in-C British Army of the Rhine, 1922–24; Governor and C-in-C, Gibraltar, 1928–33; retired 1933.

Later in the same year Lieutenant Burn, NZSC, ¹ was sent to train as a pilot at the newly formed **Central Flying School**, Upavon, on the Salisbury Plain. He returned to New Zealand shortly before the beginning of the First World War.

By 1913 aviation overseas had made considerable progress, and aircraft, although still largely in the experimental stage, were considered to be sufficiently useful and reliable to have real military value. **Britain**, **France**, and **Germany** all started to pay increased attention to the development of their air corps.

In Britain a group of business men formed a committee known as the Imperial Air Fleet Committee, 'to strengthen the resources of the Empire in aerial craft, in view of the great advances made in this direction by foreign powers.' A subscription list was opened by the *Evening Standard* for the purchase of aircraft for the Dominions, and the first one bought was presented to the New Zealand Government.

The machine was a two-seater monoplane ² which had been designed by Bleriot for Gustav Hamel's record-breaking non-stop flight from **Dover** to **Cologne** in April 1913. It was christened 'Britannia' by Lady Desborough, wife of the president of the Imperial Air Fleet Committee, and shipped to New Zealand where it arrived in September.

Meanwhile it had been announced that New Zealand would use the aircraft as the nucleus of an Aviation Corps. Its arrival, however, raised

some problems for the Government. Lieutenant Burn was still in England, and no member of the Military Forces in New Zealand was competent either to fly it or to service it. The Government apparently was a little awed by the modern marvel which it had acquired. The Minister of Defence, Mr J. Allen, wrote to the Aviation School at **Farnborough**, asking what should be done with the machine and how New Zealand could make the best use of it. 'I presume that a shed will be necessary would it also be necessary that before anybody mounts in the machine, they should get some experience of the air currents as you teach your men by sending them up in a balloon?'

Instructions were received from the Aviation School, together with the discomfoting advice that 'this machine is a highly

¹ **Lt W. W. A. Burn**, m.i.d.; born **Melbourne**, 17 Jul 1891; went overseas in 1915 as a member of the first Australian Squadron for flying duties with Indian Armed Units in Mesopotamia; shot down and killed, 1915.

² Specification: 'Bleriot Monoplane -X1-2 type; 2 seats for pilot and passenger arranged tandem fashion. The motor is the latest 80 hp Gnome Engine. The length of the machine is 28 feet and the span 30 feet. The weight about 860 lb. when empty, and it is guaranteed to fly at a speed of over 70 miles an hour in calm air.'

efficient military machine, but on account of its speed it is not suitable for a novice.'

There were claims from various parts of the country for the location of the first aerodrome. **Wigram**, who continually urged the Government to develop aviation, pressed the case for putting it at **Sockburn**, near **Christchurch**. However, it was another four years before **Sockburn** was developed as an aerodrome.

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**CHAPTER 2 – BIRTH AND GROWTH OF THE NEW ZEALAND AIR FORCE,
1919-36**

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Birth and Growth of the New Zealand Air Force, 1919-36

BY the end of the war New Zealand realised the importance of aircraft as a means of defence. The work of the private flying schools had shown that pilots could be successfully trained locally, and this, combined with the recent advances in aviation in other countries, encouraged the Government to take a more active interest. General opinion at the time was that civil rather than military flying should be fostered as it would be cheaper and would still provide potential reserves for wartime use; but the return of hundreds of trained men from overseas seemed to provide a perfect opportunity for the formation of at least the nucleus of an Air Force.

The British Government was asked to send out an officer to advise on aviation policy, and in response to the request Colonel Bettington, **RAF**, ¹ arrived in New Zealand early in 1919. He brought with him two **RAF** mechanics and four aircraft, two DH4s and two **Bristol Fighters**. The aircraft were sent to **Sockburn** and housed by the **Canterbury Aviation Company** until the Government built two hangars for them.

While he was in New Zealand three officers with **RAF** experience were attached to him as staff: Major Brandon, ² Captain **Don**, ³ and Lieutenant Shand. ⁴ Captain Don was appointed to take charge of the aircraft at **Sockburn**.

After examining the country's air defence needs, Bettington made a report to the Government in June 1919. In it he showed really remarkable foresight. He had no faith in the possibility of a lasting peace brought about by the proposed League of Nations, and prophesied that the **Pacific** would become a centre of trouble. In particular, he pointed out that **Japan** had emerged from the war

¹ **Gp Capt A. V. Bettington**, CMG; born England, 12 Jun 1881; served in South African War, 1899–1903; Zulu War, 1906;

First World War, 1914–19; commanded **RAF** in **Ireland**, 1922; retired 1931; recalled to active list for special duties, 1939–45; died 1950.

² Maj A. de Bathe Brandon, DSO, MC, m.i.d.; Heretaunga; born 1884; barrister; joined RFC 1915; decorated for his part in the destruction of Zeppelin L.15 on night 31 Mar–1 Apr 1916 and of L.33 on night 23–24 Sep 1916.

³ Capt J. H. Don; **Timaru**; born Dunedin, 18 Sep 1892; dental surgeon; 1 **NZEF** 1914–19; attached **RAF** 1919.

⁴ 2 Lt E. T. Shand; born **Taieri**, 28 Feb 1891; sheep farmer; 1 **NZEF** 1916–17; RFC 1917; died 15 Jan 1938.

relatively much stronger than she had been before and that she would be looking for an outlet for her surplus population. New Zealand, he considered, should be prepared to play an active part in Imperial defence, and should establish close liaison with **Australia** and with the **Air Ministry**. Also, because of its distance from sources of help, it should be ready to defend itself immediately against attack. In his assessment of the situation he was not led astray, as were a number of later planners, by the existence of a supposedly impregnable base at **Singapore**.

He recommended that the Government should immediately start to form an **Air Force**, using trained men who had returned from the **RAF** to provide the initial personnel requirements and taking over the **Canterbury Aviation Company's** School as a training centre.

The minimum units required to form an efficient operational **Air Force** were:

1 Corps reconnaissance and fighter squadron

1 large day-bombing squadron

1 large night-bombing squadron

1 scout fighter squadron

1 squadron of torpedo planes and ship bombers

2 squadrons of large flying boats

1 aircraft depot

2 aircraft parks

All these should be formed immediately in cadre and should be capable of rapid expansion into fully mobilised units. In addition, it would be necessary to provide large reserves of men and material to meet wastage in time of war. A headquarters staff should be established to administer the force, and a liaison officer should be appointed to [Air Ministry](#) to keep New Zealand in touch with [RAF](#) developments.

His final report, presented in July, envisaged a permanent establishment of 70 officers and 299 airmen being attained in four years, while a Territorial force of 174 officers and 1060 airmen was to be built up within eight years. The estimated expenditure on aerodromes, buildings, and equipment in the first four years was £701,250, and the total cost for the same period £1,294,000.

While Colonel Bettington was formulating his recommendations, the British Government offered New Zealand a hundred aircraft as a free gift 'to assist the Dominion to establish an [Air Force](#), and thereby develop the defence of the Empire by air.'¹

¹ The following types were offered:

DH9 (BHP engine)

DH9A (Liberty engine)

Bristol Fighter (Arab engine)

SE5 (Hispano Suiza engine)

Dolphin (Hispano Suiza engine)

Avro (Clerget, le Rhone or Mono engine)

Salamander (BR2 engine).

No immediate reply was made to the British Government, and in the meantime Bettington was asked to prepare a less ambitious scheme. He did so, eliminating three of the squadrons he had originally planned, and concentrating all land planes at **Sockburn** and flying boats at **Auckland**. Even this was too much, and on 27 August Cabinet decided that it was 'impracticable to involve the country in the large expenditure that would be required for any air scheme which would be of value for defence or postal purposes.' Finally Bettington recommended the following temporary measures 'pending a more settled state of the political outlook in New Zealand':

1. The appointment of an Air Adviser.
2. Subsidising the civil flying schools at **Auckland** and **Christchurch**.
3. Refresher training for ex- **RAF** personnel.
4. The transfer of a number of Territorial personnel for air training.
5. The acceptance of some, at least, of the gift aircraft.
6. The allotment of £25,000 for expenditure on the above.
7. Experiments with an airmail service.

Thereafter, he returned to England feeling that he had not been able to accomplish much in New Zealand. ¹

The aircraft he had brought with him were retained at **Sockburn**. In November Captain Isitt, ² who had recently returned from service with the **RAF**, was posted there to relieve Captain Don. His duties entailed looking after the aircraft, acting as liaison officer between the **Canterbury Aviation Company** and the Government, and supervising military flying training—if and when it took place.

Having disposed of its expert adviser, the Government set up an

advisory committee of its own to bring down recommendations concerning aviation generally, and the British offer of aircraft in particular.

After lengthy discussion it was decided to ask for twenty Avros and nine DH9As, and for six flying boats instead of the balance of the 100 aircraft originally offered. The request was signalled to

¹ The measure of enthusiasm which Bettington's report aroused in New Zealand military circles can be gauged from the fact that by 1920 it had been lost and only odd papers could be found in the Defence Department. Not until 1929 was a complete copy found, in private hands, and placed on file.

² AVM Sir Leonard M. Isitt, KBE, Legion of Merit (US); **Wellington**; born **Christchurch**, 27 Jul 1891; 1 Canterbury Regiment 1911; NZ Rifle Brigade, **1 NZEF**, 1915–16; RFC and **RAF** 1916–19; appointed military equipment and instructional officer NZ Air Service, 1919; gazetted Captain, NZ Permanent Air Force, 1923 and appointed to command Wigram Aerodrome; attached **RAF** and appointed NZ Air Liaison Officer at **Air Ministry**, 1926–28; AMP 1937–40; NZ representative on Supervisory Board of British Commonwealth Air Training Plan, 1940–42; Air Attache, **Washington**, 1942; DCAS 1943; CAS 1943–46; represented NZ at Japanese surrender in Tokio Bay, Sep 1945; retired 1946; Chairman of Directors, NZ NAC.

London in January 1920. A fortnight later **Air Ministry** replied that, owing to the long delay between the making of the original offer (11 July 1919) and its acceptance (28 January 1920), no surplus DH9A machines were then left; nor could the six flying boats be supplied.

New Zealand then took prompt steps to reserve what aircraft were then still available, and some months later 33 machines were shipped out, comprising 20 Avros, 9 DH9s, 2 Bristol Fighters, and 2 DH4s. Of these, when they arrived, six were retained by the Government and stationed at **Sockburn** for military purposes, and the rest were lent to

private flying enterprises which were being formed in various parts of the country.

THE AIR BOARD

It was now generally agreed that, in view of the probable development of aviation, the problem of defence would involve the use of land, sea and air forces, and a **Defence Committee** was formed to ensure the effective co-ordination of the three arms. Apparently the need for co-ordination was not highly regarded for the Committee's first meeting, held in July, was also its last. At the same time an Air Board was established to give advice to the Minister of Defence on all matters relating to aviation.

The Board consisted of representatives of the various Government agencies which might have an interest in the subject: the Defence, Post and Telegraph, Public Works, and Lands and Survey Departments. ¹ When its composition was announced in June 1920, the press commented caustically that none of its members knew anything about flying.

To rectify this oversight Captain Wilkes, NZSC, ² was appointed secretary. He had served with the RFC and the **RAF** during the war, and was the only officer of the New Zealand Staff Corps who was a qualified pilot.

On 25 September 1920 the Government approved what can be regarded as New Zealand's first positive aviation policy:

¹ Maj-Gen Sir E. W. Chaytor, KCMG, KCVO, CB, ADC, GOC NZ Forces (President); Brig-Gen G. S. Richardson, CB, CMG, CBE (Brigadier i/c of Administration); Commander T. A. Williams, CBE, RN (Naval Adviser); T. N. Brodrick, OBE, ISO (Lands and Survey Department); A. Markman and G. McNamara (Post and Telegraph Department); and F. W. Furkert (Public Works Department).

² **Gp Capt T. M. Wilkes, CBE, MC; Upper Hutt; born Thames, 24 Mar 1888; appointed 2 Lt, NZSC, Aug 1911; Brigade Major 2 NZ Inf Bde, 1 NZEF, 1916; seconded to RFC Sep 1917–Jun 1918; General Staff Officer, Air Services, and Secretary to Air Board, 1920–23; transferred from NZSC to NZPAF 1923; Staff Officer Air Services 1924–25; Director of Air Services 1925–31; NZLO Air Ministry 1929–31; reappointed DAS 1931; received additional appointment of Controller of Civil Aviation, 1933; relinquished appointment of DAS on formation of RNZAF in 1937, but remained CCA, and was also for some months Chief Staff Officer Equipment, RNZAF; NZLO Melbourne 1940–46; NZLO to the Netherland Forces in the East, 1944–46; retired 1946.**

AVIATION

Policy

The Government to make provision for the development of Aviation along lines which will enable the Dominion to possess civil aviation for commercial and other needs and at the same time provide for the necessities of aerial defence in case of emergency.

Establish an Air Board (already constituted) which will act as an Advisory Body to the Government on:

- (a) Matters of Defence**
- (b) Commercial Undertakings**
- (c) Aviation Generally**

(A) Defence To advise the Government with respect to:

- (i) Purchase, rent and preparation of key aerodromes.**
- (ii) Purchase and maintenance of war aeroplanes, inspection of all Aviation Schools and their equipment by Defence Staff.**
- (iii) Refresher courses for ex R.A.F. fighters.**
- (iv) Defence machines which may be allotted to civil companies.**

Survey of routes to be undertaken by officers of the Aviation Branch of the Defence Department, or any competent Aviator deputed by the Air Board.

(B) Commercial As Defence Aviation owing to the great cost involved, cannot be developed without the development of the commercial

side, the Air Board will advise the Government with respect to:

- (i) Companies or private individuals that may be subsidised for the conveyance of mails, passengers, etc., on approved routes.
- (ii) The allotment by way of loan or otherwise of Government machines.
- (iii) Inspection of privately owned machines.
- (iv) Regarding the reservation of rights of particular companies or individuals to fly for *hire* within prescribed areas.

The Board to make recommendations as to contracts to be entered into for the carriage of mails, passengers, etc. All contracts to be submitted for approval to the Minister in charge and the Postmaster-General and to be confirmed by both.

(C) *General*

Attention to be paid to meteorological conditions and the Board to recommend in what direction assistance should be given to the Meteorological Department with a view to equipment to meet the needs of Aviation.

All reports and recommendations of the Board to be submitted to the Minister in charge and the Postmaster-General for their joint consideration.

The Board to administer the details of the policy as defined by the Government.

To advise on the necessity for legislation and regulations regarding aviation generally.

In Cabinet.

25th September, 1920.

Recommendations of Hons. Coates and Rhodes

approved.

(*Signed*) F. W. THOMSON,

Secretary.

From the above it can be seen that the policy of the time was to foster civil aviation in the expectation that it could be turned to advantage for defence in time of need. Considering how little was known about flying generally, and the limitations imposed on defence developments by lack of finance, it was quite sensible.

The Air Board met frequently during the latter part of 1920 and early in 1921, and thereafter at longer intervals. It was a purely advisory body with no executive powers; a fact which its members felt was a shortcoming and tried to have changed. They considered that, unless it had some authority to regulate flying activities, much of its value was lost.

Their dissatisfaction was not altogether justified. The Government was, admittedly, slow to act on their recommendations, but no more so than most Governments when embarking on an entirely new venture. The mere fact that a statement of policy was issued showed that it was taking an active interest in the matter, and was partly the result of early recommendations by the Board; and a number of other more detailed recommendations were later acted upon.

Concrete proposals which later bore fruit were made early in 1921. They included the establishment of a service aerodrome at **Auckland** for land and sea planes; the acquisition of torpedo-carrying aircraft for coastal defence; and refresher training for ex- **RAF** pilots at **Sockburn**.

In 1921 the Board was made responsible for administering in detail the aviation policy laid down by the Government.

FLYING SCHOOLS

While policy was being formulated in **Wellington**, the fate of the two flying schools at **Auckland** and **Christchurch** hung in the balance. The end of the war and the cessation of the training of military pilots had deprived them of their regular income, and their future was uncertain. Colonel Bettington had recommended that the **Canterbury Aviation**

Company should be given the job of providing initial training of pilots and mechanics for the **Air Force**. The New Zealand Flying School at Kohimarama, he considered, would not be needed for **Air Force** training. He suggested that, in recognition of the excellent work it had done during the war, its equipment should be bought by the Government.

His recommendations were not immediately acted upon. As an interim measure, the schools were both subsidised by grants of £150 a month to keep them going until future policy could be decided, and in addition they made a certain amount of revenue from charter flights and joy rides.

In the two years immediately following the war both schools were employed on experimental airmail services. The first such flight was made on 16 December 1919, between **Auckland** and **Dargaville**. Others followed, and for two months in 1920 regular services were run on the routes **Auckland– Dargaville**, **Auckland- Whangarei**, and **Auckland– Thames**. In the **South Island** a service between **Christchurch** and **Timaru** was flown for some months in 1921. One between **Christchurch** and **Wellington** was seriously considered, but nothing came of it.

Air mails were not a paying proposition, and after trying them the Government reverted to paying straight subsidies to the schools.

In 1921 the proposal to give refresher training to ex- **RAF** pilots was put into effect. In that year and the two following, the **Canterbury Aviation Company** gave refresher courses to about forty officers, at a cost to the Government of £100 a head.

Captain Isitt, who had been posted to **Sockburn** in 1919 to look after the aircraft left behind by Colonel Bettington, supervised the training. He was assisted by a staff of three. Lieutenant **Denton**,¹ Adjutant of the 1st (Canterbury) Regiment, had been attached to him as part-time equipment officer in May 1920, and early in 1921 two Army personnel, Corporal W. C. Townsend and Private F. A. Merrin, were posted as ledger-keeper and storeman.

In 1923 a refresher course for twelve officers was held also at the New Zealand Flying School, Kohimarama. This was the only military use made of the school, and the following year it was closed down. The Government bought up its equipment but made no use of it. The aircraft by that time were worn out and unserviceable and were relegated to the scrap heap.

The duties of the embryonic **Air Force**, besides the maintenance of service aircraft and the supervision of service training, included the control of civil aviation. At that time this comprised the inspection of civil aircraft and of aerodromes which were being laid out in various parts of the country; the granting of licences to pilots; and the regulation of Government assistance to civil companies.

¹ **Gp Capt T. J. Denton**, OBE, m.i.d.; born **NSW**, 7 Nov 1888; enlisted in NZ Permanent Staff 1911; Canterbury Mtd Rifles (Capt) 1914–18 War; seconded to RFC 1917; returned to NZ 1919; transferred to NZPAF as Equipment Officer, 1 Oct 1923; Staff Officer to DAS, 1934–37; attached **RAF** 1938–41; Director of Equipment 1942; Chief Inspector of Equipment 1942–46; Director of Equipment 1946; retired 1947.

FORMATION OF NEW ZEALAND AIR FORCE

In 1923 the Government finally decided that it must take more positive steps in regard to service flying and that, if any real progress was to be achieved, a permanent **Air Force** must be formed to administer aviation in all its phases. In June the establishment of the following forces was authorised:

1. The New Zealand Permanent Air Force (to be part of the Permanent Forces)
2. The New Zealand Air Force (to be part of the Territorial Forces)

The Permanent Air Force was to be composed of regular officers and other ranks, and its primary responsibility was to be the training and administration of the **Territorial Air Force**. The latter was to consist of

ex- **RAF** officers who had, earlier in the year, been formed into an Air Force Reserve. Provision was also made that, in the future, *ab initio* trainees could be enlisted.

To accommodate the new **Air Force** a service aerodrome was needed, and the aerodrome, buildings, and equipment of the **Canterbury Aviation Company** were bought. The decisions to form an **Air Force** and to buy the aerodrome were, of course, interdependent, and both were influenced by the efforts of the Hon. Henry Wigram. He had never stopped pressing the Government to do something about aviation, and now, to spur the authorities into positive action, he gave £10,000 towards the purchase price. ¹ In recognition of the gift, the aerodrome was renamed Wigram.

By the end of 1923 the strength of the Permanent Air Force had more than doubled. Major Wilkes was in command at Defence Headquarters in **Wellington**, and Captain Isitt commanded the aerodrome at Wigram. To assist him Captain Findlay, MC, ² was appointed as Flying Instructor. Lieutenant Denton was transferred from the Army as full-time equipment officer, and three other ranks were enlisted or transferred for maintenance and equipment duties. ³

¹ The total price paid to the company was £31,012 15s 3d, made up as follows:

Land	£15,651 2s
Buildings	£8,911 12s
Aircraft and spares	£5,519 16s 9d
Implements	£74 1s 4d
Furniture	£295
Horses	£50
Supplies	£511 3s 2d

² **Air Cdre J. L. Findlay** CBE, MC, AFC, Legion of Honour (Fr), Legion of Merit (US); born **Wellington**, 6 Oct 1895; East Surrey Regt 1914–17; RFC and **RAF** 1917–21; NZPAF 1923; attached **RAF** 1929–30; Commanding Officer, **Wigram**, 1926–29 and 1930–

38; attached **RAF** on exchange, 1938–41; AOC Central Group 1942–43; Head of Air Staff and Senior Member, NZ Joint Staff Mission, **Washington**, 1943–54.

³ Sgt W. S. Simpson, Sgt F. W. Sorrell, and Cadet H. H. Smith.

TERRITORIAL AIR FORCE

The **Territorial Air Force**, the formation of which was gazetted at the same time as that of the Permanent Air Force, consisted of seventy-two officers, ¹ all of whom had served as pilots in the First World War, and many of whom were to play important parts in the development of the **RNZAF** during the second. Two of them, Lieutenants Hood and Moncrieff, were to lose their lives in the first attempt to fly the **Tasman**.

Refresher training for the **Territorial Air Force** under the aegis of the Permanent Air Force started early in 1924. Three courses, each of two weeks, were held during the summer months, and were attended by all members who could spare the time. They were casual, pleasant affairs, where wartime pilots got together, exchanged reminiscences and did some flying. The chief shortcoming was that there was not enough of the flying. The aircraft, few in number, were old, obsolescent, and frequently unserviceable. It took strenuous efforts on the part of the ground staff to keep them airworthy at all. Pilots who achieved five hours' flying during their course were considered fortunate.

Servicing and maintenance during the courses would have been completely beyond the capabilities of the small permanent staff, and there were no ground crews among the Territorials. Great assistance was given by squads of cadets from the Technical College in **Christchurch**, many of whom later formed the solid core of technical officers and NCOs in the **RNZAF**.

The refresher courses were repeated each summer, but every year it became more difficult to keep the aircraft serviceable, while the number of officers attending steadily dwindled.

¹ Major Keith L. Caldwell, MC, DFC; Captains R. E. Buckingham, MC, C. F. Meagher, AFC, M. W. Buckley, H. B. Burrell, C. C. L. Dowdall, J. L. Findlay, MC, G. L. Stedman, H. F. S. Drewitt, MC, DFC, P. K. Fowler, N. E. Chandler, John Seabrook, AFC, A. F. Upham, DFC, M. C. McGregor, DFC, F. W. Crawford; Lieutenants R. A. Stedman, F. J. Horrell, John Coates, C. H. Noble-Campbell, AFC, George Hood, C. A. Umbers, K. W. J. Hall, G. V. T. Thomson, H. R. T. Hughes, Sidney Wallingford, Ivo Carr, F. de M. Hyde, AFC, W. F. Parke, S. T. Goodman, MC, DCM, T. W. White, G. G. A. Martin, A. C. McArthur, A. H. Skinner, G. J. Wilde, AFC, K. J. Gould, D. C. Inglis, DCM, I. L. Knight, W. R. Patey, DFC, T. B. Hardy, R. J. Thompson, F. S. Gordon, DFC, H. C. Lloyd; Second-Lieutenants M. D. Sinclair, P. Mitford-Burgess, G. Cotton-Stapleton, J. E. Stevens, I. E. Rawnsley, George Carter, H. I. N. Melville, Frank Hazlett, J. R. Richardson, Dennis Winfield, D. G. Gregorie, N. F. Harston, I. A. McGregor, R. B. Reynolds, W. B. Gillespie, H. N. Hawker, J. W. H. Lett, E. A. F. Wilding, W. E. Norton, M. H. Otway, W. G. Coull, R. G. MacDonald, R. J. Sinclair, R. J. M. Webber, W. W. Withell, R. C. Hancock, I. H. N. Keith, J. R. Moncrieff, E. D. Williams. Captain Christopher Musgrave, AFC, RAF Reserve (Class C) was attached.

DEVELOPMENT OF PERMANENT AIR FORCE

At the same time, despite its difficulties, the Permanent Air Force enlarged the scope of its activities. During 1924 and 1925, aircraft from **Wigram** carried out liaison work with the Army's Southern Command, and co-operated in exercises with artillery and signals units on their annual manoeuvres.

While the newborn **Air Force** was developing at **Wigram**, the need for an aerodrome and flying-boat base near **Auckland** was not forgotten. Various possible sites were investigated. An area at West Tamaki was first proposed, but was rejected because the land was too expensive. Then the site of the present airfield at **Whenuapai** was suggested, but that was turned down because it was not flat enough and would have required too much levelling.

Finally, in 1925, 167 ½ acres of land was bought at **Hobsonville**. It was well situated for the needs of the time, with sufficient reasonably flat land for an aerodrome and easy access to the upper reaches of the Waitemata Harbour for flying boats. Lack of money prevented construction from beginning at once, but a start was made in 1927.

It was intended that Captain Isitt should command the new base when it was built, and in 1926 he handed over the command of **Wigram** to Captain Findlay and was seconded to the **RAF** to gain experience. He spent two years in the **United Kingdom**, and attended a number of courses in flying-boat handling, reconnaissance, organisation and administration.

Up to the middle of 1926, although there was some form of air policy in existence, it was dependent too much upon outside circumstances to be really effective. Lack of finance was one of the considerations,¹ and another was the fact that civil aviation had not made the immense strides that were optimistically forecast in 1919–20. It was pointed out by Major-General R. Young, then commanding the **New Zealand Military Forces**, that an entirely new policy was necessary. The number of ex-**RAF** officers available for the **Territorial Air Force** and for refresher courses had dwindled, and the original idea of a permanent air force nucleus for expansion into an effective defence force through the Territorial Reserve, plus civil trained pilots, was unsatisfactory. It was now necessary to train *ab initio* pilots and mechanics to provide an efficient **Territorial Air Force**. To do this, greatly increased grants were necessary.

¹ The amounts voted and expended on aviation during the years 1920–30 were:

<i>Year</i>	<i>Voted</i>	<i>Expended</i>
	£	£
1920–	29,467	14,355
21		
1921–	8,426	8,361

22	
1922-	13,000 9,477
23	
1923-	46,368 28,228
24	
1924-	40,365 17,375
25	
1925-	30,011 29,521
26	
1926-	34,953 27,337
27	
1927-	33,206 28,878
28	
1928-	44,136 39,372
29	
1929-	60,397 55,102
30	

(includes purchase of **Wigram**
aerodrome)

The serviceable aircraft held by the New Zealand Permanent Air Force at that time numbered fourteen. Five of them (two DH4s, two DH9s, and a Bristol Fighter) were some of the original gift machines presented by the British Government after the war, and were practically at the end of their useful lives. Six were Avro 504Ks, dual-control training machines, which had been acquired in 1925. Two were new Bristol Fighters which had recently arrived; and one was a DH50, a civil-type aircraft which had been imported for photographic survey work. Three more Bristol Fighters, one of them with dual control for training, had been ordered and were due to arrive the next year.

In the years 1927-28 some progress was made. Two aircraft hands were enlisted into the NZPAF, of which the strength was now five officers and fourteen other ranks. Aircraft co-operated with Territorial Army units in the **Christchurch** area in their annual exercises. During the year, also, a number of aerial surveys were made of districts near **Christchurch**, and the **Air Force** started making meteorological flights from **Wigram**.

Of the original **Territorial Air Force**, which in 1927 numbered 101

officers, only thirty-four took refresher courses during the year. Towards the end of the year its strength was increased by the addition of ten cadet pilots and twenty other ranks.

Applications for training as pilots had been invited by advertising in the press, and three hundred were received. The ten applicants selected, who included a number of university students, were commissioned second-lieutenants on probation. They were posted to **Wigram** in November 1927, and spent the period of the university holidays in camp. They returned again at the end of the following year, and at the end of their second course nine of them were passed as qualified pilots. The tenth man had the misfortune to crash, and his flying training was terminated.

The aerodrome site at **Hobsonville** was surveyed in 1927 and construction work begun. Isitt returned to New Zealand early in 1928, having visited a number of seaplane bases in **Canada** on his way out, and was posted to take command of the new station and supervise its development.

Towards the end of September 1928, Air Marshal Sir John Salmond, **RAF**,¹ who the previous year had been lent by Air Ministry to the Australian Government to advise it on air defence, visited New Zealand for the same purpose. He spent several weeks

¹ Marshal of the RAF Sir John M. Salmond, GCB, CMG, CVO, DSO; born 17 Jul 1881; entered Army 1901; RFC 1912; commanded RFC and **RAF** in the field, 1918–19; AOC Inland Area, 1920–22; AOC British Forces in **Iraq**, 1922–24; AOC-in-C Air Defence of Great Britain, 1925–29; AMP 1929–30; CAS 1930–33; Director of Armament Production, Director-General Flying Control and Air-Sea Rescue in 1939–45 War.

touring the country, accompanied by Major Wilkes, to examine its needs and potentialities from the defence aspect, and then made a report to the Governor-General.

At the time the New Zealand Permanent Air Force consisted of five officers and seventeen other ranks, stationed at Defence Headquarters in **Wellington, Wigram, and Hobsonville**. The last was still under construction, and **Wigram** was the only place where flying was carried out. The aircraft consisted of six trainers and twelve service-type machines, of which all but three Bristol Fighters were obsolete. From a defence standpoint, the force was negligible. It could not maintain sustained co-operation with the Navy or Army, nor act independently against air or sea attack.

In his report Salmond recommended that the NZPAF should be built up to an ultimate strength of nine permanent units, ¹ which should be formed in cadre within the next three years with an immediate increase in establishment to 26 officers and 192 other ranks. The immediate capital cost was estimated at £348,000, with recurring costs of £168,000 annually. For the full establishment of the nine units, including the provision of new aircraft, equipment and buildings, the estimated capital cost was £1,233,300 and the annual cost £418,850. The headquarters staff should be enlarged, and the Director of Air Services, while remaining under the command of the General Officer Commanding New Zealand Military Forces, should have direct access to the Minister of Defence on matters affecting the status, development, or financial situation of the Air Services. ² On the question of finance, the report recommended that moneys voted for Air should be separate from the Defence Department vote.

If the foregoing recommendations were adopted, Salmond considered that the Air Board constituted in 1920 could be abolished until such time as the Air Service developed sufficiently to warrant the formation of a service separate from the New Zealand Military Forces. Other recommendations included the establishment of an **Air Force** meteorological organisation, the appointment of a liaison

1

<i>Unit</i>	<i>Base</i>
1 Flying Training School	Christchurch.
1 Stores Section	Christchurch.
1 Army Co-operation Squadron	Christchurch.
1 Single-seater Fighter Flight	Christchurch.
1 Torpedo-bomber Flight	Blenheim.
1 Coastal Reconnaissance Flight-Boats	Auckland.
1 Torpedo-bomber Flight	Auckland.
1 Single-seater Fighter Flight	Auckland.
1 Stores Section	Auckland.

² Major Wilkes, who was continually trying to obtain increased recognition for the **Air Force**, disagreed with the recommendation because it did not go far enough. He maintained that until the **Air Force** was completely divorced from Army control it would never make progress.

officer to **Air Ministry**, and a scheme for short-service commissions in the NZPAF and the **RAF**.

Although a number of factors, notably the financial depression of the early thirties, prevented Salmond's major proposals from taking effect, a number of his other suggestions bore fruit. The appointment of the Hon. Thomas Wilford as Minister of Defence, following the general election of 1929, helped to bring this about. Wilford was the first Minister of Defence who actively supported the claims of the **Air Force** for greater financial and political assistance. Had he not been sent to **London** as High Commissioner for New Zealand shortly after taking office, service aviation might have made more progress than it did in the next few years, despite the depression.

Towards the end of 1929, on instructions from the Minister, Wilkes was posted to **London** as liaison officer with **Air Ministry**. Isitt had acted as such while he was attached to the **RAF** two years before, but Wilkes was the first full-time appointment to the position. While he was there, he kept the **New Zealand Government** informed of developments in the

RAF and also negotiated the purchasing of aircraft. In addition, he acted as a personal link with home to the New Zealanders serving in the **RAF**. There were about three hundred of these, most of whom had made their own way to England and joined the **Air Force** there. The appointment was to have been for two years, but early in 1931, as part of the Government's economy campaign, Wilkes was recalled and the liaison office was closed.

While he was away his place as Director of Air Services was taken by Wing Commander **Grant-Dalton**,¹ who had recently resigned from the **RAF** and applied for the appointment.

In December 1929 **RAF** ranks and methods of organisation were introduced into the NZPAF in place of the Army titles and practices which had been used up to then; and in April 1930 the **RAF** pay code was introduced. The latter was particularly appreciated. Before the change the rate for an AC2, on first joining the **Air Force**, was 5s 4d per day, from which, if he lived on station, 3s 6d a day was deducted for messing. Under the new rates he received almost double as much: 10s 3d.

Army uniforms continued to be worn for some time longer. The first issue of **Air Force** blue to airmen was made in April 1931, and then it was used only on special occasions.

At the beginning of 1930 the strength of the NZPAF was nearly doubled by the enlistment of fifteen aircraft apprentices, who, after

¹ **Wg Cdr S. Grant-Dalton**, DSO and bar, AFC; **RAF**; born England, 5 Apr 1886; **Green Howards** 1906; Yorkshire Regt, 1913–15; RFC and **RAF** 1916–29; Director of Air Services NZPAF, 1929–31; retired 1931.

two months' general service training at the Army camp at **Trentham**, were posted to Wigram. Personnel on the station then numbered four officers and thirty-three other ranks. Another six apprentices were posted to **Hobsonville**, bringing the station strength there up to three

officers and nine other ranks.

EXERCISES AND OPERATIONS, 1929-36

In the years 1929 and 1930 there was a considerable increase in the military uses of the **Air Force**. In February 1929 the Navy and Army carried out combined exercises in the **Auckland** area, where a mock landing was staged. Captain Isitt, flying from the partly completed aerodrome at **Hobsonville** and carrying the Minister of Defence as a passenger, flew over the exercises on observation and photographic flights. This was the first time that the land, sea, and air forces had all co-operated in an exercise.

In January 1930 the New Zealand Permanent Air Force carried out its first active operations. Native disturbances were causing trouble in **Samoa**, and HMS **Dunedin** was sent from New Zealand to restore order. She carried on board a Moth seaplane, with Flight Lieutenant **Wallingford**¹ as pilot, and two **Air Force** corporals as servicing staff. In the two months which the expedition spent in **Samoa** Wallingford did ninety hours' flying, including general reconnaissance, co-operation with the ground forces, message dropping, and distributing propaganda.

During the same year, Fairey III and Moth seaplanes from **Hobsonville** co-operated with the Navy in torpedo, gunnery and anti-aircraft exercises. This co-operation lasted until 1936, when HMS **Achilles** and **Leander** joined the New Zealand Division of the **Royal Navy**. They carried their own aircraft, and machines of the New Zealand Air Force were in less demand. Even after that, however, co-operation between **Hobsonville** and the Navy was close, and the **Air Force** continued to take part in exercises. Co-operation was also carried out by aircraft from **Hobsonville** and **Wigram** with the Army in Northern, Central, and Southern Military Districts.

At the time of the Murchison earthquake in 1929, and again after the **Napier** earthquake in 1931, **Air Force** pilots, together with aero club pilots, did invaluable work in maintaining communications and flying

medical and other supplies into the affected areas.

¹ **Air Cdre S. Wallingford**, CB, CBE, Legion of Merit (US); **Wellington**; born Hythe, England, 12 Jul 1898; enlisted in Artists Rifles 1915; transferred to **RAF** 1918; **Fiji Constabulary** 1921–23; short-service commission **RAF**, 1924–29; joined **NZPAF** 1929; **RAF Staff College** 1936; **NZ Air Liaison Officer** at **Air Ministry**, 1938–41; **Air Force** Member for Personnel, **RNZAF**, 1941–42; **AOC No. 1 (Islands) Group**, 1943–44; **AMS** 1944–46; **Imperial Defence College** 1947; **AMP** 1948–52; **AOC Task Force Admin HQ** 1952–53; retired 1953; **Winner of Queen Mary's Prize at Bisley**, 1928, and **RAF Rifle Championship**, 1927 and 1928.

ORGANISATION OF THE TERRITORIAL AIR FORCE, 1930

Between 1928 and 1930 plans were laid for the formation of a properly constituted **Territorial Air Force** to replace the diminishing body of ex- **RAF** pilots which had existed since 1923. The formation of the new force was gazetted in August 1930. It consisted of a wing of four squadrons, under the command of Wing Commander **Caldwell**,¹ with a squadron headquarters in each of the four main cities.²

An officer of the Permanent Air Force was posted to each squadron as adjutant, and the initial strength of the wing was sixty-six officers. Of these, sixty were members of the old **Territorial Air Force**, and six were newly-commissioned pilots who had been trained in aero clubs. The practice of appointing aero club pilots to commissions was thus established, and it was expected that they would form the bulk of officer recruits in the future.

Pilots were expected to do a fortnight's refresher course each year at **Wigram** or **Hobsonville**, and an additional six hours' flying during the course of the year, but during the depth of the depression this programme had to be drastically curtailed. The weakness of the wing lay in the fact that it possessed no aircraft or general training equipment of its own, nor any ground staff. The responsibility for training members

¹ **Air Cdre K. L. Caldwell**, CBE, MC, DFC and bar, m.i.d., Croix de Guerre (Belg); **Auckland**; born **Wellington**, 16 Oct 1895; sheep farmer; RFC 1916–18; comd NZAF (Territorial) 1919–37; NZALO, **India**, 1945; AOC **RNZAF HQ, London**, 1945.

² OC Territorial Wing NZAF, Wg Cdr K. L. Caldwell, MC, DFC.
*No. (Army Co-operation) Squadron: **Auckland** and Hawke's Bay*

1 Provinces

Headquarters: **Auckland** OC, Sqn Ldr J.
Seabrook, AFC

‘A’ Flight (**Auckland**) Flt Lt J. D. Hewitt

‘B’ Flight (**Hamilton**) Flt Lt F. S. Gordon, DFC

‘C’ Flight (**Napier**) Flt Lt T. W. White

*No. (Bomber) Squadron: **Wellington** and Taranaki Provinces*

2 Headquarters: **Wellington OC, Sqn Ldr M. C. McGregor,
DFC**

‘A’ Flight (**New Plymouth**) Fg Off I. H. N. Keith (acting)

‘B’ Flight (**Wanganui**) Flt Lt S. A. Gibbons

‘C’ Flight (**Wellington**) Flt Lt G. L. Stedman

*No. (Bomber) Squadron: **Nelson, Marlborough, Canterbury** and
3 Westland*

Headquarters: **Christchurch** OC, Sqn Ldr N. E.
Chandler

‘A’ Flight (**Blenheim**) Flt Lt D. C. Inglis

‘B’ Flight (**Christchurch**) Flt Lt W. L. Harrison

‘C’ Flight (**Timaru**) Flt Lt K. W. J. Hall

No. (Army Co-operation) Squadron: Otago and Southland

4 Headquarters: Dunedin OC, Sqn Ldr P. K. Fowler

‘A’ Flight (**Oamaru**) (Flight commanders were not appointed
until the following year.)

‘B’ Flight
(Dunedin)

‘C’ Flight (**Invercargill**)

Officers not allotted to units were posted to the nearest flight to their place of residence.

which itself had insufficient personnel and equipment to carry out the commitment. Consequently, for the next few years the **Territorial Air Force** remained very much a paper organisation.

During the depression the development of the **Air Force** was severely handicapped by the lack of money. In the year 1931–32 expenditure on both military and civil aviation was cut down to £28,280, which was approximately half the amount which had been spent in each of the two previous years. The following year expenditure was again reduced, and Major-General W. L. H. Sinclair- Burgess, Officer Commanding the **New Zealand Military Forces**, reported that it was definitely below the amount necessary to maintain the minimum organisation and equipment capable of carrying out air force duties under service conditions. In 1931 only twenty-six officers attended the refresher courses at Wigram. Development work on the base at **Hobsonville**, which was considered to have been sufficiently completed for immediate purposes, was stopped.

Shortages of aircraft and personnel were serious. Machines were deteriorating to the point of unserviceability, and the staff was insufficient to maintain them. An increase in the number of airmen at both **Wigram** and **Hobsonville** became urgent, for the future value of the four Territorial squadrons depended upon the provision of an adequate nucleus of permanent personnel and equipment. Although the seaplane base at **Hobsonville** was practically completed in 1930, no machine equipment, essential for the maintenance of aircraft and engines, was installed for another two years. **Wigram** also needed further development to make it an effective air force station. The worst feature of the situation was that both men and equipment were insufficient to form even the smallest effective air force unit. The strength of the Permanent **Air Force** in 1933 was nine officers and forty-four other ranks. These were barely enough for the maintenance of the Permanent **Air Force** bases at **Wigram** and **Hobsonville** and for the administrative and inspectional demands of civil aviation.

Nevertheless, some progress was made during the period. In 1931

several aircraft which had been previously ordered were added to the **Air Force**.¹ At the end of the year Sir Henry Wigram

¹ At the end of 1931 the NZPAF had the following aircraft strength:

(a) At **Hobsonville**—

1 Fairey III F (equipped with floats and undercarriage)

1 Saunders Roe 'Cutty Sark' flying boat.

3 DH Moths (including 1 seaplane)

(b) At **Wigram**—

3 Gloster Grebes (obsolete)

5 Bristol Fighters (obsolete)

4 Hawker Tomtits (trainers)

3 DH Moths (trainers)

1 Puss Moth (trainer)

1 DH50 (4-seater passenger aircraft)

added to his previous gifts by presenting 81 acres, formerly occupied by the Canterbury Park Trotting Club, to the Government for use as an extension to Wigram Aerodrome.

Early in 1934 His Majesty the King granted permission to the New Zealand Permanent Air Force to change its name to the Royal New Zealand Air Force.

EXPANSION OF THE RNZAF

The middle thirties saw the end of the depression and the end of disarmament in **Europe**. In 1933 **Germany** withdrew first from the Disarmament Conference and then from the League of Nations, and the

following year it became clear that she was rearming. Early in 1936 she officially admitted that she had an air force, and a month later the German Government introduced compulsory universal military service. Both of these were in defiance of the Treaty of **Versailles**.

In 1934 the British Government was forced to recognise that its idealistic policy of disarmament and world peace was a dangerous dream, and that positive steps must be taken to ensure the country's defence. On 19 July the Prime Minister, Mr Baldwin, announced that the strength of the **RAF** was to be increased by forty-one squadrons in the next five years. The following year a new programme was announced by Lord Londonderry, Secretary of State for Air, providing for an additional forty-nine squadrons and an accelerated rate of expansion.

The march of events overseas, coupled with improved economic conditions, resulted in considerably more attention being given to the Royal New Zealand Air Force. In the year 1934–35 the sum of £197,934 was voted for military aviation, exclusive of the cost of land and works which came out of the Public Works vote. Of this, £132,230 was actually spent, compared with £38,548 in the previous year.

Early in 1934 additional land adjoining **Hobsonville** Aerodrome was bought, and an additional building programme for the station was commenced. By the middle of 1936 **Hobsonville** had two aeroplane hangars, a landing area, offices, barracks, stores buildings, a meteorological hut, a garage, married quarters for twenty-two families, a seaplane hangar, an engine repair shop, an airframe repair shop, a marine store, a dope shop, a concrete slipway, electric power and light, and a water tower.

At Wigram, which was to be developed as a Flying Training School, considerable expansion took place also during the period. New buildings included two concrete hangars, a concrete workshop block, two large concrete stores, barracks and married quarters.

Personnel strength was increased, and by March 1936 had grown to

20 officers and 107 airmen. The **Territorial Air Force** at the same date numbered 74 officers.

In 1935 the **Air Force** was reinforced by the arrival of twelve Vickers Vildebeeste torpedo-bombers. They had originally been ordered in 1933, but the prior claims of the expanding **RAF** had caused eighteen months' delay in delivery. Although criticised at the time as not being the fastest or most modern type available, they were well suited to New Zealand conditions, and were destined to play a useful part as bomber-reconnaissance aircraft in the first years of the war. They were stationed at **Hobsonville** and **Wigram**, where bomber-reconnaissance flights were formed, and thus became the equipment of the first properly constituted operational units of the **RNZAF**.

The next year four Avro 626 training aircraft arrived and were put into use at Wigram. They were a type used by the **RAF**, and were a distinct advance on any purely training machines then in New Zealand.

By 1936 the **RNZAF** was definitely emerging from the doldrums in which it had drifted for the past thirteen years. Since 1933 it had increased rapidly in size and had been equipped with as many new aircraft as it could handle. Although still small, it was in a position to take some action, if necessary, in the defence of the country.

Under the pressure of world events New Zealand was becoming more alive to the need for air power, and the change of Government which occurred in 1935 had resulted in an administration more keenly interested in the development of the **Air Force** than previous Governments had been. These factors helped to account for the progress which had been made up to 1936, and for the much greater expansion which was to take place in the next three years.

ROYAL NEW ZEALAND AIR FORCE

[SECTION]

BY the end of the war New Zealand realised the importance of aircraft as a means of defence. The work of the private flying schools had shown that pilots could be successfully trained locally, and this, combined with the recent advances in aviation in other countries, encouraged the Government to take a more active interest. General opinion at the time was that civil rather than military flying should be fostered as it would be cheaper and would still provide potential reserves for wartime use; but the return of hundreds of trained men from overseas seemed to provide a perfect opportunity for the formation of at least the nucleus of an Air Force.

The British Government was asked to send out an officer to advise on aviation policy, and in response to the request Colonel Bettington, **RAF**, ¹ arrived in New Zealand early in 1919. He brought with him two **RAF** mechanics and four aircraft, two DH4s and two **Bristol** Fighters. The aircraft were sent to **Sockburn** and housed by the **Canterbury Aviation Company** until the Government built two hangars for them.

While he was in New Zealand three officers with **RAF** experience were attached to him as staff: Major Brandon, ² Captain **Don**, ³ and Lieutenant Shand. ⁴ Captain Don was appointed to take charge of the aircraft at **Sockburn**.

After examining the country's air defence needs, Bettington made a report to the Government in June 1919. In it he showed really remarkable foresight. He had no faith in the possibility of a lasting peace brought about by the proposed League of Nations, and prophesied that the **Pacific** would become a centre of trouble. In particular, he pointed out that **Japan** had emerged from the war

¹ **Gp Capt A. V. Bettington**, CMG; born England, 12 Jun 1881; served in South African War, 1899–1903; Zulu War, 1906;

First World War, 1914–19; commanded **RAF** in **Ireland**, 1922; retired 1931; recalled to active list for special duties, 1939–45; died 1950.

² Maj A. de Bathe Brandon, DSO, MC, m.i.d.; Heretaunga; born 1884; barrister; joined RFC 1915; decorated for his part in the destruction of Zeppelin L.15 on night 31 Mar–1 Apr 1916 and of L.33 on night 23–24 Sep 1916.

³ Capt J. H. Don; **Timaru**; born Dunedin, 18 Sep 1892; dental surgeon; 1 **NZEF** 1914–19; attached **RAF** 1919.

⁴ 2 Lt E. T. Shand; born **Taieri**, 28 Feb 1891; sheep farmer; 1 **NZEF** 1916–17; RFC 1917; died 15 Jan 1938.

relatively much stronger than she had been before and that she would be looking for an outlet for her surplus population. New Zealand, he considered, should be prepared to play an active part in Imperial defence, and should establish close liaison with **Australia** and with the **Air Ministry**. Also, because of its distance from sources of help, it should be ready to defend itself immediately against attack. In his assessment of the situation he was not led astray, as were a number of later planners, by the existence of a supposedly impregnable base at **Singapore**.

He recommended that the Government should immediately start to form an **Air Force**, using trained men who had returned from the **RAF** to provide the initial personnel requirements and taking over the **Canterbury Aviation Company's** School as a training centre.

The minimum units required to form an efficient operational **Air Force** were:

1 Corps reconnaissance and fighter squadron

1 large day-bombing squadron

1 large night-bombing squadron

1 scout fighter squadron

1 squadron of torpedo planes and ship bombers

2 squadrons of large flying boats

1 aircraft depot

2 aircraft parks

All these should be formed immediately in cadre and should be capable of rapid expansion into fully mobilised units. In addition, it would be necessary to provide large reserves of men and material to meet wastage in time of war. A headquarters staff should be established to administer the force, and a liaison officer should be appointed to [Air Ministry](#) to keep New Zealand in touch with [RAF](#) developments.

His final report, presented in July, envisaged a permanent establishment of 70 officers and 299 airmen being attained in four years, while a Territorial force of 174 officers and 1060 airmen was to be built up within eight years. The estimated expenditure on aerodromes, buildings, and equipment in the first four years was £701,250, and the total cost for the same period £1,294,000.

While Colonel Bettington was formulating his recommendations, the British Government offered New Zealand a hundred aircraft as a free gift 'to assist the Dominion to establish an [Air Force](#), and thereby develop the defence of the Empire by air.'¹

¹ The following types were offered:

DH9 (BHP engine)

DH9A (Liberty engine)

Bristol Fighter (Arab engine)

SE5 (Hispano Suiza engine)

Dolphin (Hispano Suiza engine)

Avro (Clerget, le Rhone or Mono engine)

Salamander (BR2 engine).

No immediate reply was made to the British Government, and in the meantime Bettington was asked to prepare a less ambitious scheme. He did so, eliminating three of the squadrons he had originally planned, and concentrating all land planes at **Sockburn** and flying boats at **Auckland**. Even this was too much, and on 27 August Cabinet decided that it was 'impracticable to involve the country in the large expenditure that would be required for any air scheme which would be of value for defence or postal purposes.' Finally Bettington recommended the following temporary measures 'pending a more settled state of the political outlook in New Zealand':

1. The appointment of an Air Adviser.
2. Subsidising the civil flying schools at **Auckland** and **Christchurch**.
3. Refresher training for ex- **RAF** personnel.
4. The transfer of a number of Territorial personnel for air training.
5. The acceptance of some, at least, of the gift aircraft.
6. The allotment of £25,000 for expenditure on the above.
7. Experiments with an airmail service.

Thereafter, he returned to England feeling that he had not been able to accomplish much in New Zealand. ¹

The aircraft he had brought with him were retained at **Sockburn**. In November Captain Isitt, ² who had recently returned from service with the **RAF**, was posted there to relieve Captain Don. His duties entailed looking after the aircraft, acting as liaison officer between the **Canterbury Aviation Company** and the Government, and supervising military flying training—if and when it took place.

Having disposed of its expert adviser, the Government set up an

advisory committee of its own to bring down recommendations concerning aviation generally, and the British offer of aircraft in particular.

After lengthy discussion it was decided to ask for twenty Avros and nine DH9As, and for six flying boats instead of the balance of the 100 aircraft originally offered. The request was signalled to

¹ The measure of enthusiasm which Bettington's report aroused in New Zealand military circles can be gauged from the fact that by 1920 it had been lost and only odd papers could be found in the Defence Department. Not until 1929 was a complete copy found, in private hands, and placed on file.

² AVM Sir Leonard M. Isitt, KBE, Legion of Merit (US); **Wellington**; born **Christchurch**, 27 Jul 1891; 1 Canterbury Regiment 1911; NZ Rifle Brigade, **1 NZEF**, 1915–16; RFC and **RAF** 1916–19; appointed military equipment and instructional officer NZ Air Service, 1919; gazetted Captain, NZ Permanent Air Force, 1923 and appointed to command Wigram Aerodrome; attached **RAF** and appointed NZ Air Liaison Officer at **Air Ministry**, 1926–28; AMP 1937–40; NZ representative on Supervisory Board of British Commonwealth Air Training Plan, 1940–42; Air Attache, **Washington**, 1942; DCAS 1943; CAS 1943–46; represented NZ at Japanese surrender in Tokio Bay, Sep 1945; retired 1946; Chairman of Directors, NZ NAC.

London in January 1920. A fortnight later **Air Ministry** replied that, owing to the long delay between the making of the original offer (11 July 1919) and its acceptance (28 January 1920), no surplus DH9A machines were then left; nor could the six flying boats be supplied.

New Zealand then took prompt steps to reserve what aircraft were then still available, and some months later 33 machines were shipped out, comprising 20 Avros, 9 DH9s, 2 Bristol Fighters, and 2 DH4s. Of these, when they arrived, six were retained by the Government and stationed at **Sockburn** for military purposes, and the rest were lent to

private flying enterprises which were being formed in various parts of the country.

ROYAL NEW ZEALAND AIR FORCE

THE AIR BOARD

THE AIR BOARD

It was now generally agreed that, in view of the probable development of aviation, the problem of defence would involve the use of land, sea and air forces, and a **Defence Committee** was formed to ensure the effective co-ordination of the three arms. Apparently the need for co-ordination was not highly regarded for the Committee's first meeting, held in July, was also its last. At the same time an Air Board was established to give advice to the Minister of Defence on all matters relating to aviation.

The Board consisted of representatives of the various Government agencies which might have an interest in the subject: the Defence, Post and Telegraph, Public Works, and Lands and Survey Departments. ¹ When its composition was announced in June 1920, the press commented caustically that none of its members knew anything about flying.

To rectify this oversight Captain Wilkes, NZSC, ² was appointed secretary. He had served with the RFC and the **RAF** during the war, and was the only officer of the New Zealand Staff Corps who was a qualified pilot.

On 25 September 1920 the Government approved what can be regarded as New Zealand's first positive aviation policy:

¹ Maj-Gen Sir E. W. Chaytor, KCMG, KCVO, CB, ADC, GOC NZ Forces (President); Brig-Gen G. S. Richardson, CB, CMG, CBE (Brigadier i/c of Administration); Commander T. A. Williams, CBE, RN (Naval Adviser); T. N. Brodrick, OBE, ISO (Lands and Survey Department); A. Markman and G. McNamara (Post and Telegraph Department); and F. W. Furkert (Public Works Department).

² **Gp Capt T. M. Wilkes, CBE, MC; Upper Hutt; born Thames, 24 Mar 1888; appointed 2 Lt, NZSC, Aug 1911; Brigade Major 2 NZ Inf Bde, 1 NZEF, 1916; seconded to RFC Sep 1917–Jun 1918; General Staff Officer, Air Services, and Secretary to Air Board, 1920–23; transferred from NZSC to NZPAF 1923; Staff Officer Air Services 1924–25; Director of Air Services 1925–31; NZLO Air Ministry 1929–31; reappointed DAS 1931; received additional appointment of Controller of Civil Aviation, 1933; relinquished appointment of DAS on formation of RNZAF in 1937, but remained CCA, and was also for some months Chief Staff Officer Equipment, RNZAF; NZLO Melbourne 1940–46; NZLO to the Netherland Forces in the East, 1944–46; retired 1946.**

ROYAL NEW ZEALAND AIR FORCE

AVIATION

AVIATION

Policy

The Government to make provision for the development of Aviation along lines which will enable the Dominion to possess civil aviation for commercial and other needs and at the same time provide for the necessities of aerial defence in case of emergency.

Establish an Air Board (already constituted) which will act as an Advisory Body to the Government on:

- (a) Matters of Defence**
- (b) Commercial Undertakings**
- (c) Aviation Generally**

(A) Defence To advise the Government with respect to:

- (i) Purchase, rent and preparation of key aerodromes.**
- (ii) Purchase and maintenance of war aeroplanes, inspection of all Aviation Schools and their equipment by Defence Staff.**
- (iii) Refresher courses for ex R.A.F. fighters.**
- (iv) Defence machines which may be allotted to civil companies.**

Survey of routes to be undertaken by officers of the Aviation Branch of the Defence Department, or any competent Aviator deputed by the Air Board.

(B) Commercial As Defence Aviation owing to the great cost involved, cannot be developed without the development of the commercial side, the Air Board will advise the Government with respect to:

- (i) Companies or private individuals that may be subsidised for the conveyance of mails, passengers, etc., on approved routes.**
- (ii) The allotment by way of loan or otherwise of Government machines.**
- (iii) Inspection of privately owned machines.**
- (iv) Regarding the reservation of rights of particular companies or individuals to fly for *hire* within prescribed areas.**

The Board to make recommendations as to contracts to be entered into for the carriage of mails, passengers, etc. All contracts to be submitted for approval to the Minister in charge and the Postmaster-General and to be confirmed by both.

(C) *General*

Attention to be paid to meteorological conditions and the Board to recommend in what direction assistance should be given to the Meteorological Department with a view to equipment to meet the needs of Aviation.

All reports and recommendations of the Board to be submitted to the Minister in charge and the Postmaster-General for their joint consideration.

The Board to administer the details of the policy as defined by the Government.

To advise on the necessity for legislation and regulations regarding aviation generally.

In Cabinet.

25th September, 1920.

Recommendations of Hons. Coates and Rhodes

approved.

(*Signed*) F. W. THOMSON,

Secretary.

From the above it can be seen that the policy of the time was to foster civil aviation in the expectation that it could be turned to advantage for defence in time of need. Considering how little was known about flying generally, and the limitations imposed on defence developments by lack of finance, it was quite sensible.

The Air Board met frequently during the latter part of 1920 and early

in 1921, and thereafter at longer intervals. It was a purely advisory body with no executive powers; a fact which its members felt was a shortcoming and tried to have changed. They considered that, unless it had some authority to regulate flying activities, much of its value was lost.

Their dissatisfaction was not altogether justified. The Government was, admittedly, slow to act on their recommendations, but no more so than most Governments when embarking on an entirely new venture. The mere fact that a statement of policy was issued showed that it was taking an active interest in the matter, and was partly the result of early recommendations by the Board; and a number of other more detailed recommendations were later acted upon.

Concrete proposals which later bore fruit were made early in 1921. They included the establishment of a service aerodrome at **Auckland for land and sea planes; the acquisition of torpedo-carrying aircraft for coastal defence; and refresher training for ex- **RAF** pilots at **Sockburn**.**

In 1921 the Board was made responsible for administering in detail the aviation policy laid down by the Government.

ROYAL NEW ZEALAND AIR FORCE

FLYING SCHOOLS

FLYING SCHOOLS

While policy was being formulated in **Wellington**, the fate of the two flying schools at **Auckland** and **Christchurch** hung in the balance. The end of the war and the cessation of the training of military pilots had deprived them of their regular income, and their future was uncertain. Colonel Bettington had recommended that the **Canterbury Aviation Company** should be given the job of providing initial training of pilots and mechanics for the **Air Force**. The New Zealand Flying School at Kohimarama, he considered, would not be needed for **Air Force** training. He suggested that, in recognition of the excellent work it had done during the war, its equipment should be bought by the Government.

His recommendations were not immediately acted upon. As an interim measure, the schools were both subsidised by grants of £150 a month to keep them going until future policy could be decided, and in addition they made a certain amount of revenue from charter flights and joy rides.

In the two years immediately following the war both schools were employed on experimental airmail services. The first such flight was made on 16 December 1919, between **Auckland** and **Dargaville**. Others followed, and for two months in 1920 regular services were run on the routes **Auckland- Dargaville**, **Auckland- Whangarei**, and **Auckland- Thames**. In the **South Island** a service between **Christchurch** and **Timaru** was flown for some months in 1921. One between **Christchurch** and **Wellington** was seriously considered, but nothing came of it.

Air mails were not a paying proposition, and after trying them the Government reverted to paying straight subsidies to the schools.

In 1921 the proposal to give refresher training to ex- **RAF** pilots was

put into effect. In that year and the two following, the **Canterbury Aviation Company** gave refresher courses to about forty officers, at a cost to the Government of £100 a head.

Captain Isitt, who had been posted to **Sockburn** in 1919 to look after the aircraft left behind by Colonel Bettington, supervised the training. He was assisted by a staff of three. Lieutenant **Denton**,¹ Adjutant of the 1st (Canterbury) Regiment, had been attached to him as part-time equipment officer in May 1920, and early in 1921 two Army personnel, Corporal W. C. Townsend and Private F. A. Merrin, were posted as ledger-keeper and storeman.

In 1923 a refresher course for twelve officers was held also at the New Zealand Flying School, Kohimarama. This was the only military use made of the school, and the following year it was closed down. The Government bought up its equipment but made no use of it. The aircraft by that time were worn out and unserviceable and were relegated to the scrap heap.

The duties of the embryonic **Air Force**, besides the maintenance of service aircraft and the supervision of service training, included the control of civil aviation. At that time this comprised the inspection of civil aircraft and of aerodromes which were being laid out in various parts of the country; the granting of licences to pilots; and the regulation of Government assistance to civil companies.

¹ **Gp Capt T. J. Denton**, OBE, m.i.d.; born **NSW**, 7 Nov 1888; enlisted in NZ Permanent Staff 1911; Canterbury Mtd Rifles (Capt) 1914–18 War; seconded to RFC 1917; returned to NZ 1919; transferred to NZPAF as Equipment Officer, 1 Oct 1923; Staff Officer to DAS, 1934–37; attached **RAF** 1938–41; Director of Equipment 1942; Chief Inspector of Equipment 1942–46; Director of Equipment 1946; retired 1947.

ROYAL NEW ZEALAND AIR FORCE

FORMATION OF NEW ZEALAND AIR FORCE

FORMATION OF NEW ZEALAND AIR FORCE

In 1923 the Government finally decided that it must take more positive steps in regard to service flying and that, if any real progress was to be achieved, a permanent **Air Force** must be formed to administer aviation in all its phases. In June the establishment of the following forces was authorised:

1. The New Zealand Permanent Air Force (to be part of the Permanent Forces)
2. The New Zealand Air Force (to be part of the Territorial Forces)

The Permanent Air Force was to be composed of regular officers and other ranks, and its primary responsibility was to be the training and administration of the **Territorial Air Force**. The latter was to consist of ex- **RAF** officers who had, earlier in the year, been formed into an Air Force Reserve. Provision was also made that, in the future, *ab initio* trainees could be enlisted.

To accommodate the new **Air Force** a service aerodrome was needed, and the aerodrome, buildings, and equipment of the **Canterbury Aviation Company** were bought. The decisions to form an **Air Force** and to buy the aerodrome were, of course, interdependent, and both were influenced by the efforts of the Hon. Henry Wigram. He had never stopped pressing the Government to do something about aviation, and now, to spur the authorities into positive action, he gave £10,000 towards the purchase price. ¹ In recognition of the gift, the aerodrome was renamed Wigram.

By the end of 1923 the strength of the Permanent Air Force had more than doubled. Major Wilkes was in command at Defence Headquarters in **Wellington**, and Captain Isitt commanded the aerodrome at Wigram. To assist him Captain Findlay, MC, ² was appointed as Flying Instructor. Lieutenant Denton was transferred from

the Army as full-time equipment officer, and three other ranks were enlisted or transferred for maintenance and equipment duties. ³

¹ The total price paid to the company was £31,012 15s 3d, made up as follows:

Land	£15,651 2s
Buildings	£8,911 12s
Aircraft and spares	£5,519 16s 9d
Implements	£74 1s 4d
Furniture	£295
Horses	£50
Supplies	£511 3s 2d

² **Air Cdre J. L. Findlay** CBE, MC, AFC, Legion of Honour (Fr), Legion of Merit (US); born **Wellington**, 6 Oct 1895; East Surrey Regt 1914–17; RFC and **RAF** 1917–21; NZPAF 1923; attached **RAF** 1929–30; Commanding Officer, **Wigram**, 1926–29 and 1930–38; attached **RAF** on exchange, 1938–41; AOC Central Group 1942–43; Head of Air Staff and Senior Member, NZ Joint Staff Mission, **Washington**, 1943–54.

³ Sgt W. S. Simpson, Sgt F. W. Sorrell, and Cadet H. H. Smith.

ROYAL NEW ZEALAND AIR FORCE

TERRITORIAL AIR FORCE

TERRITORIAL AIR FORCE

The **Territorial Air Force**, the formation of which was gazetted at the same time as that of the Permanent Air Force, consisted of seventy-two officers, ¹ all of whom had served as pilots in the First World War, and many of whom were to play important parts in the development of the **RNZAF** during the second. Two of them, Lieutenants Hood and Moncrieff, were to lose their lives in the first attempt to fly the **Tasman**.

Refresher training for the **Territorial Air Force** under the aegis of the Permanent Air Force started early in 1924. Three courses, each of two weeks, were held during the summer months, and were attended by all members who could spare the time. They were casual, pleasant affairs, where wartime pilots got together, exchanged reminiscences and did some flying. The chief shortcoming was that there was not enough of the flying. The aircraft, few in number, were old, obsolescent, and frequently unserviceable. It took strenuous efforts on the part of the ground staff to keep them airworthy at all. Pilots who achieved five hours' flying during their course were considered fortunate.

Servicing and maintenance during the courses would have been completely beyond the capabilities of the small permanent staff, and there were no ground crews among the Territorials. Great assistance was given by squads of cadets from the Technical College in **Christchurch**, many of whom later formed the solid core of technical officers and NCOs in the **RNZAF**.

The refresher courses were repeated each summer, but every year it became more difficult to keep the aircraft serviceable, while the number of officers attending steadily dwindled.

¹ Major Keith L. Caldwell, MC, DFC; Captains R. E. Buckingham,

MC, C. F. Meagher, AFC, M. W. Buckley, H. B. Burrell, C. C. L. Dowdall, J. L. Findlay, MC, G. L. Stedman, H. F. S. Drewitt, MC, DFC, P. K. Fowler, N. E. Chandler, John Seabrook, AFC, A. F. Upham, DFC, M. C. McGregor, DFC, F. W. Crawford; Lieutenants R. A. Stedman, F. J. Horrell, John Coates, C. H. Noble-Campbell, AFC, George Hood, C. A. Umbers, K. W. J. Hall, G. V. T. Thomson, H. R. T. Hughes, Sidney Wallingford, Ivo Carr, F. de M. Hyde, AFC, W. F. Parke, S. T. Goodman, MC, DCM, T. W. White, G. G. A. Martin, A. C. McCarthur, A. H. Skinner, G. J. Wilde, AFC, K. J. Gould, D. C. Inglis, DCM, I. L. Knight, W. R. Patey, DFC, T. B. Hardy, R. J. Thompson, F. S. Gordon, DFC, H. C. Lloyd; Second-Lieutenants M. D. Sinclair, P. Mitford-Burgess, G. Cotton-Stapleton, J. E. Stevens, I. E. Rawnsley, George Carter, H. I. N. Melville, Frank Hazlett, J. R. Richardson, Dennis Winfield, D. G. Gregorie, N. F. Harston, I. A. McGregor, R. B. Reynolds, W. B. Gillespie, H. N. Hawker, J. W. H. Lett, E. A. F. Wilding, W. E. Norton, M. H. Otway, W. G. Coull, R. G. MacDonald, R. J. Sinclair, R. J. M. Webber, W. W. Withell, R. C. Hancock, I. H. N. Keith, J. R. Moncrieff, E. D. Williams. Captain Christopher Musgrave, AFC, RAF Reserve (Class C) was attached.

ROYAL NEW ZEALAND AIR FORCE

DEVELOPMENT OF PERMANENT AIR FORCE

DEVELOPMENT OF PERMANENT AIR FORCE

At the same time, despite its difficulties, the Permanent Air Force enlarged the scope of its activities. During 1924 and 1925, aircraft from **Wigram** carried out liaison work with the Army's Southern Command, and co-operated in exercises with artillery and signals units on their annual manoeuvres.

While the newborn **Air Force** was developing at **Wigram**, the need for an aerodrome and flying-boat base near **Auckland** was not forgotten. Various possible sites were investigated. An area at West Tamaki was first proposed, but was rejected because the land was too expensive. Then the site of the present airfield at **Whenuapai** was suggested, but that was turned down because it was not flat enough and would have required too much levelling.

Finally, in 1925, 167 ½ acres of land was bought at **Hobsonville**. It was well situated for the needs of the time, with sufficient reasonably flat land for an aerodrome and easy access to the upper reaches of the Waitemata Harbour for flying boats. Lack of money prevented construction from beginning at once, but a start was made in 1927.

It was intended that Captain Isitt should command the new base when it was built, and in 1926 he handed over the command of **Wigram** to Captain Findlay and was seconded to the **RAF** to gain experience. He spent two years in the **United Kingdom**, and attended a number of courses in flying-boat handling, reconnaissance, organisation and administration.

Up to the middle of 1926, although there was some form of air policy in existence, it was dependent too much upon outside circumstances to be really effective. Lack of finance was one of the considerations, ¹ and

another was the fact that civil aviation had not made the immense strides that were optimistically forecast in 1919–20. It was pointed out by Major-General R. Young, then commanding the **New Zealand Military Forces**, that an entirely new policy was necessary. The number of ex-**RAF** officers available for the **Territorial Air Force** and for refresher courses had dwindled, and the original idea of a permanent air force nucleus for expansion into an effective defence force through the Territorial Reserve, plus civil trained pilots, was unsatisfactory. It was now necessary to train *ab initio* pilots and mechanics to provide an efficient **Territorial Air Force**. To do this, greatly increased grants were necessary.

¹ The amounts voted and expended on aviation during the years 1920–30 were:

<i>Year</i>	<i>Voted</i>	<i>Expended</i>	
	£	£	
1920– 21	29,467	14,355	
1921– 22	8,426	8,361	
1922– 23	13,000	9,477	
1923– 24	46,368	28,228	(includes purchase of Wigram aerodrome)
1924– 25	40,365	17,375	
1925– 26	30,011	29,521	
1926– 27	34,953	27,337	
1927– 28	33,206	28,878	
1928– 29	44,136	39,372	
1929– 30	60,397	55,102	

The serviceable aircraft held by the New Zealand Permanent Air Force at that time numbered fourteen. Five of them (two DH4s, two DH9s, and a Bristol Fighter) were some of the original gift machines presented by the British Government after the war, and were practically at the end of their useful lives. Six were Avro 504Ks, dual-control training machines, which had been acquired in 1925. Two were new Bristol Fighters which had recently arrived; and one was a DH50, a civil-type aircraft which had been imported for photographic survey work. Three more Bristol Fighters, one of them with dual control for training, had been ordered and were due to arrive the next year.

In the years 1927–28 some progress was made. Two aircraft hands were enlisted into the NZPAF, of which the strength was now five officers and fourteen other ranks. Aircraft co-operated with Territorial Army units in the **Christchurch** area in their annual exercises. During the year, also, a number of aerial surveys were made of districts near **Christchurch**, and the **Air Force** started making meteorological flights from Wigram.

Of the original **Territorial Air Force**, which in 1927 numbered 101 officers, only thirty-four took refresher courses during the year. Towards the end of the year its strength was increased by the addition of ten cadet pilots and twenty other ranks.

Applications for training as pilots had been invited by advertising in the press, and three hundred were received. The ten applicants selected, who included a number of university students, were commissioned second-lieutenants on probation. They were posted to **Wigram** in November 1927, and spent the period of the university holidays in camp. They returned again at the end of the following year, and at the end of their second course nine of them were passed as qualified pilots. The tenth man had the misfortune to crash, and his flying training was terminated.

The aerodrome site at **Hobsonville** was surveyed in 1927 and construction work begun. Isitt returned to New Zealand early in 1928,

having visited a number of seaplane bases in **Canada** on his way out, and was posted to take command of the new station and supervise its development.

Towards the end of September 1928, Air Marshal Sir John Salmond, **RAF**,¹ who the previous year had been lent by Air Ministry to the Australian Government to advise it on air defence, visited New Zealand for the same purpose. He spent several weeks

¹ Marshal of the RAF Sir John M. Salmond, GCB, CMG, CVO, DSO; born 17 Jul 1881; entered Army 1901; RFC 1912; commanded RFC and **RAF** in the field, 1918–19; AOC Inland Area, 1920–22; AOC British Forces in **Iraq**, 1922–24; AOC-in-C Air Defence of Great Britain, 1925–29; AMP 1929–30; CAS 1930–33; Director of Armament Production, Director-General Flying Control and Air-Sea Rescue in 1939–45 War.

touring the country, accompanied by Major Wilkes, to examine its needs and potentialities from the defence aspect, and then made a report to the Governor-General.

At the time the New Zealand Permanent Air Force consisted of five officers and seventeen other ranks, stationed at Defence Headquarters in **Wellington**, **Wigram**, and **Hobsonville**. The last was still under construction, and **Wigram** was the only place where flying was carried out. The aircraft consisted of six trainers and twelve service-type machines, of which all but three Bristol Fighters were obsolete. From a defence standpoint, the force was negligible. It could not maintain sustained co-operation with the Navy or Army, nor act independently against air or sea attack.

In his report Salmond recommended that the NZPAF should be built up to an ultimate strength of nine permanent units,¹ which should be formed in cadre within the next three years with an immediate increase in establishment to 26 officers and 192 other ranks. The immediate capital cost was estimated at £348,000, with recurring costs of

£168,000 annually. For the full establishment of the nine units, including the provision of new aircraft, equipment and buildings, the estimated capital cost was £1,233,300 and the annual cost £418,850. The headquarters staff should be enlarged, and the Director of Air Services, while remaining under the command of the General Officer Commanding New Zealand Military Forces, should have direct access to the Minister of Defence on matters affecting the status, development, or financial situation of the Air Services.² On the question of finance, the report recommended that moneys voted for Air should be separate from the Defence Department vote.

If the foregoing recommendations were adopted, Salmond considered that the Air Board constituted in 1920 could be abolished until such time as the Air Service developed sufficiently to warrant the formation of a service separate from the New Zealand Military Forces. Other recommendations included the establishment of an **Air Force** meteorological organisation, the appointment of a liaison

1

<i>Unit</i>	<i>Base</i>
1 Flying Training School	Christchurch.
1 Stores Section	Christchurch.
1 Army Co-operation Squadron	Christchurch.
1 Single-seater Fighter Flight	Christchurch.
1 Torpedo-bomber Flight	Blenheim.
1 Coastal Reconnaissance Flight-Boats	Auckland.
1 Torpedo-bomber Flight	Auckland.
1 Single-seater Fighter Flight	Auckland.
1 Stores Section	Auckland.

² Major Wilkes, who was continually trying to obtain increased recognition for the **Air Force**, disagreed with the recommendation because it did not go far enough. He maintained that until the **Air Force** was completely divorced from Army control it would never make progress.

officer to **Air Ministry**, and a scheme for short-service commissions in the NZPAF and the **RAF**.

Although a number of factors, notably the financial depression of the early thirties, prevented Salmond's major proposals from taking effect, a number of his other suggestions bore fruit. The appointment of the Hon. Thomas Wilford as Minister of Defence, following the general election of 1929, helped to bring this about. Wilford was the first Minister of Defence who actively supported the claims of the **Air Force** for greater financial and political assistance. Had he not been sent to **London** as High Commissioner for New Zealand shortly after taking office, service aviation might have made more progress than it did in the next few years, despite the depression.

Towards the end of 1929, on instructions from the Minister, Wilkes was posted to **London** as liaison officer with **Air Ministry**. Isitt had acted as such while he was attached to the **RAF** two years before, but Wilkes was the first full-time appointment to the position. While he was there, he kept the **New Zealand Government** informed of developments in the **RAF** and also negotiated the purchasing of aircraft. In addition, he acted as a personal link with home to the New Zealanders serving in the **RAF**. There were about three hundred of these, most of whom had made their own way to England and joined the **Air Force** there. The appointment was to have been for two years, but early in 1931, as part of the Government's economy campaign, Wilkes was recalled and the liaison office was closed.

While he was away his place as Director of Air Services was taken by Wing Commander **Grant-Dalton**,¹ who had recently resigned from the **RAF** and applied for the appointment.

In December 1929 **RAF** ranks and methods of organisation were introduced into the NZPAF in place of the Army titles and practices which had been used up to then; and in April 1930 the **RAF** pay code was introduced. The latter was particularly appreciated. Before the change the rate for an AC2, on first joining the **Air Force**, was 5s 4d per day,

from which, if he lived on station, 3s 6d a day was deducted for messing. Under the new rates he received almost double as much: 10s 3d.

Army uniforms continued to be worn for some time longer. The first issue of **Air Force** blue to airmen was made in April 1931, and then it was used only on special occasions.

At the beginning of 1930 the strength of the NZPAF was nearly doubled by the enlistment of fifteen aircraft apprentices, who, after

¹ **Wg Cdr S. Grant-Dalton**, DSO and bar, AFC; **RAF**; born England, 5 Apr 1886; **Green Howards** 1906; Yorkshire Regt, 1913–15; RFC and **RAF** 1916–29; Director of Air Services NZPAF, 1929–31; retired 1931.

two months' general service training at the Army camp at **Trentham**, were posted to Wigram. Personnel on the station then numbered four officers and thirty-three other ranks. Another six apprentices were posted to **Hobsonville**, bringing the station strength there up to three officers and nine other ranks.

ROYAL NEW ZEALAND AIR FORCE

EXERCISES AND OPERATIONS, 1929-36

EXERCISES AND OPERATIONS, 1929-36

In the years 1929 and 1930 there was a considerable increase in the military uses of the **Air Force**. In February 1929 the Navy and Army carried out combined exercises in the **Auckland** area, where a mock landing was staged. Captain Isitt, flying from the partly completed aerodrome at **Hobsonville** and carrying the Minister of Defence as a passenger, flew over the exercises on observation and photographic flights. This was the first time that the land, sea, and air forces had all co-operated in an exercise.

In January 1930 the New Zealand Permanent Air Force carried out its first active operations. Native disturbances were causing trouble in **Samoa**, and HMS *Dunedin* was sent from New Zealand to restore order. She carried on board a Moth seaplane, with Flight Lieutenant **Wallingford**¹ as pilot, and two **Air Force** corporals as servicing staff. In the two months which the expedition spent in **Samoa** Wallingford did ninety hours' flying, including general reconnaissance, co-operation with the ground forces, message dropping, and distributing propaganda.

During the same year, Fairey III and Moth seaplanes from **Hobsonville** co-operated with the Navy in torpedo, gunnery and anti-aircraft exercises. This co-operation lasted until 1936, when HMS *Achilles* and *Leander* joined the New Zealand Division of the **Royal Navy**. They carried their own aircraft, and machines of the New Zealand Air Force were in less demand. Even after that, however, co-operation between **Hobsonville** and the Navy was close, and the **Air Force** continued to take part in exercises. Co-operation was also carried out by aircraft from **Hobsonville** and **Wigram** with the Army in Northern, Central, and Southern Military Districts.

At the time of the Murchison earthquake in 1929, and again after

the **Napier** earthquake in 1931, **Air Force** pilots, together with aero club pilots, did invaluable work in maintaining communications and flying medical and other supplies into the affected areas.

¹ **Air Cdre S. Wallingford**, CB, CBE, Legion of Merit (US); **Wellington**; born Hythe, England, 12 Jul 1898; enlisted in Artists Rifles 1915; transferred to **RAF** 1918; **Fiji** Constabulary 1921–23; short-service commission **RAF**, 1924–29; joined NZPAF 1929; **RAF Staff College** 1936; NZ Air Liaison Officer at **Air Ministry**, 1938–41; **Air Force** Member for Personnel, **RNZAF**, 1941–42; AOC No. 1 (Islands) Group, 1943–44; AMS 1944–46; Imperial Defence College 1947; AMP 1948–52; AOC Task Force Admin HQ 1952–53; retired 1953; Winner of Queen Mary's Prize at Bisley, 1928, and **RAF Rifle Championship**, 1927 and 1928.

ROYAL NEW ZEALAND AIR FORCE

ORGANISATION OF THE TERRITORIAL AIR FORCE, 1930

ORGANISATION OF THE TERRITORIAL AIR FORCE, 1930

Between 1928 and 1930 plans were laid for the formation of a properly constituted **Territorial Air Force** to replace the diminishing body of ex- **RAF** pilots which had existed since 1923. The formation of the new force was gazetted in August 1930. It consisted of a wing of four squadrons, under the command of Wing Commander **Caldwell**,¹ with a squadron headquarters in each of the four main cities.²

An officer of the Permanent Air Force was posted to each squadron as adjutant, and the initial strength of the wing was sixty-six officers. Of these, sixty were members of the old Territorial **Air Force**, and six were newly-commissioned pilots who had been trained in aero clubs. The practice of appointing aero club pilots to commissions was thus established, and it was expected that they would form the bulk of officer recruits in the future.

Pilots were expected to do a fortnight's refresher course each year at **Wigram** or **Hobsonville**, and an additional six hours' flying during the course of the year, but during the depth of the depression this programme had to be drastically curtailed. The weakness of the wing lay in the fact that it possessed no aircraft or general training equipment of its own, nor any ground staff. The responsibility for training members lay on the Permanent Air Force,

¹ **Air Cdre K. L. Caldwell**, CBE, MC, DFC and bar, m.i.d., Croix de Guerre (Belg); **Auckland**; born **Wellington**, 16 Oct 1895; sheep farmer; RFC 1916–18; comd NZAF (Territorial) 1919–37; NZALO, **India**, 1945; AOC **RNZAF** HQ, **London**, 1945.

² OC Territorial Wing NZAF, Wg Cdr K. L. Caldwell, MC, DFC. No. (Army Co-operation) Squadron: **Auckland** and Hawke's Bay

1 Provinces

**Headquarters: Auckland OC, Sqn Ldr J.
Seabrook, AFC**

'A' Flight (Auckland) Flt Lt J. D. Hewitt

'B' Flight (Hamilton) Flt Lt F. S. Gordon, DFC

'C' Flight (Napier) Flt Lt T. W. White

No. (Bomber) Squadron: Wellington and Taranaki Provinces

**2 Headquarters: Wellington OC, Sqn Ldr M. C. McGregor,
DFC**

'A' Flight (New Plymouth) Fg Off I. H. N. Keith (acting)

'B' Flight (Wanganui) Flt Lt S. A. Gibbons

'C' Flight (Wellington) Flt Lt G. L. Stedman

No. (Bomber) Squadron: Nelson, Marlborough, Canterbury and

3 Westland

**Headquarters: Christchurch OC, Sqn Ldr N. E.
Chandler**

'A' Flight (Blenheim) Flt Lt D. C. Inglis

'B' Flight (Christchurch) Flt Lt W. L. Harrison

'C' Flight (Timaru) Flt Lt K. W. J. Hall

No. (Army Co-operation) Squadron: Otago and Southland

4 Headquarters: Dunedin OC, Sqn Ldr P. K. Fowler

**'A' Flight (Oamaru) (Flight commanders were not appointed
until the following year.)**

**'B' Flight
(Dunedin)**

'C' Flight (Invercargill)

**Officers not allotted to units were posted to the nearest flight
to their place of residence.**

**which itself had insufficient personnel and equipment to carry out
the commitment. Consequently, for the next few years the Territorial
Air Force remained very much a paper organisation.**

**During the depression the development of the Air Force was severely
handicapped by the lack of money. In the year 1931-32 expenditure on
both military and civil aviation was cut down to £28,280, which was
approximately half the amount which had been spent in each of the two**

previous years. The following year expenditure was again reduced, and Major-General W. L. H. Sinclair- Burgess, Officer Commanding the **New Zealand Military Forces**, reported that it was definitely below the amount necessary to maintain the minimum organisation and equipment capable of carrying out air force duties under service conditions. In 1931 only twenty-six officers attended the refresher courses at Wigram. Development work on the base at **Hobsonville**, which was considered to have been sufficiently completed for immediate purposes, was stopped.

Shortages of aircraft and personnel were serious. Machines were deteriorating to the point of unserviceability, and the staff was insufficient to maintain them. An increase in the number of airmen at both **Wigram** and **Hobsonville** became urgent, for the future value of the four Territorial squadrons depended upon the provision of an adequate nucleus of permanent personnel and equipment. Although the seaplane base at **Hobsonville** was practically completed in 1930, no machine equipment, essential for the maintenance of aircraft and engines, was installed for another two years. **Wigram** also needed further development to make it an effective air force station. The worst feature of the situation was that both men and equipment were insufficient to form even the smallest effective air force unit. The strength of the Permanent **Air Force** in 1933 was nine officers and forty-four other ranks. These were barely enough for the maintenance of the Permanent **Air Force** bases at **Wigram** and **Hobsonville** and for the administrative and inspectional demands of civil aviation.

Nevertheless, some progress was made during the period. In 1931 several aircraft which had been previously ordered were added to the **Air Force**.¹ At the end of the year Sir Henry Wigram

¹ At the end of 1931 the NZPAF had the following aircraft strength:

(a) At **Hobsonville**—

1 Fairey IIIF (equipped with floats and undercarriage)

1 Saunders Roe 'Cutty Sark' flying boat.

3 DH Moths (including 1 seaplane)

(b) At Wigram—

3 Gloster Grebes (obsolete)

5 Bristol Fighters (obsolete)

4 Hawker Tomtits (trainers)

3 DH Moths (trainers)

1 Puss Moth (trainer)

1 DH50 (4-seater passenger aircraft)

added to his previous gifts by presenting 81 acres, formerly occupied by the Canterbury Park Trotting Club, to the Government for use as an extension to Wigram Aerodrome.

Early in 1934 His Majesty the King granted permission to the New Zealand Permanent Air Force to change its name to the Royal New Zealand Air Force.

ROYAL NEW ZEALAND AIR FORCE

EXPANSION OF THE RNZAF

EXPANSION OF THE RNZAF

The middle thirties saw the end of the depression and the end of disarmament in **Europe**. In 1933 **Germany** withdrew first from the Disarmament Conference and then from the League of Nations, and the following year it became clear that she was rearming. Early in 1936 she officially admitted that she had an air force, and a month later the German Government introduced compulsory universal military service. Both of these were in defiance of the Treaty of **Versailles**.

In 1934 the British Government was forced to recognise that its idealistic policy of disarmament and world peace was a dangerous dream, and that positive steps must be taken to ensure the country's defence. On 19 July the Prime Minister, Mr Baldwin, announced that the strength of the **RAF** was to be increased by forty-one squadrons in the next five years. The following year a new programme was announced by Lord Londonderry, Secretary of State for Air, providing for an additional forty-nine squadrons and an accelerated rate of expansion.

The march of events overseas, coupled with improved economic conditions, resulted in considerably more attention being given to the Royal New Zealand Air Force. In the year 1934–35 the sum of £197,934 was voted for military aviation, exclusive of the cost of land and works which came out of the Public Works vote. Of this, £132,230 was actually spent, compared with £38,548 in the previous year.

Early in 1934 additional land adjoining **Hobsonville** Aerodrome was bought, and an additional building programme for the station was commenced. By the middle of 1936 **Hobsonville** had two aeroplane hangars, a landing area, offices, barracks, stores buildings, a meteorological hut, a garage, married quarters for twenty-two families, a seaplane hangar, an engine repair shop, an airframe repair shop, a

marine store, a dope shop, a concrete slipway, electric power and light, and a water tower.

At Wigram, which was to be developed as a Flying Training School, considerable expansion took place also during the period. New buildings included two concrete hangars, a concrete workshop block, two large concrete stores, barracks and married quarters.

Personnel strength was increased, and by March 1936 had grown to 20 officers and 107 airmen. The **Territorial Air Force** at the same date numbered 74 officers.

In 1935 the **Air Force** was reinforced by the arrival of twelve Vickers Vildebeeste torpedo-bombers. They had originally been ordered in 1933, but the prior claims of the expanding **RAF** had caused eighteen months' delay in delivery. Although criticised at the time as not being the fastest or most modern type available, they were well suited to New Zealand conditions, and were destined to play a useful part as bomber-reconnaissance aircraft in the first years of the war. They were stationed at **Hobsonville** and **Wigram**, where bomber-reconnaissance flights were formed, and thus became the equipment of the first properly constituted operational units of the **RNZAF**.

The next year four Avro 626 training aircraft arrived and were put into use at Wigram. They were a type used by the **RAF**, and were a distinct advance on any purely training machines then in New Zealand.

By 1936 the **RNZAF** was definitely emerging from the doldrums in which it had drifted for the past thirteen years. Since 1933 it had increased rapidly in size and had been equipped with as many new aircraft as it could handle. Although still small, it was in a position to take some action, if necessary, in the defence of the country.

Under the pressure of world events New Zealand was becoming more alive to the need for air power, and the change of Government which occurred in 1935 had resulted in an administration more keenly interested in the development of the **Air Force** than previous

Governments had been. These factors helped to account for the progress which had been made up to 1936, and for the much greater expansion which was to take place in the next three years.

ROYAL NEW ZEALAND AIR FORCE

**CHAPTER 3 – ESTABLISHMENT OF THE ROYAL NEW ZEALAND AIR
FORCE**

CHAPTER 3

Establishment of the Royal New Zealand Air Force

IN 1936 it was obvious that war with **Germany**, if not imminent, was at least a danger which would have to be faced in the future. Moreover, in the last few years military aircraft had been developed to such a state that an entirely new conception of their uses and potentialities had become necessary. It was now obvious that aircraft would play a more important part in Empire defence than had seemed possible a few years before.

Early in the year the Government decided to establish the Air Force as a separate service removed from Army control, and Squadron Leader Wilkes, as Director of Air Services, was instructed to prepare a scheme and work out the costs. This was the fulfilment of the aim for which Wilkes had been working for many years; but he declined to tackle the job, saying that any worthwhile scheme would be extremely expensive, and that if he or any other New Zealand officer produced one, it would be turned down on that account. He advised that, if the Government was serious in its proposal, it should once again ask for the loan of an adviser from the **United Kingdom**. Then, with expert authority behind it, the development of the **Air Force** could go ahead without too much quibbling about cost.

As a result **Air Ministry** was asked for a suitable officer, and later in the year Wing Commander the Hon. R. A. Cochrane, AFC, **RAF**, ¹ was sent to New Zealand to investigate and report on the country's requirements.

In his initial report which he presented in December 1936, Cochrane recommended a complete reorganisation of air force policy and administration. Summarised, his findings were that the defence of New Zealand involved three main factors:

- (a) Local defence.
- (b) The defence of shipping routes.

(c) The security of the United Kingdom.

He suggested that the **Air Force** should be capable of countering raids by cruisers, armed merchantmen or submarines, and by aircraft carried in such ships. New Zealand was not likely to be in danger of invasion so long as **Singapore** was maintained as a major base and the **British Fleet** could be sent to the **Pacific** theatre in the event of war. If these two assumptions proved invalid, no forces which New Zealand could afford to maintain would be strong enough to deal with a major attack. Raiding forces would probably need to secure bases in the **Pacific Islands**, and New Zealand should be prepared to protect potential **Pacific** bases, as well as vital communication points in the area, from enemy attack.

Taking all factors into consideration, he recommended that the New Zealand Air Force should maintain two medium bomber squadrons capable of locating and attacking enemy raiders before they reached the New Zealand coast, and which would have sufficient range to reach bases in the South Pacific or, if necessary, to fly to **Singapore** in support of **RAF** units there.

He recommended:

- (1) That the Royal New Zealand Air Force should be constituted as a separate service controlled by an Air Board under the direction of the Minister of Defence.**
- (2) That it should consist initially of two permanent squadrons equipped with medium bomber aircraft with a total first-line strength of twenty-four, and the necessary repair facilities and reserves of aircraft.**
- (3) That a reserve of personnel should be instituted which might at present be based on the numbers required to maintain two medium bomber and one army co-operation squadrons in the conditions of a major war. These personnel were to be trained to a standard which would enable them to take their places in squadrons on active service. The question of the formation of Territorial squadrons was to await consideration on a future occasion.**
- (4) That civil air transport should continue to be encouraged with the object of enabling it to take its place in the transport system of the**

country and thus provide a valuable backing to the regular air force. The aero club movement should also be supported.

(5) That the Government of the **United Kingdom** should be invited to cooperate in developing facilities to enable aircraft to operate in the area of the **Pacific Islands**.

He further recommended that the provision of the resources referred to above, and the facilities necessary for their operation, should be spread over a period of three years.

To put these recommendations into effect, he suggested that all aircraft and personnel should be concentrated at **Christchurch** with a view to making an immediate start in training the men required for the **Air Force** and the Air Force Reserve. Extra accommodation should be put up as quickly as possible and the necessary additional training aircraft obtained. The next step, between 1937 and 1939, should be the construction of accommodation, repair facilities, and bomb storage for two medium bomber squadrons. Finally, in 1938–39, equipment and reserves for two squadrons should be purchased.

He estimated that the capital cost of the scheme would be £1,124,000 sterling. From this the value of aerodromes and buildings already in existence could be deducted, but the net cost was still £1,100,000. This included the building of a permanent station for two bomber squadrons, the cost of the aircraft and reserves, the provision of bombs and bomb storage, additional construction at **Wigram**, the provision of landing grounds in the **Pacific Islands** and the equipment of wireless telegraphic communications. The estimated annual cost of the scheme was £435,000 sterling.

¹ Air Chf Mshl the Hon Sir Ralph Cochrane, GBE, KCB, AFC; **RAF**; born Cults, **Scotland**, 24 Feb 1895; **Royal Navy** 1912–15; **RNAS** 1915–19; permanent commission **RAF** 1919; served in **UK**, **Middle East**, Palestine, **Iraq** and **Aden**, 1919–36; CAS **RNZAF** 1937–39; Deputy Director of Intelligence, **RAF**, 1939; Director of Flying Training 1940–42; AOC No. 3 Group 1942–43, and No. 5 Group 1943–45; AOC-in-C Transport Command 1945–47; AOC-in-C Flying Training Command 1947–50; **VCAS** 1950–52.

FORMATION OF THE RNZAF: THE AIR DEPARTMENT

The recommendation concerning the establishment of the Royal New Zealand Air Force as a separate service was put into effect on 1 April 1937. On that date the Air Force Act 1937 was passed, authorising the formation of the **RNZAF** as a separate branch of the defence forces of the Dominion. ¹ The Air Department Act was passed at the same time, instituting a separate Department of State to administer the service. The Air Department was responsible for the administration of both service and civil aviation.

Wing Commander Cochrane was asked to stay in New Zealand and develop the **Air Force** as he had planned it. **Air Ministry** agreed to extend his tour of duty. He consulted Wing Commander Wilkes and Wing Commander Isitt, then the two most senior officers of the **RNZAF**, to make sure that they had no objection to a newcomer stepping in over their heads, and accepted the offer. When the **RNZAF** was established on 1 April 1937 he became its first Chief of Air Staff, in the rank of Group Captain.

The new Air Department was modelled in miniature on the lines of the British Air Ministry. The Air Board consisted of the Minister of Defence, the Hon. F. Jones, chairman; the Chief of Air Staff, Group Captain Cochrane; the Air Force Member for Personnel,

¹ The strength of the **RNZAF** at this time was 24 officers and 156 other ranks, plus 74 officers on the Reserve.

Wing Commander Isitt; the Air Force Member for Supply, Squadron Leader Nevill; ¹ and Mr **T. A. Barrow** ² was appointed Air Secretary. The Board was responsible for advising the Government on **Air Force** matters, and for the administration of the service.

A separate branch was formed within the Department, under the

direction of Wing Commander Wilkes as Controller of Civil Aviation, to deal with civil flying. Where matters were under discussion involving co-ordination between civil and service aviation, the Controller of Civil Aviation sat as a member of the Air Board. This organisation enabled a pooling of such resources as were required by both branches of the Department—civil meteorological service, wireless and navigation aids, aerodromes and emergency landing fields, etc.

To provide a core of experienced officers in building up the new **RNZAF**, several **RAF** officers were sent to New Zealand on loan during 1937–39, and **RNZAF** officers were attached to the **RAF** in exchange, in order to gain additional experience. Details of the exchange scheme had been worked out in 1926 during the Imperial Conference, when Squadron Leader Isitt had met Sir Philip Game, then Air Force Member for Personnel in the **RAF**. Although the plan had lain dormant for more than ten years, its existence greatly facilitated the machinery of interchange.

In addition, a number of New Zealanders serving with the **RAF** were selected for specialist courses in signals, navigation and armament, and then were transferred to the **RNZAF** and returned to New Zealand.

¹ AVM Sir Arthur de T. Nevill, KBE, CB, Legion of Merit (US); **Wellington**; born Dunedin, 29 Apr 1899; Royal Military College of **Australia**, 1916–19; RNZA 1919–20; held various staff and regimental appointments in NZ, 1921–30; transferred to NZPAF 1930; NZLO Air Ministry 1923–35; AMS 1937–42; AOC **RNZAF** HQ London, 1942–43; VCAS 1944–46; CAS 1946–51.

² **T. A. Barrow**, JP; **Wellington**; born Dobson, 16 Jul 1897; civil servant; Air Secretary 1937–53.

EXPANSION PROGRAMMES, 1937-39

Early in 1937 a start was made in putting Cochrane's recommendations into effect. **Wigram** was reorganised into a flying

training school with an output of forty pilots per annum, which was to be increased later to eighty per annum, and training of pilots both for the **RNZAF** and for the **RAF** was begun. **Hobsonville** was converted to a stores and repair base and also became a training school for ground personnel. The station was enlarged by the purchase of an additional 55 acres of land.

A survey was made of possible sites for the location of an aerodrome to accommodate the bomber squadrons. Eventually it was decided to build two stations instead of one, and land for the purpose was bought at **Whenuapai**, four miles from **Hobsonville**, and at **Ohakea**, near Bulls in the Manawatu. Orders were placed in **Britain** for the purchase of thirty **Wellington** aircraft ¹ and supplies of ammunition and bombs.

It was anticipated that, under the programme approved, the strength of the Regular Air Force would be 100 officers and 900 airmen, compared with the total personnel of just over one hundred which existed at the end of 1936. A reserve of pilots would be formed, consisting of selected candidates who were to be trained at the rate of one hundred a year by agreement with the aero clubs. In addition there would be the personnel of the **Territorial Air Force**.

During the next two years three supplementary expansion programmes were approved. Later in 1937 orders were placed in **Britain** for additional aircraft, bombs, and ammunition. A scheme was worked out for establishing schools for the training of flight riggers and flight mechanics at the railway workshops in the four main centres. It was decided to establish active Territorial squadrons in the four main centres and to purchase a reserve of obsolescent aircraft from the **RAF**. Further expansion of the Flying Training School at **Wigram** and the stores and repair base at **Hobsonville** was also authorised.

Early in 1938 a third expansion programme was approved, involving additional buildings at **Hobsonville**, additional ammunition, bombs, aircraft spares and equipment, the establishment of Territorial flights at **New Plymouth**, Hastings, and **Invercargill**, and the establishment of a

regular squadron at **Blenheim**.

Five months before war broke out Group Captain H. W. L. Saunders,² who had recently arrived in New Zealand as Chief of Air Staff in succession to Cochrane, recommended a fourth expansion programme. It included the conversion of the **Air Force** station being built at **Blenheim** to a second Flying Training School with an output of 140 pilots yearly, an increase in the size of the Flying Training School at **Wigram** to produce 140 pilots a year, and the purchase of additional aircraft and equipment necessary to maintain the training operations at these two schools.

The development of flying training in the years immediately preceding the outbreak of war had two main objectives: to train

¹ Twin-engined bombers, of geodetic construction, made by Vickers-Armstrong, with a maximum speed of 250 m.p.h. and a cruising range of 2500 miles.

² Air Chf Mshl Sir Hugh Saunders, KCB, KBE, MC, DFC, MM, Legion of Merit (US); born Johannesburg, 24 Aug 1894; South African Army 1914–17; RFC 1917–19; appointed to permanent commission in **RAF**, 1919; served in **Middle East** and Mesopotamia, 1920–23; **UK** 1923–32; overseas 1932–35; **UK** 1935–39; CAS **RNZAF** 1939–42; AOC No. 11 Group 1942–44; Director-General of Postings 1944–45; AOC **RAF**, **Burma**, 1945–46; AOC-in-C Bomber Command 1947; AMP 1947–49; Inspector-General of the **RAF** 1950.

pilots to man the expanding **RNZAF** and to provide pilots for the **Royal Air Force**.

Since 1919 a number of New Zealanders had travelled to England at their own expense to join the **RAF**. Some obtained short-service commissions. Others entered the service under a scheme whereby a limited number of candidates from the Dominions were accepted annually at the RAF Cadet College at Cranwell, to be appointed later to

permanent commissions.

During the late twenties considerably more New Zealanders arrived in England and applied for entry into the **RAF** than could be accepted. The competition was keen, and the rate of intake strictly limited. As a result, prospective candidates were advised that they should be medically examined before leaving New Zealand to ensure that they were up to the necessary physical standard, and interviewed by the Director of Air Services to find out whether they possessed the required general qualifications. Those who he thought would be successful were given a written recommendation to **Air Ministry**, which, however, was made on the understanding that it in no way ensured acceptance by the **RAF**. At this period **Air Ministry** was able to accept approximately five New Zealanders every three months.

In 1934, when the **RAF** was beginning to expand and rearm, Air Ministry suggested that New Zealand should train a number of pilots each year and send them for four years' service with the **RAF**, after which they should return home and serve a further period on the reserve. The New Zealand Government was to be responsible for their training and their passage to England, and would be paid £1550 sterling by the British Government for each pilot sent. New Zealand was unable to do this at the time owing to the lack of training equipment, but the scheme commenced in the middle of 1937. At the same time another scheme was put into operation, under which a number of candidates annually were selected and medically examined in New Zealand for short-service commissions in the **RAF**. These were accepted by the **RAF** without further interview or medical examination, and their passage money to England was paid by **Air Ministry**.

Flying training started in earnest at **Wigram** in June, when twelve acting pilot officers arrived to begin a full nine months' course. The training aircraft comprised four Vickers Vildebeestes, three Hawker Tomtits, and three Avro 626 trainers. The station strength was twelve officers and ninety-six other ranks. Later in the year more instructors were posted to the school and a number of aircraft were transferred from

Hobsonville. This enabled the training of a second course of pilots to overlap the first course by three months.

The flying training course comprised *ab initio*, intermediate and advanced training, covering a period of nine months. The school was organised into two flights. Squadron Leader **Olson**¹ was chief flying instructor, and under him Flight Lieutenant **Newell**² commanded 'A' Flight, which was responsible for initial and intermediate training, and Flight Lieutenant **Cohen**³ commanded 'B' Flight, which undertook advanced training.

In April 1938 Olson was posted to **Hobsonville**, and Cohen became chief flying instructor, as well as commanding the advanced training flight. In September Flight Lieutenant Newell was posted for a course at the RAF Staff College. Command of the intermediate flight was taken over by Flight Lieutenant **Baird**,⁴ who had recently come back to New Zealand after serving a short-service commission in the **RAF**. He introduced a new training syllabus based on that in use at Scottish Aviation, Prestwick.

Between June 1937 and the end of 1939, a total of 133 officers were trained at **Wigram** and posted to the **RAF** for short-service commissions. Besides these a number on completing their training were retained in the **RNZAF**.

In September 1938 the **New Zealand Government**, in view of the threatening international situation, proposed if war broke out to set up an organisation to train one thousand pilots a year for the **RAF**. The offer was accepted in principle by the British Government, and plans were drawn up to provide the necessary establishment.

It was estimated that there were in New Zealand at that time approximately fifty pilots who either were instructors or could be classed as such after a short course, and it was considered that at least half of the pupils completing the full pilots' training course at **Wigram** would be capable of acting as junior instructors in the advanced training

squadron of a service flying training school. The aircraft available comprised 32 service-type aircraft (Vildebeeste,

¹ **Air Cdre E. G. Olson**, DSO; born **New Plymouth**, 27 Feb 1906; **RAF** 1926–29; joined **NZAF** (Territorial) 1930; **RNZAF** 1935; **AMP** 1939–41; **NZLO Air Ministry** 1942; commanded **No. 75 (NZ) Sqn, Feltwell**, 1942, and subsequently **RAF** stations at **Honiton** and **Oakington**; **AOC RNZAF HQ, London**, 1943–45; died 15 May 1945.

² **Gp Capt F. R. Newell**; **Wellington**; born 30 Jun 1904; **SSC RAF** 1931–36; appointed to **RNZAF** 1936; **NZLO Air Ministry** 1941–42; commanded stations in **NZ** and **Pacific**, 1943–45; **DOSD Air Dept**, 1945–47; **CO Whenuapai** 1947–49; **DOSD** 1949–51.

³ **Air Cdre R. J. Cohen**, CBE, AFC, Legion of Merit (US); **Wellington**; born **Feilding**, 6 Sep 1908; **SSC RAF** 1929–35; appointed to **RNZAF** 1935; commanded various **RNZAF** stations during the war; **AOC No. 1 (Islands) Group** and **NZ Air Task Force**, 1945; **DCAS** 1947 and 1950–53; **AOC Task Force Admin HQ**, 1953—; **Inspector-General RNZAF**, 1954—.

⁴ **Gp Capt D. W. Baird**, AFC; **Wellington**; born **Bangor**, Northern Ireland, 23 Dec 1910; farmer; short-service commission **RAF** 1931–37; joined **RNZAF** 1938; served in various theatres with **RAF** and **RNZAF** during the war; commanded **No. 490 (NZ) Squadron, West Africa**, 1943; **Director of Training, RNZAF**, 1945–46; **Director of Operations and Flying Training** 1950; **Director of Reserves** 1951—.

Baffin and **Oxford**), 9 multi-engined commercial types, and 63 suitable light aircraft, mainly **Moths**.

PACIFIC DEFENCE CONFERENCE

The **Pacific Defence Conference** attended by representatives of the **United Kingdom**, **Australian** and **New Zealand Governments**, which sat in **Wellington** in April 1939, came to the same conclusions on **New**

Zealand's problems as had Cochrane. The conference recognised that **Japan** might conceivably be able to mount a large attack against **Australia** or New Zealand if British reverses in **Europe** should prevent the British Fleet from coming east. However, it considered that the probable scale of attack would be raids against shipping by cruisers, armed merchant cruisers, and submarines; raids by one or more armed merchant cruisers with landing parties for the temporary occupation of islands in the **Pacific** for refuelling bases, or for the destruction of cable stations, etc.; and cruiser raids against ports in **Australia**, New Zealand, and perhaps some **Pacific Islands**, which would take the form of bombardment, air attack and landings, or a combination of these. Attacks would be probably limited to this scale only if **Singapore** could be made secure, and the conference considered that the governments concerned should be prepared to meet attacks on a greater scale. It pointed out that to attempt an invasion of **Australia** or New Zealand the Japanese would need to secure bases in the South **Pacific**, and recommended that New Zealand should take immediate steps to ensure the protection of potential bases.

The most important point in the South Pacific from New Zealand's point of view was **Fiji**. The harbour facilities of **Suva** and the stocks of oil fuel held there made it one of the most important naval fuelling bases in the South Pacific; it had an important cable and wireless station; and it would be of increasing importance in the future as a centre of air communications. The islands produced plenty of foodstuffs, and the Japanese could maintain a large force there which could be easily used to attack trans- **Pacific** shipping.

As far as the **Air Force** was concerned, the conference recommended that New Zealand should immediately build two landing grounds on **Viti Levu**, the main island, one near **Suva** and another on the north-western coast, and that part of New Zealand's reserves of fuel, bombs, and ammunition should be held in **Fiji**. A survey should also be made of **Tonga** for possible landing grounds. In time of war, it recommended that New Zealand should undertake responsibility for air reconnaissance on a

line New Hebrides- **Fiji- Tonga**.

As a result of discussions at the conference, New Zealand's original plan to give wartime training to 1000 pilots annually was changed. An amended proposal was adopted which was to provide instead approximately 650 pilots, 300 observers, and 350 air-gunners. The change was due to the impossibility of providing facilities for training so large a number of pilots within the proposed expansion of the **RNZAF**, and also to the anticipated difficulty in obtaining sufficient candidates with the necessary physical and educational qualifications. The new scheme was accepted by **Air Ministry** in May.

In addition to supplying aircrew to the **RAF**, it would be necessary in the event of war to train others for service in the **RNZAF**, both for the operational squadrons and to keep up a supply of instructing staff. The total numbers which it was proposed to train annually under the scheme were 700 pilots and 730 observers and air-gunners. To do this it would be necessary to have one ground training school, three elementary flying training schools, one observers' and air-gunners' school, and one flying instructors' school.

While the preliminary work was being done for the setting up of the organisation, the Chief of Air Staff proposed to carry out an immediate expansion to increase New Zealand's contribution to the **RAF**, and to hasten the training of pilots for the war training scheme. He suggested that all pilots destined for the **RAF** should be fully trained in New Zealand. This included the sixty per annum which New Zealand was already training, and the 150 to 160 men who were being selected and despatched for training with the **RAF** under the short-service scheme. Further, he proposed to train sixty pilots a year for employment in the **RNZAF**. This involved expanding the SFTS at **Wigram** to produce 140 pilots a year and the opening of a new SFTS at **Blenheim** to produce another 140. The expansion was to be completed by December 1940. These proposals were accepted by the **New Zealand Government**, and the new expansion programme started in June 1939.

Another development in 1939 was the establishment of a factory for producing training aircraft in New Zealand. As a result of an agreement between the British Government and the De Havilland Aircraft Company, the **De Havilland Aircraft Company of New Zealand Limited** was incorporated in March. A factory was built at **Rongotai, Wellington**, and the production of Tiger Moth training aircraft started early in 1940.

The New Zealand Government asked the British Government if it was prepared to contribute to the cost of the extra aircraft required to enable the expansion to take place. The Home Government replied that it could not make a direct contribution, but agreed to increase the sum paid for each fully trained pilot from £1550 to £1700 sterling. Taking into account the numbers it was proposed to train, it was considered that this would result in the New Zealand Government receiving approximately the same amount as would have been paid if a direct contribution to the cost of 100 Tiger Moth aircraft had been made.

DEVELOPMENT OF THE TERRITORIAL AIR FORCE

With the expansion of the Regular Air Force proceeding, the **Territorial Air Force** also was reorganised and put on a working basis.

The four squadrons which had been established in 1930 were still in 1937 only a paper force. They had no ground staff or equipment, and of the seventy officers who composed them, many were pilots of the 1914–18 war and over forty years of age.

The demands of the regular force's expansion programme limited the finance and training facilities available for a Territorial Air Force; but it was considered that properly constituted and equipped Territorial squadrons could play an important part in home defence and coastal patrol work, and that their formation would be justified. As their role would not involve them in continued contact with the enemy, they could be manned by older and less highly trained men than the regular squadrons, and equipped with older and less expensive aircraft. Furthermore, their employment would release the regular squadrons for

duty elsewhere.

Consequently, it was decided to form squadrons in each of the four main centres, and equip them with obsolescent aircraft which could be bought cheaply from the **RAF**. The first to be authorised was the Wellington Territorial Squadron, whose formation was approved in Cabinet in July 1937. In February 1938 the formation of squadrons at **Christchurch** and **Auckland** was approved, and in the following month the Dunedin squadron was authorised.

In July 1937 twelve Baffin aircraft were ordered for the Wellington Squadron, at a cost of £200 each, and later in the year applications were called for from pilots and ground staff to man the squadron.

It was to be organised as three flights. No. 1, a reconnaissance flight, was to be equipped with twin-engined civil aircraft which would be taken over on the outbreak of war. It was to be manned, as far as possible, by the personnel normally operating the aircraft. Nos. 2 and 3 flights were to be equipped with six Baffins each. One aircraft per flight was to be kept at **Rongotai** for evening and weekend flying. The others were to be stored in peacetime at **Ohakea** and brought into use only at the annual training camp.

By January 1938 approximately twenty officers and ninety airmen had been enrolled. The Commanding Officer was Squadron Leader **Gibson**.¹ Technical personnel were drawn mainly from the Hutt railway workshops, and a number of them were given a course of training at **Hobsonville** as instructors to the others in the maintenance of aircraft. A training camp was held in January, when nineteen officers and sixty airmen had a ten-days' disciplinary course at **Trentham**.

The squadron's aircraft arrived in March and flying training was begun. In May the Chief of Air Staff ordered a public display by the **RNZAF**, which was held at **Rongotai**. The Wellington Territorial Squadron took part, and also twelve aircraft from Wigram. In October the squadron carried out its first operational exercises in co-operation

with HMS *Achilles*, and at the end of the year exercises were carried out with HMS *Wellington*.

Recruiting for the Christchurch Territorial Squadron began in April 1938. Squadron Leader **Stedman**,² chief instructor at the Canterbury Aero Club, was appointed Commanding Officer, and by November the strength of the squadron was fourteen officers and seventy-eight airmen. The squadron was equipped with Baffin aircraft, of which the first arrived in September.

Starting in October, a number of refresher courses were held at **Wigram** for Territorial pilots. The courses lasted twelve days and consisted of flying practice on service-type aircraft.

In February 1939 the Christchurch Territorial Squadron received its first permanent maintenance staff—two NCOs, four fitters, and four riggers. They were assisted in the maintenance of the aircraft by the Territorial fitters and riggers at weekend parades, and also acted as instructors. Early in March the squadron held its first training camp. Flying training was carried out on four days, and six days were spent on drilling and other ground instruction.

The Auckland Territorial Squadron was formed in June 1938, with Squadron Leader **Allan**³ as Commanding Officer. In October its strength was eighteen officers and fifty-nine airmen. When its aircraft became available a few months later, it started weekend training at **Hobsonville**. Training consisted of pilot navigation, ship recognition, search and patrol technique, and bombing.

At the end of March 1939 the strength of the Territorial Air Force was:

Wellington Squadron	18 officers, 96 airmen
Christchurch Squadron	17 officers, 92 airmen
Auckland Squadron	20 officers, 77 airmen

In addition a further twenty-one Territorial officers had been appointed, but were not attached to any particular squadrons. The

Dunedin Squadron, although it had been authorised, had not been formed when war broke out. In June and July, on account of the imminence of war, all available **Territorial Air Force** pilots were sent to **Wigram** for a two-months' general reconnaissance course.

¹ **Wg Cdr E. A. Gibson, OBE; Wellington; born Wellington, 6 Aug 1896; engineer.**

² **Wg Cdr G. L. Stedman, ED; Wellington; born Timaru, 27 Oct 1891; flying instructor; Canterbury Mounted Rifles (Lt) 1914–17; transferred to RFC.**

³ **Sqn Ldr D. M. Allan; born Waipukurau, 15 Sep 1896; sheep farmer; killed in aircraft accident 12 Mar 1940.**

THE AERO CLUBS AND THE CIVIL RESERVE OF PILOTS

A useful part, supplementary to the activities of the **Air Force**, was played by aero clubs in the training of pilots. Since the beginning of club flying in New Zealand in 1929 and 1930, the Government had recognised the value of the training they gave by paying the clubs £25 for each pilot trained to 'A' Licence standard and by helping to provide aircraft. In 1937 this policy was reviewed. The 'A' Licence standard was too low to be of much practical value, and in numerous cases the State got no return for the subsidy, since many of the trainees were not medically fit for service and commercial flying. In addition it was found that most of the clubs were running at a loss and were on the verge of bankruptcy.

The basic training given by the clubs was potentially of great value in preparing pilots for the **Air Force**, and in order to get the best possible results the whole scheme of financial assistance was changed.

In addition a Civil Reserve of Pilots was instituted; it was open to candidates who reached the required standard of education and physical

fitness and who volunteered to serve in the **RNZAF** in case of emergency. The Government agreed to pay for the initial flying training of civil reservists, which was fixed at forty hours in the first year and two refresher courses of ten hours each in the succeeding years.

The numbers to be trained by the clubs under these schemes were limited to fifty **Air Force** candidates and one hundred civil reservists each year. It was hoped by these means not only to help the expansion of the **RNZAF**, but also to build up a reserve of pilots who could be converted to higher-powered aircraft when required.

The scheme was under the general supervision of the Air Member for Personnel, Group Captain Isitt. Flight Lieutenant **Burrell**¹ was appointed Superintendent of Reserves and, under the direction of Isitt, he co-ordinated the methods of training and testing all trainees to ensure that they reached a satisfactory standard. Two courses for aero club instructors were held at **Wigram**, where the latest methods of instruction were demonstrated to ensure uniformity of methods and instruction.

The scheme was reviewed in 1938, and again in 1939, when the number of civil reservists to be trained was increased from 100 to 150 per annum.

¹ **Wg Cdr H. B. Burrell**, OBE; **Norfolk Island**; born Feilding, 2 Aug 1897; motor engineer.

CIVIL RESERVE OF GROUND STAFF

In September 1938 it was decided to compile a register of tradesmen and potential administrative and technical officers who could be called upon to serve with the **RNZAF** in event of emergency. The Munich crisis made it appear that war might break out at any time, and the scheme was put into effect immediately. It was widely publicised by the press and radio, and by posters and circulars to employers. In particular, all garages and engineering firms were asked to bring the scheme to the

notice of their employees, as fitters were most urgently required.

Applications embracing the following **Air Force** trades were called for:

Wireless operator Radio mechanic
Electrician Photographer
Instrument maker Fabric worker
Coppersmith Cabinetmaker
Sheet-metal worker Clerk and storeman
Fitter gunsmith

Men between the ages of 22 and 55 were invited to enrol, and by doing so were required, in the event of war, to join the **RNZAF** for service within New Zealand.

Enrolment forms were distributed to all post offices by 20 December, and three weeks later a total of 3845 applications had been received, comprising 655 Group I (professional men), 1790 Group II (skilled tradesmen), and 1400 Group III (administrative tradesmen). From these a register of reservists was compiled which comprised three lists: one alphabetical, one geographical, and one by trades.

During the following year as many of the reservists as possible were interviewed by investigating officers appointed for the purpose, so that a better basis could be obtained for assessing their potential value to the **RNZAF**. At the outbreak of war a number of reservists were called up for immediate employment at **Hobsonville** and Wigram.

The expansion of the **RNZAF** immediately before the war was so rapid that the Technical Training School at **Hobsonville** could not train sufficient fitters and riggers for the service. It was therefore decided that a number of airmen should be trained in the railway workshops at Otahuhu, Hutt, Addington, and Hillside. Previously it had been planned that a number of the workshops apprentices should be given a course in **Air Force** trades at the conclusion of their Railways training. On completing their course the trainees were to be posted to the Civil Reserve and were liable to join the **Air Force** in the event of war.

The two schemes were combined, and technical training centres

were opened in each of the railway workshops. The first to begin training was at Hutt, in July 1939. The others received their first intakes shortly after the war began. The scheme continued until September 1940, when the increased facilities for technical training within the **RNZAF** made it possible to close the technical training centres. During their period of operation the centres trained a total of 595 flight riggers and flight mechanics.

RNZAF AT OUTBREAK OF WAR

When war broke out, although the projected peacetime expansion of the **RNZAF** was far from complete, appreciable progress had been made. The building programme for No. 1 Flying Training School at **Wigram** was nearly finished, and that for No. 2 Flying Training School at **Blenheim** was approximately half completed. The building programme for the new operational station at **Ohakea** was approximately three-quarters completed, and at **Whenuapai** the aerodrome had been prepared and construction of buildings commenced. **Hobsonville** was in the process of expansion and the work was half done. At **Taieri**, which was to house the fourth Territorial squadron, the construction of buildings had just begun.

The Vickers Wellington aircraft which had been ordered for the two permanent bomber squadrons were being collected at Marham in England, where a number of **RNZAF** officers, under the command of Squadron Leader **Buckley**,¹ were under training preparatory to flying the aircraft to New Zealand. A stock of bombs and ammunition had been built up in the Dominion and was sufficient for twelve months' operations.

The Territorial squadrons at **Auckland**, **Wellington**, and **Christchurch** had been established and were in various stages of training. A civil reserve existed of pilots who had been trained by the aero clubs to the elementary stage, and a civil reserve of ground staff comprising the register of skilled tradesmen and others who had volunteered to join the

RNZAF in case of war. The railway workshops scheme for training flight mechanics and flight riggers was progressing satisfactorily, and training had started at the Hutt Workshops.

The aircraft available comprised the obsolescent service-type machines of the Territorial squadrons, and others in use at the Flying Training School at **Wigram**, a number of multi-engined commercial types which could be taken over, and approximately sixty elementary training machines belonging to aero clubs.

The strength of the **RNZAF** at the outbreak of war, exclusive of reserves, was:

Regular Air Force 91 officers, 665 airmen

Territorial Air Force 79 officers, 325 airmen

The Headquarters organisation which had been developed over the past two and a half years comprised the Chief of Air Staff, Group Captain Saunders, who had succeeded Group Captain Cochrane in March 1939; the Air Force Member for Personnel, Group Captain Isitt; the Air Force Member for Supply, Wing Commander Nevill; and the Air Secretary, Mr Barrow. Group Captain Wilkes was Controller of Civil Aviation.

¹ **Air Cdre M. W. Buckley**, CBE, m.i.d., Legion of Merit (US); **Wellington**; born Seacliff, 3 Aug 1895; sheep farmer; RNAS and RFC 1916–20; NZAF 1923–26; joined NZPAF 1926; attached **RAF** on exchange, 1937–41; commanded No. 75 (NZ) Sqn, **RAF**, 1940–41, and RAF Station, Feltwell, 1941; AOC Northern Group, 1942–43, and No. 1 (Islands) Group, 1943–44; DCAS 1945; AOC **RNZAF** HQ, **London**, 1946–50.

ROYAL NEW ZEALAND AIR FORCE

[SECTION]

IN 1936 it was obvious that war with **Germany**, if not imminent, was at least a danger which would have to be faced in the future. Moreover, in the last few years military aircraft had been developed to such a state that an entirely new conception of their uses and potentialities had become necessary. It was now obvious that aircraft would play a more important part in Empire defence than had seemed possible a few years before.

Early in the year the Government decided to establish the Air Force as a separate service removed from Army control, and Squadron Leader Wilkes, as Director of Air Services, was instructed to prepare a scheme and work out the costs. This was the fulfilment of the aim for which Wilkes had been working for many years; but he declined to tackle the job, saying that any worthwhile scheme would be extremely expensive, and that if he or any other New Zealand officer produced one, it would be turned down on that account. He advised that, if the Government was serious in its proposal, it should once again ask for the loan of an adviser from the **United Kingdom**. Then, with expert authority behind it, the development of the **Air Force** could go ahead without too much quibbling about cost.

As a result **Air Ministry** was asked for a suitable officer, and later in the year Wing Commander the Hon. R. A. Cochrane, AFC, **RAF**,¹ was sent to New Zealand to investigate and report on the country's requirements.

In his initial report which he presented in December 1936, Cochrane recommended a complete reorganisation of air force policy and administration. Summarised, his findings were that the defence of New Zealand involved three main factors:

(a) Local defence.

(b) The defence of shipping routes.

(c) The security of the **United Kingdom**.

He suggested that the **Air Force** should be capable of countering raids by cruisers, armed merchantmen or submarines, and by aircraft carried in such ships. New Zealand was not likely to be in danger of invasion so long as **Singapore** was maintained as a major base and the British Fleet could be sent to the **Pacific** theatre in the event of war. If these two assumptions proved invalid, no forces which New Zealand could afford to maintain would be strong enough to deal with a major attack. Raiding forces would probably need to secure bases in the **Pacific Islands**, and New Zealand should be prepared to protect potential **Pacific** bases, as well as vital communication points in the area, from enemy attack.

Taking all factors into consideration, he recommended that the New Zealand Air Force should maintain two medium bomber squadrons capable of locating and attacking enemy raiders before they reached the New Zealand coast, and which would have sufficient range to reach bases in the South Pacific or, if necessary, to fly to **Singapore** in support of **RAF** units there.

He recommended:

- (1) That the Royal New Zealand Air Force should be constituted as a separate service controlled by an Air Board under the direction of the Minister of Defence.
- (2) That it should consist initially of two permanent squadrons equipped with medium bomber aircraft with a total first-line strength of twenty-four, and the necessary repair facilities and reserves of aircraft.
- (3) That a reserve of personnel should be instituted which might at present be based on the numbers required to maintain two medium bomber and one army co-operation squadrons in the conditions of a major war. These personnel were to be trained to a standard which would enable them to take their places in squadrons on active service. The question of the formation of Territorial squadrons was to await consideration on a future occasion.
- (4) That civil air transport should continue to be encouraged with the

object of enabling it to take its place in the transport system of the country and thus provide a valuable backing to the regular air force. The aero club movement should also be supported.

(5) That the Government of the **United Kingdom** should be invited to co-operate in developing facilities to enable aircraft to operate in the area of the **Pacific Islands**.

He further recommended that the provision of the resources referred to above, and the facilities necessary for their operation, should be spread over a period of three years.

To put these recommendations into effect, he suggested that all aircraft and personnel should be concentrated at **Christchurch** with a view to making an immediate start in training the men required for the **Air Force** and the Air Force Reserve. Extra accommodation should be put up as quickly as possible and the necessary additional training aircraft obtained. The next step, between 1937 and 1939, should be the construction of accommodation, repair facilities, and bomb storage for two medium bomber squadrons. Finally, in 1938–39, equipment and reserves for two squadrons should be purchased.

He estimated that the capital cost of the scheme would be £1,124,000 sterling. From this the value of aerodromes and buildings already in existence could be deducted, but the net cost was still £1,100,000. This included the building of a permanent station for two bomber squadrons, the cost of the aircraft and reserves, the provision of bombs and bomb storage, additional construction at **Wigram**, the provision of landing grounds in the **Pacific Islands** and the equipment of wireless telegraphic communications. The estimated annual cost of the scheme was £435,000 sterling.

¹ Air Chf Mshl the Hon Sir Ralph Cochrane, GBE, KCB, AFC; **RAF**; born Cults, **Scotland**, 24 Feb 1895; **Royal Navy** 1912–15; **RNAS** 1915–19; permanent commission **RAF** 1919; served in **UK**, **Middle East**, **Palestine**, **Iraq** and **Aden**, 1919–36; **CAS RNZAF** 1937–39; Deputy Director of Intelligence, **RAF**, 1939; Director of Flying Training 1940–42; AOC No. 3 Group 1942–43, and No. 5 Group 1943–45; AOC-in-C Transport Command 1945–47; AOC-in-

ROYAL NEW ZEALAND AIR FORCE

FORMATION OF THE RNZAF: THE AIR DEPARTMENT

FORMATION OF THE RNZAF: THE AIR DEPARTMENT

The recommendation concerning the establishment of the Royal New Zealand Air Force as a separate service was put into effect on 1 April 1937. On that date the Air Force Act 1937 was passed, authorising the formation of the **RNZAF** as a separate branch of the defence forces of the Dominion. ¹ The Air Department Act was passed at the same time, instituting a separate Department of State to administer the service. The Air Department was responsible for the administration of both service and civil aviation.

Wing Commander Cochrane was asked to stay in New Zealand and develop the **Air Force** as he had planned it. **Air Ministry** agreed to extend his tour of duty. He consulted Wing Commander Wilkes and Wing Commander Isitt, then the two most senior officers of the **RNZAF**, to make sure that they had no objection to a newcomer stepping in over their heads, and accepted the offer. When the **RNZAF** was established on 1 April 1937 he became its first Chief of Air Staff, in the rank of Group Captain.

The new Air Department was modelled in miniature on the lines of the British Air Ministry. The Air Board consisted of the Minister of Defence, the Hon. F. Jones, chairman; the Chief of Air Staff, Group Captain Cochrane; the Air Force Member for Personnel,

¹ The strength of the **RNZAF** at this time was 24 officers and 156 other ranks, plus 74 officers on the Reserve.

Wing Commander Isitt; the Air Force Member for Supply, Squadron Leader Nevill; ¹ and Mr **T. A. Barrow** ² was appointed Air Secretary. The Board was responsible for advising the Government on **Air Force** matters,

and for the administration of the service.

A separate branch was formed within the Department, under the direction of Wing Commander Wilkes as Controller of Civil Aviation, to deal with civil flying. Where matters were under discussion involving co-ordination between civil and service aviation, the Controller of Civil Aviation sat as a member of the Air Board. This organisation enabled a pooling of such resources as were required by both branches of the Department—civil meteorological service, wireless and navigation aids, aerodromes and emergency landing fields, etc.

To provide a core of experienced officers in building up the new **RNZAF**, several **RAF** officers were sent to New Zealand on loan during 1937–39, and **RNZAF** officers were attached to the **RAF** in exchange, in order to gain additional experience. Details of the exchange scheme had been worked out in 1926 during the Imperial Conference, when Squadron Leader Isitt had met Sir Philip Game, then Air Force Member for Personnel in the **RAF**. Although the plan had lain dormant for more than ten years, its existence greatly facilitated the machinery of interchange.

In addition, a number of New Zealanders serving with the **RAF** were selected for specialist courses in signals, navigation and armament, and then were transferred to the **RNZAF** and returned to New Zealand.

¹ AVM Sir Arthur de T. Nevill, KBE, CB, Legion of Merit (US); **Wellington**; born Dunedin, 29 Apr 1899; Royal Military College of **Australia**, 1916–19; RNZA 1919–20; held various staff and regimental appointments in NZ, 1921–30; transferred to NZPAF 1930; NZLO Air Ministry 1923–35; AMS 1937–42; AOC **RNZAF** HQ London, 1942–43; VCAS 1944–46; CAS 1946–51.

² **T. A. Barrow**, JP; **Wellington**; born Dobson, 16 Jul 1897; civil servant; Air Secretary 1937–53.

ROYAL NEW ZEALAND AIR FORCE

EXPANSION PROGRAMMES, 1937-39

EXPANSION PROGRAMMES, 1937-39

Early in 1937 a start was made in putting Cochrane's recommendations into effect. **Wigram** was reorganised into a flying training school with an output of forty pilots per annum, which was to be increased later to eighty per annum, and training of pilots both for the **RNZAF** and for the **RAF** was begun. **Hobsonville** was converted to a stores and repair base and also became a training school for ground personnel. The station was enlarged by the purchase of an additional 55 acres of land.

A survey was made of possible sites for the location of an aerodrome to accommodate the bomber squadrons. Eventually it was decided to build two stations instead of one, and land for the purpose was bought at **Whenuapai**, four miles from **Hobsonville**, and at **Ohakea**, near Bulls in the Manawatu. Orders were placed in **Britain** for the purchase of thirty **Wellington** aircraft ¹ and supplies of ammunition and bombs.

It was anticipated that, under the programme approved, the strength of the Regular Air Force would be 100 officers and 900 airmen, compared with the total personnel of just over one hundred which existed at the end of 1936. A reserve of pilots would be formed, consisting of selected candidates who were to be trained at the rate of one hundred a year by agreement with the aero clubs. In addition there would be the personnel of the **Territorial Air Force**.

During the next two years three supplementary expansion programmes were approved. Later in 1937 orders were placed in **Britain** for additional aircraft, bombs, and ammunition. A scheme was worked out for establishing schools for the training of flight riggers and flight mechanics at the railway workshops in the four main centres. It was decided to establish active Territorial squadrons in the four main centres

and to purchase a reserve of obsolescent aircraft from the **RAF**. Further expansion of the Flying Training School at **Wigram** and the stores and repair base at **Hobsonville** was also authorised.

Early in 1938 a third expansion programme was approved, involving additional buildings at **Hobsonville**, additional ammunition, bombs, aircraft spares and equipment, the establishment of Territorial flights at **New Plymouth**, Hastings, and **Invercargill**, and the establishment of a regular squadron at **Blenheim**.

Five months before war broke out Group Captain H. W. L. Saunders,² who had recently arrived in New Zealand as Chief of Air Staff in succession to Cochrane, recommended a fourth expansion programme. It included the conversion of the **Air Force** station being built at **Blenheim** to a second Flying Training School with an output of 140 pilots yearly, an increase in the size of the Flying Training School at **Wigram** to produce 140 pilots a year, and the purchase of additional aircraft and equipment necessary to maintain the training operations at these two schools.

The development of flying training in the years immediately preceding the outbreak of war had two main objectives: to train

¹ Twin-engined bombers, of geodetic construction, made by Vickers-Armstrong, with a maximum speed of 250 m.p.h. and a cruising range of 2500 miles.

² Air Chf Mshl Sir Hugh Saunders, KCB, KBE, MC, DFC, MM, Legion of Merit (US); born Johannesburg, 24 Aug 1894; South African Army 1914–17; RFC 1917–19; appointed to permanent commission in **RAF**, 1919; served in **Middle East** and Mesopotamia, 1920–23; **UK** 1923–32; overseas 1932–35; **UK** 1935–39; CAS **RNZAF** 1939–42; AOC No. 11 Group 1942–44; Director-General of Postings 1944–45; AOC **RAF**, **Burma**, 1945–46; AOC-in-C Bomber Command 1947; AMP 1947–49; Inspector-General of the **RAF** 1950.

pilots to man the expanding [RNZAF](#) and to provide pilots for the [Royal Air Force](#).

Since 1919 a number of New Zealanders had travelled to England at their own expense to join the [RAF](#). Some obtained short-service commissions. Others entered the service under a scheme whereby a limited number of candidates from the Dominions were accepted annually at the RAF Cadet College at Cranwell, to be appointed later to permanent commissions.

During the late twenties considerably more New Zealanders arrived in England and applied for entry into the [RAF](#) than could be accepted. The competition was keen, and the rate of intake strictly limited. As a result, prospective candidates were advised that they should be medically examined before leaving New Zealand to ensure that they were up to the necessary physical standard, and interviewed by the Director of Air Services to find out whether they possessed the required general qualifications. Those who he thought would be successful were given a written recommendation to [Air Ministry](#), which, however, was made on the understanding that it in no way ensured acceptance by the [RAF](#). At this period [Air Ministry](#) was able to accept approximately five New Zealanders every three months.

In 1934, when the [RAF](#) was beginning to expand and rearm, Air Ministry suggested that New Zealand should train a number of pilots each year and send them for four years' service with the [RAF](#), after which they should return home and serve a further period on the reserve. The New Zealand Government was to be responsible for their training and their passage to England, and would be paid £1550 sterling by the British Government for each pilot sent. New Zealand was unable to do this at the time owing to the lack of training equipment, but the scheme commenced in the middle of 1937. At the same time another scheme was put into operation, under which a number of candidates annually were selected and medically examined in New Zealand for short-service commissions in the [RAF](#). These were accepted by the [RAF](#) without further interview or medical examination, and their passage

money to England was paid by **Air Ministry**.

Flying training started in earnest at **Wigram** in June, when twelve acting pilot officers arrived to begin a full nine months' course. The training aircraft comprised four Vickers Vildebeestes, three Hawker Tomtits, and three Avro 626 trainers. The station strength was twelve officers and ninety-six other ranks. Later in the year more instructors were posted to the school and a number of aircraft were transferred from **Hobsonville**. This enabled the training of a second course of pilots to overlap the first course by three months.

The flying training course comprised *ab initio*, intermediate and advanced training, covering a period of nine months. The school was organised into two flights. Squadron Leader **Olson**¹ was chief flying instructor, and under him Flight Lieutenant **Newell**² commanded 'A' Flight, which was responsible for initial and intermediate training, and Flight Lieutenant **Cohen**³ commanded 'B' Flight, which undertook advanced training.

In April 1938 Olson was posted to **Hobsonville**, and Cohen became chief flying instructor, as well as commanding the advanced training flight. In September Flight Lieutenant Newell was posted for a course at the RAF Staff College. Command of the intermediate flight was taken over by Flight Lieutenant **Baird**,⁴ who had recently come back to New Zealand after serving a short-service commission in the **RAF**. He introduced a new training syllabus based on that in use at Scottish Aviation, Prestwick.

Between June 1937 and the end of 1939, a total of 133 officers were trained at **Wigram** and posted to the **RAF** for short-service commissions. Besides these a number on completing their training were retained in the **RNZAF**.

In September 1938 the **New Zealand Government**, in view of the threatening international situation, proposed if war broke out to set up an organisation to train one thousand pilots a year for the **RAF**. The

offer was accepted in principle by the British Government, and plans were drawn up to provide the necessary establishment.

It was estimated that there were in New Zealand at that time approximately fifty pilots who either were instructors or could be classed as such after a short course, and it was considered that at least half of the pupils completing the full pilots' training course at **Wigram** would be capable of acting as junior instructors in the advanced training squadron of a service flying training school. The aircraft available comprised 32 service-type aircraft (Vildebeeste,

¹ **Air Cdre E. G. Olson**, DSO; born **New Plymouth**, 27 Feb 1906; **RAF** 1926–29; joined **NZAF** (Territorial) 1930; **RNZAF** 1935; **AMP** 1939–41; **NZLO Air Ministry** 1942; commanded No. 75 (NZ) Sqn, **Feltwell**, 1942, and subsequently **RAF** stations at **Honiton** and **Oakington**; **AOC RNZAF HQ, London**, 1943–45; died 15 May 1945.

² **Gp Capt F. R. Newell**; **Wellington**; born 30 Jun 1904; **SSC RAF** 1931–36; appointed to **RNZAF** 1936; **NZLO Air Ministry** 1941–42; commanded stations in **NZ** and **Pacific**, 1943–45; **DOSD Air Dept**, 1945–47; **CO Whenuapai** 1947–49; **DOSD** 1949–51.

³ **Air Cdre R. J. Cohen**, CBE, AFC, Legion of Merit (US); **Wellington**; born **Feilding**, 6 Sep 1908; **SSC RAF** 1929–35; appointed to **RNZAF** 1935; commanded various **RNZAF** stations during the war; **AOC No. 1 (Islands) Group** and **NZ Air Task Force**, 1945; **DCAS** 1947 and 1950–53; **AOC Task Force Admin HQ**, 1953—; **Inspector-General RNZAF**, 1954—.

⁴ **Gp Capt D. W. Baird**, AFC; **Wellington**; born **Bangor**, Northern Ireland, 23 Dec 1910; farmer; short-service commission **RAF** 1931–37; joined **RNZAF** 1938; served in various theatres with **RAF** and **RNZAF** during the war; commanded No. 490 (NZ) Squadron, **West Africa**, 1943; **Director of Training, RNZAF**, 1945–46; **Director of Operations and Flying Training** 1950; **Director of Reserves** 1951—.

Baffin and Oxford), 9 multi-engined commercial types, and 63 suitable light aircraft, mainly Moths.

ROYAL NEW ZEALAND AIR FORCE

PACIFIC DEFENCE CONFERENCE

PACIFIC DEFENCE CONFERENCE

The Pacific Defence Conference attended by representatives of the **United Kingdom**, Australian and New Zealand Governments, which sat in **Wellington** in April 1939, came to the same conclusions on New Zealand's problems as had Cochrane. The conference recognised that **Japan** might conceivably be able to mount a large attack against **Australia** or New Zealand if British reverses in **Europe** should prevent the British Fleet from coming east. However, it considered that the probable scale of attack would be raids against shipping by cruisers, armed merchant cruisers, and submarines; raids by one or more armed merchant cruisers with landing parties for the temporary occupation of islands in the **Pacific** for refuelling bases, or for the destruction of cable stations, etc.; and cruiser raids against ports in **Australia**, New Zealand, and perhaps some **Pacific Islands**, which would take the form of bombardment, air attack and landings, or a combination of these. Attacks would be probably limited to this scale only if **Singapore** could be made secure, and the conference considered that the governments concerned should be prepared to meet attacks on a greater scale. It pointed out that to attempt an invasion of **Australia** or New Zealand the Japanese would need to secure bases in the South **Pacific**, and recommended that New Zealand should take immediate steps to ensure the protection of potential bases.

The most important point in the South Pacific from New Zealand's point of view was **Fiji**. The harbour facilities of **Suva** and the stocks of oil fuel held there made it one of the most important naval fuelling bases in the South Pacific; it had an important cable and wireless station; and it would be of increasing importance in the future as a centre of air communications. The islands produced plenty of foodstuffs, and the Japanese could maintain a large force there which could be

easily used to attack trans- **Pacific** shipping.

As far as the **Air Force** was concerned, the conference recommended that New Zealand should immediately build two landing grounds on **Viti Levu**, the main island, one near **Suva** and another on the north-western coast, and that part of New Zealand's reserves of fuel, bombs, and ammunition should be held in **Fiji**. A survey should also be made of **Tonga** for possible landing grounds. In time of war, it recommended that New Zealand should undertake responsibility for air reconnaissance on a line New Hebrides- **Fiji- Tonga**.

As a result of discussions at the conference, New Zealand's original plan to give wartime training to 1000 pilots annually was changed. An amended proposal was adopted which was to provide instead approximately 650 pilots, 300 observers, and 350 air-gunners. The change was due to the impossibility of providing facilities for training so large a number of pilots within the proposed expansion of the **RNZAF**, and also to the anticipated difficulty in obtaining sufficient candidates with the necessary physical and educational qualifications. The new scheme was accepted by **Air Ministry** in May.

In addition to supplying aircrew to the **RAF**, it would be necessary in the event of war to train others for service in the **RNZAF**, both for the operational squadrons and to keep up a supply of instructing staff. The total numbers which it was proposed to train annually under the scheme were 700 pilots and 730 observers and air-gunners. To do this it would be necessary to have one ground training school, three elementary flying training schools, one observers' and air-gunners' school, and one flying instructors' school.

While the preliminary work was being done for the setting up of the organisation, the Chief of Air Staff proposed to carry out an immediate expansion to increase New Zealand's contribution to the **RAF**, and to hasten the training of pilots for the war training scheme. He suggested that all pilots destined for the **RAF** should be fully trained in New Zealand. This included the sixty per annum which New Zealand was

already training, and the 150 to 160 men who were being selected and despatched for training with the **RAF** under the short-service scheme. Further, he proposed to train sixty pilots a year for employment in the **RNZAF**. This involved expanding the SFTS at **Wigram** to produce 140 pilots a year and the opening of a new SFTS at **Blenheim** to produce another 140. The expansion was to be completed by December 1940. These proposals were accepted by the **New Zealand Government**, and the new expansion programme started in June 1939.

Another development in 1939 was the establishment of a factory for producing training aircraft in New Zealand. As a result of an agreement between the British Government and the De Havilland Aircraft Company, the **De Havilland Aircraft Company of New Zealand Limited** was incorporated in March. A factory was built at **Rongotai, Wellington**, and the production of Tiger Moth training aircraft started early in 1940.

The New Zealand Government asked the British Government if it was prepared to contribute to the cost of the extra aircraft required to enable the expansion to take place. The Home Government replied that it could not make a direct contribution, but agreed to increase the sum paid for each fully trained pilot from £1550 to £1700 sterling. Taking into account the numbers it was proposed to train, it was considered that this would result in the New Zealand Government receiving approximately the same amount as would have been paid if a direct contribution to the cost of 100 Tiger Moth aircraft had been made.

ROYAL NEW ZEALAND AIR FORCE

DEVELOPMENT OF THE TERRITORIAL AIR FORCE

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With the expansion of the Regular Air Force proceeding, the **Territorial Air Force** also was reorganised and put on a working basis.

The four squadrons which had been established in 1930 were still in 1937 only a paper force. They had no ground staff or equipment, and of the seventy officers who composed them, many were pilots of the 1914–18 war and over forty years of age.

The demands of the regular force's expansion programme limited the finance and training facilities available for a Territorial Air Force; but it was considered that properly constituted and equipped Territorial squadrons could play an important part in home defence and coastal patrol work, and that their formation would be justified. As their role would not involve them in continued contact with the enemy, they could be manned by older and less highly trained men than the regular squadrons, and equipped with older and less expensive aircraft. Furthermore, their employment would release the regular squadrons for duty elsewhere.

Consequently, it was decided to form squadrons in each of the four main centres, and equip them with obsolescent aircraft which could be bought cheaply from the **RAF**. The first to be authorised was the Wellington Territorial Squadron, whose formation was approved in Cabinet in July 1937. In February 1938 the formation of squadrons at **Christchurch** and **Auckland** was approved, and in the following month the Dunedin squadron was authorised.

In July 1937 twelve Baffin aircraft were ordered for the Wellington Squadron, at a cost of £200 each, and later in the year applications were called for from pilots and ground staff to man the squadron.

It was to be organised as three flights. No. 1, a reconnaissance flight, was to be equipped with twin-engined civil aircraft which would be taken over on the outbreak of war. It was to be manned, as far as possible, by the personnel normally operating the aircraft. Nos. 2 and 3 flights were to be equipped with six Baffins each. One aircraft per flight was to be kept at **Rongotai** for evening and weekend flying. The others were to be stored in peacetime at **Ohakea** and brought into use only at the annual training camp.

By January 1938 approximately twenty officers and ninety airmen had been enrolled. The Commanding Officer was Squadron Leader **Gibson**.¹ Technical personnel were drawn mainly from the Hutt railway workshops, and a number of them were given a course of training at **Hobsonville** as instructors to the others in the maintenance of aircraft. A training camp was held in January, when nineteen officers and sixty airmen had a ten-days' disciplinary course at **Trentham**.

The squadron's aircraft arrived in March and flying training was begun. In May the Chief of Air Staff ordered a public display by the **RNZAF**, which was held at **Rongotai**. The Wellington Territorial Squadron took part, and also twelve aircraft from Wigram. In October the squadron carried out its first operational exercises in co-operation with HMS *Achilles*, and at the end of the year exercises were carried out with HMS *Wellington*.

Recruiting for the Christchurch Territorial Squadron began in April 1938. Squadron Leader **Stedman**,² chief instructor at the Canterbury Aero Club, was appointed Commanding Officer, and by November the strength of the squadron was fourteen officers and seventy-eight airmen. The squadron was equipped with Baffin aircraft, of which the first arrived in September.

Starting in October, a number of refresher courses were held at **Wigram** for Territorial pilots. The courses lasted twelve days and consisted of flying practice on service-type aircraft.

In February 1939 the Christchurch Territorial Squadron received its first permanent maintenance staff—two NCOs, four fitters, and four riggers. They were assisted in the maintenance of the aircraft by the Territorial fitters and riggers at weekend parades, and also acted as instructors. Early in March the squadron held its first training camp. Flying training was carried out on four days, and six days were spent on drilling and other ground instruction.

The Auckland Territorial Squadron was formed in June 1938, with Squadron Leader **Allan**³ as Commanding Officer. In October its strength was eighteen officers and fifty-nine airmen. When its aircraft became available a few months later, it started weekend training at **Hobsonville**. Training consisted of pilot navigation, ship recognition, search and patrol technique, and bombing.

At the end of March 1939 the strength of the Territorial Air Force was:

Wellington Squadron	18 officers, 96 airmen
Christchurch Squadron	17 officers, 92 airmen
Auckland Squadron	20 officers, 77 airmen

In addition a further twenty-one Territorial officers had been appointed, but were not attached to any particular squadrons. The Dunedin Squadron, although it had been authorised, had not been formed when war broke out. In June and July, on account of the imminence of war, all available **Territorial Air Force** pilots were sent to **Wigram** for a two-months' general reconnaissance course.

¹ **Wg Cdr E. A. Gibson**, OBE; **Wellington**; born **Wellington**, 6 Aug 1896; engineer.

² **Wg Cdr G. L. Stedman**, ED; **Wellington**; born **Timaru**, 27 Oct 1891; flying instructor; **Canterbury Mounted Rifles (Lt)** 1914–17; transferred to **RFC**.

³ **Sqn Ldr D. M. Allan; born Waipukurau, 15 Sep 1896; sheep farmer; killed in aircraft accident 12 Mar 1940.**

ROYAL NEW ZEALAND AIR FORCE

THE AERO CLUBS AND THE CIVIL RESERVE OF PILOTS

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A useful part, supplementary to the activities of the **Air Force**, was played by aero clubs in the training of pilots. Since the beginning of club flying in New Zealand in 1929 and 1930, the Government had recognised the value of the training they gave by paying the clubs £25 for each pilot trained to 'A' Licence standard and by helping to provide aircraft. In 1937 this policy was reviewed. The 'A' Licence standard was too low to be of much practical value, and in numerous cases the State got no return for the subsidy, since many of the trainees were not medically fit for service and commercial flying. In addition it was found that most of the clubs were running at a loss and were on the verge of bankruptcy.

The basic training given by the clubs was potentially of great value in preparing pilots for the **Air Force**, and in order to get the best possible results the whole scheme of financial assistance was changed.

In addition a Civil Reserve of Pilots was instituted; it was open to candidates who reached the required standard of education and physical fitness and who volunteered to serve in the **RNZAF** in case of emergency. The Government agreed to pay for the initial flying training of civil reservists, which was fixed at forty hours in the first year and two refresher courses of ten hours each in the succeeding years.

The numbers to be trained by the clubs under these schemes were limited to fifty **Air Force** candidates and one hundred civil reservists each year. It was hoped by these means not only to help the expansion of the **RNZAF**, but also to build up a reserve of pilots who could be converted to higher-powered aircraft when required.

The scheme was under the general supervision of the Air Member for

Personnel, Group Captain Isitt. Flight Lieutenant **Burrell**¹ was appointed Superintendent of Reserves and, under the direction of Isitt, he coordinated the methods of training and testing all trainees to ensure that they reached a satisfactory standard. Two courses for aero club instructors were held at **Wigram**, where the latest methods of instruction were demonstrated to ensure uniformity of methods and instruction.

The scheme was reviewed in 1938, and again in 1939, when the number of civil reservists to be trained was increased from 100 to 150 per annum.

¹ **Wg Cdr H. B. Burrell**, OBE; **Norfolk Island**; born Feilding, 2 Aug 1897; motor engineer.

ROYAL NEW ZEALAND AIR FORCE

CIVIL RESERVE OF GROUND STAFF

CIVIL RESERVE OF GROUND STAFF

In September 1938 it was decided to compile a register of tradesmen and potential administrative and technical officers who could be called upon to serve with the **RNZAF** in event of emergency. The Munich crisis made it appear that war might break out at any time, and the scheme was put into effect immediately. It was widely publicised by the press and radio, and by posters and circulars to employers. In particular, all garages and engineering firms were asked to bring the scheme to the notice of their employees, as fitters were most urgently required. Applications embracing the following **Air Force** trades were called for:

Wireless operator	Radio mechanic
Electrician	Photographer
Instrument maker	Fabric worker
Coppersmith	Cabinetmaker
Sheet-metal worker	Clerk and storeman
Fitter gunsmith	

Men between the ages of 22 and 55 were invited to enrol, and by doing so were required, in the event of war, to join the **RNZAF** for service within New Zealand.

Enrolment forms were distributed to all post offices by 20 December, and three weeks later a total of 3845 applications had been received, comprising 655 Group I (professional men), 1790 Group II (skilled tradesmen), and 1400 Group III (administrative tradesmen). From these a register of reservists was compiled which comprised three lists: one alphabetical, one geographical, and one by trades.

During the following year as many of the reservists as possible were interviewed by investigating officers appointed for the purpose, so that a better basis could be obtained for assessing their potential value to the

RNZAF. At the outbreak of war a number of reservists were called up for immediate employment at **Hobsonville** and Wigram.

The expansion of the **RNZAF** immediately before the war was so rapid that the Technical Training School at **Hobsonville** could not train sufficient fitters and riggers for the service. It was therefore decided that a number of airmen should be trained in the railway workshops at Otahuhu, Hutt, Addington, and Hillside. Previously it had been planned that a number of the workshops apprentices should be given a course in **Air Force** trades at the conclusion of their Railways training. On completing their course the trainees were to be posted to the Civil Reserve and were liable to join the **Air Force** in the event of war.

The two schemes were combined, and technical training centres were opened in each of the railway workshops. The first to begin training was at Hutt, in July 1939. The others received their first intakes shortly after the war began. The scheme continued until September 1940, when the increased facilities for technical training within the **RNZAF** made it possible to close the technical training centres. During their period of operation the centres trained a total of 595 flight riggers and flight mechanics.

ROYAL NEW ZEALAND AIR FORCE

RNZAF AT OUTBREAK OF WAR

RNZAF AT OUTBREAK OF WAR

When war broke out, although the projected peacetime expansion of the **RNZAF** was far from complete, appreciable progress had been made. The building programme for No. 1 Flying Training School at **Wigram** was nearly finished, and that for No. 2 Flying Training School at **Blenheim** was approximately half completed. The building programme for the new operational station at **Ohakea** was approximately three-quarters completed, and at **Whenuapai** the aerodrome had been prepared and construction of buildings commenced. **Hobsonville** was in the process of expansion and the work was half done. At **Taieri**, which was to house the fourth Territorial squadron, the construction of buildings had just begun.

The Vickers Wellington aircraft which had been ordered for the two permanent bomber squadrons were being collected at Marham in England, where a number of **RNZAF** officers, under the command of Squadron Leader **Buckley**,¹ were under training preparatory to flying the aircraft to New Zealand. A stock of bombs and ammunition had been built up in the Dominion and was sufficient for twelve months' operations.

The Territorial squadrons at **Auckland**, **Wellington**, and **Christchurch** had been established and were in various stages of training. A civil reserve existed of pilots who had been trained by the aero clubs to the elementary stage, and a civil reserve of ground staff comprising the register of skilled tradesmen and others who had volunteered to join the **RNZAF** in case of war. The railway workshops scheme for training flight mechanics and flight riggers was progressing satisfactorily, and training had started at the Hutt Workshops.

The aircraft available comprised the obsolescent service-type

machines of the Territorial squadrons, and others in use at the Flying Training School at [Wigram](#), a number of multi-engined commercial types which could be taken over, and approximately sixty elementary training machines belonging to aero clubs.

The strength of the [RNZAF](#) at the outbreak of war, exclusive of reserves, was:

Regular Air Force 91 officers, 665 airmen

[Territorial Air Force](#) 79 officers, 325 airmen

The Headquarters organisation which had been developed over the past two and a half years comprised the Chief of Air Staff, Group Captain Saunders, who had succeeded Group Captain Cochrane in March 1939; the Air Force Member for Personnel, Group Captain Isitt; the Air Force Member for Supply, Wing Commander Nevill; and the Air Secretary, Mr Barrow. Group Captain Wilkes was Controller of Civil Aviation.

¹ **[Air Cdre M. W. Buckley](#), CBE, m.i.d., Legion of Merit (US); [Wellington](#); born [Seacliff](#), 3 Aug 1895; sheep farmer; [RNAS](#) and [RFC](#) 1916–20; [NZAF](#) 1923–26; joined [NZPAF](#) 1926; attached [RAF](#) on exchange, 1937–41; commanded No. 75 (NZ) Sqn, [RAF](#), 1940–41, and [RAF Station, Feltwell](#), 1941; [AOC Northern Group](#), 1942–43, and [No. 1 \(Islands\) Group](#), 1943–44; [DCAS](#) 1945; [AOC \[RNZAF\]\(#\) HQ, \[London\]\(#\)](#), 1946–50.**

ROYAL NEW ZEALAND AIR FORCE

CHAPTER 4 – OUTBREAK OF WAR WITH GERMANY AND INITIAL MOBILISATION AND TRAINING

CHAPTER 4

Outbreak of War with Germany and Initial Mobilisation and Training

DURING the last week in August 1939, international tension rose rapidly and it was clear that war was not far off. On the 24th the **New Zealand Government** advised Air Department that the 'Alert' stage had been declared, and the **RNZAF** was instructed to take appropriate action. New Zealand offered to place at the disposal of the **RAF** the **Wellington** aircraft in the **United Kingdom** which were about to be sent to the Dominion, and the **RNZAF** personnel who were to bring them out. This offer was accepted by the British Government. At the same time the British Government agreed that the **RAF** officers on loan in New Zealand should be retained to serve with the **RNZAF**.

On the 27th all personnel in the Armed Forces were recalled from leave and naval control of shipping was instituted. The next day the first mobilisation instruction was issued, ordering that in the event of general mobilisation the **RNZAF** depot at **Hobsonville**, the three Territorial squadrons, and the Flying Training School at **Wigram** were to be mobilised and brought up to full war establishment with the minimum of delay.

On 1 September the Governor-General issued a proclamation of emergency, a proclamation transferring the Reserve to the Regular **Air Force**, and a proclamation declaring the **Territorial Air Force** liable for continuous service.

On the 2nd the British Government signalled that the 'Precautionary' stage had been adopted against **Germany** and **Italy**, and that the British Army and the **Royal Air Force** had been ordered to mobilise. The next day the Prime Minister's Office advised Air Department: 'War has broken out with **Germany** as from 9.30 p.m.' The Royal New Zealand Air Force was ordered to mobilise.

The Territorial squadrons were immediately called up for mobilisation. The Christchurch Squadron reported for duty at **Wigram** at

9 a.m. on the 4th, and stood by continuously for operations from that time. The Commanding Officer, Squadron Leader Stedman, who was Chief Instructor at the Canterbury Aero Club, could not be released for full-time active-service duties, and Flight Lieutenant **Roberts**¹ was appointed to the command. The squadron was equipped with six Baffin aircraft. On mobilisation training was intensified, and included navigation, reconnaissance, operational control procedure for pilots, training for wireless operator/air-gunners, and an extended programme of front and rear gunnery and bombing.

The Auckland Territorial Squadron mobilised at **Hobsonville** under the command of Flight Lieutenant **Monckton**,² who acted as Officer Commanding for a few days. Squadron Leader **Coull**³ was then posted to the squadron and assumed command. Like the Christchurch Squadron it engaged in intensive training; and it remained at instant readiness owing to the danger of submarines in the **Hauraki Gulf**.

Three days after war was declared the Wellington Squadron moved from **Rongotai** to **Blenheim**. Squadron Leader Gibson was required for other duties and was replaced as Commanding Officer by Squadron Leader **Sinclair**.⁴ From **Blenheim** the squadron operated as a general reconnaissance squadron and carried out submarine patrols and shipping escort duties over the approaches to **Wellington**.

Although the war training organisation was incomplete, enough personnel and equipment were available to put it partially into action. It was decided, therefore, to proceed at once with a modified war training scheme, using what aircraft and instructors there were, and to expand the organisation as quickly as possible. The programme called for the immediate establishment of a recruit training school and a flying instructors' school. Elementary flying training schools were to be formed at **Taieri** and **New Plymouth**, and an air-gunners' and observers' school at **Ohakea**. The Flying Training School at **Wigram** was already in operation, and the second Flying Training School was to be formed at **Blenheim** before the end of the year. A third EFTS and FTS were to form at **Palmerston North** and **Harewood** respectively in March and April 1940.

On 11 September Air Department issued a call for volunteers, both for aircrew and for ground staff. The response was excellent, although applications from the Civil Reserve of Ground Staff were not as many as expected. Volunteers were required to serve for the duration of the war, either in the **RNZAF** or in the **RAF**. For aircrew the age limits were 17 ½ to 28 years. The men had to be unmarried, able to pass the prescribed medical examinations, and

¹ **Air Cdre G. N. Roberts, CBE, AFC, Legion of Merit (US); Auckland; born Inglewood, 8 Dec 1906; company representative; SSC RAF, 1929–34; NZTAF 1937–39; RNZAF 1939–46; Commander NZ Air Task Force, Solomons, 1944–45; General Manager, TEAL, 1946—.**

² **Sqn Ldr C. L. Monckton; Waipukurau; born Waipukurau, 19 Sep 1908; farmer.**

³ **Wg Cdr W. G. Coull; Christchurch; born Dunedin, 25 May 1898; company manager.**

⁴ **Wg Cdr R. J. Sinclair; Pahiatua; born Masterton, 3 Jun 1899; farmer.**



MAIN RNZAF WARTIME ESTABLISHMENT

educated up to the standard of School Certificate or University Entrance Examination.¹

It soon became apparent, however, that if conditions of enlistment were not changed the supply of men with the necessary educational qualifications would be exhausted fairly soon, while many potentially good men would be lost to aircrew because they just failed to come up to the educational requirements. In November, therefore, the requirements were modified as follows:

Pilots had to be educated to approximately University Entrance standard;

Air observers must have had two years' secondary education; and

Air-gunners must be able to be taught to send and receive Morse.

Conditions of enlistment for non-flying personnel were that they should be physically fit, up to **RNZAF** standards, be educated up to the sixth standard or its equivalent, be up to the required trade standard, and have the required experience in the trade in which they wished to enlist. They should preferably be unmarried and between the ages of 18 and 35.

Two selection committees were set up in Air Department, one for aircrew and the other for ground crew. The committees toured New Zealand interviewing candidates in the different centres.

¹ The insistence on educational standards evoked a number of letters to Air Department and to the Minister of Defence on the subject of class distinction, and complaints to the effect that it was not fair that only those who could afford a higher education should be able to volunteer for aircrew.

FORMATION OF SCHOOLS

The first necessity for carrying out the training plan was a flying

instructors' school. This was formed at the Auckland Aero Club's aerodrome at **Mangere** on 10 September under the command of Squadron Leader D. M. Allan, Chief Instructor of the **Auckland Aero Club**. In the two months immediately before the war Wing Commander **Hodson**² and Squadron Leader **Calder**,³ Commanding Officer and Chief Flying Instructor at **Wigram**, had visited all aero clubs in New Zealand and tested all their flying instructors. As a result a number of instructors had been given refresher courses at the Auckland Aero Club to bring their methods up to date so that the Civil Reserve and **Air Force** training carried out by the clubs should be improved. The first course at the new flying instructors'

² **Air Cdre G. S. Hodson**, CBE, AFC; **RAF**; born England, 2 May 1899; attached **RNZAF** on loan, 1938–43.

³ **Air Cdre M. F. Calder**, CBE; **RNZAF**; born **Temuka**, 28 Aug 1907; **RAF** 1931–39; **RNZAF** 1939—; D of Training 1942–43; D of Postings and Personal Services 1944–45; AMP 1945–47 and 1952–53; AOC **RNZAF** HQ, **London**, Jan 1954—.

school was a further refresher course for aero club instructors. The next two courses were composed of experienced aero club pilots, and thereafter the majority of trainees were ex-pupils of the flying training schools.

Trainees did approximately a hundred hours' flying in their course, of which ten hours were dual instruction with a staff instructor. For the remainder of the time pupils flew in pairs practising their 'patter' upon one another. All phases of flying were practised, including aerobatics, instrument flying and night flying. After the third or fourth course lectures were introduced covering airmanship, the art of instructing, etc.

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planned to build a station to house the Dunedin Territorial Squadron, work had not begun when war broke out, and the station was constructed by the Public Works Department and ready for use six weeks after work commenced.

Squadron Leader Stedman was appointed Commanding Officer with Flying Officer **Burbidge**¹ as Chief Flying Instructor. The flying squadron was divided into two flights with eight Tiger Moths each, and at first operated from No. 1 hangar, which was the only one completed when the school opened. Maintenance staff for the first fortnight consisted of Flying Officer **Temple**² and Sergeant **Simpson**,³ with eighteen airmen who were entirely untrained and most of whom had hardly seen an aircraft before. Only Temple and Simpson were capable of doing the daily inspections on the aircraft and certifying them fit to fly. In the first three days and nights of the school's operation Simpson had only six hours' sleep.

The first course of sixteen acting pilot officers arrived on the opening day, and at the last minute a further sixteen Civil Reserve pilots were posted to the school for a short refresher course before going to Wigram. The majority of them were partially trained aero club pilots who, but for the outbreak of war, would have gone direct to **Wigram** to train for short-service commissions with the **RAF**.

No. 2 Elementary Flying Training School was formed at Bell Block, **New Plymouth**, in November. The building of the station had started on 9 September and the **RNZAF** took it over in the middle of October. Flight Lieutenant **Upham**⁴ was appointed Commanding Officer, and the staff arrived in the third week of November. The original instructors were all ex-aero club pilots who

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had done a course at **Mangere**, and most of them had been members of the Western Federated Clubs. Unlike **Taieri, New Plymouth** did not at first have Tiger Moth aircraft but used an assortment of light machines which had been taken over from the aero clubs.

The last flying training school to begin operations before the end of the year was No. 2 FTS at **Woodbourne**. Work on the station to make it into a training school had been begun early in 1939, and by December was nearly enough completed to allow the school to be opened. Wing Commander Caldwell was appointed Commanding Officer and Squadron Leader **Nicholl** ¹ Chief Flying Instructor. The first course of eighteen airmen pilots arrived on 28 December.

The operational station at **Ohakea** was nearly completed when war broke out, and on 18 September the station was formed with Flight Lieutenant **Gedge** ² as Commanding Officer. Its main function was to train observers and air-gunners, but for the first few weeks of its existence it acted also as a Recruit Training Depot. The first course of recruits arrived on the 20th. After a month's training in drill and **Air Force** discipline they were posted to other stations. Observer and air-gunner training started on 20 November, after the pupils had been at **Ohakea** for a month doing a recruit training course.

In order to man the flying training schools a large increase in technical and administrative staff was necessary. A number of tradesmen registered in the Civil Reserve were enlisted and posted to stations after a short disciplinary course. It was also necessary to form a

second Technical Training Depot in addition to the one already operating at **Hobsonville**. This depot was formed at **Wigram** in September to train wireless operators, wireless electrical mechanics, instrument makers and repairers, armourers and fitter armourers. Later Wigram was to become the home of an Electrical and Wireless School,³ but in the first few months of the war the work of the school was carried out at Canterbury University College. Early in 1940 trained technical personnel became available from the courses held in the railway workshops.

¹ **Gp Capt B. S. Nicholl; RNZAF; born Christchurch, 5 Dec 1906; journalist; D of Flying Training 1947–48; D of Reserves 1951; D of Postings and Personal Services 1951–52; CO Wigram 1952–54.**

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Training on a wartime basis started in October 1939. Owing to lack of space at **Wigram**, it was carried out at the School of Engineering, Canterbury University College. Personnel were accommodated at Rolleston House (students' quarters).

Initial numbers under training were 60 (two classes of wireless operators and one of wireless electrical mechanics). In December two more classes of wireless operators started training, making the total strength 100. In January 1940 the school returned to **Wigram**, where premises had been built for it.

An Administrative Training School was formed at **Wigram** in October to train stores accounting clerks, pay accounting clerks, general duties clerks, and equipment assistants.

An Initial Training School was formed at **Rongotai** as a recruiting

centre for pilots, observers, and air-gunners, and a course of thirty acting pilot officers began training on 20 September. A month later the Initial Training School moved to **Levin**, where the Government Training Farm at Weraroa had been taken over for the purpose. The first course of airmen pilots, observers, and air-gunners started training there on 20 October.

Early in November it was decided to delay the development of **Palmerston North** and Harewood as flying training schools pending the result of discussions in **Canada** on an Empire Air Training Scheme.

AIRCREW TRAINING

Recruits for aircrew were posted on enlistment to the Ground Training School, or the Initial Training Wing as it later became known. There they were formally attested, kitted, and given a four weeks' course of basic service training and drill. They attended lectures in subjects which would help them in their future careers, including elementary navigation, mathematics, airmanship, **Air Force** law, discipline and hygiene. Those who completed the course satisfactorily were then posted either to an Elementary Flying Training School or to the Observer and Air Gunnery School.

The pilots then did an eight-weeks' course at an EFTS. There they divided their time equally between learning to fly elementary aircraft and continuing their ground studies. Besides learning to fly light aircraft, they were also trained in elementary map reading and pilot navigation. The basic training given at elementary schools varied little throughout the war, although by 1945 instruction was more standardised than it was in the early years. The main developments in the EFTS syllabus were the introduction of night flying in 1941, more specialised instruction in pilot navigation in 1942, and increased emphasis on instrument flying during the latter half of the war.

Flying instruction was the responsibility of the Chief Flying Instructor, and the instructing staff was organised into flights of from

six to nine instructors. Ground instruction and the general discipline of pupils were the responsibility of the Chief Ground Instructor, who had under him a number of officers and NCOs who instructed the pupils in their various subjects. The pupils were divided into squads, each squad spending half the day on lectures and the other half flying.

From EFTS those pupils who had passed their tests successfully graduated to an SFTS. There they spent eight weeks in the Intermediate Training Squadron learning to fly service-type aircraft, and then passed on to the Advanced Training Squadron for another eight weeks and learnt how to apply their flying training in air gunnery, bombing, and navigational exercises. As at EFTS, they spent half their time at lectures, under the control of the Chief Ground Instructor, and half in flying.

The Chief Flying Instructor, who was also Officer Commanding Intermediate Training Squadron, was responsible for pure flying training and also for airfield discipline for the whole station. The Officer Commanding Advanced Training Squadron was responsible for all the applied flying training. New Zealand was the only country operating under the Commonwealth Air Training Plan in which the SFTSs retained the two-squadron organisation with a distinct break between intermediate and advanced training. In the latter part of the war at No. 1 SFTS, **Wigram**, the two squadrons were co-ordinated for administrative purposes into a flying wing under the control of a Wing Commander Flying.

Those pupils who successfully passed out of ATS were posted to the **RAF**, with the exception of the top three or four of each course, who were retained in New Zealand for further training as flying instructors. Later in the war, when operational training units were established, many pupils went to them after leaving SFTS.

Observers and air-gunnery went to **Ohakea** when they left the Ground Training School. There they spent their time in lectures and in learning the practical sides of their trades. Air-gunnery started their

practical training in the air with camera guns and then progressed to firing machine guns, first at targets on the ground and then at drogues towed by other aircraft. An important part of their training was signalling. Their course lasted for four weeks, after which they were ready for posting overseas.

Observers, whose first four weeks' ground training was the same as that of the air-gunners, remained at the school for a further eight weeks, specialising in navigation. Their flying training comprised navigational exercises and bombing.

EDUCATIONAL TRAINING

When it was decided to reduce the educational requirements for aircrew recruits, it was clear that a system of pre-entry training would be necessary to bring those who had not had sufficient secondary education up to a standard high enough to enable them to cope with aircrew training. In October 1939 Mr Edward **Caradus,¹ Senior Inspector of Secondary Schools, was appointed Director of Educational Services to the **RNZAF** in the honorary rank of Wing Commander. He prepared a scheme of educational training which covered elementary navigation, mathematics, elementary science, and some service subjects.**

Prospective aircrew trainees who did not appear to measure up to educational requirements were obliged to complete the course after being accepted by the selection committee and before being called up for service training. At first those who already had sufficient educational qualifications did not have to do the pre-entry course. After a few weeks, however, it was found that men who were nominally up to standard were at a disadvantage on entering their service training in comparison with those who had done the pre-entry course. It was therefore decided that all except those with very high qualifications should take the course.

In towns where there were twenty or more applicants, instruction was given in evening classes, in most cases in secondary schools or technical colleges. Where there were not sufficient numbers to warrant

the formation of a class, and also for men living in the country, correspondence courses were conducted from Air Department.

¹ **Wg Cdr E. Caradus, OBE; Wellington; born Auckland, 6 Dec 1885; civil servant; Director of Educational Services, RNZAF, 1939–45.**

EQUIPMENT

As the peacetime expansion of the **RNZAF** was planned to be completed in 1941, there were in 1939 many deficiencies of all types of equipment. The immediate expansion at the beginning of the war made it necessary to improvise, and to explore the possibilities of having goods made locally, to fill the gaps. Aircraft for the training scheme were still arriving. The Vildebeestes already in the country, twelve in number, had been new when they were bought and were in good condition. The Baffin aircraft of the Territorial squadrons, however, were secondhand and required much work to keep them serviceable. Other aircraft imported for training were Fairey Gordons and Vickers Vincents. Both these types had seen long service in the **Middle East**. Some of them, in addition, had been stored for a considerable time and various parts, particularly rubber parts, had deteriorated badly. Spare parts were in short supply and an even greater difficulty was caused by a lack of machine tools. These factors put a heavy strain on the Assembly Depot at **Hobsonville** and on the maintenance organisation throughout the **RNZAF**.

Supplies of uniforms and clothing were also difficult to obtain, largely because of the heavy Army contracts which were being filled.

Large orders for all types of equipment were placed in the United Kingdom through the New Zealand Liaison Officer in **London**, Wing Commander Wallingford, and efforts were also made to procure goods from **Australia**. In New Zealand a Defence Purchasing Committee was formed to explore the possibilities of local resources. By the end of the

year the immediate deficiencies were remedied, with the exception of some types of equipment which could not be made in New Zealand and which it was impossible to obtain immediately from overseas.

AIR HEADQUARTERS' ORGANISATION

The very rapid expansion of the **Air Force** necessitated a corresponding expansion and reorganisation of Air Headquarters. The two branches which were most affected were those connected with training and with equipment.

In the branch of the Chief of Air Staff, which was responsible for training, the following appointments were made. Squadron Leader E. M. F. Grundy became Air I, responsible for operations and operational training and for liaison with Army and Navy. Flight Lieutenant J. D. Canning was appointed Air II, responsible for intelligence and internal security. Squadron Leader Olson was appointed TF I (Training Flying I), and was responsible for the training carried out at all FTSS, the training of flying instructors, of air-gunners and observers, and of recruits. Flight Lieutenant J. Buckeridge was designated TF II, and was responsible for flying training at EFTSS, and for training at all ground training schools. Flight Lieutenant P. E. Hudson became T Nav, responsible for navigation training and photographic training. Squadron Leader L. Crocker was appointed T Tech, in charge of technical training of all personnel at schools of technical training. Flight Lieutenant I. A. Scott became T Sigs, in charge of the training of signals personnel and also responsible for communications and the maintenance of electrical and wireless equipment.

The Equipment Branch, which at the beginning of September had a strength of two officers, one NCO and two civilian clerks, expanded in two months to seven officers and thirty clerks.

Other sections of Headquarters grew likewise. All new personnel had to be initiated into the workings of the service and had to learn their various duties as they did them. The lack of experienced staff was a

serious obstacle to the efficient administration of the service, and gave rise to problems which became apparent later; but, considering the difficulties of the time, the organisation worked well.

ROYAL NEW ZEALAND AIR FORCE

[SECTION]

DURING the last week in August 1939, international tension rose rapidly and it was clear that war was not far off. On the 24th the **New Zealand Government** advised Air Department that the 'Alert' stage had been declared, and the **RNZAF** was instructed to take appropriate action. New Zealand offered to place at the disposal of the **RAF** the **Wellington** aircraft in the **United Kingdom** which were about to be sent to the Dominion, and the **RNZAF** personnel who were to bring them out. This offer was accepted by the British Government. At the same time the British Government agreed that the **RAF** officers on loan in New Zealand should be retained to serve with the **RNZAF**.

On the 27th all personnel in the Armed Forces were recalled from leave and naval control of shipping was instituted. The next day the first mobilisation instruction was issued, ordering that in the event of general mobilisation the **RNZAF** depot at **Hobsonville**, the three Territorial squadrons, and the Flying Training School at **Wigram** were to be mobilised and brought up to full war establishment with the minimum of delay.

On 1 September the Governor-General issued a proclamation of emergency, a proclamation transferring the Reserve to the Regular **Air Force**, and a proclamation declaring the **Territorial Air Force** liable for continuous service.

On the 2nd the British Government signalled that the 'Precautionary' stage had been adopted against **Germany** and **Italy**, and that the British Army and the **Royal Air Force** had been ordered to mobilise. The next day the Prime Minister's Office advised Air Department: 'War has broken out with **Germany** as from 9.30 p.m.' The Royal New Zealand Air Force was ordered to mobilise.

The Territorial squadrons were immediately called up for

mobilisation. The Christchurch Squadron reported for duty at Wigram at 9 a.m. on the 4th, and stood by continuously for operations from that time. The Commanding Officer, Squadron Leader Stedman, who was Chief Instructor at the Canterbury Aero Club, could not be released for full-time active-service duties, and Flight Lieutenant Roberts ¹ was appointed to the command. The squadron was equipped with six Baffin aircraft. On mobilisation training was intensified, and included navigation, reconnaissance, operational control procedure for pilots, training for wireless operator/air-gunners, and an extended programme of front and rear gunnery and bombing.

The Auckland Territorial Squadron mobilised at Hobsonville under the command of Flight Lieutenant Monckton, ² who acted as Officer Commanding for a few days. Squadron Leader Coull ³ was then posted to the squadron and assumed command. Like the Christchurch Squadron it engaged in intensive training; and it remained at instant readiness owing to the danger of submarines in the Hauraki Gulf.

Three days after war was declared the Wellington Squadron moved from Rongotai to Blenheim. Squadron Leader Gibson was required for other duties and was replaced as Commanding Officer by Squadron Leader Sinclair. ⁴ From Blenheim the squadron operated as a general reconnaissance squadron and carried out submarine patrols and shipping escort duties over the approaches to Wellington.

Although the war training organisation was incomplete, enough personnel and equipment were available to put it partially into action. It was decided, therefore, to proceed at once with a modified war training scheme, using what aircraft and instructors there were, and to expand the organisation as quickly as possible. The programme called for the immediate establishment of a recruit training school and a flying instructors' school. Elementary flying training schools were to be formed at Taieri and New Plymouth, and an air-gunners' and observers' school at Ohakea. The Flying Training School at Wigram was already in operation, and the second Flying Training School was to be formed at Blenheim before the end of the year. A third EFTS and FTS were to form at

Palmerston North and Harewood respectively in March and April 1940.

On 11 September Air Department issued a call for volunteers, both for aircrew and for ground staff. The response was excellent, although applications from the Civil Reserve of Ground Staff were not as many as expected. Volunteers were required to serve for the duration of the war, either in the **RNZAF or in the **RAF**. For aircrew the age limits were 17 ½ to 28 years. The men had to be unmarried, able to pass the prescribed medical examinations, and**

¹ Air Cdre G. N. Roberts, CBE, AFC, Legion of Merit (US); Auckland; born Inglewood, 8 Dec 1906; company representative; SSC RAF, 1929–34; NZTAF 1937–39; **RNZAF 1939–46; Commander **NZ Air Task Force, Solomons**, 1944–45; General Manager, TEAL, 1946—.**

² Sqn Ldr C. L. Monckton; Waipukurau; born Waipukurau, 19 Sep 1908; farmer.

³ Wg Cdr W. G. Coull; Christchurch; born Dunedin, 25 May 1898; company manager.

⁴ Wg Cdr R. J. Sinclair; Pahiatua; born Masterton, 3 Jun 1899; farmer.



MAIN RNZAF WARTIME ESTABLISHMENT

educated up to the standard of School Certificate or University Entrance Examination. ¹

It soon became apparent, however, that if conditions of enlistment were not changed the supply of men with the necessary educational qualifications would be exhausted fairly soon, while many potentially good men would be lost to aircrew because they just failed to come up to the educational requirements. In November, therefore, the requirements were modified as follows:

Pilots had to be educated to approximately University Entrance standard;

Air observers must have had two years' secondary education; and

Air-gunnery must be able to be taught to send and receive Morse.

Conditions of enlistment for non-flying personnel were that they should be physically fit, up to RNZAF standards, be educated up to the sixth standard or its equivalent, be up to the required trade standard, and have the required experience in the trade in which they wished to enlist. They should preferably be unmarried and between the ages of 18 and 35.

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The Chief Flying Instructor, who was also Officer Commanding Intermediate Training Squadron, was responsible for pure flying training and also for airfield discipline for the whole station. The Officer Commanding Advanced Training Squadron was responsible for all the applied flying training. New Zealand was the only country operating under the Commonwealth Air Training Plan in which the SFTSs retained the two-squadron organisation with a distinct break between intermediate and advanced training. In the latter part of the war at No. 1 SFTS, **Wigram**, the two squadrons were co-ordinated for administrative purposes into a flying wing under the control of a Wing Commander Flying.

Those pupils who successfully passed out of ATS were posted to the **RAF**, with the exception of the top three or four of each course, who were retained in New Zealand for further training as flying instructors. Later in the war, when operational training units were established, many pupils went to them after leaving SFTS.

Observers and air-gunnery went to **Ohakea** when they left the Ground Training School. There they spent their time in lectures and in learning the practical sides of their trades. Air-gunnery started their practical training in the air with camera guns and then progressed to firing machine guns, first at targets on the ground and then at drogues towed by other aircraft. An important part of their training was signalling. Their course lasted for four weeks, after which they were ready for posting overseas.

Observers, whose first four weeks' ground training was the same as

that of the air-gunners, remained at the school for a further eight weeks, specialising in navigation. Their flying training comprised navigational exercises and bombing.

ROYAL NEW ZEALAND AIR FORCE

EDUCATIONAL TRAINING

EDUCATIONAL TRAINING

When it was decided to reduce the educational requirements for aircrew recruits, it was clear that a system of pre-entry training would be necessary to bring those who had not had sufficient secondary education up to a standard high enough to enable them to cope with aircrew training. In October 1939 Mr Edward **Caradus**,¹ Senior Inspector of Secondary Schools, was appointed Director of Educational Services to the **RNZAF** in the honorary rank of Wing Commander. He prepared a scheme of educational training which covered elementary navigation, mathematics, elementary science, and some service subjects.

Prospective aircrew trainees who did not appear to measure up to educational requirements were obliged to complete the course after being accepted by the selection committee and before being called up for service training. At first those who already had sufficient educational qualifications did not have to do the pre-entry course. After a few weeks, however, it was found that men who were nominally up to standard were at a disadvantage on entering their service training in comparison with those who had done the pre-entry course. It was therefore decided that all except those with very high qualifications should take the course.

In towns where there were twenty or more applicants, instruction was given in evening classes, in most cases in secondary schools or technical colleges. Where there were not sufficient numbers to warrant the formation of a class, and also for men living in the country, correspondence courses were conducted from Air Department.

¹ **Wg Cdr E. Caradus**, OBE; **Wellington**; born **Auckland**, 6 Dec 1885; civil servant; Director of Educational Services, **RNZAF**, 1939–45.

ROYAL NEW ZEALAND AIR FORCE

EQUIPMENT

EQUIPMENT

As the peacetime expansion of the **RNZAF** was planned to be completed in 1941, there were in 1939 many deficiencies of all types of equipment. The immediate expansion at the beginning of the war made it necessary to improvise, and to explore the possibilities of having goods made locally, to fill the gaps. Aircraft for the training scheme were still arriving. The Vildebeestes already in the country, twelve in number, had been new when they were bought and were in good condition. The Baffin aircraft of the Territorial squadrons, however, were secondhand and required much work to keep them serviceable. Other aircraft imported for training were Fairey Gordons and Vickers Vincents. Both these types had seen long service in the **Middle East**. Some of them, in addition, had been stored for a considerable time and various parts, particularly rubber parts, had deteriorated badly. Spare parts were in short supply and an even greater difficulty was caused by a lack of machine tools. These factors put a heavy strain on the Assembly Depot at **Hobsonville** and on the maintenance organisation throughout the **RNZAF**.

Supplies of uniforms and clothing were also difficult to obtain, largely because of the heavy Army contracts which were being filled.

Large orders for all types of equipment were placed in the United Kingdom through the New Zealand Liaison Officer in **London**, Wing Commander Wallingford, and efforts were also made to procure goods from **Australia**. In New Zealand a Defence Purchasing Committee was formed to explore the possibilities of local resources. By the end of the year the immediate deficiencies were remedied, with the exception of some types of equipment which could not be made in New Zealand and which it was impossible to obtain immediately from overseas.

ROYAL NEW ZEALAND AIR FORCE

AIR HEADQUARTERS' ORGANISATION

AIR HEADQUARTERS' ORGANISATION

The very rapid expansion of the **Air Force** necessitated a corresponding expansion and reorganisation of Air Headquarters. The two branches which were most affected were those connected with training and with equipment.

In the branch of the Chief of Air Staff, which was responsible for training, the following appointments were made. Squadron Leader E. M. F. Grundy became Air I, responsible for operations and operational training and for liaison with Army and Navy. Flight Lieutenant J. D. Canning was appointed Air II, responsible for intelligence and internal security. Squadron Leader Olson was appointed TF I (Training Flying I), and was responsible for the training carried out at all FTSs, the training of flying instructors, of air-gunners and observers, and of recruits. Flight Lieutenant J. Buckeridge was designated TF II, and was responsible for flying training at EFTSs, and for training at all ground training schools. Flight Lieutenant P. E. Hudson became T Nav, responsible for navigation training and photographic training. Squadron Leader L. Crocker was appointed T Tech, in charge of technical training of all personnel at schools of technical training. Flight Lieutenant I. A. Scott became T Sigs, in charge of the training of signals personnel and also responsible for communications and the maintenance of electrical and wireless equipment.

The Equipment Branch, which at the beginning of September had a strength of two officers, one NCO and two civilian clerks, expanded in two months to seven officers and thirty clerks.

Other sections of Headquarters grew likewise. All new personnel had to be initiated into the workings of the service and had to learn their various duties as they did them. The lack of experienced staff was a

serious obstacle to the efficient administration of the service, and gave rise to problems which became apparent later; but, considering the difficulties of the time, the organisation worked well.

ROYAL NEW ZEALAND AIR FORCE

CHAPTER 5 – THE BRITISH COMMONWEALTH AIR TRAINING PLAN

CHAPTER 5

The British Commonwealth Air Training Plan

THE German successes in **Poland** in the first weeks of the war convinced the British War Cabinet that air supremacy was necessary if **Britain** was to have any chance of survival. It was decided that a greatly enlarged air force must be built up which would have to carry out continuous and heavy operations. It was anticipated that wastage would be high and that no fewer than 20,000 pilots and 30,000 other aircrew would be needed annually to maintain the required force.

Britain would be unable to train nearly the numbers required. The country was too small to accommodate all the necessary aerodromes, which would take up valuable land needed for agriculture. Also, it was too close to the main theatre of war, and training would probably be interrupted by enemy raids.

It was therefore proposed to form fifty flying training schools, of which twenty-five would be for advanced training, in other parts of the Empire. The obvious country for the location of the main part of the training scheme was **Canada**.¹ She had unlimited space for the development of aerodromes and had considerable industrial potential which could be turned to the manufacture of aircraft and other equipment. In addition, she was close to the resources of the **United States**. **Canada** was therefore suggested as the advanced training ground, while elementary schools were to be established in each Dominion according to its capacity.

Towards the end of September the scheme was proposed to the **New Zealand Government**, and it was decided that air missions from **Britain**, **Australia**, and New Zealand should go to **Canada** in October to discuss it. The New Zealand mission comprised the Chief of the Air Staff, Group Captain Saunders, and the Air Secretary, Mr Barrow. Discussions were held with a committee of the Canadian Cabinet comprising the Minister of Finance, the Minister of National Defence, the Minister of Transport,

and the Minister of Pensions.

¹ Pre-war planning had provided for a large expansion of training throughout the Empire, and after the **Munich** crisis of 1938 **Air Ministry** had proposed to establish **RAF** schools in **Canada**; but various factors had prevented anything being done before the war started.

When the New Zealand mission arrived in **Ottawa** it was informed by the **United Kingdom** mission that proposals had already been submitted to the Canadian and Australian missions as a basis for discussion. They involved the training in the Dominions of 11,050 pilots and 17,940 observers and air-gunners per annum. ¹ **Canada** was to provide a total of 18,148 men annually, **Australia** 15,132, and New Zealand 4550. The cost of training was to be shared among the three Dominions on a basis of **Canada** 48 per cent, **Australia** 40 per cent, and New Zealand 12 per cent.

The suggested allotment of trainees to the three Dominions worked out at a ratio of 12, 10 and 3 for **Canada**, **Australia**, and New Zealand respectively. On a population basis, however, the correct ratio would have been 14, 9 and 2, and the New Zealand delegation pointed out that on that basis New Zealand should provide a total of only approximately 3000 trainees per annum. As New Zealand was also providing a division for service overseas it was unlikely that, even with a considerable reduction in the standard of recruits, she could maintain a figure of more than 3200.

The delegation also pointed out that if all advanced training was carried out in **Canada** the training facilities already existing or nearing completion in New Zealand as a result of the **RNZAF** expansion programme would not be fully used. Moreover, the estimated cost of training in **Canada** was high compared with that in New Zealand. It was therefore suggested that to make the best use of the facilities available in New Zealand as many pilots as possible should be fully trained there.

The agreement finally reached between the **United Kingdom** and the

New Zealand Government was that New Zealand should provide 880 fully trained pilots per annum for service in the Royal **Air Force**; 520 pilots trained to elementary standard, whose advanced training would be carried out in **Canada**; and 546 observers and 936 air-gunners, trained only to the initial stage, who also would be sent to **Canada** for further training.

After finishing their training in **Canada** the men were to be sent to serve with the **RAF**, with the proviso that the **RCAF** might retain a limited number to fill vacancies in home defence and training establishments. The British Government undertook that all aircrew from the Dominions should be identified with their respective countries, either by organising Dominion units or in some other way.

Altogether seven squadrons with New Zealand identity were later formed in the **RAF** and manned very largely by New Zealanders, but in addition there was New Zealand representation in almost every unit which served during the war.

¹ This represented five-ninths of the total of 20,000 pilots and 30,000 aircrew required. The remaining four-ninths were to be trained in the **United Kingdom**.

New Zealand's contribution to the cost of training in **Canada** was assessed as 8.08 per cent of the whole, on a basis of the relative numbers to be trained there. The amount was 28,603,000 dollars, which was to be spread over a period of three and a half years.

Under this agreement New Zealand's commitments had increased considerably beyond the 650 fully trained pilots and 650 observers and air-gunners which the **RNZAF** had planned to train annually for the **RAF** under the War Training Organisation. While now only initial ground training was required for the observers and air-gunners since their flying training would be carried out in **Canada**, their number had more than doubled. The number of fully trained pilots to be provided had been

increased by a third, and in addition elementary flying training was required for another 520 pilots. It was now necessary to set up an organisation capable of accepting for training every four weeks 144 pilots for elementary flying training, 80 pilots for advanced training, and 42 observers and 72 wireless operator/air-gunners for initial training.

To do this the flying training schools already in existence or planned had to be expanded and a fourth EFTS was necessary. The Air Gunners' and Observers' School at **Ohakea** would no longer be needed and it was decided to put the third SFTS there instead of at Harewood. The third EFTS was to form at Harewood instead of **Palmerston North**, and the fourth EFTS at **Whenuapai**.

The first draft of 72 wireless operator/air-gunners was scheduled to leave for **Canada** under the new scheme in October 1940, the first 42 observers in November, and the first 40 pilots in March 1941. These dates were largely dependent on the supply of aircraft and equipment from the **United Kingdom** for training.

Throughout 1940 training was carried on at as large a scale as possible with the resources available. The limiting factors were shortages of instructors, aircraft and other equipment. At the same time, work on the construction of the new schools was pushed ahead. Harewood opened as a station in May under the command of Wing Commander Sir Robert Clark-Hall, ¹ and in August the EFTS started training with an intake of thirty pupil pilots.

The training of observers and air-gunners at **Ohakea** was continued until aircraft were available to form the Flying Training School. The last course of air-gunners passed out in September

¹ Air Mshl Sir Robert Clark-Hall, KBE, CMG, DSO; **RAF** (retd); **Christchurch**; born **London**, 1883; appointed Sub-Lieut RN 1902; qualified as a pilot, 1911; commanded converted aircraft carrier *HMS Ark Royal* at Dardanelles, 1915–16; commanded No. 1

Wing, **France**, 1917–18; permanent commission **RAF** 1919; AOC Egyptian Group 1924; AOC RAF Mediterranean 1925–29; Director of Equipment, **Air Ministry**, 1929–31; AOC Coastal Area 1931–34; retired 1934 at own request and settled in NZ; volunteered to serve in **RNZAF** on outbreak of war, and appointed to temporary commission in rank of Wing Commander; commanded **RNZAF** Harewood, 1940–43; AOC Southern Group 1943–44; AOC No. 1 (Islands) Group 1944–45; retired 1946.

and the last course of observers in December. The Flying Training School started to form in October and was in full operation by the end of the year. The fourth EFTS was formed at **Whenuapai** in December.

In May 1940, as a result of the German successes in **Europe**, Air Ministry asked New Zealand to prepare to increase the output of aircrews. The New Zealand Government replied that it was already taking steps and that the full development of the training organisation could be completed by December instead of in February of the following year. It was not possible, though, to increase the output of pilots before the end of the year.

In September the New Zealand War Cabinet approved proposals made by the British Government for the speeding up of training still further. These comprised a reduction in the length of each stage of flying training from eight weeks to six, and an increase of 25 per cent in the number of pupils in the flying schools without increasing the numbers of instructors or aircraft. These measures had already been adopted in the training organisation in **Britain**, and had been proposed to **Canada** and **Australia**. An increase of 60 per cent in the output of pilots was hoped for.

To provide for the greater number of pupils going through, accommodation at the Initial Training Wing had to be more than doubled and a slight increase in accommodation was necessary at the flying schools.

The intake into the Initial Training Wing was increased in

November. It had been proposed to form a second ITW at **Rongotai**, but the idea was abandoned and additional accommodation built at **Levin**. The Elementary Training Schools felt the effect in December and the Service Flying Training Schools six weeks later. The first courses to be reduced to six weeks were those starting in various stages of training in January 1941.

To take some of the load of ground training off the flying schools the pilots' course at ITW was lengthened from four weeks to six, beginning with the course starting in December. At the same time, the ITW course for observers was lengthened to eight weeks to raise the standard of their initial training before they went to **Canada**.

As a result of these changes the output of fully trained pilots was increased to a total of approximately 1480 a year, while that of partially trained pilots to be sent to **Canada** increased to approximately 850 a year.

In January 1941 the British Government asked New Zealand to adopt what was known as the 'Third Revise' and reduce the length of courses to five weeks as had been done by the **RAF**. The proposal was rejected for two main reasons. First, the greater percentage of instructors was inexperienced, having only recently graduated from the Flying Instructors' School, and it was felt that they could not cope successfully with the training of pupils if courses were shortened still further. Second, aircraft and spare parts were still short of requirements and the problems of keeping machines serviceable would be intensified. Maintenance personnel had as much as they could do already to keep sufficient machines in the air.

Training was carried on throughout 1941 on the basis of a six-weeks' course. At first an attempt was made to give each pupil fifty hours' flying in each stage of his training, flying seven days a week if necessary to do it. This was found to be impossible owing to maintenance difficulties and lack of spares. Consequently from March onward pupils were trained to the standard reached by an average pupil in forty-five

hours. Inevitably this policy resulted in a lower standard of training. Pupils were forced to assimilate knowledge in a shorter time than previously and had less opportunity to practise what they were taught. The wastage rate increased, as it was not possible to give extra attention to backward pupils and those who found difficulty in learning had, perforce, to have their flying training terminated. Fatigue became marked in both instructors and pupils, and medical examination showed that by the end of his flying training the average pupil's physical condition had deteriorated considerably. As a result of these factors there was a rise in the accident rate in all stages of flying training.

A request in October that New Zealand should increase the number of pilots sent to **Canada** by 15 per cent had to be refused on account of manpower difficulties.

Commitments for observers, which had remained unchanged since the beginning of the Commonwealth Plan, were increased in September when the RCAF, at the request of **Air Ministry**, asked New Zealand to increase the numbers sent to **Canada** by 130 a year. The first draft under the new commitment left New Zealand at the beginning of 1942.

At the end of 1941 **Air Ministry** reviewed pilot requirements in relation to training capacity. The training of aircrews was catching up with the production of aircraft, which had not come up to expectations. Much of the British aircraft industry's output in 1941, too, had been diverted to **Russia**, while operational casualties among aircrew had been fewer than expected. It was now possible, therefore, to spend more time in training and so raise the standard of flying, with particular emphasis on navigation, night flying, and instrument flying.

New Zealand agreed that courses should be extended, and in February 1942 they were again lengthened to eight weeks. The flying times for pupils were increased again to sixty hours in each stage of training. The annual output under the new schedule was approximately 1170 fully trained pilots and 676 partially trained.

The rapid expansion of the flying training organisation in 1940–41 had necessitated a corresponding increase in the training of technical personnel. At the beginning of the war No. 1 Technical Training School had been formed at **Hobsonville** and No. 2 TTS at **Wigram**, while other tradesmen were trained in the railway workshops. Recruits were enlisted and given a month's course of drill and discipline at the Recruit Training Depot which formed at **Ohakea** and subsequently moved to **Levin**. From the Recruit Training School trainees were posted to one of the Technical Training Schools. In November 1939 a Central Trade Test Board was instituted to examine airmen at the end of their technical training courses. Prior to this, trade testing had been handled by the Senior Technical Training Officer at Air Department. The formation of the board was made necessary by the large numbers of men passing out from the schools.

In August 1940 a third Technical Training School was formed at **Rongotai**, and the railway workshops training scheme was allowed to lapse. This had the effect of eliminating the duplication of equipment in the four railway workshops, facilitating the handling of the greatly increased number of trainees and providing a service environment for the men while they were under instruction.

The Recruit Training Depot for airmen in ground trades was moved in July from **Levin** to **Hobsonville** owing to the increased demand at **Weraroa** for accommodation for future aircrew trainees.

Early enlistments into technical trades had included many men, some of them members of the Civil Reserve, who were already well qualified and required little training to adapt them to the needs of their respective **Air Force** trades. As the war progressed, however, the supply of these men rapidly diminished and with later recruits more intensive training was needed to bring them up to the required standard.

In 1939, when the Pacific Defence Conference met in **Wellington**, New Zealand had agreed, when all her own requirements were met, to train technical men for service with the **Royal Air Force**. The need for

personnel in New Zealand to man the training schemes prevented the sending of many technicians to the **United Kingdom**, but throughout 1940 and 1941 a number were sent comprising mainly radio mechanics, wireless operators, instrument repairers, fitter armourers, fitters, and riggers.

By the end of 1941 the demand in New Zealand was being met satisfactorily and the **RNZAF** tentatively undertook to send 350 flight riggers and flight mechanics annually for service with the **RAF**, beginning in 1942. This, however, was made impossible by the outbreak of war with **Japan** and the need for more personnel to man operational squadrons in the **Pacific**.

THE AIR TRAINING CORPS

From 1942 onwards an increasing proportion of recruits for the **RNZAF** came from the **Air Training Corps**. The first proposal to form an Air Cadet Corps had come from the Governor-General, Lord Galway, in August 1940. Early in 1941 a review was made of the manpower position in relation to aircrew requirements, and it appeared that by the end of 1942 difficulty would be experienced in obtaining the necessary number of recruits. The formation of a cadet corps appeared to be the solution for future aircrew requirements. Authority was given by **War Cabinet** in February 1941 to proceed with the formation of an Air Cadet Training Corps, which was to be opened for enlistment to boys between the ages of 16 ½ and 18 years.

The name of the organisation was finally standardised as the **Air Training Corps**. The first five squadrons were formed in **Wellington** and **Auckland** in September, and the following month the first **South Island** squadron was formed.

The Corps contained three types of units—town units, school units and country units. In March 1942 the age limits were extended. In town units boys of from 16 to 18 years could enrol, and in school units cadets could be accepted provided they reached the age of 15 during the school

year. The purpose in the change of ages of entry was to extend the enlistments in the Corps, as it was anticipated that large numbers would be required at a later date. In some town and country areas, owing to the small numbers of applicants, it was not possible to form units and in these areas cadets were enrolled and trained by correspondence courses. By April 1942, 140 cadets had applied for service with the **RNZAF** and the first 100 were mobilised in June.

EFFECT OF PACIFIC WAR

The spread of the war to the **Pacific** and the consequent development of the **RNZAF** as an operational service resulted, from early 1942 onward, in progressively increasing demands on the training organisation for fully trained aircrew for duty in the **Pacific**. Before this it had been necessary to retain in New Zealand only sufficient pilots to meet the demand for instructors and staff pilots in the training schools and for manning the three bomber-reconnaissance squadrons. During 1942, however, pilots passing out from SFTSs were required to man the two operational squadrons which were formed in March of that year. At the same time, in view of the importance of the Commonwealth Training Plan to the war effort as a whole, New Zealand endeavoured to keep up its agreed quota to the scheme to the fullest extent possible.

Up to 1942 the administration of flying training had been the responsibility of the Director of Flying Training, in the staff of the Chief of Air Staff. With the entry of **Japan** into the war, and the prospect of increased operational commitments, this responsibility was passed to the Air Member for Personnel, on whose staff a Director of Training was established. This had the effect of reducing the burden on the Air Staff, and at the same time, as all aspects of training then came under one Director, it produced much better co-ordination.

An extensive reorganisation of the flying training schools was necessary to meet the Japanese threat. It was decided to concentrate training as far as possible in the **South Island** in order to leave the North free for operational squadrons of the **RNZAF** and for the accommodation

of the American forces which, it was expected, would arrive for operations in the **Pacific**. In February the Initial Training Wing moved from **Levin** to **Rotorua**, leaving **Levin** free to accommodate the Bomber Operational Training Squadron which formed the following month. At the same time No. 3 SFTS at **Ohakea** was disbanded and the other two SFTSs at **Wigram** and **Blenheim** were increased in size. To facilitate standardisation, **Wigram** became responsible for only multi-engined training, while at **Blenheim** training was given to one-third multi-engine pilots and two-thirds single-engine pilots. No. 4 EFTS at **Whenuapai** was disbanded in March and personnel were absorbed into the other three. No. 2 EFTS at **New Plymouth** was now the only flying training school left in the **North Island**. A new station was built at **Ashburton** and No. 2 EFTS moved there on its completion in October 1942.

The reorganisation did not affect the output of aircrew to **Canada** for further training, but it resulted in a slight reduction, forty-eight per annum, in the number of pilots fully trained in New Zealand. This, combined with the necessity for retaining a larger number of pilots in New Zealand, had the effect of reducing the output to the **RAF**.

No major changes had taken place since the beginning of the war in the conditions of enlistment for aircrew beyond some relaxation in the age limits. Early in 1942, however, two factors became responsible for a new system. The first was a shortage of men in the Army to meet the greatly increased commitments for Home Defence. The second was the reduction in numbers of trainees required under the new Commonwealth Plan schedule.

Aircrew and non-flying reserves for the **Air Force** at this time totalled about 7500 men who were waiting to be called up into the service. Approximately 5600 of these were single men, many of whom would have gone overseas with the Army had they not been earmarked for the **RNZAF**. Owing to the reduced intakes into the training organisation, many would not be required for another twelve to eighteen months.

In view of this it was decided that the Army should call up attested recruits and applicants for the **Air Force, and that they should undergo Army training until being posted to an **Air Force** pool prior to entering the Initial Training Wing. The Army was to make available facilities for their educational training and for their selection into aircrew categories, and none of them was to be sent overseas without Air Department's approval.**

By the end of 1942 the original system of simple volunteering by civilians had been changed to the more comprehensive method of:

- (a) Volunteering by civilians with no military obligations.**
- (b) Volunteering by civilians drawn in Armed Forces' ballots.**
- (c) Volunteering by soldiers.**
- (d) Withdrawals from the **Air Training Corps**.**

This method gave a complete coverage, and every man, whether in civilian life or in the Army, was given an opportunity to volunteer for the **RNZAF.**

In November 1942 a change was made in the method of aircrew selection. Candidates were no longer asked to state their preferences with regard to the aircrew category they wished to join, but were broadly classified as 'PNB' (Pilot, Navigator, Bomber) until the end of their ITW course, and were then selected into categories according to their results.

EDUCATIONAL TRAINING, 1942

The system of pre-entry instruction by classes or correspondence, which had been begun in the early months of the war, continued until March 1942. It was then superseded by a course of instruction in Aerodrome Defence Units. These units, whose formation was the result of defence needs, provided an organisation in which aircrew could be grouped prior to beginning their training, and in which they received their pre-entry education. Correspondence courses and classes were, however, continued for ATC cadets who were unable to join town or school squadrons.

Between the end of May and the beginning of October, Aerodrome Defence Units were formed on some nineteen stations with established strengths of 100, 150 or 200, according to the size of the station. The trainees spent about half their time in general service training, which was a prerequisite of their subsequent aircrew training and at the same time helped to fit them for defending aerodromes against possible attack. The other half was spent in educational training to bring them up to the standard necessary for entry into the Initial Training Wing—or, in the case of electrical and wireless personnel, into the Electrical and Wireless School.

Conditions in ADUs varied considerably according to the geographical layout of the stations and their particular defence needs. The units were housed in hutted camps, in some cases a mile or more from the parent station, as at **Tauranga**, in others close at hand as at **Wigram**. On some stations complete days were devoted to purely military training, varied by complete days of educational work. In most cases, however, one half of each day was allotted to each aspect of training. Education accounted for approximately fifteen to twenty hours a week, and the time was divided by the Senior Education Officer of the unit into periods for instruction in mathematics, physics, elementary navigation and signals.

In order to standardise educational training recruits for different categories were, as far as possible, grouped on different stations. Electrical and wireless trainees were posted to the ADUs at **Wigram** and **Harewood**, prospective wireless operator/air-gunners went to **Hobsonville** and **Ohakea**, observers to **Omaka** and **Whenuapai**, and pilots to the other ADUs. An exception to this rule was that intakes from the **Air Training Corps** of all categories were grouped together. After November, when distinction was no longer made in the various categories of aircrew recruits, it became unnecessary to differentiate between them except in the case of electrical and wireless trainees.

By the end of 1942 the course of the war in the **Pacific** had changed

for the better and New Zealand was no longer in immediate danger of attack. The ADUs then became unnecessary as defence forces. However, they provided a useful organisation for educational training and were retained, with the emphasis on their work becoming increasingly educational. In March 1943 their titles were changed and they became known as Ground Training Squadrons.

GROUND TRAINING SQUADRONS

In order to make the pre-flying training as progressive as possible, and also to provide employment for the large numbers of men who were thrown up by the Aerodrome Defence Units and awaiting absorption into the flying training organisation proper, the Ground Training Squadrons were classified as Elementary and Advanced squadrons. A trainee normally went through EGTS and AGTS.

It was intended that recruits who had satisfactorily completed their course in the **Air Training Corps** should be exempted from EGTS; but there was such a bottleneck at the ITW stage, with approximately 2000 trainees waiting to be absorbed, that the majority of ATC cadets had to enter EGTS with the rest and await their turn. This involved some duplication in their training and gave rise to a considerable amount of dissatisfaction among pupils.

The sequence of pre-flying training at the end of March 1943 can be summarised thus. The recruit first entered a Ground **Training Depot**. From there he went to an Elementary Ground Training Squadron and then to an Advanced Ground Training Squadron. On passing out of the AGTS he went to the Initial Training Wing at **Rotorua**. His course there was divided into four weeks at Junior ITW and eight weeks at Senior ITW. The final selection into aircrew categories took place at the end of the course.

As all the pre-flying training schools were at different stations, trainees spent much of their time travelling. In some cases they had to cross Cook Strait four times during this stage of their career. In addition

to the loss of time involved, this further taxed the country's already overburdened transport system. It therefore became desirable to group the whole of pre-flying training in one area, preferably, in accordance with general training policy, in the **South Island**. Accordingly the camps which had been built for the Army at Delta, near **Blenheim**, were taken over for the purpose.

RNZAF Station, Delta, started to form in June 1943, and during the latter part of the year **GTD**, **EGTS**, and **AGTS** were established there, while similar units on other stations closed down. The Initial Training Wing moved from **Rotorua** to Delta in February 1944, and the grouping of all pre-flying training was then completed.

OUTPUT OF PILOTS TO THE ROYAL AIR FORCE

In May 1942 a large surplus of trained aircrew had built up in the **United Kingdom**. To take advantage of this it was decided that all schools operating under the British Commonwealth Air Training Plan should lengthen their flying training courses to twelve weeks in each stage in order to raise the standard of flying. This had the effect of reducing New Zealand's commitments to 730 fully trained pilots for the **RAF**, 450 **EFTS** trained pilots for **Canada**, and a total of 1391 initially trained observers and air-gunners, also for **Canada**.

A statistical survey taken at this period showed that the number of men in New Zealand educationally suited for aircrew training was 5800 of whom 4000 had volunteered for pilot training. On the basis of the figures quoted above, only 1200 were likely to be called up within the next year. Taking into account the new potential aircrew in the **ATC**, there were likely to be 3400 potential pilots awaiting training by April 1943 and 2500 by April 1944. After that the numbers were likely to increase owing to the increased output from the **ATC**. In October 1942 flying courses were again reduced to eight weeks in each stage, which had the effect of increasing New Zealand's commitments.

Operational requirements in the latter part of September 1943

greatly reduced the number of fully-trained single-engine pilots available for despatch to the **RAF**, and **Air Ministry** was informed that the total output of single-engine pilots from **RNZAF** schools for the next few months would be required in New Zealand. At this stage the **RNZAF** was maintaining five fighter squadrons and planning for an expansion to twelve. Elementary flying training schools were instructed to send their best pupils to No. 2 Service Flying Training School at **Blenheim** for further training on single-engined aircraft for the **Pacific**.

By the end of 1943 the period of rapid expansion of the **RAF** was over. Supplies of aircrew had caught up with the demand and there were adequate reserves, both fully trained and under training. In February 1944 the Supervisory Board of the British Commonwealth Air Training Plan decided that the output of trained aircrew should be gradually reduced by 40 per cent. It was anticipated that New Zealand and **Australia** would continue to meet their present commitments until March 1945, after which any deficiencies would be made up by trainees from the **United Kingdom**. New Zealand, however, pointed out that in view of manpower difficulties she might find it necessary to reconsider her commitments before then.

By June 1944 a serious bottleneck had occurred in the disposal of pilots and a large backlog had accumulated in the United Kingdom, **Canada**, and New Zealand. In Canada, at the beginning of July, there were 400 New Zealand pilots awaiting training who, it was estimated, would not be absorbed before December. It was therefore decided that no more were required in **Canada** until May 1945, and that after that only fifty every four weeks would be needed. Commitments for other categories of aircrew were to remain unchanged. The backlog in **Canada** was employed on non-flying duties while awaiting absorption into training, and the July draft from New Zealand was held for further training at home.

To cope with the surplus of trained and partially trained pilots in New Zealand who were not required for **Canada** or for immediate operational training, an aircrew pool was formed at **Hobsonville** in

August 1944, with a maximum capacity of twenty officers and forty NCOs.

It was estimated that by December some 800 New Zealand pilots would have completed training, including the backlog in **Canada** and the **United Kingdom**, and there would still be 400 in **Canada** who would have completed their training by March 1945. After earmarking as many as possible for the **Pacific** theatre, there remained sufficient to cover the commitments for the European war, and it was decided that no more should be sent to **Canada** and that none should be sent to the **United Kingdom** after December 1944.

In October 1944, after discussions between the British and Canadian Governments, it was decided that the Commonwealth Training Plan should be terminated at the end of March 1945. Accordingly, throughout the latter part of 1944 and early 1945, schools in **Canada** were progressively closed. In October there were 14,000 aircrew in various stages of training in **Canada** and it was considered that they would be sufficient to meet all future requirements. Sixteen hundred of these were New Zealanders, and the **RNZAF** was able to absorb only small numbers as they graduated. **Air Ministry** was prepared to accept the balance, but the **New Zealand Government** did not want to allow them to proceed to the **United Kingdom** unless there was some assurance that they would eventually be employed on operations.

The rapid reduction in overseas commitments and the prospect of the repatriation of many trained and partially trained pilots from **Canada** resulted in a marked reduction in the training organisation required in New Zealand. The Elementary Flying Training Schools at **Taiari** and **Ashburton** were closed in October. Multi-engined flying training ceased at **Wigram** in stages between August and November, since there were sufficient reserves of pilots available to man the bomber-reconnaissance squadrons in the **Pacific**. Single-engined flying training was transferred to **Wigram** from No. 2 SFTS at **Woodbourne**, which was then closed down. The Central Flying School, where

instructors were trained, was moved from **Tauranga**, where it had been since 1941, to **Woodbourne**, and **Tauranga** was then closed as a station. The pre-flying training schools at Delta were closed and the Elementary Training Wing and Initial Training Wing moved from there to **Taieri** in December.

Thus by the end of the year flying training was carried out on a reduced scale sufficient to meet the requirements of operational squadrons in the **Pacific** as follows: pre-flying training at **Taieri**, elementary flying training at Harewood, and service flying training (single-engined only) at Wigram. In addition a Grading School was formed at **Taieri** in which, after a six-weeks' course in the Elementary Training Wing, pupils were given twelve hours of flying instruction to discover their aptitude as aircrew before entering ITW.

With the closing down of the British Commonwealth Air Training Plan and the cessation of the demand for pilots in the **United Kingdom**, the **RNZAF** now had to train only enough men to fill the requirements of its operational squadrons in the **Pacific**. This involved the output, every six weeks, of 44 single-engine pilots, 16 multi-engine pilots, 12 navigators, 20 to 24 air-gunners and a few second pilots.

There were already enough single-engine pilots under training to provide the required output without further recruiting until February 1945. There were 123 multi-engine pilots in the Reserve who would supply all requirements, including the forty second pilots, until September 1945. Navigators could be provided from pilot wastage at ITW and the Grading School until April, as could air-gunners. A demand for wireless operator/air-gunners could be filled until September by personnel repatriated from **Canada**. Consequently, recruiting for aircrew was temporarily discontinued and the Grading School and Initial Training Wing operated for a period at reduced strength. The remaining flying training schools on the other hand, owing to the need to absorb trainees from **Canada**, continued working at full strength.

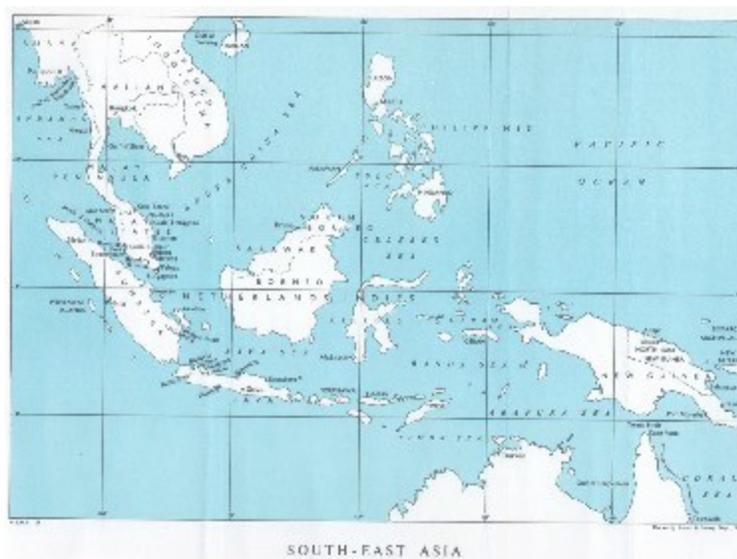
REPATRIATION AND EMPLOYMENT OF TRAINEES FROM CANADA

Between October 1944 and April 1945 approximately 1100 men returned from **Canada**. Some of these had not yet started their aircrew training, but the majority had graduated under the Commonwealth Training Plan. Their absorption into the **RNZAF** was a major problem in the early months of 1945. Although the war in **Europe** was obviously drawing to a close, the end of the **Pacific** war was not yet in sight, and it was necessary to retain most of the men as reserves. Temporary employment had to be found for them, and they were formed into sections on stations known as Aircrew Reserve Flights. They were employed as far as possible on duties connected with flying, the handling of aircraft and airfield control. In addition they had a weekly minimum of five hours' physical training and five hours' lectures on subjects connected with flying duties. Generally speaking, the lot of these men who had been brought back from overseas was not happy. They had spent many months in **Canada**, where, owing to the surplus of aircrew, many of them had done little or no flying, and now they were back in New Zealand doing odd jobs and feeling that they were not really needed.

In June 1945 it was decided to reduce training commitments further. The war in **Europe** had ended and a tentative date had been assumed for the end of the war against **Japan**. With the existing reserves of aircrew trained and under training, it was considered that no further recruiting would be necessary. It was planned that training commitments should be progressively reduced until October 1946, after which token training would be carried on at the rate of thirty-seven aircrew of all categories every six weeks. In accordance with this policy the Grading School and Initial Training Wing closed down in July, as did the EFTS at Harewood, and at the same time training was curtailed at the SFTS at Wigram. Thus, when the end of the war came, sooner than most people expected, the flying training organisation was well on the way towards being completely closed down. When hostilities ceased the SFTS at **Wigram**, the only school at which flying training was still carried out, closed down, and in the immediate post-war period flying training was restricted to refresher courses.

During the war some 2743 pilots were fully trained in New Zealand and sent overseas to serve with the **RAF** in **Europe**, the **Middle East**, and the **Far East**. Another 1521 who completed their training in New Zealand were retained in the country, either as instructors or staff pilots or to man the operational squadrons which were formed in the latter half of the war. In 1940, before the British Commonwealth Air Training Plan was fully developed, New Zealand also trained 183 observers and 395 air-gunners for the **RAF**. From 1943 onwards the training of wireless operator/air-gunners and navigators was also carried on in New Zealand for **Pacific** operations.

In addition some 2910 pilots were trained to elementary standard and sent to **Canada** to continue their training under the British Commonwealth Air Training Plan, and more than 2700 wireless operator/air-gunners, 1800 navigators, and 500 bomb aimers passed through the Initial Training Wing and then went to **Canada**.



SOUTH - EAST ASIA

Of the 131,000 trainees who graduated in **Canada** under the Commonwealth Air Training Plan, New Zealanders formed 5.3 per cent. The majority of them, when they completed training, were posted to the **United Kingdom** for service with the Royal Air Force. Some were retained in **Canada** as instructors, and a few who failed to complete their courses were remustered to ground trades. From the end of 1944 a large

number, some of whom had completed their training and some who had not yet started it, returned to New Zealand as a result of the closing down of the Plan.

ROYAL NEW ZEALAND AIR FORCE

[SECTION]

THE German successes in Poland in the first weeks of the war convinced the British War Cabinet that air supremacy was necessary if Britain was to have any chance of survival. It was decided that a greatly enlarged air force must be built up which would have to carry out continuous and heavy operations. It was anticipated that wastage would be high and that no fewer than 20,000 pilots and 30,000 other aircrew would be needed annually to maintain the required force.

Britain would be unable to train nearly the numbers required. The country was too small to accommodate all the necessary aerodromes, which would take up valuable land needed for agriculture. Also, it was too close to the main theatre of war, and training would probably be interrupted by enemy raids.

It was therefore proposed to form fifty flying training schools, of which twenty-five would be for advanced training, in other parts of the Empire. The obvious country for the location of the main part of the training scheme was Canada.¹ She had unlimited space for the development of aerodromes and had considerable industrial potential which could be turned to the manufacture of aircraft and other equipment. In addition, she was close to the resources of the United States. Canada was therefore suggested as the advanced training ground, while elementary schools were to be established in each Dominion according to its capacity.

Towards the end of September the scheme was proposed to the New Zealand Government, and it was decided that air missions from Britain, Australia, and New Zealand should go to Canada in October to discuss it. The New Zealand mission comprised the Chief of the Air Staff, Group Captain Saunders, and the Air Secretary, Mr Barrow. Discussions were held with a committee of the Canadian Cabinet comprising the Minister of Finance, the Minister of National Defence, the Minister of Transport,

and the Minister of Pensions.

¹ Pre-war planning had provided for a large expansion of training throughout the Empire, and after the **Munich** crisis of 1938 **Air Ministry** had proposed to establish **RAF** schools in **Canada**; but various factors had prevented anything being done before the war started.

When the New Zealand mission arrived in **Ottawa** it was informed by the **United Kingdom** mission that proposals had already been submitted to the Canadian and Australian missions as a basis for discussion. They involved the training in the Dominions of 11,050 pilots and 17,940 observers and air-gunners per annum. ¹ **Canada** was to provide a total of 18,148 men annually, **Australia** 15,132, and New Zealand 4550. The cost of training was to be shared among the three Dominions on a basis of **Canada** 48 per cent, **Australia** 40 per cent, and New Zealand 12 per cent.

The suggested allotment of trainees to the three Dominions worked out at a ratio of 12, 10 and 3 for **Canada**, **Australia**, and New Zealand respectively. On a population basis, however, the correct ratio would have been 14, 9 and 2, and the New Zealand delegation pointed out that on that basis New Zealand should provide a total of only approximately 3000 trainees per annum. As New Zealand was also providing a division for service overseas it was unlikely that, even with a considerable reduction in the standard of recruits, she could maintain a figure of more than 3200.

The delegation also pointed out that if all advanced training was carried out in **Canada** the training facilities already existing or nearing completion in New Zealand as a result of the **RNZAF** expansion programme would not be fully used. Moreover, the estimated cost of training in **Canada** was high compared with that in New Zealand. It was therefore suggested that to make the best use of the facilities available in New Zealand as many pilots as possible should be fully trained there.

The agreement finally reached between the **United Kingdom** and the

New Zealand Government was that New Zealand should provide 880 fully trained pilots per annum for service in the Royal **Air Force**; 520 pilots trained to elementary standard, whose advanced training would be carried out in **Canada**; and 546 observers and 936 air-gunners, trained only to the initial stage, who also would be sent to **Canada** for further training.

After finishing their training in **Canada** the men were to be sent to serve with the **RAF**, with the proviso that the **RCAF** might retain a limited number to fill vacancies in home defence and training establishments. The British Government undertook that all aircrew from the Dominions should be identified with their respective countries, either by organising Dominion units or in some other way.

Altogether seven squadrons with New Zealand identity were later formed in the **RAF** and manned very largely by New Zealanders, but in addition there was New Zealand representation in almost every unit which served during the war.

¹ This represented five-ninths of the total of 20,000 pilots and 30,000 aircrew required. The remaining four-ninths were to be trained in the **United Kingdom**.

New Zealand's contribution to the cost of training in **Canada** was assessed as 8.08 per cent of the whole, on a basis of the relative numbers to be trained there. The amount was 28,603,000 dollars, which was to be spread over a period of three and a half years.

Under this agreement New Zealand's commitments had increased considerably beyond the 650 fully trained pilots and 650 observers and air-gunners which the **RNZAF** had planned to train annually for the **RAF** under the War Training Organisation. While now only initial ground training was required for the observers and air-gunners since their flying training would be carried out in **Canada**, their number had more than doubled. The number of fully trained pilots to be provided had been

increased by a third, and in addition elementary flying training was required for another 520 pilots. It was now necessary to set up an organisation capable of accepting for training every four weeks 144 pilots for elementary flying training, 80 pilots for advanced training, and 42 observers and 72 wireless operator/air-gunners for initial training.

To do this the flying training schools already in existence or planned had to be expanded and a fourth EFTS was necessary. The Air Gunners' and Observers' School at **Ohakea** would no longer be needed and it was decided to put the third SFTS there instead of at Harewood. The third EFTS was to form at Harewood instead of **Palmerston North**, and the fourth EFTS at **Whenuapai**.

The first draft of 72 wireless operator/air-gunners was scheduled to leave for **Canada** under the new scheme in October 1940, the first 42 observers in November, and the first 40 pilots in March 1941. These dates were largely dependent on the supply of aircraft and equipment from the **United Kingdom** for training.

Throughout 1940 training was carried on at as large a scale as possible with the resources available. The limiting factors were shortages of instructors, aircraft and other equipment. At the same time, work on the construction of the new schools was pushed ahead. Harewood opened as a station in May under the command of Wing Commander Sir Robert Clark-Hall,¹ and in August the EFTS started training with an intake of thirty pupil pilots.

The training of observers and air-gunners at **Ohakea** was continued until aircraft were available to form the Flying Training School. The last course of air-gunners passed out in September

¹ Air Mshl Sir Robert Clark-Hall, KBE, CMG, DSO; **RAF** (retd); **Christchurch**; born **London**, 1883; appointed Sub-Lieut RN 1902; qualified as a pilot, 1911; commanded converted aircraft carrier *HMS Ark Royal* at Dardanelles, 1915–16; commanded No. 1

Wing, **France**, 1917–18; permanent commission **RAF** 1919; AOC Egyptian Group 1924; AOC RAF Mediterranean 1925–29; Director of Equipment, **Air Ministry**, 1929–31; AOC Coastal Area 1931–34; retired 1934 at own request and settled in NZ; volunteered to serve in **RNZAF** on outbreak of war, and appointed to temporary commission in rank of Wing Commander; commanded **RNZAF** Harewood, 1940–43; AOC Southern Group 1943–44; AOC No. 1 (Islands) Group 1944–45; retired 1946.

and the last course of observers in December. The Flying Training School started to form in October and was in full operation by the end of the year. The fourth EFTS was formed at **Whenuapai** in December.

In May 1940, as a result of the German successes in **Europe**, Air Ministry asked New Zealand to prepare to increase the output of aircrews. The New Zealand Government replied that it was already taking steps and that the full development of the training organisation could be completed by December instead of in February of the following year. It was not possible, though, to increase the output of pilots before the end of the year.

In September the New Zealand War Cabinet approved proposals made by the British Government for the speeding up of training still further. These comprised a reduction in the length of each stage of flying training from eight weeks to six, and an increase of 25 per cent in the number of pupils in the flying schools without increasing the numbers of instructors or aircraft. These measures had already been adopted in the training organisation in **Britain**, and had been proposed to **Canada** and **Australia**. An increase of 60 per cent in the output of pilots was hoped for.

To provide for the greater number of pupils going through, accommodation at the Initial Training Wing had to be more than doubled and a slight increase in accommodation was necessary at the flying schools.

The intake into the Initial Training Wing was increased in

November. It had been proposed to form a second ITW at **Rongotai**, but the idea was abandoned and additional accommodation built at **Levin**. The Elementary Training Schools felt the effect in December and the Service Flying Training Schools six weeks later. The first courses to be reduced to six weeks were those starting in various stages of training in January 1941.

To take some of the load of ground training off the flying schools the pilots' course at ITW was lengthened from four weeks to six, beginning with the course starting in December. At the same time, the ITW course for observers was lengthened to eight weeks to raise the standard of their initial training before they went to **Canada**.

As a result of these changes the output of fully trained pilots was increased to a total of approximately 1480 a year, while that of partially trained pilots to be sent to **Canada** increased to approximately 850 a year.

In January 1941 the British Government asked New Zealand to adopt what was known as the 'Third Revise' and reduce the length of courses to five weeks as had been done by the **RAF**. The proposal was rejected for two main reasons. First, the greater percentage of instructors was inexperienced, having only recently graduated from the Flying Instructors' School, and it was felt that they could not cope successfully with the training of pupils if courses were shortened still further. Second, aircraft and spare parts were still short of requirements and the problems of keeping machines serviceable would be intensified. Maintenance personnel had as much as they could do already to keep sufficient machines in the air.

Training was carried on throughout 1941 on the basis of a six-weeks' course. At first an attempt was made to give each pupil fifty hours' flying in each stage of his training, flying seven days a week if necessary to do it. This was found to be impossible owing to maintenance difficulties and lack of spares. Consequently from March onward pupils were trained to the standard reached by an average pupil in forty-five

hours. Inevitably this policy resulted in a lower standard of training. Pupils were forced to assimilate knowledge in a shorter time than previously and had less opportunity to practise what they were taught. The wastage rate increased, as it was not possible to give extra attention to backward pupils and those who found difficulty in learning had, perforce, to have their flying training terminated. Fatigue became marked in both instructors and pupils, and medical examination showed that by the end of his flying training the average pupil's physical condition had deteriorated considerably. As a result of these factors there was a rise in the accident rate in all stages of flying training.

A request in October that New Zealand should increase the number of pilots sent to **Canada** by 15 per cent had to be refused on account of manpower difficulties.

Commitments for observers, which had remained unchanged since the beginning of the Commonwealth Plan, were increased in September when the RCAF, at the request of **Air Ministry**, asked New Zealand to increase the numbers sent to **Canada** by 130 a year. The first draft under the new commitment left New Zealand at the beginning of 1942.

At the end of 1941 **Air Ministry** reviewed pilot requirements in relation to training capacity. The training of aircrews was catching up with the production of aircraft, which had not come up to expectations. Much of the British aircraft industry's output in 1941, too, had been diverted to **Russia**, while operational casualties among aircrew had been fewer than expected. It was now possible, therefore, to spend more time in training and so raise the standard of flying, with particular emphasis on navigation, night flying, and instrument flying.

New Zealand agreed that courses should be extended, and in February 1942 they were again lengthened to eight weeks. The flying times for pupils were increased again to sixty hours in each stage of training. The annual output under the new schedule was approximately 1170 fully trained pilots and 676 partially trained.

The rapid expansion of the flying training organisation in 1940–41 had necessitated a corresponding increase in the training of technical personnel. At the beginning of the war No. 1 Technical Training School had been formed at **Hobsonville** and No. 2 TTS at **Wigram**, while other tradesmen were trained in the railway workshops. Recruits were enlisted and given a month's course of drill and discipline at the Recruit Training Depot which formed at **Ohakea** and subsequently moved to **Levin**. From the Recruit Training School trainees were posted to one of the Technical Training Schools. In November 1939 a Central Trade Test Board was instituted to examine airmen at the end of their technical training courses. Prior to this, trade testing had been handled by the Senior Technical Training Officer at Air Department. The formation of the board was made necessary by the large numbers of men passing out from the schools.

In August 1940 a third Technical Training School was formed at **Rongotai**, and the railway workshops training scheme was allowed to lapse. This had the effect of eliminating the duplication of equipment in the four railway workshops, facilitating the handling of the greatly increased number of trainees and providing a service environment for the men while they were under instruction.

The Recruit Training Depot for airmen in ground trades was moved in July from **Levin** to **Hobsonville** owing to the increased demand at **Weraroa** for accommodation for future aircrew trainees.

Early enlistments into technical trades had included many men, some of them members of the Civil Reserve, who were already well qualified and required little training to adapt them to the needs of their respective **Air Force** trades. As the war progressed, however, the supply of these men rapidly diminished and with later recruits more intensive training was needed to bring them up to the required standard.

In 1939, when the Pacific Defence Conference met in **Wellington**, New Zealand had agreed, when all her own requirements were met, to train technical men for service with the **Royal Air Force**. The need for

personnel in New Zealand to man the training schemes prevented the sending of many technicians to the **United Kingdom**, but throughout 1940 and 1941 a number were sent comprising mainly radio mechanics, wireless operators, instrument repairers, fitter armourers, fitters, and riggers.

By the end of 1941 the demand in New Zealand was being met satisfactorily and the **RNZAF** tentatively undertook to send 350 flight riggers and flight mechanics annually for service with the **RAF**, beginning in 1942. This, however, was made impossible by the outbreak of war with **Japan** and the need for more personnel to man operational squadrons in the **Pacific**.

ROYAL NEW ZEALAND AIR FORCE

THE AIR TRAINING CORPS

THE AIR TRAINING CORPS

From 1942 onwards an increasing proportion of recruits for the **RNZAF** came from the **Air Training Corps**. The first proposal to form an Air Cadet Corps had come from the Governor-General, Lord Galway, in August 1940. Early in 1941 a review was made of the manpower position in relation to aircrew requirements, and it appeared that by the end of 1942 difficulty would be experienced in obtaining the necessary number of recruits. The formation of a cadet corps appeared to be the solution for future aircrew requirements. Authority was given by **War Cabinet** in February 1941 to proceed with the formation of an Air Cadet Training Corps, which was to be opened for enlistment to boys between the ages of 16 ½ and 18 years.

The name of the organisation was finally standardised as the **Air Training Corps**. The first five squadrons were formed in **Wellington** and **Auckland** in September, and the following month the first **South Island** squadron was formed.

The Corps contained three types of units—town units, school units and country units. In March 1942 the age limits were extended. In town units boys of from 16 to 18 years could enrol, and in school units cadets could be accepted provided they reached the age of 15 during the school year. The purpose in the change of ages of entry was to extend the enlistments in the Corps, as it was anticipated that large numbers would be required at a later date. In some town and country areas, owing to the small numbers of applicants, it was not possible to form units and in these areas cadets were enrolled and trained by correspondence courses. By April 1942, 140 cadets had applied for service with the **RNZAF** and the first 100 were mobilised in June.

ROYAL NEW ZEALAND AIR FORCE

EFFECT OF PACIFIC WAR

EFFECT OF PACIFIC WAR

The spread of the war to the **Pacific** and the consequent development of the **RNZAF** as an operational service resulted, from early 1942 onward, in progressively increasing demands on the training organisation for fully trained aircrew for duty in the **Pacific**. Before this it had been necessary to retain in New Zealand only sufficient pilots to meet the demand for instructors and staff pilots in the training schools and for manning the three bomber-reconnaissance squadrons. During 1942, however, pilots passing out from SFTSs were required to man the two operational squadrons which were formed in March of that year. At the same time, in view of the importance of the Commonwealth Training Plan to the war effort as a whole, New Zealand endeavoured to keep up its agreed quota to the scheme to the fullest extent possible.

Up to 1942 the administration of flying training had been the responsibility of the Director of Flying Training, in the staff of the Chief of Air Staff. With the entry of **Japan** into the war, and the prospect of increased operational commitments, this responsibility was passed to the Air Member for Personnel, on whose staff a Director of Training was established. This had the effect of reducing the burden on the Air Staff, and at the same time, as all aspects of training then came under one Director, it produced much better co-ordination.

An extensive reorganisation of the flying training schools was necessary to meet the Japanese threat. It was decided to concentrate training as far as possible in the **South Island** in order to leave the North free for operational squadrons of the **RNZAF** and for the accommodation of the American forces which, it was expected, would arrive for operations in the **Pacific**. In February the Initial Training Wing moved from **Levin** to **Rotorua**, leaving **Levin** free to accommodate the Bomber Operational Training Squadron which formed the following month. At

the same time No. 3 SFTS at **Ohakea** was disbanded and the other two SFTSs at **Wigram** and **Blenheim** were increased in size. To facilitate standardisation, **Wigram** became responsible for only multi-engined training, while at **Blenheim** training was given to one-third multi-engine pilots and two-thirds single-engine pilots. No. 4 EFTS at **Whenuapai** was disbanded in March and personnel were absorbed into the other three. No. 2 EFTS at **New Plymouth** was now the only flying training school left in the **North Island**. A new station was built at **Ashburton** and No. 2 EFTS moved there on its completion in October 1942.

The reorganisation did not affect the output of aircrew to **Canada** for further training, but it resulted in a slight reduction, forty-eight per annum, in the number of pilots fully trained in New Zealand. This, combined with the necessity for retaining a larger number of pilots in New Zealand, had the effect of reducing the output to the **RAF**.

No major changes had taken place since the beginning of the war in the conditions of enlistment for aircrew beyond some relaxation in the age limits. Early in 1942, however, two factors became responsible for a new system. The first was a shortage of men in the Army to meet the greatly increased commitments for Home Defence. The second was the reduction in numbers of trainees required under the new Commonwealth Plan schedule.

Aircrew and non-flying reserves for the **Air Force** at this time totalled about 7500 men who were waiting to be called up into the service. Approximately 5600 of these were single men, many of whom would have gone overseas with the Army had they not been earmarked for the **RNZAF**. Owing to the reduced intakes into the training organisation, many would not be required for another twelve to eighteen months.

In view of this it was decided that the Army should call up attested recruits and applicants for the **Air Force**, and that they should undergo Army training until being posted to an **Air Force** pool prior to entering the Initial Training Wing. The Army was to make available facilities for

their educational training and for their selection into aircrew categories, and none of them was to be sent overseas without Air Department's approval.

By the end of 1942 the original system of simple volunteering by civilians had been changed to the more comprehensive method of:

- (a) Volunteering by civilians with no military obligations.**
- (b) Volunteering by civilians drawn in Armed Forces' ballots.**
- (c) Volunteering by soldiers.**
- (d) Withdrawals from the [Air Training Corps](#).**

This method gave a complete coverage, and every man, whether in civilian life or in the Army, was given an opportunity to volunteer for the [RNZAF](#).

In November 1942 a change was made in the method of aircrew selection. Candidates were no longer asked to state their preferences with regard to the aircrew category they wished to join, but were broadly classified as 'PNB' (Pilot, Navigator, Bomber) until the end of their ITW course, and were then selected into categories according to their results.

ROYAL NEW ZEALAND AIR FORCE

EDUCATIONAL TRAINING, 1942

EDUCATIONAL TRAINING, 1942

The system of pre-entry instruction by classes or correspondence, which had been begun in the early months of the war, continued until March 1942. It was then superseded by a course of instruction in Aerodrome Defence Units. These units, whose formation was the result of defence needs, provided an organisation in which aircrew could be grouped prior to beginning their training, and in which they received their pre-entry education. Correspondence courses and classes were, however, continued for ATC cadets who were unable to join town or school squadrons.

Between the end of May and the beginning of October, Aerodrome Defence Units were formed on some nineteen stations with established strengths of 100, 150 or 200, according to the size of the station. The trainees spent about half their time in general service training, which was a prerequisite of their subsequent aircrew training and at the same time helped to fit them for defending aerodromes against possible attack. The other half was spent in educational training to bring them up to the standard necessary for entry into the Initial Training Wing—or, in the case of electrical and wireless personnel, into the Electrical and Wireless School.

Conditions in ADUs varied considerably according to the geographical layout of the stations and their particular defence needs. The units were housed in hutted camps, in some cases a mile or more from the parent station, as at [Tauranga](#), in others close at hand as at Wigram. On some stations complete days were devoted to purely military training, varied by complete days of educational work. In most cases, however, one half of each day was allotted to each aspect of training. Education accounted for approximately fifteen to twenty hours a week, and the time was divided by the Senior Education Officer of the unit

into periods for instruction in mathematics, physics, elementary navigation and signals.

In order to standardise educational training recruits for different categories were, as far as possible, grouped on different stations. Electrical and wireless trainees were posted to the ADUs at **Wigram** and **Harewood**, prospective wireless operator/air-gunners went to **Hobsonville** and **Ohakea**, observers to **Omaka** and **Whenuapai**, and pilots to the other ADUs. An exception to this rule was that intakes from the **Air Training Corps** of all categories were grouped together. After November, when distinction was no longer made in the various categories of aircrew recruits, it became unnecessary to differentiate between them except in the case of electrical and wireless trainees.

By the end of 1942 the course of the war in the **Pacific** had changed for the better and New Zealand was no longer in immediate danger of attack. The ADUs then became unnecessary as defence forces. However, they provided a useful organisation for educational training and were retained, with the emphasis on their work becoming increasingly educational. In March 1943 their titles were changed and they became known as Ground Training Squadrons.

ROYAL NEW ZEALAND AIR FORCE

GROUND TRAINING SQUADRONS

GROUND TRAINING SQUADRONS

In order to make the pre-flying training as progressive as possible, and also to provide employment for the large numbers of men who were thrown up by the Aerodrome Defence Units and awaiting absorption into the flying training organisation proper, the Ground Training Squadrons were classified as Elementary and Advanced squadrons. A trainee normally went through EGTS and AGTS.

It was intended that recruits who had satisfactorily completed their course in the **Air Training Corps** should be exempted from EGTS; but there was such a bottleneck at the ITW stage, with approximately 2000 trainees waiting to be absorbed, that the majority of ATC cadets had to enter EGTS with the rest and await their turn. This involved some duplication in their training and gave rise to a considerable amount of dissatisfaction among pupils.

The sequence of pre-flying training at the end of March 1943 can be summarised thus. The recruit first entered a Ground **Training Depot**. From there he went to an Elementary Ground Training Squadron and then to an Advanced Ground Training Squadron. On passing out of the AGTS he went to the Initial Training Wing at **Rotorua**. His course there was divided into four weeks at Junior ITW and eight weeks at Senior ITW. The final selection into aircrew categories took place at the end of the course.

As all the pre-flying training schools were at different stations, trainees spent much of their time travelling. In some cases they had to cross Cook Strait four times during this stage of their career. In addition to the loss of time involved, this further taxed the country's already overburdened transport system. It therefore became desirable to group the whole of pre-flying training in one area, preferably, in accordance

with general training policy, in the **South Island**. Accordingly the camps which had been built for the Army at Delta, near **Blenheim**, were taken over for the purpose.

RNZAF Station, Delta, started to form in June 1943, and during the latter part of the year GTD, EGTS, and AGTS were established there, while similar units on other stations closed down. The Initial Training Wing moved from **Rotorua** to Delta in February 1944, and the grouping of all pre-flying training was then completed.

ROYAL NEW ZEALAND AIR FORCE

OUTPUT OF PILOTS TO THE ROYAL AIR FORCE

OUTPUT OF PILOTS TO THE ROYAL AIR FORCE

In May 1942 a large surplus of trained aircrew had built up in the **United Kingdom**. To take advantage of this it was decided that all schools operating under the British Commonwealth Air Training Plan should lengthen their flying training courses to twelve weeks in each stage in order to raise the standard of flying. This had the effect of reducing New Zealand's commitments to 730 fully trained pilots for the **RAF**, 450 EFTS trained pilots for **Canada**, and a total of 1391 initially trained observers and air-gunners, also for **Canada**.

A statistical survey taken at this period showed that the number of men in New Zealand educationally suited for aircrew training was 5800 of whom 4000 had volunteered for pilot training. On the basis of the figures quoted above, only 1200 were likely to be called up within the next year. Taking into account the new potential aircrew in the ATC, there were likely to be 3400 potential pilots awaiting training by April 1943 and 2500 by April 1944. After that the numbers were likely to increase owing to the increased output from the ATC. In October 1942 flying courses were again reduced to eight weeks in each stage, which had the effect of increasing New Zealand's commitments.

Operational requirements in the latter part of September 1943 greatly reduced the number of fully-trained single-engine pilots available for despatch to the **RAF**, and **Air Ministry** was informed that the total output of single-engine pilots from **RNZAF** schools for the next few months would be required in New Zealand. At this stage the **RNZAF** was maintaining five fighter squadrons and planning for an expansion to twelve. Elementary flying training schools were instructed to send their best pupils to No. 2 Service Flying Training School at **Blenheim** for further training on single-engined aircraft for the **Pacific**.

By the end of 1943 the period of rapid expansion of the **RAF** was over. Supplies of aircrew had caught up with the demand and there were adequate reserves, both fully trained and under training. In February 1944 the Supervisory Board of the British Commonwealth Air Training Plan decided that the output of trained aircrew should be gradually reduced by 40 per cent. It was anticipated that New Zealand and **Australia** would continue to meet their present commitments until March 1945, after which any deficiencies would be made up by trainees from the **United Kingdom**. New Zealand, however, pointed out that in view of manpower difficulties she might find it necessary to reconsider her commitments before then.

By June 1944 a serious bottleneck had occurred in the disposal of pilots and a large backlog had accumulated in the United Kingdom, **Canada**, and New Zealand. In Canada, at the beginning of July, there were 400 New Zealand pilots awaiting training who, it was estimated, would not be absorbed before December. It was therefore decided that no more were required in **Canada** until May 1945, and that after that only fifty every four weeks would be needed. Commitments for other categories of aircrew were to remain unchanged. The backlog in **Canada** was employed on non-flying duties while awaiting absorption into training, and the July draft from New Zealand was held for further training at home.

To cope with the surplus of trained and partially trained pilots in New Zealand who were not required for **Canada** or for immediate operational training, an aircrew pool was formed at **Hobsonville** in August 1944, with a maximum capacity of twenty officers and forty NCOs.

It was estimated that by December some 800 New Zealand pilots would have completed training, including the backlog in **Canada** and the **United Kingdom**, and there would still be 400 in **Canada** who would have completed their training by March 1945. After earmarking as many as possible for the **Pacific** theatre, there remained sufficient to cover the

commitments for the European war, and it was decided that no more should be sent to **Canada** and that none should be sent to the **United Kingdom** after December 1944.

In October 1944, after discussions between the British and Canadian Governments, it was decided that the Commonwealth Training Plan should be terminated at the end of March 1945. Accordingly, throughout the latter part of 1944 and early 1945, schools in **Canada** were progressively closed. In October there were 14,000 aircrew in various stages of training in **Canada** and it was considered that they would be sufficient to meet all future requirements. Sixteen hundred of these were New Zealanders, and the **RNZAF** was able to absorb only small numbers as they graduated. **Air Ministry** was prepared to accept the balance, but the **New Zealand Government** did not want to allow them to proceed to the **United Kingdom** unless there was some assurance that they would eventually be employed on operations.

The rapid reduction in overseas commitments and the prospect of the repatriation of many trained and partially trained pilots from **Canada** resulted in a marked reduction in the training organisation required in New Zealand. The Elementary Flying Training Schools at **Taieri** and **Ashburton** were closed in October. Multi-engined flying training ceased at **Wigram** in stages between August and November, since there were sufficient reserves of pilots available to man the bomber-reconnaissance squadrons in the **Pacific**. Single-engined flying training was transferred to **Wigram** from No. 2 SFTS at **Woodbourne**, which was then closed down. The Central Flying School, where instructors were trained, was moved from **Tauranga**, where it had been since 1941, to **Woodbourne**, and **Tauranga** was then closed as a station. The pre-flying training schools at Delta were closed and the Elementary Training Wing and Initial Training Wing moved from there to **Taieri** in December.

Thus by the end of the year flying training was carried out on a reduced scale sufficient to meet the requirements of operational squadrons in the **Pacific** as follows: pre-flying training at **Taieri**,

elementary flying training at Harewood, and service flying training (single-engined only) at Wigram. In addition a Grading School was formed at **Taieri** in which, after a six-weeks' course in the Elementary Training Wing, pupils were given twelve hours of flying instruction to discover their aptitude as aircrew before entering ITW.

With the closing down of the British Commonwealth Air Training Plan and the cessation of the demand for pilots in the **United Kingdom**, the **RNZAF** now had to train only enough men to fill the requirements of its operational squadrons in the **Pacific**. This involved the output, every six weeks, of 44 single-engine pilots, 16 multi-engine pilots, 12 navigators, 20 to 24 air-gunners and a few second pilots.

There were already enough single-engine pilots under training to provide the required output without further recruiting until February 1945. There were 123 multi-engine pilots in the Reserve who would supply all requirements, including the forty second pilots, until September 1945. Navigators could be provided from pilot wastage at ITW and the Grading School until April, as could air-gunners. A demand for wireless operator/air-gunners could be filled until September by personnel repatriated from **Canada**. Consequently, recruiting for aircrew was temporarily discontinued and the Grading School and Initial Training Wing operated for a period at reduced strength. The remaining flying training schools on the other hand, owing to the need to absorb trainees from **Canada**, continued working at full strength.

ROYAL NEW ZEALAND AIR FORCE

REPATRIATION AND EMPLOYMENT OF TRAINEES FROM CANADA

REPATRIATION AND EMPLOYMENT OF TRAINEES FROM CANADA

Between October 1944 and April 1945 approximately 1100 men returned from **Canada**. Some of these had not yet started their aircrew training, but the majority had graduated under the Commonwealth Training Plan. Their absorption into the **RNZAF** was a major problem in the early months of 1945. Although the war in **Europe** was obviously drawing to a close, the end of the **Pacific** war was not yet in sight, and it was necessary to retain most of the men as reserves. Temporary employment had to be found for them, and they were formed into sections on stations known as Aircrew Reserve Flights. They were employed as far as possible on duties connected with flying, the handling of aircraft and airfield control. In addition they had a weekly minimum of five hours' physical training and five hours' lectures on subjects connected with flying duties. Generally speaking, the lot of these men who had been brought back from overseas was not happy. They had spent many months in **Canada**, where, owing to the surplus of aircrew, many of them had done little or no flying, and now they were back in New Zealand doing odd jobs and feeling that they were not really needed.

In June 1945 it was decided to reduce training commitments further. The war in **Europe** had ended and a tentative date had been assumed for the end of the war against **Japan**. With the existing reserves of aircrew trained and under training, it was considered that no further recruiting would be necessary. It was planned that training commitments should be progressively reduced until October 1946, after which token training would be carried on at the rate of thirty-seven aircrew of all categories every six weeks. In accordance with this policy the Grading School and Initial Training Wing closed down in July, as did the EFTS at Harewood, and at the same time training was curtailed at

the SFTS at Wigram. Thus, when the end of the war came, sooner than most people expected, the flying training organisation was well on the way towards being completely closed down. When hostilities ceased the SFTS at **Wigram**, the only school at which flying training was still carried out, closed down, and in the immediate post-war period flying training was restricted to refresher courses.

During the war some 2743 pilots were fully trained in New Zealand and sent overseas to serve with the **RAF** in **Europe**, the **Middle East**, and the **Far East**. Another 1521 who completed their training in New Zealand were retained in the country, either as instructors or staff pilots or to man the operational squadrons which were formed in the latter half of the war. In 1940, before the British Commonwealth Air Training Plan was fully developed, New Zealand also trained 183 observers and 395 air-gunners for the **RAF**. From 1943 onwards the training of wireless operator/air-gunners and navigators was also carried on in New Zealand for **Pacific** operations.

In addition some 2910 pilots were trained to elementary standard and sent to **Canada** to continue their training under the British Commonwealth Air Training Plan, and more than 2700 wireless operator/air-gunners, 1800 navigators, and 500 bomb aimers passed through the Initial Training Wing and then went to **Canada**.



SOUTH - EAST ASIA

Of the 131,000 trainees who graduated in [Canada](#) under the Commonwealth Air Training Plan, New Zealanders formed 5.3 per cent. The majority of them, when they completed training, were posted to the [United Kingdom](#) for service with the Royal Air Force. Some were retained in [Canada](#) as instructors, and a few who failed to complete their courses were remustered to ground trades. From the end of 1944 a large number, some of whom had completed their training and some who had not yet started it, returned to New Zealand as a result of the closing down of the Plan.

ROYAL NEW ZEALAND AIR FORCE

CHAPTER 6 – LOCAL DEFENCE

CHAPTER 6

Local Defence

THE responsibility for directing New Zealand's war effort lay with the Cabinet—or rather, after July 1940, with the War Cabinet—whose decisions were transmitted through the Minister of Defence to the services. In arriving at these decisions on broad policy, the **War Cabinet** was assisted by committees dealing with specific aspects of the multifarious problems involved in waging war.

In 1933 a New Zealand Committee of Imperial Defence had been set up to co-ordinate all preparations for national defence, both military and civil. It consisted of a number of committees of Cabinet Ministers and representatives of all Government departments which would be concerned with the security and supply of the country in time of war. All its decisions were advisory and were sent to Cabinet for action if the British Committee of Imperial Defence approved them.

In 1936 the name of the committee was changed and it became known as the **Organisation for National Security**. At that time it consisted of twelve functioning committees, of which the most important were the Chiefs of Staff Committee, which advised on all service matters, and the committee dealing with co-ordination and the preparation of the Government War Book. Others dealt with supply, mapping, manpower, emergency precautions and the like.

In May 1937 a Council of Defence was formed to direct the activities of the various ONS committees. It consisted of the Prime Minister and the Ministers of Defence and Finance. The three Chiefs of Staff, the Secretary to the Treasury, and the Permanent Head of the Prime Minister's Department attended all meetings in a consultative capacity. Other members attended from time to time by invitation of the Prime Minister. Major **Stevens**¹ was seconded from Army to the Prime Minister's Department and appointed secretary both of the Defence Council and of the ONS.

By 1938 the committees of the ONS numbered twenty-two, with **Air Force** representation on most of them. The Munich crisis in

¹ **Maj-Gen W. G. Stevens**, CB, CBE, m.i.d.; **London**; born England, 11 Dec 1893; Regular soldier; Offr i/c Administration, **2 NZEF**, 1940–45; GOC **2 NZEF**, Nov 1945-Jun 1946.

September of that year lent urgency to the preparations for war, and work was pushed ahead in preparing a complete blueprint for the transition from peace to war economy. When war came in September 1939 preparations were complete and the changeover was made smoothly.

After the war started the original function of the ONS, that of preparation, was at an end; but the committees continued to act as consultative and deliberative bodies and the organisation, within the Prime Minister's Department, was responsible for co-ordination of the country's total war effort. The secretary (Major Stevens was succeeded in 1940 by Mr Foss Shanahan ¹) also acted as secretary to the Chiefs of Staff Committee, which naturally became the most active section of the ONS. In addition the ONS provided the secretariat for the War Council, a further advisory body which functioned from January 1940 until September 1942.

¹ **Foss Shanahan**; **Wellington**; born Alexandra, 10 Jun 1910; civil servant; appointed Assistant Secretary to **War Cabinet** and Secretary Chiefs of Staff Committee, 18 Mar 1943; Secretary of the Cabinet and Deputy Secretary of External Affairs, 1 Oct 1945–.

THE WAR CABINET

Early in 1940 a Cabinet Committee on Defence was formed, its purpose being to provide a more compact and manageable body for the direction of the war within the full Cabinet. In July, following the crisis

caused by the fall of **France**, it was replaced by the **War Cabinet**, composed of representatives of both the major political parties, which thereafter had complete authority to make major decisions. It functioned successfully until it was dissolved at the end of the war.

In 1943 Mr Shanahan was appointed assistant secretary to the **War Cabinet**, and the office of the Organisation for National Security became an integral part of the **War Cabinet** secretariat, dropping its separate identity.

The link between the services and the **War Cabinet** was two-fold. On the one hand there was an advisory chain through the Chiefs of Staff Committee and the **Organisation for National Security**, and on the other a chain of command from the **War Cabinet**, through the Minister of Defence, to the three Chiefs of Staff.

OPERATIONAL RESOURCES OF THE RNZAF AT THE BEGINNING OF THE WAR

Although the **RNZAF** had laid its plans well before the war and was administratively ready to go into action, from the material aspect it was not in a good position. Had peace lasted for six months longer, the Vickers Wellingtons which were on order would have been despatched from the **United Kingdom** and would have provided a valuable addition to the country's defences. The Government's decision to hand them over to the **RAF**, together with the crews who were to bring them out, was undoubtedly correct and was warmly appreciated by the British Government. At the same time, the lack of modern equipment and the absence of many of its best-trained crews made it difficult for the **RNZAF** to provide the full measure of air defence which was desirable.

There were no long-range military aircraft in the country, and no modern ones at all. For defence against attack there were only the Territorial squadrons armed with Baffins and Vildebeestes, and a number of Fairey Gordons in the training organisation which could be used in an emergency. Of the Territorial units, only the Wellington Squadron had

made much progress with its training.

In the early months of the war the three squadrons concentrated on operational training, and by early in 1940 had achieved a reasonable standard of efficiency as far as their limited equipment allowed.

A number of their pilots were withdrawn to form, with ex-aero club instructors, a nucleus of instructors and staff pilots in the training organisation. This, coupled with the fact that some of their aircraft were needed to meet training requirements, resulted in the units being large flights rather than fully manned and equipped squadrons. Two of the flights, those at **Wigram** and **Woodbourne**, occupied accommodation which was needed by the flying training schools. In March 1940 the three flights were combined to form the New Zealand General Reconnaissance Squadron, and stationed at the newly completed aerodrome at **Whenuapai**. The location was chosen because there was ample hangar space at **Whenuapai** to house both the squadron and No. 4 EFTS which was later to form there, and because **Auckland** was an important commercial centre and commanded the focal shipping area of the **Hauraki Gulf**. The operational strength of the **Air Force** was increased slightly by taking over a number of multi-engined commercial aircraft which were used both for training and for reconnaissance when the necessity arose. Arrangements were also made with **Tasman Empire Airways Limited** for their two flying boats, **Awarua** and **Aotearoa**, to be used when necessary on long-range sea reconnaissance. These aircraft periodically carried out patrols to the Chatham and Kermadec Islands.

Early in the war **Britain** was asked whether, in the event of war with **Japan**, she would let New Zealand have on short notice eighteen modern twin-engined bombers or general reconnaissance aircraft, or alternatively place an order for eighteen Hudsons from the **United States** for the **RNZAF**. In May 1940 **Britain** agreed that if **Japan** entered the war eighteen Hudsons would be released for shipment to New Zealand direct from **America**. Previously fifty Vincents had been offered from **RAF** reserves in the **Middle East**. They had been intended primarily for training purposes, but would also have formed a useful reserve in case of

emergency. The RAF was so desperately short of aircraft in the **Middle East**, however, that the offer had to be withdrawn. Sixty Hawker Harts were offered instead, but they were not so suitable for New Zealand defence requirements as they had neither the range nor the striking power of the Vincents.

New Zealand then asked for twenty-four Hudsons to be sent instead of the Vincents, but this request had to be refused owing to the general shortage.

EARLY OPERATIONS IN NEW ZEALAND

The first air operation of the war carried out in New Zealand waters was a search by aircraft of the Auckland GR Squadron in the latter part of September 1939 for an enemy submarine. The search was fruitless, but as a result of the alarm standard patrols were organised, and shipping entering and leaving **Auckland** was thereafter given air cover.

Early in January 1940 the first New Zealand troop convoy left for overseas. There were six liners in the convoy, escorted by the battleship *Ramillies* and the cruisers *Canberra* and *Leander*. For a week before they left **Wellington** and **Lyttelton**, the **RNZAF** carried out patrols to a 50-mile radius of the two ports to search for possible enemy activity. To assist in the operations covering the approaches to **Wellington**, the Auckland Squadron was moved temporarily from **Whenuapai** to **Ohakea**.

Operations of the German raider *Orion* and her attendant ships in New Zealand waters in the second half of 1940 emphasised the need for long-range reconnaissance aircraft. On the night of 13 June the raider mined the entrance to the **Hauraki Gulf**, and by daylight had retired out of the range of the aircraft then available. Less than a week later the SS *Niagara*, bound from **Auckland** for Vancouver, struck two mines and sank between Bream Head and Moko Hinau.

In August the *Orion* sank the *Turakina* some 400 miles west of Cape Egmont. Patrols of the area were made by TEA flying boats, and by De

Havilland Dragon aircraft from the Observers' School at **Ohakea**. In addition, a flight of three Vincents from **Ohakea** was sent to the aerodrome at **Waipapakauri** in **North Auckland** and operated from there for some days, but again the raider escaped without being attacked. Some months later, in November, she returned to New Zealand waters accompanied by two other vessels and sank two ships, the *Holmwood* and the *Rangitane*. Again both sinkings occurred outside the effective range of any service aircraft. A flight of Vincents was sent to operate from **Gisborne**, the nearest aerodrome to the point where the *Rangitane* was sunk, but with their limited range the aircraft could not reach the area. Searches were also made by TEA flying boats, one of which was seen by the raider (but did not see it) 500 miles from the New Zealand coast.

Although these incidents showed how weak the **RNZAF** was to cope with raiders, nothing could be done at the time to improve the position. The British Admiralty recommended the diversion of six Hudsons to New Zealand, but all available aircraft were needed in the more active theatres of war. To give full protection to shipping in New Zealand waters, a small striking force as well as reconnaissance aircraft would have been necessary, and the machines just could not be spared. The risks involved in carrying on with obsolescent aircraft had to be balanced against the urgent needs of other theatres, and the diversion of modern aircraft to New Zealand would not have been justified.

DEFENCE OF FIJI

Besides giving what protection it could to shipping in New Zealand waters, the **RNZAF** had a responsibility in the protection of **Fiji**. The recommendations of the Pacific Defence Conference concerning the Group had been approved by the New Zealand Cabinet in May 1939. An area of 117 acres was acquired at **Nandi**, near **Lautoka** on the west coast of **Viti Levu**, and an aerodrome with three runways was planned. At **Nausori**, 15 miles from **Suva** on the east coast, a single strip was projected. At the same time an aerodrome site and a seaplane alighting

area were surveyed at **Tonga**. The contract for the two aerodromes in **Fiji** was let to the Southern Cross Construction Company and work on them began on the day war was declared. Both fields were practically completed by the following March, and then the construction machinery was shipped to **Tonga** and work on the aerodrome was begun there the following month. This field, built on land provided by the Tongan Government, was completed in September. Underground fuel stores were built at both **Fiji** and **Tonga**, and reserves of petrol, oil, and bombs were distributed among the three aerodromes.

By September 1940 the international situation in the **Pacific** was worse, with **Japan's** attitude becoming more and more threatening, and it was decided to send troops and a detachment of the **RNZAF** to reinforce **Fiji**. As a preliminary step work was begun at **Nandi** to provide accommodation, roading, sewerage, electric power supply and a hangar. The work was carried out by the Fijian Government under the direction of the New Zealand Public Works Department.

The **RNZAF** detachment formed at **Rongotai** in October under the command of Squadron Leader Baird. The advance party left New Zealand in the *SS Kaiwarra* on 1 November and arrived at **Lautoka** five days later. The main body left in two sections on 11 November and arrived on the 14th, one party going to **Lautoka** and the other to **Suva**.

The advance party carried with it most of the detachment's equipment: transport vehicles, timber, building materials, petrol, oil, and miscellaneous stores, as well as its aircraft. These comprised four DH89 Dragon Rapides, modified and equipped for operational flying, and one DH60 Moth for communications. Fuselages were carried on deck with engines and undercarriages attached, and the mainplanes and tail assemblies were crated and stowed between decks.

The morning after the ship arrived unloading began. The aircraft were lowered into lighters and towed the four or five miles round the coast to **Nandi**, where they were manhandled ashore and pushed along the road to the aerodrome. There, until the hangar was completed, they

were housed in native-built shelters consisting of a thatched roof on poles. The other equipment was laboriously unloaded during the next few days, and as much as possible was put into two marquees erected at the aerodrome pending the completion of a main store building.

The men lived in tents at Namaka, two miles from the aerodrome, where the New Zealand Army had built a camp. For some months, while they were quartered there, they were attached to the Army for rations, canteen, postal and medical services, and all supplies not peculiar to the **Air Force**.

Progress with the building programme at **Nandi** was slow owing to the difficulty of obtaining material and the lack of labour, most of which was absorbed in Army works. Early in December a small headquarters building and a store were finished and a start was made on living quarters, but these were not ready for occupation until the following March.

The party which went to **Suva** formed **RNZAF** Headquarters in **Fiji**. The men were quartered at the Army camp at Nasese and the officers lived in the Grand Pacific Hotel. Headquarters offices were set up in the grounds of Government Buildings. The Commanding Officer was responsible for the training of all **Air Force** units in **Fiji** and for the tactical direction of air operations, and acted as Air Adviser to the Officer Commanding, Fiji Defences. He was required to co-operate with the Army in the close defence of **Fiji**, but his primary responsibility was the reconnaissance of the New Hebrides- **Fiji- Tonga** area.

The party on the west coast, consisting of six officers and forty-two other ranks, was designated the Detached Flight, **Nandi**, and was commanded by Squadron Leader **White**.¹

On 17 November, eleven days after the advance party had landed, the first of the DH89s had been assembled and was flown at **Nandi**. The next day Squadron Leader White flew it to **Nausori** and was the first pilot to land on the aerodrome. A few days later flying training was started in

earnest and the detachment began carrying out reconnaissance patrols. The first operational flight was made on the 21st, when the unit was ordered to intercept the *Rangatira* and *Monowai* which were bringing troops and supplies to **Fiji**.

Regular operations included periodic reconnaissance of outlying islands where enemy shipping might be sheltering, particularly in the Lau Group; escorts for shipping entering and leaving **Suva** and **Lautoka**; dawn and dusk perimeter patrols over the approaches to **Suva**; and extended ocean searches. The latter involved flying more than 400 nautical miles, with few navigational checks and frequent changes of course. In addition the unit kept up a constant programme of training in all aspects of its operational flying.

Flying activities were severely curtailed early in 1941 when two of the DH89s, which were picketed on the aerodrome at **Nausori**, were destroyed on 20 February by a hurricane. Three days later another aircraft was badly damaged through hitting a truck while being flown low over the aerodrome. As the unit now had only one serviceable operational aircraft, two DH86s were shipped from New Zealand, arriving at **Lautoka** on 13 March.

They could not easily be spared from New Zealand as there were only three others of the same type in the country, but the only other operational aircraft available were single-engined Vincents and Vildebeestes, which were not considered suitable for reconnaissance work round **Fiji** because of the risk of forced landings in the shark-infested waters.

It was intended that eventually the unit should be equipped with flying boats and Hudsons. As neither of these types was available it carried on as best it could with the De Havillands. In August, however, the **New Zealand Government** decided to reinforce **Fiji** and sent up a flight of six Vincents to be used on short-range reconnaissance work and army co-operation. They arrived in the middle of the month and were ready for operations early in the next month.

On 8 October the unit was formally constituted a squadron and became known as No. 4 (General Reconnaissance) Squadron.

¹ **Wg Cdr G. R. White**; Hastings; born Wairoa, 11 Nov 1905; commercial pilot.

At the same time as aerodromes were planned in 1939, possible flying-boat alighting areas were surveyed in **Fiji**. Three areas were found suitable for mooring sites: **Suva Harbour**, **Lauthala Bay**, three miles round the coast, and **Lautoka**. Of these the last was the best natural site for a base, but it was too far from Defence Headquarters in **Suva**.

Both the **New Zealand Government** and the Pan-American Airways Corporation had been interested for some time in the formation of a permanent flying-boat base in **Fiji** from the civil aviation aspect. The appearance of German raiders in the **Pacific** and the deteriorating relations with **Japan** emphasised its urgency as a defensive measure. Discussions between New Zealand, **Fiji**, and the United Kingdom were carried on throughout 1940. Finally, in February 1941, the British Government agreed that the construction of a base should be started immediately on the understanding that the cost should be shared by the three countries. The site chosen was at **Lauthala Bay**, but as much development work had to be done before it could be used by flying boats, moorings and other facilities were established in **Suva Harbour** in the meantime.

In April an RAAF Empire-type flying boat landed on the harbour, and the captain reported that although **Suva Harbour** was suitable for Empire flying boats, he did not think it would be satisfactory for bigger aircraft. The visit was a useful test for the organisation set up by the **RNZAF**; refuelling, meteorological, and mooring arrangements all proved very satisfactory.

Work was begun on the construction of shore facilities at **Lauthala Bay** in September and temporary moorings were installed. It was

apparent, however, that before it could be made into a satisfactory operational base a breakwater would have to be built. In the meantime such aircraft as could would have to operate from **Suva Harbour**.

On 18 November the **RNZAF** received its first flying boats, two Short Singapores, which had been flown out from Seletar, in **Singapore**.¹ On Christmas Eve these were reinforced by the arrival

¹ Wing Commander Baird, with aircrews and a small servicing party, had been sent to **Singapore** in September to collect the aircraft. Two left for **Fiji** in November, while the other two, owing to difficulties in making them serviceable, did not get away until 13 December.

They flew to **Fiji** via **Java**, Northern Australia, **New Guinea**, the **Solomons** and the **New Hebrides**. The aircraft were old, barely fit to fly, and heavily laden with equipment and fuel. During the whole journey they rarely achieved a height of more than a few hundred feet above the sea. Mechanical troubles cropped up from time to time, and the flight was not without risk and excitement.

The servicing party, under Sergeants J. W. Cook and I. Walthers, had to be left behind and was attached to No. 205 Squadron RAF. The men, in company with other **RAF** personnel who were evacuated from **Singapore**, eventually reached **Java**. There they were discovered by Squadron Leader E. C. Smart and attached by him to the **RNZAF** Construction Squadron to ensure that they were evacuated to **Australia** with other New Zealanders.

of two more. They were based on **Suva Harbour**, and maintenance and servicing were carried on in whatever buildings and sheds could be acquired on the wharves.

The flying boats and their crews were formed into a unit and called No. 5 (GR) Squadron. They started operations in January 1942 and were employed on shipping escorts and long-range anti-submarine patrols.

A new urgency was given to all defensive preparations in the **Pacific**

following the German attack on **Russia** in June 1941. It was felt that **Japan** might take advantage of **Russia's** preoccupation in the west and attempt to occupy British and American territories in the **Far East**. The United States was particularly apprehensive about the possibility of a Japanese attack on the **Philippines**. The main air reinforcing route from **America** to the **Far East** ran through **Hawaii**, Midway, Wake Island, **Port Moresby** and Darwin. This route, passing near the Japanese mandated islands in the Carolines and Marianas, was likely to be too vulnerable in the event of war, and the **United States** decided to prepare a more southerly route passing through Christmas Island, Canton Island, **Fiji** and New Caledonia. ¹

Shortly before **Japan** entered the war, a conference was held in **Suva** between New Zealand and American officers and the Government of **Fiji** to discuss the formation of a major aerodrome at **Nandi** to serve the Americans as a base in their **Far East** reinforcing route. As a result it was agreed that the base should be developed and that the **RNZAF** should eventually vacate it and move to **Nausori**. The **New Zealand Government** undertook responsibility for the necessary extensions at **Nandi** and the Americans were to help with such construction equipment as they could spare. ² Three concrete strips with a minimum length of 7000 feet and a width of 500 feet were projected, and a new strip was to be built at **Narewa**, a few miles from **Nandi**.

No. 2 Aerodrome Construction Squadron RNZAF left New Zealand at the end of November to begin work on accommodation buildings. Ten days later a thousand men who had been formed by the Public Works Department into a **Civil Construction Unit** followed them. The immense amount of plant and equipment needed for the construction work was gathered from all parts of New Zealand and sent to **Fiji**, and more equipment was contributed by the gold mines and sugar mill at **Lautoka**.

By the end of April 1942 the **Civil Construction Unit**, the Aerodrome Construction Squadron, and the **Fijian Public Works Depart-**

¹ See map facing p. 115.

² American help did not materialise.

ment had almost completed the work. ¹ The Civil Construction Unit was withdrawn at the end of May, leaving the Aerodrome Construction Squadron to finish off, and shortly afterwards the American forces took over. On 18 July the command of all forces in **Fiji**, and the responsibility for its defence, was handed over to the United States Army.

¹ 800,000 cubic yards of earth was moved, and 20,000 tons of cement and 3 ½ million super feet of timber were used in the construction.

FORMATION OF NEW GENERAL RECONNAISSANCE SQUADRONS

While the defences of **Fiji** were being strengthened, new squadrons were being formed in New Zealand to meet the growing threat of war in the **Pacific**. In August 1940 the Chief of Air Staff, Air Commodore Saunders, recommended, in view of **Japan's** increasingly hostile attitude, that more operational units should be formed as soon as aircraft became available. Towards the end of the year and early in 1941, a number of Vincents were relinquished by the training schools, which were progressively re-equipping with Harvards and Oxfords. At the same time the flying and technical training programmes had provided enough qualified personnel to man the new units. Consequently, two additional squadrons were established. The original New Zealand GR Squadron at **Whenuapai** became known as No. 1 Squadron. No. 2 Squadron, equipped with Vincents and Vildebeestes, was formed at **Nelson** in December 1940, under the command of Squadron Leader Cohen, and No. 3 Squadron, flying Baffins and commanded by Squadron Leader Monckton, formed at Harewood in April 1941.

No. 1 Squadron continued to be responsible for patrolling the approaches to **Auckland** and the seas round North Cape. No. 2 Squadron guarded Cook Strait and the approaches to **Wellington**, and No. 3 Squadron was responsible for patrols over the approaches to **Lyttelton**, **Dunedin**, and **Foveaux Strait**.

In February 1941 a detached flight of No. 2 Squadron at **Nelson** was stationed at **Omaka**, near **Blenheim**, to patrol the eastern approaches to Cook Strait. In May a detached flight of No. 3 Squadron at Harewood was posted to **Taieri** to operate round the south and south-west coasts of the **South Island**.

The squadron at **Nelson**, besides carrying out its own training and operational programmes, developed also into a School of General Reconnaissance, and pilots from the other squadrons were attached to it for training. By the end of 1941 the school had developed into a separate unit and was transferred to **Omaka**.

When the new squadrons were first formed, they contained a nucleus of experienced officers who were posted as commanding officers and flight commanders. The majority of the pilots came direct from flying training schools. Throughout the first few months of their existence the squadrons concentrated on training to fit them for their role of coastal reconnaissance. The most important subjects about which pilots had to learn were ship recognition, navigation, reporting procedure, codes, etc. Equipment was scarce and became available only by slow degrees. Charts were particularly scarce and pilots had to use photographic reproductions. Navigation instruments were in equally short supply; compasses and dividers were bought by individual pilots and Douglas protractors were home-made from celluloid. It was not until they had been operating for some months that pilots were provided with Mae Wests.

The Baffins of No. 3 Squadron were two-seater machines and were not fitted with dual control. The method of instructing a new pilot to fly them was simple. An experienced pilot flew the aircraft while the trainee

stood in the gunner's cockpit and looked over into the front cockpit to see how it was done. After a flight the new pilot climbed over into the front seat and tried his hand at a solo flight. Then followed one hour's solo flying practice, a solo cross-country flight, and a flight with full war load, and then the pilot was considered 'O.K.' for operations. Thereafter he carried out exercises in formation flying, navigation, and W/T (wireless telegraphy) tests. As the crew consisted only of pilot and air-gunner, the pilot had also to act as navigator. As flying the aircraft was itself a full-time job, the navigation consisted mainly of dead reckoning.

The following is a description by one of the pilots of the aircraft in operational condition:

The ground crew would put a lot of time into the aircraft selected. Riggers, whose job was a difficult one owing to the rotting fabric etc., were most painstaking. The fitters clustered around to tell the pilot little points to watch. Armourers loaded the underside with two 250 lb. general purpose bombs, four 25 lb. anti-personnel bombs, one parachute flare, two wing-tip flares, two smoke floats and anything else they could think of. Within the aircraft were spare drums of ammunition for the rear gunner, a long belt of ammunition for the front gun, flame floats, sea markers, a Verey pistol and Verey cartridges in every colour possible. A dinghy was supposed to be concealed in the centre section of the main plane and was operated by the pilot pulling a string. As no one knew how to put it back, no one tried to operate it, so we do not know to this day if the dinghy was there or not.

In due course the aircrew arrived in full flying kit, plus an amazing array of books, charts, food and so on. The gunner, on entering the aircraft, stowed his parachute and fastened on his safety harness. The pilot had a somewhat more complicated ritual for he was navigator too. Having stepped in he proceeded to dispose of his tools of trade. Each pilot had his own method, but mine was something like this. My gloves were jammed behind the throttle, a Navy code book jammed down my left hip, my flying log was attached to my right knee, my pencil in my mouth, spare pencil in my flying boot, my photographically produced

chart on its cardboard backing was hung on a piece of string from the cocking handle of the gun. My home-made protractor was tied to the chart and a course and speed calculator was hung round my neck on a piece of string. Dividers were tied to the compass. On the right side of the cockpit were Verey pistol and ammunition, and the **Air Ministry** code book and a Syko machine were jammed behind a stay. The above equipment was standard to all pilots and some also carried an empty pipe to suck in anxious moments.

The Vincents and Vildebeestes with which No. 2 Squadron was equipped, and which also eventually replaced the Baffins of No. 3 Squadron, involved rather less trouble for the pilot as they were three-seater machines and carried a navigator as well as an air-gunner.

Operations normally comprised patrols of anything up to a hundred miles out to sea, although occasionally they extended further. Flying obsolescent machines without modern navigation aids, often in extremely bad weather, pilots had an arduous task. The fact that they never had the opportunity of attacking an enemy ship did nothing to lighten the work. An aircraft of No. 3 Squadron operating on one occasion from **Invercargill** aerodrome carried out a patrol to the Snares Islands, south of New Zealand, and went as far as a latitude of 48 degrees 1 minute south, which was claimed as the southernmost point reached by any single-engined land-based aircraft on an operational flight.

After operating for more than two years with obsolescent aircraft, the **RNZAF** started to receive more modern machines towards the end of 1941. In July of that year **Britain** authorised the release of six Hudsons ¹ a month to New Zealand from **RAF** allocations in **America**. A total of sixty-four was ordered by New Zealand, of which thirty were to be delivered before the end of 1941 and the balance in 1942. The allocation was subject to review if relative conditions in the **Pacific** and the European theatre should change.

The first six aircraft arrived in September and were assembled at

Hobsonville. More arrived in the following months, and as soon as they were assembled they were allotted to the GR squadrons.

By the end of the year all three squadrons were partially equipped with them.

When Japan entered the war in December, New Zealand had the three squadrons equipped with Hudsons and Vincents. In Fiji No. 4 Squadron was armed with four De Havilland aircraft and six Vincents, and an Army Co-operation Squadron had recently been formed with a strength of two aircraft. Immediately war broke out, six of the few Hudsons available in New Zealand were sent to reinforce No. 4 Squadron.

¹ PBO Hudson; made by Lockheed, **America**; twin-engined reconnaissance bomber; maximum speed over 250 m.p.h.; cruising range 2000 miles; one of the first American planes to go into service with the **RAF**.

ROYAL NEW ZEALAND AIR FORCE

[SECTION]

THE responsibility for directing New Zealand's war effort lay with the Cabinet—or rather, after July 1940, with the War Cabinet—whose decisions were transmitted through the Minister of Defence to the services. In arriving at these decisions on broad policy, the War Cabinet was assisted by committees dealing with specific aspects of the multifarious problems involved in waging war.

In 1933 a New Zealand Committee of Imperial Defence had been set up to co-ordinate all preparations for national defence, both military and civil. It consisted of a number of committees of Cabinet Ministers and representatives of all Government departments which would be concerned with the security and supply of the country in time of war. All its decisions were advisory and were sent to Cabinet for action if the British Committee of Imperial Defence approved them.

In 1936 the name of the committee was changed and it became known as the Organisation for National Security. At that time it consisted of twelve functioning committees, of which the most important were the Chiefs of Staff Committee, which advised on all service matters, and the committee dealing with co-ordination and the preparation of the Government War Book. Others dealt with supply, mapping, manpower, emergency precautions and the like.

In May 1937 a Council of Defence was formed to direct the activities of the various ONS committees. It consisted of the Prime Minister and the Ministers of Defence and Finance. The three Chiefs of Staff, the Secretary to the Treasury, and the Permanent Head of the Prime Minister's Department attended all meetings in a consultative capacity. Other members attended from time to time by invitation of the Prime Minister. Major Stevens¹ was seconded from Army to the Prime Minister's Department and appointed secretary both of the Defence Council and of the ONS.

By 1938 the committees of the ONS numbered twenty-two, with **Air Force** representation on most of them. The Munich crisis in

¹ **Maj-Gen W. G. Stevens**, CB, CBE, m.i.d.; **London**; born England, 11 Dec 1893; Regular soldier; Offr i/c Administration, **2 NZEF**, 1940–45; GOC **2 NZEF**, Nov 1945-Jun 1946.

September of that year lent urgency to the preparations for war, and work was pushed ahead in preparing a complete blueprint for the transition from peace to war economy. When war came in September 1939 preparations were complete and the changeover was made smoothly.

After the war started the original function of the ONS, that of preparation, was at an end; but the committees continued to act as consultative and deliberative bodies and the organisation, within the Prime Minister's Department, was responsible for co-ordination of the country's total war effort. The secretary (Major Stevens was succeeded in 1940 by Mr Foss Shanahan ¹) also acted as secretary to the Chiefs of Staff Committee, which naturally became the most active section of the ONS. In addition the ONS provided the secretariat for the War Council, a further advisory body which functioned from January 1940 until September 1942.

¹ **Foss Shanahan**; **Wellington**; born Alexandra, 10 Jun 1910; civil servant; appointed Assistant Secretary to **War Cabinet** and Secretary Chiefs of Staff Committee, 18 Mar 1943; Secretary of the Cabinet and Deputy Secretary of External Affairs, 1 Oct 1945–.

ROYAL NEW ZEALAND AIR FORCE

THE WAR CABINET

THE WAR CABINET

Early in 1940 a Cabinet Committee on Defence was formed, its purpose being to provide a more compact and manageable body for the direction of the war within the full Cabinet. In July, following the crisis caused by the fall of **France**, it was replaced by the **War Cabinet**, composed of representatives of both the major political parties, which thereafter had complete authority to make major decisions. It functioned successfully until it was dissolved at the end of the war.

In 1943 Mr Shanahan was appointed assistant secretary to the **War Cabinet**, and the office of the Organisation for National Security became an integral part of the **War Cabinet** secretariat, dropping its separate identity.

The link between the services and the **War Cabinet** was two-fold. On the one hand there was an advisory chain through the Chiefs of Staff Committee and the **Organisation for National Security**, and on the other a chain of command from the **War Cabinet**, through the Minister of Defence, to the three Chiefs of Staff.

ROYAL NEW ZEALAND AIR FORCE

OPERATIONAL RESOURCES OF THE RNZAF AT THE BEGINNING OF THE WAR

OPERATIONAL RESOURCES OF THE RNZAF AT THE BEGINNING OF THE WAR

Although the **RNZAF** had laid its plans well before the war and was administratively ready to go into action, from the material aspect it was not in a good position. Had peace lasted for six months longer, the Vickers Wellingtons which were on order would have been despatched from the **United Kingdom** and would have provided a valuable addition to the country's defences. The Government's decision to hand them over to the **RAF**, together with the crews who were to bring them out, was undoubtedly correct and was warmly appreciated by the British Government. At the same time, the lack of modern equipment and the absence of many of its best-trained crews made it difficult for the **RNZAF** to provide the full measure of air defence which was desirable.

There were no long-range military aircraft in the country, and no modern ones at all. For defence against attack there were only the Territorial squadrons armed with Baffins and Vildebeestes, and a number of Fairey Gordons in the training organisation which could be used in an emergency. Of the Territorial units, only the Wellington Squadron had made much progress with its training.

In the early months of the war the three squadrons concentrated on operational training, and by early in 1940 had achieved a reasonable standard of efficiency as far as their limited equipment allowed.

A number of their pilots were withdrawn to form, with ex-aero club instructors, a nucleus of instructors and staff pilots in the training organisation. This, coupled with the fact that some of their aircraft were needed to meet training requirements, resulted in the units being large flights rather than fully manned and equipped squadrons. Two of the

flights, those at **Wigram** and **Woodbourne**, occupied accommodation which was needed by the flying training schools. In March 1940 the three flights were combined to form the New Zealand General Reconnaissance Squadron, and stationed at the newly completed aerodrome at **Whenuapai**. The location was chosen because there was ample hangar space at **Whenuapai** to house both the squadron and No. 4 EFTS which was later to form there, and because **Auckland** was an important commercial centre and commanded the focal shipping area of the **Hauraki Gulf**. The operational strength of the **Air Force** was increased slightly by taking over a number of multi-engined commercial aircraft which were used both for training and for reconnaissance when the necessity arose. Arrangements were also made with **Tasman Empire Airways Limited** for their two flying boats, *Awarua* and *Aotearoa*, to be used when necessary on long-range sea reconnaissance. These aircraft periodically carried out patrols to the Chatham and Kermadec Islands.

Early in the war **Britain** was asked whether, in the event of war with **Japan**, she would let New Zealand have on short notice eighteen modern twin-engined bombers or general reconnaissance aircraft, or alternatively place an order for eighteen Hudsons from the **United States** for the **RNZAF**. In May 1940 **Britain** agreed that if **Japan** entered the war eighteen Hudsons would be released for shipment to New Zealand direct from **America**. Previously fifty Vincents had been offered from **RAF** reserves in the **Middle East**. They had been intended primarily for training purposes, but would also have formed a useful reserve in case of emergency. The **RAF** was so desperately short of aircraft in the **Middle East**, however, that the offer had to be withdrawn. Sixty Hawker Harts were offered instead, but they were not so suitable for New Zealand defence requirements as they had neither the range nor the striking power of the Vincents.

New Zealand then asked for twenty-four Hudsons to be sent instead of the Vincents, but this request had to be refused owing to the general shortage.

ROYAL NEW ZEALAND AIR FORCE

EARLY OPERATIONS IN NEW ZEALAND

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The first air operation of the war carried out in New Zealand waters was a search by aircraft of the Auckland GR Squadron in the latter part of September 1939 for an enemy submarine. The search was fruitless, but as a result of the alarm standard patrols were organised, and shipping entering and leaving **Auckland** was thereafter given air cover.

Early in January 1940 the first New Zealand troop convoy left for overseas. There were six liners in the convoy, escorted by the battleship *Ramillies* and the cruisers *Canberra* and *Leander*. For a week before they left **Wellington** and **Lyttelton**, the **RNZAF** carried out patrols to a 50-mile radius of the two ports to search for possible enemy activity. To assist in the operations covering the approaches to **Wellington**, the Auckland Squadron was moved temporarily from **Whenuapai** to **Ohakea**.

Operations of the German raider *Orion* and her attendant ships in New Zealand waters in the second half of 1940 emphasised the need for long-range reconnaissance aircraft. On the night of 13 June the raider mined the entrance to the **Hauraki Gulf**, and by daylight had retired out of the range of the aircraft then available. Less than a week later the SS *Niagara*, bound from **Auckland** for Vancouver, struck two mines and sank between Bream Head and Moko Hinau.

In August the *Orion* sank the *Turakina* some 400 miles west of Cape Egmont. Patrols of the area were made by TEA flying boats, and by De Havilland Dragon aircraft from the Observers' School at **Ohakea**. In addition, a flight of three Vincents from **Ohakea** was sent to the aerodrome at **Waipapakauri** in **North Auckland** and operated from there for some days, but again the raider escaped without being attacked. Some months later, in November, she returned to New Zealand waters accompanied by two other vessels and sank two ships, the *Holmwood*

and the *Rangitane*. Again both sinkings occurred outside the effective range of any service aircraft. A flight of Vincents was sent to operate from **Gisborne**, the nearest aerodrome to the point where the *Rangitane* was sunk, but with their limited range the aircraft could not reach the area. Searches were also made by TEA flying boats, one of which was seen by the raider (but did not see it) 500 miles from the New Zealand coast.

Although these incidents showed how weak the **RNZAF** was to cope with raiders, nothing could be done at the time to improve the position. The British Admiralty recommended the diversion of six Hudsons to New Zealand, but all available aircraft were needed in the more active theatres of war. To give full protection to shipping in New Zealand waters, a small striking force as well as reconnaissance aircraft would have been necessary, and the machines just could not be spared. The risks involved in carrying on with obsolescent aircraft had to be balanced against the urgent needs of other theatres, and the diversion of modern aircraft to New Zealand would not have been justified.

ROYAL NEW ZEALAND AIR FORCE

DEFENCE OF FIJI

DEFENCE OF FIJI

Besides giving what protection it could to shipping in New Zealand waters, the **RNZAF** had a responsibility in the protection of **Fiji**. The recommendations of the Pacific Defence Conference concerning the Group had been approved by the New Zealand Cabinet in May 1939. An area of 117 acres was acquired at **Nandi**, near **Lautoka** on the west coast of **Viti Levu**, and an aerodrome with three runways was planned. At **Nausori**, 15 miles from **Suva** on the east coast, a single strip was projected. At the same time an aerodrome site and a seaplane alighting area were surveyed at **Tonga**. The contract for the two aerodromes in **Fiji** was let to the Southern Cross Construction Company and work on them began on the day war was declared. Both fields were practically completed by the following March, and then the construction machinery was shipped to **Tonga** and work on the aerodrome was begun there the following month. This field, built on land provided by the Tongan Government, was completed in September. Underground fuel stores were built at both **Fiji** and **Tonga**, and reserves of petrol, oil, and bombs were distributed among the three aerodromes.

By September 1940 the international situation in the **Pacific** was worse, with **Japan's** attitude becoming more and more threatening, and it was decided to send troops and a detachment of the **RNZAF** to reinforce **Fiji**. As a preliminary step work was begun at **Nandi** to provide accommodation, roading, sewerage, electric power supply and a hangar. The work was carried out by the Fijian Government under the direction of the New Zealand Public Works Department.

The **RNZAF** detachment formed at **Rongotai** in October under the command of Squadron Leader Baird. The advance party left New Zealand in the *SS Kaiwarra* on 1 November and arrived at **Lautoka** five days later. The main body left in two sections on 11 November and arrived on

the 14th, one party going to **Lautoka** and the other to **Suva**.

The advance party carried with it most of the detachment's equipment: transport vehicles, timber, building materials, petrol, oil, and miscellaneous stores, as well as its aircraft. These comprised four DH89 Dragon Rapides, modified and equipped for operational flying, and one DH60 Moth for communications. Fuselages were carried on deck with engines and undercarriages attached, and the mainplanes and tail assemblies were crated and stowed between decks.

The morning after the ship arrived unloading began. The aircraft were lowered into lighters and towed the four or five miles round the coast to **Nandi**, where they were manhandled ashore and pushed along the road to the aerodrome. There, until the hangar was completed, they were housed in native-built shelters consisting of a thatched roof on poles. The other equipment was laboriously unloaded during the next few days, and as much as possible was put into two marquees erected at the aerodrome pending the completion of a main store building.

The men lived in tents at Namaka, two miles from the aerodrome, where the New Zealand Army had built a camp. For some months, while they were quartered there, they were attached to the Army for rations, canteen, postal and medical services, and all supplies not peculiar to the **Air Force**.

Progress with the building programme at **Nandi** was slow owing to the difficulty of obtaining material and the lack of labour, most of which was absorbed in Army works. Early in December a small headquarters building and a store were finished and a start was made on living quarters, but these were not ready for occupation until the following March.

The party which went to **Suva** formed **RNZAF** Headquarters in **Fiji**. The men were quartered at the Army camp at Nasese and the officers lived in the Grand Pacific Hotel. Headquarters offices were set up in the grounds of Government Buildings. The Commanding Officer was

responsible for the training of all **Air Force** units in **Fiji** and for the tactical direction of air operations, and acted as Air Adviser to the Officer Commanding, **Fiji Defences**. He was required to co-operate with the Army in the close defence of **Fiji**, but his primary responsibility was the reconnaissance of the New Hebrides- **Fiji- Tonga** area.

The party on the west coast, consisting of six officers and forty-two other ranks, was designated the Detached Flight, **Nandi**, and was commanded by Squadron Leader **White**. ¹

On 17 November, eleven days after the advance party had landed, the first of the DH89s had been assembled and was flown at **Nandi**. The next day Squadron Leader **White** flew it to **Nausori** and was the first pilot to land on the aerodrome. A few days later flying training was started in earnest and the detachment began carrying out reconnaissance patrols. The first operational flight was made on the 21st, when the unit was ordered to intercept the *Rangatira* and *Monowai* which were bringing troops and supplies to **Fiji**.

Regular operations included periodic reconnaissance of outlying islands where enemy shipping might be sheltering, particularly in the Lau Group; escorts for shipping entering and leaving **Suva** and **Lautoka**; dawn and dusk perimeter patrols over the approaches to **Suva**; and extended ocean searches. The latter involved flying more than 400 nautical miles, with few navigational checks and frequent changes of course. In addition the unit kept up a constant programme of training in all aspects of its operational flying.

Flying activities were severely curtailed early in 1941 when two of the DH89s, which were picketed on the aerodrome at **Nausori**, were destroyed on 20 February by a hurricane. Three days later another aircraft was badly damaged through hitting a truck while being flown low over the aerodrome. As the unit now had only one serviceable operational aircraft, two DH86s were shipped from New Zealand, arriving at **Lautoka** on 13 March.

They could not easily be spared from New Zealand as there were only three others of the same type in the country, but the only other operational aircraft available were single-engined Vincents and Vildebeestes, which were not considered suitable for reconnaissance work round **Fiji** because of the risk of forced landings in the shark-infested waters.

It was intended that eventually the unit should be equipped with flying boats and Hudsons. As neither of these types was available it carried on as best it could with the De Havillands. In August, however, the **New Zealand Government** decided to reinforce **Fiji** and sent up a flight of six Vincents to be used on short-range reconnaissance work and army co-operation. They arrived in the middle of the month and were ready for operations early in the next month.

On 8 October the unit was formally constituted a squadron and became known as No. 4 (General Reconnaissance) Squadron.

¹ **Wg Cdr G. R. White**; Hastings; born Wairoa, 11 Nov 1905; commercial pilot.

At the same time as aerodromes were planned in 1939, possible flying-boat alighting areas were surveyed in **Fiji**. Three areas were found suitable for mooring sites: **Suva Harbour**, **Lauthala Bay**, three miles round the coast, and **Lautoka**. Of these the last was the best natural site for a base, but it was too far from Defence Headquarters in **Suva**.

Both the **New Zealand Government** and the Pan-American Airways Corporation had been interested for some time in the formation of a permanent flying-boat base in **Fiji** from the civil aviation aspect. The appearance of German raiders in the **Pacific** and the deteriorating relations with **Japan** emphasised its urgency as a defensive measure. Discussions between New Zealand, **Fiji**, and the United Kingdom were carried on throughout 1940. Finally, in February 1941, the British Government agreed that the construction of a base should be started

immediately on the understanding that the cost should be shared by the three countries. The site chosen was at **Lauthala Bay**, but as much development work had to be done before it could be used by flying boats, moorings and other facilities were established in **Suva Harbour** in the meantime.

In April an RAAF Empire-type flying boat landed on the harbour, and the captain reported that although **Suva Harbour** was suitable for Empire flying boats, he did not think it would be satisfactory for bigger aircraft. The visit was a useful test for the organisation set up by the **RNZAF**; refuelling, meteorological, and mooring arrangements all proved very satisfactory.

Work was begun on the construction of shore facilities at Lauthala Bay in September and temporary moorings were installed. It was apparent, however, that before it could be made into a satisfactory operational base a breakwater would have to be built. In the meantime such aircraft as could would have to operate from **Suva Harbour**.

On 18 November the **RNZAF** received its first flying boats, two Short Singapores, which had been flown out from Seletar, in **Singapore**.¹ On Christmas Eve these were reinforced by the arrival

¹ Wing Commander Baird, with aircrews and a small servicing party, had been sent to **Singapore** in September to collect the aircraft. Two left for **Fiji** in November, while the other two, owing to difficulties in making them serviceable, did not get away until 13 December.

They flew to **Fiji** via **Java**, Northern Australia, **New Guinea**, the **Solomons** and the **New Hebrides**. The aircraft were old, barely fit to fly, and heavily laden with equipment and fuel. During the whole journey they rarely achieved a height of more than a few hundred feet above the sea. Mechanical troubles cropped up from time to time, and the flight was not without risk and excitement.

The servicing party, under Sergeants J. W. Cook and I.

Walters, had to be left behind and was attached to No. 205 Squadron RAF. The men, in company with other **RAF** personnel who were evacuated from **Singapore**, eventually reached **Java**. There they were discovered by Squadron Leader E. C. Smart and attached by him to the **RNZAF** Construction Squadron to ensure that they were evacuated to **Australia** with other New Zealanders.

of two more. They were based on **Suva** Harbour, and maintenance and servicing were carried on in whatever buildings and sheds could be acquired on the wharves.

The flying boats and their crews were formed into a unit and called No. 5 (GR) Squadron. They started operations in January 1942 and were employed on shipping escorts and long-range anti-submarine patrols.

A new urgency was given to all defensive preparations in the **Pacific** following the German attack on **Russia** in June 1941. It was felt that **Japan** might take advantage of **Russia's** preoccupation in the west and attempt to occupy British and American territories in the **Far East**. The United States was particularly apprehensive about the possibility of a Japanese attack on the **Philippines**. The main air reinforcing route from **America** to the **Far East** ran through **Hawaii**, Midway, Wake Island, **Port Moresby** and Darwin. This route, passing near the Japanese mandated islands in the Carolines and Marianas, was likely to be too vulnerable in the event of war, and the **United States** decided to prepare a more southerly route passing through Christmas Island, Canton Island, **Fiji** and New Caledonia. ¹

Shortly before **Japan** entered the war, a conference was held in **Suva** between New Zealand and American officers and the Government of **Fiji** to discuss the formation of a major aerodrome at **Nandi** to serve the Americans as a base in their **Far East** reinforcing route. As a result it was agreed that the base should be developed and that the **RNZAF** should eventually vacate it and move to **Nausori**. The **New Zealand Government** undertook responsibility for the necessary extensions at **Nandi** and the Americans were to help with such construction equipment as they could

spare.² Three concrete strips with a minimum length of 7000 feet and a width of 500 feet were projected, and a new strip was to be built at Narewa, a few miles from **Nandi**.

No. 2 Aerodrome Construction Squadron **RNZAF** left New Zealand at the end of November to begin work on accommodation buildings. Ten days later a thousand men who had been formed by the Public Works Department into a **Civil Construction Unit** followed them. The immense amount of plant and equipment needed for the construction work was gathered from all parts of New Zealand and sent to **Fiji**, and more equipment was contributed by the gold mines and sugar mill at **Lautoka**.

By the end of April 1942 the **Civil Construction Unit**, the Aerodrome Construction Squadron, and the Fijian Public Works Depart-

¹ See map facing p. 115.

² American help did not materialise.

ment had almost completed the work.¹ The **Civil Construction Unit** was withdrawn at the end of May, leaving the Aerodrome Construction Squadron to finish off, and shortly afterwards the American forces took over. On 18 July the command of all forces in **Fiji**, and the responsibility for its defence, was handed over to the United States Army.

¹ 800,000 cubic yards of earth was moved, and 20,000 tons of cement and 3 ½ million super feet of timber were used in the construction.

ROYAL NEW ZEALAND AIR FORCE

FORMATION OF NEW GENERAL RECONNAISSANCE SQUADRONS

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While the defences of **Fiji** were being strengthened, new squadrons were being formed in New Zealand to meet the growing threat of war in the **Pacific**. In August 1940 the Chief of Air Staff, Air Commodore Saunders, recommended, in view of **Japan's** increasingly hostile attitude, that more operational units should be formed as soon as aircraft became available. Towards the end of the year and early in 1941, a number of Vincents were relinquished by the training schools, which were progressively re-equipping with Harvards and Oxfords. At the same time the flying and technical training programmes had provided enough qualified personnel to man the new units. Consequently, two additional squadrons were established. The original New Zealand GR Squadron at **Whenuapai** became known as No. 1 Squadron. No. 2 Squadron, equipped with Vincents and Vildebeestes, was formed at **Nelson** in December 1940, under the command of Squadron Leader Cohen, and No. 3 Squadron, flying Baffins and commanded by Squadron Leader Monckton, formed at Harewood in April 1941.

No. 1 Squadron continued to be responsible for patrolling the approaches to **Auckland** and the seas round North Cape. No. 2 Squadron guarded Cook Strait and the approaches to **Wellington**, and No. 3 Squadron was responsible for patrols over the approaches to **Lyttelton**, Dunedin, and Foveaux Strait.

In February 1941 a detached flight of No. 2 Squadron at **Nelson** was stationed at **Omaka**, near **Blenheim**, to patrol the eastern approaches to Cook Strait. In May a detached flight of No. 3 Squadron at Harewood was posted to **Taieri** to operate round the south and south-west coasts of the **South Island**.

The squadron at **Nelson**, besides carrying out its own training and

operational programmes, developed also into a School of General Reconnaissance, and pilots from the other squadrons were attached to it for training. By the end of 1941 the school had developed into a separate unit and was transferred to **Omaka**.

When the new squadrons were first formed, they contained a nucleus of experienced officers who were posted as commanding officers and flight commanders. The majority of the pilots came direct from flying training schools. Throughout the first few months of their existence the squadrons concentrated on training to fit them for their role of coastal reconnaissance. The most important subjects about which pilots had to learn were ship recognition, navigation, reporting procedure, codes, etc. Equipment was scarce and became available only by slow degrees. Charts were particularly scarce and pilots had to use photographic reproductions. Navigation instruments were in equally short supply; compasses and dividers were bought by individual pilots and Douglas protractors were home-made from celluloid. It was not until they had been operating for some months that pilots were provided with Mae Wests.

The Baffins of No. 3 Squadron were two-seater machines and were not fitted with dual control. The method of instructing a new pilot to fly them was simple. An experienced pilot flew the aircraft while the trainee stood in the gunner's cockpit and looked over into the front cockpit to see how it was done. After a flight the new pilot climbed over into the front seat and tried his hand at a solo flight. Then followed one hour's solo flying practice, a solo cross-country flight, and a flight with full war load, and then the pilot was considered 'O.K.' for operations. Thereafter he carried out exercises in formation flying, navigation, and W/T (wireless telegraphy) tests. As the crew consisted only of pilot and air-gunner, the pilot had also to act as navigator. As flying the aircraft was itself a full-time job, the navigation consisted mainly of dead reckoning.

The following is a description by one of the pilots of the aircraft in operational condition:

The ground crew would put a lot of time into the aircraft selected. Riggers, whose job was a difficult one owing to the rotting fabric etc., were most painstaking. The fitters clustered around to tell the pilot little points to watch. Armourers loaded the underside with two 250 lb. general purpose bombs, four 25 lb. anti-personnel bombs, one parachute flare, two wing-tip flares, two smoke floats and anything else they could think of. Within the aircraft were spare drums of ammunition for the rear gunner, a long belt of ammunition for the front gun, flame floats, sea markers, a Verey pistol and Verey cartridges in every colour possible. A dinghy was supposed to be concealed in the centre section of the main plane and was operated by the pilot pulling a string. As no one knew how to put it back, no one tried to operate it, so we do not know to this day if the dinghy was there or not.

In due course the aircrew arrived in full flying kit, plus an amazing array of books, charts, food and so on. The gunner, on entering the aircraft, stowed his parachute and fastened on his safety harness. The pilot had a somewhat more complicated ritual for he was navigator too. Having stepped in he proceeded to dispose of his tools of trade. Each pilot had his own method, but mine was something like this. My gloves were jammed behind the throttle, a Navy code book jammed down my left hip, my flying log was attached to my right knee, my pencil in my mouth, spare pencil in my flying boot, my photographically produced chart on its cardboard backing was hung on a piece of string from the cocking handle of the gun. My home-made protractor was tied to the chart and a course and speed calculator was hung round my neck on a piece of string. Dividers were tied to the compass. On the right side of the cockpit were Verey pistol and ammunition, and the [Air Ministry](#) code book and a Syko machine were jammed behind a stay. The above equipment was standard to all pilots and some also carried an empty pipe to suck in anxious moments.

The Vincents and Vildebeestes with which No. 2 Squadron was equipped, and which also eventually replaced the Baffins of No. 3 Squadron, involved rather less trouble for the pilot as they were three-

seater machines and carried a navigator as well as an air-gunner.

Operations normally comprised patrols of anything up to a hundred miles out to sea, although occasionally they extended further. Flying obsolescent machines without modern navigation aids, often in extremely bad weather, pilots had an arduous task. The fact that they never had the opportunity of attacking an enemy ship did nothing to lighten the work. An aircraft of No. 3 Squadron operating on one occasion from **Invercargill** aerodrome carried out a patrol to the Snares Islands, south of New Zealand, and went as far as a latitude of 48 degrees 1 minute south, which was claimed as the southernmost point reached by any single-engined land-based aircraft on an operational flight.

After operating for more than two years with obsolescent aircraft, the **RNZAF** started to receive more modern machines towards the end of 1941. In July of that year **Britain** authorised the release of six Hudsons ¹ a month to New Zealand from **RAF** allocations in **America**. A total of sixty-four was ordered by New Zealand, of which thirty were to be delivered before the end of 1941 and the balance in 1942. The allocation was subject to review if relative conditions in the **Pacific** and the European theatre should change.

The first six aircraft arrived in September and were assembled at **Hobsonville**. More arrived in the following months, and as soon as they were assembled they were allotted to the GR squadrons.

By the end of the year all three squadrons were partially equipped with them.

When Japan entered the war in December, New Zealand had the three squadrons equipped with Hudsons and Vincents. In Fiji No. 4 Squadron was armed with four De Havilland aircraft and six Vincents, and an Army Co-operation Squadron had recently been formed with a strength of two aircraft. Immediately war broke out, six of the few Hudsons available in New Zealand were sent to reinforce No. 4 Squadron.

¹ PBO Hudson; made by Lockheed, **America**; twin-engined reconnaissance bomber; maximum speed over 250 m.p.h.; cruising range 2000 miles; one of the first American planes to go into service with the **RAF**.

ROYAL NEW ZEALAND AIR FORCE

CHAPTER 7 – NO. 488 SQUADRON IN MALAYA

CHAPTER 7

No. 488 Squadron in Malaya

THE keystone of British strategy in the **Pacific** was the great naval base at **Singapore**, and in the first two years of the war every effort was made to strengthen the garrison there. The conception of its defence had changed in the past few years. Up till the early thirties **Singapore** had been regarded as a base which could be attacked only from the sea, and its defensive dispositions were designed to counter the possibility of seaborne assault. With the increased range and striking power of air forces, however, it became clear that the original plans made for its defence would be inadequate. It was now necessary not only to provide for the defence of **Singapore** Island, but for the whole of the Malay Peninsula. Furthermore, it was recognised in 1939 that the British Home Fleet, whose despatch to the **Far East** in time of war had been regarded as one of the mainstays of **Singapore's** defence, might be too occupied in European waters to be sent.

This meant that the forces in **Malaya** would have to hold out against attack for a longer period than had been anticipated. Consequently, a stronger garrison was necessary than had been originally envisaged. The need to strengthen both land and air forces in **Malaya** came at a time when the resources of the Empire were already severely strained by the necessity of building up forces to beat the Germans in **Europe** and the **Middle East**. Consequently, it was not possible to provide sufficient troops or equipment to make **Singapore** secure from Japanese aggression.

New Zealand had always been aware of the importance of **Singapore** in relation to its own security, and all appreciations of the forces necessary for local defence had been based on the assumption that **Singapore** would not be lost. In recognition of this, it had contributed a substantial amount to the original cost of the base.

The strengthening of the **RAF** squadrons based in **Malaya**, and the

formation of new ones, was helped in 1940 and 1941 by the sending of a monthly quota of pilots trained in New Zealand under the Commonwealth Air Training Plan, and New Zealand representation in many of the squadrons reached a very high proportion.

In the middle of 1941 the British Government asked, in addition, for two complete units to be sent to **Singapore**: a fully manned fighter squadron and an aerodrome construction squadron. After a careful survey of the manpower position at home, the New Zealand Government replied that it could send the two units, although the pilots for the fighter squadron would have to be deducted from the regular monthly quota.

The aerodrome construction squadron was formed in July, and the advance party reached **Malaya** in the middle of August. The remainder of the unit arrived in various drafts until the third week in October, when the squadron was brought practically up to its full strength of 15 officers and 140 other ranks.

The fighter squadron assembled at **Rongotai** early in September, and after it had been equipped and had undergone a short course on drill and weapon training the first draft left New Zealand in the middle of the month. The second body followed six weeks later. The total strength of the squadron was 12 officers and 143 airmen.

The first party, consisting of ninety-six officers and men, arrived at **Singapore** on 10 October in the Dutch passenger liner *Tasman* after a peaceful voyage via **Australia**, **New Guinea**, and **Java**. Some of the men had been landed in **Sydney** because the ship was over-crowded, and reached **Malaya** in various ships later in the month. The second main draft arrived in November.

The *Tasman* party was met at the **Singapore** docks by the squadron's future Commanding Officer, Squadron Leader Clouston, DFC, ¹ and the two flight commanders, Flight Lieutenants MacKenzie, DFC, ² and **Hutcheson**, ³ who had been sent out from England to take charge of the

new unit. Arrangements for the men's reception were excellent. Within an hour of landing they had been transported to RAF Station, **Kallang**, which was to be their home for the next five months, and were eating their first meal on Malayan soil.

The pilots had come straight from the flying training schools in New Zealand, and their only experience of modern aircraft had been a short conversion course on Harvards. They were sent to an operational training unit which had been formed in Kluang, in Johore, to do a conversion course on Buffalos,⁴ the aircraft with which they were to be equipped.

The ground staff, meanwhile, was established at **Kallang** and took over the squadron's equipment, which consisted of twenty-one



SINGAPORE AIRFIELDS

Buffalos left behind by No. 67 Squadron, **RAF**, which had just been posted to **Burma**.

¹ **Wg Cdr W. G. Clouston**, DFC; **RAF**; bom **Wellington**, 15 Jan 1916; commissioned in **RAF** 1936; p.w. Feb 1942–Sep 1945.

² **Sqn Ldr J. N. MacKenzie**, DFC; **RAF**; Balclutha; born Goodwood, Otago, 11 Aug 1914; farmer; joined **RAF** Feb 1938;

relinquished commission to join **RNZAF** as Sqn Ldr, Jan 1944.

³ **Sqn Ldr J. R. Hutcheson**, DFC; **Lower Hutt**; born **Wellington**, 18 Mar 1912; company secretary.

⁴ **F2A-3 Buffalo**; made by **Brewster**, **America**. Single-seater fighter powered with a single **Wright Cyclone** radial engine. Maximum speed approximately 350 m.p.h. Cruising range over 1200 miles.

EQUIPMENT DIFFICULTIES

The aircraft were in various states of disrepair and needed a lot of work to make them serviceable for operational flying. No. 67 Squadron when it left had taken with it all its tools, spare parts and accessories, and No. 488 Squadron found that the total equipment left to it comprised six trestles, six chocks, one damaged ladder and six oil-draining drums. No preparation for the squadron's arrival had been made by the equipment section at **Kallang**, and the unit's equipment officer, Flying Officer **Franks**, ¹ had to start from scratch to build up a complete range of maintenance material.

The equipment organisation at **Kallang** suffered severely from the red tape of peacetime administration, and the acquisition of stores through official channels was painfully slow. Franks established friendly relations direct with the **RAF** equipment depot at Seletar, and was not only able to equip his own squadron in remarkably quick time but helped to equip No. 243 Squadron, **RAF**, which also was stationed at **Kallang**.

¹ **Sqn Ldr C. W. Franks**, MBE; **Wellington**; born North Canterbury, 12 Jul 1912; civil servant.

As equipment came to hand—tools, spare parts, etc.—the maintenance crews set about modifying and repairing the aircraft. By hard work and considerable ingenuity they had machines ready to fly by the

time the pilots came back from their conversion course at Kluang towards the end of the month.

Clouston had been ordered to make his squadron operational in the shortest possible time, and throughout November training proceeded at high pressure in the face of many difficulties. The pilots, who should have been converted to Buffalos at Kluang, had had only a few hours' refresher flying there on Wirraways. Consequently, at **Kallang** they had to start from the beginning. They began by practising circuits and landings on the aerodrome, and then went on to aerobatics. When they could handle their machines proficiently, they progressed to operational exercises: map reading, reconnaissance, army co-operation, formation flying and combat tactics.

In the early stages training was hampered by the lack of any radio equipment, which meant that briefing on the ground had to be more than usually detailed and that no instructions, other than by visual signals, could be given in the air. Even when R/T (radio telephony) became available towards the end of November, the sets, obsolete TR9D type, were unsatisfactory and gave poor results.

Clouston was busy much of the time with administrative work, so most of the burden of training the squadron fell on the shoulders of the two flight commanders. Their load was lightened at the beginning of December when two more New Zealanders, Pilot Officers **Hesketh**¹ and **Oakden**,² were posted on loan from No. 243 Squadron as assistant flight commanders.

Two factors over which the squadron had no control helped to limit flying hours. The first was the weather. Nearly every day, flying was interrupted by heavy thunder showers which reduced visibility to zero and grounded all aircraft till they had passed. The second was the apparent indifference of the Higher Command in **Singapore** to the urgency of the situation. Although the threat of war hung over the island, peacetime routine, enforced by liberal quantities of red tape, was still in operation. Wednesdays were half-holidays, and no work was done

on Sundays. Even on full working days, flying was permitted only between eight o'clock in the morning and three in the afternoon. To the New Zealanders,

¹ **Plt Off G. L. Hesketh**; born **Auckland**, 24 Feb 1915; law clerk; killed in action 15 Jan 1942.

² **Flt Lt F. W. J. Oakden**; Gore; born **Dunedin**, 29 Sep 1917; clerk; p.w. Mar 1942– Sep 1945.

imbued with the vital need for haste in reaching operational efficiency, it seemed that far too much valuable time was being wasted.

During the training period the aircraft, old and decrepit in the first place, suffered all the wear and tear that might be expected in a squadron manned by inexperienced pilots. Besides this, they had to be fitted for operations. As already mentioned, R/T sets had to be installed; armour plate had also to be fitted behind the pilot's seat.

The ground crews, who had been brought from New Zealand in accordance with the establishment laid down by **Air Ministry**, were not nearly sufficient to cope with the amount of work to be done. Additional men were posted to the squadron from other units in **Singapore**, but still they were overworked.

Under Flight Sergeant Chandler, ¹ who acted as squadron engineer officer, they performed prodigies in servicing, repairing, and modifying their aircraft. Because they were able to keep a good proportion of the machines airworthy, the squadron achieved a much higher standard of operational efficiency than could have been reasonably expected.

¹ **Fit Lt W. A. Chandler**, BEM; **RNZAF**; born **Hawera**, 14 Aug 1914; motor mechanic.

Towards the end of November tension in **Singapore** rose rapidly. On the 28th a report was received from Saigon that the Japanese intended landing troops in southern **Siam** on 1 December. On the 30th a Japanese fleet was reported from British North Borneo to be moving south.

On 1 December General Headquarters, **Malaya**, ordered second-degree readiness, which meant that all forces had to be ready for operations at short notice, and the air-raid warning system started to operate. Three days later Japanese forces were officially reported to be moving south, and full air reconnaissance of the waters to the east and north of **Malaya** was ordered.

Bad weather prevented reconnaissance from aerodromes in northern **Malaya**, but a Dutch squadron stationed in the southern part of the peninsula carried out patrols and reported no sign of the enemy. At midday on 6 December a Hudson of No. 1 Squadron, **Royal Australian Air Force**, patrolling from Kota Bharu on the north-east coast of **Malaya**, sighted a Japanese convoy, apparently steering into the Gulf of **Siam**. Shortly afterwards it sighted another convoy which might have been heading for northern **Malaya**.

When the news was received at General Headquarters, **Singapore**, first-degree readiness was ordered. No undue alarm was felt,



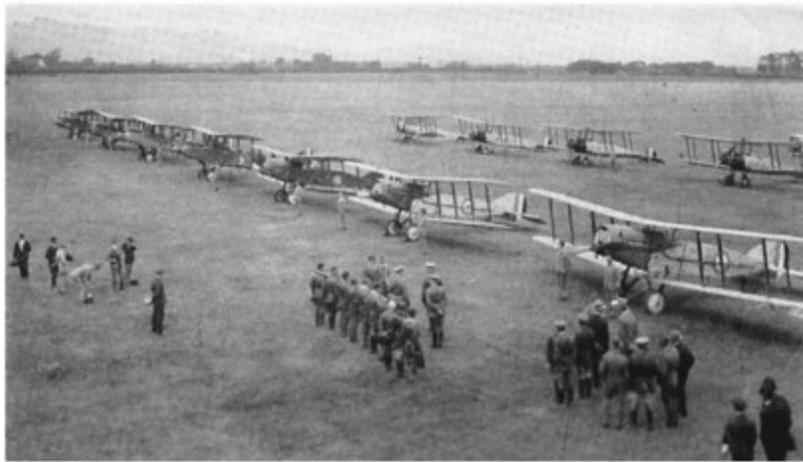
Seaplanes of the New Zealand Flying School, Kohimarama,
Auckland, c. 1916

Seaplanes of the New Zealand Flying School, Kohimarama, **Auckland**, c. 1916



Canterbury Aviation Company hangars, Sockburn, c. 1917
—Caudron aircraft on left, Bleriot monoplane on right

**Canterbury Aviation Company hangars, Sockburn, c. 1917 —Caudron aircraft on left,
Bleriot monoplane on right**



Aircraft of the New Zealand Permanent Air Force, Wigram, 1927.
The types of aircraft are (*front row, left to right*) DH9, DH4, and Bristol
Fighters; (*back row*) Avro 504K

**Aircraft of the New Zealand Permanent Air Force, Wigram, 1927. The
types of aircraft are (*front row, left to right*) DH9, DH4, and Bristol
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OFFICERS OF THE NZPAF, c. 1929
Back row: Flight Lieutenants T. J. Denton, V. J. Somerset-Thomas,
S. Wallingford, A. de T. Nevill
Front row: Flight Lieutenant H. B. Burrell, Squadron Leaders L. M.
Isitt, T. M. Wilkes, and J. L. Findlay, Flight Lieutenant
M. W. Buckley

OFFICERS OF THE NZPAF, c, 1929 *Back row:* Flight Lieutenants T. J. Denton, V. J. Somerset-Thomas, S. Wallingford, A. de T. Nevill *Front row:* Flight Lieutenant H. B. Burrell, Squadron Leaders L. M. Isitt, T. M. Wilkes, and J. L. Findlay, Flight Lieutenant M. W. Buckley



Vildebeestes being inspected at Hobsonville in 1935 by
Major-General W. L. H. Sinclair-Burgess (GOC) and
Lord Galway (Governor-General) on right

Vildebeestes being inspected at [Hobsonville](#) in 1935 by Major-General W. L. H. Sinclair-Burgess (GOC) and Lord Galway (Governor-General) on right



Elementary navigation training, Harewood, 1943

Elementary navigation training, Harewood, 1943

First solo



First solo



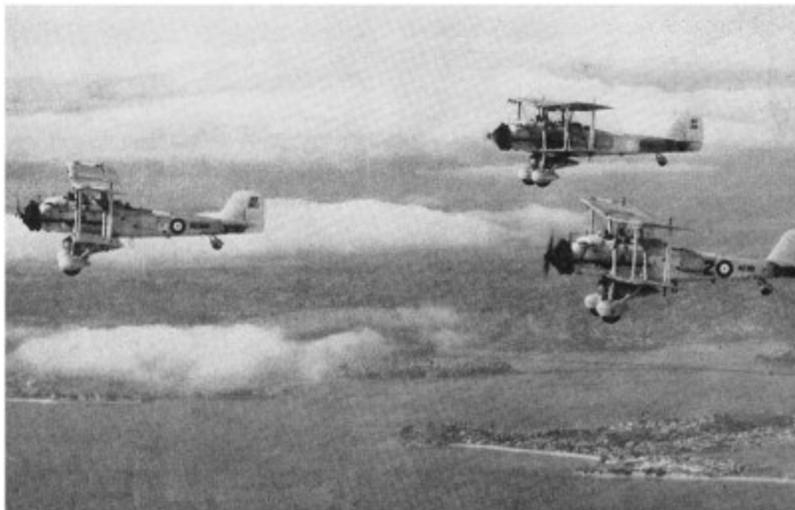
Synthetic bombing instruction, Ohakea, 1941

Synthetic bombing instruction, Ohakea, 1941

Refuelling Anson aircraft, Navigation School, New Plymouth, 1943



Refuelling Anson aircraft, Navigation School, **New Plymouth**, 1943



Vincents of No. 1 Squadron, Whenuapai, 1941

Vincents of No. 1 Squadron, **Whenuapai**, 1941



Hudsons of No. 3 Squadron leaving Whenuapai for the forward area,
October 1942

Hudsons of No. 3 Squadron leaving **Whenuapai** for the forward area, October 1942



No. 1 Aerodrome Construction Squadron preparing the bomber strip at Tebrau, Malaya

No. 1 Aerodrome Construction Squadron preparing the bomber strip at Tebrau, Malaya



Buffalo pilots of No. 488 Squadron scrambling, Kallang, Malaya

Buffalo pilots of No. 488 Squadron scrambling, Kallang, Malaya



Pilot preparing to take off, Kallang

Pilot preparing to take off, Kallang



Wing Commander
W. G. Clouston

Wing Commander W. G. Clouston



On board the *Empire Star* after leaving Singapore (see pages 93-4)

On board the *Empire Star* after leaving Singapore (see pages 93- 4)



The main camp at Espiritu Santo, July 1943

The main camp at *Espiritu Santo*, July 1943



Navigator of a Catalina on patrol, November 1943

Navigator of a Catalina on patrol, November 1943



No. 40 Squadron Dakota unloading at Santo, July 1943

No. 40 Squadron Dakota unloading at Santo, July 1943



Transport aircraft returning from the forward area, November 1943

Transport aircraft returning from the forward area, November 1943



Servicing Kittyhawks, Guadalcanal, July 1943

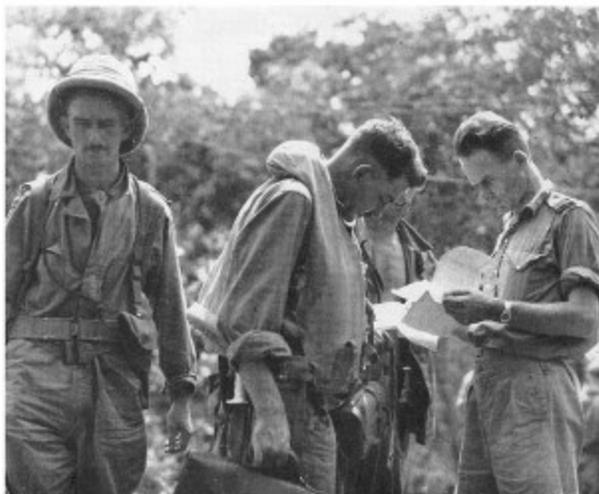
Servicing Kittyhawks, Guadalcanal, July 1943



Outside the operations hut, Henderson Field, Guadalcanal, July 1943

Outside the operations hut, Henderson Field, Guadalcanal, July 1943

Met. officer receiving reports from No. 3 Squadron crew, Guadalcanal, July 1943



Met. officer receiving reports from No. 3 Squadron crew, Guadalcanal, July 1943



No. 1 Squadron Venturas in revetments at Henderson Field, Guadalcanal, November 1943

No. 1 Squadron Venturas in revetments at Henderson Field, Guadalcanal, November 1943



Air Commodores M. W. Buckley and S. Wallingford, Wing Commander T. O. Freeman, Sir Cyril Newall (Governor-General), and Major-General H. E. Barrowclough, beside the Fighter Wing Score Board, Ondonga, New Georgia, November 1943

Air Commodores M. W. Buckley and S. Wallingford, Wing Commander T. O. Freeman, Sir Cyril Newall (Governor-General), and Major-General H. E. Barrowclough, beside the Fighter Wing Score Board, Ondonga, New Georgia, November 1943



Timber mill, Los Negros

Timber mill, Los Negros



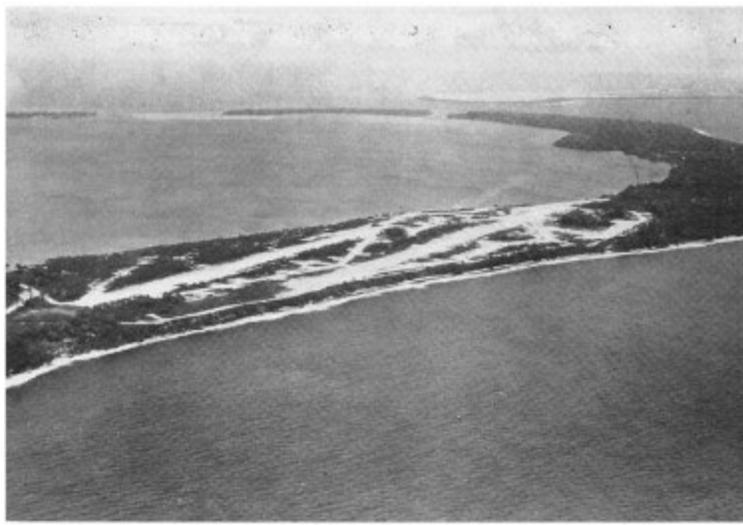
Briefing crews of No. 1 Squadron at Emirau for a strike on Rabaul, June 1945

Briefing crews of No. 1 Squadron at Emirau for a strike on Rabaul, June 1945



Pilots of No. 25 Squadron, Bougainville, reporting after a strike

Pilots of No. 25 Squadron, Bougainville, reporting after a strike



Airstrip, Green Island, March 1945

Airstrip, Green Island, March 1945

Bombing up with a 1000-pounder for a raid on Rabaul by No. 2 Squadron from Green Island



Bombing up with a 1000-pounder for a raid on Rabaul by No. 2 Squadron from Green Island

however, as GHQ considered that the Japanese expedition was almost certainly directed towards **Siam**.

Throughout 7 December the weather continued to be bad, with almost continuous rain and low cloud. Reconnaissance was limited and the only sightings reported by aircraft were of single merchant ships. Thus, for thirty hours after the first sighting, no contact was made with the main Japanese invasion force.

At two o'clock in the morning on 8 December, Hutcheson, who was duty officer at **Kallang**, was informed that the Japanese had attacked

Malaya. Two hours before, an enemy force had appeared off the coast at Kota Bharu and had landed troops on the beaches under cover of fire from escorting warships.

Shortly after four o'clock Japanese bombers flew over **Singapore** and attacked aerodromes at Seletar and Tengah. They had been picked up by radar when still 130 miles away, but owing to a breakdown in communications the lights of **Singapore** had not been extinguished and no blackout was in force. At daylight four aircraft of No. 488 Squadron, led by Hutcheson, took off and carried out the first defensive fighter patrol over **Singapore**. During the day many more patrols were carried out by the squadron, but all the aircraft intercepted were friendly.

In the first two days of the war the Japanese established bases in northern **Malaya** and occupied the aerodromes at Kota Bharu, Alor Star and Kuantan. Two squadrons of the Dutch Air Force arrived to reinforce **Singapore**. One, a bomber squadron, was stationed at Sembawang, and the other, a fighter squadron of nine Buffalos, joined Nos. 488 and 243 Squadrons at **Kallang**.

As a result of the efforts to strengthen the defences of **Malaya** over the past few years there were, at the beginning of December, some twenty-three airfields on the mainland in various stages of completion and of various sizes, and four on **Singapore** Island itself. The available air forces comprised one Hudson squadron with seven operationally serviceable aircraft, two squadrons of Mark I **Blenheim** bombers and one of Mark I **Blenheim** night fighters, with a total of twenty-seven aircraft, and the Operational Training Unit at Kluang, on the mainland of **Malaya**. On **Singapore** Island there were two squadrons of Vildebeeste torpedo-bombers with twenty-seven serviceable aircraft, one general reconnaissance squadron with three Catalina aircraft, one general reconnaissance squadron with eight Hudsons, four fighter squadrons with a total of forty-three Buffalos, one bomber squadron with seventeen Mark IV **Blenheims**, and an anti-aircraft co-operation unit with twelve miscellaneous aircraft. In addition, there were six maintenance and servicing units, four radar units in operation, and the **RNZAF** Aerodrome

Construction Squadron. Practically every unit contained some New Zealanders.

The fighter squadrons had all been formed in Malaya during 1941. The pilots had been recruited from among bomber pilots already in Far East Command and from pilots sent to Malaya from flying training schools in New Zealand, while the squadron and flight commanders were all experienced officers sent out from Britain. No. 488 Squadron RNZAF and No. 453 Squadron RAAF had both been formed as Dominion squadrons under Article 15 of the Commonwealth Air Training Plan. No. 243 was an RAF squadron, and the fourth fighter squadron, No. 21, RAAF, had come to the Far East Command in 1940 as a general purpose squadron and had been re-equipped with Buffalos as a fighter squadron in October 1941.

All squadrons except No. 488 had been passed as 'trained to operational standards' by the time war broke out, but experience was to show that their training had been based on an underestimate of the Japanese Air Force.

Early on the morning of 10 December, No. 488 Squadron was told that it might be required to provide air cover for two warships: no names were given. Two aircraft were to take off every half hour, fly to a given patrol area, remain there for half an hour, and then return. Later in the morning news was received that the battleships *Prince of Wales* and *Repulse* were being attacked by enemy aircraft some 170 miles from Singapore. The two ships had arrived at Singapore with escorting destroyers a few days before war broke out, and when attacked they were returning from an attempt to intercept enemy convoys in the Gulf of Siam.

The weather off southern Malaya had given them protection against air attack in a layer of cloud, and they were not escorted by friendly aircraft. During the morning they ran out into clear weather and were discovered by Japanese planes.

At half past two in the afternoon Flight Lieutenant MacKenzie and Sergeant MacIntosh ¹ of No. 488 Squadron took off as part of the force of fighters to give cover to the ships. By the time they arrived at the scene of the action both ships had been sunk, but they escorted a destroyer which had picked up survivors and was steaming south. Later in the day other members of the squadron in sections of two patrolled the area, where survivors were still being picked up.

During December the Japanese air force directed its activities mainly towards supporting the enemy ground forces in northern Malaya, and Singapore itself was not heavily attacked. No. 488

¹ W/O W. J. N. MacIntosh; Invercargill; born Wyndham, Otago, 12 Jun 1915; motor driver; p.w. Mar 1942–Sep 1945.

Squadron, which was still not fully operational, was engaged in intensive training. By Christmas nearly all the pilots were proficient in handling their aircraft, but one serious deficiency in their training was the absence of practice in high-altitude flying. The Buffalos' performance had proved to be disappointing. They would not stand up to full-throttle climbs, and often lost engine power through a drop in oil pressure and overheating. The maximum height which most of the aircraft achieved was 25,000 feet.

This would have been satisfactory had the Japanese machines been as poor in their performance as the Allied pilots had been led to believe. In fact the Japanese proved to have good aircraft and well-trained pilots. Against these the Buffalo was almost useless.

While training was going on the more experienced pilots of the squadron took part in a number of patrols in attempts to intercept Japanese reconnaissance aircraft. On 15 December four members of the squadron, led by MacKenzie, unsuccessfully chased a Japanese reconnaissance aircraft. The next day, sixteen of the squadron's aircraft took off to intercept another one. Flight Lieutenant Hutcheson and

Sergeant Clow ¹ sighted it, but they did not have sufficient height to intercept it and its superior speed allowed it to escape.

Towards the end of the month arrangements for the reception of convoys bringing reinforcements from **Britain** became the principal task of the **Air Force** in **Singapore**. For several days before the arrival of each convoy reconnaissance aircraft carried out wide sweeps in search of enemy submarines and other naval units, and a considerable proportion of the other aircraft at **Singapore** was kept in readiness in case the convoys were attacked. This reduced the scale of support which could be given to the Army on the mainland of **Malaya**, but the safe arrival of reinforcements was of paramount importance.

The first convoy arrived safely on 3 January. It was first sighted by Flight Lieutenant MacKenzie, who was patrolling 130 miles south of the island. During the day No. 488 Squadron flew five patrols, totalling over sixty-four hours, escorting the ships to port. The weather was bad all the time, with low cloud and frequent rainstorms which, while hiding the force from the prying eyes of the enemy, added to the difficulties of locating and escorting it. The aircraft had to fly at 1000 feet or lower to keep below

¹ Flt Lt D.L. Clow, DFC, m.i.d.; **Auckland**; born **Te Kuiti**, 25 Sep 1921; warehouseman.

the cloud, which restricted their range of vision and gave them very little height for manoeuvre.

It was the first major operation in which the squadron had taken part. The pilots proved the value of their training by their excellent flying under adverse conditions, while on the aerodrome at **Kallang** the ground crews toiled all day, checking the aircraft as they came in, refuelling them and making them ready for the next patrol.

A second convoy arrived on 13 January bringing, among other

forces, fifty-one Hurricane aircraft and twenty fighter pilots. The continued advance of the Japanese down the Malay Peninsula, the apparent ease with which they had disposed of two of **Britain's** strongest warships, and their patent superiority in the air had had a most depressing effect. Now, it was thought, the enemy would at least be halted, and the Hurricanes would sweep his air force from the skies.

The military situation, however, had seriously deteriorated. By the middle of January the bulk of the British forces on the mainland of **Malaya** had fallen back to the northern boundary of Johore, barely 100 miles from **Singapore**. With the possession of aerodromes in northern and central **Malaya**, the Japanese were able to launch increasingly severe air attacks against the island of **Singapore** itself. Hitherto, except for night raids which had only a nuisance value, their activities over the island had been confined to reconnaissance.

In January, however, they began making heavy daylight raids, concentrating mainly on the aerodromes. The first aerodrome to suffer was Tengah. **Kallang**, where No. 488 Squadron was stationed, was severely bombed for the first time on 9 January. In addition to the squadron's offices, the station equipment store, ammunition store, and oil stores were practically demolished. Next day the aerodrome was bombed again, but by that time much of the equipment and stores had been salvaged and dispersed in evacuated Chinese houses near the aerodrome.

After the first raid on each aerodrome all the native labour disappeared. This caused a serious dislocation in the ground services and put the burden of repairing aerodrome surfaces on members of the squadrons.

On 10 January the first Japanese aircraft to be destroyed over **Singapore** was brought down by two New Zealanders, Sergeants **Kronk**¹ and **Wipiti**,² both of No. 243 Squadron.

¹ **F/S C. T. Kronk**; born Kohuratahi, Taranaki, 28 Jul 1918;

clerk; killed in aircraft accident 28 May 1942.

² **W/O B. S. Wipiti**, DFM; born **New Plymouth**, 16 Jan 1922; refrigeration serviceman; killed on air operations 3 Oct 1943.

NO. 488 SQUADRON'S COMBATS

No. 488 Squadron had its first major combat on 12 January. Eight aircraft, led by MacKenzie, were ordered to take off to intercept an enemy raid coming south. A further six aircraft, led by Hutcheson, took off twenty minutes later. The enemy force was sighted by MacKenzie's formation over Johore. The New Zealanders were at 12,000 feet and the enemy, comprising approximately twenty-seven Type O and Army Type 97 fighters in formations of nine, were 3000 feet above them.

MacKenzie ordered his squadron to fly into the sun and take evasive action, but the Japanese fighters dived and shot down Sergeant **Honan** ¹ and Sergeant **MacMillan** ² in a few seconds. Both of these pilots baled out and landed safely. Honan, who had a bullet wound in his arm, was admitted to Johore Military Hospital. Sergeant **Killick** ³ fired at two enemy aircraft but they evaded him by their outstanding manoeuvrability. MacKenzie attempted to shoot down an Army Type 97 but was himself attacked by another Army 97. Altogether the formation lost two aircraft, had five damaged and two pilots wounded, without having inflicted any known casualties on the enemy. Both types of Japanese aircraft were able to outmanoeuvre the overladen Buffalos with the greatest ease. Also their weight of numbers gave them an overwhelming advantage. In the second formation Hutcheson was the only pilot to make contact with the enemy. He was attacked by a Type O but was not hit.

As a result of these actions, it was decided to reduce the amount of fuel and ammunition carried by the Buffalos in an effort to make them more manoeuvrable and better able to compete with the Zeros; but little improvement resulted.

The next day's operations were equally severe, and are well described in the squadron's diary:

At 0630 hours Pilot Officer Hesketh led four aircraft of 'A' Flight on a security patrol, but no contact was made with the enemy. At 1100 hours Flight Lieutenant Hutcheson took off with eight aircraft to intercept 30 Type 96 bombers, making contact with them and attacking from below. Flight Lieutenant Hutcheson was shot up by rear-gun fire and crash-landed at base. Pilot Officer Greenhalgh ⁴ attacked an Army 96 bomber. Although only two guns fired, he managed to get smoke from one engine. Pilot Officer Oakden was shot down into the sea by rear-gun fire from a bomber, and was rescued by a Chinese sampan, sustaining slight injuries to his face. Sergeant Clow was shot down in the sea, swam 400 yards to a small island and was picked up by some Chinese in a sampan and returned to **Kallang** two

¹ **W/O T. W. Honan; Auckland; born New Plymouth, 30 Aug 1916; farmer.**

² **Flt Lt R. W. MacMillan; Dunedin; born Timaru, 2 Oct 1918; teacher.**

³ **Plt Off P. E. E. Killick; Masterton; born Wellington, 17 Jul 1920; clerk.**

⁴ **Fg Off W. J. Greenhalgh; Auckland; born Auckland, 5 Jan 1922; clerk.**

days later. Pilot Officer Hesketh and Pilot Officer **Gifford** ¹ were unable to get sufficient height to attack. Pilot Officer **McAneny** ² had to break off his attack through gun failure. **Sergeant de Maus** ³ was hit before he got within range. Casualties: four aircraft written off and one damaged with no loss to the enemy.

Today although we did not meet up with the fighters, because we did

not attack from above, we were badly shot up from rear-gun fire. The Japanese bomber formations of 27 packed aircraft throw out such an accurate and heavy rear-gun barrage that they are very difficult to attack. Some way must be found to break up these mass formations and attack bombers independently. No doubt there was fighter escort in the near vicinity but it did not pick up our fighters owing to cloudy conditions and also because we attacked from below.

In the last two days, No. 488 Squadron has lost seven aircraft and had many others damaged, with no loss to the enemy. No blame can be attached to the pilots, who have done their best with Buffalos. Until we fly as Wings of 36 aircraft we will be unable to inflict heavy damage on the enemy.

From now on the Japanese were over **Singapore** every day. The defending squadrons, with most of their aircraft damaged and many destroyed, went up to meet them at every opportunity, but could do little against their superior quality and numbers.

No. 488 Squadron had its first combat success, and suffered its first battle casualty, on 15 January. Led by Hesketh, it took off to intercept a raid and was attacked by a swarm of Japanese fighters. Hesketh was shot down and killed. Sergeant **Kuhn**⁴ scored the unit's first victory when he attacked a Type 97 and sent it crashing to the ground. Most of the squadron's aircraft were damaged to some degree in the action but managed to escape individually into clouds and return to base.

On 18 January Hutcheson led a successful patrol of Nos. 488 and 243 Squadrons combined. In an encounter with nine Zeros they destroyed two and probably destroyed three with no loss to themselves. Pilot Officer **Sharp**,⁵ who was flying with No. 243 Squadron, and Sergeant Killick both sent enemy aircraft down in flames. Hutcheson led another patrol which was not so successful. He was shot down and crash-landed on a Dutch island, from which he was later rescued by an Air-Sea Rescue launch. Pilot Officer **Cox**⁶ was also shot down and was not heard of again.

¹ **Flt Lt P. D. Gifford**, m.i.d.; **South Canterbury**; born **Christchurch**, 14 Apr 1915; school teacher.

² **Plt Off K. J. McAneny**; born **Auckland**, 12 Apr 1922; clerk; killed on air operations 19 Jan 1942.

³ **Plt Off W. R. de Maus**; born **Auckland**, 21 Mar 1920; clerk; killed in aircraft accident 16 May 1944.

⁴ **W/O E. E. G. Kuhn**, DFM; **Wellington**; born **Wellington**, 4 Sep 1919; mechanic; p.w. Mar 1942–Sep 1945.

⁵ **Fg Off N. C. Sharp**, DFC; born **Auckland**, 9 Feb 1922; bank clerk; killed on air operations 1 Mar 1942.

⁶ **Plt Off E. W. Cox**; born **Christchurch**, 27 Nov 1919; clerk; killed on air operations 18 Jan 1942.

The following day four members of the squadron accompanied No. 453 Squadron, RAAF, on an offensive patrol over the Muar area. They were attacked by a large formation of enemy fighters and Pilot Officer McAneny and Sergeant **Charters**¹ were shot down.

MacKenzie and Sergeant **Meharry**² at the same time did an offensive patrol over Mersing, during which they saw two Japanese aircraft which escaped into cloud. Later they carried out a reconnaissance of the town and aerodrome at Kuala Lumpur, 200 miles north of **Singapore** and over 100 miles inside enemy territory. By taking advantage of cloud cover and forest camouflage they reached Rawang, 15 miles north of Kuala Lumpur, unobserved. There they turned south and passed over the town at 5000 feet, continuing on to the aerodrome. They made two complete circuits of the aerodrome and carried out a thorough reconnaissance before being discovered by the enemy anti-aircraft guns. The aerodrome was packed with Japanese fighters and was apparently the main base

from which the Japanese were raiding **Singapore**. When the enemy anti-aircraft barrage started, MacKenzie and Meharry retired to the hills west of Kuala Lumpur and eventually made their way back to **Singapore**. As a result of the reconnaissance Kuala Lumpur was raided that night by Flying Fortresses from **Sumatra**.

On 19 January the Dutch fighter squadron which had been at **Kallang** for just over a month was withdrawn to **Palembang** in southern **Sumatra**. This left 243 Squadron, **RAF**, and 488 Squadron, **RNZAF**, at **Kallang**, and on them rested practically the whole responsibility for the fighter defence of **Singapore**. The other two fighter squadrons, Nos. 21 and 453, **RAAF**, which were stationed at Sembawang, were used chiefly in co-operation with the army on the mainland and for escorting bombing raids. The total number of serviceable aircraft which the defending forces had available was 74 bombers and 28 fighters. Practically all the British aircraft were now based at **Singapore**. They were mainly of obsolete types and had been in constant operation since the beginning of the war. The two fighter squadrons defending **Singapore** thus had the dual handicap of old and unserviceable aircraft and of odds which varied from six to one to fifteen to one against them.

On 20 January pilots of Nos. 488 and 243 Squadrons carried out a number of combined patrols. Two attempts were made to intercept enemy bombers, of which one was successful when six Type 97 bombers were attacked near Muar and forced to jettison

¹ **W/O C. D. Charters**; born **Christchurch**, 17 Jan 1914; accountant; died while p.w. 25 Dec 1943.

² **Flt Lt H. J. Meharry**; born **Reefton**, 6 Jul 1917; commercial traveller; killed on air operations 5 Aug 1944.

their bombs and flee. One of the bombers was shot down and two others damaged. A reconnaissance patrol was carried out over Dutch islands near **Singapore** where parachutists were reported to be landing,

but the report proved to be incorrect. Another patrol was carried out over the Japanese lines near Muar without any contact being made with the enemy. In the afternoon MacKenzie and Sergeant Kuhn carried out a reconnaissance of the main road between Endau and Mersing.

As the enemy advanced down the Malay Peninsula, the observer system responsible for giving warning of approaching air raids became progressively less effective. The radar installations on the island of **Singapore** also failed on numerous occasions to pick up approaching aircraft, with the result that raids frequently occurred with little or no warning. Only occasionally was sufficient notice received to enable the fighters to take off and gain sufficient height in time to intercept the bombers.

On the morning of 22 January **Kallang** was heavily raided with practically no warning at all. Four aircraft, led by MacKenzie, were taxiing out to take off when bombs started to fall on the aerodrome. The pilots immediately opened their throttles and took off amid a shower of dust and smoke. Three of them got away successfully but the fourth, Pilot Officer **Farr**,¹ was blown into a petrol dump by a bomb which landed close beside him. He later died of his injuries. Two members of the ground staff, AC 1 Service, **RAF**, and AC 1 Anderson, **RNZAF**,² were killed at their posts after starting up one of the aircraft. The station telephone operator, AC 1 Croskery, sat under a table during the raid and gave a running commentary to Operations Headquarters in Singapore. Two of the squadron's few remaining aircraft were destroyed and considerable damage done to station buildings.

On 23 January Clouston was posted for duty with **RAF** Headquarters, **Singapore**, and handed over the command of the squadron to MacKenzie. MacKenzie celebrated the occasion by carrying out a patrol with Sergeant MacIntosh and three pilots from No. 243 Squadron, covering a bridge on the mainland over which troops and transport were withdrawing. They were attacked by a superior force of Japanese fighters, and one pilot from No. 243 Squadron was shot down but bailed out and later returned to base. As a result of the action the squadron's

serviceable aircraft strength was reduced from two machines to one.

On 24 January No. 488 Squadron had two serviceable Buffalos. These were attached to No. 243 Squadron with pilots to fly them,

¹ **Plt Off L. R. Farr**; born **Auckland**, 22 Mar 1917; clerk; killed in action 22 Jan 1942.

² **AC 1 I. V. S. Anderson**; born **Dannevirke**, 23 Jul 1921; cabinet-maker; killed in action 22 Jan 1942.

and the squadron started to re-equip with Hurricanes which had arrived in the convoy on 13 January and had been assembled at Seletar and Tengah. No. 488 Squadron was allotted nine of them, and they were collected by members of the squadron on the 24th and 25th. For the next two days the pilots carried out practice flying and made themselves familiar with the new aircraft.

On the 27th a formation of enemy bombers appeared over the aerodrome with very little warning, at a time when all the machines were on the ground refuelling after a patrol. All the Hurricanes except one were damaged and most of No. 243 Squadron's Buffalos were either damaged or completely destroyed. Two Blenheims on the aerodrome were burnt out. Another wave of bombers came over forty minutes later and did further damage. The aerodrome was pitted with bomb craters, making it unserviceable. For the next three days all personnel were engaged either in repairing aircraft or in filling in bomb craters, and by the end of the month three Hurricanes and a strip of the aerodrome had been made serviceable.

DECISION TO EVACUATE AIR FORCES

Meanwhile, on the mainland of **Malaya** the situation had become rapidly worse. The reinforcements which had arrived earlier in the month, and additional air reinforcements which had come from the

Middle East more recently, were too late to stem the Japanese advance. On 27 January it was decided to withdraw all the land forces to **Singapore**. This was done, and the causeway connecting the island with the mainland was blown up on 31 January.

There was now considerable congestion on the island. The four aerodromes on **Singapore** were the only places from which our air forces could operate in **Malaya**. To reduce the congestion all bomber and reconnaissance squadrons were transferred during the latter half of January to **Sumatra** or **Java**, leaving only the fighter squadrons for the immediate defence of **Singapore**. Constant bombing of the aerodromes and the lack of sufficient fighter forces to defend them made operations practically impossible. Three of the aerodromes, Tengah, Sembawang and Seletar, were situated on the north coast of the island. After the Army's withdrawal from the mainland these became exposed to observed artillery fire from Johore at a range of less than 2000 yards. Consequently it was necessary to evacuate them, and **Kallang** was then the only aerodrome from which aircraft could operate. **Kallang** itself was practically unserviceable owing to enemy bombing, and it therefore became necessary to reduce the fighter forces remaining in **Singapore**.

On 30 January it was decided to keep only eight Hurricanes and the remaining Buffalos at **Singapore**. All other fighter forces were to be evacuated to **Sumatra** or **Java**. Fighter reinforcements arriving on the aircraft carrier *Indomitable* were to be based in **Sumatra** to support those at **Singapore** and reinforce them as opportunity offered. At this stage it was still hoped that sufficient forces would be available to hold **Singapore** and eventually to launch a counter-offensive.

Of the fifty-one Hurricanes which had arrived in the middle of January only twenty were now available, the rest having been destroyed or damaged; and of the original force of Buffalos only six remained operational. The fighters still at **Singapore** and in **Sumatra** were too few to affect materially the scale of the enemy attack. They did their best, flying almost continuously during daylight, but could do no more than harass the Japanese.

At nine o'clock in the evening of 31 January MacKenzie was told that No. 488 Squadron must be ready to move immediately. Throughout the night, interrupted by frequent air raids, the men prepared for the move. They packed up all of the serviceable Hurricane equipment and stores and their personal clothing into cases and loaded them on lorries. The lorries were then dispersed in the rubber plantations around the aerodrome and the squadron awaited further orders.

Next morning, however, it was told that it would not be evacuated but would remain in **Singapore** to service the aircraft of No. 232 Squadron, which had recently arrived from the **United Kingdom** with aircraft and pilots but without ground staff. No. 488 was thus the last squadron whose ground staff remained on the island.

On 2 February the squadron's four serviceable Hurricanes were flown to **Palembang**, in **Sumatra**. By this time the constant bombing of the aerodromes had made fighter operations practically impossible, and in addition the Japanese were maintaining fighter patrols over the island and the surrounding waters. The next day large formations of Japanese bombers concentrated on the harbour. The oil tanks near the naval base were hit and the whole island was covered by a thick pall of black smoke.

On 4 February Pilot Officer Gifford and Flight Sergeant **Rees**¹ took a party of men to Sembawang to service the Hurricanes of No. 232 Squadron. When they arrived they were greeted by a salvo of shells. This was the first shelling of **Singapore** Island by the Japanese. They returned to **Kallang** the next day after getting all the serviceable aircraft off the aerodrome at Sembawang. Pilot Officer **Johnstone**,² who was attached to No. 453 Squadron, was taxiing to take off in a Buffalo when it was hit by a shell. He immediately dashed over to another Buffalo and took off amid a shower of shells.

Later in the day the party went to Tengah aerodrome, which was being shelled, to assist in getting the aircraft away from there. They

succeeded in flying all the aircraft, mostly Hurricanes and Buffalos, to **Kallang**.

Squadron Leader MacKenzie and eight sergeant pilots sailed for **Batavia** on the cruiser HMS *Danae*. Flight Lieutenant Hutcheson and Pilot Officer Oakden, after a day spent in searching the dispersal areas of Tengah, Sembawang, and Seletar for any serviceable machines that might have been overlooked, joined the remainder of the pilots on the SS *City of Canterbury* and sailed at 11 p.m. for **Batavia**, where both ships arrived on the evening of 8 February.

Meanwhile No. 488's ground crews in **Singapore** began to service the diminishing force of aircraft which were being flown by the pilots of No. 232 Squadron. The Japanese landed on the island on the night of 8–9 February, but although all hope of withdrawal seemed to have gone, the pilots of the new squadron received as good a service as had ever been given to the original pilots of No. 488 Squadron. Finally, on 10 February, the last of the Hurricanes was flown away from **Singapore** and the ground crews were left with nothing but a few battered machines apparently of no further use. However, under Flight Sergeant Chandler they set to in an endeavour to get one more Hurricane serviceable so that Squadron Leader Clouston, now at Operations Headquarters, might be able to escape if surrender became inevitable. He did not manage to escape and was captured when the enemy occupied **Singapore**; he spent the rest of the war in Japanese prison camps.

On the morning of the 11th the ground staff went down to the aerodrome, expecting to find the pilots of No. 232 Squadron back with fresh aircraft from **Sumatra**. None appeared so they returned to their barracks. Reports were received of parties of Japanese infiltrating close to the billets, and patrols were sent out. The men were issued with rifles and told to dig in among the rubber trees round the aerodrome. At midday these instructions were cancelled and the squadron was told that it would be evacuated by sea that afternoon. Each man was allowed to take one kitbag of personal gear and the officers could take what they could carry.

The squadron retired to the docks and at four o'clock went aboard the *Empire Star*. Two waves of bombers raided the docks as they were embarking. At half past six the ship pulled out into the stream and anchored. Finally, at half past six next morning, she sailed for **Batavia**. When she was two hours out she was dive-bombed by several waves of Japanese aircraft and suffered three direct hits. A number of men were killed or injured, none of them from No. 488 Squadron. Members of the squadron manned Lewis guns and tommy guns and others fired rifles. As a result of the fusillade put up, one enemy aircraft was destroyed and one damaged.

Waves of bombers continued to come over until after midday, but the defensive fire kept them high and they scored no more hits. The *Empire Star* arrived at **Batavia** on the evening of the 13th and the men went ashore next day.

¹ **Sqn Ldr J. Rees**, BEM; **RNZAF**; born **Thames**, 28 Dec 1914; electrician.

² **Flt Lt F. S. Johnstone**; **Hamilton**; born **Timaru**, 15 Aug 1914; theatre assistant.

JAVA

The pilots of the squadron had arrived in **Java** on the 9th. The majority of them had immediately gone to Buitenzorg, a rest camp 40 miles from **Batavia**. After a conference at Air Headquarters, **Batavia**, MacKenzie was told that No. 488 Squadron was to be re-equipped with Hurricanes and would undertake the fighter defence of **Batavia**. Its ground personnel was to consist of Hurricane crews already on the island.

MacKenzie was put in charge of Hurricane delivery at Tjililitan aerodrome, 10 miles from **Batavia**. He established a temporary base there

and organised ground crews to check new Hurricanes and harmonise their guns prior to their despatch to **Palembang**.

On the 11th the squadron's pilots returned from Buitenzorg and helped to ferry Hurricanes from **Batavia** civil airport to Tjililitan for checking. They were joined by the four pilots who had left **Singapore** by air some days before them.

On the morning of 14 February Hutcheson, leading a formation of nine Hurricanes, took off for **Palembang**. Apart from Pilot Officer Sharp and Sergeant Meharry, all the pilots in the formation were from the various **RAF** squadrons.

Their arrival at **Palembang** coincided with an attack by Japanese paratroops. Escorting Japanese fighters attacked the formation which, after the long flight from **Batavia**, urgently needed refuelling. Meharry managed to land at **Palembang** despite the fighting going on between the Japanese paratroops and the **RAF** ground crew. Later it was found possible to refuel his aircraft and he flew to a secret aerodrome known as P2, from which he made attacks against the invading Japanese until his aircraft was no longer serviceable. Later he was evacuated to southern **Sumatra** by rail.

The other pilots, finding it impossible to land, fought back at the Japanese fighters until they ran out of fuel or were shot down into the jungle. Neither Hutcheson nor Sharp was injured when they crashed. Sharp managed by various means to get back to **Java** by 16 February. Hutcheson, who joined Meharry at Oosthaven in southern **Sumatra**, arrived a day later.

Other pilots from the squadron continued to carry out defensive patrols from Tjililitan in company with those pilots from Nos. 232 and 258 Squadrons who were able to reach **Java** after the fall of **Sumatra**. Among them they had twelve serviceable aircraft.

It had been hoped that southern **Sumatra** as well as **Java** could be held, but on 15 February, the day **Singapore** surrendered, all units on

Sumatra were forced to withdraw. After the paratroop landing on the 14th, the Japanese had occupied the aerodrome at **Palembang**, and P2, at which all the available Allied air units were concentrated, was also in danger of being overrun.

The speed of the enemy's advance had frustrated the hopes of building up a large Allied strength in the East Indies, and **Java** itself was now under imminent threat of invasion. It was therefore decided that the Supreme Commander, General Wavell, should withdraw his headquarters, which had been removed from Singapore to **Java** some days previously, and turn over the remaining Allied forces to the command of the Dutch.

The Dutch at this time had about five bomber, three fighter, and two observation squadrons in **Java**. In addition there were twelve to fifteen American heavy bombers and a few fighters. There were also the British squadrons which had been evacuated from **Singapore** and **Sumatra**. All squadrons were depleted in strength as a result of operations over the past few weeks, the serviceability of their aircraft was low, spares and equipment were scarce, and the whole force suffered from disorganisation and confusion.

On 22 February MacKenzie was instructed that he was to move his squadron to **Australia** and hand over his aircraft to No. 605 Squadron, **RAF**, together with one flight commander and five other pilots. No. 258 Squadron, **RAF**, was to do the same, to bring No. 605 Squadron up to strength. The men left behind were to be evacuated when **RAF** replacements arrived. Pilot Officer Oakden remained behind as flight commander, together with Pilot Officers Sharp, **Pettit**¹ and **White**,² and Sergeants Kuhn and MacIntosh.

The rest of the squadron embarked on the *MV Deucalion* on the afternoon of 23 February and sailed for **Fremantle**. They arrived in **Australia** at the beginning of March, and at the end of the month returned to New Zealand on the *Esperance Bay*.

The six pilots who were left behind were not relieved. They fought throughout the rest of the campaign until **Java** surrendered on 8 March. Sharp was shot down behind the Japanese lines, and although he made a good crash-landing and was seen to get out of his machine and wave to the other members of the squadron, he was not heard of again. The other five were taken prisoner after the surrender. Pilot Officer White died while a prisoner of war, and the others survived three and a half years in Japanese prison camps and returned to New Zealand after the end of the war.

¹ **Flt Lt H. S. Pettit; Lower Hutt; born Dunedin, 19 Jan 1919; accountant; p.w. 1942–45.**

² **Flt Lt G. P. White; born Picton, 3 Jun 1919; commercial artist; died while p.w. Nov 1943.**

ROYAL NEW ZEALAND AIR FORCE

[SECTION]

THE keystone of British strategy in the **Pacific** was the great naval base at **Singapore**, and in the first two years of the war every effort was made to strengthen the garrison there. The conception of its defence had changed in the past few years. Up till the early thirties **Singapore** had been regarded as a base which could be attacked only from the sea, and its defensive dispositions were designed to counter the possibility of seaborne assault. With the increased range and striking power of air forces, however, it became clear that the original plans made for its defence would be inadequate. It was now necessary not only to provide for the defence of **Singapore** Island, but for the whole of the Malay Peninsula. Furthermore, it was recognised in 1939 that the British Home Fleet, whose despatch to the **Far East** in time of war had been regarded as one of the mainstays of **Singapore's** defence, might be too occupied in European waters to be sent.

This meant that the forces in **Malaya** would have to hold out against attack for a longer period than had been anticipated. Consequently, a stronger garrison was necessary than had been originally envisaged. The need to strengthen both land and air forces in **Malaya** came at a time when the resources of the Empire were already severely strained by the necessity of building up forces to beat the Germans in **Europe** and the **Middle East**. Consequently, it was not possible to provide sufficient troops or equipment to make **Singapore** secure from Japanese aggression.

New Zealand had always been aware of the importance of **Singapore** in relation to its own security, and all appreciations of the forces necessary for local defence had been based on the assumption that **Singapore** would not be lost. In recognition of this, it had contributed a substantial amount to the original cost of the base.

The strengthening of the **RAF** squadrons based in **Malaya**, and the

formation of new ones, was helped in 1940 and 1941 by the sending of a monthly quota of pilots trained in New Zealand under the Commonwealth Air Training Plan, and New Zealand representation in many of the squadrons reached a very high proportion.

In the middle of 1941 the British Government asked, in addition, for two complete units to be sent to **Singapore**: a fully manned fighter squadron and an aerodrome construction squadron. After a careful survey of the manpower position at home, the New Zealand Government replied that it could send the two units, although the pilots for the fighter squadron would have to be deducted from the regular monthly quota.

The aerodrome construction squadron was formed in July, and the advance party reached **Malaya** in the middle of August. The remainder of the unit arrived in various drafts until the third week in October, when the squadron was brought practically up to its full strength of 15 officers and 140 other ranks.

The fighter squadron assembled at **Rongotai** early in September, and after it had been equipped and had undergone a short course on drill and weapon training the first draft left New Zealand in the middle of the month. The second body followed six weeks later. The total strength of the squadron was 12 officers and 143 airmen.

The first party, consisting of ninety-six officers and men, arrived at **Singapore** on 10 October in the Dutch passenger liner *Tasman* after a peaceful voyage via **Australia**, **New Guinea**, and **Java**. Some of the men had been landed in **Sydney** because the ship was over-crowded, and reached **Malaya** in various ships later in the month. The second main draft arrived in November.

The *Tasman* party was met at the **Singapore** docks by the squadron's future Commanding Officer, Squadron Leader Clouston, DFC, ¹ and the two flight commanders, Flight Lieutenants MacKenzie, DFC, ² and **Hutcheson**, ³ who had been sent out from England to take charge of the

new unit. Arrangements for the men's reception were excellent. Within an hour of landing they had been transported to RAF Station, **Kallang**, which was to be their home for the next five months, and were eating their first meal on Malayan soil.

The pilots had come straight from the flying training schools in New Zealand, and their only experience of modern aircraft had been a short conversion course on Harvards. They were sent to an operational training unit which had been formed in Kluang, in Johore, to do a conversion course on Buffalos,⁴ the aircraft with which they were to be equipped.

The ground staff, meanwhile, was established at **Kallang** and took over the squadron's equipment, which consisted of twenty-one



SINGAPORE AIRFIELDS

Buffalos left behind by No. 67 Squadron, **RAF**, which had just been posted to **Burma**.

¹ **Wg Cdr W. G. Clouston**, DFC; **RAF**; bom **Wellington**, 15 Jan 1916; commissioned in **RAF** 1936; p.w. Feb 1942–Sep 1945.

² **Sqn Ldr J. N. MacKenzie**, DFC; **RAF**; Balclutha; born Goodwood, Otago, 11 Aug 1914; farmer; joined **RAF** Feb 1938;

relinquished commission to join **RNZAF** as Sqn Ldr, Jan 1944.

³ **Sqn Ldr J. R. Hutcheson, DFC; Lower Hutt; born Wellington, 18 Mar 1912; company secretary.**

⁴ **F2A-3 Buffalo; made by Brewster, America. Single-seater fighter powered with a single Wright Cyclone radial engine. Maximum speed approximately 350 m.p.h. Cruising range over 1200 miles.**

ROYAL NEW ZEALAND AIR FORCE

EQUIPMENT DIFFICULTIES

EQUIPMENT DIFFICULTIES

The aircraft were in various states of disrepair and needed a lot of work to make them serviceable for operational flying. No. 67 Squadron when it left had taken with it all its tools, spare parts and accessories, and No. 488 Squadron found that the total equipment left to it comprised six trestles, six chocks, one damaged ladder and six oil-draining drums. No preparation for the squadron's arrival had been made by the equipment section at **Kallang**, and the unit's equipment officer, Flying Officer **Franks**,¹ had to start from scratch to build up a complete range of maintenance material.

The equipment organisation at **Kallang** suffered severely from the red tape of peacetime administration, and the acquisition of stores through official channels was painfully slow. Franks established friendly relations direct with the **RAF** equipment depot at Seletar, and was not only able to equip his own squadron in remarkably quick time but helped to equip No. 243 Squadron, **RAF**, which also was stationed at **Kallang**.

¹ **Sqn Ldr C. W. Franks**, MBE; **Wellington**; born North Canterbury, 12 Jul 1912; civil servant.

As equipment came to hand—tools, spare parts, etc.—the maintenance crews set about modifying and repairing the aircraft. By hard work and considerable ingenuity they had machines ready to fly by the time the pilots came back from their conversion course at Kluang towards the end of the month.

Clouston had been ordered to make his squadron operational in the shortest possible time, and throughout November training proceeded at high pressure in the face of many difficulties. The pilots, who should

have been converted to Buffalos at Kluang, had had only a few hours' refresher flying there on Wirraways. Consequently, at **Kallang** they had to start from the beginning. They began by practising circuits and landings on the aerodrome, and then went on to aerobatics. When they could handle their machines proficiently, they progressed to operational exercises: map reading, reconnaissance, army co-operation, formation flying and combat tactics.

In the early stages training was hampered by the lack of any radio equipment, which meant that briefing on the ground had to be more than usually detailed and that no instructions, other than by visual signals, could be given in the air. Even when R/T (radio telephony) became available towards the end of November, the sets, obsolete TR9D type, were unsatisfactory and gave poor results.

Clouston was busy much of the time with administrative work, so most of the burden of training the squadron fell on the shoulders of the two flight commanders. Their load was lightened at the beginning of December when two more New Zealanders, Pilot Officers **Hesketh**¹ and **Oakden**,² were posted on loan from No. 243 Squadron as assistant flight commanders.

Two factors over which the squadron had no control helped to limit flying hours. The first was the weather. Nearly every day, flying was interrupted by heavy thunder showers which reduced visibility to zero and grounded all aircraft till they had passed. The second was the apparent indifference of the Higher Command in **Singapore** to the urgency of the situation. Although the threat of war hung over the island, peacetime routine, enforced by liberal quantities of red tape, was still in operation. Wednesdays were half-holidays, and no work was done on Sundays. Even on full working days, flying was permitted only between eight o'clock in the morning and three in the afternoon. To the New Zealanders,

¹ Plt Off G. L. Hesketh; born **Auckland**, 24 Feb 1915; law

clerk; killed in action 15 Jan 1942.

² **Flt Lt F. W. J. Oakden**; Gore; born Dunedin, 29 Sep 1917; clerk; p.w. Mar 1942– Sep 1945.

imbued with the vital need for haste in reaching operational efficiency, it seemed that far too much valuable time was being wasted.

During the training period the aircraft, old and decrepit in the first place, suffered all the wear and tear that might be expected in a squadron manned by inexperienced pilots. Besides this, they had to be fitted for operations. As already mentioned, R/T sets had to be installed; armour plate had also to be fitted behind the pilot's seat.

The ground crews, who had been brought from New Zealand in accordance with the establishment laid down by **Air Ministry**, were not nearly sufficient to cope with the amount of work to be done. Additional men were posted to the squadron from other units in **Singapore**, but still they were overworked.

Under Flight Sergeant Chandler, ¹ who acted as squadron engineer officer, they performed prodigies in servicing, repairing, and modifying their aircraft. Because they were able to keep a good proportion of the machines airworthy, the squadron achieved a much higher standard of operational efficiency than could have been reasonably expected.

¹ **Fit Lt W. A. Chandler**, BEM; **RNZAF**; born **Hawera**, 14 Aug 1914; motor mechanic.

ROYAL NEW ZEALAND AIR FORCE

OUTBREAK OF WAR WITH JAPAN

OUTBREAK OF WAR WITH JAPAN

Towards the end of November tension in **Singapore** rose rapidly. On the 28th a report was received from Saigon that the Japanese intended landing troops in southern **Siam** on 1 December. On the 30th a Japanese fleet was reported from British North Borneo to be moving south.

On 1 December General Headquarters, **Malaya**, ordered second-degree readiness, which meant that all forces had to be ready for operations at short notice, and the air-raid warning system started to operate. Three days later Japanese forces were officially reported to be moving south, and full air reconnaissance of the waters to the east and north of **Malaya** was ordered.

Bad weather prevented reconnaissance from aerodromes in northern **Malaya**, but a Dutch squadron stationed in the southern part of the peninsula carried out patrols and reported no sign of the enemy. At midday on 6 December a Hudson of No. 1 Squadron, **Royal Australian Air Force**, patrolling from Kota Bharu on the north-east coast of **Malaya**, sighted a Japanese convoy, apparently steering into the Gulf of **Siam**. Shortly afterwards it sighted another convoy which might have been heading for northern **Malaya**.

When the news was received at General Headquarters, **Singapore**, first-degree readiness was ordered. No undue alarm was felt,



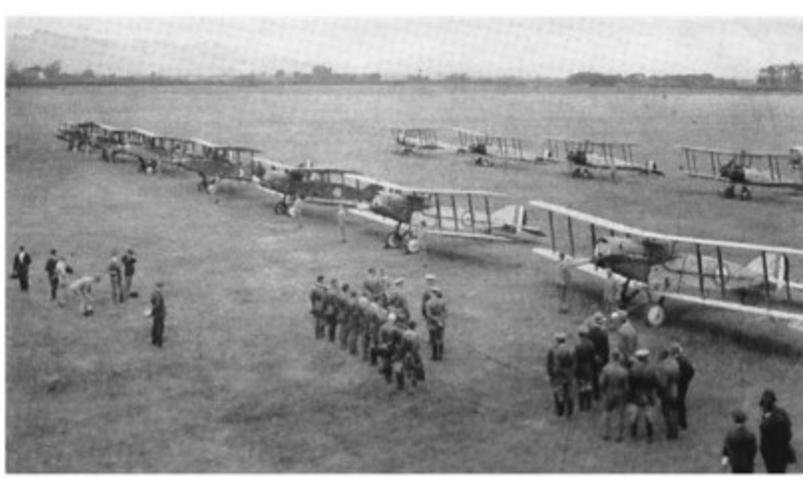
Seaplanes of the New Zealand Flying School, Kohimarama,
Auckland, c. 1916

Seaplanes of the New Zealand Flying School, Kohimarama, Auckland, c. 1916



Canterbury Aviation Company hangars, Sockburn, c. 1917
—Caudron aircraft on left, Bleriot monoplane on right

**Canterbury Aviation Company hangars, Sockburn, c. 1917 —Caudron aircraft on left,
Bleriot monoplane on right**



Aircraft of the New Zealand Permanent Air Force, Wigram, 1927.
The types of aircraft are (*front row, left to right*) DH9, DH4, and Bristol
Fighters; (*back row*) Avro 504K

Aircraft of the New Zealand Permanent Air Force, Wigram, 1927. The types of aircraft are (*front row, left to right*) DH9, DH4, and Bristol Fighters; (*back row*) Avro 504K



OFFICERS OF THE NZPAF, c. 1929
Back row: Flight Lieutenants T. J. Denton, V. J. Somerset-Thomas,
S. Wallingford, A. de T. Nevill
Front row: Flight Lieutenant H. B. Burrell, Squadron Leaders L. M.
Isitt, T. M. Wilkes, and J. L. Findlay, Flight Lieutenant
M. W. Buckley

OFFICERS OF THE NZPAF, c, 1929 *Back row:* Flight Lieutenants T. J. Denton, V. J. Somerset-Thomas, S. Wallingford, A. de T. Nevill *Front row:* Flight Lieutenant H. B. Burrell, Squadron Leaders L. M. Isitt, T. M. Wilkes, and J. L. Findlay, Flight Lieutenant M. W. Buckley



Vildebeestes being inspected at Hobsonville in 1935 by Major-General W. L. H. Sinclair-Burgess (GOC) and Lord Galway (Governor-General) on right

Vildebeestes being inspected at Hobsonville in 1935 by Major-General W. L. H. Sinclair-Burgess (GOC) and Lord Galway (Governor-General) on right



Elementary navigation training, Harewood, 1943

Elementary navigation training, Harewood, 1943

First solo



First solo



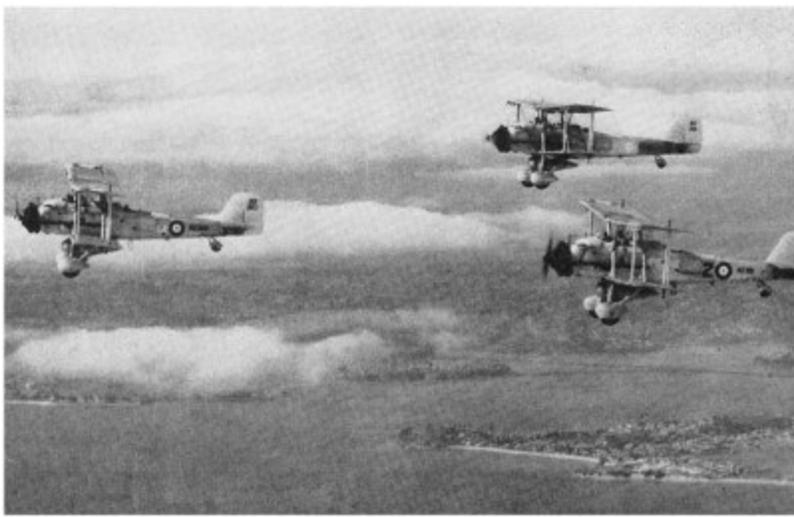
Synthetic bombing instruction, Ohakea, 1941

Synthetic bombing instruction, Ohakea, 1941

Refuelling Anson aircraft, Navigation School, New Plymouth, 1943



Refuelling Anson aircraft, Navigation School, New Plymouth, 1943



Vincents of No. 1 Squadron, Whenuapai, 1941

Vincents of No. 1 Squadron, Whenuapai, 1941



Hudsons of No. 3 Squadron leaving Whenuapai for the forward area,
October 1942

Hudsons of No. 3 Squadron leaving Whenuapai for the forward area, October 1942



No. 1 Aerodrome Construction Squadron preparing the bomber strip
at Tebrau, Malaya

No. 1 Aerodrome Construction Squadron preparing the bomber strip at Tebrau, Malaya



Buffalo pilots of No. 488 Squadron scrambling, Kallang, Malaya

Buffalo pilots of No. 488 Squadron scrambling, Kallang, Malaya



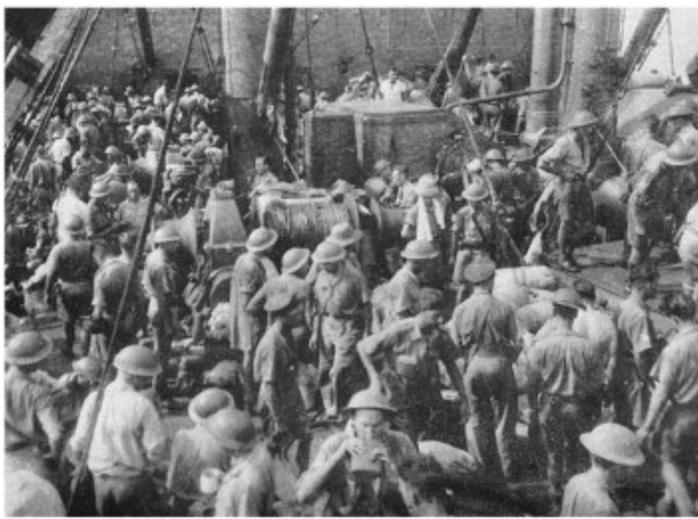
Pilot preparing to take off, Kallang

Pilot preparing to take off, Kallang



Wing Commander
W. G. Clouston

Wing Commander W. G. Clouston



On board the *Empire Star* after leaving Singapore (see pages 93-4)

On board the *Empire Star* after leaving Singapore (see pages 93- 4)



The main camp at Espiritu Santo, July 1943

The main camp at *Espiritu Santo*, July 1943



Navigator of a Catalina on patrol, November 1943

Navigator of a Catalina on patrol, November 1943



No. 40 Squadron Dakota unloading at Santo, July 1943

No. 40 Squadron Dakota unloading at Santo, July 1943



Transport aircraft returning from the forward area, November 1943

Transport aircraft returning from the forward area, November 1943



Servicing Kittyhawks, Guadalcanal, July 1943

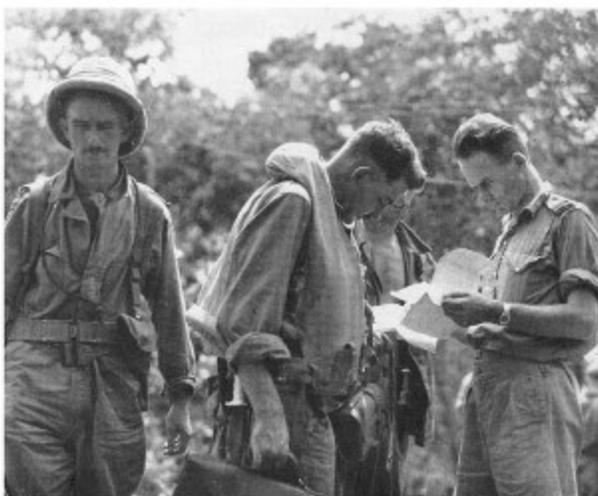
Servicing Kittyhawks, Guadalcanal, July 1943



Outside the operations hut, Henderson Field, Guadalcanal, July 1943

Outside the operations hut, Henderson Field, Guadalcanal, July 1943

Met. officer receiving reports from No. 3 Squadron crew, Guadalcanal, July 1943



Met. officer receiving reports from No. 3 Squadron crew, Guadalcanal, July 1943



No. 1 Squadron Venturas in revetments at Henderson Field, Guadalcanal, November 1943

No. 1 Squadron Venturas in revetments at Henderson Field, Guadalcanal, November 1943



Air Commodores M. W. Buckley and S. Wallingford, Wing Commander T. O. Freeman, Sir Cyril Newall (Governor-General), and Major-General H. E. Barrowclough, beside the Fighter Wing Score Board, Ondonga, New Georgia, November 1943

**Air Commodores M. W. Buckley and S. Wallingford, Wing
Commander T. O. Freeman, Sir Cyril Newall (Governor-General), and
Major-General H. E. Barrowclough, beside the Fighter Wing Score Board,
Ondonga, New Georgia, November 1943**



Timber mill, Los Negros

Timber mill, Los Negros



Briefing crews of No. 1 Squadron at Emirau for a strike on Rabaul, June 1945

Briefing crews of No. 1 Squadron at Emirau for a strike on Rabaul, June 1945



Pilots of No. 25 Squadron, Bougainville, reporting after a strike

Pilots of No. 25 Squadron, Bougainville, reporting after a strike



Airstrip, Green Island, March 1945

Airstrip, Green Island, March 1945



Bombing up with a 1000-pounder for a raid on Rabaul by No. 2 Squadron from Green Island

however, as GHQ considered that the Japanese expedition was almost certainly directed towards Siam.

Throughout 7 December the weather continued to be bad, with almost continuous rain and low cloud. Reconnaissance was limited and the only sightings reported by aircraft were of single merchant ships. Thus, for thirty hours after the first sighting, no contact was made with the main Japanese invasion force.

At two o'clock in the morning on 8 December, Hutcheson, who was duty officer at Kallang, was informed that the Japanese had attacked Malaya. Two hours before, an enemy force had appeared off the coast at Kota Bharu and had landed troops on the beaches under cover of fire from escorting warships.

Shortly after four o'clock Japanese bombers flew over Singapore and attacked aerodromes at Seletar and Tengah. They had been picked up by radar when still 130 miles away, but owing to a breakdown in communications the lights of Singapore had not been extinguished and no blackout was in force. At daylight four aircraft of No. 488 Squadron, led by Hutcheson, took off and carried out the first defensive fighter patrol over Singapore. During the day many more patrols were carried out by the squadron, but all the aircraft intercepted were friendly.

In the first two days of the war the Japanese established bases in northern **Malaya** and occupied the aerodromes at Kota Bharu, Alor Star and Kuantan. Two squadrons of the Dutch Air Force arrived to reinforce **Singapore**. One, a bomber squadron, was stationed at Sembawang, and the other, a fighter squadron of nine Buffalos, joined Nos. 488 and 243 Squadrons at **Kallang**.

As a result of the efforts to strengthen the defences of **Malaya** over the past few years there were, at the beginning of December, some twenty-three airfields on the mainland in various stages of completion and of various sizes, and four on **Singapore** Island itself. The available air forces comprised one Hudson squadron with seven operationally serviceable aircraft, two squadrons of Mark I **Blenheim** bombers and one of Mark I **Blenheim** night fighters, with a total of twenty-seven aircraft, and the Operational Training Unit at Kluang, on the mainland of **Malaya**. On **Singapore** Island there were two squadrons of Vildebeeste torpedo-bombers with twenty-seven serviceable aircraft, one general reconnaissance squadron with three Catalina aircraft, one general reconnaissance squadron with eight Hudsons, four fighter squadrons with a total of forty-three Buffalos, one bomber squadron with seventeen Mark IV Blenheims, and an anti-aircraft co-operation unit with twelve miscellaneous aircraft. In addition, there were six maintenance and servicing units, four radar units in operation, and the **RNZAF** Aerodrome Construction Squadron. Practically every unit contained some New Zealanders.

The fighter squadrons had all been formed in **Malaya** during 1941. The pilots had been recruited from among bomber pilots already in Far East Command and from pilots sent to **Malaya** from flying training schools in New Zealand, while the squadron and flight commanders were all experienced officers sent out from **Britain**. No. 488 Squadron **RNZAF** and No. 453 Squadron **RAAF** had both been formed as Dominion squadrons under Article 15 of the Commonwealth Air Training Plan. No. 243 was an **RAF** squadron, and the fourth fighter squadron, No. 21, **RAAF**, had come to the Far East Command in 1940 as a general purpose

squadron and had been re-equipped with Buffalos as a fighter squadron in October 1941.

All squadrons except No. 488 had been passed as 'trained to operational standards' by the time war broke out, but experience was to show that their training had been based on an underestimate of the **Japanese Air Force**.

Early on the morning of 10 December, No. 488 Squadron was told that it might be required to provide air cover for two warships: no names were given. Two aircraft were to take off every half hour, fly to a given patrol area, remain there for half an hour, and then return. Later in the morning news was received that the battleships *Prince of Wales* and *Repulse* were being attacked by enemy aircraft some 170 miles from **Singapore**. The two ships had arrived at **Singapore** with escorting destroyers a few days before war broke out, and when attacked they were returning from an attempt to intercept enemy convoys in the Gulf of **Siam**.

The weather off southern **Malaya** had given them protection against air attack in a layer of cloud, and they were not escorted by friendly aircraft. During the morning they ran out into clear weather and were discovered by Japanese planes.

At half past two in the afternoon Flight Lieutenant MacKenzie and Sergeant **MacIntosh**¹ of No. 488 Squadron took off as part of the force of fighters to give cover to the ships. By the time they arrived at the scene of the action both ships had been sunk, but they escorted a destroyer which had picked up survivors and was steaming south. Later in the day other members of the squadron in sections of two patrolled the area, where survivors were still being picked up.

During December the Japanese air force directed its activities mainly towards supporting the enemy ground forces in northern **Malaya**, and **Singapore** itself was not heavily attacked. No. 488

¹ **W/O W. J. N. MacIntosh; Invercargill; born Wyndham, Otago, 12 Jun 1915; motor driver; p.w. Mar 1942–Sep 1945.**

Squadron, which was still not fully operational, was engaged in intensive training. By Christmas nearly all the pilots were proficient in handling their aircraft, but one serious deficiency in their training was the absence of practice in high-altitude flying. The Buffalos' performance had proved to be disappointing. They would not stand up to full-throttle climbs, and often lost engine power through a drop in oil pressure and overheating. The maximum height which most of the aircraft achieved was 25,000 feet.

This would have been satisfactory had the Japanese machines been as poor in their performance as the Allied pilots had been led to believe. In fact the Japanese proved to have good aircraft and well-trained pilots. Against these the Buffalo was almost useless.

While training was going on the more experienced pilots of the squadron took part in a number of patrols in attempts to intercept Japanese reconnaissance aircraft. On 15 December four members of the squadron, led by MacKenzie, unsuccessfully chased a Japanese reconnaissance aircraft. The next day, sixteen of the squadron's aircraft took off to intercept another one. Flight Lieutenant Hutcheson and Sergeant Clow ¹ sighted it, but they did not have sufficient height to intercept it and its superior speed allowed it to escape.

Towards the end of the month arrangements for the reception of convoys bringing reinforcements from **Britain became the principal task of the **Air Force** in **Singapore**. For several days before the arrival of each convoy reconnaissance aircraft carried out wide sweeps in search of enemy submarines and other naval units, and a considerable proportion of the other aircraft at **Singapore** was kept in readiness in case the convoys were attacked. This reduced the scale of support which could be given to the Army on the mainland of **Malaya**, but the safe arrival of reinforcements was of paramount importance.**

The first convoy arrived safely on 3 January. It was first sighted by Flight Lieutenant MacKenzie, who was patrolling 130 miles south of the island. During the day No. 488 Squadron flew five patrols, totalling over sixty-four hours, escorting the ships to port. The weather was bad all the time, with low cloud and frequent rainstorms which, while hiding the force from the prying eyes of the enemy, added to the difficulties of locating and escorting it. The aircraft had to fly at 1000 feet or lower to keep below

¹ Flt Lt D.L. Clow, DFC, m.i.d.; **Auckland**; born **Te Kuiti**, 25 Sep 1921; warehouseman.

the cloud, which restricted their range of vision and gave them very little height for manoeuvre.

It was the first major operation in which the squadron had taken part. The pilots proved the value of their training by their excellent flying under adverse conditions, while on the aerodrome at **Kallang** the ground crews toiled all day, checking the aircraft as they came in, refuelling them and making them ready for the next patrol.

A second convoy arrived on 13 January bringing, among other forces, fifty-one Hurricane aircraft and twenty fighter pilots. The continued advance of the Japanese down the Malay Peninsula, the apparent ease with which they had disposed of two of **Britain's** strongest warships, and their patent superiority in the air had had a most depressing effect. Now, it was thought, the enemy would at least be halted, and the Hurricanes would sweep his air force from the skies.

The military situation, however, had seriously deteriorated. By the middle of January the bulk of the British forces on the mainland of **Malaya** had fallen back to the northern boundary of Johore, barely 100 miles from **Singapore**. With the possession of aerodromes in northern and central **Malaya**, the Japanese were able to launch increasingly severe air attacks against the island of **Singapore** itself. Hitherto, except

for night raids which had only a nuisance value, their activities over the island had been confined to reconnaissance.

In January, however, they began making heavy daylight raids, concentrating mainly on the aerodromes. The first aerodrome to suffer was Tengah. **Kallang**, where No. 488 Squadron was stationed, was severely bombed for the first time on 9 January. In addition to the squadron's offices, the station equipment store, ammunition store, and oil stores were practically demolished. Next day the aerodrome was bombed again, but by that time much of the equipment and stores had been salvaged and dispersed in evacuated Chinese houses near the aerodrome.

After the first raid on each aerodrome all the native labour disappeared. This caused a serious dislocation in the ground services and put the burden of repairing aerodrome surfaces on members of the squadrons.

On 10 January the first Japanese aircraft to be destroyed over **Singapore** was brought down by two New Zealanders, Sergeants **Kronk**¹ and **Wipiti**,² both of No. 243 Squadron.

¹ **F/S C. T. Kronk**; born Kohuratahi, Taranaki, 28 Jul 1918; clerk; killed in aircraft accident 28 May 1942.

² **W/O B. S. Wipiti**, DFM; born **New Plymouth**, 16 Jan 1922; refrigeration serviceman; killed on air operations 3 Oct 1943.

ROYAL NEW ZEALAND AIR FORCE

NO. 488 SQUADRON'S COMBATS

NO. 488 SQUADRON'S COMBATS

No. 488 Squadron had its first major combat on 12 January. Eight aircraft, led by MacKenzie, were ordered to take off to intercept an enemy raid coming south. A further six aircraft, led by Hutcheson, took off twenty minutes later. The enemy force was sighted by MacKenzie's formation over Johore. The New Zealanders were at 12,000 feet and the enemy, comprising approximately twenty-seven Type O and Army Type 97 fighters in formations of nine, were 3000 feet above them.

MacKenzie ordered his squadron to fly into the sun and take evasive action, but the Japanese fighters dived and shot down Sergeant **Honan**¹ and Sergeant **MacMillan**² in a few seconds. Both of these pilots baled out and landed safely. Honan, who had a bullet wound in his arm, was admitted to Johore Military Hospital. Sergeant **Killick**³ fired at two enemy aircraft but they evaded him by their outstanding manoeuvrability. MacKenzie attempted to shoot down an Army Type 97 but was himself attacked by another Army 97. Altogether the formation lost two aircraft, had five damaged and two pilots wounded, without having inflicted any known casualties on the enemy. Both types of Japanese aircraft were able to outmanoeuvre the overladen Buffalos with the greatest ease. Also their weight of numbers gave them an overwhelming advantage. In the second formation Hutcheson was the only pilot to make contact with the enemy. He was attacked by a Type O but was not hit.

As a result of these actions, it was decided to reduce the amount of fuel and ammunition carried by the Buffalos in an effort to make them more manoeuvrable and better able to compete with the Zeros; but little improvement resulted.

The next day's operations were equally severe, and are well described

in the squadron's diary:

At 0630 hours Pilot Officer Hesketh led four aircraft of 'A' Flight on a security patrol, but no contact was made with the enemy. At 1100 hours Flight Lieutenant Hutcheson took off with eight aircraft to intercept 30 Type 96 bombers, making contact with them and attacking from below. Flight Lieutenant Hutcheson was shot up by rear-gun fire and crash-landed at base. Pilot Officer Greenhalgh ⁴ attacked an Army 96 bomber. Although only two guns fired, he managed to get smoke from one engine. Pilot Officer Oakden was shot down into the sea by rear-gun fire from a bomber, and was rescued by a Chinese sampan, sustaining slight injuries to his face. Sergeant Clow was shot down in the sea, swam 400 yards to a small island and was picked up by some Chinese in a sampan and returned to **Kallang** two

¹ **W/O T. W. Honan; Auckland; born New Plymouth, 30 Aug 1916; farmer.**

² **Flt Lt R. W. MacMillan; Dunedin; born Timaru, 2 Oct 1918; teacher.**

³ **Plt Off P. E. E. Killick; Masterton; born Wellington, 17 Jul 1920; clerk.**

⁴ **Fg Off W. J. Greenhalgh; Auckland; born Auckland, 5 Jan 1922; clerk.**

days later. Pilot Officer Hesketh and Pilot Officer **Gifford** ¹ were unable to get sufficient height to attack. Pilot Officer **McAneny** ² had to break off his attack through gun failure. **Sergeant de Maus** ³ was hit before he got within range. Casualties: four aircraft written off and one damaged with no loss to the enemy.

Today although we did not meet up with the fighters, because we did not attack from above, we were badly shot up from rear-gun fire. The

Japanese bomber formations of 27 packed aircraft throw out such an accurate and heavy rear-gun barrage that they are very difficult to attack. Some way must be found to break up these mass formations and attack bombers independently. No doubt there was fighter escort in the near vicinity but it did not pick up our fighters owing to cloudy conditions and also because we attacked from below.

In the last two days, No. 488 Squadron has lost seven aircraft and had many others damaged, with no loss to the enemy. No blame can be attached to the pilots, who have done their best with Buffalos. Until we fly as Wings of 36 aircraft we will be unable to inflict heavy damage on the enemy.

From now on the Japanese were over [Singapore](#) every day. The defending squadrons, with most of their aircraft damaged and many destroyed, went up to meet them at every opportunity, but could do little against their superior quality and numbers.

No. 488 Squadron had its first combat success, and suffered its first battle casualty, on 15 January. Led by Hesketh, it took off to intercept a raid and was attacked by a swarm of Japanese fighters. Hesketh was shot down and killed. Sergeant [Kuhn](#) ⁴ scored the unit's first victory when he attacked a Type 97 and sent it crashing to the ground. Most of the squadron's aircraft were damaged to some degree in the action but managed to escape individually into clouds and return to base.

On 18 January Hutcheson led a successful patrol of Nos. 488 and 243 Squadrons combined. In an encounter with nine Zeros they destroyed two and probably destroyed three with no loss to themselves. Pilot Officer [Sharp](#), ⁵ who was flying with No. 243 Squadron, and Sergeant Killick both sent enemy aircraft down in flames. Hutcheson led another patrol which was not so successful. He was shot down and crash-landed on a Dutch island, from which he was later rescued by an Air-Sea Rescue launch. Pilot Officer [Cox](#) ⁶ was also shot down and was not heard of again.

¹ **Flt Lt P. D. Gifford**, m.i.d.; **South Canterbury**; born **Christchurch**, 14 Apr 1915; school teacher.

² **Plt Off K. J. McAneny**; born **Auckland**, 12 Apr 1922; clerk; killed on air operations 19 Jan 1942.

³ **Plt Off W. R. de Maus**; born **Auckland**, 21 Mar 1920; clerk; killed in aircraft accident 16 May 1944.

⁴ **W/O E. E. G. Kuhn**, DFM; **Wellington**; born **Wellington**, 4 Sep 1919; mechanic; p.w. Mar 1942–Sep 1945.

⁵ **Fg Off N. C. Sharp**, DFC; born **Auckland**, 9 Feb 1922; bank clerk; killed on air operations 1 Mar 1942.

⁶ **Plt Off E. W. Cox**; born **Christchurch**, 27 Nov 1919; clerk; killed on air operations 18 Jan 1942.

The following day four members of the squadron accompanied No. 453 Squadron, RAAF, on an offensive patrol over the Muar area. They were attacked by a large formation of enemy fighters and Pilot Officer McAneny and Sergeant **Charters**¹ were shot down.

MacKenzie and Sergeant **Meharry**² at the same time did an offensive patrol over Mersing, during which they saw two Japanese aircraft which escaped into cloud. Later they carried out a reconnaissance of the town and aerodrome at Kuala Lumpur, 200 miles north of **Singapore** and over 100 miles inside enemy territory. By taking advantage of cloud cover and forest camouflage they reached Rawang, 15 miles north of Kuala Lumpur, unobserved. There they turned south and passed over the town at 5000 feet, continuing on to the aerodrome. They made two complete circuits of the aerodrome and carried out a thorough reconnaissance before being discovered by the enemy anti-aircraft guns. The aerodrome was packed with Japanese fighters and was apparently the main base from which the Japanese were raiding **Singapore**. When the enemy anti-

aircraft barrage started, MacKenzie and Meharry retired to the hills west of Kuala Lumpur and eventually made their way back to **Singapore**. As a result of the reconnaissance Kuala Lumpur was raided that night by Flying Fortresses from **Sumatra**.

On 19 January the Dutch fighter squadron which had been at **Kallang** for just over a month was withdrawn to **Palembang** in southern **Sumatra**. This left 243 Squadron, **RAF**, and 488 Squadron, **RNZAF**, at **Kallang**, and on them rested practically the whole responsibility for the fighter defence of **Singapore**. The other two fighter squadrons, Nos. 21 and 453, **RAAF**, which were stationed at Sembawang, were used chiefly in co-operation with the army on the mainland and for escorting bombing raids. The total number of serviceable aircraft which the defending forces had available was 74 bombers and 28 fighters. Practically all the British aircraft were now based at **Singapore**. They were mainly of obsolete types and had been in constant operation since the beginning of the war. The two fighter squadrons defending **Singapore** thus had the dual handicap of old and unserviceable aircraft and of odds which varied from six to one to fifteen to one against them.

On 20 January pilots of Nos. 488 and 243 Squadrons carried out a number of combined patrols. Two attempts were made to intercept enemy bombers, of which one was successful when six Type 97 bombers were attacked near Muar and forced to jettison

¹ **W/O C. D. Charters**; born **Christchurch**, 17 Jan 1914; accountant; died while p.w. 25 Dec 1943.

² **Flt Lt H. J. Meharry**; born Reefton, 6 Jul 1917; commercial traveller; killed on air operations 5 Aug 1944.

their bombs and flee. One of the bombers was shot down and two others damaged. A reconnaissance patrol was carried out over Dutch islands near **Singapore** where parachutists were reported to be landing, but the report proved to be incorrect. Another patrol was carried out over

the Japanese lines near Muar without any contact being made with the enemy. In the afternoon MacKenzie and Sergeant Kuhn carried out a reconnaissance of the main road between Endau and Mersing.

As the enemy advanced down the Malay Peninsula, the observer system responsible for giving warning of approaching air raids became progressively less effective. The radar installations on the island of **Singapore** also failed on numerous occasions to pick up approaching aircraft, with the result that raids frequently occurred with little or no warning. Only occasionally was sufficient notice received to enable the fighters to take off and gain sufficient height in time to intercept the bombers.

On the morning of 22 January **Kallang** was heavily raided with practically no warning at all. Four aircraft, led by MacKenzie, were taxiing out to take off when bombs started to fall on the aerodrome. The pilots immediately opened their throttles and took off amid a shower of dust and smoke. Three of them got away successfully but the fourth, Pilot Officer **Farr**,¹ was blown into a petrol dump by a bomb which landed close beside him. He later died of his injuries. Two members of the ground staff, AC 1 Service, **RAF**, and AC 1 Anderson, **RNZAF**,² were killed at their posts after starting up one of the aircraft. The station telephone operator, AC 1 Croskery, sat under a table during the raid and gave a running commentary to Operations Headquarters in Singapore. Two of the squadron's few remaining aircraft were destroyed and considerable damage done to station buildings.

On 23 January Clouston was posted for duty with **RAF** Headquarters, **Singapore**, and handed over the command of the squadron to MacKenzie. MacKenzie celebrated the occasion by carrying out a patrol with Sergeant MacIntosh and three pilots from No. 243 Squadron, covering a bridge on the mainland over which troops and transport were withdrawing. They were attacked by a superior force of Japanese fighters, and one pilot from No. 243 Squadron was shot down but bailed out and later returned to base. As a result of the action the squadron's

serviceable aircraft strength was reduced from two machines to one.

On 24 January No. 488 Squadron had two serviceable Buffalos. These were attached to No. 243 Squadron with pilots to fly them,

¹ **Plt Off L. R. Farr**; born **Auckland**, 22 Mar 1917; clerk; killed in action 22 Jan 1942.

² **AC 1 I. V. S. Anderson**; born **Dannevirke**, 23 Jul 1921; cabinet-maker; killed in action 22 Jan 1942.

and the squadron started to re-equip with Hurricanes which had arrived in the convoy on 13 January and had been assembled at Seletar and Tengah. No. 488 Squadron was allotted nine of them, and they were collected by members of the squadron on the 24th and 25th. For the next two days the pilots carried out practice flying and made themselves familiar with the new aircraft.

On the 27th a formation of enemy bombers appeared over the aerodrome with very little warning, at a time when all the machines were on the ground refuelling after a patrol. All the Hurricanes except one were damaged and most of No. 243 Squadron's Buffalos were either damaged or completely destroyed. Two Blenheims on the aerodrome were burnt out. Another wave of bombers came over forty minutes later and did further damage. The aerodrome was pitted with bomb craters, making it unserviceable. For the next three days all personnel were engaged either in repairing aircraft or in filling in bomb craters, and by the end of the month three Hurricanes and a strip of the aerodrome had been made serviceable.

ROYAL NEW ZEALAND AIR FORCE

DECISION TO EVACUATE AIR FORCES

DECISION TO EVACUATE AIR FORCES

Meanwhile, on the mainland of **Malaya** the situation had become rapidly worse. The reinforcements which had arrived earlier in the month, and additional air reinforcements which had come from the **Middle East** more recently, were too late to stem the Japanese advance. On 27 January it was decided to withdraw all the land forces to **Singapore**. This was done, and the causeway connecting the island with the mainland was blown up on 31 January.

There was now considerable congestion on the island. The four aerodromes on **Singapore** were the only places from which our air forces could operate in **Malaya**. To reduce the congestion all bomber and reconnaissance squadrons were transferred during the latter half of January to **Sumatra** or **Java**, leaving only the fighter squadrons for the immediate defence of **Singapore**. Constant bombing of the aerodromes and the lack of sufficient fighter forces to defend them made operations practically impossible. Three of the aerodromes, Tengah, Sembawang and Seletar, were situated on the north coast of the island. After the Army's withdrawal from the mainland these became exposed to observed artillery fire from Johore at a range of less than 2000 yards. Consequently it was necessary to evacuate them, and **Kallang** was then the only aerodrome from which aircraft could operate. **Kallang** itself was practically unserviceable owing to enemy bombing, and it therefore became necessary to reduce the fighter forces remaining in **Singapore**.

On 30 January it was decided to keep only eight Hurricanes and the remaining Buffalos at **Singapore**. All other fighter forces were to be evacuated to **Sumatra** or **Java**. Fighter reinforcements arriving on the aircraft carrier *Indomitable* were to be based in **Sumatra** to support those at **Singapore** and reinforce them as opportunity offered. At this stage it was still hoped that sufficient forces would be available to hold

Singapore and eventually to launch a counter-offensive.

Of the fifty-one Hurricanes which had arrived in the middle of January only twenty were now available, the rest having been destroyed or damaged; and of the original force of Buffalos only six remained operational. The fighters still at **Singapore** and in **Sumatra** were too few to affect materially the scale of the enemy attack. They did their best, flying almost continuously during daylight, but could do no more than harass the Japanese.

At nine o'clock in the evening of 31 January MacKenzie was told that No. 488 Squadron must be ready to move immediately. Throughout the night, interrupted by frequent air raids, the men prepared for the move. They packed up all of the serviceable Hurricane equipment and stores and their personal clothing into cases and loaded them on lorries. The lorries were then dispersed in the rubber plantations around the aerodrome and the squadron awaited further orders.

Next morning, however, it was told that it would not be evacuated but would remain in **Singapore** to service the aircraft of No. 232 Squadron, which had recently arrived from the **United Kingdom** with aircraft and pilots but without ground staff. No. 488 was thus the last squadron whose ground staff remained on the island.

On 2 February the squadron's four serviceable Hurricanes were flown to **Palembang**, in **Sumatra**. By this time the constant bombing of the aerodromes had made fighter operations practically impossible, and in addition the Japanese were maintaining fighter patrols over the island and the surrounding waters. The next day large formations of Japanese bombers concentrated on the harbour. The oil tanks near the naval base were hit and the whole island was covered by a thick pall of black smoke.

On 4 February Pilot Officer Gifford and Flight Sergeant **Rees**¹ took a party of men to Sembawang to service the Hurricanes of No. 232 Squadron. When they arrived they were greeted by a salvo of shells. This

was the first shelling of **Singapore** Island by the Japanese. They returned to **Kallang** the next day after getting all the serviceable aircraft off the aerodrome at Sembawang. Pilot Officer **Johnstone**,² who was attached to No. 453 Squadron, was taxiing to take off in a Buffalo when it was hit by a shell. He immediately dashed over to another Buffalo and took off amid a shower of shells.

Later in the day the party went to Tengah aerodrome, which was being shelled, to assist in getting the aircraft away from there. They succeeded in flying all the aircraft, mostly Hurricanes and Buffalos, to **Kallang**.

Squadron Leader MacKenzie and eight sergeant pilots sailed for **Batavia** on the cruiser HMS *Danae*. Flight Lieutenant Hutcheson and Pilot Officer Oakden, after a day spent in searching the dispersal areas of Tengah, Sembawang, and Seletar for any serviceable machines that might have been overlooked, joined the remainder of the pilots on the SS *City of Canterbury* and sailed at 11 p.m. for **Batavia**, where both ships arrived on the evening of 8 February.

Meanwhile No. 488's ground crews in **Singapore** began to service the diminishing force of aircraft which were being flown by the pilots of No. 232 Squadron. The Japanese landed on the island on the night of 8–9 February, but although all hope of withdrawal seemed to have gone, the pilots of the new squadron received as good a service as had ever been given to the original pilots of No. 488 Squadron. Finally, on 10 February, the last of the Hurricanes was flown away from **Singapore** and the ground crews were left with nothing but a few battered machines apparently of no further use. However, under Flight Sergeant Chandler they set to in an endeavour to get one more Hurricane serviceable so that Squadron Leader Clouston, now at Operations Headquarters, might be able to escape if surrender became inevitable. He did not manage to escape and was captured when the enemy occupied **Singapore**; he spent the rest of the war in Japanese prison camps.

On the morning of the 11th the ground staff went down to the

aerodrome, expecting to find the pilots of No. 232 Squadron back with fresh aircraft from **Sumatra**. None appeared so they returned to their barracks. Reports were received of parties of Japanese infiltrating close to the billets, and patrols were sent out. The men were issued with rifles and told to dig in among the rubber trees round the aerodrome. At midday these instructions were cancelled and the squadron was told that it would be evacuated by sea that afternoon. Each man was allowed to take one kitbag of personal gear and the officers could take what they could carry.

The squadron retired to the docks and at four o'clock went aboard the *Empire Star*. Two waves of bombers raided the docks as they were embarking. At half past six the ship pulled out into the stream and anchored. Finally, at half past six next morning, she sailed for **Batavia**. When she was two hours out she was dive-bombed by several waves of Japanese aircraft and suffered three direct hits. A number of men were killed or injured, none of them from No. 488 Squadron. Members of the squadron manned Lewis guns and tommy guns and others fired rifles. As a result of the fusillade put up, one enemy aircraft was destroyed and one damaged.

Waves of bombers continued to come over until after midday, but the defensive fire kept them high and they scored no more hits. The *Empire Star* arrived at **Batavia** on the evening of the 13th and the men went ashore next day.

¹ **Sqn Ldr J. Rees**, BEM; **RNZAF**; born **Thames**, 28 Dec 1914; electrician.

² **Flt Lt F. S. Johnstone**; **Hamilton**; born **Timaru**, 15 Aug 1914; theatre assistant.

ROYAL NEW ZEALAND AIR FORCE

JAVA

JAVA

The pilots of the squadron had arrived in **Java** on the 9th. The majority of them had immediately gone to Buitenzorg, a rest camp 40 miles from **Batavia**. After a conference at Air Headquarters, **Batavia**, MacKenzie was told that No. 488 Squadron was to be re-equipped with Hurricanes and would undertake the fighter defence of **Batavia**. Its ground personnel was to consist of Hurricane crews already on the island.

MacKenzie was put in charge of Hurricane delivery at Tjililitan aerodrome, 10 miles from **Batavia**. He established a temporary base there and organised ground crews to check new Hurricanes and harmonise their guns prior to their despatch to **Palembang**.

On the 11th the squadron's pilots returned from Buitenzorg and helped to ferry Hurricanes from **Batavia** civil airport to Tjililitan for checking. They were joined by the four pilots who had left **Singapore** by air some days before them.

On the morning of 14 February Hutcheson, leading a formation of nine Hurricanes, took off for **Palembang**. Apart from Pilot Officer Sharp and Sergeant Meharry, all the pilots in the formation were from the various **RAF** squadrons.

Their arrival at **Palembang** coincided with an attack by Japanese paratroops. Escorting Japanese fighters attacked the formation which, after the long flight from **Batavia**, urgently needed refuelling. Meharry managed to land at **Palembang** despite the fighting going on between the Japanese paratroops and the **RAF** ground crew. Later it was found possible to refuel his aircraft and he flew to a secret aerodrome known as P2, from which he made attacks against the invading Japanese until his

aircraft was no longer serviceable. Later he was evacuated to southern **Sumatra** by rail.

The other pilots, finding it impossible to land, fought back at the Japanese fighters until they ran out of fuel or were shot down into the jungle. Neither Hutcheson nor Sharp was injured when they crashed. Sharp managed by various means to get back to **Java** by 16 February. Hutcheson, who joined Meharry at Oosthaven in southern **Sumatra**, arrived a day later.

Other pilots from the squadron continued to carry out defensive patrols from Tjililitan in company with those pilots from Nos. 232 and 258 Squadrons who were able to reach **Java** after the fall of **Sumatra**. Among them they had twelve serviceable aircraft.

It had been hoped that southern **Sumatra** as well as **Java** could be held, but on 15 February, the day **Singapore** surrendered, all units on **Sumatra** were forced to withdraw. After the paratroop landing on the 14th, the Japanese had occupied the aerodrome at **Palembang**, and P2, at which all the available Allied air units were concentrated, was also in danger of being overrun.

The speed of the enemy's advance had frustrated the hopes of building up a large Allied strength in the East Indies, and **Java** itself was now under imminent threat of invasion. It was therefore decided that the Supreme Commander, General Wavell, should withdraw his headquarters, which had been removed from Singapore to **Java** some days previously, and turn over the remaining Allied forces to the command of the Dutch.

The Dutch at this time had about five bomber, three fighter, and two observation squadrons in **Java**. In addition there were twelve to fifteen American heavy bombers and a few fighters. There were also the British squadrons which had been evacuated from **Singapore** and **Sumatra**. All squadrons were depleted in strength as a result of operations over the past few weeks, the serviceability of their aircraft was low, spares and

equipment were scarce, and the whole force suffered from disorganisation and confusion.

On 22 February MacKenzie was instructed that he was to move his squadron to **Australia** and hand over his aircraft to No. 605 Squadron, **RAF**, together with one flight commander and five other pilots. No. 258 Squadron, **RAF**, was to do the same, to bring No. 605 Squadron up to strength. The men left behind were to be evacuated when **RAF** replacements arrived. Pilot Officer Oakden remained behind as flight commander, together with Pilot Officers Sharp, **Pettit**¹ and **White**,² and Sergeants Kuhn and MacIntosh.

The rest of the squadron embarked on the *MV Deucalion* on the afternoon of 23 February and sailed for **Fremantle**. They arrived in **Australia** at the beginning of March, and at the end of the month returned to New Zealand on the *Esperance Bay*.

The six pilots who were left behind were not relieved. They fought throughout the rest of the campaign until **Java** surrendered on 8 March. Sharp was shot down behind the Japanese lines, and although he made a good crash-landing and was seen to get out of his machine and wave to the other members of the squadron, he was not heard of again. The other five were taken prisoner after the surrender. Pilot Officer White died while a prisoner of war, and the others survived three and a half years in Japanese prison camps and returned to New Zealand after the end of the war.

¹ **Flt Lt H. S. Pettit; Lower Hutt**; born Dunedin, 19 Jan 1919; accountant; p.w. 1942–45.

² **Flt Lt G. P. White**; born Picton, 3 Jun 1919; commercial artist; died while p.w. Nov 1943.

ROYAL NEW ZEALAND AIR FORCE

**CHAPTER 8 – NO. 1 AERODROME CONSTRUCTION SQUADRON IN
MALAYA**

CHAPTER 8

No. 1 Aerodrome Construction Squadron in Malaya

THE Aerodrome Construction Squadron, formed in New Zealand early in July 1941, was recruited from Public Works employees, from men already in the **Air Force, and from men employed by private construction companies. Generally speaking, the men were older than the normal **RNZAF** recruit, the average age of the squadron being thirty-six. They had been selected because of their ability to do hard work under tropical conditions. Most of them were tougher and more rugged than the majority of recruits.**

The advance party, comprising four officers and fifteen other ranks who formed the Survey Section, left New Zealand towards the end of July in the *Maetsuyker* and arrived in **Singapore on 15 August. A second party, including Squadron Leader **Smart**,¹ Officer Commanding the squadron, left by air on 11 August and arrived two days after the advance party. The main body of the squadron sailed from New Zealand in the *Narbada* on 13 August. Accommodation on the ship was entirely unsatisfactory and the majority of the men were off-loaded at **Sydney**. A party of twelve remained on the ship in charge of the squadron's heavy equipment. Those who had been landed in **Sydney** went forward in three parties on regular Dutch passenger ships, the last party arriving in **Singapore** in the third week of October.**

The advance party established a base camp at **Tebrau, in Johore. The camp was built by native labour working under contract with the Air Ministry Department of Works, under the supervision of New Zealand personnel, and was fully ready for occupation when the main body arrived.**

The squadron's first major work was the construction of a bomber aerodrome at **Tebrau. The site, consisting of two runways in the shape of an L, had already been marked out by the survey party, and the construction machinery had been assembled ready to begin work.**

The area was covered by rubber plantations. The initial process in building the strips was to remove the trees, which were uprooted

¹ **Sqn Ldr E. C. Smart; Wellington; born NZ 11 Jun 1903; aerodrome engineer.**

by bulldozers and thrust aside to be cut up for firewood by Chinese coolies. Then the ground was roughly levelled by carry-alls, drawn by 18-ton tractors, which took the tops off the hillocks and deposited the spoil in the hollows. Lastly, graders were used to smooth out the rough spots and evenly distribute the gravel put down to surface the runways. The mechanical work was supplemented by the labour of hundreds of coolies, who swarmed everywhere with picks and shovels putting the finishing touches to what the machines had done.

When the squadron started operations, the north-east monsoon season had begun. Every afternoon with clock-like regularity the rain started, turning the newly cleared ground into soft mud. After a heavy afternoon's rain the tractors and carry-alls became bogged to their axles, and it was impossible to work them until the next morning's sun dried out the ground. Whenever a spell of fine weather occurred work went on through the night to make up for lost time. Towards the end of November when the **Tebrau** field was well under way, the survey party, under the command of Flight Lieutenant **Begg**, ¹ was sent to Bekok, 90 miles to the north, to mark out the site for a second bomber aerodrome.

Early in the morning of 8 December the camp at **Tebrau** was wakened by the air-raid sirens at **Singapore** and the men trooped out of their huts into the moonlight to see what was going on. They had a grandstand view of the first air raid over **Malaya**. They saw the flash of bombs exploding on the island, and the tracer from the ground defences going up to the aircraft 17,000 feet overhead in the beams of the searchlights. None of the men realised that it was a raid and not just another practice. It was not until the eight o'clock news came over the radio that they knew for certain that **Singapore** had been bombed.

The loss of aerodromes in northern **Malaya** in the first few days of the war made it vitally necessary to develop new ones in the south as quickly as possible. The most urgent need was for more fighter strips to accommodate the fighter reinforcements which were on their way. In consequence, the development of **Tebrau** was to be restricted to the completion, as soon as possible, of a runway of 1200 yards.

In the middle of December work at **Tebrau** was temporarily suspended, and the squadron was split up into several parties and employed on other urgent jobs. A large detachment was sent to the new site at Bekok and ordered to make a fighter strip there; another, of twenty-eight men, was posted to **Singapore** Island to begin a strip at Sungei Buloh, near Tengah. Smaller parties were stationed at Seletar and Tengah, helping with construction and repair

¹ **Flt Lt A. G. Begg**; Dunedin; born Dunedin, 8 Jul 1901; civil engineer.

work on the aerodromes; a salvage party was operating in northern **Malaya**; and the rest of the squadron began building another fighter strip on the site of the rifle range at the Johore military barracks.

The salvage party, formed at the beginning of the war, had been sent to northern **Malaya** under the command of Flying Officer **Gaby**¹ to rescue and repair equipment in the battle zone. For the next six weeks, throughout the 500-mile retreat to **Singapore**, it was responsible for saving immense quantities of equipment from under the noses of the Japanese. Operating much of the time only one jump ahead of the British rearguard, it collected abandoned trucks, cars, steam-rollers and graders, put native drivers into them, and sent them rolling down the road to **Singapore**. From bombed-out aerodromes it collected lorry loads of precious radio and other equipment and sent that, too, to join the south-bound convoys. At the end of the campaign the squadron had more equipment than when it started.

Early in January the detachments at Seletar and Tengah were recalled to start work again on the **Tebrau** strip. Most of the Bekok party also returned. Having almost completed their job, they were ordered to leave it, first dragging trees and other obstacles across the runway in case Japanese aircraft tried to land. A rear party was left behind to lay mines in preparation for later demolition. The survey party went back to **Singapore** to survey yet another fighter strip at Yio Chu Kang, near Seletar.

Except for final grading and surfacing, the Rifle Range strip was finished by the middle of the month and was being used by light aircraft of the Malayan Volunteer Air Force. It was the only one built by the squadron in **Malaya** to be used operationally, and was the last to be evacuated when the British forces retired to **Singapore**.

On 15 January, with the Japanese at the northern border of Johore, the Bekok camp was finally evacuated and the runway was blown up next day.

¹ **Flt Lt W. A. Gaby; Hamilton**; born **Wellington**, 5 Nov 1906; constructional engineer.

RETREAT TO SINGAPORE ISLAND

Work on **Tebrau** was carried on until nearly the end of the month, when the order was given to evacuate and prepare that aerodrome also for demolition. Coolies dug holes in the newly formed runways, and mines were laid in them ready to be exploded when the word was given. An airman bitterly expressed the opinion that, in future, it would be simpler to build mines into the foundations when the aerodromes were being constructed. The camp was stripped clean of all equipment, stores, and personal gear, and the squadron moved out on the morning of 27 January, the last **Air Force** unit to leave the mainland.

The next day a demolition party returned and exploded the mines at

Tebrau and the Rifle Range. Both strips were left pitted with craters 25 to 30 feet across and 10 feet deep which, it was hoped, would deny their use to the enemy for a considerable time.

On **Singapore** the unit was quartered at the **Singapore** Dairy Farm, in the centre of the island and about a dozen miles from the city. The men lived in tents hidden among the rubber trees, and the officers in one of the farm buildings.

For the next few days, despite frequent interruptions by enemy bombers, work was continued on the two new strips at Sungei Buloh and Yio Chu Kang, both of which were by then almost completed. When, at the beginning of February, the Japanese brought their artillery to bear on them, both had to be abandoned.

There was also a constant demand for men and machinery to help repair bomb damage on the main aerodromes, which were under daily attack, and parties were sent out as they were needed. In addition, at the urgent request of the Army authorities, a detachment spent several days building tank traps in the western part of the island.

At the end of January it was plain that **Singapore** was no place for an aerodrome construction squadron. The fields already in existence were being steadily pounded to bits, and any new construction would share the same fate. In any case, there were practically no aircraft left to use them. Once again, as in **Norway**, **Greece** and **Crete**, it was being proved that aerodromes without adequate fighter protection were valueless.

At that stage it was still hoped that **Singapore** could hold out until sufficient forces were assembled in the **Netherlands East Indies** to launch a counter-offensive, and it was decided to send the unit to **Sumatra** to prepare landing fields there.

EVACUATION

On the morning of 1 February the squadron was ordered to embark

with its machinery on the SS *Talhythibus*. The equipment was sent down to the docks, and at one o'clock in the afternoon was all at the ship's side, ready for loading.

As a result of the daily bombing of the port, all the native labourers had long since disappeared. No help could be had from the ship's native crew, who were untrained and useless as stevedores. Consequently all the work of loading, including working the winches and stowing the cargo, had to be done by the squadron. The ship's derricks were rigged, winches manned, and loading began at three o'clock.

Work ceased at nightfall as a strict blackout had to be maintained. It was resumed at daylight the next day, and by that evening most of the stuff was on board. There were numerous air-raid alarms during the day, but the work continued without a stop until enemy bombers were practically overhead, when the men took cover, some in shelters on the wharf, others in the ship's hold, to emerge again immediately the raid was over. Several times bombs fell close, but the *Talhythibus* was not hit.

In sixteen hours of working time, despite interruptions, seventy men had loaded between 2300 and 2500 tons, ship's measurement, of heavy equipment, including tractors, trucks, stores and machinery.

The ship remained at the wharf again that night, and the men returned to their camp at the Dairy Farm. The next morning a working party went down to straighten up the cargo and help to load some additional **RAF** equipment which was to be taken.

In the middle of the morning there were two heavy air raids. The *Talhythibus* survived the first, although bombs fell close by. In the second she received two direct hits by bombs which exploded in the holds, and there were several more near misses. The working party was caught on board, and Flight Sergeant **Gifford**,¹ the NCO in charge, was killed. He had worked splendidly during the last two days, and through his example and leadership all the equipment had been loaded. Seven men were seriously injured, with severe burns and shock, and one of

them died in hospital the next day. The ship was set on fire, and water poured in through holes in her side. The fires were put out after a twenty-four-hour struggle by the ship's crew, but she continued to make water fast in spite of the rigging of auxiliary pumps.

Much of the cargo was destroyed by the bombing and fire, but the heavy excavating machinery and large quantities of medical, dental, and other stores were undamaged, and it was hoped that a good deal could be saved. A party of volunteers went to the docks on the afternoon of 4 February and unloaded the medical stores and the men's kitbags; but lack of steam to work the winches prevented any of the heavier gear being taken off. Later the same afternoon another bombing attack set the ship on fire again and sank her.

The next two days were spent at the Dairy Farm waiting for fresh embarkation orders. By this time the Japanese were shelling the island, and the hazard of artillery fire was added to the constant

¹ **F/S E. A. Gifford**; born **Auckland**, 18 Apr 1908; engineer; killed in action 3 Feb 1942.

bombing attacks. Shells burst all around the camp as the enemy fired at observation posts on nearby hillocks and searched for Australian batteries hidden in the neighbouring rubber plantations. Overhead, bombers swooped low as they dived to attack big oil installations half a mile away.

On the afternoon of 6 February the squadron was told it would be evacuated in a convoy sailing that evening. The men struck camp immediately and were transported in lorries to the docks. There, amid the litter of bomb wreckage and in the glare of burning buildings, they loaded all that was left of the unit's equipment on the waiting ships. There was not much: only their personal kitbags, the medical supplies, and their rifles and ammunition.

Two parties were formed, one going on the SS *City of Canterbury* and the other on the SS *Darvel*. The men going aboard the *City of Canterbury* met with some opposition, as the ship was considered to be already overloaded; but the captain stated that he had embarked New Zealanders as the last troops to leave Greece and Crete, and decreed that they should be taken. The same captain and crew had also taken part in the evacuations of Narvik and Dunkirk. Both ships moved out into the stream to join up with their convoy, but the *Darvel* was ordered back to port by the naval authorities, partly because she had insufficient crew and partly because she was too slow—her best speed was eleven knots—for the other three much faster ships which were going.

The convoy, the last to leave Singapore, sailed that night with a strong naval escort for Java. The troops on the *City of Canterbury* suffered the discomfort of overcrowding and insufficient food, and there were frequent air-raid alarms; but the escorting warships warded off all enemy attacks, and the ships reached Batavia safely on 9 February.

After lying at anchor in the stream all night the *Darvel* returned to the wharf again on the morning of the 7th. The men landed and were taken to an RAF transit camp near Seletar. There they were between the Japanese batteries on the southern tip of Johore and the British on Singapore, and the air was full of the roar of shells passing overhead.

The following afternoon they again went down to the docks and embarked on the *Darvel*. After some hours, during which there were several air raids, she eventually put to sea at dusk. She had just cleared the harbour when she turned and was brought back to her berth. Bad weather was brewing outside, and visibility had become too bad to risk going through the protective minefields beyond the entrance. That night she lay alongside the wharf and the men slept on her decks.

The next morning the men were taken once more to the transit camp. During the night the Japanese had landed on the western part of the island and by morning had made considerable progress eastwards. Towards midday their artillery started shelling the camp, and all

personnel had to take to the shelter trenches.

In the afternoon, during a lull in the shelling, the men scrambled into their trucks and once more made for the docks. This time they went straight aboard the *Darvel*, and she immediately headed for the open sea. She escaped just in time to avoid a heavy dive-bombing and strafing attack on shipping in the docks, and the last view of **Singapore** was one of blazing wharf sheds and towering columns of smoke from burning oil tanks, the sky full of enemy aircraft and bursting anti-aircraft shells.

The ship sailed through the night, and at daybreak anchored off the southern tip of a small island to avoid being seen by enemy aircraft. She was still short-staffed and members of the squadron virtually worked her. Some took shifts in the engine-room and stokehold, others mounted and manned light anti-aircraft guns, and others took over the messing for all the troops on board.

The next stage of the voyage lay through Bangka Strait, between **Sumatra** and Bangka Island. Through its narrow waters all shipping from **Singapore** to **Java** had to pass, and the Japanese bombers patrolled it constantly during daylight.

The ship got under way again at dusk and it was hoped that she would pass through the danger area in the night. But just before entering the strait she was delayed for two hours assisting another vessel, the *SS Kintak*, which had run ashore during the day. In consequence, she was still in the strait when the next day dawned. She anchored in the shelter of a group of small islands in the hope that the Japanese would not see her. Close by was another small ship which had been bombed some days before and abandoned.

The morning was peaceful until half past eleven, and then a formation of enemy bombers appeared. They were too high for the ship's anti-aircraft guns, so the gun crews withheld their fire and took cover. The planes altered their course slightly to bring them directly overhead, and then the bombs began to fall. For a minute all was confusion as

they rained down all round the ship, the explosions tossing her about like a cork and drenching her with spray. There were no direct hits, but concussion and splinters from near misses made the ship a shambles. Then it was over, and there was silence except for the hiss of steam escaping from burst pipes.

Five minutes later the bombers returned, but this time they concentrated their attack on the abandoned steamer a few hundred yards away. They sank her and, having used up all their bombs, returned to their base.

The *Darvel*, although spared a second bombing, was in parlous condition. Her hull was riddled with holes from bomb splinters, and she was leaking badly. The steering gear was damaged, and so were all the lifeboats. Fires had broken out in several places, and many of the troops on board were killed or wounded. The New Zealand unit had one killed, seventeen wounded, and several more slightly injured.

The captain gave the order to abandon ship, but the state of the boats made this impossible. The fires were quickly brought under control, and then working parties, composed of New Zealanders, went below to fill in the scores of small holes with wooden plugs. Others set to work to repair the lifeboats and rigging and clear up the debris on the decks. There was no doctor on board, so medical orderlies, under the direction of Sergeant [Harris](#),¹ cared for the wounded.

A naval officer, Lieutenant-Commander Griffiths, RN, took over the command of the ship and decided, rather than wait for another attack, to risk steaming through the rest of the strait in daylight. The passage was accomplished safely, and at the southern entrance a halt was made to repair the damaged steering gear. Finally, at half past eight in the evening when darkness covered the ship, course was set for [Batavia](#).

By next morning, 12 February, the *Darvel* was listing badly to port, and the captain reported that she was sinking. All passengers and baggage were crowded to the starboard side, and men from the squadron

went below and plugged more holes. After about two hours' work the leakage was brought under control, and the ship eventually arrived off **Batavia** at midday and berthed at two o'clock.

Senior officers who had travelled in her reported afterwards that, although the New Zealanders formed only a small proportion of the troops on board, it was due entirely to their work and initiative that the *Darvel* reached **Java** safely.

On arrival at **Batavia** the wounded were taken to the Dutch military hospital and the rest of the New Zealanders rejoined the other half of the squadron, which was quartered in a transit camp at King Wilhelm III School. The next day the whole unit was moved to Buitenzorg, where it remained for a week while the

¹ **W/O M. T. B. Harris**, BEM; **RNZAF**; born **Auckland**, 17 Jan 1911; hospital attendant.

Commanding Officer, Squadron Leader Smart, discussed future plans with Allied Air Headquarters at **Bandoeng**.

In the prevailing confusion it was difficult to obtain any instructions. While it was still thought that **Java** could be defended, suggestions were made that the squadron should be employed in digging trenches and tank traps, but with the Japanese advance coming daily closer, the situation was constantly changing and plans were made only to be discarded.

Eventually it was decided that as the unit had lost all its equipment it should be evacuated to reform and re-equip in **Australia** or New Zealand. Accordingly, on 20 February, it returned to **Batavia** and went aboard the *SS Marella*. Although Japanese air activity was by this time increasing over **Java**, the embarkation was carried out without incident. The *Marella* sailed at six o'clock that evening, in one of the last convoys to get away from **Java** unharmed, and reached **Australia** a week

later.

The squadron remained aboard the *Marella* until she reached **Melbourne**. From there it went by train to **Adelaide**, where it was joined by other **RNZAF** men awaiting transport to New Zealand. Eventually the whole party, which comprised 233 men and three VADs, sailed in the MV *Durban Castle* on 18 March for New Zealand and reached **Lyttelton** on the morning of the 24th.

ROYAL NEW ZEALAND AIR FORCE

[SECTION]

THE Aerodrome Construction Squadron, formed in New Zealand early in July 1941, was recruited from Public Works employees, from men already in the [Air Force](#), and from men employed by private construction companies. Generally speaking, the men were older than the normal [RNZAF](#) recruit, the average age of the squadron being thirty-six. They had been selected because of their ability to do hard work under tropical conditions. Most of them were tougher and more rugged than the majority of recruits.

The advance party, comprising four officers and fifteen other ranks who formed the Survey Section, left New Zealand towards the end of July in the *Maetsuyker* and arrived in [Singapore](#) on 15 August. A second party, including Squadron Leader [Smart](#), ¹ Officer Commanding the squadron, left by air on 11 August and arrived two days after the advance party. The main body of the squadron sailed from New Zealand in the *Narbada* on 13 August. Accommodation on the ship was entirely unsatisfactory and the majority of the men were off-loaded at [Sydney](#). A party of twelve remained on the ship in charge of the squadron's heavy equipment. Those who had been landed in [Sydney](#) went forward in three parties on regular Dutch passenger ships, the last party arriving in [Singapore](#) in the third week of October.

The advance party established a base camp at [Tebrau](#), in Johore. The camp was built by native labour working under contract with the Air Ministry Department of Works, under the supervision of New Zealand personnel, and was fully ready for occupation when the main body arrived.

The squadron's first major work was the construction of a bomber aerodrome at [Tebrau](#). The site, consisting of two runways in the shape of an L, had already been marked out by the survey party, and the construction machinery had been assembled ready to begin work.

The area was covered by rubber plantations. The initial process in building the strips was to remove the trees, which were uprooted

¹ **Sqn Ldr E. C. Smart; Wellington; born NZ 11 Jun 1903; aerodrome engineer.**

by bulldozers and thrust aside to be cut up for firewood by Chinese coolies. Then the ground was roughly levelled by carry-alls, drawn by 18-ton tractors, which took the tops off the hillocks and deposited the spoil in the hollows. Lastly, graders were used to smooth out the rough spots and evenly distribute the gravel put down to surface the runways. The mechanical work was supplemented by the labour of hundreds of coolies, who swarmed everywhere with picks and shovels putting the finishing touches to what the machines had done.

When the squadron started operations, the north-east monsoon season had begun. Every afternoon with clock-like regularity the rain started, turning the newly cleared ground into soft mud. After a heavy afternoon's rain the tractors and carry-alls became bogged to their axles, and it was impossible to work them until the next morning's sun dried out the ground. Whenever a spell of fine weather occurred work went on through the night to make up for lost time. Towards the end of November when the **Tebrau** field was well under way, the survey party, under the command of Flight Lieutenant **Begg**, ¹ was sent to Bekok, 90 miles to the north, to mark out the site for a second bomber aerodrome.

Early in the morning of 8 December the camp at **Tebrau** was wakened by the air-raid sirens at **Singapore** and the men trooped out of their huts into the moonlight to see what was going on. They had a grandstand view of the first air raid over **Malaya**. They saw the flash of bombs exploding on the island, and the tracer from the ground defences going up to the aircraft 17,000 feet overhead in the beams of the searchlights. None of the men realised that it was a raid and not just another practice. It was not until the eight o'clock news came over the radio that they knew for certain that **Singapore** had been bombed.

The loss of aerodromes in northern **Malaya** in the first few days of the war made it vitally necessary to develop new ones in the south as quickly as possible. The most urgent need was for more fighter strips to accommodate the fighter reinforcements which were on their way. In consequence, the development of **Tebrau** was to be restricted to the completion, as soon as possible, of a runway of 1200 yards.

In the middle of December work at **Tebrau** was temporarily suspended, and the squadron was split up into several parties and employed on other urgent jobs. A large detachment was sent to the new site at Bekok and ordered to make a fighter strip there; another, of twenty-eight men, was posted to **Singapore** Island to begin a strip at Sungei Buloh, near Tengah. Smaller parties were stationed at Seletar and Tengah, helping with construction and repair

¹ **Flt Lt A. G. Begg**; Dunedin; born Dunedin, 8 Jul 1901; civil engineer.

work on the aerodromes; a salvage party was operating in northern **Malaya**; and the rest of the squadron began building another fighter strip on the site of the rifle range at the Johore military barracks.

The salvage party, formed at the beginning of the war, had been sent to northern **Malaya** under the command of Flying Officer **Gaby**¹ to rescue and repair equipment in the battle zone. For the next six weeks, throughout the 500-mile retreat to **Singapore**, it was responsible for saving immense quantities of equipment from under the noses of the Japanese. Operating much of the time only one jump ahead of the British rearguard, it collected abandoned trucks, cars, steam-rollers and graders, put native drivers into them, and sent them rolling down the road to **Singapore**. From bombed-out aerodromes it collected lorry loads of precious radio and other equipment and sent that, too, to join the south-bound convoys. At the end of the campaign the squadron had more equipment than when it started.

Early in January the detachments at Seletar and Tengah were recalled to start work again on the **Tebrau** strip. Most of the Bekok party also returned. Having almost completed their job, they were ordered to leave it, first dragging trees and other obstacles across the runway in case Japanese aircraft tried to land. A rear party was left behind to lay mines in preparation for later demolition. The survey party went back to **Singapore** to survey yet another fighter strip at Yio Chu Kang, near Seletar.

Except for final grading and surfacing, the Rifle Range strip was finished by the middle of the month and was being used by light aircraft of the Malayan Volunteer Air Force. It was the only one built by the squadron in **Malaya** to be used operationally, and was the last to be evacuated when the British forces retired to **Singapore**.

On 15 January, with the Japanese at the northern border of Johore, the Bekok camp was finally evacuated and the runway was blown up next day.

¹ **Flt Lt W. A. Gaby; Hamilton; born Wellington, 5 Nov 1906; constructional engineer.**

ROYAL NEW ZEALAND AIR FORCE

RETREAT TO SINGAPORE ISLAND

RETREAT TO SINGAPORE ISLAND

Work on **Tebrau** was carried on until nearly the end of the month, when the order was given to evacuate and prepare that aerodrome also for demolition. Coolies dug holes in the newly formed runways, and mines were laid in them ready to be exploded when the word was given. An airman bitterly expressed the opinion that, in future, it would be simpler to build mines into the foundations when the aerodromes were being constructed. The camp was stripped clean of all equipment, stores, and personal gear, and the squadron moved out on the morning of 27 January, the last **Air Force** unit to leave the mainland.

The next day a demolition party returned and exploded the mines at **Tebrau** and the Rifle Range. Both strips were left pitted with craters 25 to 30 feet across and 10 feet deep which, it was hoped, would deny their use to the enemy for a considerable time.

On **Singapore** the unit was quartered at the **Singapore** Dairy Farm, in the centre of the island and about a dozen miles from the city. The men lived in tents hidden among the rubber trees, and the officers in one of the farm buildings.

For the next few days, despite frequent interruptions by enemy bombers, work was continued on the two new strips at Sungei Buloh and Yio Chu Kang, both of which were by then almost completed. When, at the beginning of February, the Japanese brought their artillery to bear on them, both had to be abandoned.

There was also a constant demand for men and machinery to help repair bomb damage on the main aerodromes, which were under daily attack, and parties were sent out as they were needed. In addition, at the urgent request of the Army authorities, a detachment spent several days

building tank traps in the western part of the island.

At the end of January it was plain that [Singapore](#) was no place for an aerodrome construction squadron. The fields already in existence were being steadily pounded to bits, and any new construction would share the same fate. In any case, there were practically no aircraft left to use them. Once again, as in [Norway](#), [Greece](#) and [Crete](#), it was being proved that aerodromes without adequate fighter protection were valueless.

At that stage it was still hoped that [Singapore](#) could hold out until sufficient forces were assembled in the [Netherlands East Indies](#) to launch a counter-offensive, and it was decided to send the unit to [Sumatra](#) to prepare landing fields there.

ROYAL NEW ZEALAND AIR FORCE

EVACUATION

EVACUATION

On the morning of 1 February the squadron was ordered to embark with its machinery on the SS *Talthybius*. The equipment was sent down to the docks, and at one o'clock in the afternoon was all at the ship's side, ready for loading.

As a result of the daily bombing of the port, all the native labourers had long since disappeared. No help could be had from the ship's native crew, who were untrained and useless as stevedores. Consequently all the work of loading, including working the winches and stowing the cargo, had to be done by the squadron. The ship's derricks were rigged, winches manned, and loading began at three o'clock.

Work ceased at nightfall as a strict blackout had to be maintained. It was resumed at daylight the next day, and by that evening most of the stuff was on board. There were numerous air-raid alarms during the day, but the work continued without a stop until enemy bombers were practically overhead, when the men took cover, some in shelters on the wharf, others in the ship's hold, to emerge again immediately the raid was over. Several times bombs fell close, but the *Talthybius* was not hit.

In sixteen hours of working time, despite interruptions, seventy men had loaded between 2300 and 2500 tons, ship's measurement, of heavy equipment, including tractors, trucks, stores and machinery.

The ship remained at the wharf again that night, and the men returned to their camp at the Dairy Farm. The next morning a working party went down to straighten up the cargo and help to load some additional **RAF** equipment which was to be taken.

In the middle of the morning there were two heavy air raids. The *Talthybius* survived the first, although bombs fell close by. In the

second she received two direct hits by bombs which exploded in the holds, and there were several more near misses. The working party was caught on board, and Flight Sergeant **Gifford**,¹ the NCO in charge, was killed. He had worked splendidly during the last two days, and through his example and leadership all the equipment had been loaded. Seven men were seriously injured, with severe burns and shock, and one of them died in hospital the next day. The ship was set on fire, and water poured in through holes in her side. The fires were put out after a twenty-four-hour struggle by the ship's crew, but she continued to make water fast in spite of the rigging of auxiliary pumps.

Much of the cargo was destroyed by the bombing and fire, but the heavy excavating machinery and large quantities of medical, dental, and other stores were undamaged, and it was hoped that a good deal could be saved. A party of volunteers went to the docks on the afternoon of 4 February and unloaded the medical stores and the men's kitbags; but lack of steam to work the winches prevented any of the heavier gear being taken off. Later the same afternoon another bombing attack set the ship on fire again and sank her.

The next two days were spent at the Dairy Farm waiting for fresh embarkation orders. By this time the Japanese were shelling the island, and the hazard of artillery fire was added to the constant

¹ **F/S E. A. Gifford**; born **Auckland**, 18 Apr 1908; engineer; killed in action 3 Feb 1942.

bombing attacks. Shells burst all around the camp as the enemy fired at observation posts on nearby hillocks and searched for Australian batteries hidden in the neighbouring rubber plantations. Overhead, bombers swooped low as they dived to attack big oil installations half a mile away.

On the afternoon of 6 February the squadron was told it would be evacuated in a convoy sailing that evening. The men struck camp

immediately and were transported in lorries to the docks. There, amid the litter of bomb wreckage and in the glare of burning buildings, they loaded all that was left of the unit's equipment on the waiting ships. There was not much: only their personal kitbags, the medical supplies, and their rifles and ammunition.

Two parties were formed, one going on the SS *City of Canterbury* and the other on the SS *Darvel*. The men going aboard the *City of Canterbury* met with some opposition, as the ship was considered to be already overloaded; but the captain stated that he had embarked New Zealanders as the last troops to leave Greece and Crete, and decreed that they should be taken. The same captain and crew had also taken part in the evacuations of Narvik and Dunkirk. Both ships moved out into the stream to join up with their convoy, but the *Darvel* was ordered back to port by the naval authorities, partly because she had insufficient crew and partly because she was too slow—her best speed was eleven knots—for the other three much faster ships which were going.

The convoy, the last to leave Singapore, sailed that night with a strong naval escort for Java. The troops on the *City of Canterbury* suffered the discomfort of overcrowding and insufficient food, and there were frequent air-raid alarms; but the escorting warships warded off all enemy attacks, and the ships reached Batavia safely on 9 February.

After lying at anchor in the stream all night the *Darvel* returned to the wharf again on the morning of the 7th. The men landed and were taken to an RAF transit camp near Seletar. There they were between the Japanese batteries on the southern tip of Johore and the British on Singapore, and the air was full of the roar of shells passing overhead.

The following afternoon they again went down to the docks and embarked on the *Darvel*. After some hours, during which there were several air raids, she eventually put to sea at dusk. She had just cleared the harbour when she turned and was brought back to her berth. Bad weather was brewing outside, and visibility had become too bad to risk going through the protective minefields beyond the entrance. That night

she lay alongside the wharf and the men slept on her decks.

The next morning the men were taken once more to the transit camp. During the night the Japanese had landed on the western part of the island and by morning had made considerable progress eastwards. Towards midday their artillery started shelling the camp, and all personnel had to take to the shelter trenches.

In the afternoon, during a lull in the shelling, the men scrambled into their trucks and once more made for the docks. This time they went straight aboard the *Darvel*, and she immediately headed for the open sea. She escaped just in time to avoid a heavy dive-bombing and strafing attack on shipping in the docks, and the last view of **Singapore** was one of blazing wharf sheds and towering columns of smoke from burning oil tanks, the sky full of enemy aircraft and bursting anti-aircraft shells.

The ship sailed through the night, and at daybreak anchored off the southern tip of a small island to avoid being seen by enemy aircraft. She was still short-staffed and members of the squadron virtually worked her. Some took shifts in the engine-room and stokehold, others mounted and manned light anti-aircraft guns, and others took over the messing for all the troops on board.

The next stage of the voyage lay through Bangka Strait, between **Sumatra** and Bangka Island. Through its narrow waters all shipping from **Singapore** to **Java** had to pass, and the Japanese bombers patrolled it constantly during daylight.

The ship got under way again at dusk and it was hoped that she would pass through the danger area in the night. But just before entering the strait she was delayed for two hours assisting another vessel, the *SS Kintak*, which had run ashore during the day. In consequence, she was still in the strait when the next day dawned. She anchored in the shelter of a group of small islands in the hope that the Japanese would not see her. Close by was another small ship which had been bombed some days before and abandoned.

The morning was peaceful until half past eleven, and then a formation of enemy bombers appeared. They were too high for the ship's anti-aircraft guns, so the gun crews withheld their fire and took cover. The planes altered their course slightly to bring them directly overhead, and then the bombs began to fall. For a minute all was confusion as they rained down all round the ship, the explosions tossing her about like a cork and drenching her with spray. There were no direct hits, but concussion and splinters from near misses made the ship a shambles. Then it was over, and there was silence except for the hiss of steam escaping from burst pipes.

Five minutes later the bombers returned, but this time they concentrated their attack on the abandoned steamer a few hundred yards away. They sank her and, having used up all their bombs, returned to their base.

The *Darvel*, although spared a second bombing, was in parlous condition. Her hull was riddled with holes from bomb splinters, and she was leaking badly. The steering gear was damaged, and so were all the lifeboats. Fires had broken out in several places, and many of the troops on board were killed or wounded. The New Zealand unit had one killed, seventeen wounded, and several more slightly injured.

The captain gave the order to abandon ship, but the state of the boats made this impossible. The fires were quickly brought under control, and then working parties, composed of New Zealanders, went below to fill in the scores of small holes with wooden plugs. Others set to work to repair the lifeboats and rigging and clear up the debris on the decks. There was no doctor on board, so medical orderlies, under the direction of Sergeant [Harris](#),¹ cared for the wounded.

A naval officer, Lieutenant-Commander Griffiths, RN, took over the command of the ship and decided, rather than wait for another attack, to risk steaming through the rest of the strait in daylight. The passage was accomplished safely, and at the southern entrance a halt was made to repair the damaged steering gear. Finally, at half past eight in the

evening when darkness covered the ship, course was set for **Batavia**.

By next morning, 12 February, the *Darvel* was listing badly to port, and the captain reported that she was sinking. All passengers and baggage were crowded to the starboard side, and men from the squadron went below and plugged more holes. After about two hours' work the leakage was brought under control, and the ship eventually arrived off **Batavia** at midday and berthed at two o'clock.

Senior officers who had travelled in her reported afterwards that, although the New Zealanders formed only a small proportion of the troops on board, it was due entirely to their work and initiative that the *Darvel* reached **Java** safely.

On arrival at **Batavia** the wounded were taken to the Dutch military hospital and the rest of the New Zealanders rejoined the other half of the squadron, which was quartered in a transit camp at King Wilhelm III School. The next day the whole unit was moved to Buitenzorg, where it remained for a week while the

¹ **W/O M. T. B. Harris**, BEM; **RNZAF**; born **Auckland**, 17 Jan 1911; hospital attendant.

Commanding Officer, Squadron Leader Smart, discussed future plans with Allied Air Headquarters at **Bandoeng**.

In the prevailing confusion it was difficult to obtain any instructions. While it was still thought that **Java** could be defended, suggestions were made that the squadron should be employed in digging trenches and tank traps, but with the Japanese advance coming daily closer, the situation was constantly changing and plans were made only to be discarded.

Eventually it was decided that as the unit had lost all its equipment it should be evacuated to reform and re-equip in **Australia** or New Zealand. Accordingly, on 20 February, it returned to **Batavia** and went

aboard the SS *Marella*. Although Japanese air activity was by this time increasing over **Java**, the embarkation was carried out without incident. The *Marella* sailed at six o'clock that evening, in one of the last convoys to get away from **Java** unharmed, and reached **Australia** a week later.

The squadron remained aboard the *Marella* until she reached **Melbourne**. From there it went by train to **Adelaide**, where it was joined by other **RNZAF** men awaiting transport to New Zealand. Eventually the whole party, which comprised 233 men and three VADs, sailed in the MV *Durban Castle* on 18 March for New Zealand and reached **Lyttelton** on the morning of the 24th.

ROYAL NEW ZEALAND AIR FORCE

CHAPTER 9 – REORGANISATION OF RNZAF TO MEET THREAT OF INVASION

CHAPTER 9

Reorganisation of RNZAF to meet Threat of Invasion

THROUGH the first half of 1942 the Japanese advanced on all fronts with scarcely a check. On Christmas Day 1941 they had captured **Hong Kong**. In January they occupied **Borneo** and captured **Rabaul** and **Kavieng**. By the end of the month they were in possession of practically the whole of **New Britain** and the Bismarck Archipelago. The following month they captured **Singapore**. In March they occupied **Java**, **Burma**, and the northern **Solomons** and held a considerable part of **New Guinea**. By June they were firmly established on a line stretching from the Andaman Islands in the **Indian Ocean**, round the north of **Australia**, to the central Solomon Islands. Darwin had been raided and Japanese submarines had attacked **Sydney**.

A week after **Japan** entered the war, Mr Churchill and his staff had flown to **Washington** to confer with the American authorities on the problems of the Allied Command. As a result of the conference it was decided that **Britain** would be primarily responsible for operations west of **Singapore**, and that **Britain** and the **United States** would exercise joint control over the **Atlantic** area. The United States, in conjunction with **Australia**, New Zealand and the **Netherlands East Indies**, would be responsible for the **Pacific** area. The strategic direction of the war as a whole, excluding operations in **Russia**, was placed in the hands of the Combined Chiefs of Staff Committee in **Washington**, which comprised the three American Chiefs of Staff and a British Joint Staff Mission led by Sir John Dill.

A unified command was created in the south-west **Pacific** under General Sir Archibald Wavell, with an American deputy commander who was in charge of the naval forces in the area. The command included **Burma**, **Malaya**, the **Philippines**, the Netherlands East Indies, Dutch New Guinea and, later, Northern Australia. These territories became known as the ABDA area (American-British- Dutch-Australian). The defence of the **Pacific** area east of the **Philippines** and Australasia, including the

eastern approaches to **Australia**—designated the Pacific Ocean area—became the responsibility of the United States Navy.

In January another area was formed, known as the Anzac area. It was an adjunct to the Pacific Ocean area, and included eastern **Australia**, New Zealand, and part of **New Guinea** and the islands immediately to the north of it. The United States Navy was now responsible for the protection of New Zealand. This would have made the **New Zealand Government** much less apprehensive about the security of New Zealand had that navy not been so severely crippled at **Pearl Harbour**.

After the fall of **Singapore** in February and the Japanese invasion of **Java**, the ABDA Command was dissolved and the responsibility for the continuance of operations in the **Netherlands East Indies** was handed over to the Dutch Commander-in-Chief. **Java** fell shortly afterwards and a re-examination of strategic boundaries became necessary. There were now two main theatres, the Indian Ocean including **Burma**, which was a British sphere, and the **Pacific** theatre, including **Australia** and New Zealand, which was an American sphere. Early in March the **United States** suggested that the whole of the **Pacific** to a line west of **Singapore** should be the responsibility of **America** and the American Chiefs of Staff.

Finally the **Pacific** area was split up into the South-West Pacific area under General Douglas MacArthur and the Pacific Ocean area under the command of Admiral Chester W. Nimitz. The South-West **Pacific** area comprised the **Philippines**, **Borneo**, the Netherlands East Indies east of **Sumatra**, **New Guinea**, **New Britain**, the northern **Solomons** and **Australia**. The Pacific Ocean area, which was subdivided into Northern, Central and South Pacific areas, comprised the rest of the **Pacific** to the west coast of **America**. Thus New Zealand, which was in the South Pacific, was placed in a different command from **Australia**. The New Zealand Government did not fully approve of the separation as it had always considered that **Australia** and New Zealand should be regarded as a strategic whole, but in view of the urgent necessity for finalising some arrangement it acquiesced. On 23 April it was officially announced that

New Zealand was included in the new South Pacific Command.

The rapidity and comparative ease with which the Japanese had advanced south made it necessary to revise completely the ideas which had previously been held concerning New Zealand's defence requirements. Instead of needing protection only against isolated raids by enemy cruisers, she now had to be prepared to defend herself against full-scale invasion. The Air Force, from being primarily a training organisation, had to be developed into an operational service capable of taking part in active combat. The Government had never been convinced that the country was free from the danger of a major attack should **Japan enter the war, and in the middle of 1941 it had asked **Britain** for additional supplies of operational aircraft. Apart from the small number of Hudsons which were sent, **Britain** was unable to promise any more.**

On the day **Japan entered the war, the **RNZAF**'s first-line aircraft comprised 36 Hudsons, 35 Vincents, and 2 **Singapore** flying boats. Of these, six Vincents and the Singapores were in **Fiji**. Second-line aircraft, mostly used by the training organisation and available for operational use in emergency, comprised the following:**

62 Harvards	46 Hinds
143 Oxfords	26 Vildebeestes
30 Gordons	13 Vincents
221 Tiger Moths	7 Multi-engined civil types (including 3 in Fiji)
20 Miscellaneous light aircraft (including 1 in Fiji)	1 Walrus amphibian

Personnel strength on the same date was 10,500 in New Zealand and 450 in **Fiji.**

REQUESTS TO BRITAIN FOR REINFORCEMENTS

At the end of December New Zealand again asked **Britain to supply more aircraft for her defence. The most urgent need was for additional**

medium bombers. In addition Mark I Hurricane fighters were needed to provide operational training for **RNZAF** pilots and to give emergency support in land operations. The British Government replied that it could not supply aircraft, either then or in the immediate future, but that it hoped later to make available a few Hurricanes for defence against invasion.

New Zealand then asked **Britain** to provide complete fighter squadrons. Two squadrons of long-range fighters were wanted and two of single-engined fighters for interception work. The British Government replied that it could not send the squadrons which were wanted, but it did offer to release 142 Kittyhawks, ¹ which were destined for the **Middle East**, to the Australian and New Zealand theatre. After consultation between **Australia** and New Zealand it was agreed that the latter should receive eighteen of these aircraft, ten in March and eight in April.

By the middle of February the situation in the **Pacific** had become much worse and the possibility of New Zealand being invaded

¹ P40 Kittyhawk; made by Curtiss-Wright, **America**; low-wing monoplane fighter; powered by a single Allison liquid-cooled engine; top speed over 350 m.p.h.; cruising range 700 miles.

had grown. The New Zealand Government made an additional request for aircraft, asking this time for two torpedo-bomber or medium bomber squadrons, two long-range fighter squadrons, one army co-operation or dive-bomber squadron, and four troop-carrying aircraft. As the country did not possess the trained pilots or the equipment to maintain the squadrons, it was requested that they should be sent completely manned and equipped. Again the request was refused because none could be spared.

On 20 February the operational strength of the **RNZAF** was: No. 1 GR Squadron stationed at **Whenuapai**, with 8 + 4 Hudsons; ¹ No. 2 GR Squadron at **Nelson** with 8 + 3 Hudsons; No. 3 GR Squadron at Harewood

with 10 + 5 Vincents; No. 7 GR Squadron, which had recently been formed at **Waipapakauri**, with 12 + 6 Vincents; No. 4 GR Squadron at **Nandi, Fiji**, with 6 + 3 Hudsons; No. 5 Squadron, also in **Fiji**, with 4 + 2 Vincents. In addition No. 5 Squadron had three of the Short **Singapore** flying boats which had been flown out from **Malaya** at the end of 1941.² These were old and in poor condition, but could be used for operations if required. This gave a total first-line aircraft strength of 32 Hudsons and 39 Vincents.

The training organisation had the following second-line aircraft which could be available in case of emergency: 4 Vincents, 61 Oxfords, 45 Harvards, 9 Fairey Gordons and 15 Hawker Hinds, giving a total of 134.

By this time all munitions for the Allied forces in all theatres of war came under the control of a Munitions Assignment Committee which had been set up in **Washington**; but as the **RNZAF** was not as yet included in any command, all demands for aircraft had to go through the British Chiefs of Staff and be approved by the Joint Chiefs of Staff for recommendation to the Air Assignment Committee, and then for confirmation by the Munitions Assignment Committee. In March the Air Assignment Committee recommended that New Zealand should be allocated thirty-four Kittyhawks from the **United States** as a March allotment. The Munitions Assignment Committee confirmed the allotment. In all, New Zealand was allocated 36 Hudsons, 80 Kittyhawks and 12 Harvards, to be delivered between March and May. All the fighters were deducted from **RAF** allotments originally intended for the **Middle East**.

The Japanese attack on **Ceylon** on 5 April resulted in the allocation of Kittyhawks being reduced. The **RAF** had only seventy

¹ Aircraft were classified for supply purposes as initial equipment (IE), immediate reserve (IR), and stored reserve (SR). The figure 8 + 4 means eight IE plus four IR.

fighters in the **Far East**, and a number of those intended for New Zealand had to be sent to reinforce the defence of **India**.

In the first half of 1942, when it looked as though the Japanese would overrun the whole of the South Pacific, it was expected that New Zealand would be the forward base of the United States forces in the area. Preparations were made, which fortunately proved unnecessary, for the accommodation of over thirty operational squadrons of the American Air Force in the country.

FORMATION OF OPERATIONAL UNITS

With the arrival of operational aircraft, including the first Kittyhawks in March, and the promise of more to come, it became possible to plan for the formation of further operational squadrons. In March a Bomber Reconnaissance Operational Training Unit was formed at **Levin** for the training of aircrews. It was equipped originally with Oxfords, but the intention was that these should be replaced by Hudsons when more became available. At the same time a Fighter Operational Training Unit formed at **Ohakea**. Originally it was equipped with Harvards but these, like the Oxfords, were to be replaced by operational aircraft when the supply of Kittyhawks allowed it. The Hawker Hind aircraft which were discarded by No. 3 SFTS when it disbanded were formed into an Army Co-operation Squadron based at Palmerston North.

In April No. 14 Fighter Squadron formed at the Fighter Operational Training Unit at **Ohakea** and moved to **Masterton**, where it continued its training with the Harvard aircraft until the end of the month, when it received Kittyhawks. From then on, until more of these were available, it was established with twelve Kittyhawks and six Harvards. The nucleus of the squadron comprised pilots and ground staff of No. 488 Squadron who had returned from **Singapore**. Squadron Leader MacKenzie, who had commanded the squadron in the latter stages of its operations in

Malaya, was appointed CO.

A further bomber-reconnaissance squadron equipped with Vincents, No. 8, commanded by Squadron Leader C. L. Monckton, was formed at **Whenuapai** and then moved to **Gisborne**, where an **RNZAF** station was established. From there it carried out submarine searches and shipping escorts in protection of convoys passing down the east coast of the **North Island**.

In May the Kittyhawks which had been allotted by the Munitions Assignment Committee began to arrive, and two further fighter squadrons were formed. Personnel for No. 15 Squadron followed No. 14 at FOTU, and the squadron formed at **Whenuapai** on 1 June. No. 16 Squadron was established at **Blenheim** in August. The relative claims of **Auckland** and **Wellington** for the location of this squadron were discussed at some length, but it was decided to place it at **Blenheim** owing to the need to protect shipping in the **Wellington** area, and because it was thought that **Auckland** could be adequately defended by No. 15 Squadron and the American units which were expected to be based there.

By July only forty-four of the allotment of eighty Kittyhawks had arrived, and New Zealand was advised that the remainder of the allotment would have to be cancelled owing to urgent requirements in the **Middle East**.

FAFAI SCHEME

At the beginning of 1942 when New Zealand had practically no operational aircraft, a scheme was put into operation whereby training units could, in emergency, be used as operational units. The aim of the project, which was known as the FAFAI Scheme, was that in case of invasion every aircraft in the country could be used offensively and every pilot who could fly an aeroplane employed. To this end, the following auxiliary squadrons were formed: a bomber-reconnaissance squadron of 12 Vincents at the School of General Reconnaissance at

Nelson, a bomber-reconnaissance squadron of 18 Oxfords at each of the SFTSs, fighter-bomber squadrons of 12 Harvards at each of the SFTSs, a light bomber squadron of 18 Tiger Moths at each EFTS, an air transport squadron consisting of the civil aircraft belonging to Union Airways, and a composite squadron of Oxfords, Harvards, and Moths at the **Central Flying School**.

The main purpose of these units was to attack enemy shipping, particularly transport, and it was intended that every aircraft should be a potential bomber. A proportion of the aircraft was to be equipped also for ground strafing enemy troops, using machine guns or light bombs. All aircraft in the training schools were modified to enable them to carry out these tasks. Machine guns and bomb racks were fitted to the Vincents, Gordons, Oxfords and Harvards, and the Tiger Moths were equipped with racks for light anti-personnel bombs.

To allow the auxiliary squadrons to reach a sufficient standard of operational efficiency without interfering unduly with the flying training programme, a week of operational training was carried out between the end of each flying training course and the start of the next. In addition, to ease the burden on instructors and staff pilots at training units, their establishment was increased. The scheme continued until the latter part of the year when, as the danger of invasion was no longer imminent, it was suspended.

PREPARATION OF AERODROMES

The development of the **RNZAF** as an operational service, together with the expected arrival of numerous American units, resulted in a need for a greater number of aerodromes and modifications to existing ones. A number of advanced landing grounds were built in the **North Auckland** area, and civil aerodromes in other parts of New Zealand were converted for **Air Force** use.

The aerodromes used by the **RNZAF** at the beginning of 1942 were limited in size to the probable requirements for British aircraft of the

kind which it had been thought would be employed in New Zealand for general reconnaissance squadrons. The decision to employ American aircraft necessitated the construction of longer runways and, in many cases, of concrete runways, since the large American machines needed considerably more space in which to take off.

Early in the year the **New Zealand Government** was requested to provide concrete runways suitable for heavy American bombers at **Whenuapai** and **Ohakea**. Emergency aerodromes capable of handling large bombers were also commenced in other parts of the country.

The work of aerodrome construction was carried out with all possible speed by the Aerodrome Section of the Public Works Department, but was hampered in the early stages by lack of heavy earth-moving machinery.

The question of the defence of aerodromes had been raised towards the end of 1940, when it was laid down as a general principle that the **Air Force** would be responsible for defence up to the perimeters of the aerodromes, but that the Army should be responsible for the area beyond the boundaries. In addition, the Army made available officers to advise station commanders on the best employment of the limited resources of arms and personnel on the stations. Later the Army was asked to undertake the defence of all aerodromes occupied by the **RNZAF**, and also of a number of others to ensure both their availability as advanced landing grounds and their denial to the enemy. The Army, however, would give no assurance that this would be done except as incidental to its general plans.

When the Army took over the **Home Guard**, local Area Commanders were instructed to confer with station commanders about incorporating aerodromes in their local schemes of defence. It was pointed out that the defence of aerodromes would devolve almost entirely upon units of the **Home Guard**. Things remained substantially on this basis until the end of 1941, when the Japanese threat made the whole question of defence more real and urgent.

Early in 1942 the Army undertook to provide the men necessary for aerodrome defence, but it was not until June that the respective responsibilities of the Army and the **Air Force** were clearly defined. The **RNZAF** undertook responsibility for the close defence of aerodromes up to a radius covered by the field of fire of the light automatic weapons of the fixed defence, that is, up to about half a mile beyond the perimeter. This was made possible by the establishment within the **RNZAF** of Aerodrome Defence Squadrons which gradually took over the functions hitherto performed by Army troops, as well as some of the duties, including the manning of machine-gun posts, which had been carried out before by station personnel.

The ideal first line of defence against ground attack was recognised to be a mobile striking force in the vicinity of aerodromes. As the Army was unable to provide this force because the only suitable troops available formed part of the field army which was training for other operations, the Aerodrome Defence Squadrons were formed. The officers and sergeants in the squadrons were specially selected from **RNZAF** and Army personnel, and other ranks comprised men who were earmarked for eventual training in the **RNZAF** and who were doing preliminary training in the Army. The chief difficulty encountered in the formation and training of the squadrons was the shortage of officers. The Army helped in this respect and gave officer cadets a six-weeks' OCTU course at **Trentham**. The first output from this course, however, did not become available until November.

A further difficulty which quickly became apparent was caused through the dual role of the Aerodrome Defence Squadrons. The organisation was designed:

(To provide a defence force for aerodromes, and
a)

(To give educational training to recruits to fit them for entry into
b) either the Initial Training Wing or the Technical Training School.

This meant that there was a constant turnover of personnel as men were posted to their aircrew or technical training. There was at all times a

conflict between the need for educational training and that for military training. By the end of 1942 the change in the strategic situation in the south and south-west **Pacific** made it unlikely that New Zealand would suffer a sea or air attack with less than six months' notice, and consequently the policy of the squadrons was revised. From then on they were no longer required to maintain the operational organisation, and their principal role became:

- (To provide facilities for twenty hours a week of educational training a) to all prospective aircrew personnel;
- (To give as much infantry training as possible to all men passing b) through the squadrons, to ensure that they would be fitted to fight effectively against enemy troops on the ground when they found themselves in the forward areas; and
- (To maintain a basic organisation to reform as operational squadrons c) should the need arise.

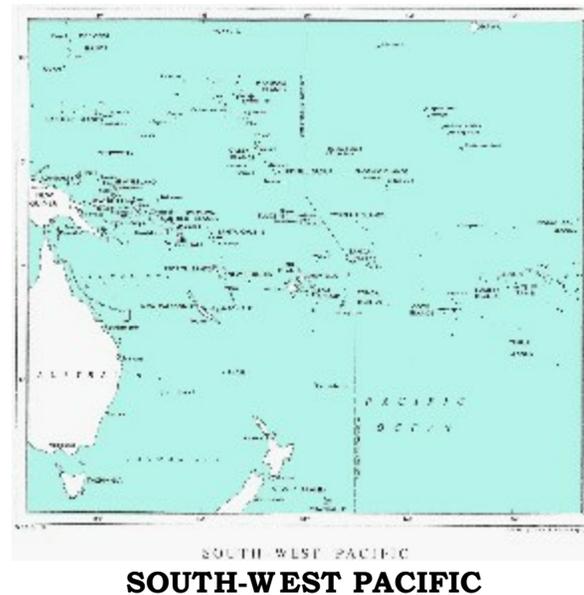
In March 1943 the squadrons ceased to exist as such and the personnel were regrouped with a view to training without reference to defence needs.

At the end of 1941 the only anti-aircraft artillery in New Zealand consisted of four Bofors guns. These were sent to **Fiji** early in 1942 as it was considered that they would be more profitably employed in the defence of **Nandi** aerodrome. ¹ Urgent requisitions were sent to **Britain** for further supplies, and the immediate response was the promise of sixteen 3.7-inch guns and twelve 40-millimetre Bofors by the next convoy. **Whenuapai** was the first station to be equipped with anti-aircraft artillery and had four light guns, either in position or about to go into position, at the end of March. By September five stations—**Waipapakauri, Whenuapai, Hobsonville, Ohakea** and **Woodbourne**—had been equipped with a total of forty guns.

Throughout 1942 the chief problem of preparing aerodromes against attack was lack of equipment. At the beginning of the year the **RNZAF** had only 800 rifles, 90 light machine guns, and 70 Thompson sub-machine guns which had been made available by the Army, with which to equip fourteen stations, with a total strength of 7000 airmen. In July

only a third of the men on stations had been armed, although it was hoped that rifles, pistols, or Armaf guns would be available for issue to all personnel within another two months.

During the year dispersal pens were built on all operational aerodromes. All buildings and a number of flying fields were camouflaged and plans drawn up for the evacuation and demolition of aerodromes should that become necessary. By December the



RNZAF was in a position to defend its aerodromes adequately, but by that time the danger of immediate attack had passed.

¹ This proof that New Zealand was willing to do its best for the general war effort, to the extent of stripping itself of AA defences, was later to have a very favourable effect on the attitude of the Allied supply authorities in **Washington** when considering the allocation of equipment.

DEVELOPMENT OF RADAR

Early in 1939 New Zealand was notified of the development of a 'secret device connected with air defence' which was sufficiently important to warrant the despatch of a physicist to the United Kingdom

to study it. Accordingly the Director of the Department of Scientific and Industrial Research, **Dr E. Marsden**, was sent to England.

He arrived at the end of April and was attached to the office of the New Zealand Liaison Officer, Squadron Leader Wallingford, at the **Air Ministry**. With Wallingford he studied the new equipment, and the two made a joint report to the New Zealand Chief of Air Staff covering its technical and operational aspects.

As a result two radar sets, one a ground unit and the other an airborne unit, were ordered by the **New Zealand Government**. The sets were sent to New Zealand, and Marsden also brought back with him a large number of drawings and specifications. From these the **DSIR** was able to make plans for the local production of sets.

The first ground set, which had been ordered by Marsden, was used by the Electrical and Wireless School at **Wigram** for training, until the outbreak of war with **Japan**, when it was transferred to **Fiji** and installed on Malolo Island, near **Nandi**, in January 1942. The first ground radar set operated in New Zealand was constructed by Messrs Collier and Beale of **Wellington** from drawings and specifications of an early Admiralty-type set. It was installed by the **DSIR** at Fort Mototapu in the Waitemata Harbour.

As New Zealand, in the early years of the war, did not possess the fighter aircraft necessary to intercept attacking air forces, the development of a ground radar warning system was considered unnecessary. Consequently the **RNZAF** confined its activities in connection with radar to the development of airborne rather than ground equipment. The original airborne set which Marsden had brought with him from England was used as a pattern on which another set was designed by the staff of the **DSIR**, and fitted to a Waco aircraft in April 1940. The aircraft and set were later handed over to the Electrical and Wireless School for further experimental work and to assist in the training of maintenance personnel. Twenty airborne sets were manufactured by the Post and Telegraph Department and were fitted in

the Vildebeeste and **Oxford** aircraft which carried out general reconnaissance duties round the coast.

In the middle of 1941, when the threat of war with **Japan** was becoming more evident, priority was switched to ground radar, and from then until the end of the war maximum effort was directed to the erection, maintenance, and operation of air-warning systems, both in New Zealand and in the **Pacific**.

In March 1942 a sub-committee of the Chiefs of Staff Committee in **London** recommended that New Zealand should establish fifteen COL (Chain Overseas Low-flying) stations, seven TRU (Transportable Radar Unit) stations, and five GCI (Ground Control Interception) stations.

The only station operating at that time was one in the **Auckland** area. A second station on the Coromandel Peninsula was to have been completed by the end of 1941 but the equipment, which was being constructed in New Zealand, was unsatisfactory and the station did not become operational until July 1942. Four other stations, two near **Auckland** and two in the **Wellington** area, were also to have been completed by the end of February but development was delayed through lack of equipment.

It had been intended originally to manufacture as much as possible of New Zealand's radar requirements in the Dominion, but the essential components, particularly valves, had to be obtained from abroad, and many difficulties were encountered in getting them. It became obvious that dependence on New Zealand-built sets was not a practical proposition, and consequently it was decided that complete units should be ordered from **Britain**. Most of the equipment required for the air-warning system in New Zealand was ordered in May 1942 after receipt of the recommendations of the London Chiefs of Staff Committee.

By August three stations were in operation in the **Auckland** area and giving satisfactory results; and three more in the North **Auckland** area were being fitted with their technical equipment. Four stations in the

Wellington area were in various stages of completion, and sites were being selected for another six stations in the **North Island**.

Three radar flights were established to administer the units which were formed or planned. No. 1 Flight, with headquarters at **Whenuapai**, embraced all units in the **Auckland** area; No. 2, at **Rongotai**, was responsible for stations from **New Plymouth** to the Clarence River; and No. 4, at **Wigram**, was to administer those in **Canterbury** and Otago. Later in the year the flights were expanded into squadrons, No. 60 Squadron replacing No. 1 Flight, and No. 61 No. 2 Flight. No. 62 Squadron was to form at **Wigram** to take the place of No. 4 Flight, but the radar warning system in the south was not developed, and the number was allotted instead to the squadron which formed at **Guadalcanal** in August 1943.

As with other aspects of New Zealand's defence the completion of the radar system was dependent upon supplies from overseas, and it was not until the chief danger of invasion had passed that the organisation was functioning satisfactorily. By May 1943 there were sixteen radar units operating round the coast of New Zealand, most of them in the **North Island**. They were nearly all in remote parts of the country, cut off from the amenities of civilisation. Each unit had to be a small self-contained community, dependent on itself for its own well-being. Personnel were **RNZAF**, including **WAAF**, and in some cases Navy.

Shortly afterwards the air-warning system was reduced, partly because of the improving war situation and partly to release personnel for the manning of **RNZAF** radar units in the forward area.

Although New Zealand was not subjected to air attack, and the units were therefore never called on to perform their primary function, they did sterling work in other directions. Their major commitment was to assist the Navy by plotting all ships round their respective areas of the coast, and when vessels were reported in unexpected positions aircraft were sent out to investigate. In addition radar units, especially in the **Auckland** and **New Plymouth** areas, were often responsible for locating

overseas aircraft which had lost themselves in bad weather and for guiding them in safely to a landing.

On one occasion a hostile aircraft, launched from a Japanese submarine, did make a reconnaissance flight over **Auckland**. It was plotted by radar units in the **Auckland** area, but for some time the plots were disbelieved. By the time it was recognised as an enemy plane, it had returned to its mother-ship and was safely out of harm's way. Enemy submarines were also reported on one or two occasions by radar stations at various points round the coast and aircraft were sent to search for them, but none was ever found.

OBSERVER CORPS

Besides the radar warning system, an **Observer Corps** was formed in 1942 to report movements of aircraft. Various authorities— Navy, Army, Harbour Boards, and the **Marine Department**—had established watching posts at points round the coast, primarily to report shipping. These were incorporated—and other posts were established throughout the country—to form a comprehensive aircraft reporting system. The organisation, which was administered by the **Air Force**, consisted of Observer Posts, each manned by six or more people, connected by telephone with Observer Centres which, in turn, were connected with one of the Combined Group Headquarters in **Auckland**, **Wellington**, or **Christchurch**

The system was never completely developed. The main source of manpower was the **Home Guard**, and it could not supply enough to man the 300 posts which would have been necessary to cover the whole country. A further difficulty was the provision of adequate telephone lines. Had the war not receded from New Zealand in 1942, doubtless the shortages would have been overcome. As it was, the Corps operated during that and the following year on a limited basis. Its value was fully appreciated, but there were too many other claims on manpower, equipment, and accommodation. It did, however, give good observer cover over all vital areas until it was finally disbanded early in 1944.

OPERATION OF THE AIR-WARNING SYSTEM

The air-warning system depended primarily on plots from the radar stations. In a COL station these plots appeared as bright spots of light on the plan position indicator, which was covered by a gridded map in perspex, the centre of which represented the radar station. The number of aircraft and their exact range could be checked on what was termed the A tube. A COL team normally comprised four persons: a PPI tube observer, range tube operator, converter, and recorder. The usual procedure was for the observer to pass the plots to the filter room, where plots from various stations would be co-ordinated by experienced filter officers. The plots were then passed to the operations room.

In the operations room the plots were recorded on a large table similar to that in the filter room, and above this table sat the controller, normally an **Air Force** officer, with a Navy and an Army officer. The controller was responsible for alerting squadrons when hostile aircraft were detected by the radar units.

During 1942 two operations rooms were built, one at **Auckland** and the other at **Wellington**. Although no attacks were made on New Zealand by enemy aircraft or vessels, the radar organisation when it was established was responsible throughout the rest of the war for maintaining a constant watch on all aircraft and shipping within the area under its control.

COMMUNICATIONS

When war was declared in 1939 New Zealand's communications system was inadequate for defence requirements. The Government had not been prepared before the war to authorise the nucleus of a tele-communications system which could be expanded in wartime, and the **RNZAF** had therefore to concentrate on developing wireless and radio communications, obtaining wireless equipment, and training personnel to operate point-to-point and ground-to-air radio services.

At the end of 1941 the **RNZAF** communications organisation comprised a point-to-point W/T system between **Air Force** Headquarters and stations, and a land-line service between Headquarters and the Inter-Command W/T Station at **Ohakea**. Wireless-telegraphy services were operated and maintained by the **Air Force**, but the land-line service, while operated by the **Air Force**, was installed and maintained by the Post and Telegraph Department. This department also operated aeradio services, which, besides providing a W/T service for internal commercial air lines, handled the **RNZAF** traffic as well.

The entry of **Japan** into the war and the possibility that New Zealand would become an active operational theatre made necessary the immediate expansion of the **RNZAF** communications organisation. A report on the country's defence needs in October 1941 had recommended a high-grade and extensive communications system throughout the country, involving a network of radio and telecommunications. Squadron Leader **Scott**,¹ who was then Commanding Officer of the Electrical and Wireless School at **Wigram**, was sent to the United States Island Command, **Hawaii**, in March 1942 to study the communications system there. On his return the Government authorised the procuring of equipment sufficient to meet the needs of the projected organisation of the **RNZAF**. This included:

- (1) Three Group Headquarters which were to function as bomber and fighter sector controls.
- (2) Three sub-sectors for fighter control.
- (3) Ten bomber stations.
- (4) Ten fighter stations.
- (5) Four army co-operation squadrons.
- (6) Four air-support controls.
- (7) An air-warning radar chain extending from North Cape to the Bluff and including GCI stations for fighter control.
- (8) Eighteen VHF D/F stations comprising six triangulation systems for the control of fighter aircraft.
- (9) Six H/F D/F stations for long-range navigational purposes.

Part of this organisation was already in existence, but a part, owing to

the changed aspect of the war in 1943, was not completed.

The equipment needed for the plan was ordered, and in August Scott went to **Washington** to supervise its purchase. Until the arrival of the equipment ordered from the **United States**, communication facilities were provided by the purchase of amateur and commercial radio sets. Transmitting equipment obtained in this way was modified for **Air Force** requirements, while receiving equipment was generally delivered direct to stations. Equipment began to arrive from **America** and **Canada** early in 1943 and was immediately used to replace the amateur sets. By that time, however, it was clear that the full expansion of the **RNZAF**, on which basis the signals equipment had been ordered, would not be required. Consequently a reduced programme was approved and the orders for some of the equipment were cancelled.

Besides the expansion of the radio organisation, the **RNZAF** needed greatly increased long-distance telephone communications in 1942. Most of the lines needed were provided by withdrawing circuits from the civilian toll network, and others were obtained by installing additional lines. Early in 1942 the first direct long-distance telephone lines were obtained from the Post and Telegraph Department to link Air Department with Northern Group Headquarters, **Ohakea** and **Wigram**; and by June an **RNZAF** long-distance network existed with which every station and major unit was connected.

¹ **Wg Cdr I. A. Scott, OBE; Wellington; born London, 1 Nov 1913; RAF 1932–38; RNZAF 1939–47.**

EXPANSION AND DISPERSAL OF STORES DEPOTS

Up to the outbreak of war the **RNZAF** Stores Depot had been located at **Hobsonville**. To a lesser degree **Wigram** also acted as a depot. The British Commonwealth Air Training Plan necessitated a large expansion of the stores organisation. The depot at Hobsonville could not be expanded to meet the growing requirements of the service and,

moreover, there were disadvantages in having a main stores depot in the far north in a vulnerable area and isolated from rail communications. An unnecessary amount of transport was involved in issuing stores from the depot to the existing **RNZAF** stations, and also, in the case of equipment manufactured in New Zealand, in moving it from the factory to the depot. In 1940, when the New Zealand centennial exhibition buildings at **Rongotai** became vacant, they were converted into an Air Force Stores Depot and No. 2 Stores Depot formed there officially in June.

The two depots were considered adequate until **Japan** entered the war, and then it was recognised that as both depots were vulnerable to attack some dispersal of stocks was essential. Additional storage space was obtained in **Auckland**, **Wellington**, and **Christchurch** and used for the dispersal of equipment. No. 1 Stores Depot at **Hobsonville**, moreover, was moved completely to **Hamilton**, where it was less liable to attack. It was accommodated for some months in the Winter Show Buildings there, but in August a new site had to be found as its premises were required for No. 1 Repair Depot, which was transferred from **Hobsonville** to **Hamilton** and **Rukuhia**. A new site had also to be found for a depot which was to be constructed for the American forces. Eventually two sites were chosen at **Te Rapa** and **Te Awamutu**. The American forces rejected the depot which was being built for them at **Te Awamutu**, and No. 4 Stores Depot **RNZAF** was formed there in November.

No. 3 Stores Depot was formed in **Christchurch**, using buildings in and around the city. Later it moved to **Weedons**, 11 miles out of the town.

No. 2 Depot was later moved from the Exhibition Buildings at **Rongotai** to **Mangaroa**, where it remained until it was closed down several years after the war ended.

DEVELOPMENT OF REPAIR AND MAINTENANCE ORGANISATION

The arrival of new types of aircraft in 1942 necessitated a considerable expansion and reorganisation of the repair and

maintenance organisation. The pre-war plans for the Air Force had provided for only one Repair Depot, situated at Hobsonville. In the early stages of the war it was hoped that the depot would carry out all complete overhauls as well as the assembly of aircraft. The expansion of the service to meet the demands of the British Commonwealth Air Training Plan however, made it impossible for Hobsonville to cope with all the work. Arrangements were therefore made for Wigram and Blenheim to be independent of the depot except for instrument and specialist repair work, and during 1940 it became increasingly obvious that all the FTSs would have to carry out their own overhauls. By the end of the year all three FTSs had their own engine repair shops and airframe repair shops. The EFTSs also carried out their own complete overhauls for a period until the De Havilland factory at Rongotai was able to undertake the work.

The system of a decentralised maintenance organisation was satisfactory as long as the RNZAF was armed with aircraft of comparatively simple design. The repair facilities necessary for the types of aircraft in use up to the end of 1941 were not very extensive and it was possible for both the EFTSs and the FTSs to carry out their own complete overhauls. When more modern types of aircraft were received, however, the organisation had to be revised, for the more complex equipment of these aircraft demanded a more complex maintenance scheme.

In April 1942 the policy was changed towards centralisation. At that time the aircraft used in the FTSs were Harvards and Oxfords, although a few of the old Fairey Gordons were still in use. It was decided that all Oxfords should be overhauled at Wigram, which was also responsible for the Gordons. All Harvards were to be overhauled at Woodbourne, and this station was henceforth a repair depot for this work. Ohakea was allotted various commitments, including the inspection and overhaul of aircraft from No. 14 Fighter Squadron at Masterton and of the aircraft of the Bomber Operational Training Unit. These were preliminary steps to further centralisation of the whole repair organisation.

With the prospect of large numbers of operational aircraft being based in the country, it was decided to establish three repair depots to undertake work which had previously been done on stations. The depot at **Hobsonville** was moved, in the middle of the year, to Hamilton. This was made necessary partly because of the vulnerability of **Hobsonville** to attack and partly because, with the increasing numbers of aircraft arriving, it was necessary for Hobsonville to become purely an assembly depot. **Hamilton** was chosen because it was necessary to keep the depot in the **Auckland** area, as **Auckland** and **Lyttelton** were the only two ports in New Zealand where cased or semi-cased aircraft could be unloaded. By July a number of buildings to accommodate the engine repair shop and instrument repair shop had been begun in **Hamilton**, and the airfield at **Rukuhia** had been developed so that the airframe repair shop could be established there. The depot was designated No. 1 Repair Depot and began to operate in September. When it was first formed it was responsible for the repair and overhaul of all multi-engined operational aircraft in New Zealand and overseas, except flying boats, and for all single-engined operational aircraft in New Zealand except the P40s stationed at the OTU at **Ohakea**.

No. 2 Repair Depot was established at **Ohakea** in June for the purpose of maintaining two general reconnaissance, two army co-operation, and two fighter squadrons.

No. 3 Repair Depot was formed from **Wigram** units in the same way as **Hamilton** was formed from **Hobsonville** units. The airframe repair shop was moved from **Wigram** to Harewood in December, and the engine repair shop and general engineering section were established in buildings taken over by the **Air Force** in **Christchurch**. The unit started operations early in 1943.

MANPOWER AND TRAINING PROBLEMS IN 1942

In 1942 the **RNZAF** had three major commitments. It had to maintain the existing output of aircrew trainees required for the British

Commonwealth Air Training Plan; to develop an organisation capable of playing its part in the defence of New Zealand; and to prepare to man operational squadrons in the Pacific. To achieve these objects a great increase in numerical strength was necessary and rapid expansion took place during the year. Between the beginning of January and the end of December over 16,000 recruits were enlisted. The strength of the service within New Zealand grew from 10,600 in December 1941 to 22,600 in December 1942. The number of men serving in the Pacific increased from just under 600, which included the two units in Malaya and the personnel in Fiji, to 1850 stationed in Fiji, New Caledonia, the New Hebrides and the Solomons. At the same time a constant flow of men was being sent to Canada and the United Kingdom for training and service with the Royal Air Force.

A large proportion of the increased strength lay necessarily in the skilled technical trades, particularly in the engineering and electrical groups, and a problem which had been apparent in 1941 now became acute. In the first year of the war recruits to the technical trades had been men with some skill in similar occupations in civilian life, and nearly all had been of good average educational standard. By the beginning of 1942 the supply of this type of recruit was exhausted and it became necessary to train men who had no previous knowledge of their subjects, and who, in many cases, had had only a limited education. In later years the policy of pre-entry training for technical personnel was developed and extended.

In 1942 a Preliminary Technical Training School was established at Rongotai and a Radio Selection Pool at Wigram to give basic technical training to men entering the engineering and electrical trades before they entered the Technical Training Schools or the Electrical and Wireless School. The results of this measure were seen in reduced wastage rates in the technical training courses.

Another difficulty developed in 1942 and became progressively more serious as the commitments of the RNZAF in the Pacific grew. While the Air Force had been concerned only with the training of pilots and air

crews, it had been limited in its selection of men for ground staff mainly to those who were unfit for overseas service. When it became necessary to send men of all trades to the **Pacific** great difficulty was found in obtaining sufficient numbers who were medically qualified to go. In some trades unfit men comprised as much as 60 per cent of the total number employed. The trades most affected were in the administrative, clerical and equipment groups, although there were also serious shortages in the technical trades. In an effort to solve the problem the Minister of Defence authorised the enlistment of men fit for service overseas in these trades in June 1942.

WOMEN'S AUXILIARY AIR FORCE

An important contribution towards solving the manpower problem was made by the WAAF. Women were first recruited for the **Air Force** early in 1941 and the first draft, of 200, was posted to **Rongotai** in April. By the end of the year there were WAAF's on ten stations, and during 1942 eleven more had them. Later WAAF's were posted to every major station in New Zealand, and a number served overseas in **Fiji** and on **Norfolk Island**.

At the beginning there were dire forebodings as to the effect of introducing women into what had been a purely masculine service; but the women very quickly proved their worth. Not only did their employment release men for overseas and combat duties, but in many trades they proved more efficient and reliable than men.

In the first eighteen months women were not granted service ranks; but by the Women's Auxiliary Air Force Emergency Regulations 1942 the WAAF was incorporated as part of the **RNZAF**, and thereafter members held ranks equivalent to those of the men, with similar badges. At the same time, those who were employed as supervisors and cipher officers were commissioned.

Originally, women were employed only as cooks, mess-hands, drivers, clerks, equipment assistants, medical orderlies and shorthand typists;

but by the end of the war they were found to be in nearly every trade that was not beyond their physical capabilities. ¹

At its peak strength, in July 1943, the WAAF numbered over 3600, and during the course of the war approximately 4750 passed through its ranks. Of these, over a hundred were commissioned, mainly for cipher and administrative duties.

¹ WAAFs were employed in the following **RNZAF** trades:

Cooks

Mess-hands

Clerks, General Duties

Clerks, Stores Accounting

Clerks, Pay Accounting

Clerks, Special Duties

Clerks, Signals

Clerks, Medical

Shorthand typists

Librarians

Fabric workers

Parachute packers

Equipment assistants

Instrument repairers

Tailoresses

Drivers, petrol

Meteorological assistants

Medical orderlies

Medical orderlies, Special Duties (Psychological Research)

Aircrafthands, General Duties (runners, cleaners, etc.)

Physical and recreational training instructors

Telephone operators

Wireless operators

Teleprinters

Telegraphists

Radio telephonists

Dental clerk orderlies

Dental mechanics

AML bomber teacher instructors

Link-trainer maintenance

Workshop assistants

Dry Canteen assistants

YMCA assistants

GRU (Gunnery Research Unit) assessor, tracers

Disciplinarians

Motor-boat crew

Shoe fitters (on loan to Ministry of Supply)

ROYAL NEW ZEALAND AIR FORCE

[SECTION]

THROUGH the first half of 1942 the Japanese advanced on all fronts with scarcely a check. On Christmas Day 1941 they had captured **Hong Kong**. In January they occupied **Borneo** and captured **Rabaul** and **Kavieng**. By the end of the month they were in possession of practically the whole of **New Britain** and the Bismarck Archipelago. The following month they captured **Singapore**. In March they occupied **Java**, **Burma**, and the northern **Solomons** and held a considerable part of **New Guinea**. By June they were firmly established on a line stretching from the Andaman Islands in the **Indian Ocean**, round the north of **Australia**, to the central Solomon Islands. Darwin had been raided and Japanese submarines had attacked **Sydney**.

A week after **Japan** entered the war, Mr Churchill and his staff had flown to **Washington** to confer with the American authorities on the problems of the Allied Command. As a result of the conference it was decided that **Britain** would be primarily responsible for operations west of **Singapore**, and that **Britain** and the **United States** would exercise joint control over the **Atlantic** area. The United States, in conjunction with **Australia**, New Zealand and the **Netherlands East Indies**, would be responsible for the **Pacific** area. The strategic direction of the war as a whole, excluding operations in **Russia**, was placed in the hands of the Combined Chiefs of Staff Committee in **Washington**, which comprised the three American Chiefs of Staff and a British Joint Staff Mission led by Sir John Dill.

A unified command was created in the south-west **Pacific** under General Sir Archibald Wavell, with an American deputy commander who was in charge of the naval forces in the area. The command included **Burma**, **Malaya**, the **Philippines**, the Netherlands East Indies, Dutch New Guinea and, later, Northern Australia. These territories became known as the ABDA area (American-British- Dutch-Australian). The defence of

the **Pacific** area east of the **Philippines** and Australasia, including the eastern approaches to **Australia**—designated the Pacific Ocean area—became the responsibility of the United States Navy.

In January another area was formed, known as the Anzac area. It was an adjunct to the Pacific Ocean area, and included eastern **Australia**, New Zealand, and part of **New Guinea** and the islands immediately to the north of it. The United States Navy was now responsible for the protection of New Zealand. This would have made the **New Zealand Government** much less apprehensive about the security of New Zealand had that navy not been so severely crippled at **Pearl Harbour**.

After the fall of **Singapore** in February and the Japanese invasion of **Java**, the ABDA Command was dissolved and the responsibility for the continuance of operations in the **Netherlands East Indies** was handed over to the Dutch Commander-in-Chief. **Java** fell shortly afterwards and a re-examination of strategic boundaries became necessary. There were now two main theatres, the Indian Ocean including **Burma**, which was a British sphere, and the **Pacific** theatre, including **Australia** and New Zealand, which was an American sphere. Early in March the **United States** suggested that the whole of the **Pacific** to a line west of **Singapore** should be the responsibility of **America** and the American Chiefs of Staff.

Finally the **Pacific** area was split up into the South-West Pacific area under General Douglas MacArthur and the Pacific Ocean area under the command of Admiral Chester W. Nimitz. The South-West **Pacific** area comprised the **Philippines**, **Borneo**, the Netherlands East Indies east of **Sumatra**, **New Guinea**, **New Britain**, the northern **Solomons** and **Australia**. The Pacific Ocean area, which was subdivided into Northern, Central and South Pacific areas, comprised the rest of the **Pacific** to the west coast of **America**. Thus New Zealand, which was in the South Pacific, was placed in a different command from **Australia**. The New Zealand Government did not fully approve of the separation as it had always considered that **Australia** and New Zealand should be regarded as a strategic whole, but in view of the urgent necessity for finalising some

arrangement it acquiesced. On 23 April it was officially announced that New Zealand was included in the new South Pacific Command.

The rapidity and comparative ease with which the Japanese had advanced south made it necessary to revise completely the ideas which had previously been held concerning New Zealand's defence requirements. Instead of needing protection only against isolated raids by enemy cruisers, she now had to be prepared to defend herself against full-scale invasion. The Air Force, from being primarily a training organisation, had to be developed into an operational service capable of taking part in active combat. The Government had never been convinced that the country was free from the danger of a major attack should **Japan** enter the war, and in the middle of 1941 it had asked **Britain** for additional supplies of operational aircraft. Apart from the small number of Hudsons which were sent, **Britain** was unable to promise any more.

On the day **Japan** entered the war, the **RNZAF's** first-line aircraft comprised 36 Hudsons, 35 Vincents, and 2 **Singapore** flying boats. Of these, six Vincents and the Singapores were in **Fiji**. Second-line aircraft, mostly used by the training organisation and available for operational use in emergency, comprised the following:

62 Harvards	46 Hinds
143 Oxfords	26 Vildebeestes
30 Gordons	13 Vincents
221 Tiger Moths	7 Multi-engined civil types (including 3 in Fiji)
20 Miscellaneous light aircraft (including 1 in Fiji)	1 Walrus amphibian

Personnel strength on the same date was 10,500 in New Zealand and 450 in **Fiji**.

ROYAL NEW ZEALAND AIR FORCE

REQUESTS TO BRITAIN FOR REINFORCEMENTS

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At the end of December New Zealand again asked **Britain** to supply more aircraft for her defence. The most urgent need was for additional medium bombers. In addition Mark I Hurricane fighters were needed to provide operational training for **RNZAF** pilots and to give emergency support in land operations. The British Government replied that it could not supply aircraft, either then or in the immediate future, but that it hoped later to make available a few Hurricanes for defence against invasion.

New Zealand then asked **Britain** to provide complete fighter squadrons. Two squadrons of long-range fighters were wanted and two of single-engined fighters for interception work. The British Government replied that it could not send the squadrons which were wanted, but it did offer to release 142 Kittyhawks, ¹ which were destined for the **Middle East**, to the Australian and New Zealand theatre. After consultation between **Australia** and New Zealand it was agreed that the latter should receive eighteen of these aircraft, ten in March and eight in April.

By the middle of February the situation in the **Pacific** had become much worse and the possibility of New Zealand being invaded

¹ P40 Kittyhawk; made by Curtiss-Wright, **America**; low-wing monoplane fighter; powered by a single Allison liquid-cooled engine; top speed over 350 m.p.h.; cruising range 700 miles.

had grown. The New Zealand Government made an additional request for aircraft, asking this time for two torpedo-bomber or medium bomber squadrons, two long-range fighter squadrons, one army co-operation or dive-bomber squadron, and four troop-carrying aircraft. As

the country did not possess the trained pilots or the equipment to maintain the squadrons, it was requested that they should be sent completely manned and equipped. Again the request was refused because none could be spared.

On 20 February the operational strength of the **RNZAF** was: No. 1 GR Squadron stationed at **Whenuapai**, with 8 + 4 Hudsons; ¹ No. 2 GR Squadron at **Nelson** with 8 + 3 Hudsons; No. 3 GR Squadron at Harewood with 10 + 5 Vincents; No. 7 GR Squadron, which had recently been formed at **Waipapakauri**, with 12 + 6 Vincents; No. 4 GR Squadron at **Nandi, Fiji**, with 6 + 3 Hudsons; No. 5 Squadron, also in **Fiji**, with 4 + 2 Vincents. In addition No. 5 Squadron had three of the Short **Singapore** flying boats which had been flown out from **Malaya** at the end of 1941. ² These were old and in poor condition, but could be used for operations if required. This gave a total first-line aircraft strength of 32 Hudsons and 39 Vincents.

The training organisation had the following second-line aircraft which could be available in case of emergency: 4 Vincents, 61 Oxfords, 45 Harvards, 9 Fairey Gordons and 15 Hawker Hinds, giving a total of 134.

By this time all munitions for the Allied forces in all theatres of war came under the control of a Munitions Assignment Committee which had been set up in **Washington**; but as the **RNZAF** was not as yet included in any command, all demands for aircraft had to go through the British Chiefs of Staff and be approved by the Joint Chiefs of Staff for recommendation to the Air Assignment Committee, and then for confirmation by the Munitions Assignment Committee. In March the Air Assignment Committee recommended that New Zealand should be allocated thirty-four Kittyhawks from the **United States** as a March allotment. The Munitions Assignment Committee confirmed the allotment. In all, New Zealand was allocated 36 Hudsons, 80 Kittyhawks and 12 Harvards, to be delivered between March and May. All the fighters were deducted from **RAF** allotments originally intended for the **Middle East**.

The Japanese attack on **Ceylon** on 5 April resulted in the allocation of Kittyhawks being reduced. The RAF had only seventy

¹ Aircraft were classified for supply purposes as initial equipment (IE), immediate reserve (IR), and stored reserve (SR). The figure 8 + 4 means eight IE plus four IR.

² The fourth had run onto a reef and had been written off.

fighters in the **Far East**, and a number of those intended for New Zealand had to be sent to reinforce the defence of **India**.

In the first half of 1942, when it looked as though the Japanese would overrun the whole of the South Pacific, it was expected that New Zealand would be the forward base of the United States forces in the area. Preparations were made, which fortunately proved unnecessary, for the accommodation of over thirty operational squadrons of the American Air Force in the country.

ROYAL NEW ZEALAND AIR FORCE

FORMATION OF OPERATIONAL UNITS

FORMATION OF OPERATIONAL UNITS

With the arrival of operational aircraft, including the first Kittyhawks in March, and the promise of more to come, it became possible to plan for the formation of further operational squadrons. In March a Bomber Reconnaissance Operational Training Unit was formed at **Levin** for the training of aircrews. It was equipped originally with Oxfords, but the intention was that these should be replaced by Hudsons when more became available. At the same time a Fighter Operational Training Unit formed at **Ohakea**. Originally it was equipped with Harvards but these, like the Oxfords, were to be replaced by operational aircraft when the supply of Kittyhawks allowed it. The Hawker Hind aircraft which were discarded by No. 3 SFTS when it disbanded were formed into an Army Co-operation Squadron based at Palmerston North.

In April No. 14 Fighter Squadron formed at the Fighter Operational Training Unit at **Ohakea** and moved to **Masterton**, where it continued its training with the Harvard aircraft until the end of the month, when it received Kittyhawks. From then on, until more of these were available, it was established with twelve Kittyhawks and six Harvards. The nucleus of the squadron comprised pilots and ground staff of No. 488 Squadron who had returned from **Singapore**. Squadron Leader MacKenzie, who had commanded the squadron in the latter stages of its operations in **Malaya**, was appointed CO.

A further bomber-reconnaissance squadron equipped with Vincents, No. 8, commanded by Squadron Leader C. L. Monckton, was formed at **Whenuapai** and then moved to **Gisborne**, where an **RNZAF** station was established. From there it carried out submarine searches and shipping escorts in protection of convoys passing down the east coast of the **North Island**.

In May the Kittyhawks which had been allotted by the Munitions Assignment Committee began to arrive, and two further fighter squadrons were formed. Personnel for No. 15 Squadron followed No. 14 at FOTU, and the squadron formed at **Whenuapai on 1 June. No. 16 Squadron was established at **Blenheim** in August. The relative claims of **Auckland** and **Wellington** for the location of this squadron were discussed at some length, but it was decided to place it at **Blenheim** owing to the need to protect shipping in the **Wellington** area, and because it was thought that **Auckland** could be adequately defended by No. 15 Squadron and the American units which were expected to be based there.**

By July only forty-four of the allotment of eighty Kittyhawks had arrived, and New Zealand was advised that the remainder of the allotment would have to be cancelled owing to urgent requirements in the **Middle East.**

ROYAL NEW ZEALAND AIR FORCE

FAFAI SCHEME

FAFAI SCHEME

At the beginning of 1942 when New Zealand had practically no operational aircraft, a scheme was put into operation whereby training units could, in emergency, be used as operational units. The aim of the project, which was known as the FAFAI Scheme, was that in case of invasion every aircraft in the country could be used offensively and every pilot who could fly an aeroplane employed. To this end, the following auxiliary squadrons were formed: a bomber-reconnaissance squadron of 12 Vincents at the School of General Reconnaissance at **Nelson, a bomber-reconnaissance squadron of 18 Oxfords at each of the SFTSs, fighter-bomber squadrons of 12 Harvards at each of the SFTSs, a light bomber squadron of 18 Tiger Moths at each EFTS, an air transport squadron consisting of the civil aircraft belonging to Union Airways, and a composite squadron of Oxfords, Harvards, and Moths at the **Central Flying School**.**

The main purpose of these units was to attack enemy shipping, particularly transport, and it was intended that every aircraft should be a potential bomber. A proportion of the aircraft was to be equipped also for ground strafing enemy troops, using machine guns or light bombs. All aircraft in the training schools were modified to enable them to carry out these tasks. Machine guns and bomb racks were fitted to the Vincents, Gordons, Oxfords and Harvards, and the Tiger Moths were equipped with racks for light anti-personnel bombs.

To allow the auxiliary squadrons to reach a sufficient standard of operational efficiency without interfering unduly with the flying training programme, a week of operational training was carried out between the end of each flying training course and the start of the next. In addition, to ease the burden on instructors and staff pilots at training units, their establishment was increased. The scheme continued until

the latter part of the year when, as the danger of invasion was no longer imminent, it was suspended.

ROYAL NEW ZEALAND AIR FORCE

PREPARATION OF AERODROMES

PREPARATION OF AERODROMES

The development of the **RNZAF** as an operational service, together with the expected arrival of numerous American units, resulted in a need for a greater number of aerodromes and modifications to existing ones. A number of advanced landing grounds were built in the **North Auckland** area, and civil aerodromes in other parts of New Zealand were converted for **Air Force** use.

The aerodromes used by the **RNZAF** at the beginning of 1942 were limited in size to the probable requirements for British aircraft of the kind which it had been thought would be employed in New Zealand for general reconnaissance squadrons. The decision to employ American aircraft necessitated the construction of longer runways and, in many cases, of concrete runways, since the large American machines needed considerably more space in which to take off.

Early in the year the **New Zealand Government** was requested to provide concrete runways suitable for heavy American bombers at **Whenuapai** and **Ohakea**. Emergency aerodromes capable of handling large bombers were also commenced in other parts of the country.

The work of aerodrome construction was carried out with all possible speed by the Aerodrome Section of the Public Works Department, but was hampered in the early stages by lack of heavy earth-moving machinery.

The question of the defence of aerodromes had been raised towards the end of 1940, when it was laid down as a general principle that the **Air Force** would be responsible for defence up to the perimeters of the aerodromes, but that the Army should be responsible for the area beyond the boundaries. In addition, the Army made available officers to advise

station commanders on the best employment of the limited resources of arms and personnel on the stations. Later the Army was asked to undertake the defence of all aerodromes occupied by the **RNZAF**, and also of a number of others to ensure both their availability as advanced landing grounds and their denial to the enemy. The Army, however, would give no assurance that this would be done except as incidental to its general plans.

When the Army took over the **Home Guard**, local Area Commanders were instructed to confer with station commanders about incorporating aerodromes in their local schemes of defence. It was pointed out that the defence of aerodromes would devolve almost entirely upon units of the **Home Guard**. Things remained substantially on this basis until the end of 1941, when the Japanese threat made the whole question of defence more real and urgent.

Early in 1942 the Army undertook to provide the men necessary for aerodrome defence, but it was not until June that the respective responsibilities of the Army and the **Air Force** were clearly defined. The **RNZAF** undertook responsibility for the close defence of aerodromes up to a radius covered by the field of fire of the light automatic weapons of the fixed defence, that is, up to about half a mile beyond the perimeter. This was made possible by the establishment within the **RNZAF** of Aerodrome Defence Squadrons which gradually took over the functions hitherto performed by Army troops, as well as some of the duties, including the manning of machine-gun posts, which had been carried out before by station personnel.

The ideal first line of defence against ground attack was recognised to be a mobile striking force in the vicinity of aerodromes. As the Army was unable to provide this force because the only suitable troops available formed part of the field army which was training for other operations, the Aerodrome Defence Squadrons were formed. The officers and sergeants in the squadrons were specially selected from **RNZAF** and Army personnel, and other ranks comprised men who were earmarked for eventual training in the **RNZAF** and who were doing preliminary training

in the Army. The chief difficulty encountered in the formation and training of the squadrons was the shortage of officers. The Army helped in this respect and gave officer cadets a six-weeks' OCTU course at **Trentham. The first output from this course, however, did not become available until November.**

A further difficulty which quickly became apparent was caused through the dual role of the Aerodrome Defence Squadrons. The organisation was designed:

**(To provide a defence force for aerodromes, and
a)**

**(To give educational training to recruits to fit them for entry into
b) either the Initial Training Wing or the Technical Training School.**

This meant that there was a constant turnover of personnel as men were posted to their aircrew or technical training. There was at all times a conflict between the need for educational training and that for military training. By the end of 1942 the change in the strategic situation in the south and south-west **Pacific made it unlikely that New Zealand would suffer a sea or air attack with less than six months' notice, and consequently the policy of the squadrons was revised. From then on they were no longer required to maintain the operational organisation, and their principal role became:**

**(To provide facilities for twenty hours a week of educational training
a) to all prospective aircrew personnel;**

**(To give as much infantry training as possible to all men passing
b) through the squadrons, to ensure that they would be fitted to fight effectively against enemy troops on the ground when they found themselves in the forward areas; and**

**(To maintain a basic organisation to reform as operational squadrons
c) should the need arise.**

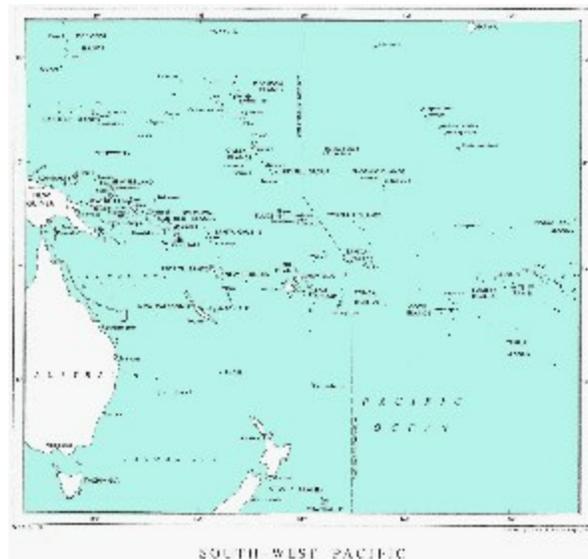
In March 1943 the squadrons ceased to exist as such and the personnel were regrouped with a view to training without reference to defence needs.

At the end of 1941 the only anti-aircraft artillery in New Zealand

consisted of four Bofors guns. These were sent to **Fiji** early in 1942 as it was considered that they would be more profitably employed in the defence of **Nandi** aerodrome. ¹ Urgent requisitions were sent to **Britain** for further supplies, and the immediate response was the promise of sixteen 3.7-inch guns and twelve 40-millimetre Bofors by the next convoy. **Whenuapai** was the first station to be equipped with anti-aircraft artillery and had four light guns, either in position or about to go into position, at the end of March. By September five stations—**Waipapakauri, Whenuapai, Hobsonville, Ohakea** and **Woodbourne**—had been equipped with a total of forty guns.

Throughout 1942 the chief problem of preparing aerodromes against attack was lack of equipment. At the beginning of the year the **RNZAF** had only 800 rifles, 90 light machine guns, and 70 Thompson sub-machine guns which had been made available by the Army, with which to equip fourteen stations, with a total strength of 7000 airmen. In July only a third of the men on stations had been armed, although it was hoped that rifles, pistols, or Armaf guns would be available for issue to all personnel within another two months.

During the year dispersal pens were built on all operational aerodromes. All buildings and a number of flying fields were camouflaged and plans drawn up for the evacuation and demolition of aerodromes should that become necessary. By December the



SOUTH-WEST PACIFIC

RNZAF was in a position to defend its aerodromes adequately, but by that time the danger of immediate attack had passed.

¹ This proof that New Zealand was willing to do its best for the general war effort, to the extent of stripping itself of AA defences, was later to have a very favourable effect on the attitude of the Allied supply authorities in **Washington** when considering the allocation of equipment.

ROYAL NEW ZEALAND AIR FORCE

DEVELOPMENT OF RADAR

DEVELOPMENT OF RADAR

Early in 1939 New Zealand was notified of the development of a 'secret device connected with air defence' which was sufficiently important to warrant the despatch of a physicist to the United Kingdom to study it. Accordingly the Director of the Department of Scientific and Industrial Research, **Dr E. Marsden**, was sent to England.

He arrived at the end of April and was attached to the office of the New Zealand Liaison Officer, Squadron Leader Wallingford, at the **Air Ministry**. With Wallingford he studied the new equipment, and the two made a joint report to the New Zealand Chief of Air Staff covering its technical and operational aspects.

As a result two radar sets, one a ground unit and the other an airborne unit, were ordered by the **New Zealand Government**. The sets were sent to New Zealand, and Marsden also brought back with him a large number of drawings and specifications. From these the **DSIR** was able to make plans for the local production of sets.

The first ground set, which had been ordered by Marsden, was used by the Electrical and Wireless School at **Wigram** for training, until the outbreak of war with **Japan**, when it was transferred to **Fiji** and installed on Malolo Island, near **Nandi**, in January 1942. The first ground radar set operated in New Zealand was constructed by Messrs Collier and Beale of **Wellington** from drawings and specifications of an early Admiralty-type set. It was installed by the **DSIR** at Fort Mototapu in the Waitemata Harbour.

As New Zealand, in the early years of the war, did not possess the fighter aircraft necessary to intercept attacking air forces, the development of a ground radar warning system was considered

unnecessary. Consequently the **RNZAF** confined its activities in connection with radar to the development of airborne rather than ground equipment. The original airborne set which Marsden had brought with him from England was used as a pattern on which another set was designed by the staff of the **DSIR**, and fitted to a Waco aircraft in April 1940. The aircraft and set were later handed over to the Electrical and Wireless School for further experimental work and to assist in the training of maintenance personnel. Twenty airborne sets were manufactured by the Post and Telegraph Department and were fitted in the Vildebeeste and **Oxford** aircraft which carried out general reconnaissance duties round the coast.

In the middle of 1941, when the threat of war with **Japan** was becoming more evident, priority was switched to ground radar, and from then until the end of the war maximum effort was directed to the erection, maintenance, and operation of air-warning systems, both in New Zealand and in the **Pacific**.

In March 1942 a sub-committee of the Chiefs of Staff Committee in **London** recommended that New Zealand should establish fifteen COL (Chain Overseas Low-flying) stations, seven TRU (Transportable Radar Unit) stations, and five GCI (Ground Control Interception) stations.

The only station operating at that time was one in the **Auckland** area. A second station on the Coromandel Peninsula was to have been completed by the end of 1941 but the equipment, which was being constructed in New Zealand, was unsatisfactory and the station did not become operational until July 1942. Four other stations, two near **Auckland** and two in the **Wellington** area, were also to have been completed by the end of February but development was delayed through lack of equipment.

It had been intended originally to manufacture as much as possible of New Zealand's radar requirements in the Dominion, but the essential components, particularly valves, had to be obtained from abroad, and many difficulties were encountered in getting them. It became obvious

that dependence on New Zealand-built sets was not a practical proposition, and consequently it was decided that complete units should be ordered from **Britain**. Most of the equipment required for the air-warning system in New Zealand was ordered in May 1942 after receipt of the recommendations of the London Chiefs of Staff Committee.

By August three stations were in operation in the **Auckland** area and giving satisfactory results; and three more in the North **Auckland** area were being fitted with their technical equipment. Four stations in the **Wellington** area were in various stages of completion, and sites were being selected for another six stations in the **North Island**.

Three radar flights were established to administer the units which were formed or planned. No. 1 Flight, with headquarters at **Whenuapai**, embraced all units in the **Auckland** area; No. 2, at **Rongotai**, was responsible for stations from **New Plymouth** to the Clarence River; and No. 4, at **Wigram**, was to administer those in **Canterbury** and Otago. Later in the year the flights were expanded into squadrons, No. 60 Squadron replacing No. 1 Flight, and No. 61 No. 2 Flight. No. 62 Squadron was to form at **Wigram** to take the place of No. 4 Flight, but the radar warning system in the south was not developed, and the number was allotted instead to the squadron which formed at **Guadalcanal** in August 1943.

As with other aspects of New Zealand's defence the completion of the radar system was dependent upon supplies from overseas, and it was not until the chief danger of invasion had passed that the organisation was functioning satisfactorily. By May 1943 there were sixteen radar units operating round the coast of New Zealand, most of them in the **North Island**. They were nearly all in remote parts of the country, cut off from the amenities of civilisation. Each unit had to be a small self-contained community, dependent on itself for its own well-being. Personnel were **RNZAF**, including **WAAF**, and in some cases Navy.

Shortly afterwards the air-warning system was reduced, partly because of the improving war situation and partly to release personnel

for the manning of **RNZAF** radar units in the forward area.

Although New Zealand was not subjected to air attack, and the units were therefore never called on to perform their primary function, they did sterling work in other directions. Their major commitment was to assist the Navy by plotting all ships round their respective areas of the coast, and when vessels were reported in unexpected positions aircraft were sent out to investigate. In addition radar units, especially in the **Auckland** and **New Plymouth** areas, were often responsible for locating overseas aircraft which had lost themselves in bad weather and for guiding them in safely to a landing.

On one occasion a hostile aircraft, launched from a Japanese submarine, did make a reconnaissance flight over **Auckland**. It was plotted by radar units in the **Auckland** area, but for some time the plots were disbelieved. By the time it was recognised as an enemy plane, it had returned to its mother-ship and was safely out of harm's way. Enemy submarines were also reported on one or two occasions by radar stations at various points round the coast and aircraft were sent to search for them, but none was ever found.

ROYAL NEW ZEALAND AIR FORCE

OBSERVER CORPS

OBSERVER CORPS

Besides the radar warning system, an **Observer Corps** was formed in 1942 to report movements of aircraft. Various authorities— Navy, Army, Harbour Boards, and the **Marine Department**—had established watching posts at points round the coast, primarily to report shipping. These were incorporated—and other posts were established throughout the country—to form a comprehensive aircraft reporting system. The organisation, which was administered by the **Air Force**, consisted of Observer Posts, each manned by six or more people, connected by telephone with Observer Centres which, in turn, were connected with one of the Combined Group Headquarters in **Auckland, Wellington, or Christchurch**

The system was never completely developed. The main source of manpower was the **Home Guard**, and it could not supply enough to man the 300 posts which would have been necessary to cover the whole country. A further difficulty was the provision of adequate telephone lines. Had the war not receded from New Zealand in 1942, doubtless the shortages would have been overcome. As it was, the Corps operated during that and the following year on a limited basis. Its value was fully appreciated, but there were too many other claims on manpower, equipment, and accommodation. It did, however, give good observer cover over all vital areas until it was finally disbanded early in 1944.

ROYAL NEW ZEALAND AIR FORCE

OPERATION OF THE AIR-WARNING SYSTEM

OPERATION OF THE AIR-WARNING SYSTEM

The air-warning system depended primarily on plots from the radar stations. In a COL station these plots appeared as bright spots of light on the plan position indicator, which was covered by a gridded map in perspex, the centre of which represented the radar station. The number of aircraft and their exact range could be checked on what was termed the A tube. A COL team normally comprised four persons: a PPI tube observer, range tube operator, converter, and recorder. The usual procedure was for the observer to pass the plots to the filter room, where plots from various stations would be co-ordinated by experienced filter officers. The plots were then passed to the operations room.

In the operations room the plots were recorded on a large table similar to that in the filter room, and above this table sat the controller, normally an **Air Force** officer, with a Navy and an Army officer. The controller was responsible for alerting squadrons when hostile aircraft were detected by the radar units.

During 1942 two operations rooms were built, one at **Auckland** and the other at **Wellington**. Although no attacks were made on New Zealand by enemy aircraft or vessels, the radar organisation when it was established was responsible throughout the rest of the war for maintaining a constant watch on all aircraft and shipping within the area under its control.

ROYAL NEW ZEALAND AIR FORCE

COMMUNICATIONS

COMMUNICATIONS

When war was declared in 1939 New Zealand's communications system was inadequate for defence requirements. The Government had not been prepared before the war to authorise the nucleus of a tele-communications system which could be expanded in wartime, and the **RNZAF** had therefore to concentrate on developing wireless and radio communications, obtaining wireless equipment, and training personnel to operate point-to-point and ground-to-air radio services.

At the end of 1941 the **RNZAF** communications organisation comprised a point-to-point W/T system between **Air Force** Headquarters and stations, and a land-line service between Headquarters and the Inter-Command W/T Station at **Ohakea**. Wireless-telegraphy services were operated and maintained by the **Air Force**, but the land-line service, while operated by the **Air Force**, was installed and maintained by the Post and Telegraph Department. This department also operated aeradio services, which, besides providing a W/T service for internal commercial air lines, handled the **RNZAF** traffic as well.

The entry of **Japan** into the war and the possibility that New Zealand would become an active operational theatre made necessary the immediate expansion of the **RNZAF** communications organisation. A report on the country's defence needs in October 1941 had recommended a high-grade and extensive communications system throughout the country, involving a network of radio and telecommunications. Squadron Leader **Scott**,¹ who was then Commanding Officer of the Electrical and Wireless School at **Wigram**, was sent to the United States Island Command, **Hawaii**, in March 1942 to study the communications system there. On his return the Government authorised the procuring of equipment sufficient to meet the needs of the projected organisation of the **RNZAF**. This included:

- (1) Three Group Headquarters which were to function as bomber and fighter sector controls.**
- (2) Three sub-sectors for fighter control.**
- (3) Ten bomber stations.**
- (4) Ten fighter stations.**
- (5) Four army co-operation squadrons.**
- (6) Four air-support controls.**
- (7) An air-warning radar chain extending from North Cape to the Bluff and including GCI stations for fighter control.**
- (8) Eighteen VHF D/F stations comprising six triangulation systems for the control of fighter aircraft.**
- (9) Six H/F D/F stations for long-range navigational purposes.**

Part of this organisation was already in existence, but a part, owing to the changed aspect of the war in 1943, was not completed.

The equipment needed for the plan was ordered, and in August Scott went to [Washington](#) to supervise its purchase. Until the arrival of the equipment ordered from the [United States](#), communication facilities were provided by the purchase of amateur and commercial radio sets. Transmitting equipment obtained in this way was modified for [Air Force](#) requirements, while receiving equipment was generally delivered direct to stations. Equipment began to arrive from [America](#) and [Canada](#) early in 1943 and was immediately used to replace the amateur sets. By that time, however, it was clear that the full expansion of the [RNZAF](#), on which basis the signals equipment had been ordered, would not be required. Consequently a reduced programme was approved and the orders for some of the equipment were cancelled.

Besides the expansion of the radio organisation, the [RNZAF](#) needed greatly increased long-distance telephone communications in 1942. Most of the lines needed were provided by withdrawing circuits from the civilian toll network, and others were obtained by installing additional lines. Early in 1942 the first direct long-distance telephone lines were obtained from the Post and Telegraph Department to link Air Department with Northern Group Headquarters, [Ohakea](#) and [Wigram](#);

and by June an **RNZAF** long-distance network existed with which every station and major unit was connected.

¹ **Wg Cdr I. A. Scott, OBE; Wellington; born London, 1 Nov 1913; RAF 1932–38; RNZAF 1939–47.**

ROYAL NEW ZEALAND AIR FORCE

EXPANSION AND DISPERSAL OF STORES DEPOTS

EXPANSION AND DISPERSAL OF STORES DEPOTS

Up to the outbreak of war the **RNZAF** Stores Depot had been located at **Hobsonville**. To a lesser degree **Wigram** also acted as a depot. The British Commonwealth Air Training Plan necessitated a large expansion of the stores organisation. The depot at Hobsonville could not be expanded to meet the growing requirements of the service and, moreover, there were disadvantages in having a main stores depot in the far north in a vulnerable area and isolated from rail communications. An unnecessary amount of transport was involved in issuing stores from the depot to the existing **RNZAF** stations, and also, in the case of equipment manufactured in New Zealand, in moving it from the factory to the depot. In 1940, when the New Zealand centennial exhibition buildings at **Rongotai** became vacant, they were converted into an Air Force Stores Depot and No. 2 Stores Depot formed there officially in June.

The two depots were considered adequate until **Japan** entered the war, and then it was recognised that as both depots were vulnerable to attack some dispersal of stocks was essential. Additional storage space was obtained in **Auckland**, **Wellington**, and **Christchurch** and used for the dispersal of equipment. No. 1 Stores Depot at **Hobsonville**, moreover, was moved completely to **Hamilton**, where it was less liable to attack. It was accommodated for some months in the Winter Show Buildings there, but in August a new site had to be found as its premises were required for No. 1 Repair Depot, which was transferred from **Hobsonville** to **Hamilton** and **Rukuhia**. A new site had also to be found for a depot which was to be constructed for the American forces. Eventually two sites were chosen at **Te Rapa** and **Te Awamutu**. The American forces rejected the depot which was being built for them at **Te Awamutu**, and No. 4 Stores Depot **RNZAF** was formed there in November.

No. 3 Stores Depot was formed in **Christchurch**, using buildings in

and around the city. Later it moved to **Weedons**, 11 miles out of the town.

No. 2 Depot was later moved from the Exhibition Buildings at **Rongotai** to **Mangaroa**, where it remained until it was closed down several years after the war ended.

ROYAL NEW ZEALAND AIR FORCE

DEVELOPMENT OF REPAIR AND MAINTENANCE ORGANISATION

DEVELOPMENT OF REPAIR AND MAINTENANCE ORGANISATION

The arrival of new types of aircraft in 1942 necessitated a considerable expansion and reorganisation of the repair and maintenance organisation. The pre-war plans for the **Air Force** had provided for only one Repair Depot, situated at **Hobsonville**. In the early stages of the war it was hoped that the depot would carry out all complete overhauls as well as the assembly of aircraft. The expansion of the service to meet the demands of the British Commonwealth Air Training Plan however, made it impossible for **Hobsonville** to cope with all the work. Arrangements were therefore made for **Wigram** and **Blenheim** to be independent of the depot except for instrument and specialist repair work, and during 1940 it became increasingly obvious that all the FTSs would have to carry out their own overhauls. By the end of the year all three FTSs had their own engine repair shops and airframe repair shops. The EFTSs also carried out their own complete overhauls for a period until the De Havilland factory at **Rongotai** was able to undertake the work.

The system of a decentralised maintenance organisation was satisfactory as long as the **RNZAF** was armed with aircraft of comparatively simple design. The repair facilities necessary for the types of aircraft in use up to the end of 1941 were not very extensive and it was possible for both the EFTSs and the FTSs to carry out their own complete overhauls. When more modern types of aircraft were received, however, the organisation had to be revised, for the more complex equipment of these aircraft demanded a more complex maintenance scheme.

In April 1942 the policy was changed towards centralisation. At that time the aircraft used in the FTSs were Harvards and Oxfords, although a few of the old Fairey Gordons were still in use. It was decided that all

Oxfords should be overhauled at **Wigram**, which was also responsible for the Gordons. All Harvards were to be overhauled at **Woodbourne**, and this station was henceforth a repair depot for this work. **Ohakea** was allotted various commitments, including the inspection and overhaul of aircraft from No. 14 Fighter Squadron at **Masterton** and of the aircraft of the Bomber Operational Training Unit. These were preliminary steps to further centralisation of the whole repair organisation.

With the prospect of large numbers of operational aircraft being based in the country, it was decided to establish three repair depots to undertake work which had previously been done on stations. The depot at **Hobsonville** was moved, in the middle of the year, to Hamilton. This was made necessary partly because of the vulnerability of **Hobsonville** to attack and partly because, with the increasing numbers of aircraft arriving, it was necessary for Hobsonville to become purely an assembly depot. **Hamilton** was chosen because it was necessary to keep the depot in the **Auckland** area, as **Auckland** and **Lyttelton** were the only two ports in New Zealand where cased or semi-cased aircraft could be unloaded. By July a number of buildings to accommodate the engine repair shop and instrument repair shop had been begun in **Hamilton**, and the airfield at **Rukuhia** had been developed so that the airframe repair shop could be established there. The depot was designated No. 1 Repair Depot and began to operate in September. When it was first formed it was responsible for the repair and overhaul of all multi-engined operational aircraft in New Zealand and overseas, except flying boats, and for all single-engined operational aircraft in New Zealand except the P40s stationed at the OTU at **Ohakea**.

No. 2 Repair Depot was established at **Ohakea** in June for the purpose of maintaining two general reconnaissance, two army co-operation, and two fighter squadrons.

No. 3 Repair Depot was formed from **Wigram** units in the same way as **Hamilton** was formed from **Hobsonville** units. The airframe repair shop was moved from **Wigram** to Harewood in December, and the engine

repair shop and general engineering section were established in buildings taken over by the **Air Force in Christchurch**. The unit started operations early in 1943.

ROYAL NEW ZEALAND AIR FORCE

MANPOWER AND TRAINING PROBLEMS IN 1942

MANPOWER AND TRAINING PROBLEMS IN 1942

In 1942 the **RNZAF** had three major commitments. It had to maintain the existing output of aircrew trainees required for the British Commonwealth Air Training Plan; to develop an organisation capable of playing its part in the defence of New Zealand; and to prepare to man operational squadrons in the **Pacific**. To achieve these objects a great increase in numerical strength was necessary and rapid expansion took place during the year. Between the beginning of January and the end of December over 16,000 recruits were enlisted. The strength of the service within New Zealand grew from 10,600 in December 1941 to 22,600 in December 1942. The number of men serving in the **Pacific** increased from just under 600, which included the two units in **Malaya** and the personnel in **Fiji**, to 1850 stationed in **Fiji**, **New Caledonia**, the **New Hebrides** and the **Solomons**. At the same time a constant flow of men was being sent to **Canada** and the **United Kingdom** for training and service with the **Royal Air Force**.

A large proportion of the increased strength lay necessarily in the skilled technical trades, particularly in the engineering and electrical groups, and a problem which had been apparent in 1941 now became acute. In the first year of the war recruits to the technical trades had been men with some skill in similar occupations in civilian life, and nearly all had been of good average educational standard. By the beginning of 1942 the supply of this type of recruit was exhausted and it became necessary to train men who had no previous knowledge of their subjects, and who, in many cases, had had only a limited education. In later years the policy of pre-entry training for technical personnel was developed and extended.

In 1942 a Preliminary Technical Training School was established at **Rongotai** and a Radio Selection Pool at **Wigram** to give basic technical

training to men entering the engineering and electrical trades before they entered the Technical Training Schools or the Electrical and Wireless School. The results of this measure were seen in reduced wastage rates in the technical training courses.

Another difficulty developed in 1942 and became progressively more serious as the commitments of the RNZAF in the Pacific grew. While the Air Force had been concerned only with the training of pilots and air crews, it had been limited in its selection of men for ground staff mainly to those who were unfit for overseas service. When it became necessary to send men of all trades to the Pacific great difficulty was found in obtaining sufficient numbers who were medically qualified to go. In some trades unfit men comprised as much as 60 per cent of the total number employed. The trades most affected were in the administrative, clerical and equipment groups, although there were also serious shortages in the technical trades. In an effort to solve the problem the Minister of Defence authorised the enlistment of men fit for service overseas in these trades in June 1942.

ROYAL NEW ZEALAND AIR FORCE

WOMEN'S AUXILIARY AIR FORCE

WOMEN'S AUXILIARY AIR FORCE

An important contribution towards solving the manpower problem was made by the WAAF. Women were first recruited for the **Air Force** early in 1941 and the first draft, of 200, was posted to **Rongotai** in April. By the end of the year there were WAAF's on ten stations, and during 1942 eleven more had them. Later WAAF's were posted to every major station in New Zealand, and a number served overseas in **Fiji** and on **Norfolk Island**.

At the beginning there were dire forebodings as to the effect of introducing women into what had been a purely masculine service; but the women very quickly proved their worth. Not only did their employment release men for overseas and combat duties, but in many trades they proved more efficient and reliable than men.

In the first eighteen months women were not granted service ranks; but by the Women's Auxiliary Air Force Emergency Regulations 1942 the WAAF was incorporated as part of the **RNZAF**, and thereafter members held ranks equivalent to those of the men, with similar badges. At the same time, those who were employed as supervisors and cipher officers were commissioned.

Originally, women were employed only as cooks, mess-hands, drivers, clerks, equipment assistants, medical orderlies and shorthand typists; but by the end of the war they were found to be in nearly every trade that was not beyond their physical capabilities. ¹

At its peak strength, in July 1943, the WAAF numbered over 3600, and during the course of the war approximately 4750 passed through its ranks. Of these, over a hundred were commissioned, mainly for cipher and administrative duties.

¹ **WAAFs were employed in the following RNZAF trades:**

Cooks

Mess-hands

Clerks, General Duties

Clerks, Stores Accounting

Clerks, Pay Accounting

Clerks, Special Duties

Clerks, Signals

Clerks, Medical

Shorthand typists

Librarians

Fabric workers

Parachute packers

Equipment assistants

Instrument repairers

Tailoresses

Drivers, petrol

Meteorological assistants

Medical orderlies

Medical orderlies, Special Duties (Psychological Research)

Aircrafthands, General Duties (runners, cleaners, etc.)

Physical and recreational training instructors

Telephone operators

Wireless operators

Teleprinters

Telegraphists

Radio telephonists

Dental clerk orderlies

Dental mechanics

AML bomber teacher instructors

Link-trainer maintenance

Workshop assistants

Dry Canteen assistants

YMCA assistants

GRU (Gunnery Research Unit) assessor, tracers

Disciplinarians

Motor-boat crew

Shoe fitters (on loan to Ministry of Supply)

ROYAL NEW ZEALAND AIR FORCE

CHAPTER 10 – ESTABLISHMENT OF THE RNZAF IN THE SOUTH PACIFIC

CHAPTER 10

Establishment of the RNZAF in the South Pacific

To stem the tide of Japanese aggression in the South and South-West Pacific, the Allies in 1942 developed a chain of island bases, stretching from Northern Australia through New Caledonia, the New Hebrides, Fiji and Tonga to Samoa. These were intended to serve as a protection for major bases in Australia and New Zealand from which an offensive could eventually be launched. At the same time they were destined to become important supply and repair bases as the Allied forces moved northward through the Solomons.

An American fighter squadron disembarked at Fiji at the end of January 1942, and a flight of Flying Fortresses arrived a few days later. American troops landed in the New Hebrides in March and in New Caledonia in April. By June all these bases were occupied by large United States forces, although they were by no means secure from major attack, and behind this outer defensive line major forces were being built up in Australia and New Zealand.

The most vital link in the defensive chain was Fiji. If the enemy established himself there he could dominate the whole of the South Pacific and would be in a position to launch an attack against New Zealand. New Zealand had done what it could to reinforce the colony by sending all its anti-aircraft artillery and a fair proportion of the available Hudsons, but the defences in the first few weeks of 1942 were much too weak to withstand a major attack.

Early in February a detachment of six Hudsons from No. 2 Squadron was sent to Fiji temporarily to strengthen the air defences in the face of what appeared to be an imminent threat of attack. They arrived on 11 February and were attached to No. 4 Squadron at Nandi.

On 13 February aircrew were briefed for an attack on a Japanese task force which was reported to be approaching. Coastwatchers further north had reported a force including three aircraft carriers apparently

heading for **Fiji**. It was estimated that it would arrive late on 13 February or at dawn on the 14th. An Allied force, including the aircraft carriers *Lexington* and *Saratoga*, was also heading for **Fiji**, but it was doubtful whether it would arrive in time to intercept the Japanese. Furthermore, the Allied fleet included no battleships.

The Hudsons were briefed to bomb from 9000 feet and the Fortresses from 16,000 feet, and pilots were told that unless the Allied force arrived in time they would stand very little chance of coming out of the action alive as the sky would be thick with Japanese fighters.

Aircrews remained at readiness for the rest of the day and that night. The Fortresses took off before dawn next day on patrol. As there had been no further sighting of the enemy force, the Hudsons did not take off till later. They were eventually airborne at 10 a.m. and carried out a parallel track search in the vicinity of the Ellice Islands. No sightings of the enemy were made during the day, and apparently he had turned back and occupied islands farther to the north-west.

With the safe arrival of the Allied reinforcements and the averting of the immediate threat to **Fiji**, the detachment of No. 2 Squadron returned to New Zealand, leaving two aircraft and crews to join No. 4 Squadron.

NEGOTIATIONS TO OBTAIN EQUIPMENT

It was thought that the problem of obtaining supplies for the **RNZAF** had been solved when, in April 1942, New Zealand was placed in the American South Pacific Command. Admiral Robert L. Ghormley, United States Navy, was appointed Commander **South Pacific Area**, and arrived in New Zealand to make his headquarters at **Auckland** on 21 May. At his first meeting with the New Zealand Chiefs of Staff Committee a few days later, he caused considerable dismay when he pointed out that according to his directive the land defence of New Zealand was expressly excluded from his responsibility. This meant that he had no responsibility for supplying the land and air forces of the country. The Army was not seriously affected as it was obtaining adequate supplies of equipment

from **Britain**, but for the **Air Force** this was a serious blow.

For the next three months negotiations were carried on between **Britain**, New Zealand, and **America** in an effort to have the New Zealand Forces, particularly the **Air Force**, placed directly under Ghormley. The New Zealand Government pointed out that it wanted **Air Force** equipment, not only for the defence of the country but also to enable it to play its part in future offensive operations in the **Pacific**.

A great deal of correspondence passed between **Wellington**, **London**, and **Washington** on the question of equipment for the Air Force and the allied questions of the status of the **RNZAF** and the role it was to play in the **Pacific** war. New Zealand proposed that the **RNZAF** should be expanded to a strength of twenty squadrons by April 1943 and that a proportion of the squadrons should take part in offensive operations against the Japanese. The proposal was submitted to the Joint Planning Staffs in **Britain** and the United States. While it was being considered, an agreement known as the Arnold-Slessor-Towers or Arnold-Towers-Portal Agreement ¹ was signed by **Britain** and the **United States** in **Washington**. In this the **United States** was charged with defining and satisfying the strategic requirements of the Dominions. Any aircraft built in the Dominions were to be allotted by the Combined Munitions Assignment Board, but appropriate aircraft built in the **United States** were to be manned and fought by American crews. Dominion air forces were to be set up and maintained.

In view of the overall supply position and the fact that the expansion and re-equipment of the **RNZAF** would necessitate the supply of considerably more than just fighter aircraft, the American Joint Planners recommended to their Chiefs of Staff that the **RNZAF** should be limited until April 1943 to a strength of ten squadrons, consisting of four light bomber squadrons (Hudsons), five fighter squadrons (P40s), and one army co-operation squadron. This would involve allocating to New Zealand 23 Hudsons and 77 P40s in addition to those already allocated. The British Chiefs of Staff recommended a further six squadrons involving 64 B25s and 48 single-seater fighters, and proposed that these

squadrons should be formed by the **RNZAF** taking over and manning six American squadrons in the **Pacific**, thus releasing American personnel for service elsewhere.

In August the Chief of Air Staff, Air Vice-Marshal Goddard,² went to **Washington** to use his personal influence in negotiating an operational role for the **RNZAF**. When he arrived there he found that the ten-squadron plan had been accepted by the American Command, and that the allocation of aircraft and other equipment to put the plan into operation had been approved.

As a result of discussions with the American Naval Commander-in-Chief, Admiral King, the directive to the Commander South **Pacific** was amended by a provision which placed all the embodied and trained forces of the Army and **RNZAF** in New Zealand under Admiral Ghormley's command. The New Zealand Chief of the General Staff and the Chief of Air Staff were to act as Ghormley's subordinate commanders. Admiral King, while he approved the American command of New Zealand's local defence forces, considered that any increase in the supply of aircraft beyond those already allocated should come from British rather than American sources. Had he maintained this view it would have meant that the main object of the negotiations as far as the **Air Force** was concerned had failed. However, after further discussions he agreed to take responsibility for supplying the **RNZAF**, and finally in September the directive to Admiral Ghormley was amended again so that it fulfilled New Zealand's requirements.

¹ General H. H. Arnold, Admiral J. H. Towers, Air Marshal Sir John Slessor, the last replaced by Air Marshal Sir Charles Portal.

² Air Mshl Sir Victor Goddard, KCB, CBE, DSM (US); **RAF** (retd); born Harrow, England, 6 Feb 1897; RN 1910–15; RNAS 1915–18; **RAF** 1918; DD Intelligence, **Air Ministry**, 1937–39; D of Military Co-operation, 1941; CAS **RNZAF** 1941–43; AOC i/c Administration, SE Asia, 1943–46; British Joint Services Mission, **USA**, 1946–48; Air Council Member for Technical Services and

MUTUAL AID AGREEMENT

The basis on which New Zealand was to obtain equipment from **America** was regularised in the latter part of 1942. On 3 September a Mutual Aid Agreement, commonly known as the Lend-Lease Agreement, was signed in **Washington** by the **United States** Secretary of State, Mr Cordell Hull, and the New Zealand Minister, Mr Nash. It was similar to one previously concluded by the United States and the **United Kingdom** in February and stated more specifically what had previously been agreed upon by all the Allies in a United Nations Declaration signed in January. The Mutual Aid Agreement pledged the contracting parties to employ their full resources, military and economic, against those nations with which they were at war.

It recognised that:

In the prosecution of their common war undertaking ... the war production and war resources of both nations should be used by each in the ways which most effectively utilise available materials, manpower, production facilities and shipping space.

The aim of the Agreement was that:

As large a portion as possible of the articles and services to be provided by each Government to the other shall be in the form of reciprocal aid so that the need of each Government for the currency of the other may be reduced to a minimum.

An **RNZAF** Equipment Liaison Office was established in **Washington** to which all demands for **Air Force** equipment were forwarded. Requests for equipment from **Britain** were forwarded from there to the New Zealand Liaison Officer in **London**. Those for American equipment were submitted to the Munitions Assignment Committee in **Washington**.

LIMIT OF JAPANESE ADVANCES

Early in May a large force of Japanese warships and transports was severely damaged in the Coral Sea by aircraft from a combined Australian and American task force based on the carriers *Yorktown* and *Lexington*. At the beginning of June another enemy force was defeated by American aircraft when approaching Midway Island. The damage done to the enemy's naval strength in these two battles, while it did not give the Allies control of the sea, allowed them a breathing space in which to organise their forces.

Early in July the Japanese, who had occupied *Tulagi* in the southern *Solomons* in April, landed on *Guadalcanal*. Allied reconnaissance planes reported that they had started the construction of an airstrip near Lunga Point. Had they been allowed to complete it they would have had an aerodrome within 550 miles of Espiritu Santo, in the *New Hebrides*, the Allies' forward base in the South *Pacific* and one of the most important points on the trans- *Pacific* supply route. At the same time enemy forces in the South-West *Pacific* were advancing on *Port Moresby* in *New Guinea*. They were finally turned back by the Australians early in August when 20 miles from the base, and this period marks the furthest extent of their conquests.

It had been intended to train an American task force in New Zealand for operations against the Japanese in the *Solomons*, planned to commence at the end of 1942. In June elements of the 1st Marine Division arrived in *Wellington* to begin their period of training. The Japanese occupation of *Guadalcanal* necessitated a change of plan, for the enemy had to be attacked before he had a chance to develop a base on the island. A task force composed of the American units in New Zealand was hastily assembled in *Wellington*, left New Zealand later in July, and landed on *Guadalcanal* early in August. The airfield, which was almost completed, was captured with little opposition and the Americans dug themselves in. For the next three months the enemy still had control of the sea and, to a great extent, of the air in the southern

Solomons, and was able to land strong reinforcements on the island. The Americans had great difficulty in supplying and reinforcing their troops, who had to endure a number of determined counter-attacks. It was not until the end of November that their position on the island was reasonably secure.

FORMATION OF NEW ZEALAND SQUADRON IN NEW CALEDONIA

While preparations for the attack on **Guadalcanal** were in progress, and some months before the **RNZAF** was allotted a definite role in the **Pacific** campaign, Rear Admiral McCain (Commander Air, South Pacific) asked the **New Zealand Government** to send six Vincents from **Fiji** to **New Caledonia**, where he was short of aircraft for anti-submarine patrols. After some discussion it was decided not to send Vincents, which were unsuitable for long-range patrols in an area where enemy opposition was likely, but to substitute Hudsons. Two Hudsons were flown to **New Caledonia** from **Fiji** and additional ones were despatched from Nos. 1 and 2 Squadrons in New Zealand. From New Zealand also went the ground staff and administrative personnel to form a squadron.

At this stage the conditions of employment of **RNZAF** units in the South Pacific were not systematised as they were later; but at a liaison conference held at **Noumea** on 22–23 June between COMAIRSOPAC [Commander Air, South Pacific], the Colonel Commanding the **USAAF** in **New Caledonia**, and three **RNZAF** staff officers, it was agreed that the training, operations, and part of the administration of the New Zealand unit should be under American control from the time it arrived on the island.

The advance party of ground personnel left New Zealand in the **United States** seaplane tender *Mackinac* on 1 July. It comprised four officers and thirty other ranks, under the command of Squadron Leader **Kidson**.¹ The party arrived in Noumea Harbour on the evening of 5 July, and preparations were made to disembark on the following morning. At midnight, however, general and action stations were sounded on the ship and the commander explained to all officers that three Japanese

cruisers, four destroyers, and an aircraft carrier were within two and a half hours' distance, and were apparently on their way to bombard **Noumea**. The only forces in **Noumea** to counter the attack were the *Mackinac*, a seaplane repair ship, and an antiquated French gunboat. The commander offered to put the New Zealand contingent ashore, but all volunteered to remain on the ship and help in any way possible. The alarm was maintained until two o'clock the following afternoon, when a signal was received stating that the invading force had turned away and was steaming towards the Coral Sea. At eight o'clock next morning the New Zealanders disembarked, after being mustered by the ship's commander and thanked for the help given in the emergency.

They were taken in trucks to **Plaine des Gaiacs**, some 180 miles from **Noumea**, where an airfield was being constructed by the Hawaiian Construction Company and where the New Zealand squadron, when it arrived, was to be based.

Kidson chose a site for a camp and all personnel were put to work

¹ **Sqn Ldr C. J. Kidson; Nelson; born Christchurch, 14 Jun 1898; civil engineer.**

erecting tents, digging trenches, and setting up a cookhouse. The next day the American commander of the airfield decided that the New Zealanders' camp site was too exposed to observation from the air, and a new one was selected.

When the camp had been erected, the signals section which had formed part of the advance party went to work with the American 69th Bombardment Squadron, which was already operating from the airfield, while awaiting the arrival of its own equipment. The administrative staff, meanwhile, continued to make the camp ready to accommodate the main body of the unit, which was brought from New Zealand on a second trip by the USS *Mackinac*.

The move of a unit to **New Caledonia** had raised two major supply problems as far as New Zealand resources were concerned. In the first place it had been necessary to deplete the **RNZAF** forces in **Fiji** by taking some Hudsons from there. Secondly, shortages of American equipment in **New Caledonia** had to be made up from stocks in New Zealand. The move, however, was welcomed by New Zealand as it was hoped that it would encourage the American authorities to do all they could to further the re-equipment of the **RNZAF**.

Until prefabricated wooden huts arrived from New Zealand all accommodation was in tents erected by the advance party. Later, huts were put up for messes and offices, but most of the men lived under canvas all the time they were on the island. All cooking and messing equipment was taken from New Zealand, as well as stocks of technical supplies and paint for camouflage. Field service rations were to be supplied by the Americans, but an emergency ration for twenty-one days was to be held by the **RNZAF**. Because of an acute shortage of motor vehicles among the American forces in New Caledonia, New Zealand was to send the maximum number possible. Rifles and ammunition also were taken by the New Zealanders, as well as stocks of bombs and detonators.

Shortage of domestic equipment, caused partly by the failure of the Americans to supply all that was expected and partly by the failure of the **RNZAF** unit to take sufficient with it, prevailed during the greater part of the unit's stay in **New Caledonia**.

In the initial stages of its formation the unit was designated a detached flight of No. 4 Squadron and was established as a self-contained unit under the command of Squadron Leader **Grigg**.¹ Shortly afterwards it was renamed No. 9 Squadron. By the beginning of November its strength had grown from the 15 officers and 116 other ranks, which had been originally proposed, to 36 officers and 245 other ranks. Its aircraft strength was

¹ **Wg Cdr D. E. Grigg**, MBE, m.i.d.; **Akaroa**; born **Ashburton**,

22 Jan 1903; sheep farmer.

8 + 4 Hudsons. During its escort operations it was attached to Task Group 63.1 of **Task Force 63**. Task Group 63.1 was responsible for patrolling the seas for 400 miles round the coast of New Caledonia, and for the air defence of the island. It comprised No. 69 Bombardment Squadron, **USAAF**, No. 9 Bomber Reconnaissance Squadron, **RNZAF**, No. 67 Pursuit Squadron, **USAAF**, and two American PBY flying boats.

The first two **RNZAF** aircraft to operate in **New Caledonia** flew to **Plaine des Gaiacs** from **Fiji** on 19 July, piloted by Flight Lieutenants **Spicer** ¹ and **Stevenson**. ² They were ordered to remain in New Caledonia until relieved by other Hudsons and crews which would be arriving shortly from New Zealand. The two crews were met by Flight Lieutenant **Deegan**, ³ Camp Commandant of the **RNZAF** unit which had arrived some days before, and Flight Lieutenant **Kingsford**, ⁴ the Engineer Officer. They were taken to the New Zealand camp, where they were to spend the night.

At half past eleven that night they were wakened and told to be on 'Alert' at the American operations room by the airstrip at half past four the next morning, as a Japanese aircraft carrier was reported to be heading for the island. After remaining on the alert for some hours they were finally stood down. Stevenson decided that the New Zealand camp was too far away from the airfield, so made arrangements for the two crews to eat and sleep with the American B26 Squadron in their camp near the strip. Captain Waddleton, CO of the squadron, was most helpful, providing tents and men to set them up.

The New Zealanders were instructed to take over the dawn and dusk anti-submarine patrols round the coast of **New Caledonia**, which had previously been carried out by the American squadron. The first dawn patrol was done by Flight Lieutenant Spicer on 21 July. It was a pitch-dark morning, it was impossible to see the direction of the runway, and the flying control personnel responsible for lighting the flarepath could

not be found. Spicer took off, guided only by his landing lights and a torch which Stevenson held above his head several hundred yards up the runway.

Three more Hudsons arrived from New Zealand on 23 July under the command of Squadron Leader Grigg, with several spare crews, and No. 9 Squadron was officially formed as an operational unit. A camp was built for the aircrews close to the American camp on the airfield, and they lived there while operating from **Plaine des Gaiacs**, messing with the Americans.

¹ **Flt Lt E. St. J. Spicer; Auckland; born Auckland, 14 Jul 1914; insurance clerk.**

² **Wg Cdr G. S. A. Stevenson, DFC; RNZAF; born Auckland, 14 Aug 1914; farmer.**

³ **Sqn Ldr F. J. Deegan; Levin; born Invercargill, 20 Oct 1909; clerk.**

⁴ **Sqn Ldr C. D. M. Kingsford; RNZAF; born Christchurch, 9 Mar 1907; joiner.**

The memory of the threatened Japanese attack of 6 July was still fresh in **New Caledonia**, and No. 9 Squadron's first exercise, in co-operation with No. 69 Squadron, was a simulated attack on enemy aircraft carriers. Its main task for the next few months was to carry out searches in New Caledonian waters for enemy submarines. This had been done previously by No. 69 Squadron, but its aircraft, B26 torpedo-bombers, were not suitable for the work and the Hudsons were able to provide better coverage.

No. 9 Squadron's tour of duty on the island, lasting from July 1942 until March 1943, was uneventful though not without interest. Submarines were known to be in the area and had sunk several ships

shortly before the unit began operations. Aircraft daily patrolled the surrounding seas and, when friendly shipping was approaching or leaving **Noumea**, made special anti-submarine escort flights. It was mainly negative work as for months no submarines were seen, but it probably acted as a deterrent to the Japanese. At all events no submarine attacks were made on shipping while the squadron was in the area.

Possible submarines, the only ones on the tour, were seen on 6 and 7 February. On 6 February an aircraft, taking off on patrol before dawn, observed signal lights on the sea 18 miles from **Plaine des Gaiacs**. It dropped four 250-pound bombs, and then patrolled the area until daylight. There was a patch of oil on the water, and the radar showed that the submarine might still be in the vicinity; but no further action could be taken as all bombs had been used.

Next morning another light was seen on the sea. The patrolling aircraft dropped a sea-marker and searched till dawn. After daylight the crew saw the periscope of a submarine, but it submerged before the aircraft could attack.

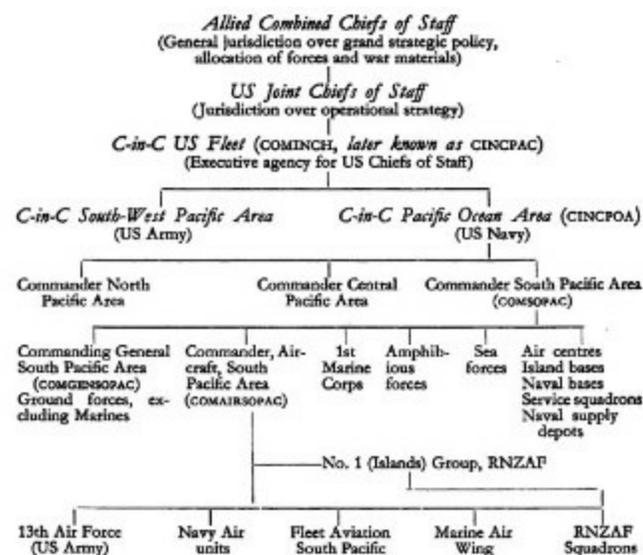
Domestically the unit grew increasingly self-supporting as the months went by. In the first weeks it had been dependent on the Americans for many things: medical services, transport, signals, rations, fuel and oil. As the size of the squadron grew and more equipment was sent from New Zealand, fewer services had to be supplied by the United States Army Air Force, until by the end of the year they consisted only of fuel and rations. No. 69 Squadron left to go farther north, and thereafter No. 9 Squadron was called on by the American commander at **Plaine des Gaiacs** to take over a number of duties which had been done by American personnel, such as supplying petrol-tanker parties, parties for unloading ships, duty officers and crash-tender crews.

From the first, aircraft operated by No. 9 Squadron were provided with spare parts, etc., by the **New Zealand Government** out of Hudson allocations made by the British Government. As no facilities existed at

Noumea, Tontouta, or Plaine des Gaiacs for carrying out major overhauls, aircraft requiring them were returned to New Zealand. For this reason it was decided that only essential spares which could be utilised in minor repair or replacement work with existing workshop facilities should be held in New Caledonia; these spares were sent from New Zealand. The provision of engine spares was further simplified by the presence of B17s in **New Caledonia**. Spares from these aircraft were approximately 80 per cent interchangeable with the Hudson, and arrangements were made with the United States Army Air Corps that they retain in **New Caledonia** a range of spares suitable for use in the **RNZAF** aircraft.

ORGANISATION OF THE SOUTH PACIFIC AREA

To understand properly the part which the **RNZAF** was to play in the **Pacific** war it is necessary to have some idea of the higher organisation of the American forces in the area. The following chart shows the chain of command:



Until 1945 the **RNZAF** did not act as a strategic or tactical force with a specific task to perform. Individual squadrons in the forward area were controlled for operations by the local American commanders of the areas in which they were stationed. At the same time administrative control was exercised by Air Department through the group organisation which was eventually established by the **RNZAF** in the **Pacific**. The

Group retained indirect operational control of the New Zealand squadrons through COMAIRSOPAC, whose headquarters embraced the headquarters of No. 1 (Islands) Group.

The South Pacific contained three subdivisions: the Combat Area in which the Allied forces were in actual contact with the enemy; the Forward Area which, although not in contact with the enemy, might be liable to attack, and which was organised for defence and for supporting operations in the Combat Area; and the Rear Area. As the campaign moved north, so did the boundaries of the respective areas.

The main objectives in the American offensive up through the Solomons were taken by task forces specially organised for the purpose and disbanded after they had achieved their objects. Each task force was divided into task groups which were allotted specific duties in the campaign. Guadalcanal was captured and held by two task forces, Nos. 61 and 62. Another, Task Force 63, was responsible for air support and protection during the campaign, and it was to this force, commanded by COMAIRSOPAC, that the first RNZAF squadrons in the forward area were attached. Later, in May 1943, these task forces were dissolved, and Task Force 31 was formed to carry out the invasion of the central and northern Solomons, with Task Force 33 responsible for air support. During this campaign RNZAF squadrons operated with Task Force 33.

As the combat area moved northward the task forces and their reserves moved too, and local Island Air Commands took over complete control of all air operations in the areas they vacated. The duties of New Zealand and American squadrons stationed in these areas were limited to training, the local defence of bases, and the protection of shipping.

AMERICAN REQUEST FOR SECOND BOMBER-RECONNAISSANCE SQUADRON

At the end of August COMGENSOPAC (General Harmon) signalled New Zealand asking for a second bomber-reconnaissance squadron to be sent to New Caledonia to relieve No. 9 Squadron, which would then go

forward to the combat area. Normally the disposition of air force units was the responsibility of COMAIRSOPAC, but in this instance COMGENSOPAC was particularly interested because it was a **USAAF** squadron which was to be replaced by No. 9 Squadron in the combat area.

Colonel F. V. Schneider, General Harmon's Chief of Staff, visited **Wellington** early in September to discuss the move, which he intimated would probably take place in about two months' time. He was told that preliminary plans had already been made, and a squadron could be despatched almost immediately.

On 10 September COMGENSOPAC signalled that the squadron would be required at once, and should be ready to sail on the 23rd. At the same time its destination was changed from **New Caledonia** to Vila, in the **New Hebrides**. It was impossible in the time available to send an advance party to find out what facilities were there and to make full arrangements for supplies, so Group Captain Nevill, the Deputy Chief of Air Staff, flew to **New Caledonia** to confer with General Harmon. He then flew to Santo and saw COMAIRSOPAC, Rear Admiral McCain, who told him that the squadron was required not at Vila but at Santo.

It had been decided that the **RNZAF** was to supply its units initially with maintenance spares for three months, ground handling equipment for aircraft, tents and barrack equipment, a ninety-days' reserve of rations, .303 ammunition and 250-pound bombs which were peculiar to **RNZAF** aircraft, and mechanical transport and refuelling equipment. The American command was to supply fuel and oil for mechanical transport and aircraft, rations (other than reserve rations), medical supplies and attention, and .300 ammunition for ground weapons.

As a result of his discussion with Rear Admiral McCain, Nevill signalled from Santo that the squadron should also take such additional equipment as timber, construction materials, wire screening, water tanks, chlorination equipment, camp beds and mosquito netting.

If **RNZAF** officers had had more time in which to survey the squadron's base and find out more fully what equipment would be needed, subsequent shortages which hindered its establishment at Santo might have been avoided, but a full survey was impossible in the time available.

Group Captain Nevill's signal indicating the need for extra equipment, and the final notification of the squadron's destination, were received in New Zealand on 18 September, only five days before the unit was due to leave. Apparently co-ordination between COMAIRSOPAC and COMGENSOPAC and the **RNZAF** had been somewhat lacking in planning the move, which was understandable in the early stages of a campaign where forces were dispersed over the South Pacific and each headquarters concerned was separated from the others by hundreds of miles of sea. It was unfortunate, however, in that the short notice of the change of destination and the impossibility of assessing the unit's requirements made the organisation of the move extremely difficult.

General shortages of equipment in New Zealand, and the absence of previously prepared scales of equipment for the move, strained the **RNZAF** supply organisation in New Zealand to the utmost. Manning difficulties were equally severe. The policy which had been forced on the **Air Force** early in the war and which had only recently been modified, of manning all ground trades with men who were unfit for overseas service, made it difficult to obtain sufficient fit men at short notice to bring the squadron up to full strength. Men had to be posted from every station in New Zealand to fill the establishments in all the necessary trades, and their kitting, medical examinations, etc., had to be rushed through in a few days.

The unit ordered to go overseas was No. 3 BR Squadron, which had formed as a general reconnaissance squadron at Harewood in March 1941 and had been stationed at **Whenuapai** since February 1942. It was to go as a complete unit including headquarters, workshops, servicing, and inspectional sections, with a total strength including aircrew of over

300 men. The period between the notification of its move and the date of departure was occupied in sorting out those men who were unfit to go overseas and replacing them by fit personnel, and in preparing its equipment for the move. The ground staff and equipment were to be transported by an American ship. This did not materialise, and the *Wahine* and the *Taybank* were procured from the Royal New Zealand Navy.

In spite of these difficulties, the unit was ready for embarkation on the target date. The main party, comprising 11 officers and 218 other ranks, left **Auckland** for Santo in the *Wahine* with 37 tons of equipment on 22 September. The *Taybank* sailed three days later with 387 tons of equipment in the charge of Pilot Officer W. A. Chandler and a small party of airmen.

The squadron's aircraft, thirteen in number, left **Whenuapai** under the command of Wing Commander **Fisher**¹ to fly to Santo via **Norfolk Island** and **New Caledonia**. They spent some days en route at **New Caledonia** with No. 9 Squadron, as the ground party had not arrived at Santo to prepare the camp. They finally reached their new base on 14–15 October.

The Americans had first surveyed Santo in May and had found that an excellent anchorage was available in the **Segond Channel**, which separated the south-east coast of Santo from the small island of Aore. Flat land was available a few miles farther east on the shores of Pallikulo Bay. They began at once developing Segond as a naval base, and in the middle of July started building an airstrip at Pallikulo from which bombers could operate against **Guadalcanal**.

When No. 3 Squadron arrived there were about 8000 American works troops on the island, and Santo was in the process of becoming the Allies' greatest base in the South Pacific. The airfield consisted of a strip cut out of the jungle, 2000 yards long by 100 yards wide, and was used by both bombers and fighters. A second strip for fighters was being constructed a few miles away.

The *Wahine* reached Santo on 8 October, and the main ground party disembarked the following day and set up camp in an area of jungle which had been allocated to them beside the Pallikulo airstrip. On the first night ashore the men pitched their tents wherever there was a space for them between the trees and cleared away the undergrowth with their bayonets. In the next fortnight, with the help of American bulldozers, they cleared the site and laid out an orderly camp. First priority in the work was given to the erection of camp accommodation and the preparation of servicing facilities for aircraft so that the squadron could become operational as soon as possible. It was some weeks before there was time to build messes and other camp amenities.

Some of the shortages in the equipment brought from New Zealand were made up by supplies from neighbouring American units. Despite initial difficulties the ground party was ready for the aircraft when they flew in, and the squadron became operational on 16 October.

¹ Wg Cdr G. H. Fisher; Auckland; born Auckland, 7 Feb 1910; salesman.

OPERATIONS BY NO. 3 SQUADRON FROM SANTO

From the middle of October until 6 December No. 3 Squadron operated from Pallikulo. During the last fortnight of this period, a detached flight of six aircraft was stationed at **Guadalcanal**. While at Santo the squadron was directly under the orders of COMAIRSOPAC, whose flagship and operational headquarters, the USS *Curtiss*, was stationed in **Segond Channel**. For aircrews and ground staff it was a period of training and acclimatisation to tropical conditions. At the same time the squadron was given a specific operational commitment which involved daily searches by from two to four aircraft over the seas round Santo up to a distance of 400 miles from their base, as well as regular anti-submarine patrols within a radius of 20 miles from **Segond Channel**.

Six hundred miles to the north-west, American task forces were engaged in repelling repeated attempts by the Japanese to land large reinforcements on **Guadalcanal**. Santo, as the Allies' forward base and the concentration point for a vast amount of American shipping, was well defended by sea and air forces. Enemy surface vessels kept well clear, although submarines were operating in the area and on two occasions came close enough to shell American shore installations.

Patrols by **RNZAF** aircraft were in the main uneventful. One possible contact with the enemy was made when a Hudson sighted what might have been an enemy submarine 10 miles away. It searched the area thoroughly, but the object disappeared. Three weeks later another Hudson dropped bombs and depth-charges on what appeared to be a periscope moving through the water, but no oil or wreckage came to the surface.

During November it was reported that Japanese patrols had landed on Gava, Vanualava, Banks and Torres Islands, immediately to the north of Santo, and No. 3 Squadron was ordered to cover the islands in its searches. Nothing suspicious was ever seen.

NO. 15 SQUADRON ON TONGA

While No. 3 BR Squadron was establishing itself at Santo, No. 15 Fighter Squadron was sent to **Tonga**. It had been proposed some months before, in discussions between the New Zealand and American commands, that New Zealand fighter squadrons, when formed, should be sent overseas to take over the aircraft of existing American squadrons. Early in October COMGENSOPAC asked the **New Zealand Government** to send air and ground crews to take over and operate the aircraft of No. 68 Pursuit Squadron USAAF. No. 15 Squadron was the only unit which was sent overseas in accordance with this policy. All the later fighter squadrons went to the forward area equipped with their own aircraft.

Wing Commander **Lewis**¹ was sent from **Suva** to find out what accommodation and equipment would be provided by the Americans, and

what would need to be taken by the New Zealand squadron. Brigadier-General Lockwood, the American commander of the island, was not able to give him much information but he did find out that bombs and ammunition, fuel, airframe spares, medical services, and rations were available. The New Zealanders were to take mechanical transport, camp and mess equipment, reserves of clothing, tool kits for the ground staff, flying equipment for the pilots, and general personal and camp gear.

No. 15 Squadron was assembled under the command of Squadron Leader **Crichton**² and sailed from **Wellington** in the USS *President*

¹ **Gp Capt E. M. Lewis**, OBE; **Melbourne**; born **Devonport**, England, 17 Mar 1912; airways pilot.

² **Sqn Ldr A. Crichton**; born **Dunedin**, 25 Sep 1910; killed in aircraft accident 25 Mar 1943.

Jackson on 23 October, arriving in **Tonga** four days later. There it took over the aircraft and equipment belonging to No. 68 Pursuit Squadron at **Fuamotu** airfield, and the American unit moved on to the forward area.

The aircraft comprised twenty-three P40s, and on inspection were found to be in very poor condition. Engines and airframes showed signs of neglect, and gun barrels were badly corroded. There was consequently a great deal of work to be done to make them air-worthy. Additional difficulty was caused by the fact that, although airframe, propeller, and instrument spares were plentiful, there were no engine spares except spark-plugs. The Americans worked under a system whereby any engine which needed more than superficial repair was replaced by a fresh one and sent back to **America** to be serviced. There were fifteen spare engines, and parts of these were used to replace defective parts in the aircraft.

On arrival at **Tonga** Squadron Leader Crichton took over the

command of the **Air Force** base. Its establishment comprised No. 15 Squadron, **RNZAF**; detachments of the 65th Material Squadron, which combined the functions of station main store and station workshops; the 27th Signal Company, which was responsible for telephone communications at the base; the 670th Signal Company, which was responsible for the supply and maintenance of all armaments, bombs and ammunition; and the 58th Air Corps Squadron, which had set up and manned interceptor control equipment. All these detachments were manned by United States Army Air Corps personnel, numbering in all 255. Of these 116 lived on the station, the rest being accommodated in dispersed areas round the island.

The squadron spent three and a half months in **Tonga**. It carried out extensive operational training and also took over the air defence of the island. Its role was that of a general reconnaissance squadron and fighter squadron combined. It carried out dawn and dusk patrols over the surrounding seas, and maintained a constant stand-by from dawn to dusk so that aircraft could be scrambled at short notice.

Enemy submarines had been active in the area, and the patrols were designed to keep them under water. Until nearly the end of the tour no bomb racks were available to fit the P40s, so that operations could have only a moral value. If a submarine had appeared, it could have been attacked only with machine guns. ¹

Except for a number of false alarms, the tour was uneventful and no enemy activity was met. The unit remained at **Tonga** until

¹ A senior American Army officer at the time suggested that the pilots should carry depth-charges on their laps, and drop them by hand if they saw an enemy submarine. A depth-charge weighs 325 pounds.

February 1943, when it was posted to Santo for local defence there and as a reserve for the fighter forces at **Guadalcanal**.

From the end of December 1942 until it finished its tour of duty in [Tonga](#), No. 15 Squadron had attached to it a radar unit sent from New Zealand. The party comprised three officers and radar operators, electricians, mechanics, and the other personnel necessary to make it self-supporting. It took over equipment which had been manned and operated by Americans. The New Zealanders had been trained on British types of radar and on arriving in [Tonga](#) spent two or three days becoming accustomed to the American equipment, after which the American personnel moved to the combat area and the New Zealand unit took over entirely.

It operated two radar sets and an air-warning centre which corresponded to an operations and filter room. For the next three months it tracked the P40s of No. 15 Squadron on patrol and also other aircraft arriving in [Tonga](#).

ROYAL NEW ZEALAND AIR FORCE

[SECTION]

To stem the tide of Japanese aggression in the South and South-West Pacific, the Allies in 1942 developed a chain of island bases, stretching from Northern Australia through New Caledonia, the New Hebrides, Fiji and Tonga to Samoa. These were intended to serve as a protection for major bases in Australia and New Zealand from which an offensive could eventually be launched. At the same time they were destined to become important supply and repair bases as the Allied forces moved northward through the Solomons.

An American fighter squadron disembarked at Fiji at the end of January 1942, and a flight of Flying Fortresses arrived a few days later. American troops landed in the New Hebrides in March and in New Caledonia in April. By June all these bases were occupied by large United States forces, although they were by no means secure from major attack, and behind this outer defensive line major forces were being built up in Australia and New Zealand.

The most vital link in the defensive chain was Fiji. If the enemy established himself there he could dominate the whole of the South Pacific and would be in a position to launch an attack against New Zealand. New Zealand had done what it could to reinforce the colony by sending all its anti-aircraft artillery and a fair proportion of the available Hudsons, but the defences in the first few weeks of 1942 were much too weak to withstand a major attack.

Early in February a detachment of six Hudsons from No. 2 Squadron was sent to Fiji temporarily to strengthen the air defences in the face of what appeared to be an imminent threat of attack. They arrived on 11 February and were attached to No. 4 Squadron at Nandi.

On 13 February aircrew were briefed for an attack on a Japanese task force which was reported to be approaching. Coastwatchers further

north had reported a force including three aircraft carriers apparently heading for **Fiji**. It was estimated that it would arrive late on 13 February or at dawn on the 14th. An Allied force, including the aircraft carriers *Lexington* and *Saratoga*, was also heading for **Fiji**, but it was doubtful whether it would arrive in time to intercept the Japanese. Furthermore, the Allied fleet included no battleships.

The Hudsons were briefed to bomb from 9000 feet and the Fortresses from 16,000 feet, and pilots were told that unless the Allied force arrived in time they would stand very little chance of coming out of the action alive as the sky would be thick with Japanese fighters.

Aircrews remained at readiness for the rest of the day and that night. The Fortresses took off before dawn next day on patrol. As there had been no further sighting of the enemy force, the Hudsons did not take off till later. They were eventually airborne at 10 a.m. and carried out a parallel track search in the vicinity of the Ellice Islands. No sightings of the enemy were made during the day, and apparently he had turned back and occupied islands farther to the north-west.

With the safe arrival of the Allied reinforcements and the averting of the immediate threat to **Fiji**, the detachment of No. 2 Squadron returned to New Zealand, leaving two aircraft and crews to join No. 4 Squadron.

ROYAL NEW ZEALAND AIR FORCE

NEGOTIATIONS TO OBTAIN EQUIPMENT

NEGOTIATIONS TO OBTAIN EQUIPMENT

It was thought that the problem of obtaining supplies for the **RNZAF** had been solved when, in April 1942, New Zealand was placed in the American South Pacific Command. Admiral Robert L. Ghormley, United States Navy, was appointed Commander **South Pacific Area**, and arrived in New Zealand to make his headquarters at **Auckland** on 21 May. At his first meeting with the New Zealand Chiefs of Staff Committee a few days later, he caused considerable dismay when he pointed out that according to his directive the land defence of New Zealand was expressly excluded from his responsibility. This meant that he had no responsibility for supplying the land and air forces of the country. The Army was not seriously affected as it was obtaining adequate supplies of equipment from **Britain**, but for the **Air Force** this was a serious blow.

For the next three months negotiations were carried on between **Britain**, New Zealand, and **America** in an effort to have the New Zealand Forces, particularly the **Air Force**, placed directly under Ghormley. The New Zealand Government pointed out that it wanted **Air Force** equipment, not only for the defence of the country but also to enable it to play its part in future offensive operations in the **Pacific**.

A great deal of correspondence passed between **Wellington**, **London**, and **Washington** on the question of equipment for the Air Force and the allied questions of the status of the **RNZAF** and the role it was to play in the **Pacific** war. New Zealand proposed that the **RNZAF** should be expanded to a strength of twenty squadrons by April 1943 and that a proportion of the squadrons should take part in offensive operations against the Japanese. The proposal was submitted to the Joint Planning Staffs in **Britain** and the United States. While it was being considered, an agreement known as the Arnold-Slessor-Towers or Arnold-Towers-Portal Agreement ¹ was signed by **Britain** and the **United States** in **Washington**.

In this the **United States** was charged with defining and satisfying the strategic requirements of the Dominions. Any aircraft built in the Dominions were to be allotted by the Combined Munitions Assignment Board, but appropriate aircraft built in the **United States** were to be manned and fought by American crews. Dominion air forces were to be set up and maintained.

In view of the overall supply position and the fact that the expansion and re-equipment of the **RNZAF** would necessitate the supply of considerably more than just fighter aircraft, the American Joint Planners recommended to their Chiefs of Staff that the **RNZAF** should be limited until April 1943 to a strength of ten squadrons, consisting of four light bomber squadrons (Hudsons), five fighter squadrons (P40s), and one army co-operation squadron. This would involve allocating to New Zealand 23 Hudsons and 77 P40s in addition to those already allocated. The British Chiefs of Staff recommended a further six squadrons involving 64 B25s and 48 single-seater fighters, and proposed that these squadrons should be formed by the **RNZAF** taking over and manning six American squadrons in the **Pacific**, thus releasing American personnel for service elsewhere.

In August the Chief of Air Staff, Air Vice-Marshal Goddard, ² went to **Washington** to use his personal influence in negotiating an operational role for the **RNZAF**. When he arrived there he found that the ten-squadron plan had been accepted by the American Command, and that the allocation of aircraft and other equipment to put the plan into operation had been approved.

As a result of discussions with the American Naval Commander-in-Chief, Admiral King, the directive to the Commander South **Pacific** was amended by a provision which placed all the embodied and trained forces of the Army and **RNZAF** in New Zealand under Admiral Ghormley's command. The New Zealand Chief of the General Staff and the Chief of Air Staff were to act as Ghormley's subordinate commanders. Admiral King, while he approved the American command of New Zealand's local

defence forces, considered that any increase in the supply of aircraft beyond those already allocated should come from British rather than American sources. Had he maintained this view it would have meant that the main object of the negotiations as far as the **Air Force** was concerned had failed. However, after further discussions he agreed to take responsibility for supplying the **RNZAF**, and finally in September the directive to Admiral Ghormley was amended again so that it fulfilled New Zealand's requirements.

¹ General H. H. Arnold, Admiral J. H. Towers, Air Marshal Sir John Slessor, the last replaced by Air Marshal Sir Charles Portal.

² Air Mshl Sir Victor Goddard, KCB, CBE, DSM (US); **RAF** (retd); born Harrow, England, 6 Feb 1897; RN 1910–15; RNAS 1915–18; **RAF** 1918; DD Intelligence, **Air Ministry**, 1937–39; D of Military Co-operation, 1941; CAS **RNZAF** 1941–43; AOC i/c Administration, SE Asia, 1943–46; British Joint Services Mission, **USA**, 1946–48; Air Council Member for Technical Services and Commandant Empire Flying School, 1948–51.

ROYAL NEW ZEALAND AIR FORCE

MUTUAL AID AGREEMENT

MUTUAL AID AGREEMENT

The basis on which New Zealand was to obtain equipment from **America** was regularised in the latter part of 1942. On 3 September a Mutual Aid Agreement, commonly known as the Lend-Lease Agreement, was signed in **Washington** by the **United States** Secretary of State, Mr Cordell Hull, and the New Zealand Minister, Mr Nash. It was similar to one previously concluded by the United States and the **United Kingdom** in February and stated more specifically what had previously been agreed upon by all the Allies in a United Nations Declaration signed in January. The Mutual Aid Agreement pledged the contracting parties to employ their full resources, military and economic, against those nations with which they were at war.

It recognised that:

In the prosecution of their common war undertaking ... the war production and war resources of both nations should be used by each in the ways which most effectively utilise available materials, manpower, production facilities and shipping space.

The aim of the Agreement was that:

As large a portion as possible of the articles and services to be provided by each Government to the other shall be in the form of reciprocal aid so that the need of each Government for the currency of the other may be reduced to a minimum.

An **RNZAF** Equipment Liaison Office was established in **Washington** to which all demands for **Air Force** equipment were forwarded. Requests for equipment from **Britain** were forwarded from there to the New Zealand Liaison Officer in **London**. Those for American equipment were submitted to the Munitions Assignment Committee in **Washington**.

ROYAL NEW ZEALAND AIR FORCE

LIMIT OF JAPANESE ADVANCES

LIMIT OF JAPANESE ADVANCES

Early in May a large force of Japanese warships and transports was severely damaged in the Coral Sea by aircraft from a combined Australian and American task force based on the carriers *Yorktown* and *Lexington*. At the beginning of June another enemy force was defeated by American aircraft when approaching Midway Island. The damage done to the enemy's naval strength in these two battles, while it did not give the Allies control of the sea, allowed them a breathing space in which to organise their forces.

Early in July the Japanese, who had occupied **Tulagi** in the southern **Solomons** in April, landed on **Guadalcanal**. Allied reconnaissance planes reported that they had started the construction of an airstrip near Lunga Point. Had they been allowed to complete it they would have had an aerodrome within 550 miles of Espiritu Santo, in the **New Hebrides**, the Allies' forward base in the South **Pacific** and one of the most important points on the trans- **Pacific** supply route. At the same time enemy forces in the South-West **Pacific** were advancing on **Port Moresby** in **New Guinea**. They were finally turned back by the Australians early in August when 20 miles from the base, and this period marks the furthest extent of their conquests.

It had been intended to train an American task force in New Zealand for operations against the Japanese in the **Solomons**, planned to commence at the end of 1942. In June elements of the 1st Marine Division arrived in **Wellington** to begin their period of training. The Japanese occupation of **Guadalcanal** necessitated a change of plan, for the enemy had to be attacked before he had a chance to develop a base on the island. A task force composed of the American units in New Zealand was hastily assembled in **Wellington**, left New Zealand later in July, and landed on **Guadalcanal** early in August. The airfield, which was

almost completed, was captured with little opposition and the Americans dug themselves in. For the next three months the enemy still had control of the sea and, to a great extent, of the air in the southern **Solomons**, and was able to land strong reinforcements on the island. The Americans had great difficulty in supplying and reinforcing their troops, who had to endure a number of determined counter-attacks. It was not until the end of November that their position on the island was reasonably secure.

ROYAL NEW ZEALAND AIR FORCE

FORMATION OF NEW ZEALAND SQUADRON IN NEW CALEDONIA

FORMATION OF NEW ZEALAND SQUADRON IN NEW CALEDONIA

While preparations for the attack on **Guadalcanal** were in progress, and some months before the **RNZAF** was allotted a definite role in the **Pacific** campaign, Rear Admiral McCain (Commander Air, South Pacific) asked the **New Zealand Government** to send six Vincents from **Fiji** to **New Caledonia**, where he was short of aircraft for anti-submarine patrols. After some discussion it was decided not to send Vincents, which were unsuitable for long-range patrols in an area where enemy opposition was likely, but to substitute Hudsons. Two Hudsons were flown to **New Caledonia** from **Fiji** and additional ones were despatched from Nos. 1 and 2 Squadrons in New Zealand. From New Zealand also went the ground staff and administrative personnel to form a squadron.

At this stage the conditions of employment of **RNZAF** units in the South Pacific were not systematised as they were later; but at a liaison conference held at **Noumea** on 22–23 June between COMAIRSOPAC [Commander Air, South Pacific], the Colonel Commanding the **USAAF** in **New Caledonia**, and three **RNZAF** staff officers, it was agreed that the training, operations, and part of the administration of the New Zealand unit should be under American control from the time it arrived on the island.

The advance party of ground personnel left New Zealand in the **United States** seaplane tender *Mackinac* on 1 July. It comprised four officers and thirty other ranks, under the command of Squadron Leader **Kidson**.¹ The party arrived in Noumea Harbour on the evening of 5 July, and preparations were made to disembark on the following morning. At midnight, however, general and action stations were sounded on the ship and the commander explained to all officers that three Japanese cruisers, four destroyers, and an aircraft carrier were within two and a half hours' distance, and were apparently on their way to bombard

Noumea. The only forces in **Noumea** to counter the attack were the *Mackinac*, a seaplane repair ship, and an antiquated French gunboat. The commander offered to put the New Zealand contingent ashore, but all volunteered to remain on the ship and help in any way possible. The alarm was maintained until two o'clock the following afternoon, when a signal was received stating that the invading force had turned away and was steaming towards the Coral Sea. At eight o'clock next morning the New Zealanders disembarked, after being mustered by the ship's commander and thanked for the help given in the emergency.

They were taken in trucks to **Plaine des Gaiacs**, some 180 miles from **Noumea**, where an airfield was being constructed by the Hawaiian Construction Company and where the New Zealand squadron, when it arrived, was to be based.

Kidson chose a site for a camp and all personnel were put to work

¹ **Sqn Ldr C. J. Kidson; Nelson; born Christchurch, 14 Jun 1898; civil engineer.**

erecting tents, digging trenches, and setting up a cookhouse. The next day the American commander of the airfield decided that the New Zealanders' camp site was too exposed to observation from the air, and a new one was selected.

When the camp had been erected, the signals section which had formed part of the advance party went to work with the American 69th Bombardment Squadron, which was already operating from the airfield, while awaiting the arrival of its own equipment. The administrative staff, meanwhile, continued to make the camp ready to accommodate the main body of the unit, which was brought from New Zealand on a second trip by the USS *Mackinac*.

The move of a unit to **New Caledonia** had raised two major supply problems as far as New Zealand resources were concerned. In the first

place it had been necessary to deplete the **RNZAF** forces in **Fiji** by taking some Hudsons from there. Secondly, shortages of American equipment in **New Caledonia** had to be made up from stocks in New Zealand. The move, however, was welcomed by New Zealand as it was hoped that it would encourage the American authorities to do all they could to further the re-equipment of the **RNZAF**.

Until prefabricated wooden huts arrived from New Zealand all accommodation was in tents erected by the advance party. Later, huts were put up for messes and offices, but most of the men lived under canvas all the time they were on the island. All cooking and messing equipment was taken from New Zealand, as well as stocks of technical supplies and paint for camouflage. Field service rations were to be supplied by the Americans, but an emergency ration for twenty-one days was to be held by the **RNZAF**. Because of an acute shortage of motor vehicles among the American forces in New Caledonia, New Zealand was to send the maximum number possible. Rifles and ammunition also were taken by the New Zealanders, as well as stocks of bombs and detonators.

Shortage of domestic equipment, caused partly by the failure of the Americans to supply all that was expected and partly by the failure of the **RNZAF** unit to take sufficient with it, prevailed during the greater part of the unit's stay in **New Caledonia**.

In the initial stages of its formation the unit was designated a detached flight of No. 4 Squadron and was established as a self-contained unit under the command of Squadron Leader **Grigg**.¹ Shortly afterwards it was renamed No. 9 Squadron. By the beginning of November its strength had grown from the 15 officers and 116 other ranks, which had been originally proposed, to 36 officers and 245 other ranks. Its aircraft strength was

¹ **Wg Cdr D. E. Grigg**, MBE, m.i.d.; **Akaroa**; born **Ashburton**, 22 Jan 1903; sheep farmer.

8 + 4 Hudsons. During its escort operations it was attached to Task Group 63.1 of Task Force 63. Task Group 63.1 was responsible for patrolling the seas for 400 miles round the coast of New Caledonia, and for the air defence of the island. It comprised No. 69 Bombardment Squadron, USAAF, No. 9 Bomber Reconnaissance Squadron, RNZAF, No. 67 Pursuit Squadron, USAAF, and two American PBY flying boats.

The first two RNZAF aircraft to operate in New Caledonia flew to Plaine des Gaiacs from Fiji on 19 July, piloted by Flight Lieutenants Spicer ¹ and Stevenson. ² They were ordered to remain in New Caledonia until relieved by other Hudsons and crews which would be arriving shortly from New Zealand. The two crews were met by Flight Lieutenant Deegan, ³ Camp Commandant of the RNZAF unit which had arrived some days before, and Flight Lieutenant Kingsford, ⁴ the Engineer Officer. They were taken to the New Zealand camp, where they were to spend the night.

At half past eleven that night they were wakened and told to be on 'Alert' at the American operations room by the airstrip at half past four the next morning, as a Japanese aircraft carrier was reported to be heading for the island. After remaining on the alert for some hours they were finally stood down. Stevenson decided that the New Zealand camp was too far away from the airfield, so made arrangements for the two crews to eat and sleep with the American B26 Squadron in their camp near the strip. Captain Waddleton, CO of the squadron, was most helpful, providing tents and men to set them up.

The New Zealanders were instructed to take over the dawn and dusk anti-submarine patrols round the coast of New Caledonia, which had previously been carried out by the American squadron. The first dawn patrol was done by Flight Lieutenant Spicer on 21 July. It was a pitch-dark morning, it was impossible to see the direction of the runway, and the flying control personnel responsible for lighting the flarepath could not be found. Spicer took off, guided only by his landing lights and a torch which Stevenson held above his head several hundred yards up the

runway.

Three more Hudsons arrived from New Zealand on 23 July under the command of Squadron Leader Grigg, with several spare crews, and No. 9 Squadron was officially formed as an operational unit. A camp was built for the aircrews close to the American camp on the airfield, and they lived there while operating from **Plaine des Gaiacs**, messing with the Americans.

¹ **Flt Lt E. St. J. Spicer; Auckland; born Auckland, 14 Jul 1914; insurance clerk.**

² **Wg Cdr G. S. A. Stevenson, DFC; RNZAF; born Auckland, 14 Aug 1914; farmer.**

³ **Sqn Ldr F. J. Deegan; Levin; born Invercargill, 20 Oct 1909; clerk.**

⁴ **Sqn Ldr C. D. M. Kingsford; RNZAF; born Christchurch, 9 Mar 1907; joiner.**

The memory of the threatened Japanese attack of 6 July was still fresh in **New Caledonia**, and No. 9 Squadron's first exercise, in co-operation with No. 69 Squadron, was a simulated attack on enemy aircraft carriers. Its main task for the next few months was to carry out searches in New Caledonian waters for enemy submarines. This had been done previously by No. 69 Squadron, but its aircraft, B26 torpedo-bombers, were not suitable for the work and the Hudsons were able to provide better coverage.

No. 9 Squadron's tour of duty on the island, lasting from July 1942 until March 1943, was uneventful though not without interest. Submarines were known to be in the area and had sunk several ships shortly before the unit began operations. Aircraft daily patrolled the surrounding seas and, when friendly shipping was approaching or

leaving **Noumea**, made special anti-submarine escort flights. It was mainly negative work as for months no submarines were seen, but it probably acted as a deterrent to the Japanese. At all events no submarine attacks were made on shipping while the squadron was in the area.

Possible submarines, the only ones on the tour, were seen on 6 and 7 February. On 6 February an aircraft, taking off on patrol before dawn, observed signal lights on the sea 18 miles from **Plaine des Gaiacs**. It dropped four 250-pound bombs, and then patrolled the area until daylight. There was a patch of oil on the water, and the radar showed that the submarine might still be in the vicinity; but no further action could be taken as all bombs had been used.

Next morning another light was seen on the sea. The patrolling aircraft dropped a sea-marker and searched till dawn. After daylight the crew saw the periscope of a submarine, but it submerged before the aircraft could attack.

Domestically the unit grew increasingly self-supporting as the months went by. In the first weeks it had been dependent on the Americans for many things: medical services, transport, signals, rations, fuel and oil. As the size of the squadron grew and more equipment was sent from New Zealand, fewer services had to be supplied by the United States Army Air Force, until by the end of the year they consisted only of fuel and rations. No. 69 Squadron left to go farther north, and thereafter No. 9 Squadron was called on by the American commander at **Plaine des Gaiacs** to take over a number of duties which had been done by American personnel, such as supplying petrol-tanker parties, parties for unloading ships, duty officers and crash-tender crews.

From the first, aircraft operated by No. 9 Squadron were provided with spare parts, etc., by the **New Zealand Government** out of Hudson allocations made by the British Government. As no facilities existed at **Noumea**, **Tontouta**, or **Plaine des Gaiacs** for carrying out major overhauls, aircraft requiring them were returned to New Zealand. For

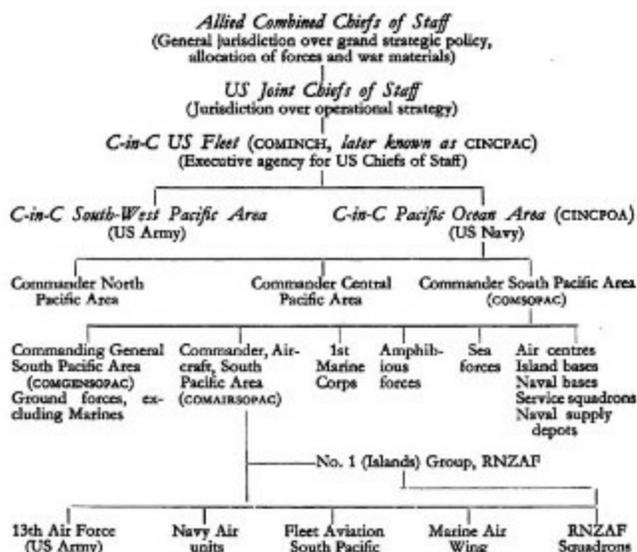
this reason it was decided that only essential spares which could be utilised in minor repair or replacement work with existing workshop facilities should be held in New Caledonia; these spares were sent from New Zealand. The provision of engine spares was further simplified by the presence of B17s in New Caledonia. Spares from these aircraft were approximately 80 per cent interchangeable with the Hudson, and arrangements were made with the United States Army Air Corps that they retain in New Caledonia a range of spares suitable for use in the RNZAF aircraft.

ROYAL NEW ZEALAND AIR FORCE

ORGANISATION OF THE SOUTH PACIFIC AREA

ORGANISATION OF THE SOUTH PACIFIC AREA

To understand properly the part which the **RNZAF** was to play in the **Pacific** war it is necessary to have some idea of the higher organisation of the American forces in the area. The following chart shows the chain of command:



Until 1945 the **RNZAF** did not act as a strategic or tactical force with a specific task to perform. Individual squadrons in the forward area were controlled for operations by the local American commanders of the areas in which they were stationed. At the same time administrative control was exercised by Air Department through the group organisation which was eventually established by the **RNZAF** in the **Pacific**. The Group retained indirect operational control of the New Zealand squadrons through COMAIRSOPAC, whose headquarters embraced the headquarters of No. 1 (Islands) Group.

The South Pacific contained three subdivisions: the Combat Area in which the Allied forces were in actual contact with the enemy; the Forward Area which, although not in contact with the enemy, might be liable to attack, and which was organised for defence and for supporting operations in the Combat Area; and the Rear Area. As the campaign

moved north, so did the boundaries of the respective areas.

The main objectives in the American offensive up through the Solomons were taken by task forces specially organised for the purpose and disbanded after they had achieved their objects. Each task force was divided into task groups which were allotted specific duties in the campaign. Guadalcanal was captured and held by two task forces, Nos. 61 and 62. Another, Task Force 63, was responsible for air support and protection during the campaign, and it was to this force, commanded by COMAIRSOPAC, that the first RNZAF squadrons in the forward area were attached. Later, in May 1943, these task forces were dissolved, and Task Force 31 was formed to carry out the invasion of the central and northern Solomons, with Task Force 33 responsible for air support. During this campaign RNZAF squadrons operated with Task Force 33.

As the combat area moved northward the task forces and their reserves moved too, and local Island Air Commands took over complete control of all air operations in the areas they vacated. The duties of New Zealand and American squadrons stationed in these areas were limited to training, the local defence of bases, and the protection of shipping.

ROYAL NEW ZEALAND AIR FORCE

AMERICAN REQUEST FOR SECOND BOMBER-RECONNAISSANCE SQUADRON

AMERICAN REQUEST FOR SECOND BOMBER-RECONNAISSANCE SQUADRON

At the end of August COMGENSOPAC (General Harmon) signalled New Zealand asking for a second bomber-reconnaissance squadron to be sent to **New Caledonia** to relieve No. 9 Squadron, which would then go forward to the combat area. Normally the disposition of air force units was the responsibility of COMAIRSOPAC, but in this instance COMGENSOPAC was particularly interested because it was a **USAAF** squadron which was to be replaced by No. 9 Squadron in the combat area.

Colonel F. V. Schneider, General Harmon's Chief of Staff, visited **Wellington** early in September to discuss the move, which he intimated would probably take place in about two months' time. He was told that preliminary plans had already been made, and a squadron could be despatched almost immediately.

On 10 September COMGENSOPAC signalled that the squadron would be required at once, and should be ready to sail on the 23rd. At the same time its destination was changed from **New Caledonia** to Vila, in the **New Hebrides**. It was impossible in the time available to send an advance party to find out what facilities were there and to make full arrangements for supplies, so Group Captain Nevill, the Deputy Chief of Air Staff, flew to **New Caledonia** to confer with General Harmon. He then flew to Santo and saw COMAIRSOPAC, Rear Admiral McCain, who told him that the squadron was required not at Vila but at Santo.

It had been decided that the **RNZAF** was to supply its units initially with maintenance spares for three months, ground handling equipment for aircraft, tents and barrack equipment, a ninety-days' reserve of

rations, .303 ammunition and 250-pound bombs which were peculiar to **RNZAF** aircraft, and mechanical transport and refuelling equipment. The American command was to supply fuel and oil for mechanical transport and aircraft, rations (other than reserve rations), medical supplies and attention, and .300 ammunition for ground weapons.

As a result of his discussion with Rear Admiral McCain, Nevill signalled from Santo that the squadron should also take such additional equipment as timber, construction materials, wire screening, water tanks, chlorination equipment, camp beds and mosquito netting.

If **RNZAF** officers had had more time in which to survey the squadron's base and find out more fully what equipment would be needed, subsequent shortages which hindered its establishment at Santo might have been avoided, but a full survey was impossible in the time available.

Group Captain Nevill's signal indicating the need for extra equipment, and the final notification of the squadron's destination, were received in New Zealand on 18 September, only five days before the unit was due to leave. Apparently co-ordination between COMAIRSOPAC and COMGENSOPAC and the **RNZAF** had been somewhat lacking in planning the move, which was understandable in the early stages of a campaign where forces were dispersed over the South Pacific and each headquarters concerned was separated from the others by hundreds of miles of sea. It was unfortunate, however, in that the short notice of the change of destination and the impossibility of assessing the unit's requirements made the organisation of the move extremely difficult.

General shortages of equipment in New Zealand, and the absence of previously prepared scales of equipment for the move, strained the **RNZAF** supply organisation in New Zealand to the utmost. Manning difficulties were equally severe. The policy which had been forced on the **Air Force** early in the war and which had only recently been modified, of manning all ground trades with men who were unfit for overseas service, made it difficult to obtain sufficient fit men at short notice to bring the

squadron up to full strength. Men had to be posted from every station in New Zealand to fill the establishments in all the necessary trades, and their kitting, medical examinations, etc., had to be rushed through in a few days.

The unit ordered to go overseas was No. 3 BR Squadron, which had formed as a general reconnaissance squadron at Harewood in March 1941 and had been stationed at **Whenuapai** since February 1942. It was to go as a complete unit including headquarters, workshops, servicing, and inspectional sections, with a total strength including aircrew of over 300 men. The period between the notification of its move and the date of departure was occupied in sorting out those men who were unfit to go overseas and replacing them by fit personnel, and in preparing its equipment for the move. The ground staff and equipment were to be transported by an American ship. This did not materialise, and the *Wahine* and the *Taybank* were procured from the Royal New Zealand Navy.

In spite of these difficulties, the unit was ready for embarkation on the target date. The main party, comprising 11 officers and 218 other ranks, left **Auckland** for Santo in the *Wahine* with 37 tons of equipment on 22 September. The *Taybank* sailed three days later with 387 tons of equipment in the charge of Pilot Officer W. A. Chandler and a small party of airmen.

The squadron's aircraft, thirteen in number, left **Whenuapai** under the command of Wing Commander **Fisher**¹ to fly to Santo via **Norfolk Island** and **New Caledonia**. They spent some days en route at **New Caledonia** with No. 9 Squadron, as the ground party had not arrived at Santo to prepare the camp. They finally reached their new base on 14–15 October.

The Americans had first surveyed Santo in May and had found that an excellent anchorage was available in the **Segond Channel**, which separated the south-east coast of Santo from the small island of Aore. Flat land was available a few miles farther east on the shores of

Pallikulo Bay. They began at once developing Segond as a naval base, and in the middle of July started building an airstrip at Pallikulo from which bombers could operate against Guadalcanal.

When No. 3 Squadron arrived there were about 8000 American works troops on the island, and Santo was in the process of becoming the Allies' greatest base in the South Pacific. The airfield consisted of a strip cut out of the jungle, 2000 yards long by 100 yards wide, and was used by both bombers and fighters. A second strip for fighters was being constructed a few miles away.

The *Wahine* reached Santo on 8 October, and the main ground party disembarked the following day and set up camp in an area of jungle which had been allocated to them beside the Pallikulo airstrip. On the first night ashore the men pitched their tents wherever there was a space for them between the trees and cleared away the undergrowth with their bayonets. In the next fortnight, with the help of American bulldozers, they cleared the site and laid out an orderly camp. First priority in the work was given to the erection of camp accommodation and the preparation of servicing facilities for aircraft so that the squadron could become operational as soon as possible. It was some weeks before there was time to build messes and other camp amenities.

Some of the shortages in the equipment brought from New Zealand were made up by supplies from neighbouring American units. Despite initial difficulties the ground party was ready for the aircraft when they flew in, and the squadron became operational on 16 October.

¹ Wg Cdr G. H. Fisher; Auckland; born Auckland, 7 Feb 1910; salesman.

ROYAL NEW ZEALAND AIR FORCE

OPERATIONS BY NO. 3 SQUADRON FROM SANTO

OPERATIONS BY NO. 3 SQUADRON FROM SANTO

From the middle of October until 6 December No. 3 Squadron operated from Pallikulo. During the last fortnight of this period, a detached flight of six aircraft was stationed at **Guadalcanal**. While at Santo the squadron was directly under the orders of COMAIRSOPAC, whose flagship and operational headquarters, the USS *Curtiss*, was stationed in **Segond Channel**. For aircrews and ground staff it was a period of training and acclimatisation to tropical conditions. At the same time the squadron was given a specific operational commitment which involved daily searches by from two to four aircraft over the seas round Santo up to a distance of 400 miles from their base, as well as regular anti-submarine patrols within a radius of 20 miles from **Segond Channel**.

Six hundred miles to the north-west, American task forces were engaged in repelling repeated attempts by the Japanese to land large reinforcements on **Guadalcanal**. Santo, as the Allies' forward base and the concentration point for a vast amount of American shipping, was well defended by sea and air forces. Enemy surface vessels kept well clear, although submarines were operating in the area and on two occasions came close enough to shell American shore installations.

Patrols by **RNZAF** aircraft were in the main uneventful. One possible contact with the enemy was made when a Hudson sighted what might have been an enemy submarine 10 miles away. It searched the area thoroughly, but the object disappeared. Three weeks later another Hudson dropped bombs and depth-charges on what appeared to be a periscope moving through the water, but no oil or wreckage came to the surface.

During November it was reported that Japanese patrols had landed

on Gava, Vanualava, Banks and Torres Islands, immediately to the north of Santo, and No. 3 Squadron was ordered to cover the islands in its searches. Nothing suspicious was ever seen.

ROYAL NEW ZEALAND AIR FORCE

NO. 15 SQUADRON ON TONGA

NO. 15 SQUADRON ON TONGA

While No. 3 BR Squadron was establishing itself at Santo, No. 15 Fighter Squadron was sent to **Tonga**. It had been proposed some months before, in discussions between the New Zealand and American commands, that New Zealand fighter squadrons, when formed, should be sent overseas to take over the aircraft of existing American squadrons. Early in October COMGENSOPAC asked the **New Zealand Government** to send air and ground crews to take over and operate the aircraft of No. 68 Pursuit Squadron USAAF. No. 15 Squadron was the only unit which was sent overseas in accordance with this policy. All the later fighter squadrons went to the forward area equipped with their own aircraft.

Wing Commander **Lewis**¹ was sent from **Suva** to find out what accommodation and equipment would be provided by the Americans, and what would need to be taken by the New Zealand squadron. Brigadier-General Lockwood, the American commander of the island, was not able to give him much information but he did find out that bombs and ammunition, fuel, airframe spares, medical services, and rations were available. The New Zealanders were to take mechanical transport, camp and mess equipment, reserves of clothing, tool kits for the ground staff, flying equipment for the pilots, and general personal and camp gear.

No. 15 Squadron was assembled under the command of Squadron Leader **Crichton**² and sailed from **Wellington** in the USS *President*

¹ Gp Capt **E. M. Lewis**, OBE; **Melbourne**; born **Devonport**, England, 17 Mar 1912; airways pilot.

² Sqn Ldr **A. Crichton**; born **Dunedin**, 25 Sep 1910; killed in aircraft accident 25 Mar 1943.

Jackson on 23 October, arriving in **Tonga** four days later. There it took over the aircraft and equipment belonging to No. 68 Pursuit Squadron at Fuamotu airfield, and the American unit moved on to the forward area.

The aircraft comprised twenty-three P40s, and on inspection were found to be in very poor condition. Engines and airframes showed signs of neglect, and gun barrels were badly corroded. There was consequently a great deal of work to be done to make them air-worthy. Additional difficulty was caused by the fact that, although airframe, propeller, and instrument spares were plentiful, there were no engine spares except spark-plugs. The Americans worked under a system whereby any engine which needed more than superficial repair was replaced by a fresh one and sent back to **America** to be serviced. There were fifteen spare engines, and parts of these were used to replace defective parts in the aircraft.

On arrival at **Tonga** Squadron Leader Crichton took over the command of the **Air Force** base. Its establishment comprised No. 15 Squadron, **RNZAF**; detachments of the 65th Material Squadron, which combined the functions of station main store and station workshops; the 27th Signal Company, which was responsible for telephone communications at the base; the 670th Signal Company, which was responsible for the supply and maintenance of all armaments, bombs and ammunition; and the 58th Air Corps Squadron, which had set up and manned interceptor control equipment. All these detachments were manned by United States Army Air Corps personnel, numbering in all 255. Of these 116 lived on the station, the rest being accommodated in dispersed areas round the island.

The squadron spent three and a half months in **Tonga**. It carried out extensive operational training and also took over the air defence of the island. Its role was that of a general reconnaissance squadron and fighter squadron combined. It carried out dawn and dusk patrols over the surrounding seas, and maintained a constant stand-by from dawn to

dusk so that aircraft could be scrambled at short notice.

Enemy submarines had been active in the area, and the patrols were designed to keep them under water. Until nearly the end of the tour no bomb racks were available to fit the P40s, so that operations could have only a moral value. If a submarine had appeared, it could have been attacked only with machine guns. ¹

Except for a number of false alarms, the tour was uneventful and no enemy activity was met. The unit remained at **Tonga** until

¹ A senior American Army officer at the time suggested that the pilots should carry depth-charges on their laps, and drop them by hand if they saw an enemy submarine. A depth-charge weighs 325 pounds.

February 1943, when it was posted to Santo for local defence there and as a reserve for the fighter forces at **Guadalcanal**.

From the end of December 1942 until it finished its tour of duty in **Tonga**, No. 15 Squadron had attached to it a radar unit sent from New Zealand. The party comprised three officers and radar operators, electricians, mechanics, and the other personnel necessary to make it self-supporting. It took over equipment which had been manned and operated by Americans. The New Zealanders had been trained on British types of radar and on arriving in **Tonga** spent two or three days becoming accustomed to the American equipment, after which the American personnel moved to the combat area and the New Zealand unit took over entirely.

It operated two radar sets and an air-warning centre which corresponded to an operations and filter room. For the next three months it tracked the P40s of No. 15 Squadron on patrol and also other aircraft arriving in **Tonga**.

ROYAL NEW ZEALAND AIR FORCE

CHAPTER 11 – OPERATIONS FROM GUADALCANAL, NOVEMBER 1942- FEBRUARY 1943

CHAPTER 11

Operations from Guadalcanal, November 1942-February 1943

THE battle for Guadalcanal was essentially a battle for the airfield. As long as the Americans could hold the field—they captured it at the beginning of August 1942—they were assured of a base which, when developed, would give them adequate air support. If they lost it their nearest land base was in the New Hebrides, and if the enemy succeeded in recapturing it and putting it into operation he would not only have control of the sea but overwhelming superiority in the air. By 18 August the Americans had extended the almost completed strip ¹ to over 1250 yards, and on the 20th one squadron of dive-bombers and one of fighters, of United States Marine Air Group 23, flew in to begin operations the next day.

For a fortnight after the original landing on 7 August the Marines had little opposition on land; but the disastrous naval action off Savo Island on the night of 9 August, in which a Japanese force sank four American and Australian cruisers, had given the enemy full, if temporary, control of the sea. His naval units were able to bombard the Marines' positions ashore at will and almost with impunity. He was also able to reinforce and supply his own troops while cutting off all seaborne supplies to the Americans. There were three American carriers in the South Pacific which could have supported the Marines with aircraft, but they were being held in reserve well to the south, out of range of search planes, until the enemy should make a major attempt to retake Guadalcanal. ²

On 17 August reports of a large concentration of Japanese shipping at Rabaul indicated that a major attempt was imminent, and an American force, concentrated round two carriers and commanded by Rear Admiral Fletcher, USN, moved northwards to intercept it. On the 21st Fletcher was joined by Rear Admiral Crutchley, VC, RN, with two Australian cruisers and three American destroyers. Japanese forces were sighted two days later by a

¹ Named **Henderson Field** by General Vandegrift on 18 August after Major Lofton R. Henderson, a Marine Corps pilot who was killed while leading a dive-bombing attack at the Battle of Midway.

² See map facing p. 149.

patrol plane, 250 miles north of **Guadalcanal** and steaming southwards. They consisted of two groups, one comprising four transports with escorting destroyers and the other five carriers, eight battleships, six cruisers and twenty-one destroyers. The following day aircraft from the American carriers, supported by eight dive-bombers from the newly completed airfield at Guadalcanal and eight long-range bombers from Santo, attacked the Japanese forces in the battle of the eastern **Solomons**. The battle cost the Japanese a hundred aircraft, a carrier, a destroyer and a transport sunk, and other ships damaged. The enemy retired northwards without having landed any troops on **Guadalcanal**.

The battle of the eastern **Solomons** was followed by a period of minor reinforcement on both sides. American control of the air, which was assured as long as aircraft could operate from Henderson Field, restricted the Japanese to running in troops and supplies by destroyers at night, while the Japanese superiority in surface vessels hampered the flow of American reinforcements and supplies.

On 18 September the Americans were reinforced by the 7th Marine Regiment which had been brought up from **Samoa**. The convoy carrying it arrived in the early morning, and the complete unit with all its weapons, most of its mechanical transport and forty days' rations, as well as 150,000 gallons of much-needed petrol and oil, was disembarked during the day and the ships retired at 8.30 in the evening. The safe arrival of this convoy was one of the major factors in saving **Guadalcanal** for the Allies. The Marines who had been on the island since the beginning of the campaign were worn out with constant

fighting against an enemy who was being steadily reinforced. Supplies of food and ammunition were running low. The men had been living on captured Japanese rations and using Japanese petrol in their transport vehicles.

By the end of September the position, although still critical, had improved. The addition to the fighting force had relieved the strain a little and, moreover, some 1100 construction personnel had been brought in in small parties as opportunity offered. These men, the 6th Construction Battalion, took over maintenance work which formerly had necessarily been done by combat troops, and in addition began other work which it had not been possible to do before. They drained the airfield, which had previously become waterlogged after every rain, built roads and bridges, and made additional strips beside the main airfield.

The next Japanese attempt to land large reinforcements on the island occurred on the night of 11–12 October. Their escorting naval force of cruisers and destroyers was defeated by a task force under Rear Admiral Scott, USN, in the battle of Cape Esperance, but their transports succeeded in landing several thousand troops. Two days later, on 13 October, the Americans also landed reinforcements, the 164th Infantry Regiment of the [Americal Division](#). ¹

Very heavy land fighting took place on 23–25 October when the Japanese, using all the forces at their command, attempted to overwhelm the American positions. At the same time they assembled a large fleet to the north which was to drive south and eliminate the American naval forces in the area. The land attack failed to capture the airfield, and on 26 October the naval force was met by an American task force near the Santa Cruz Islands. Shipping losses in the engagement were fairly equal, and the Japanese lost an estimated 123 aircraft against the Americans' 74. But the issue had already been decided by the failure of the land forces to capture [Henderson Field](#), and the Japanese fleet, denuded of aircraft, retired northwards.

The last major attempt by the Japanese to land reinforcements with

naval support was made in the second week of November. In a series of engagements known as the Battle of **Guadalcanal**, lasting from the 12th to the 15th, American naval and air units sank two battleships, a cruiser, three destroyers, six transports and cargo ships, and damaged nine other vessels, of which four were subsequently beached, for the loss of three light cruisers and seven destroyers, with seven other ships damaged. This battle ranks as the third great turning point in the **Pacific** war. The Japanese had been halted in the South-West Pacific in the battle of the Coral Sea and in the Central Pacific in the battle of Midway Island, and the battle of **Guadalcanal** stopped their advance in the South Pacific. It put an end finally to their attempts to bring in convoys of transports protected by strong naval escorts. Henceforth the only reinforcements which reached the island were the relatively small numbers which could be carried in destroyers running down from the northern **Solomons**, discharging their cargoes under the cover of night, and retiring again before daylight. ²

From now on the Japanese gave up hope of recapturing Guadalcanal, and subsequent operations were aimed at delaying the advance of the American forces as long as possible, while a system of defence in depth was built up in the northern and central **Solomons**. In attempting to occupy **Guadalcanal** their ground and naval forces had outstripped their air cover, for their nearest air base was at **Rabaul**, 675 miles away. Their carrier losses in the battles of the Coral Sea in May and Midway Island in June had accentuated their weakness in the air, and the Americans' success in developing

¹ So named because it completed its training in **New Caledonia**.

² These destroyer convoys were known by the Allied troops as the 'Tokyo Express'.

Henderson Field had made their position untenable. In an endeavour

to retrieve the situation they began to build airfields at **Kahili** in southern **Bougainville**, at Vila on **Kolombangara**, and at **Munda** on **New Georgia**.

An attempt to reinforce their troops on **Guadalcanal** by a force of eight destroyers was defeated by an American cruiser force on the night of 30 November–1 December in the battle of Tassafaronga, off Lunga Point. Four of the American ships were severely damaged by torpedoes and one of them subsequently sank; but one of the Japanese destroyers was sunk and two damaged, and the attempt at reinforcement failed. This battle was the last occasion in the campaign on which large American naval forces were engaged with enemy vessels.

During December the Marines were relieved by **United States Army** troops and preparations were begun for a land offensive to destroy the enemy on the island. The preliminary moves began on 26 December and the final drive on 10 January 1943.

After a comparatively inactive period in December 1942, Japanese naval and air activity increased in January 1943 to a level approaching that of November. The presence of large enemy naval and air forces in the northern **Solomons** and at **Rabaul** indicated that the Japanese Command had the means to launch another counter-attack. American reinforcements were steadily moved into **Guadalcanal**, and six major naval task forces were concentrated to the south in anticipation of an attack. Considerable advances were made by American troops on land and during the month enemy resistance weakened. The Americans pushed out from their perimeter round Lunga towards Cape Esperance, where the main Japanese concentrations were located.

Towards the end of the month enemy air and shipping activity in the **Solomons** increased and for the first time since early in November enemy air forces raided **Guadalcanal** in daylight, indicating that their strength in the **Solomons** had been reinforced. It was not clear to Allied intelligence whether the Japanese were expanding their defence system to the north of **Guadalcanal** or whether they were preparing for an

offensive.

During the first week of February the situation on **Guadalcanal** was as tense as it had been during the critical weeks of the previous November. In expectation of an enemy offensive about 12 February, COMSOPAC declared a state of emergency on the 1st. All American task force commanders were warned and all air force units alerted, as were the forces of the South-West Pacific Command which were responsible for operations in the **New Guinea** and Bismarck areas. The American drive along the north-west coast of **Guadalcanal** towards Cape Esperance was halted and units were redeployed to meet possible invasion. During the week three large groups of Japanese destroyers successfully made the run from Buin, the enemy's main supply base in the northern **Solomons**, to **Guadalcanal** and back; and enemy troops were reported to have landed on the **Russell Islands**, 50 miles north of **Guadalcanal**.

According to American intelligence the Japanese had 175 aircraft available in the **Solomons**, including 65 fighters, and strong reserves at **Rabaul**. Their air bases in the **Solomons** comprised a major airfield at **Kahili**, a fighter strip at Ballale, a large strip at **Munda**, a strip under construction at Vila, and seaplane bases at Faisi and at Rekata Bay. In anticipation of violent air action Allied air units were reinforced to a strength of over 230 fighters, bombers, dive-bombers, torpedo-bombers and float-planes. The original airstrip at **Henderson Field** had been augmented by a second bomber strip at Koli Point, which was almost completed, and two fighter strips, while a seaplane base was in operation at **Tulagi**.

On 9 February the American Command discovered that the Japanese activity of the previous weeks had been not a prelude to an offensive but a cover for the evacuation of their troops on **Guadalcanal**. Allied intelligence estimates of the numbers of men who had been landed by the Tokyo Express were completely at fault since the destroyers, instead of bringing in personnel, had been carrying them out. Except for stragglers and a rearguard, all the Japanese on the island had been evacuated by 8 February. The operation must be counted one of the

most successful bluffs of the war, for by making the Allies take up defensive positions and halt their offensive operations the Japanese were enabled to complete their evacuation with little interference from the American land forces.

MOVE OF NO. 3 SQUADRON TO GUADALCANAL

No. 3 Squadron, **RNZAF**, entered the campaign on 23 November when a flight of six aircraft and eight crews was detached from Santo and sent to operate from **Guadalcanal**. The aircraft had been preceded by a small servicing party, which had travelled by sea two or three days before and had set up a camp in a jungle-clad gully close to **Henderson Field**.

The airfield at this time was crowded with planes, as the second bomber strip had not yet been completed. In all the Americans had 64 fighters, 5 heavy bombers, and 34 dive-bombers, torpedo-bombers, and other types. All aircraft were under the operational command of the Senior Naval Aviator, **Guadalcanal (SENAVCACTUS)**,¹ at that time Brigadier-General L. E. Woods, USMC, of the 1st Marine

¹ CACTUS was the code-name for **Guadalcanal**.

Air Wing. No. 3 Squadron was attached to the Search and Patrol Group of the Air Search and Attack Command which formed part of **Task Force 63**.

Aircraft were used by the American Command in four main roles: (i) the protection of installations; (ii) support for the ground forces on **Guadalcanal** itself; (iii) the disruption of enemy forces gathering to the north and strikes against the bases being developed in the central **Solomons**; (iv) attacking hostile forces whenever they approached **Guadalcanal**. The specific tasks of the Search and Patrol Group were to conduct daily and nightly searches of the approaches to **Guadalcanal**, and daily low-level searches along the coastlines of islands which might

be used as staging points for enemy movements of supplies and troops.

This was the primary role of No. 3 Squadron. The Hudson was essentially a reconnaissance aircraft. It was armed with machine guns for self-defence, and carried bombs which could be used if a suitable target presented itself; but it was impressed on all crews that their job was to report enemy movements, not to go looking for trouble. The bomb-load of No. 3 Squadron's Hudsons when on patrol normally comprised four 500-pounders.

In its efforts to counter aggressive operations by enemy naval and air forces the American Command depended upon advance intelligence of Japanese aircraft and shipping concentrations at **Rabaul** and Buin. **Rabaul**, the major enemy base south of the Equator, was covered by the South-West Pacific Command intelligence, while enemy movements in the **Solomons** from their supply pivot at Buin were covered by Allied coastwatchers and search planes. After the defeat of the Japanese fleet at the battle of **Guadalcanal** in the middle of November, the chief concern of the American Command was to get advance warning of convoys of the Tokyo Express so that American bombers could attack them before they arrived off Cape Esperance. To get the maximum cover from darkness the enemy ships left the Shortland area in the northern **Solomons** about noon. As they passed down the 'Slot'¹ in the early afternoon, they were observed by the Allied coastwatchers on **Vella Lavella** and **Choiseul**, whose reports were of immense value to the American Command. Warnings were radioed to **Guadalcanal**, and if the reports were early enough and the weather favourable the bombers had a chance to attack them before nightfall. The coastwatcher system was supplemented by air reconnaissance over the ocean areas to the north and west of **Guadalcanal**. American and **RNZAF** aircraft carried out regular patrols by day and night seeking enemy convoys.

¹ The name given to the channel between the New Georgia Group on one side and **Choiseul** and **Santa Isabel Island** on the other.

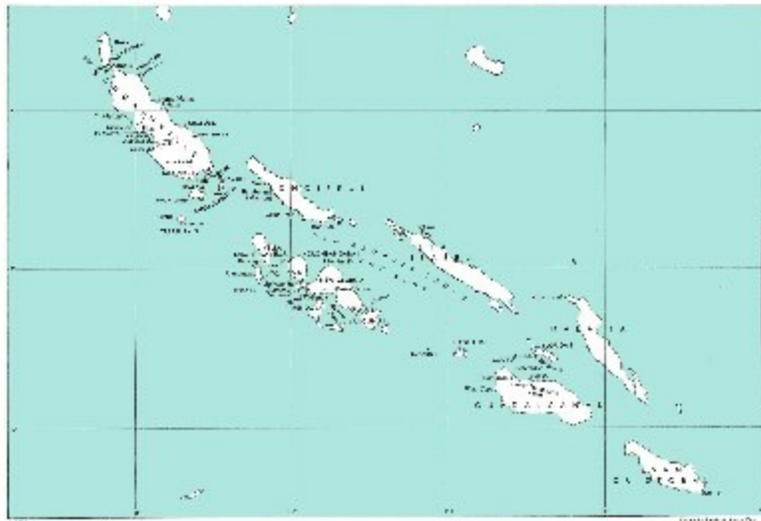
Until the arrival of the New Zealand squadron the Americans had been using torpedo- and dive-bombers for sea reconnaissance work, supplemented by long-distance patrols with their heavy bombers. The dive-bombers had had to carry out search patrols and, having found a target which they reported, they had been obliged to return to base and bomb-up for strike missions. During the intervening period targets often disappeared. The Hudsons with their longer range relieved the dive-bombers so that they were more readily available for their proper role when reports of targets were received. At the same time, the Hudsons released the American long-range bombers from much of their reconnaissance work and let them get on with the job of bombing the enemy. Thus the arrival of No. 3 Squadron filled an important gap in the types of aircraft available in the area, and was heartily welcomed by the overworked aircrews of American Air Group 14.

The American Command had planned to use the six New Zealand Hudsons on five searches daily. The achievement on most days of this commitment became a heavy strain on both aircrews and ground staff. By 6 December congestion at **Henderson Field** had been relieved and more of No. 3 Squadron moved up from Santo, after which it was possible for the New Zealanders to take over a greater amount of reconnaissance work. A tendency to over-employ all the available Hudsons had to be curbed so that the maintenance organisation could keep pace with the flying. As a result of discussions between the **RNZAF** and American commanders in the area, the flying was limited to what maintenance crews could support, so that the squadron could continue to operate successfully with its forward echelon at **Guadalcanal** and its immediate maintenance support at Santo, while major overhauls were carried out in New Zealand.

EARLY OPERATIONS

The advance flight began operations the day after it arrived at **Guadalcanal**, and during the first week aircraft sighted enemy ships four times, enemy aircraft three times, and were twice attacked by enemy

aircraft. On the first day of operations a Hudson captained by Flying Officer **Gudsell**¹ saw a tanker and two transports, escorted by a destroyer, to the south of **Vella Lavella**. The Hudson was attacked by three Nakajima float-planes which were circling above the convoy, but they did not press home their attacks, being deterred by the Hudson's turret and side guns. After an engagement which lasted about twenty minutes the Hudson escaped without either side having scored any hits.



THE SOLOMONS
THE SOLOMONS

¹ **Sqn Ldr G. E. Gudsell**, Air Medal (US); **RNZAF**; born **Ashburton**, 15 Jun 1918; school teacher.

A more severe engagement occurred three days later on 27 November when a Hudson, again captained by Gudsell, sighted an enemy task force to the south-west of **Vella Lavella**. Gudsell reported the composition and position of the force, and then closed with it to make a closer inspection. As he was doing this he was dived on by three land-based Japanese fighters. In their first attack they put the Hudson's top turret gun out of action and then concentrated on attacks from astern. Gudsell directed the Hudson from the astro-hatch while the second pilot, Flying Officer **McKechnie**,¹ piloted the aircraft. After an action which lasted seventeen minutes the Japanese aircraft broke off and retired, having scored only three hits and without having injured any of the Hudson's

crew.

This early action contributed to the high morale which prevailed in the squadron throughout its tour of operations. In the previous month the Americans had lost a number of their search planes through enemy action and, after seeing the comparatively light armament of the Hudsons, had told the New Zealanders that they would be sitting ducks for Japanese fighters. The proof that the Hudson could repel odds of three to one when properly handled and resolutely fought was comforting to all the aircrews.

Until the middle of December Hudsons flew on four, five, or six patrols daily over **New Georgia**, **Santa Isabel**, **Choiseul** and the surrounding waters. On 14 December the squadron's commitment was changed and the daily programme was standardised at two morning and four afternoon searches. An average flight extended about 400 miles from base and lasted up to five hours. Normally the Hudsons flew at not more than 1000 feet, which was the best height from which to launch an immediate attack on submarines when they were seen, and was also the most satisfactory height from the point of view of observation and visibility. It also minimised the chance of attacks by enemy aircraft from below, the quarter in which the Hudsons were most vulnerable. As their main responsibility was the reporting of enemy forces, crews were instructed to avoid combat whenever possible: Generally, while the early morning searches were carried out in clear weather, aircraft flying later in the day had a fair amount of cover in the large masses of cumulus cloud which formed in the area in the afternoons.

The task of the reconnaissance crews was perhaps as arduous as any in the campaign. In the first two or three months camp facilities were still primitive and crews on early morning patrols had to take off without breakfast. Eventually tea and a piece of toast were

¹ **Fg Off R. M. McKechnie**, m.i.d.; **Auckland**; born **Auckland**, 21 Feb 1920; postman.

provided, but it was not until the squadron established its own cookhouse facilities that it was possible to ensure that crews had a meal before going on operations. They flew for long periods without seeing anything but had to be constantly alert, not only for possible targets but for hostile fighters. When they found enemy shipping it was usually too strongly defended for them to attack, and the most offensive action they could take was to radio back to base giving the position of the ships and call up striking forces of American bombers to deal with them. Only occasionally did they find targets which they could profitably attack themselves.

On 2 December a Hudson captained by Sergeant **Page**¹ was on a routine patrol to the west of **New Georgia** when it sighted some 12 miles away what at first looked like a canoe with a native standing in it. Approaching to investigate, Page identified the object as a rusty and weatherbeaten submarine of 500 tons, fully surfaced, with a lookout on the conning tower. The Hudson made a bombing run out of the sun and dropped two 250-pound anti-submarine bombs and two 325-pound depth-charges as the submarine crash-dived. Three of the bombs fell short and one just over the target. A large patch of oil came to the surface over the position where the last had landed. The submarine was probably damaged, but in the absence of further proof no claim was made of its destruction.

¹ **Fg Off I. M. Page**, DFM; **Gisborne**; born **Christchurch**, 26 Feb 1913; electrical draughtsman.

INTERCEPTING THE TOKYO EXPRESS

Twice in the first week of December the Tokyo Express ran down from the northern **Solomons** to **Guadalcanal**. On the 3rd two heavy cruisers, two light cruisers, and six destroyers left Buin and made a dash down the 'Slot'. They were successfully tracked by Allied coastwatchers and search planes from the time they left Buin. At half past three in the

afternoon an **RNZAF** Hudson on patrol sighted them moving southwards near **Vella Lavella**, and shadowed them until twenty minutes to five. Radio contact with **Guadalcanal** was difficult as the Japanese attempted to jam the Hudson's signal, and then asked for the message to be repeated and immediately afterwards sent a message cancelling it. Nevertheless an American striking force of dive-bombers, torpedo-bombers, and fighters was sent from **Guadalcanal** and attacked the warships at half past six, in the channel opposite central **New Georgia**. Four of the ships were hit by bombs and ten enemy aircraft were shot down.

Another enemy convoy was reported off **Vella Lavella** by coastwatchers on the afternoon of 7 December and attacked by American fighters and dive-bombers at dusk. It was attacked again during the night near **Guadalcanal** by American PT boats, but a number of the ships reached **Guadalcanal** and remained there for about an hour before retiring northwards. The next morning the surviving ships were seen near Faisi by an **RNZAF** Hudson on early morning patrol, but they escaped before a striking force could reach the area to attack them.

At midday on 11 December the coastwatcher near Buin reported by wireless that a convoy of Japanese destroyers had left the anchorage there and was steaming south-east at high speed. An **RNZAF** Hudson searched the sea near **Vella Lavella** and **New Georgia** in the afternoon but did not see the enemy ships. Later in the afternoon they were discovered and attacked off **New Georgia** by American dive-bombers and fighters which claimed hits on five of the destroyers. The Japanese force held its course and arrived off **Guadalcanal** shortly before midnight. In the early hours of the morning American PT boats attacked the destroyers and sank one of them. Following their usual practice, the warships retired before dawn and were seen by two **RNZAF** Hudsons on early morning patrol steaming northwards some 230 miles from **Guadalcanal**.

American photographic reconnaissance early in December confirmed previous reports that the Japanese were building an airfield at **Munda**

under a camouflage of coconut plantations, leaving the trees standing until they were ready to begin the final surfacing of the runway. Gun emplacements had been built in the area and, according to the Allied coastwatcher, enemy troops had moved into the surrounding native villages and were fortifying them. If the enemy could bring the strip into operation he would have land-based aircraft within 150 miles of **Guadalcanal**, with which he could mount heavy air raids against the Allied positions and give air cover to his convoys along the whole route from Buin to Cape Esperance.

One of the first Allied attacks on **Munda** was made by an **RNZAF** Hudson on the morning of 9 December. It dropped four bombs from 7000 feet, of which one hit the runway and a second set fire to buildings and tents. By this date most of the trees covering the strip had been removed and the runway appeared to be ready for operations.

From this date on **Munda** was attacked daily by American bombers, but in spite of this the Japanese managed to make it serviceable. It was never developed beyond an emergency staging post, but Japanese aircraft were using the strip by 17 December. By the end of the month they had fighters stationed there permanently for its defence. Early in January, as repeated bombing attacks had failed to prevent the Japanese from developing it, COMSOPAC sent a task force of cruisers and destroyers to shell the airfield. The force left **Guadalcanal** on the 4th, and during the day **RNZAF** Hudsons were employed as part of the air cover, searching the seas to the west for enemy ships and submarines. The task force arrived off **Munda** during the night and bombarded the airfield successfully, leaving the target area, according to reports, 'a shambles'. During its retirement in the early hours of the morning on the 5th the force was attacked by enemy dive-bombers and fighters, probably from **Kahili**, and one of the ships, HMNZS **Achilles**, was hit by a bomb. In spite of the damage done by the bombardment the Japanese were operating aircraft from **Munda** a few hours after the attack.

Allied air operations in January and February were hampered by bad

weather. The rainy season had started by the end of December, and for the next few months there were frequent heavy rainstorms throughout the area. Japanese shipping took full advantage of the cover which they provided, and which enabled it on many occasions to escape detection by searching aircraft.

After a relatively quiet period during December, the Japanese in January again started large-scale attempts with destroyers to reinforce their garrison on **Guadalcanal**. On the 1st of the month an American B17 patrolling over southern **Bougainville** reported that four heavy cruisers and six destroyers had arrived at Tonolei. The next day a force of ten destroyers made a run from Buin to Cape Esperance. They were shadowed during part of the day by an **RNZAF** Hudson and were repeatedly attacked by American bombers, but at least eight got through to **Guadalcanal**. In the early morning of 3 January they were reported to be lying off Cape Esperance and were attacked by American PT boats. None of the destroyers was sunk in the action, but the PT boats destroyed a number of waterproof containers of food and ammunition which had been thrown overboard to drift ashore. After dawn patrols were sent out to locate the enemy ships as they retired. An **RNZAF** Hudson sighted them at 7.20 a.m. some 220 miles from Guadalcanal, but a force of American dive-bombers and fighters sent to attack failed to locate them.

The Tokyo Express made another run on 10 January when eight destroyers again reached Cape Esperance during the night. They were attacked by PT boats, which claimed torpedo hits, and retired before daylight. Groups of them were seen next morning by **RNZAF** Hudsons, but again dive-bombers sent to attack them failed to make contact.

Another strong attempt was made by the Japanese with destroyers and cargo ships on the 14th. They were first reported by the coastwatcher on **Vella Lavella** and later, at eleven o'clock at night, were seen by an American Catalina on patrol off the **Russell Islands**. PT boats attacked them between Cape Esperance and Savo Island and secured hits on two ships. An **RNZAF** Hudson which took off before dawn on the 15th

sighted nine destroyers 110 miles from **Guadalcanal** at half past six and shadowed them until shortly after seven o'clock, when fifteen American dive-bombers with fighter escort arrived. In the action which followed the dive-bombers sank one destroyer off the coast of **New Georgia**.

In the late afternoon on 15 January an **RNZAF** Hudson sighted six destroyers and a cargo ship some 230 miles from **Guadalcanal**. The aircraft remained in the area, between **Faisi** and **Ballale**, for an hour and a half and reported the movements of the enemy ships to its base on **Guadalcanal**. The area was close to the Japanese air bases at **Ballale** and **Kahili** and the Hudson was forced to use cloud cover to escape detection by enemy aircraft. At four o'clock fuel was running low and the Hudson sent its last signal prior to returning to **Henderson Field**. At that moment nine Japanese fighters appeared 3000 feet above it and forced it to remain in cloud. Eventually the Hudson escaped by flying northward at sea level for a time and then returning to its southerly course. This evasive action was successful and the plane arrived back at **Henderson Field** without making further contact with the enemy. As a result of the Hudson's efforts, groups of American bombers and fighters attacked the enemy ships later in the afternoon. None of the warships was hit but the cargo ship was set on fire.

Reports from American search planes on 17 January showed that large numbers of enemy ships were still moving into the northern **Solomons**, the main concentration of eleven cargo ships and four destroyers being off **Buin**. Bad weather prevented the Allied air force from attacking them. On the 18th an **RNZAF** Hudson was employed on a special search for convoys that might be moving towards **Guadalcanal**. For five hours in the afternoon it searched along a route over the south coast of **New Georgia** to **Simbo Island**, across **Vella Gulf**, north-western **Vella Lavella**, and then back to base. The patrol was uneventful and no enemy shipping was seen. The next day, however, another Hudson reported in the afternoon two enemy cruisers and eight destroyers to the north of **Vella Lavella** and steaming southward in 'very murky weather'. Two groups of American aircraft were sent out to attack but failed to

locate the force owing to the weather. Next morning forty barrels were seen floating in the sea near Savo Island, indicating that the ships had probably paid a hurried visit to **Guadalcanal** during the night and thrown stores overboard to drift ashore.

Another successful engagement with enemy shipping took place on 28 January. Six Japanese destroyers were reported in the afternoon to have left Faisi at high speed, and another group, consisting of a destroyer and two cargo ships, was reported later in the afternoon by an **RNZAF** Hudson. American dive-bombers and torpedo-bombers escorted by fighters attacked both groups, and one destroyer and two cargo ships were badly damaged.

Throughout January enemy shipping activity in the area increased steadily and numerous sightings were made by patrolling aircraft in addition to the major ones already described. At the end of the month shipping in the northern **Solomons** increased still more, and on 29 January twenty-nine ships, including cruisers, destroyers, transports and cargo ships, were counted at Tonolei, in southern **Bougainville**.

Throughout the month aircraft of No. 3 Squadron averaged just under seven sorties a day.¹ Most of these were routine patrols, but individual Hudsons were occasionally used for special missions which provided a welcome change from the monotony of flying for hours over the sea looking for enemy ships which frequently were not there. On 1 January an aircraft carrying Captain D. E. Williams, commanding the Fijian guerrilla detachment on Guadalcanal, made a flight over **Guadalcanal** to reconnoitre the enemy positions. A week later a Hudson was sent to bomb the village of Boe Boe, near Kieta, on southern **Bougainville**. The local natives had been supporting the Japanese against the coastwatcher, and the strike was made to frighten them and bring them again under the coastwatcher's control. The aircraft took off from **Guadalcanal** early in the morning and bombed the village just before dawn. The coastwatcher later signalled his thanks and the crew was congratulated by General Mulcahy, Commander of the 2nd Marine Air Wing, who remarked: 'It is a very unhealthy spot for a plane with the

limited armament yours has got'.

Early the next morning the area was raided again, but on a larger scale, by five American B17s which were guided to the target area by Flying Officer **Partridge**,² who had navigated the Hudson. The bombers were intercepted by enemy fighters and three were damaged, giving point to General Mulcahy's remark.³

¹ Summary of operations by No. 3 Squadron, November 1942–January 1943.

	<i>Number of Sorties</i>	<i>Ship Sightings and Number of Ships</i>	<i>Aircraft Sightings and Number of Aircraft</i>	
24–30 November	35	4	163	8
December	179	9	418	15
January	213	28	9526	80

² **Flt Lt F. A. Partridge**, AFM; **Christchurch**; born **Christchurch**, 26 Apr 1918; clerk.

³ The High Commissioner for the Western Pacific objected to the bombing of native villages, as he felt that in some cases the information concerning pro-Japanese activities was not reliable enough to warrant such measures. Consequently Admiral Halsey ordered that it should be done only when the information was quite certain or where the village was completely occupied by the enemy.

Another Hudson bombed **Munda** at dawn on 11 January, dropping nine 100-pound bombs and a number of empty bottles.¹ All the bombs landed on the runway.

On 22 January a Hudson made a reconnaissance flight over Vila, on Kolombangara Island, where the Japanese were building an airfield, and photographed the area as part of the preparation for an American naval

bombardment which had been planned to take place two days later. The aircraft met fairly heavy anti-aircraft fire over Vila but did not encounter any enemy aircraft. As a result of the reconnaissance COMAIRSOPAC Intelligence was able to state that the runway had been cleared but that no surfacing work on the strip had been started.

On 24 January a Hudson on patrol attacked a Japanese tanker in Vella Gulf, 215 miles from Guadalcanal. It dropped two bombs and two depth-charges from 3000 feet, but the tanker evaded them by turning and they missed by fifty yards.

Enemy air activity in the Solomons also increased during January. Throughout December the Japanese air force had played an almost entirely defensive role and had made only one minor raid on Guadalcanal. The virtual completion of the strip at Munda, however, and the arrival of air reinforcements in the northern Solomons, enabled the enemy air force to take a more aggressive part in the campaign in the new year. On the nights early in January when the Tokyo Express visited Cape Esperance, small forces of enemy bombers carried out diversionary raids on Henderson Field. Later in the month nuisance raids at night became more frequent.

On the 21st the personnel of No. 3 Squadron, RNZAF, experienced the worst bombing they had yet had. As was usual in their night attacks, the Japanese sent over only one or two aircraft at a time; but seven separate alarms were sounded during the night and bombs fell within a hundred yards of the New Zealand camp. For the rest of the month Guadalcanal was bombed almost nightly. Although a number of bombs fell in and around the camp there were no New Zealand casualties.

The camp still consisted solely of tents set on the muddy ground. The absence of dugout accommodation meant that the men had to tumble out of their beds into foxholes whenever enemy planes were overhead; and for some weeks the efficiency of the squadron was threatened, although it was never impaired, by fatigue caused by broken nights and lack of sleep.

¹ Empty bottles, when falling, make a noise like bombs coming down and help to disturb the enemy's peace of mind.

FINAL STAGES OF THE CAMPAIGN

February opened with air activity more intense than any that the Allied forces had experienced since November. The large and increasing concentrations of enemy shipping in the south Bougainville area caused the American Command to expect a major invasion attempt. On the first day of the month the coastwatcher on **Choiseul** reported, shortly after midday, that twenty Japanese destroyers were heading south, and all Allied forces were alerted in anticipation of a surface attack. In the middle of the afternoon an **RNZAF** Hudson sighted them 200 miles from **Guadalcanal**. It reported them again at four o'clock when they were north of **New Georgia** and still 180 miles from Cape Esperance. As a result of the reports twenty-four American dive-bombers and torpedo-bombers, escorted by fighters, were sent out to meet the ships and attack them in the early evening. Two of the destroyers were sunk and a third set on fire, while three of the enemy's covering aircraft were shot down for the loss of four American planes. As the enemy force approached **Guadalcanal** near midnight, Japanese aircraft bombed the new bomber strip at **Henderson Field** and slightly damaged the runway. American PT boats and dive-bombers attacked the destroyers while they were off Cape Esperance during the night, and claimed to have sunk one and set fire to another. By four o'clock in the morning the force had dispersed and was off **Santa Isabel Island** on its run northwards.

On 1 February the American bases at **Guadalcanal** experienced the heaviest Japanese air attack for many weeks. Fifty-one Japanese bombers and fighters attacked in two waves, the first shortly before midday and the second in the middle of the afternoon. The runway at **Henderson Field** where No. 3 Squadron was based was damaged, and damage was also done to shipping in the roadstead. American fighters which went out to intercept the attacking planes claimed that they shot

down nineteen of them for the loss of two.

On 2 February the American Air Command made every effort to re-establish contact with the enemy ships before they reached their bases in the northern **Solomons**. Six **RNZAF** Hudsons were sent out at dawn on a series of special searches, and at half past six one of them sighted a group of eight destroyers 150 miles from **Guadalcanal**. It shadowed them for an hour and three-quarters, but as its radio was not working its signals giving their position were not heard at base. Another group was located by an American striking force of dive-bombers and torpedo-bombers later in the morning between **Kolombangara** and **Choiseul**. The Americans bombed the destroyers but scored only one direct hit.

In contrast to the preceding few days, 3 February was uneventful for No. 3 Squadron. Seven routine searches were flown, all of which were negative.

The next day, however, was again full of incident. Shortly after one o'clock the **Choiseul** coastwatcher reported that twenty Japanese destroyers had left Faisi and were steaming south. A little later the **Vella Lavella** coastwatcher signalled that they were in the area north-west of **Vella Lavella** and still moving southwards. An **RNZAF** Hudson next reported them when they were 220 miles from **Henderson Field**, and an hour after that they were seen by an American search plane coming down the channel north of Vella Lavella.

At four o'clock in the afternoon they were attacked by American dive-bombers, torpedo-bombers, and fighters off **Kolombangara**. One ship was sunk and another damaged. Twenty-five Japanese fighters were protecting the convoy and the Americans shot down seven for the loss of six. A second attack was made an hour and a half later in which two destroyers were hit and ten fighters shot down for the loss of four American aircraft. Although **Munda** had been bombed earlier in the day, reports from the coastwatcher stationed there indicated that part of the enemy air cover had been staged from that airfield. During the night at least fourteen of the destroyers reached Cape Esperance, retiring

northwards again shortly after midnight. After dawn on 5 February American and **RNZAF** planes searched for the retiring warships but failed to make contact with them.

The last run made by the Tokyo Express to **Guadalcanal** took place on the night of 7 February. A little before two o'clock in the afternoon the **Vella Lavella** coastwatcher reported that nineteen destroyers were moving south at high speed through an area covered by low rain clouds. They were reported by an **RNZAF** Hudson 20 miles west of Ganongga Island and again, at a quarter past four, south of Ganongga. American dive-bombers attacked them at half past five 20 miles south of **Rendova Island** and scored hits on two ships. This was the first time that the Tokyo Express had come round the south of **New Georgia** instead of taking the more direct route down the 'Slot'. During the night most of the destroyers succeeded in reaching **Guadalcanal**, embarking most of the Japanese troops still there and retiring before daylight. Searches next morning were unsuccessful.

After their major effort to recapture **Guadalcanal** in November 1942 the Japanese undertook no large offensive operations in the **Solomons**. They concentrated on developing their forward bases at **Munda**, Vila and Rekata Bay, building up the Buin- **Kahili** area in southern **Bougainville** into their major base in the **Solomons**, and establishing outposts on **Vella Lavella**, **Choiseul** and Shortland. The last two months of the campaign on **Guadalcanal** had been a delaying action to cover their development of these areas. They brought in army reinforcements to **Bougainville** and occupied most of the island, with their main concentrations in the **Kahili**, Kieta and **Buka** areas. Small groups were moved into the forward bases on **New Georgia** and **Kolombangara**. The effectiveness of the Allied air attacks on shipping forced the enemy to give up the risk of using ships south of **Bougainville**, and as a result their forward bases became dependent on barge traffic. Consequently their development was desultory and on a small scale.

The Japanese air force based its main concentrations south of the Equator at **Rabaul** and in **New Guinea**. A minimum number of aircraft

was based in the **Solomons** for local defence and reconnaissance, but the presence of strong reserves at **Rabaul** made possible overnight large-scale reinforcement of the forward bases. Except for two attempts to strike American convoys off **Guadalcanal**, the enemy air force in the **Solomons** in the four months following the evacuation of **Guadalcanal** was small and relatively ineffective. It was employed mainly on wide reconnaissance in the area south of **Guadalcanal** to obtain advanced warning of American shipping movements. Its offensive operations were limited to spasmodic night raids by one or two aircraft against **Guadalcanal**, the Russell Islands and Santo, and to two small attacks on American convoys in the **San Cristobal** area.

ROYAL NEW ZEALAND AIR FORCE

[SECTION]

THE battle for Guadalcanal was essentially a battle for the airfield. As long as the Americans could hold the field—they captured it at the beginning of August 1942—they were assured of a base which, when developed, would give them adequate air support. If they lost it their nearest land base was in the New Hebrides, and if the enemy succeeded in recapturing it and putting it into operation he would not only have control of the sea but overwhelming superiority in the air. By 18 August the Americans had extended the almost completed strip ¹ to over 1250 yards, and on the 20th one squadron of dive-bombers and one of fighters, of United States Marine Air Group 23, flew in to begin operations the next day.

For a fortnight after the original landing on 7 August the Marines had little opposition on land; but the disastrous naval action off Savo Island on the night of 9 August, in which a Japanese force sank four American and Australian cruisers, had given the enemy full, if temporary, control of the sea. His naval units were able to bombard the Marines' positions ashore at will and almost with impunity. He was also able to reinforce and supply his own troops while cutting off all seaborne supplies to the Americans. There were three American carriers in the South Pacific which could have supported the Marines with aircraft, but they were being held in reserve well to the south, out of range of search planes, until the enemy should make a major attempt to retake Guadalcanal. ²

On 17 August reports of a large concentration of Japanese shipping at Rabaul indicated that a major attempt was imminent, and an American force, concentrated round two carriers and commanded by Rear Admiral Fletcher, USN, moved northwards to intercept it. On the 21st Fletcher was joined by Rear Admiral Crutchley, VC, RN, with two Australian cruisers and three American destroyers. Japanese forces were

sighted two days later by a

¹ Named **Henderson Field** by General Vandegrift on 18 August after Major Lofton R. Henderson, a Marine Corps pilot who was killed while leading a dive-bombing attack at the Battle of Midway.

² See map facing p. 149.

patrol plane, 250 miles north of **Guadalcanal** and steaming southwards. They consisted of two groups, one comprising four transports with escorting destroyers and the other five carriers, eight battleships, six cruisers and twenty-one destroyers. The following day aircraft from the American carriers, supported by eight dive-bombers from the newly completed airfield at Guadalcanal and eight long-range bombers from Santo, attacked the Japanese forces in the battle of the eastern **Solomons**. The battle cost the Japanese a hundred aircraft, a carrier, a destroyer and a transport sunk, and other ships damaged. The enemy retired northwards without having landed any troops on **Guadalcanal**.

The battle of the eastern **Solomons** was followed by a period of minor reinforcement on both sides. American control of the air, which was assured as long as aircraft could operate from Henderson Field, restricted the Japanese to running in troops and supplies by destroyers at night, while the Japanese superiority in surface vessels hampered the flow of American reinforcements and supplies.

On 18 September the Americans were reinforced by the 7th Marine Regiment which had been brought up from **Samoa**. The convoy carrying it arrived in the early morning, and the complete unit with all its weapons, most of its mechanical transport and forty days' rations, as well as 150,000 gallons of much-needed petrol and oil, was disembarked during the day and the ships retired at 8.30 in the evening. The safe arrival of this convoy was one of the major factors in saving

Guadalcanal for the Allies. The Marines who had been on the island since the beginning of the campaign were worn out with constant fighting against an enemy who was being steadily reinforced. Supplies of food and ammunition were running low. The men had been living on captured Japanese rations and using Japanese petrol in their transport vehicles.

By the end of September the position, although still critical, had improved. The addition to the fighting force had relieved the strain a little and, moreover, some 1100 construction personnel had been brought in in small parties as opportunity offered. These men, the 6th Construction Battalion, took over maintenance work which formerly had necessarily been done by combat troops, and in addition began other work which it had not been possible to do before. They drained the airfield, which had previously become waterlogged after every rain, built roads and bridges, and made additional strips beside the main airfield.

The next Japanese attempt to land large reinforcements on the island occurred on the night of 11–12 October. Their escorting naval force of cruisers and destroyers was defeated by a task force under Rear Admiral Scott, USN, in the battle of Cape Esperance, but their transports succeeded in landing several thousand troops. Two days later, on 13 October, the Americans also landed reinforcements, the 164th Infantry Regiment of the **Americal Division**. ¹

Very heavy land fighting took place on 23–25 October when the Japanese, using all the forces at their command, attempted to overwhelm the American positions. At the same time they assembled a large fleet to the north which was to drive south and eliminate the American naval forces in the area. The land attack failed to capture the airfield, and on 26 October the naval force was met by an American task force near the Santa Cruz Islands. Shipping losses in the engagement were fairly equal, and the Japanese lost an estimated 123 aircraft against the Americans' 74. But the issue had already been decided by the failure of the land forces to capture **Henderson Field**, and the Japanese fleet, denuded of aircraft, retired northwards.

The last major attempt by the Japanese to land reinforcements with naval support was made in the second week of November. In a series of engagements known as the Battle of **Guadalcanal**, lasting from the 12th to the 15th, American naval and air units sank two battleships, a cruiser, three destroyers, six transports and cargo ships, and damaged nine other vessels, of which four were subsequently beached, for the loss of three light cruisers and seven destroyers, with seven other ships damaged. This battle ranks as the third great turning point in the **Pacific** war. The Japanese had been halted in the South-West Pacific in the battle of the Coral Sea and in the Central Pacific in the battle of Midway Island, and the battle of **Guadalcanal** stopped their advance in the South Pacific. It put an end finally to their attempts to bring in convoys of transports protected by strong naval escorts. Henceforth the only reinforcements which reached the island were the relatively small numbers which could be carried in destroyers running down from the northern **Solomons**, discharging their cargoes under the cover of night, and retiring again before daylight. ²

From now on the Japanese gave up hope of recapturing Guadalcanal, and subsequent operations were aimed at delaying the advance of the American forces as long as possible, while a system of defence in depth was built up in the northern and central **Solomons**. In attempting to occupy **Guadalcanal** their ground and naval forces had outstripped their air cover, for their nearest air base was at **Rabaul**, 675 miles away. Their carrier losses in the battles of the Coral Sea in May and Midway Island in June had accentuated their weakness in the air, and the Americans' success in developing

¹ So named because it completed its training in **New Caledonia**.

² These destroyer convoys were known by the Allied troops as the 'Tokyo Express'.

Henderson Field had made their position untenable. In an endeavour to retrieve the situation they began to build airfields at **Kahili** in southern **Bougainville**, at Vila on **Kolombangara**, and at **Munda** on **New Georgia**.

An attempt to reinforce their troops on **Guadalcanal** by a force of eight destroyers was defeated by an American cruiser force on the night of 30 November–1 December in the battle of Tassafaronga, off Lunga Point. Four of the American ships were severely damaged by torpedoes and one of them subsequently sank; but one of the Japanese destroyers was sunk and two damaged, and the attempt at reinforcement failed. This battle was the last occasion in the campaign on which large American naval forces were engaged with enemy vessels.

During December the Marines were relieved by **United States Army** troops and preparations were begun for a land offensive to destroy the enemy on the island. The preliminary moves began on 26 December and the final drive on 10 January 1943.

After a comparatively inactive period in December 1942, Japanese naval and air activity increased in January 1943 to a level approaching that of November. The presence of large enemy naval and air forces in the northern **Solomons** and at **Rabaul** indicated that the Japanese Command had the means to launch another counter-attack. American reinforcements were steadily moved into **Guadalcanal**, and six major naval task forces were concentrated to the south in anticipation of an attack. Considerable advances were made by American troops on land and during the month enemy resistance weakened. The Americans pushed out from their perimeter round Lunga towards Cape Esperance, where the main Japanese concentrations were located.

Towards the end of the month enemy air and shipping activity in the **Solomons** increased and for the first time since early in November enemy air forces raided **Guadalcanal** in daylight, indicating that their strength in the **Solomons** had been reinforced. It was not clear to Allied intelligence whether the Japanese were expanding their defence system

to the north of **Guadalcanal** or whether they were preparing for an offensive.

During the first week of February the situation on **Guadalcanal** was as tense as it had been during the critical weeks of the previous November. In expectation of an enemy offensive about 12 February, COMSOPAC declared a state of emergency on the 1st. All American task force commanders were warned and all air force units alerted, as were the forces of the South-West Pacific Command which were responsible for operations in the **New Guinea** and Bismarck areas. The American drive along the north-west coast of **Guadalcanal** towards Cape Esperance was halted and units were redeployed to meet possible invasion. During the week three large groups of Japanese destroyers successfully made the run from Buin, the enemy's main supply base in the northern **Solomons**, to **Guadalcanal** and back; and enemy troops were reported to have landed on the **Russell Islands**, 50 miles north of **Guadalcanal**.

According to American intelligence the Japanese had 175 aircraft available in the **Solomons**, including 65 fighters, and strong reserves at **Rabaul**. Their air bases in the **Solomons** comprised a major airfield at **Kahili**, a fighter strip at Ballale, a large strip at **Munda**, a strip under construction at Vila, and seaplane bases at Faisi and at Rekata Bay. In anticipation of violent air action Allied air units were reinforced to a strength of over 230 fighters, bombers, dive-bombers, torpedo-bombers and float-planes. The original airstrip at **Henderson Field** had been augmented by a second bomber strip at Koli Point, which was almost completed, and two fighter strips, while a seaplane base was in operation at **Tulagi**.

On 9 February the American Command discovered that the Japanese activity of the previous weeks had been not a prelude to an offensive but a cover for the evacuation of their troops on **Guadalcanal**. Allied intelligence estimates of the numbers of men who had been landed by the Tokyo Express were completely at fault since the destroyers, instead of bringing in personnel, had been carrying them out. Except for stragglers and a rearguard, all the Japanese on the island had been

evacuated by 8 February. The operation must be counted one of the most successful bluffs of the war, for by making the Allies take up defensive positions and halt their offensive operations the Japanese were enabled to complete their evacuation with little interference from the American land forces.

ROYAL NEW ZEALAND AIR FORCE

MOVE OF NO. 3 SQUADRON TO GUADALCANAL

MOVE OF NO. 3 SQUADRON TO GUADALCANAL

No. 3 Squadron, **RNZAF**, entered the campaign on 23 November when a flight of six aircraft and eight crews was detached from Santo and sent to operate from **Guadalcanal**. The aircraft had been preceded by a small servicing party, which had travelled by sea two or three days before and had set up a camp in a jungle-clad gully close to **Henderson Field**.

The airfield at this time was crowded with planes, as the second bomber strip had not yet been completed. In all the Americans had 64 fighters, 5 heavy bombers, and 34 dive-bombers, torpedo-bombers, and other types. All aircraft were under the operational command of the Senior Naval Aviator, **Guadalcanal** (SENAVCACTUS), ¹ at that time Brigadier-General L. E. Woods, USMC, of the 1st Marine

¹ CACTUS was the code-name for **Guadalcanal**.

Air Wing. No. 3 Squadron was attached to the Search and Patrol Group of the Air Search and Attack Command which formed part of **Task Force 63**.

Aircraft were used by the American Command in four main roles: (i) the protection of installations; (ii) support for the ground forces on **Guadalcanal** itself; (iii) the disruption of enemy forces gathering to the north and strikes against the bases being developed in the central **Solomons**; (iv) attacking hostile forces whenever they approached **Guadalcanal**. The specific tasks of the Search and Patrol Group were to conduct daily and nightly searches of the approaches to **Guadalcanal**, and daily low-level searches along the coastlines of islands which might be used as staging points for enemy movements of supplies and troops.

This was the primary role of No. 3 Squadron. The Hudson was essentially a reconnaissance aircraft. It was armed with machine guns for self-defence, and carried bombs which could be used if a suitable target presented itself; but it was impressed on all crews that their job was to report enemy movements, not to go looking for trouble. The bomb-load of No. 3 Squadron's Hudsons when on patrol normally comprised four 500-pounders.

In its efforts to counter aggressive operations by enemy naval and air forces the American Command depended upon advance intelligence of Japanese aircraft and shipping concentrations at **Rabaul** and Buin. **Rabaul**, the major enemy base south of the Equator, was covered by the South-West Pacific Command intelligence, while enemy movements in the **Solomons** from their supply pivot at Buin were covered by Allied coastwatchers and search planes. After the defeat of the Japanese fleet at the battle of **Guadalcanal** in the middle of November, the chief concern of the American Command was to get advance warning of convoys of the Tokyo Express so that American bombers could attack them before they arrived off Cape Esperance. To get the maximum cover from darkness the enemy ships left the Shortland area in the northern **Solomons** about noon. As they passed down the 'Slot'¹ in the early afternoon, they were observed by the Allied coastwatchers on **Vella Lavella** and **Choiseul**, whose reports were of immense value to the American Command. Warnings were radioed to **Guadalcanal**, and if the reports were early enough and the weather favourable the bombers had a chance to attack them before nightfall. The coastwatcher system was supplemented by air reconnaissance over the ocean areas to the north and west of **Guadalcanal**. American and **RNZAF** aircraft carried out regular patrols by day and night seeking enemy convoys.

¹ The name given to the channel between the New Georgia Group on one side and **Choiseul** and **Santa Isabel Island** on the other.

Until the arrival of the New Zealand squadron the Americans had

been using torpedo- and dive-bombers for sea reconnaissance work, supplemented by long-distance patrols with their heavy bombers. The dive-bombers had had to carry out search patrols and, having found a target which they reported, they had been obliged to return to base and bomb-up for strike missions. During the intervening period targets often disappeared. The Hudsons with their longer range relieved the dive-bombers so that they were more readily available for their proper role when reports of targets were received. At the same time, the Hudsons released the American long-range bombers from much of their reconnaissance work and let them get on with the job of bombing the enemy. Thus the arrival of No. 3 Squadron filled an important gap in the types of aircraft available in the area, and was heartily welcomed by the overworked aircrews of American Air Group 14.

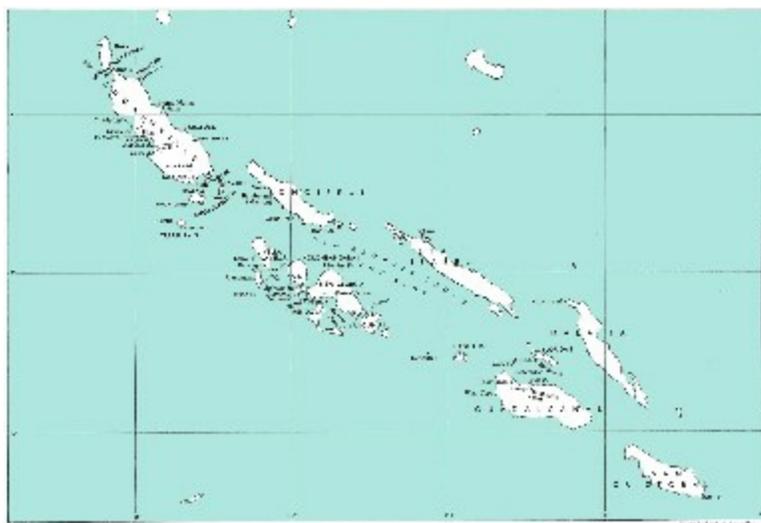
The American Command had planned to use the six New Zealand Hudsons on five searches daily. The achievement on most days of this commitment became a heavy strain on both aircrews and ground staff. By 6 December congestion at [Henderson Field](#) had been relieved and more of No. 3 Squadron moved up from Santo, after which it was possible for the New Zealanders to take over a greater amount of reconnaissance work. A tendency to over-employ all the available Hudsons had to be curbed so that the maintenance organisation could keep pace with the flying. As a result of discussions between the [RNZAF](#) and American commanders in the area, the flying was limited to what maintenance crews could support, so that the squadron could continue to operate successfully with its forward echelon at [Guadalcanal](#) and its immediate maintenance support at Santo, while major overhauls were carried out in New Zealand.

ROYAL NEW ZEALAND AIR FORCE

EARLY OPERATIONS

EARLY OPERATIONS

The advance flight began operations the day after it arrived at **Guadalcanal**, and during the first week aircraft sighted enemy ships four times, enemy aircraft three times, and were twice attacked by enemy aircraft. On the first day of operations a Hudson captained by Flying Officer **Gudsell**¹ saw a tanker and two transports, escorted by a destroyer, to the south of **Vella Lavella**. The Hudson was attacked by three Nakajima float-planes which were circling above the convoy, but they did not press home their attacks, being deterred by the Hudson's turret and side guns. After an engagement which lasted about twenty minutes the Hudson escaped without either side having scored any hits.



THE SOLOMONS
THE SOLOMONS

¹ Sqn Ldr G. E. Gudsell, Air Medal (US); RNZAF; born Ashburton, 15 Jun 1918; school teacher.

A more severe engagement occurred three days later on 27 November when a Hudson, again captained by Gudsell, sighted an enemy task force

to the south-west of **Vella Lavella**. Gudsell reported the composition and position of the force, and then closed with it to make a closer inspection. As he was doing this he was dived on by three land-based Japanese fighters. In their first attack they put the Hudson's top turret gun out of action and then concentrated on attacks from astern. Gudsell directed the Hudson from the astro-hatch while the second pilot, Flying Officer **McKechnie**, ¹ piloted the aircraft. After an action which lasted seventeen minutes the Japanese aircraft broke off and retired, having scored only three hits and without having injured any of the Hudson's crew.

This early action contributed to the high morale which prevailed in the squadron throughout its tour of operations. In the previous month the Americans had lost a number of their search planes through enemy action and, after seeing the comparatively light armament of the Hudsons, had told the New Zealanders that they would be sitting ducks for Japanese fighters. The proof that the Hudson could repel odds of three to one when properly handled and resolutely fought was comforting to all the aircrews.

Until the middle of December Hudsons flew on four, five, or six patrols daily over **New Georgia**, Santa Isabel, **Choiseul** and the surrounding waters. On 14 December the squadron's commitment was changed and the daily programme was standardised at two morning and four afternoon searches. An average flight extended about 400 miles from base and lasted up to five hours. Normally the Hudsons flew at not more than 1000 feet, which was the best height from which to launch an immediate attack on submarines when they were seen, and was also the most satisfactory height from the point of view of observation and visibility. It also minimised the chance of attacks by enemy aircraft from below, the quarter in which the Hudsons were most vulnerable. As their main responsibility was the reporting of enemy forces, crews were instructed to avoid combat whenever possible: Generally, while the early morning searches were carried out in clear weather, aircraft flying later in the day had a fair amount of cover in the large masses of cumulus

cloud which formed in the area in the afternoons.

The task of the reconnaissance crews was perhaps as arduous as any in the campaign. In the first two or three months camp facilities were still primitive and crews on early morning patrols had to take off without breakfast. Eventually tea and a piece of toast were

¹ Fg Off R. M. McKechnie, m.i.d.; Auckland; born Auckland, 21 Feb 1920; postman.

provided, but it was not until the squadron established its own cookhouse facilities that it was possible to ensure that crews had a meal before going on operations. They flew for long periods without seeing anything but had to be constantly alert, not only for possible targets but for hostile fighters. When they found enemy shipping it was usually too strongly defended for them to attack, and the most offensive action they could take was to radio back to base giving the position of the ships and call up striking forces of American bombers to deal with them. Only occasionally did they find targets which they could profitably attack themselves.

On 2 December a Hudson captained by Sergeant Page ¹ was on a routine patrol to the west of New Georgia when it sighted some 12 miles away what at first looked like a canoe with a native standing in it. Approaching to investigate, Page identified the object as a rusty and weatherbeaten submarine of 500 tons, fully surfaced, with a lookout on the conning tower. The Hudson made a bombing run out of the sun and dropped two 250-pound anti-submarine bombs and two 325-pound depth-charges as the submarine crash-dived. Three of the bombs fell short and one just over the target. A large patch of oil came to the surface over the position where the last had landed. The submarine was probably damaged, but in the absence of further proof no claim was made of its destruction.

¹ **Fg Off I. M. Page, DFM; Gisborne; born Christchurch, 26 Feb 1913; electrical draughtsman.**

ROYAL NEW ZEALAND AIR FORCE

INTERCEPTING THE TOKYO EXPRESS

INTERCEPTING THE TOKYO EXPRESS

Twice in the first week of December the Tokyo Express ran down from the northern **Solomons** to **Guadalcanal**. On the 3rd two heavy cruisers, two light cruisers, and six destroyers left Buin and made a dash down the 'Slot'. They were successfully tracked by Allied coastwatchers and search planes from the time they left Buin. At half past three in the afternoon an **RNZAF** Hudson on patrol sighted them moving southwards near **Vella Lavella**, and shadowed them until twenty minutes to five. Radio contact with **Guadalcanal** was difficult as the Japanese attempted to jam the Hudson's signal, and then asked for the message to be repeated and immediately afterwards sent a message cancelling it. Nevertheless an American striking force of dive-bombers, torpedo-bombers, and fighters was sent from **Guadalcanal** and attacked the warships at half past six, in the channel opposite central **New Georgia**. Four of the ships were hit by bombs and ten enemy aircraft were shot down.

Another enemy convoy was reported off **Vella Lavella** by coastwatchers on the afternoon of 7 December and attacked by American fighters and dive-bombers at dusk. It was attacked again during the night near **Guadalcanal** by American PT boats, but a number of the ships reached **Guadalcanal** and remained there for about an hour before retiring northwards. The next morning the surviving ships were seen near Faisi by an **RNZAF** Hudson on early morning patrol, but they escaped before a striking force could reach the area to attack them.

At midday on 11 December the coastwatcher near Buin reported by wireless that a convoy of Japanese destroyers had left the anchorage there and was steaming south-east at high speed. An **RNZAF** Hudson searched the sea near **Vella Lavella** and **New Georgia** in the afternoon but did not see the enemy ships. Later in the afternoon they were

discovered and attacked off **New Georgia** by American dive-bombers and fighters which claimed hits on five of the destroyers. The Japanese force held its course and arrived off **Guadalcanal** shortly before midnight. In the early hours of the morning American PT boats attacked the destroyers and sank one of them. Following their usual practice, the warships retired before dawn and were seen by two **RNZAF** Hudsons on early morning patrol steaming northwards some 230 miles from **Guadalcanal**.

American photographic reconnaissance early in December confirmed previous reports that the Japanese were building an airfield at **Munda** under a camouflage of coconut plantations, leaving the trees standing until they were ready to begin the final surfacing of the runway. Gun emplacements had been built in the area and, according to the Allied coastwatcher, enemy troops had moved into the surrounding native villages and were fortifying them. If the enemy could bring the strip into operation he would have land-based aircraft within 150 miles of **Guadalcanal**, with which he could mount heavy air raids against the Allied positions and give air cover to his convoys along the whole route from Buin to Cape Esperance.

One of the first Allied attacks on **Munda** was made by an **RNZAF** Hudson on the morning of 9 December. It dropped four bombs from 7000 feet, of which one hit the runway and a second set fire to buildings and tents. By this date most of the trees covering the strip had been removed and the runway appeared to be ready for operations.

From this date on **Munda** was attacked daily by American bombers, but in spite of this the Japanese managed to make it serviceable. It was never developed beyond an emergency staging post, but Japanese aircraft were using the strip by 17 December. By the end of the month they had fighters stationed there permanently for its defence. Early in January, as repeated bombing attacks had failed to prevent the Japanese from developing it, COMSOPAC sent a task force of cruisers and destroyers to shell the airfield. The force left **Guadalcanal** on the 4th,

and during the day **RNZAF** Hudsons were employed as part of the air cover, searching the seas to the west for enemy ships and submarines. The task force arrived off **Munda** during the night and bombarded the airfield successfully, leaving the target area, according to reports, 'a shambles'. During its retirement in the early hours of the morning on the 5th the force was attacked by enemy dive-bombers and fighters, probably from **Kahili**, and one of the ships, HMNZS *Achilles*, was hit by a bomb. In spite of the damage done by the bombardment the Japanese were operating aircraft from **Munda** a few hours after the attack.

Allied air operations in January and February were hampered by bad weather. The rainy season had started by the end of December, and for the next few months there were frequent heavy rainstorms throughout the area. Japanese shipping took full advantage of the cover which they provided, and which enabled it on many occasions to escape detection by searching aircraft.

After a relatively quiet period during December, the Japanese in January again started large-scale attempts with destroyers to reinforce their garrison on **Guadalcanal**. On the 1st of the month an American B17 patrolling over southern **Bougainville** reported that four heavy cruisers and six destroyers had arrived at Tonolei. The next day a force of ten destroyers made a run from Buin to Cape Esperance. They were shadowed during part of the day by an **RNZAF** Hudson and were repeatedly attacked by American bombers, but at least eight got through to **Guadalcanal**. In the early morning of 3 January they were reported to be lying off Cape Esperance and were attacked by American PT boats. None of the destroyers was sunk in the action, but the PT boats destroyed a number of waterproof containers of food and ammunition which had been thrown overboard to drift ashore. After dawn patrols were sent out to locate the enemy ships as they retired. An **RNZAF** Hudson sighted them at 7.20 a.m. some 220 miles from Guadalcanal, but a force of American dive-bombers and fighters sent to attack failed to locate them.

The Tokyo Express made another run on 10 January when eight

destroyers again reached Cape Esperance during the night. They were attacked by PT boats, which claimed torpedo hits, and retired before daylight. Groups of them were seen next morning by **RNZAF** Hudsons, but again dive-bombers sent to attack them failed to make contact.

Another strong attempt was made by the Japanese with destroyers and cargo ships on the 14th. They were first reported by the coastwatcher on **Vella Lavella** and later, at eleven o'clock at night, were seen by an American Catalina on patrol off the **Russell Islands**. PT boats attacked them between Cape Esperance and Savo Island and secured hits on two ships. An **RNZAF** Hudson which took off before dawn on the 15th sighted nine destroyers 110 miles from **Guadalcanal** at half past six and shadowed them until shortly after seven o'clock, when fifteen American dive-bombers with fighter escort arrived. In the action which followed the dive-bombers sank one destroyer off the coast of **New Georgia**.

In the late afternoon on 15 January an **RNZAF** Hudson sighted six destroyers and a cargo ship some 230 miles from **Guadalcanal**. The aircraft remained in the area, between Faisi and Ballale, for an hour and a half and reported the movements of the enemy ships to its base on **Guadalcanal**. The area was close to the Japanese air bases at Ballale and **Kahili** and the Hudson was forced to use cloud cover to escape detection by enemy aircraft. At four o'clock fuel was running low and the Hudson sent its last signal prior to returning to **Henderson Field**. At that moment nine Japanese fighters appeared 3000 feet above it and forced it to remain in cloud. Eventually the Hudson escaped by flying northward at sea level for a time and then returning to its southerly course. This evasive action was successful and the plane arrived back at **Henderson Field** without making further contact with the enemy. As a result of the Hudson's efforts, groups of American bombers and fighters attacked the enemy ships later in the afternoon. None of the warships was hit but the cargo ship was set on fire.

Reports from American search planes on 17 January showed that large numbers of enemy ships were still moving into the northern

Solomons, the main concentration of eleven cargo ships and four destroyers being off Buin. Bad weather prevented the Allied air force from attacking them. On the 18th an **RNZAF** Hudson was employed on a special search for convoys that might be moving towards **Guadalcanal**. For five hours in the afternoon it searched along a route over the south coast of **New Georgia** to **Simbo Island**, across Vella Gulf, north-western **Vella Lavella**, and then back to base. The patrol was uneventful and no enemy shipping was seen. The next day, however, another Hudson reported in the afternoon two enemy cruisers and eight destroyers to the north of Vella Lavella and steaming southward in 'very murky weather'. Two groups of American aircraft were sent out to attack but failed to locate the force owing to the weather. Next morning forty barrels were seen floating in the sea near Savo Island, indicating that the ships had probably paid a hurried visit to **Guadalcanal** during the night and thrown stores overboard to drift ashore.

Another successful engagement with enemy shipping took place on 28 January. Six Japanese destroyers were reported in the afternoon to have left Faisi at high speed, and another group, consisting of a destroyer and two cargo ships, was reported later in the afternoon by an **RNZAF** Hudson. American dive-bombers and torpedo-bombers escorted by fighters attacked both groups, and one destroyer and two cargo ships were badly damaged.

Throughout January enemy shipping activity in the area increased steadily and numerous sightings were made by patrolling aircraft in addition to the major ones already described. At the end of the month shipping in the northern **Solomons** increased still more, and on 29 January twenty-nine ships, including cruisers, destroyers, transports and cargo ships, were counted at Tonolei, in southern **Bougainville**.

Throughout the month aircraft of No. 3 Squadron averaged just under seven sorties a day. ¹ Most of these were routine patrols, but individual Hudsons were occasionally used for special missions which provided a welcome change from the monotony of flying for hours over the sea looking for enemy ships which frequently were not there. On 1

January an aircraft carrying Captain D. E. Williams, commanding the Fijian guerrilla detachment on Guadalcanal, made a flight over **Guadalcanal** to reconnoitre the enemy positions. A week later a Hudson was sent to bomb the village of Boe Boe, near Kieta, on southern **Bougainville**. The local natives had been supporting the Japanese against the coastwatcher, and the strike was made to frighten them and bring them again under the coastwatcher's control. The aircraft took off from **Guadalcanal** early in the morning and bombed the village just before dawn. The coastwatcher later signalled his thanks and the crew was congratulated by General Mulcahy, Commander of the 2nd Marine Air Wing, who remarked: 'It is a very unhealthy spot for a plane with the limited armament yours has got'.

Early the next morning the area was raided again, but on a larger scale, by five American B17s which were guided to the target area by Flying Officer **Partridge**,² who had navigated the Hudson. The bombers were intercepted by enemy fighters and three were damaged, giving point to General Mulcahy's remark.³

¹ Summary of operations by No. 3 Squadron, November 1942–January 1943.

	<i>Number of Sorties</i>	<i>Ship Sightings and Number of Ships</i>	<i>Aircraft Sightings and Number of Aircraft</i>	
24–30 November	35	4	163	8
December	179	9	418	15
January	213	28	9526	80

² **Flt Lt F. A. Partridge**, AFM; **Christchurch**; born **Christchurch**, 26 Apr 1918; clerk.

³ The High Commissioner for the Western Pacific objected to the bombing of native villages, as he felt that in some cases the information concerning pro-Japanese activities was not reliable enough to warrant such measures. Consequently Admiral Halsey

ordered that it should be done only when the information was quite certain or where the village was completely occupied by the enemy.

Another Hudson bombed **Munda** at dawn on 11 January, dropping nine 100-pound bombs and a number of empty bottles. ¹ All the bombs landed on the runway.

On 22 January a Hudson made a reconnaissance flight over Vila, on Kolombangara Island, where the Japanese were building an airfield, and photographed the area as part of the preparation for an American naval bombardment which had been planned to take place two days later. The aircraft met fairly heavy anti-aircraft fire over Vila but did not encounter any enemy aircraft. As a result of the reconnaissance COMAIRSOPAC Intelligence was able to state that the runway had been cleared but that no surfacing work on the strip had been started.

On 24 January a Hudson on patrol attacked a Japanese tanker in Vella Gulf, 215 miles from **Guadalcanal**. It dropped two bombs and two depth-charges from 3000 feet, but the tanker evaded them by turning and they missed by fifty yards.

Enemy air activity in the **Solomons** also increased during January. Throughout December the Japanese air force had played an almost entirely defensive role and had made only one minor raid on **Guadalcanal**. The virtual completion of the strip at **Munda**, however, and the arrival of air reinforcements in the northern **Solomons**, enabled the enemy air force to take a more aggressive part in the campaign in the new year. On the nights early in January when the Tokyo Express visited Cape Esperance, small forces of enemy bombers carried out diversionary raids on **Henderson Field**. Later in the month nuisance raids at night became more frequent.

On the 21st the personnel of No. 3 Squadron, **RNZAF**, experienced the worst bombing they had yet had. As was usual in their night attacks, the Japanese sent over only one or two aircraft at a time; but seven

separate alarms were sounded during the night and bombs fell within a hundred yards of the New Zealand camp. For the rest of the month **Guadalcanal** was bombed almost nightly. Although a number of bombs fell in and around the camp there were no New Zealand casualties.

The camp still consisted solely of tents set on the muddy ground. The absence of dugout accommodation meant that the men had to tumble out of their beds into foxholes whenever enemy planes were overhead; and for some weeks the efficiency of the squadron was threatened, although it was never impaired, by fatigue caused by broken nights and lack of sleep.

¹ Empty bottles, when falling, make a noise like bombs coming down and help to disturb the enemy's peace of mind.

ROYAL NEW ZEALAND AIR FORCE

FINAL STAGES OF THE CAMPAIGN

FINAL STAGES OF THE CAMPAIGN

February opened with air activity more intense than any that the Allied forces had experienced since November. The large and increasing concentrations of enemy shipping in the south Bougainville area caused the American Command to expect a major invasion attempt. On the first day of the month the coastwatcher on **Choiseul** reported, shortly after midday, that twenty Japanese destroyers were heading south, and all Allied forces were alerted in anticipation of a surface attack. In the middle of the afternoon an **RNZAF** Hudson sighted them 200 miles from **Guadalcanal**. It reported them again at four o'clock when they were north of **New Georgia** and still 180 miles from Cape Esperance. As a result of the reports twenty-four American dive-bombers and torpedo-bombers, escorted by fighters, were sent out to meet the ships and attack them in the early evening. Two of the destroyers were sunk and a third set on fire, while three of the enemy's covering aircraft were shot down for the loss of four American planes. As the enemy force approached **Guadalcanal** near midnight, Japanese aircraft bombed the new bomber strip at **Henderson Field** and slightly damaged the runway. American PT boats and dive-bombers attacked the destroyers while they were off Cape Esperance during the night, and claimed to have sunk one and set fire to another. By four o'clock in the morning the force had dispersed and was off **Santa Isabel Island** on its run northwards.

On 1 February the American bases at **Guadalcanal** experienced the heaviest Japanese air attack for many weeks. Fifty-one Japanese bombers and fighters attacked in two waves, the first shortly before midday and the second in the middle of the afternoon. The runway at **Henderson Field** where No. 3 Squadron was based was damaged, and damage was also done to shipping in the roadstead. American fighters which went out to intercept the attacking planes claimed that they shot

down nineteen of them for the loss of two.

On 2 February the American Air Command made every effort to re-establish contact with the enemy ships before they reached their bases in the northern **Solomons**. Six **RNZAF** Hudsons were sent out at dawn on a series of special searches, and at half past six one of them sighted a group of eight destroyers 150 miles from **Guadalcanal**. It shadowed them for an hour and three-quarters, but as its radio was not working its signals giving their position were not heard at base. Another group was located by an American striking force of dive-bombers and torpedo-bombers later in the morning between **Kolombangara** and **Choiseul**. The Americans bombed the destroyers but scored only one direct hit.

In contrast to the preceding few days, 3 February was uneventful for No. 3 Squadron. Seven routine searches were flown, all of which were negative.

The next day, however, was again full of incident. Shortly after one o'clock the **Choiseul** coastwatcher reported that twenty Japanese destroyers had left Faisi and were steaming south. A little later the **Vella Lavella** coastwatcher signalled that they were in the area north-west of **Vella Lavella** and still moving southwards. An **RNZAF** Hudson next reported them when they were 220 miles from **Henderson Field**, and an hour after that they were seen by an American search plane coming down the channel north of Vella Lavella.

At four o'clock in the afternoon they were attacked by American dive-bombers, torpedo-bombers, and fighters off **Kolombangara**. One ship was sunk and another damaged. Twenty-five Japanese fighters were protecting the convoy and the Americans shot down seven for the loss of six. A second attack was made an hour and a half later in which two destroyers were hit and ten fighters shot down for the loss of four American aircraft. Although **Munda** had been bombed earlier in the day, reports from the coastwatcher stationed there indicated that part of the enemy air cover had been staged from that airfield. During the night at least fourteen of the destroyers reached Cape Esperance, retiring

northwards again shortly after midnight. After dawn on 5 February American and **RNZAF** planes searched for the retiring warships but failed to make contact with them.

The last run made by the Tokyo Express to **Guadalcanal** took place on the night of 7 February. A little before two o'clock in the afternoon the **Vella Lavella** coastwatcher reported that nineteen destroyers were moving south at high speed through an area covered by low rain clouds. They were reported by an **RNZAF** Hudson 20 miles west of Ganongga Island and again, at a quarter past four, south of Ganongga. American dive-bombers attacked them at half past five 20 miles south of **Rendova Island** and scored hits on two ships. This was the first time that the Tokyo Express had come round the south of **New Georgia** instead of taking the more direct route down the 'Slot'. During the night most of the destroyers succeeded in reaching **Guadalcanal**, embarking most of the Japanese troops still there and retiring before daylight. Searches next morning were unsuccessful.

After their major effort to recapture **Guadalcanal** in November 1942 the Japanese undertook no large offensive operations in the **Solomons**. They concentrated on developing their forward bases at **Munda**, Vila and Rekata Bay, building up the Buin- **Kahili** area in southern **Bougainville** into their major base in the **Solomons**, and establishing outposts on **Vella Lavella**, **Choiseul** and Shortland. The last two months of the campaign on **Guadalcanal** had been a delaying action to cover their development of these areas. They brought in army reinforcements to **Bougainville** and occupied most of the island, with their main concentrations in the **Kahili**, Kieta and **Buka** areas. Small groups were moved into the forward bases on **New Georgia** and **Kolombangara**. The effectiveness of the Allied air attacks on shipping forced the enemy to give up the risk of using ships south of **Bougainville**, and as a result their forward bases became dependent on barge traffic. Consequently their development was desultory and on a small scale.

The Japanese air force based its main concentrations south of the Equator at **Rabaul** and in **New Guinea**. A minimum number of aircraft

was based in the **Solomons** for local defence and reconnaissance, but the presence of strong reserves at **Rabaul** made possible overnight large-scale reinforcement of the forward bases. Except for two attempts to strike American convoys off **Guadalcanal**, the enemy air force in the **Solomons** in the four months following the evacuation of **Guadalcanal** was small and relatively ineffective. It was employed mainly on wide reconnaissance in the area south of **Guadalcanal** to obtain advanced warning of American shipping movements. Its offensive operations were limited to spasmodic night raids by one or two aircraft against **Guadalcanal**, the Russell Islands and Santo, and to two small attacks on American convoys in the **San Cristobal** area.

ROYAL NEW ZEALAND AIR FORCE

**CHAPTER 12 – ESTABLISHMENT OF NO. 1 (ISLANDS) GROUP AND
DEVELOPMENT OF AIR TRANSPORT**

CHAPTER 12

Establishment of No. 1 (Islands) Group and Development of Air Transport

IN the months which followed the Japanese evacuation of Guadalcanal, the main concern of the American Command in the South Pacific was to build up sufficient forces to carry out the operations which were planned against the northern Solomons and New Britain. During the period the strength of the RNZAF was increased by the addition of further operational squadrons, and also by the formation of ancillary units and the administrative staff required to organise and direct them.

When No. 3 Squadron had first moved to the forward area, it had gone as a self-contained unit complete with its maintenance, medical, and signals organisation. The posting of further squadrons to the area made it desirable to establish most of the ancillary services on a station rather than a squadron basis in order to avoid unnecessary duplication. This was achieved in the first instance by withdrawing a number of men from the administrative and maintenance organisations of each squadron. Later, additional administrative personnel arrived from New Zealand, and by the end of the year squadrons going overseas comprised merely the aircrews and one or two specialist officers. All ground services were awaiting them when they reached their destination.

In October 1942 when No. 3 Squadron first moved to the combat area, Group Captain Wallingford was appointed RNZAF staff officer to COMAIRSOPAC to provide liaison between the American Command and the New Zealand unit in the field. He was at first quartered in the USS *Curtiss*, which was stationed in Second Channel at Santo and served as COMAIRSOPAC'S headquarters.

The control of air operations from a ship was by no means easy owing to communication difficulties. For example, it frequently happened that the ship swinging with the tide rode around its buoy, and the telephone lines connecting it with the squadron and other units

ashore were put out of action. Consequently, early in 1943 COMAIRSOPAC set up his headquarters ashore. Wallingford and his small staff had already moved ashore and set up a nucleus headquarters near No. 3 Squadron in the New Zealand camp at Pallikulo. His function was to co-ordinate the work of New Zealand units in the forward area (No. 3 Squadron at Santo and **Guadalcanal** and No. 9 Squadron in **New Caledonia**) and to maintain close contact with the American Command on supply matters.

FORMATION OF NO. 1 (ISLANDS) GROUP HEADQUARTERS

By early 1943 it was fairly certain that the **RNZAF** would be sending an increasing number of units to operate in the South **Pacific**. It was therefore decided to expand Wallingford's staff and establish a Group Headquarters overseas to administer them.

No. 1 (Islands) Group Headquarters was formed at Santo on 10 March 1943, and Wallingford, relinquishing his position as staff officer to COMAIRSOPAC, was appointed Officer Commanding. The following month he was promoted Air Commodore. His command included all **RNZAF** units in the South Pacific except those in New Zealand.

The group became one of the subordinate headquarters within the command of COMAIRSOPAC. Other subordinate headquarters were those of United States Naval Aircraft, 1st Marine Air Wing, and 13th United States Army Air Force.

Wallingford was responsible to COMAIRSOPAC for the operational efficiency of all units under his command, but operation orders were issued direct to the units concerned by the American commanders to whom they had been allocated. At the same time, as the Group Headquarters was within the headquarters of COMAIRSOPAC, the AOC and his operational staff had some voice in the employment of **RNZAF** squadrons and so retained indirect operational control.

The wireless-telegraphy point-to-point communications system,

which had previously been operated by No. 3 Squadron, was transferred to Group Headquarters, through which in future passed all administrative signals traffic for squadrons in the forward area. Operational signals continued to be passed through COMAIRSOPAC channels.

The camp in which No. 3 Squadron had lived since it came to Santo—near the north end of the Bomber I airstrip at Pallikulo—was established as an **RNZAF** station in January under the command of Wing Commander Fisher, who also commanded No. 3 Squadron. The building of a new camp was begun by an American construction battalion, and in March and April the New Zealanders moved over to it, vacating the old site. Wallingford and his staff moved in early in March. The completion of the camp was held up for a long time by lack of materials. The huts for the camp had been ordered in November 1942 to provide better living quarters and reduce the incidence of fever, in case operational progress slowed down and it became necessary to use Santo as a permanent camp. In fact, the island was occupied by Americans and New Zealanders for the rest of the war and the improved accommodation proved valuable. During the next few months additional construction was carried on by **RNZAF** works personnel.

Until the Group Headquarters was fully staffed and could function as a complete unit, an interim organisation was set up within **RNZAF** Station, Santo. The Station Headquarters, under the direction of Group Headquarters, correlated policy, equipment, establishment, personnel, and other matters relating to the various units in the area, for reference or forwarding to higher authority. Each squadron organised its own headquarters on a unit basis, and became responsible to Station Headquarters for its own camp repair, maintenance and sanitation. The embryo Group Headquarters was fully occupied with air staff work and in organising its own administration.

The first appointments to be filled for the formation of Group Headquarters were: Personnel Staff Officer, Flight Lieutenant S. G. Lester, and Group Engineer Officer, Squadron Leader A. T. Giles, MBE.

Over the next two months additional posts were filled as follows:

Senior Air Staff Officer	Wing Commander G. H. Fisher
Air I Senior Administrative Officer	Squadron Leader I. G. Morrison Squadron Leader J. H. J. Stevenson
Senior Medical Officer	Major J. E. Hardwick-Smith, NZMC
Senior Equipment Officer	Squadron Leader D. G. Sinclair
Group Signals Officer	Squadron Leader R. M. Kay
Staff Intelligence Officer	Squadron Leader J. D. Canning (replaced in May by Flight Lieutenant T. G. Tyrer)
Group Armament Officer	Flight Lieutenant W. A. Hopkins
Works Officer	Flight Lieutenant R. R. Parsons (replaced in May by Squadron Leader W. J. E. V. Grace)

By the end of May the headquarters had a strength of 14 officers and 13 other ranks and was getting into its stride. Five months later, at the end of October, it had grown to 34 officers and 179 airmen.

In the period immediately following the formation of No. 1 (Islands) Group, the overall administration of the [RNZAF](#) units in the area was confused. No. 3 Squadron had its rear echelon at Santo and its advanced echelon at [Guadalcanal](#). The advanced elements of No. 9 Squadron were at Santo while its ground and headquarters organisation was still at [New Caledonia](#), hundreds of miles away. Nos. 14 and 15 Fighter Squadrons were also in the process of moving up and their ground organisations, also, were far in the rear, one in New Zealand and the other at [Tonga](#). Consequently the task of administering them was not easy.

Considerable difficulties existed also with regard to supply, not only for the [RNZAF](#) but for all the Allied forces. Vast quantities of equipment of all kinds were by this time reaching the South [Pacific](#) from [America](#), but few items were received by the units for which they were intended.

Ships were sent from **San Francisco** with specific destinations, but once they crossed the international date-line they came under Admiral Halsey's command and were redirected according to operational necessity and the strategic situation at the time. Goods which were awaited in Santo might be unloaded at **Noumea** and might lie there for months before eventually reaching the unit which required them.

At Santo the unloading of ships was done under the control of the United States Army, who decided what cargo was most urgently required and what ships should be first unloaded. The result was that Navy and **Air Force** units frequently had to wait a long time before receiving goods, although the ships carrying them might have arrived safely where they were wanted. Unloading facilities at this time were few, and all the supplies had to be taken ashore in lighters and stored underneath the trees. Nobody had any inventory of the material and consequently no one knew what had come ashore. Anyone looking for a specific item went through the dumps and, if he was lucky, found what he wanted. This state of confusion was perhaps unavoidable in the early stages of the campaign. Things improved considerably when port facilities were developed, and by the middle of May 1943, 11,000 tons a day could be handled.

ESTABLISHMENT OF NO. 4 REPAIR DEPOT

The move of New Zealand squadrons to the forward area necessitated the setting up of a repair and maintenance organisation, in addition to the squadrons' own servicing units, to keep the aircraft serviceable.

At the end of November 1942, when Allied aircraft were still scarce in the forward area and before the **RNZAF** was established there in any great strength, New Zealand asked whether the Americans could make use of an **RNZAF** salvage party to repair wrecked American aircraft at **Guadalcanal**. The **RNZAF**, it was stated, would be very willing to supply such a party which, it was considered, would be of considerable value. COMAIRSOPAC replied that he did not need a salvage party at present at **Guadalcanal**, but would welcome it at the repair base being established

at Santo, where it could also be available to overhaul **RNZAF** Hudsons in emergency.

The Deputy Director of Repair and Maintenance, Squadron Leader **Grigg**,¹ flew from New Zealand to Santo to investigate the position and find out how many men would be required. When he came back he reported that the Americans wanted a force of 251 men. A 'Lion' unit, comprising the personnel of a complete repair depot, was due from **America** in two or three months' time, but in the meantime the New Zealanders would be most welcome and would at the same time gain valuable experience.

On the basis of his report it was decided to send a party of men to be used in the American Naval Air Service Repair Organisation at Santo until they could be replaced by the personnel coming from **America**. After that the unit was to remain at Santo and form an **RNZAF** Repair Depot to undertake the inspection and overhaul of New Zealand aircraft. Up till this time New Zealand Hudsons operating overseas had returned to New Zealand for their overhauls and major inspections, a practice which had had two disadvantages. In the first place it meant that they were out of the operational area for an unnecessarily long time, and secondly, the flying hours used in going to and from New Zealand reduced their periods of operational usefulness.

The unit was assembled and left **Auckland** by ship on 19 January 1943, arriving at Santo on the 25th. The men spent their first five or six days ashore in clearing the camp site in the jungle, putting up tents and digging slit trenches. Early in February the unit was split into three parties. The first, comprising aircraft hands, cooks, etc., was attached to the rear echelon of No. 3 Squadron for general station duties. The second was attached to the American Aviation Overhaul Organisation for service in the workshops. The third party went to the American Field Service to work on major inspections and repairs on F4F and SBD aircraft. On 15 February Flight Lieutenant **Hughes**² arrived from New Zealand and took command of the unit.

At the beginning of May a detachment under Flight Sergeant **Apperly**³ was sent to **Guadalcanal** to assist in the repair of Hudson and Kittyhawk aircraft there. By this time No. 9 Squadron was at Santo, having moved from **New Caledonia**, and was providing a reserve of crews and aircraft for No. 3 Squadron at **Guadalcanal**. No. 14 Fighter Squadron was also there, and No. 15 Squadron had recently passed through on its way from **Tonga** to **Guadalcanal**.

¹ **Wg Cdr H. T. Grigg**, OBE; Hororata; born Eiffelton, 19 Sep 1915; aeronautical engineer.

² **Sqn Ldr A. A. Hughes**, m.i.d.; **Wellington**; born Darlaston, England, 23 Nov 1907; aero fitter.

³ **W/O W. R. Apperly**; **Auckland**; born **Auckland**, 29 Jul 1913; mechanic.

With four squadrons in the area there was enough repair and inspection work to justify the establishment of an **RNZAF** repair depot. On 7 May the Director of Repair and Maintenance, Wing Commander **Keogh**,¹ came up from New Zealand to a conference with the American authorities and concluded arrangements for the allocation of a site and the commencement of work on a workshop area. Ten days later the clearing of a site was begun. The initial work was done by **RNZAF** personnel withdrawn from the American Field Service Unit and armed with slashers and axes. Later they were assisted by American bulldozers and other equipment.

Material for building hangars and workshops was sent from New Zealand, and a works party under Pilot Officer **Sisson**² was also sent to do the construction work. The first hangar was completed on 20 July and the unit started work on its first major aircraft inspection. In the following weeks the men still employed at Field Service and Aviation Overhaul were gradually withdrawn and started work in the **RNZAF**

Repair Depot.

Earlier in July the detachment at **Guadalcanal** had been strengthened to thirty-five men, while 100 of the men who had been working on SBDs at Field Service and Overhaul had been put through a co-ordinated course on those aircraft, and had returned to New Zealand to form the nucleus of ground staff for the **RNZAF** SBD and TBF³ squadrons which were forming there.

By the beginning of October four hangars had been completed at the repair depot, and it was decided to build no more. The depot consisted of the hangars, in which complete overhauls and major inspections of airframes and engines were carried out; the general engineering section, with coppersmith's and blacksmith's shop; and an electrician's shop, instrument shop, armoury, propeller shop, fabric workers' and carpenter's shop, parachute section, engine repair shop, engine store, main store and offices.

The unit by this time was working smoothly at high pressure, as was the **Guadalcanal** detachment. Its strength, owing mainly to the repatriation of the hundred men in July, was reduced to 73 at Santo and 34 at **Guadalcanal**. To bring it up to a strength sufficient to cope with its present work and the work it was expected to do in the near future, Air Headquarters was asked to post 50 more men to Santo and 15 to **Guadalcanal**.

¹ **Gp Capt M. S. Keogh**, OBE, AM; **Tauranga**; born **Ireland**, 15 May 1889; D of Repair and Maintenance, **RNZAF**, 1940–46.

² **Flt Lt F. A. Sisson**; **Auckland**; born **Auckland**, 24 Dec 1905; civil engineer.

³ SBD Dauntless; made by Douglas, **America**; single-engined scout and dive-bomber; maximum speed over 250 m.p.h.; cruising range over 1500 miles. TBF Avenger; made by Grumman, **America**; single-engined torpedo-bomber; maximum

speed approximately 175 m.p.h.; cruising range approximately 1350 miles; used by the **RNZAF** as a dive-bomber.

The establishment of the Repair Depot was cancelled and was replaced by a larger establishment for a Base Depot Workshops. The manning position at home, and the difficulty of finding men in the required trades who were fit for tropical service, caused some delay in filling the new establishment, but the additional personnel were posted to Islands Group before the end of the year.

It had been intended originally that the Repair Depot at Santo should carry out complete overhauls of both airframes and engines, making the **RNZAF** in the forward area self-supporting as far as technical work was concerned. This policy was not fully implemented, as by August the Americans had established an Aircraft Engine Overhaul Base at Ie Nou, **New Caledonia**, and the Aviation Repair and Overhaul Unit at Santo, and had offered their facilities to the **RNZAF**. There was some opposition from the **RNZAF** to allowing overhaul work to be done in the American workshops, as it was considered by a number of officers that it would be better to have all work on New Zealand aircraft done by New Zealanders. However, in view of the American offer the **RNZAF** Repair Depot was organised to do complete overhauls and repairs only to airframes. Deciding factors were the accelerated supplies of new aircraft arriving in New Zealand in the latter part of 1943 and the need to divert a number of technical men to assemble them. Had the Repair Depot been fully manned to cope with both engines and airframes, the assembly of aircraft arriving in New Zealand would have been delayed and it would have taken longer to have them ready for operations.

Under the revised policy the engines of fighter aircraft, when they became due for complete overhaul, were handed over to the Americans in exchange for new or reconditioned ones and were overhauled by the American depots and put into a common pool. Bomber-reconnaissance aircraft needing engine overhauls continued to be flown back to New Zealand, where the work could be done by the large number of technical

men in the **Air Force** who were medically unfit for service in the tropics.

INTRODUCTION OF THE AIRCREW ROTATION SYSTEM

The problem of daily servicing of aircraft, as distinct from repair and overhaul, was met by the formation of servicing units. The first New Zealand squadrons to go overseas, both bomber-reconnaissance and fighter, went as complete units taking their servicing staffs as well as aircrews. American experience had shown, however, particularly with regard to fighter squadrons, that aircrews could remain in the combat area only for a short time if they were to stay efficient. The **RNZAF** decided to follow the American practice, giving them only short tours of duty. In May 1943 it was laid down that the tour for fighter pilots should consist of six weeks at Santo on training and garrison duties, followed by six weeks in the combat area. At the end of a tour they returned to New Zealand for leave and training before proceeding on another. The length of each stage of the tour was modified from time to time as operational conditions changed, but the principle remained the same for the rest of the war.

The practice of giving aircrew short tours in the tropics contributed greatly towards efficiency in the air and to a low wastage rate. It was costly in movement and loss of time, but it ensured a high standard and also reduced the necessity for training new crews.

FORMATION OF SERVICING UNITS

It was naturally impossible to transport whole squadrons, including ground staff, to and from New Zealand every three months; nor was it necessary, since the men working on the ground suffered less strain and could remain efficient in the forward area longer than those flying in combat. Consequently, in June 1943 the fighter squadrons already overseas and those forming in New Zealand were organised as flying echelons and maintenance echelons. The former were to move in accordance with the six-weekly rotation plan and the latter to remain stationed in one place and take over the maintenance and servicing of

successive flying echelons. The maintenance echelons were divorced entirely from the flying echelons and were renumbered as fighter maintenance units. The engineer officer of the maintenance unit was responsible to the officer commanding the flying echelon—henceforth called the squadron—to which it was temporarily attached for the maintenance of its aircraft; and the maintenance unit as a whole came under the authority of the squadron commander. Whenever a maintenance unit was temporarily unattached to a squadron, it was treated as a lodger unit on the station at which it was based, under the command of the engineer officer, who was given the powers of a subordinate commander.

The principle was extended to bomber-reconnaissance squadrons in August. Up till then Nos. 3 and 9 Squadrons, which were in the forward area, relieved their crews by infiltrating fresh crews from the rear areas. In that month, however, it was decided that, taking all things into consideration, the divorcing of the maintenance units and the flying squadrons was the most efficient way to operate in the tropics. Henceforth bomber-reconnaissance squadrons, like the fighters, moved as complete aircrew units. In October the fighter and bomber maintenance units were renamed servicing units and were known as such for the rest of the war.

When the dual organisation of squadrons and servicing units was first proposed there were fears that it would break up the team spirit between ground crews and aircrews. Its introduction caused numerous complaints from officers and men, especially in the longer-established bomber-reconnaissance squadrons where they had been working together for a long time and had built up a solid squadron spirit. There is no doubt that at times a rift did develop between aircrew and ground staff, but the effects proved less serious than might have been expected. If squadrons in the forward area failed to combine as closely with the ground staffs as they would have done had they been stationed permanently with them, the effect did not result in any noticeable lowering of morale or efficiency.

CONSTRUCTION OF RNZAF CAMPS IN THE FORWARD AREA

When the **RNZAF** originally moved into the forward area there was no intention that any works personnel should be sent. Although a party had been sent to **New Caledonia** in July 1942 to erect prefabricated huts for No. 9 Squadron, generally speaking **RNZAF** units in the tropics had at first to fend for themselves under active-service conditions.

Early in 1943 it was agreed that all **RNZAF** units should arrive at their destination with tents for accommodation and with cooking and other amenities in keeping with life under canvas. American supply services were to be responsible for equipping the camps on a similar scale to that provided for their own squadrons in the area. For many months the Americans were unable to give much assistance in the construction of **RNZAF** camps, and during the first part of 1943 many urgent requests were received by Air Headquarters from No. 1 (Islands) Group for additional domestic and technical accommodation. As the number of men in the area increased the problem became more pressing.

Since the Americans could not help in bringing the New Zealand camps up to the required standard, it became necessary during 1943 to send more and more works personnel overseas. The first party, consisting of about fifty men under the command of Flying Officer **Puddy**,¹ left New Zealand by ship in mid-January and arrived at **Guadalcanal** on 7 February. It consisted of tunnellers, bushmen, carpenters, tractor drivers, and men in other similar trades. It took with it a small sawmill plant so that it would be able to mill its own timber.

The most urgent need at **Guadalcanal** was the provision of dugout accommodation to give the personnel of No. 3 Squadron protection from the nightly Japanese air raids. This was achieved by driving a tunnel right through a ridge close to the squadron's camp site. When that was complete, the works party built a new **RNZAF** camp. Hitherto the New Zealanders had been living in tents in a jungle-clad gully where rain, mosquitoes, and mud made life very trying. The new camp was built on a nearby ridge, and eventually, when board floors and mosquito-net sides

had been made for the tents, it became relatively comfortable.

During March and April No. 3 Squadron was joined at Guadalcanal by No. 52 Radar Unit and No. 15 Fighter Squadron. In each case the units had to set up their own camps with what assistance could be given by the overworked Works Detachment, and it was some months before all units were adequately housed.

Another works party was sent to Santo in March and was immediately employed in moving the original RNZAF camp, which had been built in the jungle, into an adjoining coconut plantation. The Americans assisted with the clearing of the undergrowth, the formation of roads and some construction work. All other work, including internal work on all buildings, provision of water supply, electric lighting and sewerage, was done by the small RNZAF works unit.

At the end of May more than a hundred additional works personnel were sent to Guadalcanal and Santo to assist in construction and maintenance work in the various camps, and particularly to help in the erection of buildings for No. 4 Repair Depot. Towards the end of the year the unit known as No. 1 (Islands) Works Squadron was formed within No. 1 (Islands) Group, and became responsible for all camp construction carried out by the RNZAF. Throughout the rest of the war it consisted of a number of detached flights which were stationed wherever construction work or sawmilling was needed.

¹ Fg Off W. E. Puddy; Greymouth; born Dunedin, 8 Jan 1901; civil engineer.

LOGISTIC SUPPORT IN THE FORWARD AREA

Another matter with which No. 1 (Islands) Group Headquarters was intimately concerned was the question of supply. Although the broad principles of obtaining supplies for the RNZAF had been recognised by the Mutual Aid Agreement signed in September 1942, the actual

mechanism by which New Zealand units obtained their supplies in the **Pacific** was confused until some months later.

By the end of 1942 it was clear that the **RNZAF**, operating throughout the **Pacific** under American command, would not be able to use its own exclusive supply channels, partly owing to its small size compared with the **United States Forces** in the area, and partly because of the lack of shipping under New Zealand control. It would have been uneconomic and almost certainly impracticable to set up separate stores depots to handle the equipment it required.

In June 1943 approval was finally given from **Washington** for all **RNZAF** squadrons operating United States Navy-type aircraft to be treated for supply exactly as if they were United States Navy squadrons, and in the same month the United States War Department issued a directive outlining a policy under which the United States Army Air Forces were to assume responsibility for supplying aircraft and equipment to Allied air forces using American Army-type planes. In the meantime, however, the principle had already been adopted by the commanders in the field, and from early 1943 New Zealand squadrons were being supplied with most of their equipment from local American stores depots.

FORMATION OF BASE DEPOT, SANTO

During 1943 the number of **RNZAF** units in the forward area increased steadily as has already been mentioned, and more increases were planned for 1944. This, together with the additional ancillary supply and maintenance organisations which were necessary to maintain the squadrons, involved an increasing amount of administrative work. At the same time, the changing strategic situation following the occupation of **New Georgia** in August made it desirable that Group Headquarters should eventually move farther forward. Much of the administrative work at Santo was becoming more appropriate to a base organisation than a forward group headquarters. It was therefore decided to form a base depot at Santo and maintain the Group Headquarters on

as mobile a basis as possible so that it could be moved when required. The Group Headquarters was to consist of an adequate air staff and a minimum number of specialist staff officers to co-ordinate the requirements of forward squadrons and to act as a link between the AOC and the base organisation.

On 1 November 1943 Base Depot, **Espiritu Santo**, was formed. It took over the functions of **RNZAF** Station, Santo, and also assumed the following responsibilities of Group Headquarters:

- (Air, surface, and mechanical transport
a)
- (Supply, maintenance, and works
b)
- (Equipment, technical and non-technical
c)
- (Medical services
d)
- (Personnel matters, other than those concerning officers and aircrew
e) which remained under the administration of the Senior Personnel Staff Officer.

The re-allocation of duties following the establishment of Base Depot resulted in a number of postings from Group Headquarters to the base strength. At the end of November the strength of Group Headquarters had fallen to 17 officers and 60 other ranks.

Wing Commander **Rawnsley**, ¹ who had been in command of **RNZAF** Station, Santo, was posted at the end of October to command **RNZAF** Station, **Guadalcanal**, and Wing Commander **Tancred** ² was appointed Officer Commanding Base Depot. At the end of November Air Commodore Wallingford relinquished command of No. 1 (Islands) Group and was succeeded by Air Commodore Buckley.

At its inception the Base Depot comprised the following units:

No. 4 Repair Depot

No. 14 Squadron

No. 3 Squadron, which had recently returned from Guadalcanal.

Nos. 1 and 12 Servicing Units

No. 6 Flying Boat Squadron, located at **Segond Channel**

Base Depot Headquarters, which included No. 2 **RNZAF Hospital.**

The total strength of these units amounted to 1196 men. Group Headquarters was also located at the Base Depot, as was a transit camp which was independent of the Base.

¹ **Wg Cdr I. E. Rawnsley, MBE; Wellington; born Wellington, 14 Jan 1898; company director.**

² **Wg Cdr H. L. Tancred, AFC; Blenheim; born Kingaroy, Queensland, 30 Dec 1908; civil airways pilot.**

MOVE OF NO. 1 (ISLANDS) GROUP HEADQUARTERS TO GUADALCANAL

Although it was desirable that the Group Headquarters should be in touch as closely as possible with the forward squadrons, its location was so closely related to that of COMAIRSOPAC that it was not possible to make a move until the higher command also moved forward. It had been intended to move the headquarters forward in November, but owing to lack of accommodation at **Guadalcanal the move was delayed until January 1944. Between the 5th and 7th of the month the entire personnel of the headquarters was carried by C47 aircraft running a shuttle service from Santo to **Guadalcanal**. There a camp was occupied which had been prepared near the existing **RNZAF** station under the direction of Squadron Leader **Grace**.³**

The camp was not yet fully completed, but, allowing for this, all ranks found it moderately comfortable. Its completion was delayed by

bad weather, and it was some weeks after the Group moved into it before it was entirely satisfactory. The splitting up of functions between Group Headquarters and Base Depot, and the subsequent move of the group to **Guadalcanal**, gave rise to certain administrative difficulties. Differences of opinion as to the respective responsibilities of the operational and base organisations took some time to settle. The base administration tended to become out of touch with operational requirements, and it was not until several reallocations of functions had been tried that the organisation settled down to run smoothly.

The need for the development of the Group Headquarters, and indeed for much of the administrative organisation in the South **Pacific**, was at times questioned by people who regarded it as a waste of manpower. The opinion was expressed that it would have been more economical if New Zealand squadrons had been formed and worked entirely under **United States** administration, becoming in effect American units.

Such criticism failed to take account of the practical difficulties which would have been involved, even had the Americans wanted us to take such a course, as well as the effect on morale both in the **Air Force** and in New Zealand as a whole. Technical difficulties could doubtless have been overcome, and if all administrative services had been provided by the Americans there would have been a saving in New Zealand manpower. But the South Pacific war vitally concerned New Zealand, and national sentiment would not have permitted men to be sent to fight under a foreign flag, no matter how close and friendly was the feeling between the Allies.

That being the case, it became necessary to evolve our own administration in the **Pacific**, co-ordinated and controlled by one headquarters. The difficulties caused by the vast distances between different units, and at times between sections of the same unit, have already been referred to. They were heightened by the fluid nature of the war. As the operational zone moved northwards new bases had to be established and the role of old ones changed.

The detailed planning of all changes dictated by higher policy, as well as the maintenance of supply and personnel services, was the responsibility of the Group Headquarters. Policy was often changed at short notice, making necessary sudden and drastic changes in planning. Shortages of shipping space delayed the execution of projected moves sometimes for weeks, and in turn upset other plans already made. By executing the policy of the American command on the one hand and coordinating the administration of the lower formations on the other, the headquarters performed an essential function in maintaining the effectiveness and efficiency of **RNZAF** units in the area.

³ **Sqn Ldr W. J. E. V. Grace, m.i.d.; Lower Hutt; born Palmerston North, 4 Dec 1900; civil engineer.**

THE NEED FOR AIR TRANSPORT

The support of the **RNZAF** units under the control of No. 1 (Islands) Group was very largely dependent upon air transport. Shipping between New Zealand and the forward area was scarce and subject to delays and cancellations, and was beyond the direct control of the **Air Force**. While a great deal of the equipment used by New Zealand units was shipped to island bases direct from **America**, and was obtained by the **RNZAF** on the spot, a considerable quantity of goods, and practically all personnel, had to be carried to the forward area from New Zealand.

Early in 1942, when it had appeared that a balanced air force would be necessary in New Zealand to fight off an invasion, troop-carrying aircraft had been requested from the British Government, but none could be spared. Later, when plans were made to send **RNZAF** squadrons up to the **Pacific**, the need for transport aircraft became more intense. Towards the end of 1942 the Chief of Air Staff visited **Washington** and discussed the matter with General Arnold, Chief of Staff of the **USAAF**, and eventually, in December, the **RNZAF** was allocated six C47 Dakotas and nine C60 Lodestars for 1943.

Until these became available the **RNZAF** depended for overseas transport mainly on the two American transport organisations operating in the **Pacific**, the Naval Air Transport Service and the Services Command Air Transport, both of which had terminals in New Zealand. Liberators passing through **Whenuapai** from time to time also carried New Zealand personnel when space was available, and use was made of **RNZAF** Hudsons going to or returning from overseas stations. In the early part of 1943 the Hudsons carried an average of about forty-five persons a month in each direction. As the amount of traffic increased it became necessary to make increasing use of Hudsons for inter-island transport. The practice was doubly unsatisfactory in that the payload of a Hudson was extremely small and, moreover, each aircraft used on transport work reduced the already limited number available for combat operations.

FORMATION OF NO. 40 (TRANSPORT) SQUADRON

With the promise of transport aircraft to be supplied in 1943, preparations were made to form a transport squadron based on **Whenuapai**. Squadron Leader Lucas, DFC, ¹ who had returned to New Zealand after two tours of operations in **Europe**, was appointed to command it. The first aircraft, a C47, was flown out from the **United States** by an American delivery crew, and reached **Whenuapai** towards the end of March. All the C47s were delivered by the end of May, while five of the C60s arrived by sea during June and the rest later in the year. No. 40 Squadron was officially formed on 1 June, its mission being to carry aircrew, ground staff, mail and urgent freight, in that order of priority, between New Zealand and the forward area.

A **Pacific** ferry flight was formed in April 1943, under the command of Wing Commander R. J. Cohen, to assist in the delivery of aircraft by flying them from **America** or **Hawaii** to New Zealand. C47s for the transport squadron and PBYs for the flying-boat squadrons were flown from the west coast of **America** by New Zealand crews, while PV1s for the bomber-reconnaissance squadrons were generally shipped to Kaneohe in

Hawaii, assembled there by the United States Navy, and then flown to New Zealand. In June a small **RNZAF** detachment was stationed at Kaneohe to help to assemble and test the aircraft before they were picked up by the ferry crews. In September the detachment was withdrawn and the ferry flight absorbed by No. 40 Squadron, which took over its responsibilities.

For the first two months after the formation of No. 40 Squadron in June 1943 its aircraft operated only as and where they were required. The irregular flying hours which resulted made it impossible to plan the maintenance of the aircraft in relation to flying commitments, which meant that at times there were several serviceable planes lying idle, and at others none was available because all were undergoing inspections.

This difficulty was overcome when the squadron obtained its full quota of aircraft and trained crew and was able to start operating on regular schedules. The first schedules to be flown, starting in August, provided two C47s and four C60s from **Whenuapai** each week. One C47, leaving on Monday, flew the route **Whenuapai- Nausori-Santo-Guadalcanal-Santo- Whenuapai**, arriving back in New Zealand on Thursday; the other, which left on Friday, flew the same circuit in the opposite direction. Two C60s, departing on Wednesdays and Sundays, operated over the same route with an additional call at Tontouta, **New Caledonia**. The third C60 carried passengers and freight to **Norfolk Island** each Friday, returning the same day. The fourth, which left **Whenuapai** every Thursday and arrived back the following Monday, carried mail to all **RNZAF** bases in the South Pacific. At the end of October the schedules were amended to include **Ondonga**, New Georgia, where the **RNZAF** fighter wing had recently been established.

¹ **Wg Cdr F. J. Lucas**, DFC and bar; Queenstown; born Dunedin, 18 Aug 1915; **RAF** 1936–39; transferred **RNZAF** 1939.

ROYAL NEW ZEALAND AIR FORCE

[SECTION]

IN the months which followed the Japanese evacuation of **Guadalcanal**, the main concern of the American Command in the South Pacific was to build up sufficient forces to carry out the operations which were planned against the northern **Solomons** and **New Britain**. During the period the strength of the **RNZAF** was increased by the addition of further operational squadrons, and also by the formation of ancillary units and the administrative staff required to organise and direct them.

When No. 3 Squadron had first moved to the forward area, it had gone as a self-contained unit complete with its maintenance, medical, and signals organisation. The posting of further squadrons to the area made it desirable to establish most of the ancillary services on a station rather than a squadron basis in order to avoid unnecessary duplication. This was achieved in the first instance by withdrawing a number of men from the administrative and maintenance organisations of each squadron. Later, additional administrative personnel arrived from New Zealand, and by the end of the year squadrons going overseas comprised merely the aircrews and one or two specialist officers. All ground services were awaiting them when they reached their destination.

In October 1942 when No. 3 Squadron first moved to the combat area, Group Captain Wallingford was appointed **RNZAF** staff officer to COMAIRSOPAC to provide liaison between the American Command and the New Zealand unit in the field. He was at first quartered in the USS *Curtiss*, which was stationed in **Segond Channel** at Santo and served as COMAIRSOPAC'S headquarters.

The control of air operations from a ship was by no means easy owing to communication difficulties. For example, it frequently happened that the ship swinging with the tide rode around its buoy, and the telephone lines connecting it with the squadron and other units ashore were put out of action. Consequently, early in 1943

COMAIRSOPAC set up his headquarters ashore. Wallingford and his small staff had already moved ashore and set up a nucleus headquarters near No. 3 Squadron in the New Zealand camp at Pallikulo. His function was to co-ordinate the work of New Zealand units in the forward area (No. 3 Squadron at Santo and Guadalcanal and No. 9 Squadron in New Caledonia) and to maintain close contact with the American Command on supply matters.

ROYAL NEW ZEALAND AIR FORCE

FORMATION OF NO. 1 (ISLANDS) GROUP HEADQUARTERS

FORMATION OF NO. 1 (ISLANDS) GROUP HEADQUARTERS

By early 1943 it was fairly certain that the **RNZAF** would be sending an increasing number of units to operate in the South Pacific. It was therefore decided to expand Wallingford's staff and establish a Group Headquarters overseas to administer them.

No. 1 (Islands) Group Headquarters was formed at Santo on 10 March 1943, and Wallingford, relinquishing his position as staff officer to COMAIRSOPAC, was appointed Officer Commanding. The following month he was promoted Air Commodore. His command included all **RNZAF** units in the South Pacific except those in New Zealand.

The group became one of the subordinate headquarters within the command of COMAIRSOPAC. Other subordinate headquarters were those of United States Naval Aircraft, 1st Marine Air Wing, and 13th United States Army Air Force.

Wallingford was responsible to COMAIRSOPAC for the operational efficiency of all units under his command, but operation orders were issued direct to the units concerned by the American commanders to whom they had been allocated. At the same time, as the Group Headquarters was within the headquarters of COMAIRSOPAC, the AOC and his operational staff had some voice in the employment of **RNZAF** squadrons and so retained indirect operational control.

The wireless-telegraphy point-to-point communications system, which had previously been operated by No. 3 Squadron, was transferred to Group Headquarters, through which in future passed all administrative signals traffic for squadrons in the forward area. Operational signals continued to be passed through COMAIRSOPAC channels.

The camp in which No. 3 Squadron had lived since it came to Santo—near the north end of the Bomber I airstrip at Pallikulo— was established as an **RNZAF** station in January under the command of Wing Commander Fisher, who also commanded No. 3 Squadron. The building of a new camp was begun by an American construction battalion, and in March and April the New Zealanders moved over to it, vacating the old site. Wallingford and his staff moved in early in March. The completion of the camp was held up for a long time by lack of materials. The huts for the camp had been ordered in November 1942 to provide better living quarters and reduce the incidence of fever, in case operational progress slowed down and it became necessary to use Santo as a permanent camp. In fact, the island was occupied by Americans and New Zealanders for the rest of the war and the improved accommodation proved valuable. During the next few months additional construction was carried on by **RNZAF** works personnel.

Until the Group Headquarters was fully staffed and could function as a complete unit, an interim organisation was set up within **RNZAF** Station, Santo. The Station Headquarters, under the direction of Group Headquarters, correlated policy, equipment, establishment, personnel, and other matters relating to the various units in the area, for reference or forwarding to higher authority. Each squadron organised its own headquarters on a unit basis, and became responsible to Station Headquarters for its own camp repair, maintenance and sanitation. The embryo Group Headquarters was fully occupied with air staff work and in organising its own administration.

The first appointments to be filled for the formation of Group Headquarters were: Personnel Staff Officer, Flight Lieutenant S. G. Lester, and Group Engineer Officer, Squadron Leader A. T. Giles, MBE. Over the next two months additional posts were filled as follows:

Senior Air Staff Officer	Wing Commander G. H. Fisher
Air I	Squadron Leader I. G. Morrison
Senior Administrative	Squadron Leader J. H. J. Stevenson

Officer

Senior Medical Officer Major J. E. Hardwick-Smith, **NZMC**

Officer

Senior Equipment Squadron Leader D. G. Sinclair

Officer

Group Signals Officer Squadron Leader R. M. Kay

Officer

Staff Intelligence Officer Squadron Leader J. D. Canning (replaced in May by Flight Lieutenant T. G. Tyrer)

Group Armament Officer Flight Lieutenant W. A. Hopkins

Officer

Works Officer Flight Lieutenant R. R. Parsons (replaced in May by Squadron Leader W. J. E. V. Grace)

By the end of May the headquarters had a strength of 14 officers and 13 other ranks and was getting into its stride. Five months later, at the end of October, it had grown to 34 officers and 179 airmen.

In the period immediately following the formation of No. 1 (Islands) Group, the overall administration of the **RNZAF** units in the area was confused. No. 3 Squadron had its rear echelon at Santo and its advanced echelon at **Guadalcanal**. The advanced elements of No. 9 Squadron were at Santo while its ground and headquarters organisation was still at **New Caledonia**, hundreds of miles away. Nos. 14 and 15 Fighter Squadrons were also in the process of moving up and their ground organisations, also, were far in the rear, one in New Zealand and the other at **Tonga**. Consequently the task of administering them was not easy.

Considerable difficulties existed also with regard to supply, not only for the **RNZAF** but for all the Allied forces. Vast quantities of equipment of all kinds were by this time reaching the South **Pacific** from **America**, but few items were received by the units for which they were intended. Ships were sent from **San Francisco** with specific destinations, but once they crossed the international date-line they came under Admiral Halsey's command and were redirected according to operational necessity and the strategic situation at the time. Goods which were awaited in Santo might be unloaded at **Noumea** and might lie there for

months before eventually reaching the unit which required them.

At Santo the unloading of ships was done under the control of the United States Army, who decided what cargo was most urgently required and what ships should be first unloaded. The result was that Navy and **Air Force units frequently had to wait a long time before receiving goods, although the ships carrying them might have arrived safely where they were wanted. Unloading facilities at this time were few, and all the supplies had to be taken ashore in lighters and stored underneath the trees. Nobody had any inventory of the material and consequently no one knew what had come ashore. Anyone looking for a specific item went through the dumps and, if he was lucky, found what he wanted. This state of confusion was perhaps unavoidable in the early stages of the campaign. Things improved considerably when port facilities were developed, and by the middle of May 1943, 11,000 tons a day could be handled.**

ROYAL NEW ZEALAND AIR FORCE

ESTABLISHMENT OF NO. 4 REPAIR DEPOT

ESTABLISHMENT OF NO. 4 REPAIR DEPOT

The move of New Zealand squadrons to the forward area necessitated the setting up of a repair and maintenance organisation, in addition to the squadrons' own servicing units, to keep the aircraft serviceable.

At the end of November 1942, when Allied aircraft were still scarce in the forward area and before the **RNZAF** was established there in any great strength, New Zealand asked whether the Americans could make use of an **RNZAF** salvage party to repair wrecked American aircraft at **Guadalcanal**. The **RNZAF**, it was stated, would be very willing to supply such a party which, it was considered, would be of considerable value. COMAIRSOPAC replied that he did not need a salvage party at present at **Guadalcanal**, but would welcome it at the repair base being established at Santo, where it could also be available to overhaul **RNZAF** Hudsons in emergency.

The Deputy Director of Repair and Maintenance, Squadron Leader **Grigg**,¹ flew from New Zealand to Santo to investigate the position and find out how many men would be required. When he came back he reported that the Americans wanted a force of 251 men. A 'Lion' unit, comprising the personnel of a complete repair depot, was due from **America** in two or three months' time, but in the meantime the New Zealanders would be most welcome and would at the same time gain valuable experience.

On the basis of his report it was decided to send a party of men to be used in the American Naval Air Service Repair Organisation at Santo until they could be replaced by the personnel coming from **America**. After that the unit was to remain at Santo and form an **RNZAF** Repair Depot to undertake the inspection and overhaul of New Zealand aircraft. Up till this time New Zealand Hudsons operating overseas had returned

to New Zealand for their overhauls and major inspections, a practice which had had two disadvantages. In the first place it meant that they were out of the operational area for an unnecessarily long time, and secondly, the flying hours used in going to and from New Zealand reduced their periods of operational usefulness.

The unit was assembled and left **Auckland** by ship on 19 January 1943, arriving at Santo on the 25th. The men spent their first five or six days ashore in clearing the camp site in the jungle, putting up tents and digging slit trenches. Early in February the unit was split into three parties. The first, comprising aircraft hands, cooks, etc., was attached to the rear echelon of No. 3 Squadron for general station duties. The second was attached to the American Aviation Overhaul Organisation for service in the workshops. The third party went to the American Field Service to work on major inspections and repairs on F4F and SBD aircraft. On 15 February Flight Lieutenant **Hughes**² arrived from New Zealand and took command of the unit.

At the beginning of May a detachment under Flight Sergeant **Apperly**³ was sent to **Guadalcanal** to assist in the repair of Hudson and Kittyhawk aircraft there. By this time No. 9 Squadron was at Santo, having moved from **New Caledonia**, and was providing a reserve of crews and aircraft for No. 3 Squadron at **Guadalcanal**. No. 14 Fighter Squadron was also there, and No. 15 Squadron had recently passed through on its way from **Tonga** to **Guadalcanal**.

¹ **Wg Cdr H. T. Grigg**, OBE; Hororata; born Eiffelton, 19 Sep 1915; aeronautical engineer.

² **Sqn Ldr A. A. Hughes**, m.i.d.; **Wellington**; born Darlaston, England, 23 Nov 1907; aero fitter.

³ **W/O W. R. Apperly**; **Auckland**; born **Auckland**, 29 Jul 1913; mechanic.

With four squadrons in the area there was enough repair and inspection work to justify the establishment of an **RNZAF** repair depot. On 7 May the Director of Repair and Maintenance, Wing Commander **Keogh**, ¹ came up from New Zealand to a conference with the American authorities and concluded arrangements for the allocation of a site and the commencement of work on a workshop area. Ten days later the clearing of a site was begun. The initial work was done by **RNZAF** personnel withdrawn from the American Field Service Unit and armed with slashers and axes. Later they were assisted by American bulldozers and other equipment.

Material for building hangars and workshops was sent from New Zealand, and a works party under Pilot Officer **Sisson** ² was also sent to do the construction work. The first hangar was completed on 20 July and the unit started work on its first major aircraft inspection. In the following weeks the men still employed at Field Service and Aviation Overhaul were gradually withdrawn and started work in the **RNZAF** Repair Depot.

Earlier in July the detachment at **Guadalcanal** had been strengthened to thirty-five men, while 100 of the men who had been working on SBDs at Field Service and Overhaul had been put through a co-ordinated course on those aircraft, and had returned to New Zealand to form the nucleus of ground staff for the **RNZAF** SBD and TBF ³ squadrons which were forming there.

By the beginning of October four hangars had been completed at the repair depot, and it was decided to build no more. The depot consisted of the hangars, in which complete overhauls and major inspections of airframes and engines were carried out; the general engineering section, with coppersmith's and blacksmith's shop; and an electrician's shop, instrument shop, armoury, propeller shop, fabric workers' and carpenter's shop, parachute section, engine repair shop, engine store, main store and offices.

The unit by this time was working smoothly at high pressure, as was

the **Guadalcanal** detachment. Its strength, owing mainly to the repatriation of the hundred men in July, was reduced to 73 at Santo and 34 at **Guadalcanal**. To bring it up to a strength sufficient to cope with its present work and the work it was expected to do in the near future, Air Headquarters was asked to post 50 more men to Santo and 15 to **Guadalcanal**.

¹ **Gp Capt M. S. Keogh, OBE, AM; Tauranga; born Ireland, 15 May 1889; D of Repair and Maintenance, RNZAF, 1940–46.**

² **Flt Lt F. A. Sisson; Auckland; born Auckland, 24 Dec 1905; civil engineer.**

³ **SBD Dauntless; made by Douglas, America; single-engined scout and dive-bomber; maximum speed over 250 m.p.h.; cruising range over 1500 miles. TBF Avenger; made by Grumman, America; single-engined torpedo-bomber; maximum speed approximately 175 m.p.h.; cruising range approximately 1350 miles; used by the RNZAF as a dive-bomber.**

The establishment of the Repair Depot was cancelled and was replaced by a larger establishment for a Base Depot Workshops. The manning position at home, and the difficulty of finding men in the required trades who were fit for tropical service, caused some delay in filling the new establishment, but the additional personnel were posted to Islands Group before the end of the year.

It had been intended originally that the Repair Depot at Santo should carry out complete overhauls of both airframes and engines, making the **RNZAF** in the forward area self-supporting as far as technical work was concerned. This policy was not fully implemented, as by August the Americans had established an Aircraft Engine Overhaul Base at Ie Nou, **New Caledonia**, and the Aviation Repair and Overhaul Unit at Santo, and had offered their facilities to the **RNZAF**. There was some opposition from the **RNZAF** to allowing overhaul work to be done

in the American workshops, as it was considered by a number of officers that it would be better to have all work on New Zealand aircraft done by New Zealanders. However, in view of the American offer the [RNZAF](#) Repair Depot was organised to do complete overhauls and repairs only to airframes. Deciding factors were the accelerated supplies of new aircraft arriving in New Zealand in the latter part of 1943 and the need to divert a number of technical men to assemble them. Had the Repair Depot been fully manned to cope with both engines and airframes, the assembly of aircraft arriving in New Zealand would have been delayed and it would have taken longer to have them ready for operations.

Under the revised policy the engines of fighter aircraft, when they became due for complete overhaul, were handed over to the Americans in exchange for new or reconditioned ones and were overhauled by the American depots and put into a common pool. Bomber-reconnaissance aircraft needing engine overhauls continued to be flown back to New Zealand, where the work could be done by the large number of technical men in the [Air Force](#) who were medically unfit for service in the tropics.

ROYAL NEW ZEALAND AIR FORCE

INTRODUCTION OF THE AIRCREW ROTATION SYSTEM

INTRODUCTION OF THE AIRCREW ROTATION SYSTEM

The problem of daily servicing of aircraft, as distinct from repair and overhaul, was met by the formation of servicing units. The first New Zealand squadrons to go overseas, both bomber-reconnaissance and fighter, went as complete units taking their servicing staffs as well as aircrews. American experience had shown, however, particularly with regard to fighter squadrons, that aircrews could remain in the combat area only for a short time if they were to stay efficient. The **RNZAF decided to follow the American practice, giving them only short tours of duty. In May 1943 it was laid down that the tour for fighter pilots should consist of six weeks at Santo on training and garrison duties, followed by six weeks in the combat area. At the end of a tour they returned to New Zealand for leave and training before proceeding on another. The length of each stage of the tour was modified from time to time as operational conditions changed, but the principle remained the same for the rest of the war.**

The practice of giving aircrew short tours in the tropics contributed greatly towards efficiency in the air and to a low wastage rate. It was costly in movement and loss of time, but it ensured a high standard and also reduced the necessity for training new crews.

ROYAL NEW ZEALAND AIR FORCE

FORMATION OF SERVICING UNITS

FORMATION OF SERVICING UNITS

It was naturally impossible to transport whole squadrons, including ground staff, to and from New Zealand every three months; nor was it necessary, since the men working on the ground suffered less strain and could remain efficient in the forward area longer than those flying in combat. Consequently, in June 1943 the fighter squadrons already overseas and those forming in New Zealand were organised as flying echelons and maintenance echelons. The former were to move in accordance with the six-weekly rotation plan and the latter to remain stationed in one place and take over the maintenance and servicing of successive flying echelons. The maintenance echelons were divorced entirely from the flying echelons and were renumbered as fighter maintenance units. The engineer officer of the maintenance unit was responsible to the officer commanding the flying echelon—henceforth called the squadron—to which it was temporarily attached for the maintenance of its aircraft; and the maintenance unit as a whole came under the authority of the squadron commander. Whenever a maintenance unit was temporarily unattached to a squadron, it was treated as a lodger unit on the station at which it was based, under the command of the engineer officer, who was given the powers of a subordinate commander.

The principle was extended to bomber-reconnaissance squadrons in August. Up till then Nos. 3 and 9 Squadrons, which were in the forward area, relieved their crews by infiltrating fresh crews from the rear areas. In that month, however, it was decided that, taking all things into consideration, the divorcing of the maintenance units and the flying squadrons was the most efficient way to operate in the tropics. Henceforth bomber-reconnaissance squadrons, like the fighters, moved as complete aircrew units. In October the fighter and bomber

maintenance units were renamed servicing units and were known as such for the rest of the war.

When the dual organisation of squadrons and servicing units was first proposed there were fears that it would break up the team spirit between ground crews and aircrews. Its introduction caused numerous complaints from officers and men, especially in the longer-established bomber-reconnaissance squadrons where they had been working together for a long time and had built up a solid squadron spirit. There is no doubt that at times a rift did develop between aircrew and ground staff, but the effects proved less serious than might have been expected. If squadrons in the forward area failed to combine as closely with the ground staffs as they would have done had they been stationed permanently with them, the effect did not result in any noticeable lowering of morale or efficiency.

ROYAL NEW ZEALAND AIR FORCE

CONSTRUCTION OF RNZAF CAMPS IN THE FORWARD AREA

CONSTRUCTION OF RNZAF CAMPS IN THE FORWARD AREA

When the **RNZAF** originally moved into the forward area there was no intention that any works personnel should be sent. Although a party had been sent to **New Caledonia** in July 1942 to erect prefabricated huts for No. 9 Squadron, generally speaking **RNZAF** units in the tropics had at first to fend for themselves under active-service conditions.

Early in 1943 it was agreed that all **RNZAF** units should arrive at their destination with tents for accommodation and with cooking and other amenities in keeping with life under canvas. American supply services were to be responsible for equipping the camps on a similar scale to that provided for their own squadrons in the area. For many months the Americans were unable to give much assistance in the construction of **RNZAF** camps, and during the first part of 1943 many urgent requests were received by Air Headquarters from No. 1 (Islands) Group for additional domestic and technical accommodation. As the number of men in the area increased the problem became more pressing.

Since the Americans could not help in bringing the New Zealand camps up to the required standard, it became necessary during 1943 to send more and more works personnel overseas. The first party, consisting of about fifty men under the command of Flying Officer **Puddy**,¹ left New Zealand by ship in mid-January and arrived at **Guadalcanal** on 7 February. It consisted of tunnellers, bushmen, carpenters, tractor drivers, and men in other similar trades. It took with it a small sawmill plant so that it would be able to mill its own timber.

The most urgent need at **Guadalcanal** was the provision of dugout accommodation to give the personnel of No. 3 Squadron protection from the nightly Japanese air raids. This was achieved by driving a tunnel right through a ridge close to the squadron's camp site. When that was

complete, the works party built a new **RNZAF** camp. Hitherto the New Zealanders had been living in tents in a jungle-clad gully where rain, mosquitoes, and mud made life very trying. The new camp was built on a nearby ridge, and eventually, when board floors and mosquito-net sides had been made for the tents, it became relatively comfortable.

During March and April No. 3 Squadron was joined at Guadalcanal by No. **52 Radar Unit** and No. 15 Fighter Squadron. In each case the units had to set up their own camps with what assistance could be given by the overworked Works Detachment, and it was some months before all units were adequately housed.

Another works party was sent to Santo in March and was immediately employed in moving the original **RNZAF** camp, which had been built in the jungle, into an adjoining coconut plantation. The Americans assisted with the clearing of the undergrowth, the formation of roads and some construction work. All other work, including internal work on all buildings, provision of water supply, electric lighting and sewerage, was done by the small **RNZAF** works unit.

At the end of May more than a hundred additional works personnel were sent to **Guadalcanal** and Santo to assist in construction and maintenance work in the various camps, and particularly to help in the erection of buildings for No. 4 Repair Depot. Towards the end of the year the unit known as No. 1 (Islands) Works Squadron was formed within No. 1 (Islands) Group, and became responsible for all camp construction carried out by the **RNZAF**. Throughout the rest of the war it consisted of a number of detached flights which were stationed wherever construction work or sawmilling was needed.

¹ **Fg Off W. E. Puddy; Greymouth;** born Dunedin, 8 Jan 1901; civil engineer.

ROYAL NEW ZEALAND AIR FORCE

LOGISTIC SUPPORT IN THE FORWARD AREA

LOGISTIC SUPPORT IN THE FORWARD AREA

Another matter with which No. 1 (Islands) Group Headquarters was intimately concerned was the question of supply. Although the broad principles of obtaining supplies for the **RNZAF** had been recognised by the Mutual Aid Agreement signed in September 1942, the actual mechanism by which New Zealand units obtained their supplies in the **Pacific** was confused until some months later.

By the end of 1942 it was clear that the **RNZAF**, operating throughout the **Pacific** under American command, would not be able to use its own exclusive supply channels, partly owing to its small size compared with the **United States Forces** in the area, and partly because of the lack of shipping under New Zealand control. It would have been uneconomic and almost certainly impracticable to set up separate stores depots to handle the equipment it required.

In June 1943 approval was finally given from **Washington** for all **RNZAF** squadrons operating United States Navy-type aircraft to be treated for supply exactly as if they were United States Navy squadrons, and in the same month the United States War Department issued a directive outlining a policy under which the United States Army Air Forces were to assume responsibility for supplying aircraft and equipment to Allied air forces using American Army-type planes. In the meantime, however, the principle had already been adopted by the commanders in the field, and from early 1943 New Zealand squadrons were being supplied with most of their equipment from local American stores depots.

ROYAL NEW ZEALAND AIR FORCE

FORMATION OF BASE DEPOT, SANTO

FORMATION OF BASE DEPOT, SANTO

During 1943 the number of **RNZAF** units in the forward area increased steadily as has already been mentioned, and more increases were planned for 1944. This, together with the additional ancillary supply and maintenance organisations which were necessary to maintain the squadrons, involved an increasing amount of administrative work. At the same time, the changing strategic situation following the occupation of **New Georgia** in August made it desirable that Group Headquarters should eventually move farther forward. Much of the administrative work at Santo was becoming more appropriate to a base organisation than a forward group headquarters. It was therefore decided to form a base depot at Santo and maintain the Group Headquarters on as mobile a basis as possible so that it could be moved when required. The Group Headquarters was to consist of an adequate air staff and a minimum number of specialist staff officers to co-ordinate the requirements of forward squadrons and to act as a link between the AOC and the base organisation.

On 1 November 1943 Base Depot, **Espiritu Santo**, was formed. It took over the functions of **RNZAF** Station, Santo, and also assumed the following responsibilities of Group Headquarters:

- (Air, surface, and mechanical transport
a)
- (Supply, maintenance, and works
b)
- (Equipment, technical and non-technical
c)
- (Medical services
d)
- (Personnel matters, other than those concerning officers and aircrew
e) which remained under the administration of the Senior Personnel

Staff Officer.

The re-allocation of duties following the establishment of Base Depot resulted in a number of postings from Group Headquarters to the base strength. At the end of November the strength of Group Headquarters had fallen to 17 officers and 60 other ranks.

Wing Commander [Rawnsley](#),¹ who had been in command of [RNZAF Station, Santo](#), was posted at the end of October to command [RNZAF Station, Guadalcanal](#), and Wing Commander [Tancred](#)² was appointed Officer Commanding Base Depot. At the end of November Air Commodore Wallingford relinquished command of No. 1 (Islands) Group and was succeeded by Air Commodore Buckley.

At its inception the Base Depot comprised the following units:

No. 4 Repair Depot

No. 14 Squadron

No. 3 Squadron, which had recently returned from Guadalcanal.

Nos. 1 and 12 Servicing Units

No. 6 Flying Boat Squadron, located at [Segond Channel](#)

Base Depot Headquarters, which included No. 2 [RNZAF Hospital](#).

The total strength of these units amounted to 1196 men. Group Headquarters was also located at the Base Depot, as was a transit camp which was independent of the Base.

¹ **[Wg Cdr I. E. Rawnsley](#), MBE; [Wellington](#); born [Wellington](#), 14 Jan 1898; company director.**

² **[Wg Cdr H. L. Tancred](#), AFC; [Blenheim](#); born [Kingaroy](#), Queensland, 30 Dec 1908; civil airways pilot.**

ROYAL NEW ZEALAND AIR FORCE

MOVE OF NO. 1 (ISLANDS) GROUP HEADQUARTERS TO GUADALCANAL

MOVE OF NO. 1 (ISLANDS) GROUP HEADQUARTERS TO GUADALCANAL

Although it was desirable that the Group Headquarters should be in touch as closely as possible with the forward squadrons, its location was so closely related to that of COMAIRSOPAC that it was not possible to make a move until the higher command also moved forward. It had been intended to move the headquarters forward in November, but owing to lack of accommodation at **Guadalcanal** the move was delayed until January 1944. Between the 5th and 7th of the month the entire personnel of the headquarters was carried by C47 aircraft running a shuttle service from Santo to **Guadalcanal**. There a camp was occupied which had been prepared near the existing **RNZAF** station under the direction of Squadron Leader **Grace**.³

The camp was not yet fully completed, but, allowing for this, all ranks found it moderately comfortable. Its completion was delayed by bad weather, and it was some weeks after the Group moved into it before it was entirely satisfactory. The splitting up of functions between Group Headquarters and Base Depot, and the subsequent move of the group to **Guadalcanal**, gave rise to certain administrative difficulties. Differences of opinion as to the respective responsibilities of the operational and base organisations took some time to settle. The base administration tended to become out of touch with operational requirements, and it was not until several reallocations of functions had been tried that the organisation settled down to run smoothly.

The need for the development of the Group Headquarters, and indeed for much of the administrative organisation in the South **Pacific**, was at times questioned by people who regarded it as a waste of manpower. The opinion was expressed that it would have been more economical if New Zealand squadrons had been formed and worked entirely under **United States** administration, becoming in effect American units.

Such criticism failed to take account of the practical difficulties which would have been involved, even had the Americans wanted us to take such a course, as well as the effect on morale both in the **Air Force** and in New Zealand as a whole. Technical difficulties could doubtless have been overcome, and if all administrative services had been provided by the Americans there would have been a saving in New Zealand manpower. But the South Pacific war vitally concerned New Zealand, and national sentiment would not have permitted men to be sent to fight under a foreign flag, no matter how close and friendly was the feeling between the Allies.

That being the case, it became necessary to evolve our own administration in the **Pacific**, co-ordinated and controlled by one headquarters. The difficulties caused by the vast distances between different units, and at times between sections of the same unit, have already been referred to. They were heightened by the fluid nature of the war. As the operational zone moved northwards new bases had to be established and the role of old ones changed.

The detailed planning of all changes dictated by higher policy, as well as the maintenance of supply and personnel services, was the responsibility of the Group Headquarters. Policy was often changed at short notice, making necessary sudden and drastic changes in planning. Shortages of shipping space delayed the execution of projected moves sometimes for weeks, and in turn upset other plans already made. By executing the policy of the American command on the one hand and co-ordinating the administration of the lower formations on the other, the headquarters performed an essential function in maintaining the effectiveness and efficiency of **RNZAF** units in the area.

³ **Sqn Ldr W. J. E. V. Grace**, m.i.d.; **Lower Hutt**; born **Palmerston North**, 4 Dec 1900; civil engineer.

ROYAL NEW ZEALAND AIR FORCE

THE NEED FOR AIR TRANSPORT

THE NEED FOR AIR TRANSPORT

The support of the **RNZAF** units under the control of No. 1 (Islands) Group was very largely dependent upon air transport. Shipping between New Zealand and the forward area was scarce and subject to delays and cancellations, and was beyond the direct control of the **Air Force**. While a great deal of the equipment used by New Zealand units was shipped to island bases direct from **America**, and was obtained by the **RNZAF** on the spot, a considerable quantity of goods, and practically all personnel, had to be carried to the forward area from New Zealand.

Early in 1942, when it had appeared that a balanced air force would be necessary in New Zealand to fight off an invasion, troop-carrying aircraft had been requested from the British Government, but none could be spared. Later, when plans were made to send **RNZAF** squadrons up to the **Pacific**, the need for transport aircraft became more intense. Towards the end of 1942 the Chief of Air Staff visited **Washington** and discussed the matter with General Arnold, Chief of Staff of the **USAAF**, and eventually, in December, the **RNZAF** was allocated six C47 Dakotas and nine C60 Lodestars for 1943.

Until these became available the **RNZAF** depended for overseas transport mainly on the two American transport organisations operating in the **Pacific**, the Naval Air Transport Service and the Services Command Air Transport, both of which had terminals in New Zealand. Liberators passing through **Whenuapai** from time to time also carried New Zealand personnel when space was available, and use was made of **RNZAF** Hudsons going to or returning from overseas stations. In the early part of 1943 the Hudsons carried an average of about forty-five persons a month in each direction. As the amount of traffic increased it became necessary to make increasing use of Hudsons for inter-island transport. The practice was doubly unsatisfactory in that the payload of

a Hudson was extremely small and, moreover, each aircraft used on transport work reduced the already limited number available for combat operations.

ROYAL NEW ZEALAND AIR FORCE

FORMATION OF NO. 40 (TRANSPORT) SQUADRON

FORMATION OF NO. 40 (TRANSPORT) SQUADRON

With the promise of transport aircraft to be supplied in 1943, preparations were made to form a transport squadron based on **Whenuapai**. Squadron Leader Lucas, DFC, ¹ who had returned to New Zealand after two tours of operations in **Europe**, was appointed to command it. The first aircraft, a C47, was flown out from the **United States** by an American delivery crew, and reached **Whenuapai** towards the end of March. All the C47s were delivered by the end of May, while five of the C60s arrived by sea during June and the rest later in the year. No. 40 Squadron was officially formed on 1 June, its mission being to carry aircrew, ground staff, mail and urgent freight, in that order of priority, between New Zealand and the forward area.

A **Pacific** ferry flight was formed in April 1943, under the command of Wing Commander R. J. Cohen, to assist in the delivery of aircraft by flying them from **America** or **Hawaii** to New Zealand. C47s for the transport squadron and PBYs for the flying-boat squadrons were flown from the west coast of **America** by New Zealand crews, while PV1s for the bomber-reconnaissance squadrons were generally shipped to Kaneohe in **Hawaii**, assembled there by the United States Navy, and then flown to New Zealand. In June a small **RNZAF** detachment was stationed at Kaneohe to help to assemble and test the aircraft before they were picked up by the ferry crews. In September the detachment was withdrawn and the ferry flight absorbed by No. 40 Squadron, which took over its responsibilities.

For the first two months after the formation of No. 40 Squadron in June 1943 its aircraft operated only as and where they were required. The irregular flying hours which resulted made it impossible to plan the maintenance of the aircraft in relation to flying commitments, which meant that at times there were several serviceable planes lying idle, and

at others none was available because all were undergoing inspections.

This difficulty was overcome when the squadron obtained its full quota of aircraft and trained crew and was able to start operating on regular schedules. The first schedules to be flown, starting in August, provided two C47s and four C60s from **Whenuapai** each week. One C47, leaving on Monday, flew the route **Whenuapai- Nausori-Santo-Guadalcanal-Santo- Whenuapai**, arriving back in New Zealand on Thursday; the other, which left on Friday, flew the same circuit in the opposite direction. Two C60s, departing on Wednesdays and Sundays, operated over the same route with an additional call at Tontouta, **New Caledonia**. The third C60 carried passengers and freight to **Norfolk Island** each Friday, returning the same day. The fourth, which left **Whenuapai** every Thursday and arrived back the following Monday, carried mail to all **RNZAF** bases in the South Pacific. At the end of October the schedules were amended to include **Ondonga**, New Georgia, where the **RNZAF** fighter wing had recently been established.

¹ **Wg Cdr F. J. Lucas**, DFC and bar; Queenstown; born Dunedin, 18 Aug 1915; **RAF** 1936–39; transferred **RNZAF** 1939.

ROYAL NEW ZEALAND AIR FORCE

CHAPTER 13 – THE CENTRAL SOLOMONS CAMPAIGN

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ROYAL NEW ZEALAND AIR FORCE

[SECTION]

WITH the Japanese evacuation of **Guadalcanal** on 8 February 1943 the United States Pacific Command had attained its objective in the first limited offensive against the enemy forces in the area—the capture of **Henderson Field** and the elimination of Japanese forces on the island. The neighbouring South-West Pacific Command had also attained its first objective in **New Guinea** with the capture of Buna in January. From February to June both commands made preparations for major offensives to drive the Japanese out of their bases on **New Guinea** and in the **Solomons**. The ultimate aim of both campaigns was to destroy or at least render ineffective the major enemy base at **Rabaul**. The drive through **New Guinea**, under the control of the South-West Pacific Command, was directed against Lae and Salamaua. The South Pacific Command was ordered to destroy the enemy air forces on **New Georgia** and to establish a base at **Empress Augusta Bay** on **Bougainville**, from which a major air offensive could be launched against **Rabaul**.

Until June there were no important land operations in the **Solomons**. The only forward move made by the American forces was to the **Russell Islands**, 50 miles north of **Guadalcanal**, which were occupied without opposition on 21 February. The enemy had maintained a small force there for a short time earlier in the year but had withdrawn it when **Guadalcanal** was evacuated. The Americans constructed two airfields and a naval base on the islands. The first airfield came into operation on 25 May. As a result enemy shipping in the Buin anchorages came within closer range of American dive-bombers, and it became possible to give fighter protection to bombing strikes against the **New Georgia** area.

The operational strength of the **RNZAF** at Santo was increased in the early months of 1943 by the addition of No. 9 Squadron, which moved up from **New Caledonia** in March, and No. 14 Fighter Squadron, which came from New Zealand at the beginning of April. No. 9 Squadron,

besides providing a reserve of aircraft and aircrews for No. 3 Squadron, carried out shipping escorts in New Hebridean waters and special searches whenever enemy submarines were reported. On the whole, operations were uneventful and no enemy vessels were seen.

No. 14 Squadron, as soon as it settled in, took over the fighter defence of the island. Operating under orders of the United States Interceptor Command, it maintained twenty-four-hour readiness in anticipation of sneak raids by Japanese aircraft. Frequent scrambles were ordered, both by day and by night, to intercept unidentified aircraft, but no hostile planes were met. The only occasion on which an enemy machine was identified was on a night in late May, when four pilots were ordered up to intercept a Japanese bomber which had dropped bombs on **Segond Channel**. No interception was made, as the radar unit controlling the operation lost contact with the enemy at the crucial moment.

No. 3 Squadron's operations from **Guadalcanal** in the weeks that followed the Japanese evacuation were also relatively uneventful. The period was not marked by important operations by the Allied air forces, although it was not entirely devoid of action. American air attacks against enemy bases and shipping to the north occurred almost daily. The air force was employed by the Americans as the primary offensive arm in an attempt to close the enemy shipping routes between Buin and **New Georgia** and to prevent the enemy air force from permanently using its forward airfields at **Munda** and Vila.

The task of the Allied air forces was to strike at the bases and airfields in the Buin- **Kahili** area, the shipping lanes between Buin and **New Georgia**, and the forward airfields at Vila and **Munda**. The effectiveness and weight of the Allied bombing strikes increased as the air force bases on **Guadalcanal** were steadily reinforced. **Munda** and Vila were kept unserviceable by repeated bombing and could be used by the Japanese only as staging bases for their spasmodic attacks against **Guadalcanal** and the Russells.

The only engagement which No. 3 Squadron had with the enemy in February, after the Japanese evacuation, occurred on the 13th when a Hudson on patrol fought off an attack by three Japanese fighters. A major contact with enemy shipping was made on the 27th when a Hudson sighted two warships and a cargo ship off **Vella Lavella**. American bombers were directed to the convoy and set two of the ships on fire.

Twice in February Hudsons sank enemy barges carrying troops and supplies, one off southern **Choiseul** and another on Kolo Lagoon in the south-east of the New Georgia Group.

Routine operations were daily search patrols, three in the morning and five in the afternoon. Besides these, **RNZAF** Hudsons were employed on weather reconnaissance flights in the Buin area immediately before American bombing attacks against shipping there. When returning from these flights in the early hours of the morning the Hudsons generally dropped bombs on **Munda** or Vila.

In March No. 3 Squadron was still employed on sea patrols and flew a total of 249 sorties during the month. Only four Japanese ships were sighted on these flights, and the Hudsons were engaged on four occasions with enemy aircraft without loss to either side. The squadron also took part in minor air attacks against the enemy barge staging points on Viru, and continued to carry out nuisance raids on **Munda**. Although the damage that could be done by a Hudson's bombs was relatively small, every crew was given the opportunity to take part in bombing raids whenever possible so that the men had the satisfaction, after endless hours of monotonous patrolling, of hitting at the enemy.

On the nights of 20–21 and 21–22 March, when American bombers made heavy attacks on enemy shipping and laid magnetic mines off the coast of southern **Bougainville**, Hudsons acted as navigation planes, dropping flares to guide the bombers back to **Guadalcanal**. This practice was extended during April. The Avengers and Dauntlesses which formed the major part of the American attacking forces did not carry

navigators, and the task of navigating the plane, as well as flying it to and from the target through several hundred miles of darkness, imposed a great strain on the pilots. The dropping of flares at intervals ahead of the bombers on the way back to base eased the strain and resulted in fewer American aircraft being lost. In this, as in other instances, New Zealand navigators achieved high praise from the Americans for their efficiency and the accuracy of their work.

During April the squadron flew a total of 197 searches and other missions. Only four contacts with enemy ships were made, but a total of 71 enemy aircraft were sighted on 34 different patrols. Hudsons were in action against enemy aircraft on five occasions.

The first enemy plane to be shot down by the **RNZAF** was destroyed on 2 April by a Hudson captained by Flying Officer **McCormick**.¹ The Hudson was on patrol in the afternoon north of **Choiseul** and the enemy aircraft, a float-plane, was seen ahead of it flying in the same direction. McCormick, remembering his orders to avoid combat as far as possible, had to consider whether he would keep to his patrol or alter course to avoid overtaking the enemy. He decided to keep on and close with the Japanese aircraft. The enemy was taken unawares and was shot down in an attack from astern by the Hudson's front guns and crashed into the sea.

That particular patrol was far more eventful than most. Before the fight with the float-plane, the Hudson had dropped two depth-charges and two bombs along the track of a submarine which had crash-dived twenty-five seconds before, and later it was involved

¹ **Flt Lt M. W. McCormick**, m.i.d.; born Hastings, 3 May 1915; clerk; died 5 Jun 1943.

in another combat with two more float-planes. The latter action was broken off before damage had been done to either side.

The most notable feature of the patrols by No. 3 Squadron in early April was the number of sightings of Japanese submarines. Two of the aircraft on reconnaissance on the morning of 1 April saw submarines to the north of Santa Isabel, but on both occasions the vessels crash-dived before the aircraft could attack. The following afternoon another Hudson sighted one surfaced 120 miles south of **Simbo Island**. It attacked as the submarine crash-dived, but the bomb-release gear did not function. A second bombing run was made a minute later and two depth-charges and two bombs were dropped along the submarine's track, but no results were observed. A second sighting was made by another Hudson the same afternoon, 55 miles south of Teop Harbour, **Bougainville**. The submarine crash-dived before the Hudson could reach it. Late in the afternoon of 3 April a Hudson captained by Flight Sergeant **Marceau**, ¹ sighted a large submarine on the surface off the coast of **Vella Lavella**. The aircraft approached it under cover of a rain squall, losing height to approximately fifty feet. When it broke through the squall the submarine was just ahead of it. The conning tower was open and three Japanese were standing on it. The aircraft attacked before the vessel could crash-dive. One depth-charge exploded practically on the bow, a second midway between the bow and the conning tower, and a 250-pound bomb exploded between the conning tower and the stern, blowing the stern to pieces. Immediately after the attack the water was covered with oil and wreckage.

Throughout April No. 3 Squadron continued to carry out routine patrols on a slightly reduced scale, some of the longer searches being taken over for a few days by American B17s. Most of the patrols were uneventful, with the exception of frequent afternoon sightings by Hudsons of Japanese float-planes in the vicinity of **Simbo Island**.

On the afternoon of 10 April a Hudson was attacked by a float-plane 106 miles north of Simbo. The enemy fired several bursts at 800 yards' range without scoring any hits, and then broke off the action. Two float-planes were seen on the 12th but did not attack. Two days later a Hudson on afternoon search was twice intercepted. It was attacked first

by a float-plane 74 miles off Simbo and drove the enemy off by fire from its turret guns. Shortly afterwards it was attacked by a second enemy aircraft, but eluded it and returned safely to base.

¹ **Flt Lt C. S. Marceau, DFC; Auckland; born Opotiki, 15 Jun 1916; engineering storeman.**

In an effort to destroy the float-planes, American fighters were sent out to escort the patrolling Hudsons in the Simbo area. On the afternoon of 16 April the Hudson on afternoon search was accompanied by four P38s. An enemy plane was seen in the usual area about ten miles away, but the fighters did not see it and all efforts to attract their attention to it failed. The next day four fighters patrolled the area on their own but failed to make contact.

On the afternoon of 21 April a Hudson captained by Flying Officer **Golden**, ¹ on routine patrol to the north-west of **Guadalcanal**, was ordered to bomb the village of Malevoli on **Choiseul**. The coastwatcher there had reported that the Japanese had occupied the village and established a radio station in the church. The Hudson came over the target and made two bombing runs at 500 feet. On the first run it dropped two bombs, only one of which exploded, 20 yards to the south-east of the target. On the second run one bomb failed to release and the other exploded on a cliff face 20 yards north-east of the church. The Hudson made another run, but the remaining bomb could not be released and the target was strafed with machine guns. Tracer hit the roof of the church but failed to set it on fire. After the attack American fighters strafed the area, leaving stores and buildings smoking.

Throughout February and March the Japanese air force in the **Solomons** had remained comparatively inactive, apart from minor attacks against **Guadalcanal** and the Russells and on American shipping. In the first week in April reserves were flown in from **Rabaul** and the enemy took the initiative. On 1 April thirty to forty enemy fighters made an offensive sweep over the Russells and were engaged by forty-one

American fighters. Sixteen enemy aircraft were shot down and six American fighters lost.

On 7 April nearly a hundred enemy aircraft attacked American shipping off **Guadalcanal**. Warning of the raid was given by coastwatchers on the islands to the north, and as the planes approached **Guadalcanal** they were picked up by radar. Before the attack began all serviceable bomber and reconnaissance aircraft at **Henderson Field** were flown off in case the airfield should be bombed. When the order to evacuate the field was given four Hudsons of No. 3 Squadron were already out on patrol, and the remaining four aircraft took off and remained in the air to the east of **Guadalcanal** for three hours until the attack was over. The enemy formation, consisting of 50 bombers and 48 fighters, was intercepted by 67 American fighters, and 33 enemy aircraft were reported as shot down for an American loss of seven. Allied

¹ **Flt Lt W. M. Golden; Auckland; born Auckland, 20 May 1920; insurance underwriter.**

shipping losses through bombing were a destroyer, an LST, and the Royal New Zealand Navy corvette *Moa* sunk, with three other vessels damaged.

This was the first major action in which No. **52 Radar Unit, RNZAF**, took part. Its success in directing the Allied fighters on to the raiders was afterwards recognised in a letter of commendation from COMAIRSOPAC.

During May the position of the enemy air force in the **Solomons** deteriorated considerably. American intelligence estimated that the enemy fighter and bomber strength had fallen from 102 aircraft on 15 May to 62 on the 29th. The Japanese still had more than 250 aircraft at **Rabaul** at the end of the month, providing a large reserve on which their forces in the **Solomons** could draw if necessary. Day and night reconnaissance by their search planes over the **Solomons** continued to be thorough, enabling them to bring their reserves from **Rabaul** to any

area which was particularly threatened by the Allies. At the same time the Allied forces at Guadalcanal were steadily being built up and the American commander was able to employ striking groups of up to a hundred bombers and fighters and interception groups of over a hundred fighters.

No. 3 Squadron continued in its role as a reconnaissance squadron, its operational commitment being seven routine searches daily. Only two sightings of enemy ships were reported during the month and on twelve occasions enemy aircraft were seen. Hudsons were attacked on four occasions by enemy aircraft without loss to either side.

ROYAL NEW ZEALAND AIR FORCE

MOVE OF NO. 15 SQUADRON TO GUADALCANAL

MOVE OF NO. 15 SQUADRON TO GUADALCANAL

At the end of April **RNZAF** strength at **Guadalcanal** was increased by the arrival of No. 15 Fighter Squadron, under the command of Squadron Leader **Herrick**,¹ which had moved up from **Tonga**. The squadron had left **Tonga** in two flights on 20 February and 1 March, and had flown to **Santo**, where it had been employed for several weeks on local defence. On 20 March it had moved to **Nandi** in **Fiji** for operational training in conjunction with United States Carrier Air Group 11. It was intended that the squadron should be operated in the forward area with the carrier group, but for various reasons this was not done and the carrier group moved to **Guadalcanal** without the squadron early in April.

After completing training in **Fiji**, the squadron returned to **Santo** and exchanged its aircraft for a more modern type of P40 that had

¹ **Sqn Ldr M. J. Herrick**, DFC and bar, Air Medal (US); born Hastings, 5 May 1921; **RAF**; killed on air operations 16 Jun 1944.

been flown from New Zealand by No. 14 Squadron. It eventually reached **Guadalcanal** on 26 April.

The shipping allocated to carry the ground staff and equipment to the forward area from **Tonga** was repeatedly diverted for other urgent tasks, with the result that the main body of the squadron, together with the radar unit attached to it, did not reach **Guadalcanal** until the flying echelon had practically completed its tour of operations. Consequently, during the tour operations were carried out with practically no equipment other than the aircraft and the pilots' personal gear. The aircraft were maintained by the already overworked servicing

organisation of No. 3 Squadron, assisted by a few men sent forward from No. 4 Repair Depot, and by United States Army Air Force fighter squadrons stationed on the island.

At this phase of the **Solomons** campaign the role of the Allied fighter squadrons operating from **Guadalcanal** was as follows:

- (**Fighter patrols over American base areas at the Russell Islands and**
a) Guadalcanal.
- (**Fighter cover for American convoys in the area.**
b)
- (**Strafing of enemy land targets and ships.**
c)
- (**Fighter escort for American bombers attacking enemy bases, airfields,**
d) and shipping.
- (**Offensive fighter sweeps over enemy bases in the northern Solomons**
e) in attempts to entice the outnumbered enemy fighters into large-
scale actions.
- (**Interception of enemy air attacks against the American bases on**
f) Russell and Guadalcanal and against American shipping in the area.

The first few operations by No. 15 Squadron, beginning on 29 April, were local patrols. All the early patrols were uneventful, as were a number of other operational flights in early May; these comprised escorts to American naval task forces and to American bombers attacking the enemy air bases at **Munda** and Rekata Bay and the barge concentration areas at **Kolombangara**.

The squadron's first contact with enemy aircraft occurred on 6 May, when the squadron commander, Squadron Leader Herrick, and Flight Lieutenant Duncan ¹ were escorting a Hudson on patrol in the area where enemy planes had frequently been seen in the past few weeks. The Hudson was flying at 500 feet with the two fighters at 3000 feet slightly behind it. The enemy float-plane was first sighted from the astro-hatch of the Hudson, about three miles away at a height of 1500 feet. Neither of the fighters could spot him, and the Hudson set off after him at full power but lost him in

¹ Sqn Ldr S. R. Duncan, m.i.d., Air Medal (US); born **Nelson**, 19 Apr 1912; brewer; killed in aircraft accident 15 Oct 1953.

a heavy rainstorm. The fighters groped round in rainstorms and clouds, and finally picked him up. The Hudson's crew heard their tally-hos over the R/T and saw them move in to the attack.

The enemy was still three miles away; he had come down to 800 feet and was flying along beside a heavy, black cloud. The fighters were at 1000 feet. They jettisoned their belly tanks and gave chase, overtaking him in two minutes. Until they opened fire, the Japanese pilot apparently had no idea they were there as he made no attempt to dodge into the shelter of the cloud. They approached from slightly below and directly behind, and fired bursts into the float-plane from a range of 200 yards. It burst into flames and crashed into the sea, and in a minute all that remained of it was a patch of oil and a wing floating on the water.

Two days later eight aircraft of No. 15 Squadron took part in an attack on enemy warships. The Allied coastwatcher at Kolombangara had signalled that three Japanese destroyers were in Blackett Strait, one of them apparently on fire and low in the water. One of them, following an explosion, had gone aground on a reef and another was drifting in the strait, very low in the water and obviously crippled. The ships had evidently struck mines which had been recently sown in Blackett Strait by American naval units.

Despite very bad weather an Allied striking force of 62 aircraft attempted to attack the ships. At half past nine in the morning 19 SBDs and 3 TBFs, escorted by 32 F4Us and 8 P40s of No. 15 Squadron, took off from **Guadalcanal** to search for them. The TBFs and F4Us turned back because of the weather but the SBDs, escorted by the P40s, carried on and made contact with the enemy destroyers near Gizo Anchorage. The New Zealanders, led by Squadron Leader Herrick, attacked first in two sections of four, flying line abreast. In the face of very heavy gunfire they strafed the destroyer which was aground, making their

attack at water level and then leapfrogging over the destroyer and back to water level on the other side. As the second section made its strafing run the SBDs attacked the ship and scored a hit with a 1000-pounder, which set it on fire. The fighter pilots continued their run and attacked landing craft putting troops ashore on a nearby island. They estimated that their fire, delivered from close range, must have caused heavy casualties.

For the rest of May operational activity by No. 15 Squadron was confined almost entirely to local patrols, during which only one contact was made with enemy aircraft when Japanese fighters ventured into the patrol area on the 13th. Only two New Zealanders were in the air at the time. One of them, Flying Officer **McKenzie**,¹ in an engagement with several Zekes, had his aircraft severely damaged and returned to base with over seventy machine-gun and cannon-shell holes in fuselage and wings.

By the middle of 1943 the Allies had amassed enough material and men in the South Pacific to launch an offensive against the enemy positions in the central **Solomons**. The first objective was to be the airfield at **Munda**, on **New Georgia**. Although the central and northern **Solomons** were west of the dividing line between the South Pacific and South-West Pacific areas, the campaign for the occupation of the entire **Solomons** group had, logically, to be launched from the South Pacific area. Consequently, operations were carried out by forces of the **South Pacific Command**, working under the general strategy of General MacArthur. Admiral Halsey was thus responsible both to his own immediate superior, Admiral Nimitz, and to MacArthur.

The Allied force in the attack on **New Georgia** was organised as Task Force No. 33, which was split into Task Group 33+1 under the command of COMAIRSOLS, Rear Admiral Marc A. Mitscher, the striking force, and Task Group 33+2 under the Commander, Espiritu Santo, which was a supporting force and acted as a forward reserve for the units in combat.

COMAIRSOLS had at his disposal a total of approximately 290 fighter

aircraft, 170 dive- and torpedo-bombers, 35 medium bombers, 72 heavy bombers, 18 flying boats, and 42 aircraft of other types. Task Group 33+2 comprised 40 fighters, 72 dive- and torpedo-bombers, 10 medium bombers, 43 heavy bombers, 35 flying boats, and 18 of other types.

The immediate object of the task force was to capture **Munda** and **Rendova** and other enemy positions in **New Georgia**, and destroy the garrisons there in order to prepare for further operations up the **Solomons** chain. The role of the Allied air forces in support of the land and naval operations was to carry out reconnaissance throughout the **Solomons** and as far north as **Buka** and **New Ireland**, give the maximum possible air coverage and support to the land forces, check enemy air operations from **New Georgia** and southern **Bougainville**, and destroy enemy naval units threatening either the South or South-West Pacific forces. Attempts were also made to hinder the movement of enemy shipping in the south **Bougainville** area by laying mines off the coast. The number of aircraft available to the Allied Command was barely enough to perform these tasks effectively, and the maximum effort was required from all units throughout the campaign.

¹ **Flt Lt I. R. McKenzie**; Motunau, North Canterbury; born Mina, 5 Sep 1916; farmhand.

ROYAL NEW ZEALAND AIR FORCE

FIGHTER OPERATIONS IN JUNE

FIGHTER OPERATIONS IN JUNE

The building up of the Allied forces in the **New Hebrides** and at **Guadalcanal** had not gone unnoticed by the enemy, and during the first half of June the Japanese air force made three large but unsuccessful attacks on **Guadalcanal** and the Russells. On the 7th forty to fifty Japanese fighters were intercepted between Buraku and the Russells. Some of them carried light bombs, which apparently were to be dropped on the American dive-bombers on the Russell airstrip. Allied fighters broke up the attack before they reached the target, and only one bomb fell on the islands and that did no damage. A part of the Japanese formation continued to within eight miles of **Henderson Field** on **Guadalcanal**, but heavy rain prevented it from pressing home an attack. One hundred and four Allied fighters were scrambled, forty-four being deployed over the Russells and the remainder over American shipping off **Guadalcanal**. The resulting engagement lasted from eleven in the morning until half past twelve and was fought in very bad weather. Allied fighters claimed twenty-three enemy planes, while American anti-aircraft fire on the Russells accounted for another one. Seven Allied fighters were lost and two crashed in the bad weather.

Twelve P40s of No. 15 Squadron took part in the battle and shot down four enemy aircraft. They suffered no losses, but four were damaged and two of them had to make crash-landings on the Russell airstrip. Two of the enemy were shot down by No. 15 Squadron in the early stages of the battle when the initial Japanese attack was broken up, and part of the squadron carried on in pursuit of the scattered aircraft. Later a series of dogfights took place between small groups, and in this phase the squadron shot down two more.

The following is a report of the action made by one of the pilots,
Flying Officer G. H. **Owen**: ¹

We orbited at the Russells at about 22,000 feet—saw three Zeros— I did not fire at these. Flight Lieutenant Duncan and his section came in and followed them. Sergeant Martin ² shot one down in flames; one disappeared towards Esperance and our section followed the third. Pilot Officer Davis ³ was able to keep up with the leader, but McKenzie and myself had to drop back—we were joined by Sergeant Martin—and all headed for the Russells.

Twenty miles S/W of the Russells we saw a close vic formation of five Zeros, to our port and five hundred feet below. I led the attack, turning left and diving—the Zeros did a left hand steep climbing turn to get back on our tails, and got into line astern. The first three in close line astern,

¹ Flt Lt G. H. Owen; Christchurch; born Christchurch, 31 Oct 1909; company director.

² Flt Lt R. A. Martin, DFC, m.i.d., Air Medal (US); born Feilding, 8 Oct 1920; farmer.

³ Flt Lt A. M. Davis, DFC; Palmerston North; born Ashburton, 8 Jan 1922; clerk.

and the remaining two behind and climbing a little steeper. I decided this was a trap and broke off our attack, and climbed to the right into the sun, after this a dog fight ensued.

Squadron Leader Herrick and Davis had joined us by this time, making a total of five P40s against five Zeros. We made several attacks and passes, more or less individually. McKenzie and my leader then dropped out with gun trouble, and Martin had also dropped out. I saw two Zeros on Davis's tail—the first one firing all guns, with the second Zero above and slightly in the rear, not firing, but protecting the first Zero. I made a left hand turn and fired a long, full deflection burst into the

leading Zero. As I turned into the attack I saw another Zero about a thousand feet below me and flying level—I did not pay attention to this plane as I did not think it possible for it to join the fight, but as I was firing at the Zero on Davis's tail I noticed tracer coming up past the fuselage, and my plane was hit. I looked down and saw this lower Zero firing at a distance of only 60 to 75 yards away.

I stopped firing when my machine was hit and smoke started to pour in to my cockpit—I broke away from the engagement and headed towards the Russells. The motor was knocking badly—oil and engine temperature gauges were off the clock. I prepared to bail out, but as I stood up and prepared to open the canopy the smoke died down, and as I was at 15,000 feet I decided to attempt a crash landing at the Russells. On reaching them my engine stopped and I could not land on the main field as other aircraft were landing. So I landed on the other uncompleted strip which was not long enough, and my aircraft flipped on its nose in the soft mud at the end of the strip.

Throughout the action the manoeuvrability of the Japanese fighters troubled the New Zealanders, whose P40s were the oldest type of fighter engaged, but the battle tactics and flying discipline of the squadron appear to have been an outstanding factor in their successes. According to American intelligence reports the work of the P40s, both **RNZAF** and **USAAF**, in comparison with the more modern fighter types—P38, F4U and F4F-4—was outstanding.

The Japanese made a second fighter sweep on 12 June which was intercepted by ninety Allied fighters to the north-west and east of the Russells. Twenty-five Japanese were shot down for the loss of five American fighters and one **RNZAF**. The enemy fighter force was apparently intended to pave the way for a bombing attack on shipping at **Guadalcanal**, but in fact no attack was made. During the morning flights of Japanese bombers were seen south-west of **Bougainville** and north-east of **Vella Lavella** heading towards **Guadalcanal**, but after the failure of the fighter sweep they kept well away from Allied positions. Twelve aircraft of No. 15 Squadron were scrambled but did not make

contact with the enemy. Eight aircraft of No. 14 Squadron, which was in the process of relieving No. 15 and had arrived the previous day, also took part in the action and shot down six Japanese. The New Zealand casualty was Flying Officer **Morpeth**¹ of No. 14 Squadron, who was shot down in flames.

On 16 June the Japanese made their third and largest attack of the month on American positions when they sent down more than a hundred dive-bombers and fighters, which were reported by the coastwatcher at **Kolombangara** and later picked up on radar. One hundred and four Allied fighters were scrambled to meet the enemy and seventy-four made contact, a high percentage in relation to the number of planes airborne. This was due very largely to the efficiency of the Allied fighter control, which was based on radar plots provided mainly by No. **52 Radar Unit, RNZAF**. As the Allied fighter force outnumbered the Japanese fighters it was able to break up the enemy escort over the dive-bombers, although a few of the bombing group fought their way through to attack American shipping off **Guadalcanal**. Aircraft of No. 14 Squadron formed part of a patrol covering the shipping area. A dogfight between American and Japanese planes was sighted near Savo Island, and the New Zealand pilots dived into an enemy formation of about thirty-three aircraft. In the dispersed engagements which followed four New Zealand pilots accounted for five enemy fighters. The net result of the battle was that seventy-seven enemy planes were claimed by Allied fighters and eleven by anti-aircraft fire. Allied losses were six fighters, one cargo ship which was bombed and forced ashore, and one LST set on fire.

Apart from these three engagements, for which the Japanese had brought reinforcements from **Rabaul**, the enemy air force remained on the defensive throughout the month, making only light raids at night and reconnaissance flights over the Allied positions.

¹ **Fg Off K. P. C. Morpeth**; born **Wellington**, 1 Nov 1914; warehouseman; killed in air operations 12 Jun 1943.

ROYAL NEW ZEALAND AIR FORCE

OCCUPATION OF SEGI

OCCUPATION OF SEGI

The airfield at **Munda**, which was the prime objective of the central **Solomons** campaign, was almost midway between the Japanese airfields in southern **Bougainville** and the Allies' advanced landing strips on the **Russell Islands**. Both sides had approximately the same number of fighter aircraft, and the existence of a landing ground close to the centre of operations would enable the Allies to maintain greater fighter strength over the area. As a prelude to the invasion of **Munda**, two companies of the 4th Raider Battalion, US Marines, landed at **Segi** in the south-east corner of New Georgia on 20 June. Suitable land was available there for an airfield, and there was a good deep-water approach for bringing in supplies by sea.

The Raider Battalion landed unopposed and undetected by the enemy, and two days later was joined by two infantry companies which constructed defensive positions. Construction troops were then brought in, and by 10 July an emergency fighter strip had been built and was ready for operation.

ROYAL NEW ZEALAND AIR FORCE

THE LANDING AT MUNDA

THE LANDING AT MUNDA

On 29 June the troops to make the main assault on **Munda** were embarked at **Guadalcanal** in transports escorted by a naval force. In the early hours of the 30th they landed in darkness and heavy rain on **Rendova Island**, which was separated from **Munda Point** by a channel eight miles wide. Disembarkation proceeded throughout the morning and the transports and their escort left shortly after three o'clock in the afternoon. There had been two air-raid alarms during the day but no enemy aircraft had succeeded in interfering with the landing. Not until the ships were pulling out was an attack made by Japanese torpedo-bombers. They succeeded in hitting one ship, which subsequently was accidentally sunk by an American destroyer.

On the night of 30 June–1 July troops were ferried in small craft from **Rendova** to Zanana, a beach six miles east of **Munda**, across the channel on the mainland of **New Georgia**. Enemy opposition at first was negligible and the greatest obstacle to an advance to **Munda** was the nature of the ground, a swamp covered with dense jungle through which only one trail led. Troops often fought knee-deep in mud, and rations had to be dropped each day by transport aircraft as land transport was useless. To add to the difficulties, the Japanese had covered the area with booby traps and land mines.

The original plan of operations called for the capture of **Munda** airfield by 11 July by the force working westwards from Zanana, supported by another force which was landed at Rice Anchorage on the north of **New Georgia** on the 4th. Stiffening opposition by the Japanese, plus the difficulties of movement in the jungle, resulted in the whole operation taking far longer than had been expected, and **Munda** was not finally captured until 5 August.

ROYAL NEW ZEALAND AIR FORCE

AIR BASES AND OPERATIONS

AIR BASES AND OPERATIONS

At the end of June the Allied air forces had two forward bases for their operations over **New Georgia**. These were at **Guadalcanal** and the **Russells**. **Guadalcanal**, by this time, had four airfields operating: **Henderson Field**, which was the base for all light and some heavy bombers and most short-range search-planes; **Fighter I**, which was the main base for Navy and Marine fighter squadrons; **Fighter II**, for Army and **RNZAF** fighter squadrons; and **Carney Field**, which was the main base for heavy and medium bombers and long-range search-planes. At the **Russells** there were two strips, **North Field** from which operated light bombers and fighters, and **South Field** which was used by fighters only. In addition the field at **Segi** was operational as an emergency landing ground by 10 July. A few days later refuelling facilities were installed, and by the last week of the month it was in full commission as a fighter strip. This cut the distance for Allied fighters from base to the **Rendova** area by 145 miles.

The main bases used by the enemy during the campaign were **Kahili**, where seventy to 100 aircraft were based; **Ballale**, which had a small number of planes, mainly bombers; **Buka**, used primarily as a staging point for aircraft moving between **Rabaul** and **Kahili**; and **Rabaul**, where the main Japanese reserves were stationed.

In the attempt to prevent the loss of **Munda** the Japanese were forced to draw heavily on their aircraft reserves. They put up a stubborn and persistent air defence of the area in an effort to prevent the American forces from capturing the airfield. From 30 June to 7 July they made eleven air attacks in force and several more on a smaller scale. With one exception on 2 July, interception by Allied fighters was highly successful, over 160 enemy aircraft being shot down for an Allied loss of 29 in eleven major actions. Generally the Japanese pressed their

attacks vigorously, but they suffered from the weakness of their aircraft, particularly the lack of armour and self-sealing petrol tanks. Allied pilots reported that enemy aircraft exploded or disintegrated when hit by bursts from 50 calibre guns. The Japanese pilots varied in ability, but their general standard was definitely lower than it had been six months before, and their gunnery was reported to be poor. Their air attacks were generally ineffective and their losses high. Lack of rescue facilities meant that the loss of an aircraft resulted also in the loss of its crew, and the shortage of fuel and training facilities at home made it impossible for the Japanese to replace the highly trained combat pilots with whom they had started the campaign. During the day fighters and twin-engined bombers were employed, and at night float-planes and bombers harassed American convoys in the **New Georgia** area. Night fighters attempted to protect **Kahili** from American bombers and the Japanese air force continued its day and night reconnaissance.

After the defeat of a major attack on 15 July the enemy gave up his attempts to attack the Allied forces in daylight. In the last phase of the battle, although his land forces needed all possible air support, his offensive operations were limited to fighter sweeps, sometimes accompanied by a small number of dive-bombers, and to the night harassing of American land and naval forces by float-planes and medium bombers.

Fighter squadrons were employed by the American Command as bomber escorts for daylight patrols over **Rendova** and for the defence of the Russells and **Guadalcanal**. Allocation of aircraft to meet all the requirements of these operations was one of the major problems involved in the campaign, and every available aircraft was employed. For the **Rendova** patrol a daily schedule was evolved, putting thirty-two fighters over the island each morning and keeping that number on station until half past four in the afternoon, with sixteen remaining there until five o'clock. To maintain a constant patrol ninety-six fighters were required, which left only eighty to one hundred available for other operations. The patrol covered most of the light bomber attacks against **Munda** and Vila,

but for heavy strikes on these targets additional fighter protection was required for the bombers. When on station the patrol circled round Vega, the American radar station which had been set up on the island immediately after landing. Usually the aircraft were 'stacked up', changing their altitude from time to time to cut down individual oxygen consumption. When protecting bombers attacking the airfield at **Munda**, patrols moved from the orbit area so as to be in a position to intercept Japanese fighters which might try to interfere with the raid.

The maintenance of a constant patrol was criticised by some since it meant having a limited number of aircraft constantly in the air and vulnerable to attack by large enemy formations. However, the patrol was seldom seriously challenged. Its success in warding off enemy air attacks is indicated by the fact that in the entire operations, lasting more than five weeks, only three hits were scored on ships by Japanese bombers and torpedo-planes and none of the ships was sunk. Only one horizontal bombing attack reached its objective in daylight and this occurred when there was no Allied fighter patrol in the area. As a result American shipping bringing vital supplies and reinforcements to the land forces on **New Georgia** was never seriously interfered with. Nor, except for dusk attacks, was the enemy air force able to press home bombing attacks against the American troops ashore.

ROYAL NEW ZEALAND AIR FORCE

OPERATIONS BY NO. 14 SQUADRON, RNZAF

OPERATIONS BY NO. 14 SQUADRON, RNZAF

From the day of the initial landing until 7 July, No. 14 Squadron was engaged regularly on **Rendova** patrols. On 30 June sixteen of its aircraft left their base in the early morning, led by Squadron Leader **Quill**.¹ They sighted enemy aircraft over **Rendova** but were not engaged. When they had completed their patrol they landed at the Russells, where nine other pilots of the squadron had arrived by transport plane from **Guadalcanal**. In the afternoon fourteen aircraft again went up on patrol and again did not make contact with the enemy. It was altogether an unsuccessful day. The Americans, in a series of interceptions, claimed over one hundred enemy aircraft destroyed, while No. 14 Squadron did not even have a fight and lost two aircraft and one pilot in a collision on the runway. Operational facilities at the Russells were primitive, and the refuelling and rearming of the aircraft were painfully slow. None of the pilots had anything to eat all day although a number were flying for eight hours out of the twelve.

On the morning of 1 July a force of enemy dive-bombers and fighters attacked American positions on **Rendova**. They were intercepted by Allied fighters, including eight aircraft of No. 14 Squadron, led by Flight Lieutenant **Brown**.² In the resulting action twenty-two enemy aircraft were shot down for the loss of eight Allied fighters; No. 14 Squadron claimed seven enemy aircraft destroyed and three probables. When first sighted by the New Zealanders, enemy dive-bombers covered by Zeros were bombing American ships in the **Rendova** area and were being attacked by American P40s. The New Zealand formation dived out of the sun on to the enemy, who were about 7000 feet below. Owing to cloudy conditions the patrol was badly split up, but in the dogfights that followed six pilots accounted for an enemy aircraft each and one, Pilot Officer **Weber**,³ destroyed two. Two New Zealand aircraft were lost and

the pilots baled out. Pilot Officer Burton, ⁴ who came down in the **Munda** area, was not seen again, while Flight Lieutenant Brown, who abandoned his aircraft on the way back to base, landed in the water and was eventually picked up by a rescue boat after four and a half hours.

In an action which took place two days later eight aircraft of No. 14 Squadron, on patrol at 14,000 feet over **Rendova**, were surprised by a force of over forty enemy aircraft. In this engagement Squadron Leader Quill and Sergeant **Nairn** ⁵ each shot down an enemy aircraft and Flying Officer **Fisken** ⁶ claimed three. Later Quill was wounded in the shoulder and forced to crash-land at the Russells. Several other pilots had their aircraft hit by cannon shells but suffered no personal injuries. Nairn landed at the Russells with his aircraft very badly shot about; he had become separated from the rest of the flight and had battled on his own for almost an hour with some forty enemy fighters. He reported the action thus:

I was flying No. 2 to S/Ldr. Quill. Tracer passing my wing and a cannon shell in the wing root were the first warning I had of the attack. As S/Ldr. Quill took no immediate action, and was apparently unaware of the attack, I stayed with him as long as I could, and then crossed my controls to the right, doing a quarter roll. On climbing into a fight above me, I found no Warhawks remaining, and was alone among about 40 Zekes. I fired at one from full beam, one from rear quarter and was then simultaneously attacked from astern and starboard. I used the same evasive action as before. I then saw upward of 10 aircraft apparently in combat. I climbed to their level, about 9,000 ft., and attacked them out of the sun. All were Zekes. I fired a burst at one from the rear quarter, and at two from directly astern. I concentrated on the nearer of these and put a good burst into him. I could see smoke from incendiaries coming from him, but he flew away and I did not see him again, being myself attacked by six aircraft from the starboard quarter, and by others from astern. I again took the same evasive action.

I left these aircraft milling round by themselves and I saw two Zekes

in close formation ahead of me. I overtook them and put a long burst dead astern, into the leader. As I was firing, at about 150 yards, I was attacked by a number of Zekes from beam and astern, and my aircraft was hit by a cannon shell in the port wing, and by sundry bullets. White petrol vapour trails came from the fuselage or wing root of the Zeke I had attacked. He rolled on his back, and pulled out under and to starboard of me. The white smoke turned to heavy black smoke. I was busy evading his mates by a violent downward skid to the right. I was then at 6,000 to 7,000 feet. As I came out of this manoeuvre, I saw a circular white patch of foam on the water below me some 4–5,000 ft. There was also oil round the splash area. There was no further sign of this enemy aircraft, which I claim as destroyed.

Six enemy aircraft, which had followed me down, were joined by possibly another 10. They came in from astern, above and both sides, entirely boxing me in, except from below. I could see tracer going past me. I turned toward the nearest aircraft and fired at them. I passed very close, about one foot from the nearest Zeke. My aircraft was faster at this level, and I broke out, but they followed me and I turned back into them to find that about three were supporting one Zeke, which made a head-on attack. Others were higher. I fired at the attacker, and broke away down to avoid a head-on collision. This aircraft, I consider, tried to ram. The Zekes then appeared to give up the fight, as they merely sat up above me and did not attack.

After another encounter with other Zekes, I saw further aircraft which I thought might be Allied aircraft, so I went to join them, but found they were all Zekes. I attacked the nearest and put a good burst into him from the quarter until finally only one gun of my aircraft was firing. I then broke away and dived to sea level, and came home at about 5,000 ft. with my aircraft damaged ...

I learned later that I was the last N.Z. pilot to break off the action. Had I known this at the time, I would have broken off earlier if possible and returned.

I consider the enemy pilots I met on this occasion to be superior to those I had encountered previously. They maintained some type of formation at all times, never breaking to less than pairs. Their evasive action was excellent, and pilots made full use of their manoeuvrable aircraft. There was no 'fancy' flying, such as rolls, which I had seen enemy aircraft do in the other action in this area in which I had taken part. Their evasive action comprised mainly violent skids and steep turns, and occasionally half-rolls.

It appeared to me, however, that determined action upset the Japanese. A determined effort to break through was successful, if pressed home. On the other hand, they did not press home their attacks very firmly, particularly if any retaliation was attempted. A more or less casual burst at an attacking enemy aircraft, even if this burst was poorly aimed, was usually enough to upset the attack, the Japanese sheering off.

During the second week in July enemy air operations were on a smaller scale. Weather hampered operations on both sides, but American intelligence considered that the enemy had been forced to limit his sorties because of heavy losses and was reorganising his strength to meet the next Allied move.

The next heavy raid occurred on 15 July, when twenty-seven enemy bombers and forty to fifty fighters attacked **Rendova**. Forty Allied fighters intercepted and claimed fifteen bombers and thirty fighters for a loss of three.

¹ **Wg Cdr S. G. Quill**, DFC; **RNZAF**; born **Porirua**, 12 Oct 1919.

² **Flt Lt E. H. Brown**, DFC; **Auckland**; born **Dannevirke**, 1 Feb 1913; commercial pilot.

³ **Fg Off R. A. Weber**, DFC, Air Medal (US); **Palmerston North**; born **Wellington**, 19 Dec 1914; lecturer.

⁴ **Plt Off J. F. Burton; born Christchurch, 20 May 1914; salesman; killed on air operations 1 Jul 1943.**

⁵ **Sqn Ldr R. C. C. Nairn, AFC, DFM; RNZAF; born Ireland, 15 Nov 1922; farmhand.**

⁶ **Fg Off G. B. Fisker, DFC; Masterton; born Gisborne, 17 Feb 1918; shepherd.**

ROYAL NEW ZEALAND AIR FORCE

BOMBER ESCORT OPERATIONS

BOMBER ESCORT OPERATIONS

Besides taking part in the **Rendova** patrol, No. 14 Squadron on occasions escorted American bombers attacking enemy ships and positions in the northern **Solomons**. On 15 July four aircraft accompanied a strike which bombed two enemy ships off Baga, near **Vella Lavella**. Four B25s, escorted by twelve fighters, attacked the ships, sinking one and leaving the other on fire. In the afternoon of the same day eight **RNZAF** aircraft flew as escorts on a similar mission in which two enemy barges off Ganongga were set on fire.

One of the most important operations in which No. 14 Squadron took part was the American strike against enemy shipping at **Kahili** on 17 July. By this time the Allies' air superiority in the **Solomons** was well established and the American Command began heavy daylight attacks against **Kahili**. In these attacks, of which that on 17 July was the first, the largest number of Allied aircraft yet used in the South Pacific was deployed. In this first operation seventy-one dive-bombers and torpedo-bombers and seven heavy bombers, escorted by 114 fighters, attacked enemy shipping and sank or damaged seven vessels. A large number of enemy fighters took off from the Shortland area to meet the attack, and in the ensuing combat fifty-one Japanese fighters and float-planes were claimed as destroyed for the loss of five Allied aircraft. Eight **RNZAF** P40s took part in the mission and four of them made passes at enemy planes without result. As they were employed as close escort and ordered to stay with the bombers, their opportunities for fighting were limited. The following day another heavy attack was made against the same area. Anti-aircraft positions on **Kahili** were bombed, as well as shipping in the harbour. One cargo vessel was sunk, and hits were scored on two destroyers and a cargo vessel. Twelve aircraft of No. 14 Squadron took part as close escort to the bombers; one scored hits on an enemy

aircraft.

On 25 July No. 14 Squadron handed over its duties at Guadalcanal to No. 16 Squadron and moved back to Santo, where it spent a few days employed on local defence. On the 29th No. 17 Squadron arrived at Santo from New Zealand and the pilots of No. 14 returned to New Zealand the next day for leave. During their tour they had destroyed twenty-two Japanese aircraft and had probably destroyed four more, with a loss in action of four aircraft and three pilots.

ROYAL NEW ZEALAND AIR FORCE

NO. 16 SQUADRON

NO. 16 SQUADRON

No. 16 Squadron had formed at **Ohakea** in June 1942. In August it had moved to **Fairhall**, a satellite of **Woodbourne**, where it continued training until June 1943, when it went on final leave before moving up to the South Pacific. A fortnight later the squadron was flown to Santo by transport planes and began operations there under the control of the American Interceptor Command. It flew on anti-submarine patrols and interception missions and also carried out operational training. All operations were uneventful. On 17 July ten pilots were flown to **Guadalcanal** by transport plane and began operations the next day with No. 14 Squadron. The rest of the squadron joined them on the 25th.

During its tour of duty at **Guadalcanal**, which lasted two months, the squadron carried on much the same type of operations as No. 14, although contacts with enemy fighters were becoming less frequent. The Japanese air force had practically given up offensive operations over **New Georgia** and was adopting a defensive policy aimed at protecting the base at **Kahili** in southern **Bougainville**.

American bombers were daily attacking **Munda** and the bases farther north, and a major part of No. 16 Squadron's work was to provide cover on these missions. The squadron's first important contact with enemy aircraft occurred on 31 July, when eight aircraft, forming part of the escort for a force of SBDs and TBFs bombing **Munda**, were vectored to intercept a large force of enemy fighters. The New Zealanders had finished their escort work and were preparing to land at **Segi** when they were ordered to return to **Munda** to meet the enemy formation. While climbing through a thin layer of cloud and manoeuvring for height and position, the flight became disorganised and was attacked by some thirty Zeros. Two New Zealand aircraft were shot down. One of the pilots baled out and was later picked up from the sea by an American PT boat.

Throughout August the squadron continued to provide cover for bombing strikes on various targets and carried out routine patrols over **Rendova**. It also several times escorted B24s on photographic reconnaissance over a number of Japanese positions. In addition it carried out searches for enemy barges moving supplies and requirements from southern **Bougainville** to the remnants of the Japanese force on **New Georgia**, and to the garrisons on Kolombangara, **Vella Lavella**, and **Rekata Bay**.

On the 25th two aircraft, piloted by Flight Lieutenant **Spurdle**¹ and Flight Sergeant **Pirie**,² set fire to a Japanese landing barge drawn up against the beach at Bambatana Mission on **Choiseul** Island. Then, heading down the coast, they saw two camouflaged boats in the middle of a stream near Sumbi Head. They strafed them both, as well as a third vessel which was moored against the shore. They then left their targets for ten minutes and came back and attacked them again, setting all three on fire.

The following day five aircraft, led by Flight Lieutenant **Day**,³ strafed a small steamship and a 30-foot launch in an inlet on the north-west tip of Ganongga Island. The steamship was camouflaged with vegetation that had dried to a light brown colour and the launch was hidden in a small creek. The New Zealanders made five strafing runs and left both vessels burning furiously.

On 3 September eight aircraft acted as bottom cover to a force of B24s bombing **Kahili**. On the way home two pilots, Flight Lieutenant **Vanderpump**⁴ and Flight Sergeant **Miller**,⁵ dropped back to cover a B24 which had been damaged and which was being attacked by eight to ten Zeros. They were successful in driving off the enemy aircraft and escorted the bomber safely back to its base. For this exploit both pilots earned an immediate award of the American DFC, the first immediate award of the decoration made to **RNZAF** personnel.

The squadron was relieved at **Guadalcanal** by No. 17 Squadron

between 11 and 15 September and returned to New Zealand a few days later. During its tour it had flown a total of 2100 hours, including 1260 operational hours for August, which was a record.

¹ **Wg Cdr R. L. Spurdle, DFC and bar; New Plymouth; born NZ 3 Mar 1918.**

² **Fg Off N. A. Pirie, m.i.d.; Napier; born Christchurch, 25 Nov 1922; mechanic.**

³ **Sqn Ldr J. R. Day, MBE, AFC; Dunedin; born Invercargill, 24 Nov 1912; mechanic.**

⁴ **Sqn Ldr M. T. Vanderpump, DFC, DFC (US); born Auckland, 16 May 1920; farmer; killed in aircraft accident 2 Apr 1955.**

⁵ **W/O J. E. Miller, DFC (US); Kawakawa; born Whangaruru, 23 Jul 1914; mechanic.**

ROYAL NEW ZEALAND AIR FORCE

COLLAPSE OF JAPANESE IN THE CENTRAL SOLOMONS

COLLAPSE OF JAPANESE IN THE CENTRAL SOLOMONS

The Allied capture of **Munda** on 5 August drove a wedge into the Japanese screen of defensive outposts to the south of Bougainville. Nine days after the Americans had taken the airfield, their construction battalions had repaired it and aircraft were able to operate from it. Although the Japanese air bases at **Kahili** and Ballale were only 120 miles away and the enemy still had considerable air forces in the Bismarcks- **Solomons** area, they made only two attempts to interfere with the construction work. During the previous few weeks in the air over **New Georgia** they had suffered losses out of all proportion to the successes they had gained, and from now on they husbanded their strength to protect their bases in **Bougainville** and **New Britain**.

On New Georgia the American land forces began a series of small mopping-up operations. Enemy forces holding outposts on the mainland and on the small islands off **Munda** Point were destroyed, and the whole **New Georgia** area was cleared by 3 September. The most important objectives in these operations were the enemy strongpoints at Bairoko Harbour, formerly a barge staging centre, and on Baanga Island off **Munda** Point, from which Japanese artillery had been able to shell **Munda** airfield.

The next Japanese-occupied area was Kolombangara Island, 10 miles from **Munda**, but as it was strongly held the American Command decided to bypass it and attack **Vella Lavella**, some 30 miles farther to the north-west. The United States forces landed there on 15 August and cleared the southern part of the island. On 18 September the American assault troops were relieved by 14 Brigade (Brigadier L. Potter) of 3 New Zealand Division, which completed the task of mopping up the remaining Japanese. By 9 October the remnants of the garrison had been either destroyed or evacuated. In the meantime an airfield was constructed at

Barakoma in the south, from which aircraft were operating by 27 September.

The position of the Japanese at **Kolombangara** was now untenable. Vila airfield, only 10 miles from **Munda**, was shelled by American artillery early in September, and by 9 October air and naval bombardments had forced the Japanese to evacuate the island.

A month earlier they had abandoned their seaplane base at Rekata Bay on Santa Isabel. It had never been a great success on account of its proximity to Allied land-based aircraft. It was only 140 miles from **Henderson Field** on **Guadalcanal**, and when the Allies moved into **Munda**, only 85 miles away, its position became hopeless.

During August the Japanese had made several naval attempts first to reinforce, and then to evacuate, garrisons in the central **Solomons**. On the night of 6–7 August an American destroyer squadron, under Commander Frederick Moosbrugger, defeated a force of four Japanese destroyers that was attempting to cover a convoy of reinforcements for Vila. Ten days later another American destroyer force, under Captain T. J. Ryan, Jr, attacked enemy reinforcements on their way to **Vella Lavella**. The escorting enemy destroyers were driven off, and then Ryan's ships turned on the troop-carrying barges. In the darkness it was impossible to be sure how many barges were destroyed, but it was considered unlikely that any escaped.

In early October the Japanese made several attempts to evacuate their men from **Vella Lavella** and **Kolombangara**, culminating in a major effort, heavily escorted by destroyers, on the night of 6–7 October. This was met and defeated by American destroyers, and the defeat put an end to the efforts to relieve the beleaguered garrisons. All the men who could be evacuated had been taken off or had drowned in the attempt.

ROYAL NEW ZEALAND AIR FORCE

ALLIED AIR OPERATIONS

ALLIED AIR OPERATIONS

During this stage of the **Solomons** offensive the full weight of the American bomber squadrons under COMAIRSOLS was directed against the enemy bases and outposts in the mid- **Solomons**-South **Bougainville** area. The main targets were the airfields at **Kahili** and Ballale which covered the base area in southern **Bougainville**, and, until they fell, the forward airfields at Rekata and Vila. Air support was also given to the American and New Zealand army units clearing **New Georgia**, **Vella Lavella** and **Kolombangara**.

The effectiveness of Allied fighter operations was increased by the possession of the airstrips at **Segi** and **Munda**, which decreased the flying distance to the combat areas. Inferior now in numbers and quality, the enemy air force could undertake no effective offensive operations, nor could it ward off the American bombing attacks even over its main fighter base at **Kahili**.

The work of No. 16 Squadron up to the time it was relieved in mid-September has already been referred to. After 14 September New Zealand fighter representation in the forward area was increased, at American request, to two squadrons based at Guadalcanal, with one in reserve in Santo. No. 17 Squadron arrived at **Guadalcanal** in two flights on 11 and 22 September and No. 15, on its second tour of operations, on the 8th and 11th, while No. 18 took over the fighter defence of Santo on the 17th.

As the two New Zealand squadrons were urgently required in the combat area, and as half the pilots of No. 15 Squadron already had the experience of one tour of duty behind them, the squadron came up to **Guadalcanal** after only a few days at Santo instead of spending the usual six weeks there in training. It remained in the forward area longer than

usual, its tour lasting until the second week of November. No. 17 Squadron spent just six weeks at **Guadalcanal**, returning to New Zealand on 20 October.

On 14, 15, and 16 September American bombers made particularly heavy raids on **Kahili** and Ballale, dropping a total of 241 tons of bombs. At the same time about fifty enemy aircraft were shot down and an undetermined number destroyed on the ground. Allied losses amounted to sixteen. Aircraft from Nos. 15 and 17 Squadrons provided part of the escort but were not engaged except on the last day, when two pilots from No. 17 Squadron attacked enemy aircraft and narrowly escaped being shot down.

During the next few days Allied bombing strikes were limited by the fact that fighter squadrons were needed to cover shipping moving up from **Guadalcanal** to **Vella Lavella** and were not available as escort. Both New Zealand squadrons carried out a number of patrols over Allied shipping, operating from **Guadalcanal** and sometimes from **Segi** and **Munda**. When the flow of shipping decreased Allied attacks on southern **Bougainville** were resumed.

On 1 October American shipping lying off **Vella Lavella**, carrying troops of 3 New Zealand Division, was attacked three times by Japanese dive-bombers and fighters. Eight aircraft of No. 15 Squadron, in company with twelve American F4Us, intercepted the third attack and the New Zealanders shot down seven dive-bombers. Apart from this action the first week in October was fairly uneventful for the New Zealand squadrons, which were engaged in sorties against enemy barge traffic, on local patrols, and in the escort of transport and air-sea rescue aircraft.

ROYAL NEW ZEALAND AIR FORCE

OPERATIONS BY NO. 3 SQUADRON

OPERATIONS BY NO. 3 SQUADRON

No. 3 Squadron was still based at **Guadalcanal**, where it remained until towards the end of October. During the early part of the **Munda** campaign, its commitment had been four searches daily to the west and north of **Guadalcanal**, and a fifth (known as the X-ray search) which involved flying up the 'Slot' to a point north-west of **Vella Lavella** and then south-west between **Vella Lavella** and **Treasury Islands**, south round **New Georgia** and back to base. This patrol extended right into the Shortlands area, from which any information, positive or negative, was vitally important to the conduct of the campaign. Most of the sightings of enemy aircraft and shipping at this period were made during X-ray patrols. The squadron lost two aircraft during July. One lost on the 7th, captained by Flight Lieutenant **Rutherford**,¹ had been ordered to drop flares off Tonolei Harbour, in southern **Bougainville**, to illuminate any shipping there for an attack by American torpedo-bombers, and then to drop more off **Vella Lavella** to guide the bombers home. It was last seen by the American pilots after completing an excellent flare-dropping run near the harbour, and was probably shot down by an enemy night fighter.

The other aircraft was brought down by Japanese fighters off Baga Island, near **Vella Lavella**, on 24 July. It was attacked by eight Zeros while on patrol and fought them off in a running fight over 40 miles. Finally, with the aircraft on fire and three of the crew wounded, the captain, Flight Lieutenant **Allison**,² made a water landing two miles off the coast of Baga. The crew all got out safely. As they floated in the water the Zeros came over and strafed them for ten minutes. There was only one survivor, Sergeant **Ganley**,³ the rear-gunner. He swam ashore and several days later made his way to **Vella Lavella**. There he spent a month with the coastwatcher, who treated his wounds, and he was

finally picked up by an American PT boat and returned to his squadron. During the action it is probable that Ganley shot down one of the attacking Zeros, although in the absence of definite corroborative evidence no claim for its destruction was made.

At the beginning of August the X-ray patrol was taken over by a squadron of American PV1s ⁴ which had been recently posted to the **Solomons**. For some time the American crews operated under the instructions and control of No. 3 Squadron. From then on the PV1s were given the odd jobs of minor bombing strikes which had previously relieved the monotony of No. 3 Squadron, and for the rest of its tour the squadron, apart from occasional weather flights and transport flights to **Munda**, was employed solely in patrolling over the rear area in the **Solomons**.

It handed over its duties to No. 1 Squadron, **RNZAF**, on 23 October and retired to Santo, where it remained doing routine patrols until January 1944, when all aircrews and aircraft returned to New Zealand for leave and re-equipping.



Bridge on the East Coast of New Ireland, February 1944,
after low-level bomb attack

Bridge on the East Coast of **New Ireland**, February 1944, after low-level bomb attack

A bombed pillbox at Tawai Point, Rabaul, September 1945



A bombed pillbox at Tawai Point, Rabaul, September 1945



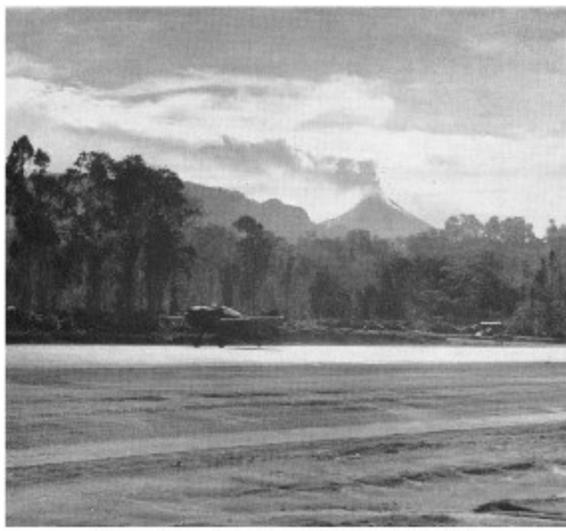
Ventura over Rabaul

Ventura over Rabaul



Section of camp at Bougainville, June 1945

Section of camp at Bougainville, June 1945



Avenger taking off from Piva airstrip, Bougainville, 1944

Avenger taking off from Piva airstrip, Bougainville, 1944



No. 10 Servicing Unit, Bougainville

No. 10 Servicing Unit, Bougainville



No. 15 Squadron operations room, Bougainville, November 1944

No. 15 Squadron operations room, Bougainville, November 1944



Corsair pilots in crew room, Bougainville, January 1945

Corsair pilots in crew room, Bougainville, January 1945



Record bomb load carried by Venturas of No. 2 Squadron in Pacific.
The line's mass of bombs totalled 40,000 pounds (see page 305)

Record bomb load carried by Venturas of No. 2 Squadron in Pacific. This bomb train on Green Island carried 40,000 pounds (see page 305)



Ventura of No. 2 Squadron over Buka Passage, March 1945

Ventura of No. 2 Squadron over Buka Passage, March 1945

A ditched American pilot rescued by a Catalina crew



A ditched American pilot rescued by a Catalina crew



Japanese tank under attack from Corsairs in North Bougainville
(see pages 299-300)

Japanese tank under attack from Corsairs in North Bougainville (see pages 299- 300)



Japanese airstrip, Kieta, Bougainville

Japanese airstrip, Kieta, Bougainville



Japanese gardens, South Bougainville

Japanese gardens, South Bougainville



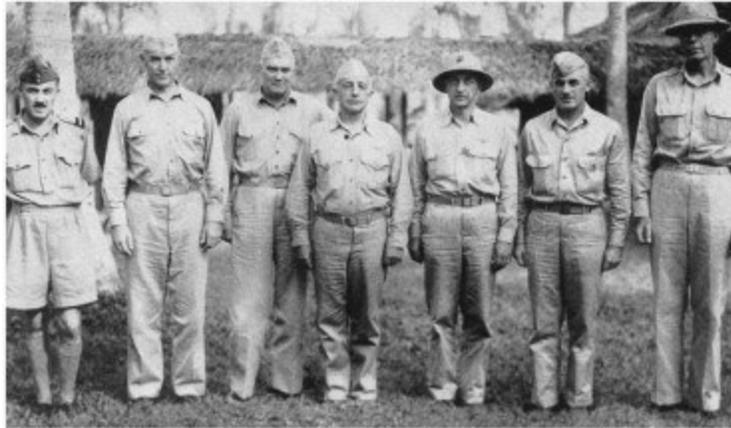
No. 3 Servicing Unit arriving at Jacquinot Bay, New Britain, May 1945

No. 3 Servicing Unit arriving at Jacquinot Bay, New Britain, May 1945



Camp at Los Negros, March 1945

Camp at Los Negros, March 1945



Staff conference at COMAIRSOPAC Headquarters, Santo, July 1943.
Air Commodore S. Wallingford, Rear-Admiral O. B. Hardison,
Vice-Admiral W. L. Ainsworth, Vice-Admiral A. W. Fitch, Major-
General R. J. Mitchell, Major-General N. F. Twining, Brigadier-
General B. C. Lockwood

Staff conference at COMAIRSOPAC Headquarters, Santo, July 1943. Air Commodore S. Wallingford, Rear-Admiral O. B. Hardison, Vice-Admiral W. L. Ainsworth, Vice-Admiral A. W. Fitch, Major-General R. J. Mitchell, Major-General N. F. Twining, Brigadier-General B. C. Lockwood



Air Vice-Marshal L. M. Isitt signing the Japanese surrender at Tokyo Bay, September 1945—General Douglas MacArthur at the microphone

Air Vice-Marshal L. M. Isitt signing the Japanese surrender at **Tokyo Bay, September 1945—
General Douglas MacArthur at the microphone**

CHIEFS OF AIR STAFF



Air Commodore
H. W. L. Saunders
1939-41

Air Commodore H. W. L. Saunders 1939-41

Air Vice-Marshal
R. V. Goddard
1941-43



Air Vice-Marshal R. V. Goddard 1941-43

Air Vice-Marshal
L. M. Isitt
1943-46



Air Vice-Marshal L. M. Isitt 1943-46

¹ **Flt Lt W. O. Rutherford**; born **Timaru**, 29 Dec 1910; killed on air operations 7 Jul 1943.

² **Flt Lt W. G. C. Allison**, m.i.d.; born **Christchurch**, 6 Jul 1910; commercial pilot; killed on air operations 24 Jul 1943.

³ **Flt Lt T. E. Ganley**, DFM; **Hamilton**; born **Auckland**, 3 Nov 1916; joiner.

⁴ **PV1 Ventura**: made by Vega, **America**; twin-engined bomber-

**reconnaissance aircraft; maximum speed over 300 m.p.h.;
cruising range over 2000 miles.**

ROYAL NEW ZEALAND AIR FORCE

CHAPTER 14 – THE ADVANCE TO BOUGAINVILLE

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ROYAL NEW ZEALAND AIR FORCE

[SECTION]

THE elimination of the Japanese defence network in the central **Solomons** opened the way for the final stage of the campaign, which was designed to secure bases from which **Rabaul** could be attacked from the east. General MacArthur's South-West Pacific forces were already preparing to land on the western part of New **Britain** and so bring **Rabaul** within easy striking distance from the west. As early as July 1943 the **South Pacific Command** had decided that an attack should be made on **Bougainville**. In the following months the original plan, which had visualised a frontal assault on the bases in the **Kahili** area, was revised several times. In its final form the operation took the form of a landing at Cape **Torokina**, to the north of **Empress Augusta Bay**, half-way up the western side of the island. The area selected for the beach-head comprised a natural defensive region of about six miles by eight. It possessed a number of disadvantages in that the low, swampy, timbered coast had only limited protection from onshore winds, and there was no satisfactory anchorage for large vessels. The only communications in the area were a meagre network of foot trails. Moreover, some of the native tribes in the locality were known to favour the enemy. On the other hand enemy defences were reported to be weak, and the ground was suitable for building airstrips. Strategically, too, **Empress Augusta Bay** was almost equidistant between the enemy installations at **Buka** in the north and the Shortland area in the south, and lay astride the enemy communications with **Rabaul**.

Preparatory to the main operations the **Treasury Islands**, immediately to the south of **Bougainville**, were to be seized to provide a base for further operations and to protect the flank of forces moving northwards to **Empress Augusta Bay**. To confuse the enemy as to where the major blow was to fall, a diversionary landing was to be made on **Choiseul** five days beforehand by the 2nd Marine Parachute Battalion.

In preparation for the attack on **Bougainville**, Allied air forces were moved up to the **New Georgia** area and additional airfields were built on **New Georgia** and **Vella Lavella** and existing ones improved. Early in September COMAIRSOPAC had ordered that two **RNZAF** fighter squadrons with their ground staffs should move from **Guadalcanal** to **Munda** when No. 3 field was ready for operations in October. This plan was not, in fact, carried out as the New Zealand squadrons eventually went to **Ondonga** instead of **Munda**. Early in October it was proposed that they should be based at **Segi**. This was opposed by No. 1 (Islands) Group as **Segi** had only short runways, the P40s had poor brakes, and if they operated from there a large number of accidents could be expected. No definite decision was reached until 11 October when COMAIRSOLS informed the Group that the squadrons and their ground units were to move to **Ondonga**.

ROYAL NEW ZEALAND AIR FORCE

FORMATION OF RNZAF STATION, NEW GEORGIA

FORMATION OF RNZAF STATION, NEW GEORGIA

On 15 October 1943 RNZAF Station, **New Georgia**, was formally established at **Ondonga**. Wing Commander Freeman, DSO, DFC and bar, ¹ was appointed Commanding Officer, responsible to the AOC No. 1 (Islands) Group for co-operation with the United States Fighter Command in aerodrome control, operations and intelligence duties at **Ondonga**, and for the administration and discipline of all **RNZAF** units in the **New Georgia** area. The following units came under his command: Nos. 15 and 18 Fighter Squadrons, which were to move forward from **Guadalcanal**, with Nos. 2 and 4 Servicing Units; a tunnelling and sawmilling detachment of No. 1 Islands Works Squadron, which was to be based on Arundel Island; headquarters staff, which was forming at **Guadalcanal**; and Nos. 56 and 57 Radar Units, based at **Munda** and **Rendova** respectively.

The main body of men left **Guadalcanal** on 18 October by LST and LCI and arrived, after an uneventful trip, at South Beach, **Ondonga**, at half past seven next morning. When they reached **Ondonga** all hands set about unloading their equipment from the ships. By half past four in the afternoon it was all ashore, and half an hour later both vessels had put to sea on their return journey.

The squadrons' aircraft continued to operate from **Guadalcanal** until the 20th, when they were flown to **Munda**, where they were stationed for several days until the strip at **Ondonga** was ready for operations. At the same time a party of ground staff which had stayed behind to service the aircraft, and spare pilots from the two squadrons, travelled to **Munda** in American Army transport planes.

The camp site allotted to the **RNZAF** by the American command was in a coconut plantation. There were no roads and heavy rain

¹ **Wg Cdr T. O. Freeman**, DSO, DFC and bar; born Lawrence, 5 Jun 1916; killed on air operations 17 Dec 1943.

had turned the whole area into a sea of mud. A detachment from No. 1 Islands Works Squadron had been posted to **Ondonga** six days earlier to begin the construction of the camp and the digging of foxholes, but wet weather and the difficulty of working on hard coral had made their progress slow. Some tents had been put up, and into these the men crowded for their first night on the island. The mess hall had not been completed and the men ate their dinner that night in the open in pouring rain. The meal consisted of tea, brewed from heavily chlorinated water, and tinned pears eaten out of any container that happened to be handy.

Four hours after the landing a power plant had been set up by the W/T Section and the new station was in direct communication with **Guadalcanal** and Santo. On 21 October, following a day during which all units were engaged in erecting tents and setting up camp, a telephone system and exchange were installed. Equipment, which had been piled into heaps under the trees after landing, was sorted out and the various sections of the camp were established. The next day the mess hall was completed and the men were able to have their meals in comparative comfort.

On the 23rd the airfield, constructed by American Seabees, was ready for operations and the ground crews, who had set up their servicing section beside the strip, were waiting to receive the squadrons and their aircraft from **Munda**. The first operational aircraft to land on the strip had been flown in by Freeman on the 20th, when he brought up a load of mail for the units.

The two squadrons flew in from **Munda** on the 24th and were the first operational units to occupy the aerodrome. The ground staff and spare pilots who had been at **Munda** followed them in a landing barge. The move to **Ondonga** had brought the **RNZAF** to within 120 miles of the

Japanese bases in southern **Bougainville** and less than 400 miles from **Rabaul**.

The first enemy air raid took place on the evening of the 27th when bombs were dropped near the New Zealand camp. As foxholes were still under construction and had no roofs to give shelter from falling shrapnel, the experience was an uncomfortable one. By the next night all foxholes had been completed and covered.

By 30 October all sections of the station had been established. No. 15 Squadron flew aircraft maintained by No. **4 Servicing Unit**, and No. 18 Squadron worked with No. **2 Servicing Unit**. Operations and major administrative matters were controlled by the Station Commander, Wing Commander Freeman, with a staff consisting of an adjutant, operations officer, and intelligence officer, whose offices were beside the airstrip. The domestic affairs of the camp were the responsibility of the Station Administrative Officer, who had his office in the camp a mile and a half from the strip. Although each servicing unit had its own equipment officer and staff, separate unit stores were not set up. Instead, the technical store, situated at the strip, was controlled by the equipment officer of No. **4 Servicing Unit**, while No. **2 Servicing Unit** was responsible for the non-technical store set up in the camp.

The last unit to come from **Guadalcanal** was the Sawmilling Unit from No. 1 Islands Works Squadron, of which the advance party arrived on 2 November and the remainder on the 10th. On the 12th work was begun on the construction of a camp on **Arundel** Island, separated from **Ondonga** by the Diamond Narrows, and the unit moved there a week later.

From the time the squadrons first arrived, rain almost every day made living conditions thoroughly uncomfortable. The aircrews, who were quartered in a separate mess near the airstrip along with American units, were not so badly off, but the site of the main **RNZAF** camp, which was inclined to be swampy, was continuously a quagmire. An improvement was made in the middle of December when an American

squadron moved out and its quarters were taken over by No. 2 Servicing Unit and the Headquarters Unit. The administrative block was also moved to the new site and the large American mess and kitchen were renovated and put into use, the old New Zealand mess being closed. By the time the RNZAF left Ondonga in January the camp had acquired a reputation for being as comfortable as could be expected considering the climate, enemy air raids, and other nuisances.

From the date of their arrival at Ondonga the two fighter squadrons were known as the RNZAF Fighter Wing. Freeman acted in the dual capacity of station commander and commander of the wing. For the first three weeks fighter operations from Ondonga were directed by Colonel Bryce, USMC, who had under his control the RNZAF Wing, the 70th Fighter Squadron USAAF, and Marine Fighter Squadron No. 17. With the exception of scrambles to meet enemy aircraft approaching the area, all orders to the RNZAF Wing were passed from Operations, Ondonga, through RNZAF Wing Operations.

On 14 November Freeman was appointed Air Ops, Ondonga, in place of Colonel Bryce and took over the operational command of the American as well as New Zealand units. The integration of American and New Zealand forces was increased by the detachment of a number of New Zealanders to the United States organisation on the airstrip for servicing and refuelling aircraft, fire fighting, airfield control, guard duties and the like.

The triple responsibility of controlling air operations, commanding the wing, and commanding the RNZAF camp was too much for one officer, and on 8 December Wing Commander Campbell¹ was posted as Commanding Officer RNZAF Station, New Georgia, relieving Freeman of the administration of the camp.

¹ Wg Cdr D. C. Campbell, OBE; Dunedin; born Dunedin, 21 Jan 1910; commercial pilot.

ROYAL NEW ZEALAND AIR FORCE

ALLIED FORCES IN THE BOUGAINVILLE OFFENSIVE

ALLIED FORCES IN THE BOUGAINVILLE OFFENSIVE

The American Command built up an impressive array of naval, military, and air forces in the **Solomons** for the attack on Bougainville. Rear Admiral Theodore S. Wilkinson, USN, was placed in command of the whole operation and directly commanded the naval task force responsible for the attack on **Torokina**. The force detailed to seize the **Treasury Islands** was commanded by Rear Admiral George H. Fort, USN. The land forces at **Torokina** comprised the 3rd Marine Division under Major-General Allen H. Turnage, and the **Treasury Islands** operation was assigned to 8 New Zealand Brigade Group commanded by Brigadier R. A. Row, with supporting detachments of American units. The force for the **Choiseul** diversion was the 2nd Marine Parachute Battalion commanded by Lieutenant-Colonel Victor H. Krulak. Land-based air support of the operations was to be provided by **Task Force 33** under the command of Major-General Mitchell, USMC, who had at his disposal some 660 operational aircraft based at **Barakoma, Munda, Ondonga, Segi, the Russells and Guadalcanal**.

Against these the enemy was estimated to have just over 400 aircraft based at Santa Cruz, in the **Solomons** and Bismarcks, and on the north coast of British New Guinea. On land the Japanese strength was estimated to be 35,000 troops on **Bougainville** and the Shortlands, 2000 on **Choiseul**, 56,000 in the **Rabaul** area of **New Britain** and 5500 on **New Ireland**. Enemy naval strength in the **Rabaul- Solomons** area in the middle of October was estimated to be one heavy cruiser, one light cruiser, eight to ten destroyers, twelve submarines, twenty-one patrol craft, numerous barges and some PT boats. Japanese airfields in the **Solomons** were at **Kahili, Kara, Kieta, and Bonis** on **Bougainville, Buka** on Buka Island to the north, and **Ballale** on Ballale Island to the south. During October it became increasingly evident that under severe

punishment by Allied aircraft the enemy was displaying less confidence in his ability to protect his air bases in southern Bougainville. The strength of aircraft at **Buka** remained high but concentrations at **Kahili**, **Ballale**, and **Kara** began to dwindle.

The campaign to neutralise the Japanese airfields, especially those in southern **Bougainville**, was intensified from the middle of October. For the next two and a half weeks planes based in the New Georgia area under COMAIRNORSOLS, Brigadier-General Field Harris, USMC, carried out an average of approximately four attacks a day, ranging in strength from a hundred planes down to strafing attacks by a few fighters. **Kahili** was attacked eighteen times during the period, **Kara** seventeen, **Ballale** six, **Buka** seven, and **Kieta** two. On an average day of four attacks, 59 tons of bombs were dropped on **Kara** and 68 tons on **Kahili**. Japanese air activity in the South **Pacific** was greatly reduced during the month. Sorties declined from 801 in September to 495 in October, while Allied aircraft of the **South Pacific Command** flew 3259 sorties in October.

At the same time as the **South Pacific Command** was softening up the **Bougainville** area, the 5th **Army Air Force** of the South-West Pacific Command, under Lieutenant-General George C. Kenney, intensified the heavy air offensive which had started against the enemy in mid-August. A large part of this offensive was against the Japanese base at **Rabaul**, where large numbers of enemy aircraft and a considerable amount of shipping were destroyed.

The **RNZAF** fighter squadrons, first operating from **Guadalcanal** and staging through **New Georgia**, and later operating from **Ondonga**, continued to act as close cover on American bombing strikes throughout the month.

ROYAL NEW ZEALAND AIR FORCE

TREASURY LANDINGS

TREASURY LANDINGS

New Zealand and American troops went ashore at **Stirling** and **Mono Islands** in the Treasuries on the morning of 27 October 1943. Surprise was essential to the success of the operation, as the Japanese could have heavily reinforced the Treasuries from the Shortlands and southern **Bougainville** at a few hours' notice.

Five groups of transports brought the troops up from **Guadalcanal**, **Rendova** and **Vella Lavella**, approaching their objectives under cover of darkness. All units were spotted during the night by enemy reconnaissance aircraft, but the Japanese appear to have taken little notice of the reports from their planes. At all events, a satisfactory degree of surprise was attained.

New Zealand troops landed on **Stirling** without opposition, but the attack on **Mono** was met by artillery, mortar and small-arms fire. Despite this the landing was successfully made, and by the end of the day all effective opposition had been overcome.

Throughout the day fighter patrols were maintained over the Treasuries to give protection to the landing forces and shipping. The **RNZAF** Wing flew ten patrols on this duty. The first operations of the day were a patrol by eight aircraft of No. 18 Squadron over the islands from 5.40 in the morning until 8.40, and one by four aircraft from 5.40 till ten past eight covering the task force immediately before and during its landings. Four other patrols of four aircraft each flew over the landing operations at two-hour intervals. No. 15 Squadron flew four patrols during the day, two of four aircraft and two of eight.

No contact was made with enemy aircraft until the afternoon, when thirty to forty **Val** dive-bombers and fifty to sixty **Zeke** and **Hamp**

fighters attacked the landing craft unloading at the beaches. At the time both American and New Zealand fighters were patrolling to the north-west and north-east of the islands. In all, three groups of enemy planes were successfully intercepted by the Allied fighter screen, but a fourth group got through and damaged the fighter director ship, the USS *Cony*, with two direct bomb hits. Flights from both New Zealand squadrons intercepted enemy formations and between them shot down four Japanese fighters for no loss to themselves.

ROYAL NEW ZEALAND AIR FORCE

THE CHOISEUL DIVERSION

THE CHOISEUL DIVERSION

The landing of the 2nd Marine Parachute Battalion on **Choiseul** was carried out shortly after midnight on the night of 27–28 October. Some of the landing craft that had taken part in the Treasury landing returned to **Guadalcanal** and embarked the men for the **Choiseul** operation. The Marines went ashore at Voza on the south-west coast of the island, the operation being uneventful except for an attack by a Japanese seaplane, which dropped two bombs some 200 yards from one of the ships. The Marines were unopposed in their landing but were discovered shortly afterwards. In the ensuing week, before they were withdrawn on 4 November, they patrolled and raided along a 25-mile strip of the coast, destroying enemy installations, barges and supplies. Their activity created the impression that the force was larger than the 800 men it comprised, and apparently led the enemy into believing that a major landing had taken place, as by 2 November he had begun to gather strong detachments to oppose the raiders.

On 30 October an American striking force of twelve TBFs escorted by twenty-six fighters, including twelve from the **RNZAF** Wing, bombed and strafed Japanese positions near Sangigai on **Choiseul** in support of the Marines. No enemy aircraft were seen and only slight anti-aircraft fire of light calibre was met.

ROYAL NEW ZEALAND AIR FORCE

ALLIED RECONNAISSANCE OF SHORTLAND AREA

ALLIED RECONNAISSANCE OF SHORTLAND AREA

To encourage the enemy to believe that the main Allied landing on **Bougainville** would be made in the south, reconnaissance patrols were landed during the latter part of October in the Buin-Shortland area and deliberately left evidence of their visit, while almost every day photographic reconnaissance aircraft made low-level flights across the area in conjunction with bombing strikes. As had been hoped, the enemy moved troops, artillery, and heavy equipment over from **Bougainville**. Interrogation of Japanese officers after the war confirmed that they believed the Shortland area would be the scene of the Allied attack.

The landing operations at **Empress Augusta Bay** on the morning of 1 November were co-ordinated with naval and air bombardments of the enemy airfields in the north and south of **Bougainville**. A task force of cruisers and destroyers under Rear Admiral Aaron S. Merrill, USN, left Port Purvis on **Florida Island** in the early hours of 31 October for the run of 537 miles to northern Bougainville. During the day it was covered by fighters, including formations from Nos. 15 and 18 Squadrons, **RNZAF**, none of which saw any enemy aircraft. The force bombarded installations at **Buka** and Bonis shortly after midnight and then retired southward to shell the Shortland area just after sunrise.

Buka and Bonis were attacked again a few hours later by aircraft from a task force under Rear Admiral Frederick C. Sherman, built round the two carriers *Saratoga* and *Princeton*. Further strikes were made by this task force on the aerodromes and also on shipping in the area over the next two days.

ROYAL NEW ZEALAND AIR FORCE

LANDING ON BOUGAINVILLE

LANDING ON BOUGAINVILLE

While the preliminary operations against Japanese positions were being carried out, preparations for the landing at Empress Augusta Bay proceeded. After a period of training and rehearsal at **Guadalcanal** and in the **New Hebrides**, the troops were embarked in three divisions of transports, which joined up and proceeded northwards towards **Bougainville** so as to arrive off Cape Torokina at daylight on 1 November. The initial landing was made by the 3rd Marine Division, supported by detachments of other units.

Before the landing craft left the transports with the first wave of the assault, the beaches were well covered with fire from the supporting naval forces. This fire provoked no response from the Japanese positions and it appeared that nothing could be left alive on the shore. The bombardment was lifted from the beaches at 7.21 a.m., and immediately afterwards thirty-one TBFs from **Munda** bombed and strafed the area for five minutes. A minute later the first wave of landing craft hit the beach, four minutes ahead of schedule. Not until the boats were 50 yards off shore did the Japanese open fire, and then their shore batteries on Torokina Point went into action with deadly accuracy.

The area of the landings extended from the north side of Cape **Torokina**, along the beaches some 12 miles up the coast. The Japanese opposition was strongest at the south end, where they had batteries and pillboxes at Cape Torokina itself, and at the north end of Puruata Island, a mile or so off shore. On the more northern beaches there was little opposition, but the natural conditions made landing difficult. The surf was bad and the beaches themselves were so narrow and so steep that the boats had great difficulty in approaching them. On the four northern beaches eighty-six boats were turned side on in the surf and stranded during the landing operations, and subsequent waves of troops and

equipment had to be landed on the more southerly beaches. At the same time it became obvious that the most southerly landing point of all, on Cape Torokina, could not be held in face of the Japanese opposition and operations on this beach were also suspended. The resulting confusion delayed the landing of a certain amount of equipment, and four of the transports were not completely unloaded during the day. They withdrew with the rest of the task force at four o'clock in the afternoon and returned next day to complete unloading.

It was estimated that there were only about 300 Japanese altogether opposing the landing, but their resistance was stubborn and determined. About half of them were killed, and when it was obvious that the American troops had established themselves on shore the remainder withdrew inland. American losses in the landing were 70 killed and missing and 124 wounded.

In spite of the heavy attacks on Japanese airfields in the **Bougainville** area over the last two weeks it was expected that the enemy air force would make some attempt to interfere with the landings, and a fighter patrol of thirty-two planes was stationed over **Empress Augusta Bay** throughout the day. Controlled by the Fighter Director Group in *USS Conway*, the patrol was responsible for driving off a number of enemy planes which attempted to enter the area. During the day only two attacks succeeded in breaking through.

A patrol of eight aircraft of No. 18 Squadron, **RNZAF**, was on station early in the morning and the pilots saw the initial landing. Shortly before eight o'clock they were vectored on to a large formation of enemy aircraft which had been picked up by radar. Flight Lieutenant **Balfour**¹ led his flight to a position 16,000 feet over Cape Torokina. A formation of 50 to 60 Zekes was then seen flying down the middle of the island towards **Kahili**. They were flying in three Vs in good formation and their steady direction

¹ **Sqn Ldr R. H. Balfour**, DFC, DFC (US); Cheviot; born

suggested that they were not interested in, and possibly were not aware of, the landing in **Empress Augusta Bay**. The New Zealanders immediately attacked, and in the next few minutes shot down seven of them and probably destroyed another. One New Zealand aircraft, piloted by Flying Officer **Lumsden**,¹ was damaged and landed on the water near **Vella Lavella** on the way home. He had been chased by two Zekes over the landing area, and was fired on by a **United States** destroyer which holed his aircraft. Then a Corsair fired on him, and shortly afterwards he was forced to ditch. He was later picked up by a barge, after nearly being machine-gunned by the crew, and returned to his unit two days later.

While the New Zealanders were fighting their own battle, another formation of Zekes was intercepted by a flight of American P38s, which shot down seven and probably destroyed three more with no loss to themselves. In the meantime all ships in the bay had got under way and were manoeuvring to avoid bombs. A dozen dive-bombers got through the fighter cover and attacked the ships, but one vessel only was slightly damaged by a near miss.

Another Japanese attack was made in the early afternoon, when bombs were dropped on the landing beach and near some of the ships without doing any damage. The Japanese were again engaged by American fighters, which shot down a number, but New Zealand patrols during the rest of the day did not make any further contacts.

On the night of 1–2 November the Japanese sent a force of cruisers and destroyers which they had gathered at **Rabaul** to attempt to destroy the American landing party at **Torokina**. Admiral Merrill's task force, which was the only cruiser force available in the area, was ordered to intercept the enemy and protect both the forces that had landed and the four transports which were returning to **Empress Augusta Bay** to complete their unloading in the morning. After a confused night battle lasting from just after midnight until shortly before daylight, the enemy

force was defeated and withdrew in the direction of **Rabaul**. The American task force then returned south in an endeavour to reach the protection of friendly planes before aircraft from **Rabaul** could appear.

At eight o'clock in the morning a large group of enemy dive-bombers and bombers, covered by fighters, appeared over the ships, which fought back with a tremendous barrage of anti-aircraft fire. Thanks to the evasive action taken by the ships and the concentration of fire, the Japanese bomb aimers were thoroughly rattled, and the only direct hits scored on the task force were from two

¹ **Flt Lt K. D. Lumsden; Nelson**; born Waimate, 7 Sep 1921; draughtsman.

small bombs on a cruiser. The entire attack lasted less than a quarter of an hour and at the end of it the enemy reformed out of range and retired to **Rabaul**. By this time friendly planes were over the task force in hot pursuit of the enemy, and soon after Allied bombers began to search for the Japanese ships which had been crippled during the night. In this operation one flight of the **RNZAF** Wing took part, escorting American SBDs engaged in the search.

ROYAL NEW ZEALAND AIR FORCE

ATTACKS ON RABAUL

ATTACKS ON RABAUL

The events of 2 November showed that, while many Japanese airfields had been put out of action by the continuous pounding they had received from the aircraft of the **South Pacific Command**, the enemy was still capable of flying strong forces over from **Rabaul**. In addition the naval forces there constituted a continuous threat to the success of the **Bougainville** operation.

Until aerodromes could be built on **Bougainville** the subduing of the enemy at **Rabaul** was, in the main, carried out by bombers of the South-West Pacific Command, supported by strikes by carrier-borne aircraft of Admiral Halsey's forces. A heavy raid was carried out by the former on 2 November when about 300 tons of bombs were dropped in twelve minutes on the town itself and on shipping in the harbour. On 5 November Rear Admiral Sherman's two carriers, supported by cruisers and destroyers, launched an attack from the sea. Altogether nearly a hundred aircraft were flown off the carriers and took part in the raid, while the ships were protected by land-based fighters from **New Georgia**. The attackers met heavy opposition over **Rabaul**, but the American fighters claimed to have shot down half of the enemy, while the dive- and torpedo-bombers scored a number of hits against shipping in the harbour.

Following this attack three additional carriers, the *Essex*, *Bunker Hill* and *Independence*, under Rear Admiral Alfred E. Montgomery, USN, were lent by Admiral Nimitz to the South Pacific Command, and on 11 November **Rabaul** suffered the heaviest raid it had yet received. Photographic reconnaissance the day before had shown that there were four cruisers, twelve destroyers, five submarines, ten merchant ships and seven other vessels in the harbour, while the air strength was estimated at 180 fighters, 21 light bombers, 20 medium bombers and 32 float-planes. Attacks were made by dive- and torpedo-bombers from the

carriers, escorted by fighters, which claimed successes against both the shipping and the enemy aircraft. Immediately afterwards the land-based bombers went in and did further damage. As most of the enemy fighters were by then on the ground refuelling they met only light opposition in the air. Later, when the carrier force was retiring,



RABAU, THE GAZELLE PENINSULA

RABAU, THE GAZELLE PENINSULA

the Japanese again took off and made a heavy but unsuccessful attack on the ships.

Planes from the **Solomons** supported these operations. As on 5 November fighters covered the carrier group, and bombers took part in the attack. These and other operations made 11 November the busiest day that the Allied bases in **New Georgia** had yet experienced. From **Munda** alone 700 aircraft took off during the day.

ROYAL NEW ZEALAND AIR FORCE

CONSOLIDATION OF ALLIED POSITIONS

CONSOLIDATION OF ALLIED POSITIONS

Throughout November and December the Allied positions on the Treasuries and **Bougainville** were steadily consolidated and reinforced. On the Treasuries, as soon as the islands had been secured, a radar station was erected which effectively located Japanese aircraft attempting to operate against Allied shipping en route to **Bougainville**. The construction of an airfield was also begun immediately and a naval base for small craft was developed.

On **Bougainville** the 3rd Marine Division was reinforced on 5 November by the 37th Division under Major-General Robert S. Beightler, and thereafter additional men and supplies arrived at frequent intervals. Opposition developed as the enemy was able to bring forces into the area, either down the coast by barge from **Buka** or overland from Numa Numa on the east coast and **Kahili** in the south. The first determined counter-attack came a few days after the landing and was delivered by 500 to 600 Japanese from **Buka** against the Americans' north-west flank. After heavy fighting and some initial success the enemy was thrown back. There was fierce fighting again towards the end of November in an engagement known as the Battle of **Piva** Forks. Despite opposition and the difficult nature of the country, the beach-head was expanded until, by the end of November, it was as large as it could be, having regard to the number of troops available to defend it. In December Army units started to take over the defence of the area when the **Americal Division**, under Major-General John R. Hodge, relieved the 3rd Marine Division.

Two days after the first landing naval construction battalions began building an airstrip 100 yards from the coast on the south side of Cape Torokina. It was first used on 24 November. Before the end of the year two other larger strips had been built at **Piva**, a couple of miles inland.

ROYAL NEW ZEALAND AIR FORCE

WORK OF RNZAF FIGHTER WING

WORK OF RNZAF FIGHTER WING

The month following the **Bougainville** landings was one of intense activity for all air force units on **New Georgia**. The **RNZAF Fighter Wing** put up an outstanding record by flying well over a thousand sorties during November. Despite fatigue, bad working conditions, heat, rain and mud, scanty and monotonous food, and nights interrupted by air-raid alarms, the morale of the unit remained exceptionally high.

The day's work began before dawn, when pilots who had been warned the night before for early morning operations—a dawn patrol over **Ondonga** or a flight to **Torokina**—were awakened, had their breakfast and went down to the operations room beside the strip for final briefing. There they received the latest information on their mission from the Intelligence Officer and the Meteorological Officer.

Meanwhile the ground crews had their aircraft ready to take off. Since returning from operations the day before, every machine had been checked, refuelled and rearmed, and bullet holes and mechanical defects had been repaired. The servicing and repair parties often worked all through the night by torchlight, their work interrupted by air-raid alarms and heavy rain, to have the planes ready to fly in the morning.

For example, at five o'clock on the afternoon of 2 November a maintenance party, under Corporal **Middlemiss**¹ of No. 4 Servicing Unit, began a complete engine change. During the night they were twice interrupted by air raids and falling bombs, one of the raids coming without any warning. At seven o'clock the next morning, just ten hours after the work began, the aircraft was ready to fly again.

As the early flights took off in the first light the camp woke up and the routine of the day began. Two hours after the first pilots had left

another flight was ready to take off to patrol over the Torokina beach-head or strafe enemy targets on **Bougainville**, or to accompany an American bombing raid. In mid-morning the first sorties returned and the planes were pounced on by the ground staffs and made ready for the next operation, while the pilots filed into the operations room and made their reports to the Intelligence Officer.

In the revetments beside the strip maintenance and servicing parties clad in sunhats, shorts and boots, worked in the mounting heat throughout the day on aircraft undergoing periodical inspections and major repairs.

In the afternoon other flights took off for **Bougainville** to patrol over the Allied positions and hunt and strafe Japanese ground forces. Usually one flight went each day to **Barakoma** and remained there ready to take off on any emergency mission which might be called for. Jobs which did not occur every day included escorting air-sea rescue Catalinas when they went to pick up pilots who had been shot down in the sea, escorting Dakotas taking supplies to **Torokina**, and giving fighter protection to Allied shipping which moved in increasing volume between **Guadalcanal** and **Bougainville**. The last patrols came in at dusk and the aircraft were taken over by the servicing crews, who worked on them until they were ready to fly the next day.

From early in November **RNZAF** fighter patrols over **Bougainville** combined their guarding of the beach-head with strafing attacks against land targets, searching the island on the way home from their patrols for signs of Japanese activity. On the 4th a formation from No. 15 Squadron sank a barge off Kieta Peninsula, and on the same day eight aircraft of No. 18 Squadron shot up twelve barges, an 800-ton ship, and a 60-foot schooner in Matchin Bay in northern **Bougainville**. Having strafed them thoroughly, the aircraft flew down the east coast of **Bougainville** and strafed tents, huts, and foxholes at Arawa Bay. A second patrol from

¹ **Sgt C. J. Middlemiss; Wellington; born Gisborne, 7 Jun 1921; mechanic.**

the same squadron attacked a 100-ton ship and two camouflaged schooners in Kieta Harbour and left them sinking.

Another successful attack was made by eight aircraft of No. 18 Squadron on 15 November when they strafed barges in Tonolei Harbour in southern **Bougainville**. Two of the barges burnt fiercely, belching black oil smoke. Anti-aircraft positions round the harbour were also hit and two fuel dumps were set on fire.

On the 28th a small formation, led by Wing Commander Freeman, was supposed to escort some American B25s bombing Tinputs Harbour in north-eastern **Bougainville**. The bombers failed to appear so the fighters went in on their own account and set fire to a number of huts and other buildings.

On 11 December the **RNZAF** for the first time tried fighter-bombing, when three aircraft, each carrying two 100-pound bombs, attacked Kieta. One of the pilots, Flying Officer **Bullen**, ¹ demolished a building with a direct hit. Three days later four aircraft were sent to bomb a bridge in south-western **Bougainville** and destroyed it, also, with a direct hit.

¹ **Fg Off W. M. Bullen, m.i.d.; born Christchurch, 28 Aug 1914; clerk; killed in aircraft accident 26 Jun 1945.**

ROYAL NEW ZEALAND AIR FORCE

FIGHTER SWEEPS OVER RABAU

FIGHTER SWEEPS OVER RABAU

The development of airstrips at **Empress Augusta Bay** made it possible for land-based fighters equipped with long-range tanks to operate against **Rabaul**, both on offensive sweeps and as escort for bombers. As a result, light and medium bombers could make attacks with fighter protection. Hitherto all strikes had been made by heavy bombers from **Guadalcanal** or the South-West Pacific area or by carrier-borne aircraft. While they had done considerable damage to the town and to shipping in the harbour, the raids had not been sustained enough to destroy **Rabaul's** usefulness as a base or to put its airfields out of commission. As long as it remained operational in Japanese hands it constituted a potential threat to the South and South-West Pacific. As soon as possible, therefore, attacks were launched against it from **Bougainville** and were designed first to make it useless to the Japanese and then to keep it ineffective.

The first attack, a fighter sweep by eighty aircraft, was made on 17 December. Twenty-four aircraft of the New Zealand Fighter Wing, led by Freeman, took part. ² The pilots left **Ondonga** early in the morning and landed at **Torokina** to refuel and to be briefed on the operation. They took off again in two formations between

² Originally the American Fighter Command had not planned to use P40s over **Rabaul**, as they were regarded as second-rate fighters. They were included in this operation, however, and so justified themselves that they were used in all subsequent ones.

nine and half past and were over **Rabaul** by half past ten. There was no opposition at first, but after they had been circling the area for some minutes enemy fighters came up to meet them. In the resulting

engagement five enemy aircraft were shot down by New Zealanders and four by American fighters. Two New Zealanders were lost, including Freeman. He was last seen, with his aircraft damaged, attempting a forced landing on New Ireland and no trace of him was subsequently found. He was one of the RNZAF's most able and inspiring leaders. Squadron Leader Nelson ¹ acted as Commanding Officer of the Wing until Wing Commander Nicholls, DSO, RAF, ² took over command in February 1944.

On 24 December the New Zealand Wing, in conjunction with twenty-four American fighters, made another sweep over Rabaul. The force approached the target area stepped up in tiers, with the New Zealand squadron forming the two bottom layers. Ten miles north-east of the town, forty or more Japanese fighters came climbing up to intercept. The New Zealand squadrons each selected a group of the enemy and dived to attack. After the initial dive formations became broken up, and a series of dogfights took place at all heights from 18,000 feet down practically to sea level. This stage of the action was necessary so that the New Zealand pilots could protect each other. If the leading sections had dived away after their first onslaught, the later ones would have been at the mercy of a concentration of enemy fighters. By remaining in the area until the action was over they helped to keep the enemy occupied, and the whole formation was able to retire with a minimum of loss. The battle gave the Wing its highest score of the war: twelve Japanese aircraft were shot down, four more claimed as probables and a number of others damaged, for the loss of five New Zealand pilots. Another New Zealander was shot down but was picked up by 'Dumbo' ³ after six hours in the water.

Squadron Leader Newton ⁴ of No 17 Squadron described the action thus in his combat report:

On the way in [to the target] we could see clouds of dust rising off the Tobera strip. When we were about five miles south-east of Praed Point two groups of 'bandits', with more than twenty aircraft in each, were seen climbing up on our port side. The further group was a little

higher than the nearer group. Squadron Leader J. H. Arkwright ⁵ led

¹ **Sqn Ldr J. S. Nelson**, m.i.d.; **Wellington**; born NZ 28 Jun 1912; metal merchant.

² **Gp Capt C. W. K. Nicholls**, DSO, OBE; **RAF**; born **Palmerston North**, 7 Oct 1913.

³ Flying boats engaged on air-sea rescue were christened 'Dumbo', after the big-eared kind-hearted flying elephant of the film cartoon.

⁴ **Wg Cdr P. G. H. Newton**, DFC; **Christchurch**; born **Christchurch**, 29 Sep 1917; engineer draughtsman.

⁵ **Wg Cdr J. H. Arkwright**, DFC; **Marion**; born **Marion**, 21 Jan 1920; farmer.

No. 16 Squadron down on the nearer group, and I went down on the further group, both of us saying on the R/T that we were going to attack.

I picked a Zeke near the front of the very loose formation and opened fire at 300 yards in a stern quarter attack, continuing firing as I followed the Zeke round in a turn until I was dead astern. The Zeke exploded at the wing roots and started to burn, with bits of the aircraft flying off. He tumbled over and went down in flames. I saw many aircraft shot down by the squadron in this initial attack. I pulled round to the left, looking for another target. The sky was full of P40s and bandits milling round. I saw a Zeke on my left at the same level doing a left-hand turn. I turned, closing in astern, and fired a one-second burst at 250–300 yards. He did a complete flick roll to the left and when he pulled up I was still astern at 200 yards. I fired a 2–3 second burst and got hits all round the fuselage. He fell off in a lazy roll to the right and

went straight down, apparently out of control.

I then found another Zeke milling round in the sky where about twelve P40s were mixing with a mass of Zekes. We were now down to about 12,000 feet. I turned in towards him and as he started a gentle turn to the left, I closed right in to 300 yards astern and fired a short burst. He flick-rolled to the left and as he straightened up I fired a long burst from dead astern. He fell away in a lazy roll to the right and then went down in a vertical dive. I rolled behind him and fired short bursts as he came in my sights. I observed my tracer going into the fuselage. I broke away at low level as I saw the Zeke go into the sea. As I was following him down I saw another Zeke go into the sea. This could have been the Zeke I had engaged previously and left in an uncontrolled dive.

I started to regain altitude and was set upon by six Zekes. I fired several bursts haphazardly at them, but they hemmed me in and I broke violently down again. At full throttle I could not shake off some of the Zekes, so I went right down to the water and headed for the Duke of York Islands. I found another P40 in the same predicament, so we scissored together. As the Zeke broke away we turned back towards the fight. As I saw four P40s making out to the rally point (Cape St. George) and as the fight seemed to be working out from **Rabaul**, we again turned towards the rally point and were immediately pounced upon from above by six to eight Zekes. We used full power and overtook the P40s ahead of us. I saw a P40 low down over the water behind me in the direction of **Rabaul** so I turned back and started to scissor with him. After the first scissor he was shot down by a Zeke. His aircraft trailed smoke and went into the sea, ten miles north-west from Cape St. George. I went right down to the water at full throttle with two Zekes behind shooting. I skidded violently and most of the tracer (7.7 millimetre) went over my head into the sea. The Zekes broke off five miles from Cape St. George where I joined five or six P40s and set course for **Torokina**. We 'pancaked' there at 1300 hours.

The attacks on **Rabaul's** airfields had a twofold significance. They were designed not only to prevent the enemy's air force from causing too

much trouble over the **Bougainville** beach-head, but also to support the landing of General MacArthur's South-West **Pacific** forces at Cape Gloucester on 26 December.

The fighter sweep of 17 December was followed, two days later, by a strike by American Liberators from **Guadalcanal**. Twenty-four aircraft of the New Zealand Fighter Wing provided part of the escort. They left **Ondonga** in the early morning, refuelled at **Torokina**, and met the bombers over **Empress Augusta Bay**. **Rabaul** was bombed successfully and no enemy fighter opposition was met until after the attack was completed. As the formation was withdrawing from the target area four Zekes attacked. One was shot down by Flight Sergeant **Williams**¹ of No. 17 Squadron.

Royal New Zealand Air Force fighters took part in every major attack made on **Rabaul** from the **Solomons**. When flying as escort to heavy bombers they acted as close cover. As the P40s could not operate efficiently above 20,000 feet, they acted as close cover to the bombers flying at 18,000 feet. Above them low, medium, and high cover were provided by American Hellcats, Lightnings or Corsairs. The role of close cover meant staying by the bombers and dealing with any enemy fighters that had succeeded in piercing the other layers of the escort. It demanded a high standard of flying discipline and resistance to the temptation of being drawn away into combat elsewhere. The New Zealanders were particularly popular with American bomber crews because of the way in which they stuck to their job.

Dive-bomber attacks by American TBFs and SBDs were begun early in January. In these operations also, **RNZAF** fighters provided close cover, following the bombers down when they dived to release their bombs and remaining with them as they withdrew. They were so successful in their role that the bomber crews frequently asked specifically for New Zealand fighter cover when going over **Rabaul**.

Close co-operation with the bombers was made the more difficult because fighters and bombers operated from different airstrips, and in

most cases from different islands, and it was therefore impossible for formation leaders to be together for briefing before a strike. As a result, fighter leaders often had to set out without knowing the bomber commanders' full plans for the operation. At times, in bad weather or as a result of last-minute changes in plan, the fighters failed to rendezvous with the bombers. This difficulty was overcome later when SBDs and TBFs were based at **Bougainville**, but it always applied in raids by medium or heavy bombers, which operated from Treasury or **Munda**.

¹ **Fg Off D. A. Williams; Auckland; born Auckland, 25 Jan 1920; cutter.**

ROYAL NEW ZEALAND AIR FORCE

OPERATIONS BY NO. 1 (BR) SQUADRON, OCTOBER 1943 - FEBRUARY 1944

OPERATIONS BY NO. 1 (BR) SQUADRON, OCTOBER 1943 - FEBRUARY 1944

While the **RNZAF Fighter Wing** was operating from **Ondonga**, New Zealand bomber-reconnaissance aircraft continued to carry out patrols and searches, first from **Guadalcanal** and later from **Munda**.

No. 1 Squadron, under the command of Squadron Leader **Walker**,¹ relieved No. 3 Squadron during the fourth week of October. Before going overseas it had been re-equipped and trained with PV1 Venturas and was the first New Zealand squadron to operate with these aircraft. It had been ready to move to the forward area in the middle of September, but was delayed by lack of shipping.

During the latter part of its tour No. 3 Squadron had been doing four patrols daily from **Henderson Field**. No. 1 Squadron took over the commitment on 23 October. Early in November, two of the patrols were cancelled as being no longer necessary, and the remaining two were abandoned on 6 February 1944 when a new search plan was instituted, based on **Munda**. Each patrol covered 700 nautical miles and involved an average of four and a quarter hours' flying time. All of those done by No. 1 Squadron were negative except that on 26 October when a submarine was sighted 300 miles south of **Guadalcanal**. It submerged as the aircraft approached and was not definitely identified.

The Ventura was a more versatile aircraft than the Hudson and had greater offensive power. Consequently No. 1 Squadron was employed on a greater variety of work than No. 3 had been. It carried out its first special mission on 28 October when an aircraft dropped a message to the Task Force Commander during the initial landings by 3 New Zealand Division on the **Treasury Islands**.

From the end of October all the squadron's operations except the searches from **Henderson Field** were carried out from **Munda**. Until the end of November aircraft were sent to **Munda** when required for specific missions. There they were refuelled and the crews briefed for their operations, and they returned to **Guadalcanal** after their operations were completed.

This practice resulted in a lot of time being wasted in transit flights between **New Georgia** and **Guadalcanal**. Consequently from the end of November onwards a detached flight of six aircraft and crews was stationed at **Munda**, together with a servicing unit of eighteen men, an operations officer and an intelligence officer. The aircrews spent four days at a time on this detachment and the ground staff eight days, returning to **Guadalcanal** at the end of the period. This practice was followed for the rest of the squadron's tour.

In terms of missions carried out, routine patrols and searches constituted the greater part of the squadron's work, but there was

¹ **Wg Cdr H. C. Walker**, AFC, m.i.d., Legion of Merit (US); **Palmerston North**; born Edinburgh, 15 Mar 1908; airline pilot.

hardly a type of operation in which it did not take part at some stage of its tour. On 11 November, the day of the combined South Pacific and South-West Pacific attack on **Rabaul**, it even flew offensive fighter patrols, when it was ordered 'to seek out and destroy enemy aircraft' as well as to report all hostile and friendly shipping. On that day thirteen of the squadron's aircraft flew a total of eighteen sorties, each of four and a quarter hours' duration. Although numerous sightings were made of friendly task forces, only two enemy aircraft were seen and neither could be brought to action.

Bombing and strafing missions round the coast of **Bougainville** were a regular feature of the squadron's work. Formations of up to six

aircraft, sometimes but not usually accompanied by fighters, attacked enemy barges, encampments, and troop concentrations. Sometimes they were given specific targets which had been reported previously by other reconnaissance aircraft, and at other times they searched for signs of enemy activity and attacked whatever target presented itself. Bombing was usually done from a few hundred feet, after which the aircraft came down and strafed the target. The normal bomb load for each aircraft was six 500-pound bombs, with fuses set to provide just enough delay for the aircraft to escape the blast.

A typical operation took place on 10 December, when six Venturas were ordered to attack copra warehouses being used by the Japanese at Arigua Plantation, on the east coast of **Bougainville**. They approached their target at 2000 feet and dived to 500 feet to drop their bombs. Most of the bombs fell either directly on the warehouses or close enough to do damage. Observation of the results was difficult because of the dense clouds of smoke which rose after the bombing, but the captain of the last aircraft reported that all the buildings had been destroyed.

On the 22nd four aircraft were ordered to bomb and strafe a lighthouse and radar station at Cape St. George on **New Ireland**. They pressed home their attacks from a low height in the face of intense anti-aircraft fire and secured several near misses but failed to destroy their target. Two of the aircraft were hit by anti-aircraft fire and on one the starboard engine seized up. The pilot successfully flew 180 miles over the sea and landed safely at **Torokina**.

On the same day six Venturas were ordered to attack enemy barges and other craft reported to be unloading at Ambitle Island off the east coast of **New Ireland**.¹ Three of them carried depth-charges and the other three 500-pound bombs. When they reached the target area the Venturas split into three sections of two aircraft each. The first section saw a barge between Ambitle and Feni

¹ See map on p. 238.

islands, and the leading aircraft dropped a depth-charge and the second one four bombs. The results were not observed. The second section found a barge camouflaged with greenery off Feni Island and dropped four bombs from 400 feet, scoring near misses. The leader of the third section saw a barge off the east coast of Ambitle, attacked it with his front guns, and dropped three depth-charges from 100 feet. The results could not be seen as the barge was enveloped in a fountain of water. The second aircraft found a camouflaged barge off the coast of Feni and dropped three bombs from 800 feet and two from 500 feet, scoring near misses.

With the institution of almost daily attacks on **Rabaul**, Venturas were detailed to follow the striking forces and search for pilots who might have been shot down or have baled out into the sea. When they discovered them they signalled back to base for a Catalina to come to the rescue and, when possible, remained over the spot until it arrived. They carried spare rubber dinghies which could be dropped to the men in the water if necessary. A number of Allied airmen owe their lives to the fact that they were spotted by members of No. 1 Squadron and subsequently rescued.

As the 'survivor patrols' followed the striking forces practically to **Rabaul**, where they were liable to meet Japanese fighters, aircraft were sent in pairs for mutual protection. Two aircraft piloted by Flying Officer **Alford**¹ and Flying Officer Ayson² followed the fighter sweep of 24 December. Alford saw a pilot in a dinghy in St. George's Channel and at the same time was attacked by three Zekes. His aircraft was hit but he shook off the enemy, damaging two of them, escaped into cloud, and then signalled the position of the downed pilot.

Ayson's aircraft, cruising over the mouth of the channel, was attacked by from six to nine Zekes and a running fight ensued. Flying Officer **Aldridge**,³ the wireless operator/air-gunner, who was acting as fire controller, was wounded at the height of the action and Warrant Officer Williams, DFM,⁴ the navigator, took over. Skilful piloting,

combined with efficient fire control and accurate gunnery, resulted in three enemy aircraft being shot down and two possibly destroyed, while the Ventura, although extensively damaged, got safely back to base. After the battle, a particularly good effort for a Ventura against such odds, the crew received a personal signal of congratulation from COMAIRNORSOLS, General R. J. Mitchell: 'Mitchell says to Ayson and crew quote for single

¹ Fg Off R. J. Alford; Cambridge; born Auckland, 1922; farmhand.

² Flt Lt D. F. Ayson, DFC; Auckland; born Mosgiel, 9 Apr 1915; linotypist.

³ Fg Off S. P. Aldridge; born Te Kuiti, 16 Jun 1920; engineer and farmer; killed on air operations 20 Aug 1944.

⁴ Fg Off W. N. Williams, DFC, DFM; Christchurch; born Dunedin, 28 Nov 1913; hairdresser.

handedly beggar up finish two Nips and three damaged stop A mighty well done and Merry Xmas. Unquote'. ¹ In addition, Ayson was awarded the DFC; Flight Sergeant Hannah, ² the air-gunner, who was credited with two and a half Zekes, received the DFM; and Warrant Officer Williams, credited with half a Zeke, the DFC.

Other operations carried out by the squadron during its tour included minelaying by night in Buka Passage, searches for suspected submarines, and the dropping of supplies to coastwatchers and propaganda leaflets to natives.

During the last ten days of its tour the squadron was relieved of all its miscellaneous activities and was engaged, in conjunction with an American Ventura Squadron, VB140, solely on patrols over the sea west of Munda. It was relieved by No. 2 Squadron on 17 February and returned

to New Zealand for leave and reforming.

For the maintenance of its aircraft the squadron was based on No. **10 Servicing Unit**, which had arrived at **Guadalcanal** from **Auckland** in the USS *Pinkney* on 13 October. Servicing problems were difficult until nearly the end of the tour, as no spares had been available in New Zealand and the squadron was obliged to leave without any. American Ventura squadrons at **Guadalcanal** and **Munda** were in the same position. Fortunately, from the maintenance point of view, several of their aircraft had crashed on or near the airstrips and both American and New Zealand servicing crews were able to rob them for spare parts. In February 1944 the supply position improved with the arrival of an adequate range of spares from the **United States**.

The following is a detailed summary of the squadron's flying activities during its tour:

	<i>Number of Sorties</i>
Routine patrols from Guadalcanal	230
Routine patrols from Munda	41
X-ray patrols from Munda	11
Survivor patrols between Torokina and New Britain	135
Bombing and strafing missions	99
Barge-hunting missions (no bombing)	3
Special shipping searches	9
Special submarine searches	32
Minelaying missions	15
Offensive fighter patrols	18
Supply dropping missions	8
Message and leaflet-dropping missions	6
Miscellaneous special reconnaissance patrols	8
Escorts for fighter formations on transit flights over the sea	5
Photographic missions	1
Transit flights	265

¹ The original report of the action had claimed only two enemy aircraft destroyed. The third was confirmed later. 'Beggar up finish': pidgin English in the **Solomons** for 'kill, wipe out'.

² W/O G. E. Hannah, DFM; **Invercargill**; born **Invercargill**, 7 Oct 1913; boot repairer.

ROYAL NEW ZEALAND AIR FORCE

RNZAF FIGHTERS MOVE TO BOUGAINVILLE

RNZAF FIGHTERS MOVE TO BOUGAINVILLE

By the middle of January accommodation was available at **Torokina** for the two New Zealand fighter squadrons, and on the 17th the Wing moved there from **Ondonga**. A detached flight of No. 17 Squadron had already been there since 28 December. The Wing now consisted of Nos. 15 and 17 Squadrons, together with Nos. 2 and 4 Servicing Units. When it first arrived at **Ondonga** it had comprised Nos. 15 and 18 Squadrons. No. 15 was relieved early in November by No. 14, and No. 16 (under Squadron Leader Arkwright) replaced No. 18 towards the end of the month. These in turn were relieved by Nos. 15 and 17, which came up for a further tour in the second half of December.

For several days after the move the squadrons operated from **Torokina** with skeleton ground staffs, awaiting the arrival of the servicing units. These left **Ondonga** with their equipment in a convoy of American landing craft on the afternoon of 18 January and arrived off **Torokina** at dawn on the 20th. The voyage was uneventful apart from a number of air-raid alarms on the night of the 19th, and all ranks welcomed the relaxation after their hard work of the past few months. A number of New Zealanders helped to man anti-aircraft machine guns and work their ship.

On reaching **Empress Augusta Bay** the convoy broke up. The LCI on which the servicing units had travelled beached on the mainland and the LST carrying their equipment unloaded at Puruata Island, where the cargo was collected in dumps to be transported later by tender. The men were taken from the beach to their camp site in trucks lent by 1 Battalion, Fiji Regiment.

Station Headquarters and No. 2 Servicing Unit were accommodated in a camp recently evacuated by an American squadron, VMF215, and

No. 4 Servicing Unit was at first quartered in tents which had housed VMF212. The arrival of another American squadron a day or two later resulted in **No. 4 Servicing Unit** having to leave its camp, and a new site was cleared for it close to **No. 2**.

For the first few days after landing, all hands were employed in setting up camp, digging foxholes, and moving equipment from Puruata Island. Among other cargo the units had brought with them 30,000 super, feet of timber for camp construction. The work was finished on 23 January, and next morning the men paraded for normal duties. By this time temporary station headquarters, orderly rooms, post office, and a non-technical store had been established at the camp site; and by the airstrip a wing operations and intelligence section, squadron huts, servicing unit areas, engineers' offices and technical store were ready to function. A week later the station was completely settled in. Conditions were reasonably good except for nights disturbed by enemy air raids and American artillery.

The move to **Bougainville** had saved pilots up to three hours' flying on each operation as they no longer had to do the return trip to **Ondonga**. Instead of leaving their base at dawn and returning late in the afternoon, they were now able to take off about eleven in the morning and be home again by 3 p.m. Apart from the saving in flying time, the hazard of bad weather between **Torokina** and **Ondonga**—an experience general round the **New Georgia** Group—was now eliminated.

ROYAL NEW ZEALAND AIR FORCE

RNZAF OPERATIONS IN REAR AREAS

RNZAF OPERATIONS IN REAR AREAS

While the front-line squadrons were moving forward through the **Solomons** with the American forces, other New Zealand units were engaged in garrison duties and training in the rear areas of the South Pacific. At Santo there was always an **RNZAF** fighter squadron, on its way from New Zealand to the combat area, engaged in operational training and available for fighter defence duties if required. No. 9 Bomber Reconnaissance Squadron was also there during most of the year, carrying out shipping escorts and anti-submarine patrols until it returned to New Zealand in October. It was replaced by No. 3 Squadron, which came back from Guadalcanal and operated from Santo until the end of the year. In November No. 2 (BR) Squadron also arrived at Santo and operated and trained there until February 1944, when it moved up to **Munda**. No. 1 Squadron, meanwhile, had replaced No. 3 at **Guadalcanal**.

From the time when No. 3 Squadron began operations at **Guadalcanal** in November 1942 until it was replaced by No. 1 Squadron in October 1943, its maintenance in the forward area was of paramount importance in **RNZAF** bomber-reconnaissance activities. Its continued efficiency was necessary in order to justify the inclusion of New Zealand units in the **South Pacific Command**. Its high standard was maintained by 'milking' the squadrons in the rear area of both aircraft and crews whenever they were required. This expedient was naturally resisted by the officers commanding No. 9 Squadron at Santo and No. 4 Squadron in **Fiji**, who disliked seeing their well-trained squadrons being depleted of their best crews. The **RNZAF**, however, was in a sense on trial with our allies, and could not afford to risk the disruption and delay which would have followed a complete changeover of squadrons. Moreover, operational necessity demanded continued maximum efficiency by our

bomber-reconnaissance squadrons at Guadalcanal, which would have been impossible if a complete new unit had been posted there. Thus, during most of the year Nos. 4 and 9 Squadrons acted in reality as operational training squadrons with, at the same time, definite operational roles.

ROYAL NEW ZEALAND AIR FORCE

OPERATIONS BY NO. 4 SQUADRON

OPERATIONS BY NO. 4 SQUADRON

In Fiji No. 5 Squadron, which had consisted of Vincents and a flight of **Singapore** flying boats, had been disbanded in November 1942 because its aircraft were obsolescent. The **Singapore** flight, however, had continued to operate until Catalinas with which to form No. 6 Flying Boat Squadron became available in the first half of 1943. Reconnaissance during 1943 was carried out over Fijian waters by No. 4 (BR) Squadron and, after its formation, by No. 6 Squadron.

No. 4 Squadron, now fully equipped with Hudsons, carried out regular reconnaissance operations, and at the same time served as a training unit for crews to reinforce the squadrons in the forward area. Enemy submarines were still active in Fijian waters. At a time when senior commanders were interested in the rear areas only so far as they affected operations in the forward areas, the employment of Japanese submarines in the vicinity of **Fiji**, apart from the shipping they were able to destroy, was of immense strategic value to the Japanese. The mere appearance of a submarine in a rear area caused a diversion of effort and the employment of aircraft which would otherwise have been available at more forward locations.

In May 1943 three American ships, the *William Williams*, *Hearst* and *Vanderbilt*, were attacked. The *Williams* was torpedoed early in the month 120 miles south of **Fiji**. She remained afloat and was towed into **Suva** for temporary repairs. During this operation Hudsons of No. 4 Squadron maintained a constant anti-submarine patrol over her. Hudsons also took part in the search for survivors of the *Hearst*, which was sunk later in the month. One aircraft sighted them and dropped supplies.

Six submarines were reported during June by ships and aircraft. On

the 25th a Hudson sighted one 180 miles south-west of Suva, while escorting an American convoy. The aircraft immediately attacked and dropped four depth-charges over the spot where the submarine had submerged. Three minutes later oil slick appeared on the water but there was no other evidence of a kill. Later, more oil slicks were seen 50 miles from the scene of the attack. Further aircraft were sent out to search for the submarine, but weather and visibility were bad and nothing more was seen of it. Information gained since the war shows that the Japanese reported the loss of a submarine in the area about this time and it is probable that this was the one.

In the following months No. 4 Squadron escorted every ship entering or leaving Suva Harbour and also flew many sorties in search of submarines that had been reported. On 7 September a Hudson escorting the American ship *Saugatuck* between Fiji and Tonga sighted a periscope and attacked. It dropped four depth-charges from a height of 100 feet. All of them exploded. The submarine was forced partly to the surface and then dived. The aircraft searched the area for half an hour but no wreckage or oil was seen. Later, two other aircraft relieved the first, but the submarine did not reappear. The *Saugatuck* reached harbour safely without being attacked.

ROYAL NEW ZEALAND AIR FORCE

NO. 6 FLYING BOAT SQUADRON

No. 6 FLYING BOAT SQUADRON

Long-range patrols and reconnaissance flights were carried out from **Fiji** by flying boats. The allocation of aircraft to the **RNZAF** for the year 1943–44 had included a number of PBY5 Catalina aircraft with which to form two squadrons. The first to be formed was No. 6 Squadron, which absorbed the **Singapore** flight of No. 5 Squadron in **Fiji**. The first Catalina was delivered at Lauthala Bay in April 1943 by an American crew who had flown it from San Diego, on the west coast of **America**. Subsequently, aircraft were ferried to **Fiji** by New Zealand crews who were posted to the Pacific Ferry Command for the purpose.

The **Singapore** Flight had been known unofficially as No. 6 Squadron since the disbandment of No. 5 Squadron in November 1942, but the new squadron was officially formed on 25 May 1943. Wing Commander Stead, DFC, **RAF**, ¹ was appointed Commanding Officer and Squadron Leaders **McGregor** ² and **Jury** ³ flight commanders. The establishment of the unit was twenty-four aircraft.

McGregor and several crews had been attached to the USS *Curtiss* in **Segond Channel** to learn American naval methods and the operation of Catalinas. This training proved most valuable in the formation and training of **RNZAF** flying-boat squadrons. As soon as sufficient aircraft arrived, No. 6 Squadron started an intensive crew-training programme with the object of becoming fully operational by the beginning of August.

One of the earliest operations, carried out before the squadron had been officially formed, was a search by an aircraft captained by McGregor for survivors of the American ship *Vanderbilt*, which was torpedoed on 2 May. Eight men were found on a raft in very rough seas and the Catalina stood by for three hours waiting for the arrival of

rescue ships. As none turned up, it finally landed and picked up the men. The waves did some damage to the hull, but the aircraft took off safely and returned to **Lauthala Bay**.

For the next few months the squadron combined training with shipping escorts and searches for submarines. When training was completed, at the beginning of August, orders were received to prepare a detached flight to serve at **Funafuti** in the Ellice Islands. This instruction was cancelled, and a fortnight later a detached flight comprising six aircraft and crews, with a small maintenance party, was sent instead to **Tonga**. There it was stationed at the US Navy Base at Nukualofa, and became responsible for the protection of shipping in Tongan waters.

Aircraft of the detachment took part in the rescue of survivors of the American troopship *San Juan*, which was torpedoed on 11 November. Rescue operations, to which the aircraft of No. 4 Squadron also gave air cover, extended over two days. During most of the time the sea was too rough to permit flying boats to land, but the Catalinas dropped smoke flares to guide surface vessels to survivors who were clinging to rafts and bits of wreckage scattered over 20 miles of sea. Altogether 1180 men were rescued.

The main body of the squadron left **Fiji** at the beginning of October when the whole unit, except the detached flight, was posted to **Segond Channel** at Santo. The move was made in the squadron's own aircraft, which carried all the ground staff and equipment with the exception of one load transported in a C47.

At Segond the unit came under the operational control of the American Navy seaplane tender USS *Wright*, which was based there. It carried out its first operational patrol from its new base three days after its arrival, and for the next two and a half months was engaged in searching for enemy ships and submarines to a range of 670 miles over the seas to the west of Santo. All aircraft on patrol carried full armament, including depth-charges, but no hostile craft was seen. The

flight at **Tonga** rejoined the main body of the squadron in November, making the move entirely in its own aircraft.

Operations were carried out from **Segond** until just before Christmas and then the unit moved forward to **Halavo Bay** on **Florida Island**, near **Guadalcanal**. The first aircraft flew there on 22 December and the others followed within the next few days. The ground staff and equipment travelled in the *USS Wright*, arriving on 26 December. The first patrol from Halavo was carried out on Christmas Day, and two days later the squadron had fully settled in and was operational. It worked in conjunction with a United States Navy flying-boat squadron searching for enemy shipping and submarines to a range of 650 miles from its base. In addition a standing commitment was the maintenance of an aircraft on constant readiness for air-sea rescue operations.

¹ **Wg Cdr G. G. Stead**, DFC; **RAF**; born **Hastings**, 8 Sep 1911; served **RAF** 1930–34; recalled **RAF** 1940; flying duties No. 204 Sqn, 1940–41; CFI No. 4 OTU, Coastal Command, 1942; seconded **BOAC** 1943–45.

² **Sqn Ldr R. B. L. McGregor**, AFC; born **Auckland**, 13 Jul 1908; airways pilot; killed on air operations 5 Jun 1943.

³ **Sqn Ldr A. V. Jury**; **Auckland**; born **NZ** 29 Apr 1908; airways pilot.

ROYAL NEW ZEALAND AIR FORCE

CHAPTER 15 – RADAR UNITS IN THE PACIFIC

CHAPTER 15

Radar Units in the Pacific

REFERENCE has already been made in **Chapter 9** to the development of an air-warning system in New Zealand. In the operational areas of the South Pacific a similar system was developed, and it combined with the coastwatching organisation to give warning of approaching Japanese raids. Actual interceptions of enemy aircraft, particularly at night, were also directed by radar.

During the first year of the South Pacific campaign there was an acute shortage of trained radar personnel, and New Zealand was asked several times by the American Command to supply them. Demands could not always be met in full as the supply was limited and it took a long time to train more men. In 1943, however, the diminished threat of invasion in New Zealand made it possible to reduce the radar warning system at home and release a number of men for posting to the forward area.

Some units had gone overseas before then. Early in December 1941 Squadron Leader **Gibbs**,¹ who was then Staff Radar Officer at Air Force Headquarters, went to **Fiji** to plan an air-warning system there. He selected a site on Malolo Island, a few miles off the coast from **Nandi**, and the original CHL set that had been obtained in England by Dr Marsden was sent there. It was installed by Mr **T. R. Pollard**, of the Canterbury University School of Engineering, and Mr **H. Walker**, an electrical engineer of **Christchurch**, both of whom were enlisted in the Army for the purpose. They were assisted by an **RNZAF** party under Warrant Officer **Rowe**.² When the installation was completed Rowe and his party remained on the island and operated the set, until finally it was taken over by the Americans a year later. During its tour of duty the unit had no hostile aircraft to report but it plotted the tracks of numerous Japanese submarines round its sector of the coast.

When the Americans took over the defence of **Fiji** they installed a

number of air-warning units there, and the **RNZAF** was not called upon to accept further responsibility for the area.

¹ **Wg Cdr R. J. Gibbs, OBE; RNZAF; born Lyttelton, 18 Jan 1906; joined NZ Permanent Air Force 1930; radio engineer.**

² **Flt Lt I. S. Rowe; Wellington; born Eltham, 26 Aug 1913; joined NZPAF 1929.**

RADAR UNITS IN TONGA

In December 1942 an **RNZAF** radar party was sent to **Tonga** and was attached to No. 15 Fighter Squadron, which had been stationed there for some time. There were two radar stations on the island, manned by American troops. The Americans were needed at **Guadalcanal** and the New Zealanders took over from them. All the equipment was, of course, American, while the **RNZAF** men had been trained on British types. During the two or three days in which they took over the stations, they received instruction in the use of the equipment from the previous operators and were able to operate with very little difficulty.

One of the stations was in open country near the coast, and the other was located on the highest point of the island, five miles from Nukualofa. Both sites had their drawbacks—the former was too low-lying for satisfactory radar operation, and the latter was surrounded by bush—but they were the best available. Both were connected by telephone with an air-warning centre, which was also taken over by New Zealanders, near the airfield at Fuamotu. During the time the unit was on the island no enemy activity was reported, but plots were made of all friendly aircraft and shipping in the area.

Early in April 1943 another draft of American radar personnel arrived to take over the stations, and the New Zealanders stood by for orders to move to the forward area. Towards the end of the month they left **Tonga** on the *USS President Hayes* for **Noumea**.

They spent three weeks there in a transit camp, and then went to **Guadalcanal** in the first LSTs to be used in the **Pacific**. On arriving at **Guadalcanal** they were at first attached to No. 3 (BR) Squadron and took the place of the same United States Army personnel whom they had originally replaced at **Tonga**.

NORFOLK ISLAND

An **RNZAF** radar unit was installed by Flying Officer **Mercer**¹ on **Norfolk Island** early in 1943, and became operational in May. By this time the island was no longer used as a base for operational aircraft, but it served as a staging point on the air route between New Zealand and the forward area. In view of the value of radar as a navigational aid, the unit remained operational until the end of the war and was responsible on several occasions for locating and homing aircraft in bad weather.

An instance occurred in the latter part of 1943. An American Flying Fortress en route from New Zealand to **New Caledonia** developed engine trouble 90 miles south of Norfolk. The weather was extremely bad, with heavy rain and no visibility, and the aircraft was observed on the radar screen flying round in circles looking for the island. Contact was made by radio and the plane was brought safely in through the murk. Its captain later remarked that he had never before had any faith in radar, but now had entirely new ideas on the subject.

¹ **Flt Lt L. F. W. Mercer**, m.i.d.; **RNZAF**; born **Auckland**, 8 Nov 1915; radio serviceman.

DESPATCH OF NO.52 RADAR UNIT TO GUADALCANAL

Early in January 1943, as a result of delays in the delivery of American ground radar equipment in the **Pacific**, the Commander-in-Chief Pacific Ocean Area asked the **New Zealand Government** to supply a British set manned by New Zealanders for use in the forward area. The equipment was available in New Zealand, and the Government agreed to

hand over one GCI set to the Americans and to supply the necessary men to install and operate it.

The unit formed at **Palmerston North** and was trained and ready to go overseas in the middle of February. As there were no controllers in New Zealand with GCI experience, the Americans sent a party of three officers and a senior NCO, headed by Major E. C. Best, USMC, to help train the unit. Major Best recommended that an American fighter squadron, which was waiting at **Hawaii** to proceed to **Guadalcanal** to work in conjunction with the unit, should be sent to New Zealand to practise co-operation with it. The recommendation was endorsed by Air Headquarters on the grounds that even a few weeks' training in New Zealand would greatly benefit both the pilots and the controllers. The proposal was turned down by CINCPAC, who instructed that training should be co-ordinated with the calibration of the equipment on its operational site.

An advance party of the unit left New Zealand for **Guadalcanal** by air towards the end of February to select a site for the radar station. It was led by Squadron Leader **Banwell**,¹ a New Zealander who had taken part in much of the early research in the development of radar in **Britain** and had been lent to New Zealand to help in its development here. In the next few months he did invaluable work in the siting of radar units in the **Solomons**. Another officer with the party was Flight Lieutenant C. A. Mills, RCAF, one of a number of Canadian officers and NCOs who were lent to the **RNZAF** to help to develop the radar organisation. The three American controllers and ten **RNZAF** airmen went at the same time,

¹ **Sqn Ldr C. J. Banwell**, m.i.d.; **Wellington**; born **Wanganui**, 3 Jun 1908; physicist.

while the one New Zealand controller, Flight Lieutenant **Hesketh**,¹ had flown to **Guadalcanal** a few days before.

The main body, consisting of the Adjutant, Pilot Officer **Graham**,²

and thirty-three airmen, travelled by sea in the USS *George Clymer*. The unit landed at **Guadalcanal** on 1 March and immediately started work on the installation of its equipment and the provision of accommodation. This entailed clearing a site, laying concrete foundations, and building huts. American troops helped to pour concrete and erect a Quonset hut, but all the other construction work was done by unit personnel with the assistance of two Works men sent up from Santo. The work was completed in three weeks, and on 21 March the unit became operational. The American fighter squadron from **Hawaii**, No. 6 Night Fighter Squadron under the command of Major S. Wharton, equipped with P70 Havocs, was flown in and the unit and the squadron set to work to evolve a suitable technique of co-operation.

The New Zealand GCI set was the first of its kind in the South **Pacific**. For the first two days after the Americans had landed on **Guadalcanal** in August 1942, fighter direction had been carried out from the USS *Chicago* and fighter cover had been flown from the carriers *Saratoga* and *Enterprise*. When the ships withdrew from the area the Americans had neither fighters nor radar.

By 20 August F4Fs and SBDs were based at **Henderson Field**, but no adequate provision had been made for fighter direction. A search radar model SCR 270-B was put into operation in September and was used for the purpose. The type was satisfactory in giving warning of the approach of hostile planes but was not suitable for plotting heights and tracks accurately, so that the American pilots in the air could seldom be vectored exactly on to the enemy. This limitation was more apparent after the middle of November when the Japanese began frequent night raids. For night-fighter control the SCR 270-B was inadequate.

The arrival of the **RNZAF** unit in March 1943, therefore, filled an important gap in **Guadalcanal**'s defences. The GCI set could give the accurate readings, particularly in altitude, which were necessary for night interceptions. The set was operated by **RNZAF** personnel; and United States Army, Navy and Marine, as well as New Zealand, controllers directed the fighters. None of the controllers had had combat

experience with GCI, and results in the first month of operations bore out Major Best's contention that a period of training in New Zealand for both controllers and pilots should have been arranged. Difficulties in interception were increased by

¹ **Flt Lt F. R. F. Hesketh; Auckland; born Auckland, 22 Mar 1907; commercial pilot.**

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the P70s' lack of speed at the height at which they were required to operate—20,000 to 25,000 feet—and by the occasional failure of both radar and radio equipment because of climatic conditions.

The unit kept watch twenty-four hours a day, except for an hour and a half each morning when it was off the air for maintenance. Two controllers were on duty each night, one experienced and one under instruction. During the day the duty controllers stood by in camp where they were on call in case of daylight raids. The operating crew was divided into four watches, each consisting of an NCO in charge and four airmen in the operations room, plus a radar mechanic. One airman acted as long-range warning plotter, one as GCI plotter, one as PPI reader, and the fourth as height-range reader.

The unit's first major operation took place on 7 April when the Japanese sent over a large formation of dive-bombers and fighters in a daylight raid. The unit gave accurate plots and heights to the Island Fighter Control, information which contributed largely to the Japanese loss of thirty-three aircraft reported as shot down by American fighters. After the battle it received a letter of commendation from COMAIRSOLS for its share in the day's work.

In the last big daylight raid on **Guadalcanal**, in the middle of June, the unit was equally successful. Nearly all the Japanese aircraft which

took part were claimed as having been shot down, and most of the plots on which the fighter direction was based were passed to Island Fighter Control by the unit. After June there was progressively less enemy activity. The unit had no further opportunities to gain spectacular victories; but it had achieved its object, as its presence was one of the contributory factors in keeping the Japanese away from **Guadalcanal**.

During the first half of 1943 COMSOPAC (Admiral Halsey) asked for additional New Zealand radar units to be sent to the forward area, complete with technical personnel and operational research workers. There were difficulties in supplying manpower from New Zealand, but since national prestige was involved the New Zealand Chiefs of Staff decided that the request should be fulfilled. Accordingly, in the latter half of the year, a number of other units, equipped with two additional GCI and four COL sets, were formed and sent to the forward area.

To co-ordinate and administer these units a Squadron Headquarters was formed at **Guadalcanal** on 15 August, and thereafter all units sent overseas formed part of the squadron, which was designated No. 62 (Radar) Squadron. It was commanded by Flight Lieutenant **Conyers-Brown**,¹ who was also appointed a member of

¹ **Flt Lt J. P. Conyers-Brown; RNZAF; born Melbourne, 8 Feb 1920; radio engineer.**

the Joint Radar Planning Board, South-West Pacific, which consisted of United States Army, Navy, Marine and **RNZAF** representatives and was responsible for the planning and siting of units throughout the area.

NO. 53 UNIT

The first of the COL units to go overseas was named No. 53 and was commanded by Flying Officer **Gregory**.¹ It was formed in New Zealand in July 1943 and became operational at Cape Astrolabe, on **Malaita**, during

the second week in October. It operated there continuously until February 1945, when it was withdrawn.

Its site on top of the cape was excellently located and enabled the unit to obtain first-class cover over the area for which it was responsible. As **Malaita** was never occupied by Allied forces, the unit was one of the most isolated **RNZAF** detachments in the **Pacific**. In addition to its normal radar duties it had for some months to provide its own protection, and machine-gun positions and defence posts were built. Later, in February 1944, half a rifle company of the 298th US Infantry Regiment was attached to it to provide guards.

Supplies were sent to the unit weekly from **Guadalcanal** by sea and from time to time urgent needs were met by flying boat. Christmas dinner in 1943 was provided with the co-operation of the 1st US Marine Parachute Regiment. One and a half tons of Christmas supplies were dropped from the air and included turkey, fresh vegetables, mail, parcels and twelve dozen bottles of beer. The drop was entirely successful; not even one bottle of beer was broken.

Like other small outlying groups, the unit suffered through being outside the areas of malarial control. Throughout its tour of duty, the sickness rate caused by malaria was particularly high.

During the greater part of the tour Japanese aircraft were rarely in the area and the unit was seldom called upon to report any. It was, however, responsible for the rescue of a number of Allied airmen whose aircraft had been forced down into the sea.

¹ **Fg Off N. Gregory; Petone**; born Darlington, England, 2 Nov 1900; factory supervisor.

The numbers 54 and 55 were originally given to the two **RNZAF** units in **Tonga**. When these moved up to **Guadalcanal** at the end of May

1943, they were combined and known as No. 54 Unit for some time. At the end of September the men were repatriated to New Zealand, having completed their tour of duty. A new No. 54 Unit was formed in New Zealand in October and went to **Guadalcanal** early in 1944. It had been intended to install it at Buka Hill, on **Bougainville**, but when it arrived at **Guadalcanal** its projected site was still in Japanese hands. As the unit was not required anywhere else it was split up and the men posted to other units to fill the many vacancies caused by sickness.

NO. 56 UNIT

A mobile GCI unit, No. 56, was formed in New Zealand in July 1943 under the command of Pilot Officer **Lawrence**¹ and was installed at **Munda** in September. The Americans were setting up a station on Kokohale Island just off **Munda**, but as theirs was a fixed set which it was expected would take a considerable time to install, the New Zealand unit began operations immediately. One of its controllers, Flying Officer **Bell**,² was a New Zealander and the others were Americans. At the beginning of 1944 the unit was ordered to return to **Guadalcanal** and its equipment was dismantled and packed ready for the move. However, as the American unit was not yet functioning satisfactorily, it was instructed to continue operating for some time longer. It finally ceased operations at the end of February, handing over its equipment to the Americans. During its tour of duty it was responsible for three successful interceptions resulting in the destruction of enemy aircraft.

¹ **Fg Off E. Lawrence; Wanganui**; born Lytham, England, 7 Mar 1907; radio audition officer.

² **Fg Off L. D. Bell; Taihape**; born Hunterville, 4 Jan 1912; farmer.

NOS. 57 AND 58 UNIT

Nos. 57 and 58 COL Units were the next to be formed. The former was stationed on **Rendova Island** and commenced operations in November 1943, under the command of Pilot Officer **Leatham**.³ The latter started operating under the command of Pilot Officer **Russell**⁴ early in January 1944, at West Cape on **Guadalcanal**. The only access to its site was by sea, and it was as isolated from the rest of the Allied forces as No. 53 Unit was on **Malaita**.

³ Fg Off **W. G. Leatham**; **Lower Hutt**; born **Auckland**, 24 Nov 1903; radio engineer.

⁴ Fg Off **J. Russell**; **Ashburton**; born **Papatotara**, 8 Jul 1916; clothing buyer.

NO. 59 UNIT

No. 59, another mobile GCI unit, went overseas in November 1943 and was installed on **Guadalcanal** on the site of No. 52 to enable the latter's equipment to be overhauled. Flight Lieutenant **Mercer**, who had relieved Flight Lieutenant **Mills** some time before as OC No. 52 Unit, then took over command of No. 59. The unit was destined eventually for **Bougainville**, and while it was operating on **Guadalcanal** a party of three officers went to **Torokina** to select a site for it.

They chose the only position available, close by the newly formed fighter strip. It was by no means ideal as the surrounding area was heavily wooded, especially to the north-west, which was the direction from which Japanese aircraft generally approached. There was also a large ration dump in front of the position of the aerial; this caused interference until it was later partially removed.

After the return of the siting party, an advance party of two officers and nine other ranks, headed by Flight Lieutenant **Goetz**,¹ went to **Bougainville** to study local conditions and prepare the camp and technical sites before the arrival of the unit. **Goetz**, when he arrived,

was invited to act as a night-fighter controller with the Americans, and as the beach-head was under frequent bombing attacks, he gained a great deal of valuable operational experience.

The main party left **Guadalcanal** by sea with its equipment on 3 December and arrived at **Torokina** the next day. During the voyage one LST with men and equipment on board was hit by a torpedo during a night attack by enemy aircraft, but the torpedo did not explode. One of the attacking aircraft was destroyed by an American night fighter and exploded in mid-air. The American, who had come in too close for the kill, was caught in the explosion and his aircraft also blew up.

The party was the first **RNZAF** unit to be posted to **Bougainville**. It hoisted the **RNZAF** ensign over its camp for the first time on 6 December. Operations began on the 10th after considerable technical difficulties in the installation of equipment had been overcome. In spite of its unsatisfactory position the unit achieved remarkably accurate results. Controllers from the USMC and later the USAAC were allotted to work with it, as Goetz was the only New Zealander trained in the work. The first 'touch-down' (enemy aircraft shot down) was scored on the night of 15 December, when American night fighters shot down one confirmed and claimed two probables. During the first fortnight, when Japanese air activity over the beach-head was at its height, bombs were several times dropped close to the radar and the camp but no damage was done to the equipment. In the same period the area was shelled three times by Japanese batteries and there were several severe earthquakes. Another 'touch-down' was made on the night of 1-2 January. By this time all the controllers had directed night fighters on to a number of enemy aircraft.

In night fighting, contacts with the enemy were either radar contacts or visual. In the former the fighter was directed by the ground station into such a position that he was able to pick up the enemy on his airborne radar screen. In the latter, which occurred on clear nights, he was directed close enough to see the enemy.

The Japanese made constant use of 'window'—metal strips which were dropped from the aircraft. This practice, which had been developed in the European theatre, confused the readings on the ground radar screen and enabled a number of aircraft to escape detection.

Early in January 1944 No. 59 Unit moved to a new position on the top of Cape Torokina, the move resulting in a great improvement in the range at which the equipment could pick up hostile planes. During the month the unit recorded 103 enemy aircraft, of which twenty-four were contacted by American fighters. The total shot down as a result of the unit's activities up to the end of the month was five confirmed and two probables.

After the middle of February Japanese air activity practically ceased except for an occasional 'snooper' on moonlight nights. The unit continued to operate from Cape Torokina, achieving its share of success against such planes as did come over, until the beginning of August when it handed over to an American unit and returned to New Zealand. By that time it had been responsible for the detection of a dozen enemy aircraft destroyed and eight probably destroyed, as well as a number damaged.

¹ **Sqn Ldr G. Goetz**, OBE; **RNZAF**; born Kuala Lumpur, 21 Jan 1918.

WITHDRAWAL OF RNZAF RADAR UNITS

By mid-1944 American radar equipment and personnel were available to meet most of the needs of the South Pacific area and more were on the way. At the same time the elimination of the Japanese air force had done away with the necessity for much radar activity. Consequently the **RNZAF** units, most of whose men had completed their tour of overseas duty, prepared to return to New Zealand, and No. 62 Squadron's headquarters was disbanded in October. COMSOPAC then asked that a number of **RNZAF** units should continue to function in the forward area

for a while longer. New Zealand agreed to maintain them till the end of the year. After that, as practically all the men would have completed their tour of operations and as no replacements were available, it would not commit itself. Eventually the last three units in the forward area, Nos. 52, 53 and 58, were withdrawn in February 1945.

The set at Norfolk was maintained as a navigational aid, and in addition three sets in **Fiji** and **Tonga** which had been taken over from the Army were operated by the **RNZAF** during the last year of the war to obtain meteorological observations.

The history of active operations by **RNZAF** radar units in the forward area covers less than two years, but during that time they played an important role in the Allied defence of the recaptured **Solomons**. During the early part of the period, owing to the lack of suitable American equipment, their part was a major one. Besides the men who operated the units, New Zealand technical officers did excellent work in the face of very great difficulties. Sets had to be located in places which in almost every case offended all principles of radar siting, and their successful operation reflected great credit on the officers concerned.

ROYAL NEW ZEALAND AIR FORCE

[UNTITLED]

REFERENCE has already been made in **Chapter 9** to the development of an air-warning system in New Zealand. In the operational areas of the South Pacific a similar system was developed, and it combined with the coastwatching organisation to give warning of approaching Japanese raids. Actual interceptions of enemy aircraft, particularly at night, were also directed by radar.

During the first year of the South Pacific campaign there was an acute shortage of trained radar personnel, and New Zealand was asked several times by the American Command to supply them. Demands could not always be met in full as the supply was limited and it took a long time to train more men. In 1943, however, the diminished threat of invasion in New Zealand made it possible to reduce the radar warning system at home and release a number of men for posting to the forward area.

Some units had gone overseas before then. Early in December 1941 Squadron Leader **Gibbs**,¹ who was then Staff Radar Officer at Air Force Headquarters, went to **Fiji** to plan an air-warning system there. He selected a site on Malolo Island, a few miles off the coast from **Nandi**, and the original CHL set that had been obtained in England by Dr Marsden was sent there. It was installed by Mr **T. R. Pollard**, of the Canterbury University School of Engineering, and Mr **H. Walker**, an electrical engineer of **Christchurch**, both of whom were enlisted in the Army for the purpose. They were assisted by an **RNZAF** party under Warrant Officer **Rowe**.² When the installation was completed Rowe and his party remained on the island and operated the set, until finally it was taken over by the Americans a year later. During its tour of duty the unit had no hostile aircraft to report but it plotted the tracks of numerous Japanese submarines round its sector of the coast.

When the Americans took over the defence of **Fiji** they installed a

number of air-warning units there, and the **RNZAF** was not called upon to accept further responsibility for the area.

¹ **Wg Cdr R. J. Gibbs, OBE; RNZAF; born Lyttelton, 18 Jan 1906; joined NZ Permanent Air Force 1930; radio engineer.**

² **Flt Lt I. S. Rowe; Wellington; born Eltham, 26 Aug 1913; joined NZPAF 1929.**

ROYAL NEW ZEALAND AIR FORCE

RADAR UNITS IN TONGA

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In December 1942 an **RNZAF** radar party was sent to **Tonga** and was attached to No. 15 Fighter Squadron, which had been stationed there for some time. There were two radar stations on the island, manned by American troops. The Americans were needed at **Guadalcanal** and the New Zealanders took over from them. All the equipment was, of course, American, while the **RNZAF** men had been trained on British types. During the two or three days in which they took over the stations, they received instruction in the use of the equipment from the previous operators and were able to operate with very little difficulty.

One of the stations was in open country near the coast, and the other was located on the highest point of the island, five miles from Nukualofa. Both sites had their drawbacks—the former was too low-lying for satisfactory radar operation, and the latter was surrounded by bush—but they were the best available. Both were connected by telephone with an air-warning centre, which was also taken over by New Zealanders, near the airfield at Fuamotu. During the time the unit was on the island no enemy activity was reported, but plots were made of all friendly aircraft and shipping in the area.

Early in April 1943 another draft of American radar personnel arrived to take over the stations, and the New Zealanders stood by for orders to move to the forward area. Towards the end of the month they left **Tonga** on the *USS President Hayes* for **Noumea**.

They spent three weeks there in a transit camp, and then went to **Guadalcanal** in the first LSTs to be used in the **Pacific**. On arriving at **Guadalcanal** they were at first attached to No. 3 (BR) Squadron and took the place of the same United States Army personnel whom they had originally replaced at **Tonga**.

ROYAL NEW ZEALAND AIR FORCE

NORFOLK ISLAND

NORFOLK ISLAND

An RNZAF radar unit was installed by Flying Officer Mercer ¹ on Norfolk Island early in 1943, and became operational in May. By this time the island was no longer used as a base for operational aircraft, but it served as a staging point on the air route between New Zealand and the forward area. In view of the value of radar as a navigational aid, the unit remained operational until the end of the war and was responsible on several occasions for locating and homing aircraft in bad weather.

An instance occurred in the latter part of 1943. An American Flying Fortress en route from New Zealand to New Caledonia developed engine trouble 90 miles south of Norfolk. The weather was extremely bad, with heavy rain and no visibility, and the aircraft was observed on the radar screen flying round in circles looking for the island. Contact was made by radio and the plane was brought safely in through the murk. Its captain later remarked that he had never before had any faith in radar, but now had entirely new ideas on the subject.

¹ Flt Lt L. F. W. Mercer, m.i.d.; RNZAF; born Auckland, 8 Nov 1915; radio serviceman.

ROYAL NEW ZEALAND AIR FORCE

DESPATCH OF NO.52 RADAR UNIT TO GUADALCANAL

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Early in January 1943, as a result of delays in the delivery of American ground radar equipment in the Pacific, the Commander-in-Chief Pacific Ocean Area asked the New Zealand Government to supply a British set manned by New Zealanders for use in the forward area. The equipment was available in New Zealand, and the Government agreed to hand over one GCI set to the Americans and to supply the necessary men to install and operate it.

The unit formed at Palmerston North and was trained and ready to go overseas in the middle of February. As there were no controllers in New Zealand with GCI experience, the Americans sent a party of three officers and a senior NCO, headed by Major E. C. Best, USMC, to help train the unit. Major Best recommended that an American fighter squadron, which was waiting at Hawaii to proceed to Guadalcanal to work in conjunction with the unit, should be sent to New Zealand to practise co-operation with it. The recommendation was endorsed by Air Headquarters on the grounds that even a few weeks' training in New Zealand would greatly benefit both the pilots and the controllers. The proposal was turned down by CINCPAC, who instructed that training should be co-ordinated with the calibration of the equipment on its operational site.

An advance party of the unit left New Zealand for Guadalcanal by air towards the end of February to select a site for the radar station. It was led by Squadron Leader Banwell,¹ a New Zealander who had taken part in much of the early research in the development of radar in Britain and had been lent to New Zealand to help in its development here. In the next few months he did invaluable work in the siting of radar units in the Solomons. Another officer with the party was Flight Lieutenant C. A. Mills, RCAF, one of a number of Canadian officers and NCOs who were

lent to the **RNZAF** to help to develop the radar organisation. The three American controllers and ten **RNZAF** airmen went at the same time,

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while the one New Zealand controller, Flight Lieutenant **Hesketh**,¹ had flown to **Guadalcanal** a few days before.

The main body, consisting of the Adjutant, Pilot Officer **Graham**,² and thirty-three airmen, travelled by sea in the USS *George Clymer*. The unit landed at **Guadalcanal** on 1 March and immediately started work on the installation of its equipment and the provision of accommodation. This entailed clearing a site, laying concrete foundations, and building huts. American troops helped to pour concrete and erect a Quonset hut, but all the other construction work was done by unit personnel with the assistance of two Works men sent up from Santo. The work was completed in three weeks, and on 21 March the unit became operational. The American fighter squadron from **Hawaii**, No. 6 Night Fighter Squadron under the command of Major S. Wharton, equipped with P70 Havocs, was flown in and the unit and the squadron set to work to evolve a suitable technique of co-operation.

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ROYAL NEW ZEALAND AIR FORCE

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NOS. 57 AND 58 UNIT

NOS. 57 AND 58 UNIT

Nos. 57 and 58 COL Units were the next to be formed. The former was stationed on Rendova Island and commenced operations in November 1943, under the command of Pilot Officer Leatham.³ The latter started operating under the command of Pilot Officer Russell⁴ early in January 1944, at West Cape on Guadalcanal. The only access to its site was by sea, and it was as isolated from the rest of the Allied forces as No. 53 Unit was on Malaita.

³ **Fg Off W. G. Leatham; Lower Hutt; born Auckland, 24 Nov 1903; radio engineer.**

⁴ **Fg Off J. Russell; Ashburton; born Papatotara, 8 Jul 1916; clothing buyer.**

ROYAL NEW ZEALAND AIR FORCE

NO. 59 UNIT

NO. 59 UNIT

No. 59, another mobile GCI unit, went overseas in November 1943 and was installed on **Guadalcanal** on the site of No. 52 to enable the latter's equipment to be overhauled. Flight Lieutenant Mercer, who had relieved Flight Lieutenant Mills some time before as OC No. 52 Unit, then took over command of No. 59. The unit was destined eventually for **Bougainville**, and while it was operating on **Guadalcanal** a party of three officers went to **Torokina** to select a site for it.

They chose the only position available, close by the newly formed fighter strip. It was by no means ideal as the surrounding area was heavily wooded, especially to the north-west, which was the direction from which Japanese aircraft generally approached. There was also a large ration dump in front of the position of the aerial; this caused interference until it was later partially removed.

After the return of the siting party, an advance party of two officers and nine other ranks, headed by Flight Lieutenant **Goetz**,¹ went to **Bougainville** to study local conditions and prepare the camp and technical sites before the arrival of the unit. Goetz, when he arrived, was invited to act as a night-fighter controller with the Americans, and as the beach-head was under frequent bombing attacks, he gained a great deal of valuable operational experience.

The main party left **Guadalcanal** by sea with its equipment on 3 December and arrived at **Torokina** the next day. During the voyage one LST with men and equipment on board was hit by a torpedo during a night attack by enemy aircraft, but the torpedo did not explode. One of the attacking aircraft was destroyed by an American night fighter and exploded in mid-air. The American, who had come in too close for the kill, was caught in the explosion and his aircraft also blew up.

The party was the first **RNZAF** unit to be posted to **Bougainville**. It hoisted the **RNZAF** ensign over its camp for the first time on 6 December. Operations began on the 10th after considerable technical difficulties in the installation of equipment had been overcome. In spite of its unsatisfactory position the unit achieved remarkably accurate results. Controllers from the USMC and later the USAAC were allotted to work with it, as Goetz was the only New Zealander trained in the work. The first 'touch-down' (enemy aircraft shot down) was scored on the night of 15 December, when American night fighters shot down one confirmed and claimed two probables. During the first fortnight, when Japanese air activity over the beach-head was at its height, bombs were several times dropped close to the radar and the camp but no damage was done to the equipment. In the same period the area was shelled three times by Japanese batteries and there were several severe earthquakes. Another 'touch-down' was made on the night of 1-2 January. By this time all the controllers had directed night fighters on to a number of enemy aircraft.

In night fighting, contacts with the enemy were either radar contacts or visual. In the former the fighter was directed by the ground station into such a position that he was able to pick up the enemy on his airborne radar screen. In the latter, which occurred on clear nights, he was directed close enough to see the enemy.

The Japanese made constant use of 'window'—metal strips which were dropped from the aircraft. This practice, which had been developed in the European theatre, confused the readings on the ground radar screen and enabled a number of aircraft to escape detection.

Early in January 1944 No. 59 Unit moved to a new position on the top of Cape Torokina, the move resulting in a great improvement in the range at which the equipment could pick up hostile planes. During the month the unit recorded 103 enemy aircraft, of which twenty-four were contacted by American fighters. The total shot down as a result of the unit's activities up to the end of the month was five confirmed and two

probables.

After the middle of February Japanese air activity practically ceased except for an occasional 'snooper' on moonlight nights. The unit continued to operate from Cape Torokina, achieving its share of success against such planes as did come over, until the beginning of August when it handed over to an American unit and returned to New Zealand. By that time it had been responsible for the detection of a dozen enemy aircraft destroyed and eight probably destroyed, as well as a number damaged.

¹ Sqn Ldr G. Goetz, OBE; RNZAF; born Kuala Lumpur, 21 Jan 1918.

ROYAL NEW ZEALAND AIR FORCE

WITHDRAWAL OF RNZAF RADAR UNITS

WITHDRAWAL OF RNZAF RADAR UNITS

By mid-1944 American radar equipment and personnel were available to meet most of the needs of the South Pacific area and more were on the way. At the same time the elimination of the Japanese air force had done away with the necessity for much radar activity. Consequently the **RNZAF** units, most of whose men had completed their tour of overseas duty, prepared to return to New Zealand, and No. 62 Squadron's headquarters was disbanded in October. COMSOPAC then asked that a number of **RNZAF** units should continue to function in the forward area for a while longer. New Zealand agreed to maintain them till the end of the year. After that, as practically all the men would have completed their tour of operations and as no replacements were available, it would not commit itself. Eventually the last three units in the forward area, Nos. 52, 53 and 58, were withdrawn in February 1945.

The set at Norfolk was maintained as a navigational aid, and in addition three sets in **Fiji** and **Tonga** which had been taken over from the Army were operated by the **RNZAF** during the last year of the war to obtain meteorological observations.

The history of active operations by **RNZAF** radar units in the forward area covers less than two years, but during that time they played an important role in the Allied defence of the recaptured **Solomons**. During the early part of the period, owing to the lack of suitable American equipment, their part was a major one. Besides the men who operated the units, New Zealand technical officers did excellent work in the face of very great difficulties. Sets had to be located in places which in almost every case offended all principles of radar siting, and their successful operation reflected great credit on the officers concerned.

ROYAL NEW ZEALAND AIR FORCE

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ROYAL NEW ZEALAND AIR FORCE

[SECTION]

THE establishment of Allied air forces on **Bougainville** and in western **New Britain** brought **Rabaul** under fire from two sides. The attacks made on it in December 1943 and early January 1944 reduced its offensive power, but it was still a formidable base capable of putting up a strong defence. An attempt to capture it would have involved the employment of more ground and naval forces than were available in the South and South-West Pacific and would have been a costly affair. On the other hand, its situation lent itself perfectly to the strategy of bypassing which had been practised successfully on a smaller scale in the central **Solomons** campaign. There were islands to the north which, in Allied hands, would provide bases from which communications with the Japanese strongholds in the Carolines and Marianas could be cut and from which **Rabaul** could be brought under air attack. It could thus be effectively neutralised until the Allies were ready to take it by direct assault.

The policy of encirclement was decided upon early in 1944. The first objective was **Green Island**, to the north of **Bougainville**. It was a coral atoll whose chief islet, **Nissan**, was suitable for the construction of airfields. Reconnaissance showed that the native population of 1500 was friendly and that it was only lightly held by Japanese, who used it as a staging point for barge traffic between **New Ireland** and **Buka**. Its capture by the Allies would not only cut the barge route but would provide an airstrip which would practically halve the distance from **Torokina** to **Rabaul**: it was 125 miles from the former and 117 from the latter.

Forces were available in 14 New Zealand Brigade, which was on garrison duty at **Vella Lavella**, and the operation could have been carried out in the middle of January. It was put off for a month, however, to allow the air forces on **Bougainville** to soften up **Rabaul** thoroughly and so minimise the risk of air interference from there.

The New Zealand troops eventually landed on the morning of 15

February, supported by American naval and anti-aircraft units and by aircraft operating from **Bougainville**. By the 19th they had overcome all resistance on **Nissan** and the other islets. United



ROYAL NEW ZEALAND AIR FORCE BISMARCK ARCHIPELAGO AND NORTHERN SOLOMONS

States naval construction battalions followed immediately on the heels of the combat troops and began the laying out and construction of airfields. On 7 March they had a fighter strip ready for operations and were well advanced with a bomber strip.

The next link in the encircling chain was forged on 29 February when troops of General MacArthur's South-West Pacific Command landed on **Los Negros** which, with the adjoining island of Manus, forms the principal land area of the Admiralty Group. The expedition was planned as a reconnaissance in force, with orders to secure a beach-head if Japanese resistance was not too severe. The troops established their beach-head but opposition was stronger than had been expected, and it took considerable reinforcements and a month's fighting before the group was finally cleared of the 5000 enemy troops who held it.

The Admiralties were important, not only because of their position outflanking **Rabaul**, but because they contained in Seadler Harbour one of the best anchorages in the South-West **Pacific**. There were, moreover, two airfields, Momote and Lorengau, which the Americans put into

operation as soon as they had captured them. Within a year after its capture the Allies transformed Manus from a remote tropical island to an immense naval base for the fleets which were to attack the **Philippines**.

Until March both Admiral Halsey and General MacArthur expected that their next objective was to be **Kavieng**, on the northern tip of **New Ireland**, which the Japanese had developed into a base of considerable importance; but after the occupation of the Admiralties the Joint Chiefs of Staff directed that **Emirau**, in the Saint Matthias Group, 75 miles to the north-west of **Kavieng**, was to be seized instead.

The troops used were the 4th Regiment of the 3rd Marine Division which was brought up from **Guadalcanal**, and they occupied **Emirau** on 20 March against negligible opposition. While the landing was taking place a bombardment force, including battleships, which had originally been detailed to support a landing on **New Ireland**, stood off **Kavieng** and shelled it heavily to ensure that the Japanese there could not interfere.

The capture of **Emirau** completed the encirclement of **Rabaul**, leaving 50,000 Japanese in **New Britain** and **New Ireland** and another 30,000 in **Bougainville** and **Choiseul**. From the west the enemy in **New Britain** was being steadily pushed back towards the Gazelle Peninsula. By early April South-West Pacific forces had advanced eastward to Cape Hoskins in the north and Gasmata on the south coast. As far as the broad strategy of the war was concerned, **Rabaul** was now out of action and the South Pacific campaign was over. But for the men on the spot there was still another eighteen months of bitter fighting. The enemy forces in the area had been trapped and the next task was to eliminate them. This was the work in which the Allied air and ground forces in the **Solomons** and **New Britain** were to be engaged until the end of the war.

After the initial fighter sweeps and heavy bomber raids of December 1943 the South Pacific air forces began, early in January, a continuous assault on the **Rabaul** area that was to last until all worthwhile targets had been destroyed. In the first phase, which lasted until the end of February, the primary objective was the five airfields which the

Japanese had developed on the Gazelle Peninsula. The aircraft used were heavy bombers (B24s), medium bombers (B25s), and light bombers (SBDs and TBFs). Fighter protection was provided by F4Us, F6Fs, P38s, P39s and P40s, including two squadrons of the **RNZAF Fighter Wing**.

The attacking forces operated from numerous bases which the Allies had captured or built in the **Solomons**. The heavy bombers came from **Munda**, and the light bombers and fighters from **Bougainville, Stirling and Barakoma**.

In spite of losses the Japanese air force continued to put up fighter opposition until 19 February, after which it ceased. After the elimination of the Japanese air force in **New Britain** the town of **Rabaul** was continuously attacked by Allied bombers. The attack began in earnest on 28 February and by 17 March the American Command calculated that **Rabaul** was 67 per cent destroyed. It had been divided into fourteen target areas, which were systematically wiped out one by one.

In the second week in March the Allies turned their attention to areas outside the town where the Japanese had built up huge dumps of supplies. The first to receive severe bombing attacks was the village and plantation of **Vunapope** to the south of **Blanche Bay**.¹ The attack was opened on 10 March by twenty-four New Zealand P40s, each armed with a 500-pound high-explosive bomb. On that date there were over a thousand buildings and tents in the area. A month later photographic reconnaissance showed that only 160 small buildings and supply dumps remained.

After **Vunapope** had been disposed of, the supply areas at **Rataval** and **Talili Bay** had their turn. There the Japanese had stored their main supplies of ammunition and bombs. By the middle of May these areas were largely destroyed.

With the three main storage areas apparently wiped out, the smaller supply and personnel concentrations were attacked—in the plantations around **Keravat, Vunakanau and Tobera** airfields, on **Matupi Island** and

in the Kabanga Bay region.

From early in March P38s, P39s, and P40s were fitted to carry bombs. The usual bomb-load for P38s was, to start with, two 500- pound bombs, and for P39s and P40s one 500-pounder. Later the bomb-load for all three types was doubled.

After 23 March the heavy bombers of the South Pacific air force were used against Japanese bases at **Truk** and Satwan and took little further part in the operations against **Rabaul**. The attack was carried on by medium, light and fighter bombers. From the middle of March a squadron of American PBJs was added to the striking forces and used mainly for night bombing. While different types of targets were attacked in turn, the airfields were struck continuously. The Japanese showed great persistence in repairing them, and to keep them unserviceable the Allies dropped more bombs on them than on all the other **Rabaul** targets combined. The greater part of the attack was carried out by SBDs and TBFs working together. The SBDs normally went in first to bomb the anti-aircraft batteries, primarily to destroy the guns and secondarily to put the gunners off their aim and force them to take cover. The TBFs followed immediately and planted their bombs on the runways. Fighter-bombers also attacked the airfields but were more generally used against supply and personnel areas. By the middle of May all the airfields were unserviceable except for short periods when the Japanese managed to repair some of them between attacks; 90 per cent of **Rabaul** township was destroyed; no shipping, other than barges and an occasional submarine, dared to use the harbour; and the major supply and ammunition dumps had been devastated. The destruction of stores was not, in fact, as complete as the Allied photographic intelligence indicated. Since January the Japanese had moved vast quantities underground into caves and a network of tunnels with which they had honeycombed the hills round the town. However, what the bombs had failed to do was eventually accomplished by the dampness of the underground shelters, in which the remaining supplies of ammunition and equipment deteriorated rapidly.

¹ See map on p. 210.

ROYAL NEW ZEALAND AIR FORCE

RNZAF OPERATIONS AGAINST RABAU, JANUARY 1944

RNZAF OPERATIONS AGAINST RABAU, JANUARY 1944

The **RNZAF Fighter Wing** took part in every major attack that was made on **Rabaul**, and the intensity of its efforts rose steadily. In December it had flown eighty-eight sorties. In January, up to the time it moved to **Torokina**, it took part in three successful raids, involving a total of seventy-six sorties, and from the 20th until the end of the month it flew 144 sorties. In February New Zealand fighters were over the area on twenty days out of the twenty-nine, and the number of sorties had risen to 404. On days when the striking forces were weathered out from their primary objectives they attacked secondary targets either on **New Ireland** or on **Bougainville**.

By the end of January the Japanese air force was showing the effects of the continuous losses it had suffered in the past two months, but it still sent up numerous fighters to intercept the raids. The majority of these were dealt with by the low, medium and top cover of American fighters, and few succeeded in penetrating to the lower level where the **RNZAF** fighters weaved as close cover over the bombers. In the last ten days of the month New Zealand pilots had only six battles, in which they shot down eight Zekes for the loss of three P40s.

Intense and accurate anti-aircraft fire was put up by the enemy. The Japanese attached such importance to **Rabaul** that they had surrounded the town and airfields with the heaviest concentration of anti-aircraft artillery in the **Pacific**.

Operations against **Rabaul** formed the major part of the **RNZAF** Wing's work during its first two months on **Bougainville**, but at the same time it took part in dawn and dusk patrols over **Torokina** and provided escorts for air-sea rescue Catalinas picking up pilots who had baled out over the sea.

On 22 January No. 17 Squadron was withdrawn from operations against **Rabaul** and, three days later, left **Bougainville** on its way back to New Zealand after a shorter tour than usual in the combat area. It had suffered a number of operational casualties and an abnormal amount of sickness among the pilots, and for some time past had been unable to carry out its full commitments. Its place was taken by No. 18 Squadron under Squadron Leader **Oldfield**,¹ which came up for its second tour.

The fighter sweeps and heavy bomber raids of December had destroyed many Japanese fighters in the air and on the ground. Allied claims for the month were 144 shot down, besides those destroyed and damaged on their aerodromes by bombing, for the loss of 24 Allied aircraft.² In the early part of January opposition in the air over **Rabaul** was weak, but it stiffened again in the middle of the month. In February it showed a marked decline, and after the 19th the Japanese no longer put up any fighter opposition. They had had no reinforcements since December, and during January they lost, according to naval figures, 126 aircraft,³ and 58 in the first half of February. They decided that it was no longer an economic proposition to attempt to maintain air cover over **Rabaul** and withdrew the shattered remnants of their squadrons, first to **Truk** and then to **Japan**. Of the 700 Navy and 300 Army aircraft which had been flown into **Rabaul** during 1942 and 1943, only 70 remained in February 1944 to fly out. A few were left for communications and reconnaissance flights, and single aircraft continued to make nuisance raids at night on Allied positions; but for all practical purposes the Japanese air force in the South and South-West **Pacific** had ceased to exist. From early in January, Allied formations had attacked **Rabaul** airfields every day when not prevented by weather, and during the second week of February they had made three strikes a day.

The last successful meeting of **RNZAF** pilots with Japanese fighters occurred on 13 February, when aircraft of No. 18 Squadron were escorting American TBFs on a bombing raid against Vunakanau airfield. They were attacked by about twenty-five Zeros and shot down two of them for the loss of one P40. This battle brought the total score of the

New Zealand fighter squadrons to ninety-nine enemy aircraft shot down. As the [Japanese Air Force](#) shortly afterwards retired from the field the New Zealanders never had the opportunity of reaching the century.

¹ [Wg Cdr J. A. Oldfield](#), DFC; [Wellington](#); born [Wellington](#), 10 May 1919; solicitor.

² The Japanese naval air force gives its losses for the month as 41. The army air force was, by that time, a negligible factor, most of its aircraft having been sent to [New Guinea](#).

³ Allied claims for the month were 393.

ROYAL NEW ZEALAND AIR FORCE

OPERATIONS OVER GREEN ISLAND

OPERATIONS OVER GREEN ISLAND

During the **Green Island** landings and for three weeks afterwards the **RNZAF** wing helped to provide fighter cover. On 15 February, the day the troops went ashore, New Zealand fighters were on patrol from eight in the morning until late in the afternoon. Nos. 14 and 18 Squadrons each flew twenty sorties and between them kept a constant cover of eight aircraft over the island. Large formations of American fighters were also on patrol throughout the day, and the total fighter cover was strong enough to deal with any attack the Japanese could have made from **Rabaul** or **Kavieng**.

The landing forces had been attacked en route to **Green Island** the previous night by enemy planes and one of the escorting cruisers, the *USS St. Louis*, had been hit. Another attack was made by fifteen dive-bombers early in the morning of the 15th as the first wave of troops was going ashore. After making sporadic attacks and slightly damaging one LST, the enemy were driven off by American fighters and intense anti-aircraft fire from the landing craft and destroyers. By the time the New Zealanders came on station the attack was over and they saw no enemy aircraft during the day.

Fighter patrols from **Bougainville** were maintained over Green Island until 7 March, when the fighter strip was completed and American squadrons were based there for local defence. The New Zealand wing took part every second day, the **Green Island** patrols alternating with flights to **Rabaul**. The patrols were combined with Jap-hunting expeditions round **Buka** and the northern **Bougainville** coastline. When returning to **Torokina** the fighters flew low round the coast and strafed whatever targets they found: barges, fuel dumps, huts and troops.

ROYAL NEW ZEALAND AIR FORCE

SITUATION ON BOUGAINVILLE, MARCH 1944

SITUATION ON BOUGAINVILLE, MARCH 1944

The Allied perimeter at **Torokina** at the beginning of March extended for about four miles along the coast of Empress Augusta Bay and ran inland from the beach to form a rough semicircle, with a maximum depth of approximately three miles from the sea. It enclosed an area of flat, jungle-covered land, much of which became swampy in wet weather, and was overlooked to the north and north-east by a series of low hills.

The Americans had developed three airstrips: the original Torokina fighter strip running parallel to the beach just to the east of Cape Torokina, and a fighter and a bomber strip at **Piva** in the north-western section of the area, two miles inland. A network of roads had been made and camps built to house the ground and air forces operating there. The main ground forces comprised the 14th Corps, **US Army**, which had replaced the Marines who had made the initial landing. Naval units comprised Acorn 13 and Acorn 36, ¹ the 36th and 77th Construction Battalions, and a number of fighter and light bomber squadrons. The **RNZAF** had Nos. 14 and 18 Fighter Squadrons, Nos. 2 and 4 Servicing Units, and No. **59 Radar Unit**. Also in the area was 1 Battalion Fiji Infantry Regiment, employed on scouting duties.

Late in February the American intelligence service intercepted a code message to the Japanese commander in the South-West Pacific, ordering an attack on the perimeter on 7 March. According to the Japanese plan the perimeter was to be heavily bombed for two days and the land attack was to be assisted by 300 planes. The Allied forces were to be driven back to the beaches, where a naval attack would annihilate them. One of the factors which upset the plan was the absence by this time of any significant number of Japanese aircraft.

Confirmation of the proposed Japanese attack was brought in by Fijian and other patrols operating outside the perimeter, and this information was supplemented by the interrogation of prisoners of war and by air observation of enemy troop movements. During the

¹ **Acorn: United States** naval aircraft maintenance organisation similar to an **RNZAF** servicing unit.

first week of March preparations were made for the defence of the perimeter.

The main line of defence was held by the 14th Corps. It consisted of a strip of cleared ground about 75 yards wide round the whole perimeter, guarded by barbed wire and land mines and covered by machine guns and mortars. Behind this was the second line of defence, held by Marine units in strong defensive positions. A third line was manned by American construction battalions, Acorn 13, the 68th American Fighter Squadron and the **RNZAF**.

The **RNZAF** personnel formed part of the Torokina Airfield Defence Force under the command of Lieutenant-Commander C. A. Bates, USN. The whole force, which was allotted specifically to the protection of the airstrip, consisted of two **US Army**, three US Navy and three **RNZAF** companies, with reserves. The New Zealand companies were commanded by Pilot Officer **Angus**,¹ Flying Officer **Molloy**² and Pilot Officer **Bignall**,³ and the reserve company by Flight Lieutenant **Watson**.⁴ Each company consisted of approximately 110 men divided into three platoons under the command of senior NCOs. The position allotted to them was about a mile from **Torokina** strip and commanded the junction of **Piva** Road and Marine Drive, the two main roads leading to it. A headquarters was set up in a jungle clearing slightly to the rear of the companies.

During the preparatory period the companies made themselves familiar with their positions, dug trenches and built machine-gun nests.

Communications, transport, rations and medical services were organised on a combat basis. While the defensive preparations were being made the major task of servicing and despatching aircraft to operate over **Rabaul**, **Kavieng**, and **Green Island** went on unceasingly.

At six o'clock on the morning of 8 March, a day later than expected, the Japanese attack began with an artillery bombardment of the Allied positions. **Torokina** strip and the New Zealand camp area had been considered to be out of range of enemy fire, and a dozen or so pilots who were taking their morning shower were perturbed by a shell which landed only 20 yards away. Another shell landed just outside the mess tent, interrupting breakfast. Altogether about thirty shells landed in or near the **RNZAF** camp during the initial bombardment but they caused no serious casualties. The main weight of the fire fell on the intersection of Marine Drive and Corps Road, two of the main roadways inside the

¹ **Fg Off F. J. S. Angus; Auckland; born Auckland, 21 Mar 1914; salesman.**

² **Flt Lt J. M. Molloy; Henderson; born Westport, 3 Nov 1918; clerk.**

³ **Fg Off E. D. B. Bignall; Lower Hutt; born London, 31 Jan 1917; advertising salesman.**

⁴ **Sqn Ldr R. B. Watson; RNZAF; born Christchurch, 17 Apr 1916; clerk.**

perimeter, and on the **Piva** airstrips, where it destroyed or damaged a score of American aircraft and injured sixteen men. **Torokina** strip was not hit. The bombardment lasted for an hour, and when it was over the men paraded for their normal duties at the airstrip.

The shelling continued daily until 20 March, after which it decreased in intensity and by the end of the month had ceased

altogether. Some shells fell on **Torokina**, but the main weight of the artillery attack was borne by the airstrips at **Piva**, which had at times to be closed. From 9 March onwards all fighters on **Bougainville** operated from **Torokina** under the control of Wing Commander Nicholls. As a safety measure they were dispersed at night to **Green Island**, **Stirling** and **Ondonga**, returning in the morning to **Torokina** for operations.

Enemy infantry attacked at three points round the perimeter on the 8th and by the following day had made a slight penetration into the American lines. Determined counter-attacks by the Americans, assisted by aircraft which bombed and strafed the Japanese lines, were successful and by the 11th the Japanese were pushed back with heavy casualties. They attacked again strongly on the 12th and 13th and made another small penetration, but again the Americans pushed them back. After that there was a week's lull in the ground fighting, but on the 23rd the Japanese launched what was to be their last major effort. Just before dawn in a heavy attack they penetrated the American lines on a narrow front to a depth of 300 yards, but savage fighting drove them back and by the afternoon the line was once again intact. Fierce fighting continued on the 24th and 25th, but by the 26th activity on the perimeter had decreased, and three days later the Japanese were so weakened by the losses they had sustained that they no longer caused any serious threat to the Allied positions.

Direct support of ground operations was given by squadrons of American SBDs and TBFs, which maintained patrols over the perimeter and bombed and strafed enemy troop concentrations and gun positions. Flying over one hundred sorties a day, they did much to reduce the weight of the enemy attack. Fighter-bombers were used to attack lines of communication between **Torokina** and the east and south of **Bougainville**.

On 22 March twelve aircraft of No. 14 Squadron, led by Nicholls, attacked a large concentration of enemy troops which had been reported by a prisoner of war near the Laruma River, at the eastern end of the perimeter. The aircraft were armed with 1000-pound bombs, which were

all dropped in the target area. As the operation took place only six miles from [Torokina](#) airstrip, the men on the ground had an excellent view of the aircraft diving to attack and of the explosions. Four days later twelve aircraft of No. 19 Squadron, which had recently relieved No. 18, bombed Japanese pillboxes near Motupena at the southern end of Empress Augusta Bay. Incendiaries and high-explosive bombs were used, and several good fires were burning when the aircraft left the target.

In the same week New Zealand P40s, working with American P39s, attacked the main Japanese supply route from Buin in southern [Bougainville](#) and destroyed two bridges. They also bombed Ibu, on the trail to Numa Numa, one of the main enemy bases on the east coast, to which the Japanese retreated after the failure of their counter-offensive.

ROYAL NEW ZEALAND AIR FORCE

FIGHTER-BOMBER OPERATIONS

FIGHTER-BOMBER OPERATIONS

Fighter-bomber operations against Rabaul began on 7 March. They were made possible by the elimination of the Japanese air force, which did away with the need to use fighters to escort Allied bombers, and by the opening of the airstrip on Green Island. The strip gave a base at which fighters from Bougainville could refuel on their way to their target, and they could thus reach Rabaul without carrying long-range fuel tanks.

The RNZAF Wing, like a number of American fighter squadrons, modified its aircraft, fitting bomb racks where the belly-tank attachments had been, and began training, under the leadership of Wing Commander Nicholls, for the new role.

Nicholls himself led the first fighter-bomber attack on Rabaul on 7 March, the day on which the fighter strip at Green Island was opened for operations. Twelve aircraft from No. 14 Squadron and eight from No. 18 took off from Torokina early in the morning and landed at Green Island to refuel. They left again at ten o'clock and reached their target, the eastern edge of Rabaul township, an hour later. They approached at 16,000 feet and then dived by sections to 6000 feet, where they let their bombs go. Partial cloud made observation of results difficult, but the pilots reported that a fair proportion of the bombs struck the target area and caused explosions.

From this date onwards the New Zealand fighters carried bombs on practically every offensive mission they undertook. At first 500- pound general purpose bombs were carried, or 500-pound incendiary clusters. Later it was found that the P40s could successfully carry a 1000-pound bomb, and from 21 March onwards they often did.

ROYAL NEW ZEALAND AIR FORCE

OPERATIONS BY NOS. 25, 30 AND 31 SQUADRONS

OPERATIONS BY NOS. 25, 30 AND 31 SQUADRONS

During March the strength of the **RNZAF** on **Bougainville** was augmented by the arrival of two dive-bomber squadrons and their servicing units. No. 25 Squadron had formed at **Seagrove** in July 1943 with Squadron Leader MacLean de Lange ¹ as Commanding Officer, and was initially equipped with SBD3s taken over from US Marine Aircraft Group No. 14, which had been stationed there. Its servicing unit, No. 25, was officially formed in October and was organised into three flights, of which two were to go overseas before the end of the year with the squadron, while the third was to remain at **Seagrove** and service the aircraft that were to be left there for training a second SBD squadron. A and B Flights left New Zealand on 7 December on board the USS *Octans* and arrived at **RNZAF** Base Depot, Santo, on the 12th. There they took over SBD4s and got them into flying condition in readiness for the aircrews when they should arrive. C Flight moved to Santo by air in January 1944. It had been decided not to proceed with the formation of a second SBD squadron, and the flight was therefore no longer needed for servicing duties at **Seagrove**.

The aircrew of No. 25 Squadron arrived at Santo at the end of January and spent February in operational training in conjunction with American dive-bomber units.

No. 30 Squadron had formed at **Gisborne** in June under the command of Squadron Leader **Hartshorn** ² and had been trained as a torpedo-bomber squadron. It was equipped for the first few months with Harvard aircraft and Vincents taken over from the original No. 8 (BR) Squadron which had been based there. Later, TBFs became available and the squadron was re-equipped with them. The ground staff became No. **30 Servicing Unit** in September.

The servicing unit was to have left New Zealand by sea for Santo on 24 January 1944, but was prevented from doing so by shipping difficulties. As the squadron was due to move early in February, an advance party of three officers and twenty-three airmen travelled to Santo by air on the 27th to prepare for the squadron's arrival. When they reached Santo it became obvious that the party was not big enough to cope with the amount of work that would have to be done, and a further detachment of forty-four men was flown up on the 30th. The squadron's aircraft were flown to Santo via **Norfolk Island** and Tontouta in two echelons, leaving New Zealand on the 28th and 30th, and the balance of the servicing unit travelled by sea in the USS *Alchiba*, arriving at Santo on 10 February.

The squadron was based at Luganville Field for a month and was engaged in operational training with American units. The need for torpedo-bombers in the South Pacific had now passed and

¹ Gp Capt T. J. MacLean de Lange, DFC; **RNZAF**; born Simla, 16 Jan 1914; accountant.

² **Sqn Ldr R. G. Hartshorn**, m.i.d.; **Auckland**; born Hastings, 13 Dec 1919; bank clerk.

the main emphasis in training was laid on practising dive and glide bombing.

Early in March both the servicing units embarked with their equipment and travelled by sea to **Bougainville**, calling at Guadalcanal on the way. Their convoy reached **Empress Augusta Bay** on the 15th. The men went ashore in amphibious landing craft, which carried them to their camp site in an area that had been occupied by Marine Air Group 24.

The first week was spent in unloading equipment, improving the camp, digging foxholes and preparing for the arrival of the squadron.

The camp site was only 1000 yards from the front line, and as the units had arrived in the midst of the Japanese attack on the perimeter they quickly learnt what it was like to be under fire. Shell and shrapnel landed in and near the camp on several occasions, and on the night of the 17th several tents were hit by rifle fire. Shortly after landing the men were organised into platoons and allocated positions in the third line of defence in case the Japanese should break through.

The aircraft of Nos. 25 and 30 Squadrons were to have flown in from Santo shortly after the servicing units had landed, but their arrival was postponed until the risk of shelling on the **Piva** strips had been reduced. The first echelon of No. 25 Squadron eventually reached **Piva** on the 23rd, and next morning it began operations when two aircraft took off at dawn to spot for Allied artillery over the Japanese positions outside the perimeter. During the day the squadron made nineteen sorties, four for artillery spotting, and the rest bombing attacks on enemy gun positions.

No. 30 Squadron and the balance of No. 25 flew in on the 24th and next day joined in operations. On the 25th, No. 25 Squadron made fourteen sorties and No. 30 Squadron twelve. Targets were enemy troops and gun positions round the perimeter. They were so close to the airstrip that the aircraft had merely to bomb up, fly round the circuit, make their attacks and land. The ground crews had a perfect view of the bombs falling on the enemy. For the next fortnight, until the Japanese attack was finally crushed, both squadrons bombed and strafed the enemy by day and carried out perimeter patrols by night.

On 26 March Nos. 25 and 30 Squadrons were detailed to take part, with American units, in an attack on **Kavieng** airfield. American troops had landed on **Emirau**, 75 miles away, a few days before, and the raid was made to ensure that the **Kavieng** airstrip was made unserviceable and to prevent Japanese air reinforcements being flown in from the north to interfere. No. 25 Squadron did not rendezvous with the rest of the force and had to return to base without completing its mission; but the seven aircraft sent by No. 30 Squadron, together with fifty-two

American SBDs and TBFs, successfully bombed the target. Of the twenty-eight 500-pound high-explosive bombs which the New Zealand planes carried, twenty-two fell on the runway. Next day the squadron was congratulated by General H. R. Harmon, COMAIRSOLS, on the success of the strike.

The main effort of the squadrons while stationed in the combat area was against **Rabaul** and its airfields. In conjunction with American squadrons, they sent over flights of six or twelve aircraft each every day except when prevented by bad weather. The Vunakanau and Tobera strips, which the Japanese showed most industry in repairing, were the most frequently attacked. Following the usual practice, the SBDs dived on the surrounding anti-aircraft positions to silence them and were immediately followed by the TBFs, which plastered the runways. By the end of April the continuous attacks had had an appreciable effect on the ack-ack defences. Although for many months yet they were to be formidable, they were not as strong as they had been earlier in the year.

Over **Bougainville** itself the squadrons took part in a variety of operations. After the Japanese counter-attack had petered out they were used against numerous targets all over the island: bridges, supply dumps, artillery positions and barge hideouts. They also worked in direct support of American ground forces, destroying road blocks and bombing enemy troops.

Both squadrons remained at **Piva** until the latter part of May, when they were withdrawn to New Zealand on the completion of their tour and disbanded. A second TBF squadron, No. 31, came up; it was under the command of Squadron Leader **Wilkes**.¹ It had formed at **Gisborne** after the departure of No. 30 Squadron and had trained there until it left for **Bougainville** in the fourth week of May. Six of its aircraft were flown up and the rest of the aircrew came by transport plane, taking over No. 30 Squadron's machines when they arrived. The squadron also took over the intelligence and operations officers who had been with No. 30 Squadron, and its machines were serviced by No. **30 Servicing Unit**.

During its two months' tour it carried on the work done by No. 30 Squadron, bombing airfields, anti-aircraft positions, and supply areas on the Gazelle Peninsula and various targets on Bougainville. Its biggest day was on 30 June, when nine aircraft made three sorties each and dropped 27 tons of bombs on the village of Pikei on the southern shore of Empress Augusta Bay, where concentrations of enemy troops were reported. The jungle prevented accurate

¹ Wg Cdr M. Wilkes, m.i.d.; Wakefield, Nelson; born Nelson, 22 Sep 1906; sheep farmer.

observation of the results, but the area was well covered with bombs and then thoroughly strafed.

During May a new type of target came into vogue. The sea and air blockade of the Solomons-Bismarcks area was practically complete, and to eke out their supplies of food the Japanese on Bougainville had planted gardens and were growing their own vegetables. At the end of the month there were four to five acres of cultivated land on north-west Buka and many clearings on northern Bougainville, while in southern Bougainville, in the area west of Kahili, there were gardens extending two and a half miles inland from the coast.

As the Allied policy of bypassing isolated Japanese garrisons included starving them out, the American command regarded the destruction of crops as an important objective. TBFs, including New Zealand formations, carried out experiments in south-western Bougainville, spraying the gardens with diesel oil. Later the technique was modified, the spraying being followed by incendiary bombs. The operations were not easy as spraying had to be done from a low level, and the aircraft came under very accurate fire from small arms and the automatic anti-aircraft gun positions with which the Japanese had surrounded their cultivated land.

ROYAL NEW ZEALAND AIR FORCE

OPERATIONS BY RNZAF FIGHTER WING, APRIL-JUNE 1944

OPERATIONS BY RNZAF FIGHTER WING, APRIL-JUNE 1944

The New Zealand Fighter Wing continued to operate from **Torokina**, squadrons relieving one another at six-weekly intervals. The P40s made daily flights to **Rabaul** whenever the weather permitted, staging through **Green Island** and carrying on to bomb airfields and supply areas. They also ranged over **Bougainville** in sections of four, strafing and bombing buildings, communications, supplies, and troop concentrations wherever they could be found.

Bougainville was divided into several areas, and squadrons stationed at **Torokina** were each allotted one. Thereafter, it was the job of each squadron commander to devise the means of causing the maximum annoyance to the Japanese in his particular zone. Generally, low-level bombing attacks were made with 500- pound general purpose bombs, followed by strafing runs. Alternatively, 500-pound incendiary clusters were used, but they were not entirely satisfactory against small targets. A better incendiary bomb was devised, consisting of a belly tank filled with oil and petrol and fitted with an incendiary fuse. It proved particularly effective while the supply of belly tanks lasted.

A typical day of fighter-bomber operations is described in the operational record of No. 19 Squadron on 14 April. Two sections of four aircraft each were alternately on scramble alert at **Torokina** from six in the morning till seven in the evening. Two aircraft were scrambled in the afternoon to patrol to **Green Island** and back and returned without having sighted anything. Apart from that they had an uneventful day.

Three sections were briefed in the early morning by the Squadron Intelligence Officer for an attack on an ammunition dump south of **Rataval**, near **Rabaul**, which was to be bombed with 500-pound incendiaries. They took off at twenty past six and landed at **Green Island**

an hour later. While the aircraft were being refuelled, the pilots were further briefed on their operation by the local Intelligence Officer and had morning tea.

They took off again at ten o'clock and set course for **Rabaul**. On the way two aircraft developed engine trouble, and their section leader decided to return with all his four aircraft to **Green Island**. The other two sections carried on, approaching **Rabaul** over **New Ireland** and **Duke of York Island**. When they reached the target area they found their primary objective completely weathered out by low cloud and heavy rain, so they attacked their alternative target, the supply area at **Vunapope** on the south shore of **Blanche Bay**. They flew south across the entrance to **Rabaul Harbour** and then turned left and dived over their target, coming down from 16,000 feet to 5000 feet through an intense curtain of anti-aircraft fire to release their bombs, and continued the dive out over the sea to rally east of **Cape Gazelle**. As they left to return to base they saw their incendiaries beginning to take hold at scattered points all over the target and some good fires already blazing. All the aircraft returned direct to **Torokina** and landed there in time for lunch. The total operational flying time for the day was forty-two hours.

On the same morning twelve aircraft of No. 16 Squadron flew on a similar mission. They reached **Rabaul** an hour after No. 19, by which time the weather had cleared over **Rataval**, and dropped all their bombs in the target area. In the afternoon twelve aircraft took off again and bombed and strafed Japanese-occupied huts on the north-east coast of **Bougainville**. They demolished two of the huts by bombing and set another on fire by strafing. The squadron's flying time for the day was fifty hours.

ROYAL NEW ZEALAND AIR FORCE

RE-EQUIPMENT OF RNZAF FIGHTER SQUADRONS

RE-EQUIPMENT OF RNZAF FIGHTER SQUADRONS

During 1944 **RNZAF** fighter squadrons were re-equipped with F4U Corsairs, faster and more powerful aircraft than the P40s. The first unit to enter the combat area with the new planes was No. 20 Squadron, commanded by Squadron Leader S. R. Duncan, which arrived at **Bougainville** on 14 May. The squadron had been formed at **Ardmore** in January and trained there on Harvards and P40s until April, when it moved to Santo. At Santo the pilots were converted to F4Us by Flight Lieutenant **Greig**,¹ who was in charge of a testing and training flight there. The aircraft had been shipped direct from the **United States** and made ready for flying by a **Corsair Assembly Unit** which had been established within the **RNZAF** Base Depot Workshops. When the pilots were proficient on their new planes, the squadron flew to **Guadalcanal** and spent several weeks in training there before going on to **Bougainville**.

On arrival at **Torokina** the aircraft were fitted with bomb racks and the squadron prepared to do its part in bombing and strafing the Japanese, but after a few practice drops on local targets it was found that the racks were not satisfactory and they were removed for modification. Consequently, for the first few weeks of its tour the squadron's operations were confined to security patrols, escorts, and strafing sweeps.

¹ **Sqn Ldr D. A. Greig**, AFC, Air Medal (US); **Auckland**; born **Rotorua**, 3 Nov 1916; ground engineer.

ROYAL NEW ZEALAND AIR FORCE

BOMBER-RECONNAISSANCE OPERATIONS, FEBRUARY—JUNE

BOMBER-RECONNAISSANCE OPERATIONS, FEBRUARY—JUNE

Until the middle of 1944 New Zealand bomber-reconnaissance aircraft took little direct part in the attack on **Rabaul**, being still used mainly for over-sea patrols. No. 2 Squadron, commanded by Squadron Leader **Greenaway**,² which relieved No. 1 Squadron in February, operated from **Munda** until late in April Working with a **US Navy** squadron, VB140, it was responsible for patrolling a sector between west and north-west of **Munda** to a distance of 350 miles from its base. Enemy submarines were still fairly numerous, particularly in the northern part of the search area. On the morning of 20 February an aircraft captained by Flying Officer **Scott**³ found one on the surface, midway between **Green Island** and the coast of **New Ireland**. **Scott** attacked and dropped a salvo of four depth-charges immediately ahead of the spot where the submarine had dived, but there was no evidence of any damage. On the afternoon of the same day an aircraft captained by Flying Officer **Shuttleworth**⁴ also attacked a submarine in the same area. On the first run the depth-charges failed to release, but the air-

² **Gp Capt A. B. Greenaway**, OBE; **RNZAF**; born **Toowoomba, Australia**, 13 May 1911; joined **RAF** 1936; permanent commission **RNZAF** 1938; Director of Training, **RNZAF**, 1954—.

³ **Flt Lt R. E. Scott**; **Masterton**; born **Auckland**, 18 Nov 1918; clerk.

⁴ **Fg Off R. L. Shuttleworth**, Air Medal (US); **Nelson**; born **Nelson**, 24 Apr 1915; motor engineer.

gunners raked the deck and conning tower with machine-gun fire. On the second run the four depth-charges were dropped just ahead of the

swirl left by the submarine as it crash-dived. Again there was no evidence of damage.

The squadron carried out six routine patrols daily, except when it was briefed for special operations and the number was reduced to three. At the end of February the squadron took part in two offensive operations against the Japanese in the **Rabaul** area. On the 28th four aircraft led by Greenaway flew to **Piva** and then made a sweep over the coasts of **New Ireland** and the Gazelle Peninsula, looking for enemy barges. It was their first operation over enemy-held territory and they failed to find any worthwhile targets. Six enemy aircraft, some of the few the Japanese still had in the area, were seen over the village of Mope on **New Britain**. One of them attacked Greenaway, but was damaged and driven off by his turret gunner.

The next day two aircraft, captained by Flight Lieutenants **Oliver** ¹ and **Fountain**, ² were ordered to search for a suspected radar station at Adler Bay, on the east coast of the Gazelle Peninsula, which had been giving the enemy warning of the approach of Allied planes and shipping. Fountain found it first, in a clearing in the bush on a low headland at the south end of the bay. Both aircraft made three runs over it in the face of light and medium anti-aircraft fire and dropped twelve bombs, ten of which landed in the target area, causing considerable damage. Two days later Oliver led a force of American TBFs and SBDs to the place and the station was bombed again. The next day he and Greenaway visited it once more and dropped another three tons of bombs on it, after which it was officially assessed as destroyed.

During March and April several sightings were made of submarines. On 5 March Flight Lieutenant **Hamilton** ³ and his crew attacked one to the east of **New Ireland**, straddling it with a stick of depth-charges. Fifteen minutes after the attack a dark, greenish-brown stain 80 feet in diameter appeared on the surface of the water and the submarine was claimed as possibly damaged.

In the middle of March a new long-range search was introduced and

added to the squadron's commitment. The route, which covered 1300 miles, was up the west coast of **Bougainville**, through St. George's Channel to Mussau Island, west of **Emirau**, then back

¹ **Flt Lt B. E. Oliver**, m.i.d.; **Cambridge**; born **Hamilton**, 8 Feb 1912; farmer.

² **Flt Lt C. A. Fountain**, DFC; **Woodville**; born **Frankton Junction**, 24 Nov 1918; farmer.

³ **Sqn Ldr D. S. Hamilton**, DFC; **Waipukurau**; born **Christchurch**, 4 Oct 1920; clerk.

down the north-east coast of **New Ireland** to **Green Island**, where the aircraft landed to refuel, and from there back down the coast of **Bougainville** to **Munda**. In April two other routine searches were instituted, consisting of strafing sorties round **Bougainville** and **Buka** against any worthwhile targets which could be found.

While the squadron was at **Munda** its aircraft were maintained by No. **10 Servicing Unit** which was still at **Guadalcanal**. The machines were flown back there whenever they were due for periodical inspections. Daily servicing was done by a detachment of the servicing unit at **Munda**. On 24 April the servicing unit moved from **Guadalcanal** to **Piva**, arriving there on the 26th, and the squadron flew in from **Munda** on the 27th to spend the rest of its tour there. Early in May the squadron began two new duties. Two aircraft were detailed to follow the daily strikes against **Rabaul** and search for survivors of any aircraft which might have been shot down in the sea, and thereafter survivor patrols were flown regularly by **RNZAF Venturas**. In addition a daily count of shipping in **Rabaul** Harbour was instituted, one aircraft flying over early each morning to report on possible targets for strikes later in the day, and on the state of the weather.

In the fourth week in May the squadron returned to New Zealand for

rest and refitting, having flown a total of 3758 hours on operations against the Japanese. Its sorties during the tour comprised:

611 anti-submarine patrols and escorts

132 special submarine searches

109 bombing strikes and searches

56 miscellaneous missions

Its place was taken by No. 9 Squadron, commanded by Wing Commander **Allen**,¹ which was on its second overseas tour. It had returned to New Zealand in October 1943 and had spent several months at **Whenuapai** re-equipping with PV1s and carrying out shipping escorts over the approaches to **Auckland**. The squadron had left New Zealand for Santo in February and had taken over the duties of No. 2 Squadron when it moved up to **Munda**. On arrival at **Piva** it again took on the commitments of No. 2 Squadron, including the daily shipping count and survivor searches, and the bombing and strafing of targets of opportunity on **Bougainville** and the Gazelle Peninsula. Towards the end of June it began to take an active part in strikes on **Rabaul**, a part which was to be taken by New Zealand Venturas throughout the rest of the war.

¹ **Wg Cdr A. C. Allen**, AFC, m.i.d.; **Morrinsville**; born **Auckland** 3 Feb 1911; grazier.

ROYAL NEW ZEALAND AIR FORCE

OPERATIONS BY NO. 6 (FLYING BOAT) SQUADRON

OPERATIONS BY NO. 6 (FLYING BOAT) SQUADRON

The regular patrols flown by No. 6 Squadron from Halavo Bay were in the main uneventful. They involved flying continuously for eleven or twelve hours at a time over hundreds of miles of empty sea, and not once did the crews sight any enemy ships or submarines. Special searches for submarines which were reported on various occasions by Allied shipping or aircraft were equally unproductive.

On the other hand, in its air-sea rescue operations the squadron achieved considerable success. Nearly all the flying in the **Solomons-Bismarcks** campaign was done over water, and with hundreds of planes in the air every day it was inevitable that landings on the sea were fairly frequent, whether due to enemy action, engine failure or fuel shortage. Catalinas were stationed at various points throughout the **Solomons**, ready to take off immediately whenever they were called for. The efficient rescue service operated by the Allies contributed very largely to keeping up the morale of their aircrews. Pilots knew that if they 'ditched' or baled out over the sea they had a good chance of being picked up within a few hours.

No. 6 Squadron's first 'Dumbo' mission from Halavo was carried out on 26 January when an aircraft on stand-by duty, captained by Flying Officer Mackley, DFC, ¹ was ordered to find and rescue ten men adrift on rafts some 220 miles to the north. When it approached the area the crew saw a Liberator circling over two large patches of fluorescent dye on the water, and then saw three rafts with men on them. The Catalina landed and picked up the ten men—they were the crew of a Liberator which had been forced to 'ditch' through bad weather and shortage of fuel—and returned with them to Halavo Bay.

Landings on the open sea, except in the best of weather, were not

without risk. Strong winds or heavy swells could, and sometimes did, damage the Catalinas and make it impossible for them to take off again. Early in February an aircraft captained by Flying Officer **Beauchamp**,² while on a routine patrol 100 miles south of Nauru, found five men in dinghies, survivors of a Liberator which had been forced down while returning from a raid on **Kwajalein**. In landing on a choppy sea the Catalina's hull was strained and developed a leak, and the bilge pump had to be used continuously while the survivors were picked up. The take-off was difficult

¹ **Flt Lt W. B. Mackley**, DFC and bar; **Auckland**; born **Lower Hutt**, 10 May 1915; factory manager.

² **Flt Lt D. S. Beauchamp**, DFC; **Auckland**; born **Masterton**, 23 Oct 1910; bank clerk.

owing to the rough sea and the danger of tearing off a float. After several attempts the take-off was accomplished and the aircraft returned safely to base. Beauchamp was later awarded the DFC for the operation.

The hazards of open-sea rescues are further illustrated by the following extract from a report made by Warrant Officer **Donaldson**,¹ on an operation which he carried out later in the year:

On 11 October 1944 while on duty at Santo I was instructed to proceed on a Dumbo mission for a J2F, which was reported to have made a forced landing in position 15.15S 165.20E. We located the aircraft in the above position at 0750, being considerably aided by parachute over the mainplanes, making a very conspicuous target. The state of the sea at this time was such as to make a landing impracticable, there being a moderately heavy surface swell and a surface wind of 18–20 knots, and as we understood that a crash boat had left Santo, we circled the downed aircraft, with the intention of circling until the arrival of the crash boat. At 0930 we learned that the crash boat had left the dock, and realizing that it would be some time before it arrived upon the scene,

and as sea conditions had improved somewhat we decided to make a landing and take off the survivors. At 1020 we made a successful landing along the swell and practically into the wind. The survivors were picked up. We proceeded to take off at 1105 taking off down swell with the wind about 60 degrees on our starboard quarter. Waiting for a large wave, I opened the throttles just forward of the swell, and when off the step at about 43 knots we ran off the swell and into the trough of another, burying the port float which caused us to water loop. It was found that the port float was badly damaged giving no support whatever and the flying-boat was listing, with the wing in the water at about 30 degrees. Attempts were made to brace the port float without success. There was still a 12 to 15 foot swell running.

We now settled down to wait for the arrival of the crash boat, as we realised that it was hopeless to repair the damaged float. We maintained voice contact until our batteries ran low, being unable to keep them up as during the water loop the APU ² had shipped water through the exhaust, and although the engineers worked in shifts on it they were unable to get it going. It was necessary to work in shifts as by this time everybody was suffering from the effects of sea-sickness. The crash boat finally arrived at approximately 1500 taking aboard the two J2F survivors and, taking the J2F, which was still close by, in tow, she prepared to stand by until the arrival of the PC. PC1587 arrived at approximately 1800 and put a line aboard us by means of a rocket gun. Sending the remainder of the crew on board the PC, two engineers and myself then proceeded to secure the flying-boat. We then, with shackles which the PC had sent aboard, attached a towing rope to the bridle and made our way by dinghy to the PC which commenced towing at 2100. At 0200 the next day the aircraft attained a list of 30 degrees to starboard, the starboard float having apparently collapsed. The PC slowed down, but almost immediately the towing rope and bridle carried away from the hull of the flying-boat. At 0410 she turned over and floated on an even keel upside down, slowly settling.

¹ Fg Off I. R. Donaldson, m.i.d.; born Dunedin, 5 Oct 1922;

salesman; killed on airlift operations, **Germany**, 16 Jul 1949.

² APU, Auxiliary Power Unit.

After approximately half an hour she turned on her side, settling still further and finally sank completely.

An American SBD crew, who had to ditch off the south-west coast of **Guadalcanal** on 7 November, were picked up by a PBV captained by Flight Lieutenant **Martin**.¹ The SBD had ditched about a mile and a half from the shore and the crew of two, the pilot and a major, climbed into their dinghy. After a while two native canoes arrived and took them ashore to a native village. There they were well cared for, and after they had rested they were conducted round the mission (Tangarere Mission in Beaufort Bay), where there was an **RNZAF** radio operator. On returning to his unit he sent a message asking for assistance. Cutting up their parachutes, the survivors put out strips as signals. A PV1 of the **RNZAF** passed over the next morning and dropped supplies. The supply parachute failed to open and the container burst open, fragments striking a native girl and fracturing her foot. Meantime a PBV of No. 6 Squadron had set out for Beaufort Bay. It sighted the message strips and landed in the bay. Some of the crew went ashore, found the SBD pilot and the major, and took them aboard. The injured native girl, with a native boy and the missionary to look after her, was also flown out, and the girl was given hospital treatment at **Tulagi**.

On 9 February two aircraft and crews were sent to the Treasury Islands, where they formed a detached flight based on the United States seaplane tender *Koos Bay*. Individual aircraft and crews were relieved each fortnight and the flight remained there until early in April, standing by for air-sea rescue duties. Whenever strikes were flown against **Rabaul**, a Catalina with fighter escort was sent to patrol south of **New Ireland** and was on the spot to pick up pilots forced down. While the flight was stationed at the Treasuries **RNZAF** aircraft alone rescued twenty-eight men from the sea between **Bougainville** and the Gazelle

Peninsula.

Besides patrol and rescue operations, No. 6 Squadron's aircraft carried out numerous miscellaneous missions. From January onwards a weekly flight was made to **Malaita**, carrying mail and supplies to the isolated New Zealand radar unit on Cape Astrolabe. Special flights were also made to other units on outlying islands when supplies were needed, or when sick personnel had to be brought to hospital for attention.

¹ **Flt Lt W. R. Martin**; Ohuroa; born **Wellington**, 7 Nov 1917; clerk.

ROYAL NEW ZEALAND AIR FORCE

**CHAPTER 17 – REORGANISATION OF SOUTH PACIFIC AREA, JULY-
DECEMBER 1944**

CHAPTER 17

Reorganisation of South Pacific Area, July-December 1944

WITH the neutralisation of **Rabaul** completed and the Japanese garrisons in **New Britain** and the **Solomons** safely bottled up, the South Pacific war faded from the world's headlines. Admiral Halsey, who had directed the operations which carried the Allies from **Guadalcanal** to the Bismarcks, was relieved of his command of the **South Pacific Area** in June and, as Commander of the American Third Fleet, turned his attention towards the Japanese in the Carolines and **Philippines**. Command of the South Pacific forces was given to Vice-Admiral J. H. Newton, USN, who for the past eight months had been Deputy COMSOPAC.

The original **South Pacific Command**, i.e., the area east of 159 degrees East longitude, was now non-operational, and the only South Pacific air forces still in contact with the enemy were those which had crossed the dividing line into the South-West Pacific Area in their advance through **New Georgia** to **Bougainville** and the Bismarcks. These, under the command of COMAIRNORSOLS, Major-General R. J. Mitchell, USMC, were detached from the South Pacific to the South-West Pacific Command to continue their operations against the Japanese in the area. Logistically they were still supported by COMAIRSOPAC, but operationally they came under the control of the Commander Allied Air Forces, General Kenney, in General MacArthur's command.

As the South Pacific campaign drew to a close the future of the **RNZAF** became the subject of considerable discussion between the New Zealand and American authorities. As early as March the Air Officer Commanding No. 1 (Islands) Group suggested to Air Headquarters in **Wellington** that, as there was no longer any Japanese fighter opposition, there was no point in continuing to send fighter squadrons to the forward area. It would have been bad for morale, however, if trained operational units had been kept in New Zealand doing nothing, so it was decided to continue sending the squadrons forward in rotation even though they could be employed only as fighter-bombers.

In April the Joint Chiefs of Staff Committee in **Washington** announced that the future employment of the **RNZAF** was to be restricted to a few bomber-reconnaissance and flying-boat squadrons on garrison duties in the South Pacific, which meant that all the fighter squadrons would be scrapped and that the **RNZAF** would no longer be given a combat role. This would have had a twofold effect. Domestically it would have meant that the size of the Air Force could be reduced, releasing large numbers of men to meet the acute shortage of manpower in industry and agriculture; but the millions of man-hours and the immense amount of money which had been spent in training and equipping the squadrons would be wasted. Politically, if New Zealand dropped out of the **Pacific** war before it was finished, she would have less reason for making her voice heard in the peace councils afterwards. Taking all factors into consideration, the **RNZAF** was not satisfied at being relegated to a back place. The need to provide garrison squadrons was realised, but in addition New Zealand wanted to take part in active operations until the end of the war.

The New Zealand Minister in **Washington** was instructed to press the point and try to have the surplus squadrons of the **RNZAF** included in any active theatre. There were three possibilities. Firstly, the squadrons might continue to operate under Halsey's command and go with him to the Central Pacific. This would mean that they continued to work in a command in which they were known and in which they had built up an excellent reputation and a considerable amount of goodwill. It would also mean that their supply problems would be relatively easy, since they were equipped with Navy-type aircraft. Secondly, they might be transferred to the British South-East Asia Command. This would involve withdrawing them from the **Pacific** and sending them to **India** to re-equip with British types of planes. Finally, they might be transferred to General MacArthur's command in the South-West Pacific Area. This was open to several objections, one being that, as the South-West Pacific Area was an Army command and had no naval air units, there would be difficulty in getting appropriate supplies of aircraft and spares.

The first course, which was the one most favoured by New Zealand, was open to two objections from the American point of view. In the first place there was no scope in the forthcoming operations in the Central Pacific for the land-based fighters and medium bomber-reconnaissance aircraft with which the **RNZAF** was equipped, and, in any case, the Americans by then had more than enough squadrons of their own. The other objection was political. In February 1944 New Zealand and **Australia** had signed an agreement at **Canberra** affirming their intention to have a say in **Pacific** affairs after the war. The pact was unfortunately worded and badly publicised, and gave many senior officers in the **United States** the opinion that **Australia** and New Zealand were attempting to resist the entry of the **United States** into **Pacific** affairs after the war was finished. As a result there was a feeling in **Washington** that Australian and New Zealand forces should not be allowed to operate except in former British possessions.

A transfer to the South-East Asia Command was open to the objection that there was no role there at the time for short-range aviation, in which New Zealand squadrons had been trained.

This left only the third course open. The New Zealand Minister in **Washington** and the Prime Minister, who was passing through **Washington**, discussed the matter with the **United States** Commander-in-Chief, Admiral King, early in May. King, while not committing himself as to the future role of the **RNZAF**, agreed that the New Zealand squadrons should continue offensive operations in the northern **Solomons** until the Japanese were finally cleared from the islands, which at that time was expected to take four or five months.

In the meantime the transfer of the Northern Solomons command to the South-West Pacific Area had been projected, and COMAIRSOPAC, on the instructions of the Joint Chiefs of Staff, had ordered that all **RNZAF** units were to be withdrawn to the garrison area by 15 June and that no further squadrons were to be sent up. There were still hopes that the discussions in **Washington** would bear fruit, so the Chief of Air Staff, Air

Vice-Marshal Isitt, visited COMSOPAC towards the end of May to persuade him to hold up the withdrawal until the position became clearer. He found that COMSOPAC and all his subordinate commanders were keen that the **RNZAF** should remain with them, in spite of the instructions from **Washington**. Eventually, as a result of negotiations in **Washington** and on the spot in the South Pacific, it was agreed that the New Zealand units in the northern **Solomons** should be included in the **NORSOLS** forces which were to be handed over to MacArthur.

The programme adopted after the change-over in the South Pacific Command called for eleven squadrons on garrison duty in and south of **Guadalcanal**. Of these the United States Navy was to provide four and the **RNZAF** seven, viz., four fighter, two medium bomber, and one flying-boat. Two New Zealand fighter squadrons were to be stationed at Santo and two at **Guadalcanal**; one bomber-reconnaissance squadron also was to be at **Guadalcanal** and the other at **Fiji**; and the flying-boat squadron at Halavo Bay, **Florida Island**, where it was already located.

New Zealand squadrons to be transferred to the South-West Pacific Area likewise comprised four fighter, two medium bomber, and one flying-boat. One fighter squadron was to remain at **Bougainville** and another was to be moved to **Los Negros** as soon as possible after the end of August. The other two were to go to **Emirau** and **Green Island** in October. New Zealand bomber-reconnaissance squadrons were to be based at **Emirau** and **Green Island** in September. The destination of the flying-boat squadron was not, at this stage, decided. In any case, it was still in the process of forming and training at **Lauthala Bay** and was not yet available for operations.

This allowed one bomber and two fighter squadrons to be in New Zealand at one time for rest and refitting.

At the middle of June 1944 the disposition of **RNZAF** squadrons and servicing units in the **Pacific** was as follows:

Bougainville No. 15 Squadron (Fighter)

No. 18 Squadron (Fighter)

No. 20 Squadron (Fighter)

No. 9 Squadron (Bomber Reconnaissance)

No. 31 Squadron (TBF)

No. 2 Servicing Unit

No. 4 Servicing Unit

No. 10 Servicing Unit

No. 25 Servicing Unit

No. 30 Servicing Unit

***Guadalcanal* No. 14 Squadron (Fighter)**

No. 1 Servicing Unit

No. 6 Squadron (Flying Boat, at Halavo)

No. 3 Squadron (Bomber Reconnaissance)

No. 12 Servicing Unit

***Fiji* No. 4 Squadron (Bomber Reconnaissance)**

No. 5 Squadron (Flying Boat, forming at **Lauthala Bay)**

***New Zealand* No. 16 Squadron (Fighter)**

No. 17 Squadron (Fighter)

No. 19 Squadron (Fighter)

No. 21 Squadron (Fighter, forming)

No. 1 Squadron (Bomber Reconnaissance)

No. 2 Squadron (Bomber Reconnaissance)

SITUATION IN BISMARCKS-SOLOMONS

The major concentrations of Japanese troops trapped in the Bismarcks and **Solomons were on **Bougainville**, where they occupied the whole island except the **Empress Augusta Bay** region; on **New Britain**, where they had been squeezed into the north-eastern part of the island; and on **New Ireland**. In addition there were small groups on **Buka**, **Choiseul**, **Fauro**, **Shortland**, and other islands throughout the area. Altogether they numbered about 125,000 men.**

Land operations in the middle six months of 1944 were largely static. The American forces were not prepared to take the offensive, and the Japanese in both **New Britain and **Bougainville** had been defeated earlier in the year and were obliged to withdraw and reorganise. Without**

naval or air support, and with no hope of reinforcement, they were in no position to resume the offensive themselves, although from October onwards there were persistent rumours on **Bougainville** that they were preparing to do so before the end of the year.

In spite of the Allied blockade, the physical condition and morale of the Japanese remained good. Reports came in from time to time that they were short of food and low in spirits, but the reports applied in general only to isolated units and labour troops. The main body of their forces remained intact and in good condition and were a potential threat to the Allied positions.

A matter of increasing concern to the enemy was the attitude of the natives in both **Bougainville** and **New Britain**. While the Japanese were in complete control, the islanders had little choice but to side with them. But when it became apparent that the new conquerors were being defeated they became openly hostile, and carried on a guerrilla warfare wherever they could do it without too much fear of retribution. The looting of their gardens and the carrying off of their women had not endeared the Japanese to them.

At sea enemy activity was limited to nightly barge traffic carrying supplies along the coasts of **New Britain**, **New Ireland** and **Bougainville**, and an occasional submarine sent down from **Truk**. On the Allied side naval operations consisted of nightly patrols and occasional landings by reconnaissance parties on enemy-held coasts.

Allied air operations were carried on continuously, and were aimed at softening up the enemy against the day when he could be attacked by ground forces and exterminated. The campaign was designed:

- (To reduce the strength of the enemy forces, to disrupt their
a) organisation and weaken their morale.
- (To destroy or damage their means of living: camps and bivouacs,
b) supply dumps, vegetable gardens and livestock.
- (To eliminate or disrupt their transport system by destroying or
c) damaging barges, motor vehicles, jetties, bridges and roads.

(To eliminate or reduce their capacity for defensive action by
d) destroying or damaging coastal and anti-aircraft artillery positions,
airfields and ammunition dumps.

During the latter part of October and the first week of November a few Japanese aircraft reappeared in the Bismarcks area. Several radar contacts were made of unidentified planes, and some apparently serviceable machines were seen on the **Rabaul** airfields, which the Japanese had succeeded in putting into working order. On 3 November an enemy float plane was seen and identified by PT boats off **New Ireland**.

On 9 November the Allied Command was surprised and perturbed to find that the Japanese were still capable of offensive air operations. In the afternoon three Zekes from **Rabaul** flew over **Los Negros** and bombed and strafed Momote airfield. The raid had only a nuisance value and did little damage; but from the Japanese viewpoint it was a complete success. The aircraft approached in clear weather, and the audacity of the operation took the defences completely by surprise. The enemy had been picked up by radar when still 80 miles away but had been mistaken for three friendly planes. After the attack they retired to **Rabaul**, unavailingly pursued by two RAAF Spitfires.

FORMATION OF NEW ZEALAND AIR TASK FORCE

In contrast to the role that they had previously played as individual units operating within the American Command, the New Zealand squadrons transferred to the South-West Pacific Area were formed into an air task force with a specific duty—the conduct of air operations in the northern **Solomons**. The Americans intended moving their 1st Marine Air Wing, which with the **RNZAF** constituted their Northern Solomons Air Force, to the **Philippines**, and when it moved out ZEAIRTAFF (New Zealand Air Task Force) was to take over operational control.

Until the American Command was dissolved the Officer Commanding the New Zealand formation (COMZEAIRTAFF) was to be responsible to

COMAIRNORSOLS for the operational sub-control of New Zealand units in the South-West Pacific. Thereafter he would become the Senior Air Commander in the **Solomons-Bismarcks** area. Until the squadrons moved further afield, responsibility for organising their supplies and for personnel administration remained with No. 1 (Islands) Group, under Air Commodore Sir Robert Clark-Hall.

ZEAIRTAF was officially formed on 1 September. Wing Commander Newell and Wing Commander Tancred each acted as Commanding Officer for a few days until Group Captain Roberts arrived on the 16th to take over the appointment. By the middle of October a full administrative staff had been established and the organisation began to function.

Headquarters was at **Bougainville** and subordinate formations, termed Field Headquarters, were established at **Piva** and on Green Island, **Emirau** and **Los Negros**, where New Zealand squadrons were to be based. Commanding officers appointed on 15 October to the four Field Headquarters were, respectively, Squadron Leader **Wigley**,¹ Wing Commander **Matheson**,² Wing Commander **Dix**³ and Squadron Leader Cowan, DFC.⁴ Under the new organisation, RNZAF Station, **Bougainville**, was officially disbanded on 17 October, and control passed to Field Headquarters, **Piva**.

It had been intended originally that **COMZEAIRTAF** should take over from **COMAIRNORSOLS** on 1 November. By the middle of October it was obvious that the change of command would not take place so soon and the date was put back to 1 December. Thereafter there were further delays, and it was not until July 1945 that the 1st Marine Air Wing headquarters left **Bougainville** and the northern **Solomons** became a New Zealand command. This delay was not foreseen at the time, and preparations for the changeover went forward. At the end of October 1944 the headquarters staff of **ZEAIRTAF** comprised 16 officers and 195 airmen.

Before the New Zealand squadrons could move to their allotted bases

in the South-West Pacific there was a great deal of work to be done in preparing camps for them. Generally speaking the provision of accommodation was an American responsibility, but they provided only the minimum requirements. Anything further had to be done by the **RNZAF** itself.

The work required on the new stations at Green, **Emirau**, and **Los Negros** was beyond the capabilities of No. 1 (Islands) Works Squadron, which was already fully occupied in building additional accommodation at **Guadalcanal**. Consequently a second works squadron was formed, with its headquarters at **Guadalcanal**, and detached flights were established at **Bougainville**, **Green Island**, **Emirau**, and **Los Negros** to help the American forces in setting up tent frames and buildings on the new camp sites. When the **RNZAF** moved in they were responsible for camp maintenance, sanitary work, rubbish removal, minor road construction, and the maintenance of electric power and water supplies.

¹ **Wg Cdr H. R. Wigley**, OBE, m.i.d.; **Timaru**; born Fairlie, 2 Feb 1913; company secretary.

² **Wg Cdr P. A. Matheson**, OBE; **Wellington**; born Dunedin, 9 Dec 1909; airways pilot.

³ **Gp Capt F. R. Dix**, OBE; **RNZAF**; born **Wellington**, 8 Dec 1904; **RAF** 1930–31; NZ Permanent Air Force 1932; motor mechanic.

⁴ **Sqn Ldr W. B. Cowan**, DFC; **Hastings**; born **Hastings**, 29 Sep 1914; public accountant.

ESTABLISHMENT OF RNZAF AT EMIRAU

None of the moves of **RNZAF** units to their new bases in the South-West Pacific Area took place as early as intended, owing mainly to lack of shipping. The **RNZAF** had no vessels under its control, and American shipping was in short supply locally, as it was needed to support major

operations in the Central Pacific.

The first move to be effected was that of No. 3 (BR) Squadron, which had been stationed at Bougainville, to Emirau. A party of New Zealand officers was sent at the beginning of September 1944 to arrange for a camp site and investigate the question of supplies. The available accommodation was poor but the general supply position was quite good, as the Americans had one Ventura and several Corsair squadrons on the island and carried adequate stocks of engine and airframe spares. Towards the end of the month a works party was sent from Guadalcanal to put up stores and living quarters and to clear and level roadways for the New Zealand camp.

On 5 October an advance party of No. 10 Servicing Unit arrived by air, followed next day by the main body of the unit, with its equipment, aboard the USS *Frank J. Sprague*. The following week Venturas of No. 3 Squadron flew in, and the squadron began operations a week later.

OPERATIONS BY NO. 3 SQUADRON

Until it returned to New Zealand on the completion of its tour at the end of November 1944, No. 3 Squadron was responsible for daily patrols to the north of Emirau to watch for possible Japanese shipping on the supply route from Truk to New Britain and New Ireland. Three aircraft took off each morning and covered an arc from north-west to north-east, to a distance of 300 miles from their base. The Japanese by this time were chary of sending shipping into waters covered by the Allies, and nothing was seen by the patrols.

Dawn and dusk patrols over the coast of New Ireland searched for enemy barges and float planes and bombed and strafed any worthwhile targets they discovered on shore. The planes discovered no sign of barges or float planes, but always found something— troops, vehicles, huts or gardens—on which to use their bombs and ammunition. A third daily commitment was the provision of an aircraft at instant readiness during daylight to search for submarines reported within the squadron's sphere

of operations.

Servicing difficulties and shortages of spares resulted in the squadron not always having its full quota of aircraft, but whenever there were three or more to spare, after providing for daily routine jobs, strikes were made against specific targets on **New Ireland**.

NO. 4 (BOMBER-RECONNAISSANCE) SQUADRON

On its return to New Zealand No. 3 Squadron was replaced at **Emirau** by No. 4, which now came up for its first tour in the forward area. It had spent the year at **Nausori, Fiji**, carrying out uneventful shipping and anti-submarine patrols in which, from March to June 1944, it was assisted by a flight of six PBY5As ¹ of an American Squadron, VP44, which was attached to it.

In January 1944 a flight of six Hudsons, which was increased the following month to eight, had been detached to **Tonga**. It was maintained there, patrolling the seas surrounding the Group until August. In September four aircraft were sent to **Funafuti**, in the Ellice Islands, to search for a suspected submarine and remained there as a detached flight, augmented a fortnight later by another four, until November.

During September the squadron discarded its Hudsons and was rearmed with Venturas, which were flown up from New Zealand.

It moved to **Emirau** in two echelons on 17 and 23 November, travelling in No. 40 Squadron's Dakotas and leaving its Venturas to be taken over by No. 8 Squadron which relieved it. It began operations as soon as it arrived, taking over the duties of No. 3 Squadron. When the American Corsair squadrons left for the **Philippines**, it also took over the daily patrol they had flown over **New Ireland**, looking for Japanese road transport. During its three months at **Emirau** it dropped a total of 351 tons of bombs on huts, buildings, bridges, roads and anti-aircraft positions, and used a quarter of a million rounds of ammunition in

strafing troops and other targets.

¹ **PBY5A: an amphibious version of the PBY5 Catalina.**

NO. 19 SQUADRON AT EMIRAU

A second servicing unit, No. 5, arrived at **Emirau** on 28 October 1944, having come by sea in the USS *Alkaid* from New Zealand by way of **New Caledonia** and the **Solomons**. The first squadron to be based on it, No. 19 (Fighter) Squadron, flew up from Guadalcanal three weeks later and became operational on 22 November, despite a number of maintenance difficulties.

At that time three American Corsair squadrons were stationed at **Emirau** and the New Zealand unit took over some of their operational commitments. The Americans moved out on 1 December, and No. 19 Squadron then became responsible for the fighter defence of the island by day and the maintenance of a standing patrol over **Kavieng**. Dawn and dusk patrols were flown daily over the island, and, in the hours between, two aircraft were kept on scramble alert in case intruders were reported.

The **Kavieng** patrols lasted four hours each, and three were made each day by aircraft flying in pairs. Thus there were always two New Zealand planes overhead during daylight to remind the enemy that the Allies controlled the air. Each one carried a 1000-pound bomb, which it dropped somewhere at some time during the patrol.

During the early part of the squadron's tour servicing of the aircraft was complicated by the fact that the majority of the men in No. 5 **Servicing Unit** had had little or no experience with Corsairs, but the position improved as time went on.

When there were enough aircraft available, formations of four or eight were sent out to bomb objectives on **New Ireland**, sometimes alone

and sometimes in conjunction with American squadrons. On these occasions the bomb-load was two 1000-pound bombs to each aircraft. Targets were the supply area around **Kavieng** and native villages down the coast. Results were generally hard to assess owing to the thickness of the jungle.

GREEN ISLAND

As at **Emirau**, the first New Zealanders to be stationed at Green Island were a detachment of works personnel. They arrived on 3 October 1944 to provide workshop and living accommodation for a fighter and a bomber-reconnaissance squadron and their servicing units. The site allotted for the **RNZAF** camp had previously been temporarily occupied by American units. A kitchen, two messes, a sick bay, a chapel and a few scattered tents were still standing, but most of the area had been overgrown and was a dismal wilderness of heavy tropical undergrowth.

The works party cleared the growth and put up temporary buildings ready for the arrival of the servicing units. As dressed timber was unprocurable, poles and bamboos were cut from the surrounding jungle to make frames for stores, workshops and other buildings, and covered with canvas. These temporary structures served their purpose until prefabricated huts were shipped from New Zealand.

Nos. 3 and 14 Servicing Units landed at **Green Island** on 20 October, having travelled in the same ship as No. 5 Servicing Unit, bringing with them large quantities of material with which to complete the camp. In the first weeks of their occupation the New Zealanders were generously helped by American units, which provided hot meals until the **RNZAF** messing facilities were organised, and lent transport vehicles and other heavy equipment which the New Zealand units lacked.

NO. 20 SQUADRON AT GREEN ISLAND

No. 20 (Fighter) Squadron flew in from **Guadalcanal** on 26 October to be based on No. 3 Servicing Unit. The servicing personnel were still

engaged in camp construction and their technical equipment was not yet unpacked, but despite difficulties the squadron started operations almost immediately. Two American Corsair squadrons at that time constituted the fighter defence of the island. They were due to move shortly to the **Philippines, and the **RNZAF** took over part of their commitments to enable them to train for their new jobs. The duties consisted of local patrols, 'Dumbo' escort, and scramble alert.**

During the last week of its tour, which finished on 19 November, the squadron also carried out sweeps over **New Ireland, bombing and strafing targets of opportunity.**

NO. 18 SQUADRON

No. 18 Squadron, which took over No. 20's operational duties, had already spent twelve weeks at Santo and **Guadalcanal owing to delays in the establishment of servicing units in the forward area, and so had completed the normal fighter tour of three months in the tropics. To give the pilots a little operational experience, however, the squadron was posted to **Green Island** for three weeks.**

It started operations on 22 November, providing four aircraft daily for scramble alert and local dawn and dusk patrols, as escort for 'Dumbos' supporting strikes on **Rabaul and **New Ireland**, and two to escort transport aircraft flying between **Green Island** and **Emirau**. The escort of transport aircraft had been introduced after the reappearance of Japanese planes in the area, and was continued until 8 December, when COMAIRNORSOLS decided it was no longer necessary.**

On 1 December one of the American fighter squadrons was ordered to Leyte, and No. 18 Squadron shared with the remaining one the responsibility for maintaining a standing patrol over the **Rabaul airfields, to deny their use to the enemy and to cover Allied bombing strikes. On 8 December the second American squadron ceased operations preparatory to leaving for the **Philippines**, and for the last three days of its tour No. 18 Squadron was responsible for all fighter commitments,**

involving over a hundred hours' flying a day.

The American fighters had been in the habit of carrying bombs on their **Rabaul** patrols, but the New Zealanders could not do so because they had to carry auxiliary petrol tanks, which made high-speed dive-bombing impracticable. Consequently, during the three weeks it was in the forward area the squadron had no opportunity to put its bombing training into practice.

On the last operation of the tour two pilots patrolling over **Rabaul** saw a Zeke, the first seen in the air by any New Zealand fighter pilots for many months. They dived on it, firing and closing to 100 yards, but it escaped into heavy cloud. Three minutes later it emerged below the cloud. They attacked again, but it pulled up and disappeared once more. They searched for it for an hour in gathering darkness, but failed to find it.

NOS. 14 AND 16 SQUADRONS

When No. 18 Squadron left **Green Island** it was replaced by No. 14, which for ten days carried on all fighter commitments. On 21 December No. 16 Squadron arrived and was based on No. **30 Servicing Unit**, which had moved up from **Guadalcanal**. The year ended with the two fighter squadrons sharing the local defence of the island, 'Dumbo' escorts, **Rabaul** patrols, and offensive sweeps over **New Britain** and **New Ireland**.

NO. 1 SQUADRON

No. 1 (Bomber-Reconnaissance) Squadron flew in to Green Island from **Guadalcanal** on 29 October, to be based on No. 15 Servicing Unit. It did not become fully operational until a month later, as most of the servicing unit's equipment and tools were in transit on a ship which did not reach **Green Island** until late in November.

The first few weeks were spent in flying training, using such aircraft as could be kept serviceable; in improving the camp, which at first was

uncomfortably primitive; in hiking expeditions and swimming to promote physical fitness; and in learning jungle lore from **New Guinea** police boys.

Operations began on 21 November when No. 1 Squadron took over from one of the American PBJ squadrons on the island the daily weather flight and shipping count over **Rabaul**, which meant an aircraft taking off each morning at six o'clock and returning with reports of meteorological conditions in the area and news of prospective targets for strikes later in the day.

Early in December the squadron began to take part in 'night heckles' over **Rabaul**, which had previously been done exclusively by American PBJs, assisted sometimes by 'Black Cats'. ¹ It was part of the Allied Commander's policy to make the life of the Japanese as uncomfortable as possible by keeping one or more aircraft constantly over **Rabaul** during the night, each carrying bombs which could be dropped anywhere at any time during the patrol. As Venturas were then not fitted with bomb-sights, bombing was done more or less by guesswork, or sometimes experimentally by radar. It was not possible accurately to assess results, but some good drops were reported.

During its stay at **Green Island**, which lasted until 5 January, the squadron carried out a variety of other tasks, including air-sea rescue sweeps, shipping escorts, and photographic and supply-dropping missions. Its chief occupation, however, from early December onwards was bombing the Japanese.

Bombing strikes were of two types: medium altitude and low-level. Medium bombing attacks, which were mostly directed against **Rabaul** targets, accounted for about half of the total sorties flown. At first, six Venturas at a time were attached to a PBJ squadron; but when their results proved satisfactory they were used as a separate squadron, eight Venturas, led by a PBJ as bomber-leader, constituting a formation. Under this arrangement, they took part in co-ordinated strikes with American squadrons from Green and **Emirau**. Bombing was done from between

9500 and 13,000 feet, all planes in the formation dropping their loads when the leader let his go.

Low-level attacks were all made on **New Ireland**. The targets most frequently attacked were Borpop and Namatanai, where the main concentrations of Japanese were to be found. Whenever possible the formations approached their objectives from the land side and retired over the sea. By running in low over the hills they achieved maximum surprise and had a chance of getting clear away before the anti-aircraft batteries opened up, and by continuing out over the water they ensured that any aircraft shot down would land in the sea. Survivors of a ditched aircraft had a much better chance of being rescued than those who crashed on land.

During December a section of the Australian Intelligence Bureau was established on **New Ireland**, and on the basis of the information it provided new and profitable targets were found and attacked. At the same time it was able to describe the damage done to the enemy, which it was impossible to gauge from the air, and the authoritative reports that they were achieving good results gave considerable satisfaction to the aircrews.

¹ American Catalians used on night operations; so called because of their colour.

LOS NEGROS

A works party was sent to **Los Negros**, the most westerly base from which the **RNZAF** operated, early in September. Later a doubt arose as to whether New Zealanders would be stationed there and a number of the men were withdrawn. Eight were left, with instructions to be prepared to move at short notice and to carry on with general construction work in the meantime.

In November the American Command decided that the island should,

after all, come within ZEAIRTAf's sphere of responsibility. The surprise raid by Japanese aircraft on the 9th caused COMAIRNORSOLS to ask for the immediate despatch of a fighter squadron, and as a result No. 23 Squadron was sent from Bougainville on 16 November with a number of men of No. 4 Servicing Unit, who were carried in transport aircraft.

Despite shortages of material, the works party had done a very creditable job in preparing a camp. With American help they had erected and built a mess quonset hut, canteen, post office, medical hut and headquarters. There was still a great deal of construction to be completed, however, and for the first week all personnel were engaged in completing the living quarters, messes, ration stores, and maintenance sections. No flying could be done until the ground staffs were able to operate.

Until the **RNZAF** camp was organised the men ate at an American mess some six miles away. As transport was extremely scarce, this caused some inconvenience.

NO. 23 SQUADRON

No. 23 (Fighter) Squadron had formed at **Ardmore** in August 1944 under the command of Squadron Leader de **Willimoff**.¹ It moved to Santo for further training in September, and to Guadalcanal in October. At the end of October it was posted to **Piva**, where it flew daily bombing missions against Japanese positions on **Bougainville** until the 14th.

It began operations from **Los Negros** on 22 November and became responsible for the fighter defence of the island. Throughout the tour, which lasted until early in January, it had servicing difficulties. There was practically no sea transport available between **Bougainville** and **Los Negros**, and the servicing unit had to work shorthanded and without its heavy equipment. Additional men were sent from **Bougainville** in small parties by transport plane as opportunity offered, but it was not until the end of January that the servicing unit received its full complement of men and equipment.

Operations consisted of dawn and dusk patrols, and scrambles whenever strange aircraft were reported by radar. The latter occurred on an average once a day. Often the strangers were identified as friendly, but on a number of occasions they sheered off in the direction of **Rabaul** before coming within range of the New Zealand fighters, and could with certainty be classified as Japanese.

¹ **Wg Cdr J. J. de Willimoff, MBE, DFC; Dargaville; born Auckland, 14 Feb 1917; farmer.**

RNZAF UNITS ON BOUGAINVILLE

The redeployment of the **RNZAF** in the South-West Pacific Area in the latter part of 1944 resulted, temporarily, in a reduction of its operational strength on **Bougainville**. In June there had been one bomber-reconnaissance, one TBF, and three fighter squadrons there. By the beginning of November the number was reduced to two fighter squadrons. Later in the month, when No. 23 went to Los Negros, only No. 15 was left. No. 15 remained the only **RNZAF** operational unit on the island until the middle of December, when it was relieved by No. 24. A few days later No. 21 also camp up from the rear area.

The year ended with two New Zealand fighter squadrons on **Bougainville**. Ground units comprised the headquarters organisation of the New Zealand Air Task Force; the Field Headquarters at **Piva**; No. 2 **Servicing Unit**, which had been there since the beginning of the year; No. 31 **Servicing Unit**, which had recently arrived from New Zealand to replace No. 4; a Field Maintenance Unit; and a flight of No. 2 (Islands) Works Squadron. All operations were carried out from the **Piva** airstrip, the original fighter strip at Torokina having been relegated since October to the status of an emergency landing ground.

New Zealand bomber-reconnaissance squadrons were based at **Bougainville** until the middle of October 1944. No. 9 Squadron was there from May until August, when it was relieved by No. 3. Both squadrons

were employed on daily weather flights and shipping counts over **Rabaul**, on survivor patrols, and on occasional bombing raids over the area. They were also used in numerous sweeps over **New Ireland**, where they combined bombing and strafing attacks with thorough reconnaissance of the island, bringing back reports of targets which warranted full-scale strikes. Flying over **Bougainville** itself, the aircraft generally carried a native to spot targets, and then the same crew led a striking force there the next day.

Fighter operations did not change greatly from July to December 1944. A succession of squadrons carried out bombing strikes and sweeps over the Bougainvil—Rabau area, and also took their part in the air defence of the Allied positions at Empress Augusta Bay.

THE AUSTRALIANS TAKE OVER

During October, November and December, American Army units were gradually withdrawn from the **Solomons-Bismarcks** theatre for operations in the **Philippines** and their place was taken by Australians. On New Britain the 36th Battalion Group of the 6th Australian Brigade relieved the American regiment at Cape Hoskins on the north coast. A month later the rest of the 6th Brigade landed at **Jacquinot Bay** on the south coast, where there was an excellent harbour which had been abandoned by the Japanese. Towards the end of November advanced headquarters of the 5th Australian Division was established at **Jacquinot Bay**. The 6th Brigade handed over to the 13th, which had recently come from Northern Australia, and began to advance eastward round the coast. By February 1945 Australian units were at Open Bay on the north coast and Wide Bay on the south, with patrols operating between the two across the base of the Gazelle Peninsula, to which all the Japanese forces on the island had withdrawn.

On **Bougainville** advanced elements of the 3rd Australian Division arrived early in November and began to establish camps and supply dumps. Control of land operations was taken over from the Americans on 22 November by Lieutenant-General S. G. Savige, commanding the

2nd Australian Army Corps. Of the troops at his disposal, the 7th, 15th, and 29th Infantry Brigades, constituting the 3rd Division, were established on Bougainville, as was the 11th Brigade of the 5th Division. The 23rd Brigade was used as garrison troops at Emirau, Green Island, Treasury and Munda. As the Australian troops moved in the Americans moved out, and the last of their Army units left Bougainville on 15 December.

At the time of handing over command the Americans held the Torokina perimeter, and had also established an outpost in the region of Doiabie, some 10 miles inland on the Numa Numa trail. Another outpost was held at the mouth of the Jaba River, 20 miles down the coast from Torokina, and a regular weekly patrol was carried out to Cape Moltke, a similar distance up the coast to the north-west. Contact with the enemy was limited to clashes between opposing patrols.

Aircraft of No. 5 Squadron, RAAF, flew into Torokina on 11 November for tactical reconnaissance and army co-operation duties. The unit was followed by others, and by the end of the month the RAAF forces on Bougainville comprised:

No. 84 (Army Co-operation) Wing (Group Captain W. L. Hely, AFC, RAAF).

No. 5 (Tactical Reconnaissance) Squadron, equipped with Australian-made Wirraways and Boomerangs.

No. 10 Local Air Supply Unit, equipped with Australian-made Beauforts, used for dropping supplies and equipment to front-line troops. At first it was called Communication Flight and equipped with Ansons and Beauforts. Later, its name was changed and unit was re-equipped with Beaufighters.

No. 17 Air Observers' post, equipped with Austers, used similarly to No. 5 Squadron; also for artillery spotting and evacuation of wounded from forward air stations.

No. 39 Operational Base Unit.

In the following months Australian Wirraways, Boomerangs, Beauforts and Ansons were to become as familiar to the New Zealanders as had been the American Mitchells, Corsairs, Dauntlesses and Avengers.

On 8 December all squadrons of the 1st Marine Air Wing ceased operations preparatory to moving to the **Philippines. Thereafter, although the overall command of the area remained for several months with COMAIRNORSOLS, flying operations from **Bougainville** were carried out solely by the RAAF and the **RNZAF**.**

RNZAF IN THE SOUTH PACIFIC AREA, JULY-DECEMBER 1944

The moves forward of the **RNZAF in the South-West Pacific in the second half of 1944, and the consequent lengthening of the lines of communication, inevitably resulted in an expansion of the base organisation in the rear area. Operational activities were reduced to garrison duties and routine defensive patrols against an ever-diminishing possibility of attack. At the same time, the administrative services provided by the bases in the South Pacific continued to play an essential part in the maintenance of units in the northern **Solomons** and **Bismarcks**.**

Since the headquarters of No. 1 (Islands) Group had moved up at the beginning of the year. **Guadalcanal had replaced Santo as the administrative centre of the area. Group Headquarters was responsible for the administrative control of **RNZAF** formations in the **Pacific**, from **Fiji** to the **Bismarcks**, while Station Headquarters on **Guadalcanal** administered the units on the island, as well as No. 6 (Flying Boat) Squadron at Halavo Bay on **Florida Island**. Squadrons in transit to or from the forward area came under its control, and units permanently stationed there included two servicing units. The various works flights and radar units in the area also depended upon it.**

Domestically, the latter half of 1944 was a period of considerable

activity. Camps and buildings which had been built a year or eighteen months before had rapidly deteriorated in the tropical climate, and much construction work was necessary in the repair of old accommodation and the provision of new.

To provide a leave centre for the men serving on **Guadalcanal**, a rest camp, known as Camp Tui, was established on the site originally occupied by No. 62 (Radar) Squadron, on the beach between Lunga and Koli Point. It was maintained jointly by the **RNZAF** and the **National Patriotic Fund Board**, and men qualified for a three-days' stay every four months. From the time it opened, in August 1944, until it closed in June 1945, 3571 officers and men passed through it.

Operations from **Guadalcanal** were carried out during the period by No. 6 Squadron, by bomber-reconnaissance squadrons, and by fighter squadrons which paused there to complete their training on the way to the forward area. The Catalinas of No. 6 Squadron were used mainly on searches for suspected submarines which, when sighted, invariably proved to be whales, or on searches for missing aircraft and on special flights to pick up sick or injured from ships and outlying islands and bring them to the American Base Hospital at **Tulagi**.

In the first half of 1944, except during a short period in February, there were no New Zealand bomber-reconnaissance aircraft operating from **Guadalcanal**. In July, however, No. 3 Squadron moved up from Santo, and remained for a month before going farther north. No. 1 relieved it in August, and was in turn relieved at the end of October by No. 2. Operations for all three squadrons were similar. They carried out regular dawn and dusk patrols over the seas around **Guadalcanal** and anti-submarine sweeps over the main Allied shipping routes in the area, as well as a number of special searches for reported submarines and missing aircraft.

Normally there were always two fighter squadrons at **Guadalcanal** en route to the northern **Solomons**. Each stayed, on an average, three weeks, and while there helped to provide dawn and dusk patrols over the

island and kept aircraft at readiness throughout the day to take off and intercept any strangers that were reported.

Besides their operational commitments, all squadrons trained for the work they would be doing when they went forward. The training comprised air tactics, gunnery and bombing practices, and practical courses on survival in the jungle.

ESPIRITU SANTO

Since the Americans had first landed on Santo in 1942, the south-eastern part of the island had been transformed into a vast camp, or rather a series of camps, connected by wide, well-graded roads cut through the jungle and the coconut plantations, complete with airstrips, docks, warehouses, hospitals and cinemas. The island was by now well removed from danger of any attack, but daily patrols were flown to watch for any hostile aircraft or shipping which might venture near.

Although the **RNZAF** had moved its administrative headquarters, No. 1 (islands) Group, north to **Guadalcanal**, its establishments on Santo remained an important part in its **Pacific** organisation. The **RNZAF** Base Depot handled all airborne traffic between New Zealand and the forward area, and served as a staging post and clearing centre for all personnel in transit. The Base Depot Workshops, established in 1943 to overhaul and repair aircraft, had since April 1944 been responsible for assembling all the Corsair aircraft with which the New Zealand squadrons going to the forward area were now equipped. A Test and Despatch Flight had also been formed, under the command of Flight Lieutenant D. A. Greig, to test and fly aircraft as they were assembled and to convert the pilots of fighter squadrons arriving from New Zealand to Corsairs. The latter activity lasted until the end of July, when there were enough Corsairs available to send eighteen to New Zealand. Thereafter, pilots were converted before going overseas.

In September the output of Corsairs, which at the peak period had averaged two a day, was reduced to two a week, and sixty-two men of the

Assembly Unit were posted to Halavo Bay to learn about servicing Catalinas. They were destined to form the nucleus of a flying-boat servicing unit at **Segond Channel** when No. 5 Squadron arrived in November from **Lauthala Bay**.

The assembly of Corsairs at Santo ceased in December 1944, after which Base Depot Workshops was disbanded and a Corsair Assembly Unit officially formed and sent to **Los Negros** to carry on its work there.

The **RNZAF** maintained a bomber-reconnaissance squadron at Santo until July, the last to be stationed there being No. 3. Except for one reported sighting of a submerged submarine, all operations were uneventful. They consisted of anti-submarine patrols and escorts for shipping in **New Hebrides** waters. Besides these, as much time as possible was spent in training for bombing and strafing operations.

Fighter squadrons continued to stage at Santo throughout the year, and while they were available for operations if necessary, their main occupation was training.

No. 5 (Flying Boat) Squadron started operations from **Segond Channel** on 11 November. It had formed at **Lauthala Bay** in July, and since then had been employed on travel flights to **Tonga, Samoa,** and the Gilbert and Ellice Islands. At **Segond** its chief work was anti-submarine patrols and shipping escorts.

FIJI

During 1944 the **RNZAF** maintained two stations on **Fiji: Nausori,** from which a bomber-reconnaissance squadron operated, and **Lauthala Bay,** which had been developed into a Flying Boat Operational Training Unit.

Nausori was occupied until October by No. 4 Squadron, and from then until the end of the year by No. 8, which had recently been formed under the command of Wing Commander **Parry**¹ in New Zealand. Operations for the year, which consisted of anti-submarine patrols, were

in the main uneventful. By this time the Japanese had no submarines to spare for operations in Fijian waters. Like No. 4 Squadron before it, No. 8 maintained a detached flight at **Funafuti**.

No. 3 Operational Training Unit, which had been formally established in February 1944, was engaged in training Catalina crews for Nos. 5 and 6 Squadrons. Training comprised, first of all, circuits and landings, and when crews were proficient in handling the aircraft they progressed to navigation, instrument flying, gunnery, bombing, and day and night cross-country flights. Each crew consisted of a pilot, second-pilot, navigator, two wireless operator/air-gunners and three engineers. The men were posted direct from New Zealand, where they had had basic training in their roles, the pilots having learned to handle seaplanes at Hobsonville, on Walrus amphibians. Second pilots, after a tour with a squadron, returned to **Lauthala Bay** to qualify as captains.

¹ **Wg Cdr L. H. Parry**, AFC; Henderson; born Westport, 26 Dec 1916; law clerk.

NORFOLK ISLAND

Norfolk Island had originally been occupied by Australian troops and then by New Zealand Army units. It had never been necessary to use it as an operational base, but it was an important link in the lines of communication between New Zealand, **Australia**, and the South Pacific islands. New Zealand Air Force personnel had been stationed there since 1943, and in 1944 the **RNZAF** took over from the Army the responsibility for the island's defence. During the year the **RNZAF** maintained a radar station as a navigational aid and provided accommodation and servicing facilities for transit aircraft. An average of 150 planes a month staged through Norfolk.

ROYAL NEW ZEALAND AIR FORCE

[SECTION]

WITH the neutralisation of **Rabaul** completed and the Japanese garrisons in **New Britain** and the **Solomons** safely bottled up, the South Pacific war faded from the world's headlines. Admiral Halsey, who had directed the operations which carried the Allies from **Guadalcanal** to the **Bismarcks**, was relieved of his command of the **South Pacific Area** in June and, as Commander of the American Third Fleet, turned his attention towards the Japanese in the **Carolines** and **Philippines**. Command of the South Pacific forces was given to Vice-Admiral J. H. Newton, USN, who for the past eight months had been Deputy COMSOPAC.

The original **South Pacific Command**, i.e., the area east of 159 degrees East longitude, was now non-operational, and the only South Pacific air forces still in contact with the enemy were those which had crossed the dividing line into the South-West Pacific Area in their advance through **New Georgia** to **Bougainville** and the **Bismarcks**. These, under the command of COMAIRNORSOLS, Major-General R. J. Mitchell, USMC, were detached from the South Pacific to the South-West Pacific Command to continue their operations against the Japanese in the area. Logistically they were still supported by COMAIRSOPAC, but operationally they came under the control of the Commander Allied Air Forces, General Kenney, in General MacArthur's command.

As the South Pacific campaign drew to a close the future of the **RNZAF** became the subject of considerable discussion between the New Zealand and American authorities. As early as March the Air Officer Commanding No. 1 (Islands) Group suggested to Air Headquarters in **Wellington** that, as there was no longer any Japanese fighter opposition, there was no point in continuing to send fighter squadrons to the forward area. It would have been bad for morale, however, if trained operational units had been kept in New Zealand doing nothing, so it was decided to continue sending the squadrons forward in rotation even

though they could be employed only as fighter-bombers.

In April the Joint Chiefs of Staff Committee in **Washington** announced that the future employment of the **RNZAF** was to be restricted to a few bomber-reconnaissance and flying-boat squadrons on garrison duties in the South Pacific, which meant that all the fighter squadrons would be scrapped and that the **RNZAF** would no longer be given a combat role. This would have had a twofold effect. Domestically it would have meant that the size of the Air Force could be reduced, releasing large numbers of men to meet the acute shortage of manpower in industry and agriculture; but the millions of man-hours and the immense amount of money which had been spent in training and equipping the squadrons would be wasted. Politically, if New Zealand dropped out of the **Pacific** war before it was finished, she would have less reason for making her voice heard in the peace councils afterwards. Taking all factors into consideration, the **RNZAF** was not satisfied at being relegated to a back place. The need to provide garrison squadrons was realised, but in addition New Zealand wanted to take part in active operations until the end of the war.

The New Zealand Minister in **Washington** was instructed to press the point and try to have the surplus squadrons of the **RNZAF** included in any active theatre. There were three possibilities. Firstly, the squadrons might continue to operate under Halsey's command and go with him to the Central Pacific. This would mean that they continued to work in a command in which they were known and in which they had built up an excellent reputation and a considerable amount of goodwill. It would also mean that their supply problems would be relatively easy, since they were equipped with Navy-type aircraft. Secondly, they might be transferred to the British South-East Asia Command. This would involve withdrawing them from the **Pacific** and sending them to **India** to re-equip with British types of planes. Finally, they might be transferred to General MacArthur's command in the South-West Pacific Area. This was open to several objections, one being that, as the South-West Pacific Area was an Army command and had no naval air units, there would be

difficulty in getting appropriate supplies of aircraft and spares.

The first course, which was the one most favoured by New Zealand, was open to two objections from the American point of view. In the first place there was no scope in the forthcoming operations in the Central Pacific for the land-based fighters and medium bomber-reconnaissance aircraft with which the **RNZAF was equipped, and, in any case, the Americans by then had more than enough squadrons of their own. The other objection was political. In February 1944 New Zealand and **Australia** had signed an agreement at **Canberra** affirming their intention to have a say in **Pacific** affairs after the war. The pact was unfortunately worded and badly publicised, and gave many senior officers in the **United States** the opinion that **Australia** and New Zealand were attempting to resist the entry of the **United States** into **Pacific** affairs after the war was finished. As a result there was a feeling in **Washington** that Australian and New Zealand forces should not be allowed to operate except in former British possessions.**

A transfer to the South-East Asia Command was open to the objection that there was no role there at the time for short-range aviation, in which New Zealand squadrons had been trained.

This left only the third course open. The New Zealand Minister in **Washington and the Prime Minister, who was passing through **Washington**, discussed the matter with the **United States** Commander-in-Chief, Admiral King, early in May. King, while not committing himself as to the future role of the **RNZAF**, agreed that the New Zealand squadrons should continue offensive operations in the northern **Solomons** until the Japanese were finally cleared from the islands, which at that time was expected to take four or five months.**

In the meantime the transfer of the Northern Solomons command to the South-West Pacific Area had been projected, and COMAIRSOPAC, on the instructions of the Joint Chiefs of Staff, had ordered that all **RNZAF units were to be withdrawn to the garrison area by 15 June and that no further squadrons were to be sent up. There were still hopes that the**

discussions in **Washington** would bear fruit, so the Chief of Air Staff, Air Vice-Marshal Isitt, visited COMSOPAC towards the end of May to persuade him to hold up the withdrawal until the position became clearer. He found that COMSOPAC and all his subordinate commanders were keen that the **RNZAF** should remain with them, in spite of the instructions from **Washington**. Eventually, as a result of negotiations in **Washington** and on the spot in the South Pacific, it was agreed that the New Zealand units in the northern **Solomons** should be included in the NOROLS forces which were to be handed over to MacArthur.

The programme adopted after the change-over in the South Pacific Command called for eleven squadrons on garrison duty in and south of **Guadalcanal**. Of these the United States Navy was to provide four and the **RNZAF** seven, viz., four fighter, two medium bomber, and one flying-boat. Two New Zealand fighter squadrons were to be stationed at Santo and two at **Guadalcanal**; one bomber-reconnaissance squadron also was to be at **Guadalcanal** and the other at **Fiji**; and the flying-boat squadron at Halavo Bay, **Florida Island**, where it was already located.

New Zealand squadrons to be transferred to the South-West Pacific Area likewise comprised four fighter, two medium bomber, and one flying-boat. One fighter squadron was to remain at **Bougainville** and another was to be moved to **Los Negros** as soon as possible after the end of August. The other two were to go to **Emirau** and **Green Island** in October. New Zealand bomber-reconnaissance squadrons were to be based at **Emirau** and **Green Island** in September. The destination of the flying-boat squadron was not, at this stage, decided. In any case, it was still in the process of forming and training at **Lauthala Bay** and was not yet available for operations.

This allowed one bomber and two fighter squadrons to be in New Zealand at one time for rest and refitting.

At the middle of June 1944 the disposition of **RNZAF** squadrons and servicing units in the **Pacific** was as follows:

Bougainville No. 15 Squadron (Fighter)
No. 18 Squadron (Fighter)
No. 20 Squadron (Fighter)
No. 9 Squadron (Bomber Reconnaissance)
No. 31 Squadron (TBF)
No. 2 Servicing Unit
No. 4 Servicing Unit
No. 10 Servicing Unit
No. 25 Servicing Unit
No. 30 Servicing Unit

Guadalcanal No. 14 Squadron (Fighter)
No. 1 Servicing Unit
No. 6 Squadron (Flying Boat, at Halavo)
No. 3 Squadron (Bomber Reconnaissance)
No. 12 Servicing Unit

Fiji No. 4 Squadron (Bomber Reconnaissance)
No. 5 Squadron (Flying Boat, forming at **Lauthala Bay**)

New Zealand No. 16 Squadron (Fighter)
No. 17 Squadron (Fighter)
No. 19 Squadron (Fighter)
No. 21 Squadron (Fighter, forming)
No. 1 Squadron (Bomber Reconnaissance)
No. 2 Squadron (Bomber Reconnaissance)

ROYAL NEW ZEALAND AIR FORCE

SITUATION IN BISMARCKS-SOLOMONS

SITUATION IN BISMARCKS-SOLOMONS

The major concentrations of Japanese troops trapped in the Bismarcks and Solomons were on Bougainville, where they occupied the whole island except the Empress Augusta Bay region; on New Britain, where they had been squeezed into the north-eastern part of the island; and on New Ireland. In addition there were small groups on Buka, Choiseul, Fauro, Shortland, and other islands throughout the area. Altogether they numbered about 125,000 men.

Land operations in the middle six months of 1944 were largely static. The American forces were not prepared to take the offensive, and the Japanese in both New Britain and Bougainville had been defeated earlier in the year and were obliged to withdraw and reorganise. Without naval or air support, and with no hope of reinforcement, they were in no position to resume the offensive themselves, although from October onwards there were persistent rumours on Bougainville that they were preparing to do so before the end of the year.

In spite of the Allied blockade, the physical condition and morale of the Japanese remained good. Reports came in from time to time that they were short of food and low in spirits, but the reports applied in general only to isolated units and labour troops. The main body of their forces remained intact and in good condition and were a potential threat to the Allied positions.

A matter of increasing concern to the enemy was the attitude of the natives in both Bougainville and New Britain. While the Japanese were in complete control, the islanders had little choice but to side with them. But when it became apparent that the new conquerors were being defeated they became openly hostile, and carried on a guerrilla warfare wherever they could do it without too much fear of retribution. The

looting of their gardens and the carrying off of their women had not endeared the Japanese to them.

At sea enemy activity was limited to nightly barge traffic carrying supplies along the coasts of **New Britain**, **New Ireland** and **Bougainville**, and an occasional submarine sent down from **Truk**. On the Allied side naval operations consisted of nightly patrols and occasional landings by reconnaissance parties on enemy-held coasts.

Allied air operations were carried on continuously, and were aimed at softening up the enemy against the day when he could be attacked by ground forces and exterminated. The campaign was designed:

- (To reduce the strength of the enemy forces, to disrupt their
a) organisation and weaken their morale.
- (To destroy or damage their means of living: camps and bivouacs,
b) supply dumps, vegetable gardens and livestock.
- (To eliminate or disrupt their transport system by destroying or
c) damaging barges, motor vehicles, jetties, bridges and roads.
- (To eliminate or reduce their capacity for defensive action by
d) destroying or damaging coastal and anti-aircraft artillery positions, airfields and ammunition dumps.

During the latter part of October and the first week of November a few Japanese aircraft reappeared in the Bismarcks area. Several radar contacts were made of unidentified planes, and some apparently serviceable machines were seen on the **Rabaul** airfields, which the Japanese had succeeded in putting into working order. On 3 November an enemy float plane was seen and identified by PT boats off **New Ireland**.

On 9 November the Allied Command was surprised and perturbed to find that the Japanese were still capable of offensive air operations. In the afternoon three Zekes from **Rabaul** flew over **Los Negros** and bombed and strafed Momote airfield. The raid had only a nuisance value and did little damage; but from the Japanese viewpoint it was a complete success. The aircraft approached in clear weather, and the audacity of the operation took the defences completely by surprise. The enemy had

been picked up by radar when still 80 miles away but had been mistaken for three friendly planes. After the attack they retired to Rabaul, unavailingly pursued by two RAAF Spitfires.

ROYAL NEW ZEALAND AIR FORCE

FORMATION OF NEW ZEALAND AIR TASK FORCE

FORMATION OF NEW ZEALAND AIR TASK FORCE

In contrast to the role that they had previously played as individual units operating within the American Command, the New Zealand squadrons transferred to the South-West Pacific Area were formed into an air task force with a specific duty—the conduct of air operations in the northern **Solomons**. The Americans intended moving their 1st Marine Air Wing, which with the **RNZAF** constituted their Northern Solomons Air Force, to the **Philippines**, and when it moved out **ZEAIRTAF** (New Zealand Air Task Force) was to take over operational control.

Until the American Command was dissolved the Officer Commanding the New Zealand formation (**COMZEAIRTAF**) was to be responsible to **COMAIRNORSOLS** for the operational sub-control of New Zealand units in the South-West Pacific. Thereafter he would become the Senior Air Commander in the **Solomons**-Bismarcks area. Until the squadrons moved further afield, responsibility for organising their supplies and for personnel administration remained with No. 1 (Islands) Group, under Air Commodore Sir Robert Clark-Hall.

ZEAIRTAF was officially formed on 1 September. Wing Commander Newell and Wing Commander Tancred each acted as Commanding Officer for a few days until Group Captain Roberts arrived on the 16th to take over the appointment. By the middle of October a full administrative staff had been established and the organisation began to function.

Headquarters was at **Bougainville** and subordinate formations, termed Field Headquarters, were established at **Piva** and on Green Island, **Emirau** and **Los Negros**, where New Zealand squadrons were to be based. Commanding officers appointed on 15 October to the four Field

Headquarters were, respectively, Squadron Leader **Wigley**,¹ Wing Commander **Matheson**,² Wing Commander **Dix**³ and Squadron Leader Cowan, DFC.⁴ Under the new organisation, RNZAF Station, **Bougainville**, was officially disbanded on 17 October, and control passed to Field Headquarters, **Piva**.

It had been intended originally that COMZEAIRTAF should take over from COMAIRNORSOLS on 1 November. By the middle of October it was obvious that the change of command would not take place so soon and the date was put back to 1 December. Thereafter there were further delays, and it was not until July 1945 that the 1st Marine Air Wing headquarters left **Bougainville** and the northern **Solomons** became a New Zealand command. This delay was not foreseen at the time, and preparations for the changeover went forward. At the end of October 1944 the headquarters staff of ZEAIRTAF comprised 16 officers and 195 airmen.

Before the New Zealand squadrons could move to their allotted bases in the South-West Pacific there was a great deal of work to be done in preparing camps for them. Generally speaking the provision of accommodation was an American responsibility, but they provided only the minimum requirements. Anything further had to be done by the **RNZAF** itself.

The work required on the new stations at Green, **Emirau**, and **Los Negros** was beyond the capabilities of No. 1 (Islands) Works Squadron, which was already fully occupied in building additional accommodation at **Guadalcanal**. Consequently a second works squadron was formed, with its headquarters at **Guadalcanal**, and detached flights were established at **Bougainville**, **Green Island**, **Emirau**, and **Los Negros** to help the American forces in setting up tent frames and buildings on the new camp sites. When the **RNZAF** moved in they were responsible for camp maintenance, sanitary work, rubbish removal, minor road construction, and the maintenance of electric power and water supplies.

¹ **Wg Cdr H. R. Wigley, OBE, m.i.d.; Timaru; born Fairlie, 2 Feb 1913; company secretary.**

² **Wg Cdr P. A. Matheson, OBE; Wellington; born Dunedin, 9 Dec 1909; airways pilot.**

³ **Gp Capt F. R. Dix, OBE; RNZAF; born Wellington, 8 Dec 1904; RAF 1930–31; NZ Permanent Air Force 1932; motor mechanic.**

⁴ **Sqn Ldr W. B. Cowan, DFC; Hastings; born Hastings, 29 Sep 1914; public accountant.**

ROYAL NEW ZEALAND AIR FORCE

ESTABLISHMENT OF RNZAF AT EMIRAU

ESTABLISHMENT OF RNZAF AT EMIRAU

None of the moves of **RNZAF** units to their new bases in the South-West Pacific Area took place as early as intended, owing mainly to lack of shipping. The **RNZAF** had no vessels under its control, and American shipping was in short supply locally, as it was needed to support major operations in the Central Pacific.

The first move to be effected was that of No. 3 (BR) Squadron, which had been stationed at **Bougainville**, to **Emirau**. A party of New Zealand officers was sent at the beginning of September 1944 to arrange for a camp site and investigate the question of supplies. The available accommodation was poor but the general supply position was quite good, as the Americans had one Ventura and several Corsair squadrons on the island and carried adequate stocks of engine and airframe spares. Towards the end of the month a works party was sent from **Guadalcanal** to put up stores and living quarters and to clear and level roadways for the New Zealand camp.

On 5 October an advance party of No. 10 **Servicing Unit** arrived by air, followed next day by the main body of the unit, with its equipment, aboard the USS *Frank J. Sprague*. The following week Venturas of No. 3 Squadron flew in, and the squadron began operations a week later.

ROYAL NEW ZEALAND AIR FORCE

OPERATIONS BY NO. 3 SQUADRON

OPERATIONS BY NO. 3 SQUADRON

Until it returned to New Zealand on the completion of its tour at the end of November 1944, No. 3 Squadron was responsible for daily patrols to the north of **Emirau** to watch for possible Japanese shipping on the supply route from **Truk** to **New Britain** and **New Ireland**. Three aircraft took off each morning and covered an arc from north-west to north-east, to a distance of 300 miles from their base. The Japanese by this time were chary of sending shipping into waters covered by the Allies, and nothing was seen by the patrols.

Dawn and dusk patrols over the coast of **New Ireland** searched for enemy barges and float planes and bombed and strafed any worthwhile targets they discovered on shore. The planes discovered no sign of barges or float planes, but always found something— troops, vehicles, huts or gardens—on which to use their bombs and ammunition. A third daily commitment was the provision of an aircraft at instant readiness during daylight to search for submarines reported within the squadron's sphere of operations.

Servicing difficulties and shortages of spares resulted in the squadron not always having its full quota of aircraft, but whenever there were three or more to spare, after providing for daily routine jobs, strikes were made against specific targets on **New Ireland**.

ROYAL NEW ZEALAND AIR FORCE

NO. 4 (BOMBER-RECONNAISSANCE) SQUADRON

NO. 4 (BOMBER-RECONNAISSANCE) SQUADRON

On its return to New Zealand No. 3 Squadron was replaced at **Emirau** by No. 4, which now came up for its first tour in the forward area. It had spent the year at **Nausori, Fiji**, carrying out uneventful shipping and anti-submarine patrols in which, from March to June 1944, it was assisted by a flight of six PBY5As ¹ of an American Squadron, VP44, which was attached to it.

In January 1944 a flight of six Hudsons, which was increased the following month to eight, had been detached to **Tonga**. It was maintained there, patrolling the seas surrounding the Group until August. In September four aircraft were sent to **Funafuti**, in the Ellice Islands, to search for a suspected submarine and remained there as a detached flight, augmented a fortnight later by another four, until November.

During September the squadron discarded its Hudsons and was rearmed with Venturas, which were flown up from New Zealand.

It moved to **Emirau** in two echelons on 17 and 23 November, travelling in No. 40 Squadron's Dakotas and leaving its Venturas to be taken over by No. 8 Squadron which relieved it. It began operations as soon as it arrived, taking over the duties of No. 3 Squadron. When the American Corsair squadrons left for the **Philippines**, it also took over the daily patrol they had flown over **New Ireland**, looking for Japanese road transport. During its three months at **Emirau** it dropped a total of 351 tons of bombs on huts, buildings, bridges, roads and anti-aircraft positions, and used a quarter of a million rounds of ammunition in strafing troops and other targets.

¹ PBY5A: an amphibious version of the PBY5 Catalina.

ROYAL NEW ZEALAND AIR FORCE

NO. 19 SQUADRON AT EMIRAU

NO. 19 SQUADRON AT EMIRAU

A second servicing unit, No. 5, arrived at **Emirau** on 28 October 1944, having come by sea in the USS *Alkaid* from New Zealand by way of **New Caledonia** and the **Solomons**. The first squadron to be based on it, No. 19 (Fighter) Squadron, flew up from Guadalcanal three weeks later and became operational on 22 November, despite a number of maintenance difficulties.

At that time three American Corsair squadrons were stationed at **Emirau** and the New Zealand unit took over some of their operational commitments. The Americans moved out on 1 December, and No. 19 Squadron then became responsible for the fighter defence of the island by day and the maintenance of a standing patrol over **Kavieng**. Dawn and dusk patrols were flown daily over the island, and, in the hours between, two aircraft were kept on scramble alert in case intruders were reported.

The **Kavieng** patrols lasted four hours each, and three were made each day by aircraft flying in pairs. Thus there were always two New Zealand planes overhead during daylight to remind the enemy That the Allies controlled the air. Each one carried a 1000-pound bomb, which it dropped somewhere at some time during the patrol.

During the early part of the squadron's tour servicing of the aircraft was complicated by the fact that the majority of the men in No. 5 **Servicing Unit** had had little or no experience with Corsairs, but the position improved as time went on.

When there were enough aircraft available, formations of four or eight were sent out to bomb objectives on **New Ireland**, sometimes alone and sometimes in conjunction with American squadrons. On these

occasions the bomb-load was two 1000-pound bombs to each aircraft. Targets were the supply area around [Kavieng](#) and native villages down the coast. Results were generally hard to assess owing to the thickness of the jungle.

ROYAL NEW ZEALAND AIR FORCE

GREEN ISLAND

GREEN ISLAND

As at **Emirau**, the first New Zealanders to be stationed at Green Island were a detachment of works personnel. They arrived on 3 October 1944 to provide workshop and living accommodation for a fighter and a bomber-reconnaissance squadron and their servicing units. The site allotted for the **RNZAF** camp had previously been temporarily occupied by American units. A kitchen, two messes, a sick bay, a chapel and a few scattered tents were still standing, but most of the area had been overgrown and was a dismal wilderness of heavy tropical undergrowth.

The works party cleared the growth and put up temporary buildings ready for the arrival of the servicing units. As dressed timber was unprocurable, poles and bamboos were cut from the surrounding jungle to make frames for stores, workshops and other buildings, and covered with canvas. These temporary structures served their purpose until prefabricated huts were shipped from New Zealand.

Nos. 3 and 14 Servicing Units landed at **Green Island** on 20 October, having travelled in the same ship as No. 5 Servicing Unit, bringing with them large quantities of material with which to complete the camp. In the first weeks of their occupation the New Zealanders were generously helped by American units, which provided hot meals until the **RNZAF** messing facilities were organised, and lent transport vehicles and other heavy equipment which the New Zealand units lacked.

ROYAL NEW ZEALAND AIR FORCE

NO. 20 SQUADRON AT GREEN ISLAND

NO. 20 SQUADRON AT GREEN ISLAND

No. 20 (Fighter) Squadron flew in from Guadalcanal on 26 October to be based on No. 3 Servicing Unit. The servicing personnel were still engaged in camp construction and their technical equipment was not yet unpacked, but despite difficulties the squadron started operations almost immediately. Two American Corsair squadrons at that time constituted the fighter defence of the island. They were due to move shortly to the Philippines, and the RNZAF took over part of their commitments to enable them to train for their new jobs. The duties consisted of local patrols, 'Dumbo' escort, and scramble alert.

During the last week of its tour, which finished on 19 November, the squadron also carried out sweeps over New Ireland, bombing and strafing targets of opportunity.

ROYAL NEW ZEALAND AIR FORCE

NO. 18 SQUADRON

NO. 18 SQUADRON

No. 18 Squadron, which took over No. 20's operational duties, had already spent twelve weeks at Santo and Guadalcanal owing to delays in the establishment of servicing units in the forward area, and so had completed the normal fighter tour of three months in the tropics. To give the pilots a little operational experience, however, the squadron was posted to Green Island for three weeks.

It started operations on 22 November, providing four aircraft daily for scramble alert and local dawn and dusk patrols, as escort for 'Dumbos' supporting strikes on Rabaul and New Ireland, and two to escort transport aircraft flying between Green Island and Emirau. The escort of transport aircraft had been introduced after the reappearance of Japanese planes in the area, and was continued until 8 December, when COMAIRNORSOLS decided it was no longer necessary.

On 1 December one of the American fighter squadrons was ordered to Leyte, and No. 18 Squadron shared with the remaining one the responsibility for maintaining a standing patrol over the Rabaul airfields, to deny their use to the enemy and to cover Allied bombing strikes. On 8 December the second American squadron ceased operations preparatory to leaving for the Philippines, and for the last three days of its tour No. 18 Squadron was responsible for all fighter commitments, involving over a hundred hours' flying a day.

The American fighters had been in the habit of carrying bombs on their Rabaul patrols, but the New Zealanders could not do so because they had to carry auxiliary petrol tanks, which made high-speed dive-bombing impracticable. Consequently, during the three weeks it was in the forward area the squadron had no opportunity to put its bombing training into practice.

On the last operation of the tour two pilots patrolling over Rabaul saw a Zeke, the first seen in the air by any New Zealand fighter pilots for many months. They dived on it, firing and closing to 100 yards, but it escaped into heavy cloud. Three minutes later it emerged below the cloud. They attacked again, but it pulled up and disappeared once more. They searched for it for an hour in gathering darkness, but failed to find it.

ROYAL NEW ZEALAND AIR FORCE

NOS. 14 AND 16 SQUADRONS

NOS. 14 AND 16 SQUADRONS

When No. 18 Squadron left [Green Island](#) it was replaced by No. 14, which for ten days carried on all fighter commitments. On 21 December No. 16 Squadron arrived and was based on No. [30 Servicing Unit](#), which had moved up from [Guadalcanal](#). The year ended with the two fighter squadrons sharing the local defence of the island, 'Dumbo' escorts, [Rabaul](#) patrols, and offensive sweeps over [New Britain](#) and [New Ireland](#).

ROYAL NEW ZEALAND AIR FORCE

NO. 1 SQUADRON

NO. 1 SQUADRON

No. 1 (Bomber-Reconnaissance) Squadron flew in to Green Island from Guadalcanal on 29 October, to be based on No. 15 Servicing Unit. It did not become fully operational until a month later, as most of the servicing unit's equipment and tools were in transit on a ship which did not reach Green Island until late in November.

The first few weeks were spent in flying training, using such aircraft as could be kept serviceable; in improving the camp, which at first was uncomfortably primitive; in hiking expeditions and swimming to promote physical fitness; and in learning jungle lore from New Guinea police boys.

Operations began on 21 November when No. 1 Squadron took over from one of the American PBJ squadrons on the island the daily weather flight and shipping count over Rabaul, which meant an aircraft taking off each morning at six o'clock and returning with reports of meteorological conditions in the area and news of prospective targets for strikes later in the day.

Early in December the squadron began to take part in 'night heckles' over Rabaul, which had previously been done exclusively by American PBJs, assisted sometimes by 'Black Cats'.¹ It was part of the Allied Commander's policy to make the life of the Japanese as uncomfortable as possible by keeping one or more aircraft constantly over Rabaul during the night, each carrying bombs which could be dropped anywhere at any time during the patrol. As Venturas were then not fitted with bomb-sights, bombing was done more or less by guesswork, or sometimes experimentally by radar. It was not possible accurately to assess results, but some good drops were reported.

During its stay at **Green Island**, which lasted until 5 January, the squadron carried out a variety of other tasks, including air-sea rescue sweeps, shipping escorts, and photographic and supply-dropping missions. Its chief occupation, however, from early December onwards was bombing the Japanese.

Bombing strikes were of two types: medium altitude and low-level. Medium bombing attacks, which were mostly directed against **Rabaul** targets, accounted for about half of the total sorties flown. At first, six Venturas at a time were attached to a PBJ squadron; but when their results proved satisfactory they were used as a separate squadron, eight Venturas, led by a PBJ as bomber-leader, constituting a formation. Under this arrangement, they took part in co-ordinated strikes with American squadrons from Green and **Emirau**. Bombing was done from between 9500 and 13,000 feet, all planes in the formation dropping their loads when the leader let his go.

Low-level attacks were all made on **New Ireland**. The targets most frequently attacked were Borpop and Namatanai, where the main concentrations of Japanese were to be found. Whenever possible the formations approached their objectives from the land side and retired over the sea. By running in low over the hills they achieved maximum surprise and had a chance of getting clear away before the anti-aircraft batteries opened up, and by continuing out over the water they ensured that any aircraft shot down would land in the sea. Survivors of a ditched aircraft had a much better chance of being rescued than those who crashed on land.

During December a section of the Australian Intelligence Bureau was established on **New Ireland**, and on the basis of the information it provided new and profitable targets were found and attacked. At the same time it was able to describe the damage done to the enemy, which it was impossible to gauge from the air, and the authoritative reports that they were achieving good results gave considerable satisfaction to the aircrews.

¹ American Catalians used on night operations; so called because of their colour.

ROYAL NEW ZEALAND AIR FORCE

LOS NEGROS

LOS NEGROS

A works party was sent to **Los Negros**, the most westerly base from which the **RNZAF** operated, early in September. Later a doubt arose as to whether New Zealanders would be stationed there and a number of the men were withdrawn. Eight were left, with instructions to be prepared to move at short notice and to carry on with general construction work in the meantime.

In November the American Command decided that the island should, after all, come within **ZEAIRTAF**'s sphere of responsibility. The surprise raid by Japanese aircraft on the 9th caused **COMAIRNORSOLS** to ask for the immediate despatch of a fighter squadron, and as a result No. 23 Squadron was sent from Bougainville on 16 November with a number of men of No. 4 Servicing Unit, who were carried in transport aircraft.

Despite shortages of material, the works party had done a very creditable job in preparing a camp. With American help they had erected and built a mess quonset hut, canteen, post office, medical hut and headquarters. There was still a great deal of construction to be completed, however, and for the first week all personnel were engaged in completing the living quarters, messes, ration stores, and maintenance sections. No flying could be done until the ground staffs were able to operate.

Until the **RNZAF** camp was organised the men ate at an American mess some six miles away. As transport was extremely scarce, this caused some inconvenience.

ROYAL NEW ZEALAND AIR FORCE

NO. 23 SQUADRON

NO. 23 SQUADRON

No. 23 (Fighter) Squadron had formed at **Ardmore** in August 1944 under the command of Squadron Leader de **Willimoff**.¹ It moved to **Santo** for further training in September, and to **Guadalcanal** in October. At the end of October it was posted to **Piva**, where it flew daily bombing missions against Japanese positions on **Bougainville** until the 14th.

It began operations from **Los Negros** on 22 November and became responsible for the fighter defence of the island. Throughout the tour, which lasted until early in January, it had servicing difficulties. There was practically no sea transport available between **Bougainville** and **Los Negros**, and the servicing unit had to work shorthanded and without its heavy equipment. Additional men were sent from **Bougainville** in small parties by transport plane as opportunity offered, but it was not until the end of January that the servicing unit received its full complement of men and equipment.

Operations consisted of dawn and dusk patrols, and scrambles whenever strange aircraft were reported by radar. The latter occurred on an average once a day. Often the strangers were identified as friendly, but on a number of occasions they sheered off in the direction of **Rabaul** before coming within range of the New Zealand fighters, and could with certainty be classified as Japanese.

¹ **Wg Cdr J. J. de Willimoff**, MBE, DFC; **Dargaville**; born **Auckland**, 14 Feb 1917; farmer.

ROYAL NEW ZEALAND AIR FORCE

RNZAF UNITS ON BOUGAINVILLE

RNZAF UNITS ON BOUGAINVILLE

The redeployment of the **RNZAF** in the South-West Pacific Area in the latter part of 1944 resulted, temporarily, in a reduction of its operational strength on **Bougainville**. In June there had been one bomber-reconnaissance, one TBF, and three fighter squadrons there. By the beginning of November the number was reduced to two fighter squadrons. Later in the month, when No. 23 went to Los Negros, only No. 15 was left. No. 15 remained the only **RNZAF** operational unit on the island until the middle of December, when it was relieved by No. 24. A few days later No. 21 also came up from the rear area.

The year ended with two New Zealand fighter squadrons on **Bougainville**. Ground units comprised the headquarters organisation of the New Zealand Air Task Force; the Field Headquarters at **Piva**; No. 2 **Servicing Unit**, which had been there since the beginning of the year; No. 31 **Servicing Unit**, which had recently arrived from New Zealand to replace No. 4; a Field Maintenance Unit; and a flight of No. 2 (Islands) Works Squadron. All operations were carried out from the **Piva** airstrip, the original fighter strip at Torokina having been relegated since October to the status of an emergency landing ground.

New Zealand bomber-reconnaissance squadrons were based at **Bougainville** until the middle of October 1944. No. 9 Squadron was there from May until August, when it was relieved by No. 3. Both squadrons were employed on daily weather flights and shipping counts over **Rabaul**, on survivor patrols, and on occasional bombing raids over the area. They were also used in numerous sweeps over **New Ireland**, where they combined bombing and strafing attacks with thorough reconnaissance of the island, bringing back reports of targets which warranted full-scale strikes. Flying over **Bougainville** itself, the aircraft generally carried a native to spot targets, and then the same crew led a striking force there

the next day.

Fighter operations did not change greatly from July to December 1944. A succession of squadrons carried out bombing strikes and sweeps over the Bougainvil—Rabau area, and also took their part in the air defence of the Allied positions at Empress Augusta Bay.

ROYAL NEW ZEALAND AIR FORCE

THE AUSTRALIANS TAKE OVER

THE AUSTRALIANS TAKE OVER

During October, November and December, American Army units were gradually withdrawn from the **Solomons-Bismarcks** theatre for operations in the **Philippines** and their place was taken by Australians. On New Britain the 36th Battalion Group of the 6th Australian Brigade relieved the American regiment at Cape Hoskins on the north coast. A month later the rest of the 6th Brigade landed at **Jacquinet Bay** on the south coast, where there was an excellent harbour which had been abandoned by the Japanese. Towards the end of November advanced headquarters of the 5th Australian Division was established at **Jacquinet Bay**. The 6th Brigade handed over to the 13th, which had recently come from Northern Australia, and began to advance eastward round the coast. By February 1945 Australian units were at Open Bay on the north coast and Wide Bay on the south, with patrols operating between the two across the base of the Gazelle Peninsula, to which all the Japanese forces on the island had withdrawn.

On **Bougainville** advanced elements of the 3rd Australian Division arrived early in November and began to establish camps and supply dumps. Control of land operations was taken over from the Americans on 22 November by Lieutenant-General S. G. Savige, commanding the 2nd Australian Army Corps. Of the troops at his disposal, the 7th, 15th, and 29th Infantry Brigades, constituting the 3rd Division, were established on **Bougainville**, as was the 11th Brigade of the 5th Division. The 23rd Brigade was used as garrison troops at **Emirau, Green Island, Treasury** and **Munda**. As the Australian troops moved in the Americans moved out, and the last of their Army units left **Bougainville** on 15 December.

At the time of handing over command the Americans held the **Torokina** perimeter, and had also established an outpost in the region of

Doiabie, some 10 miles inland on the Numa Numa trail. Another outpost was held at the mouth of the Jaba River, 20 miles down the coast from [Torokina](#), and a regular weekly patrol was carried out to Cape Moltke, a similar distance up the coast to the north-west. Contact with the enemy was limited to clashes between opposing patrols.

Aircraft of No. 5 Squadron, RAAF, flew into [Torokina](#) on 11 November for tactical reconnaissance and army co-operation duties. The unit was followed by others, and by the end of the month the RAAF forces on [Bougainville](#) comprised:

No. 84 (Army Co-operation) Wing (Group Captain W. L. Hely, AFC, RAAF).

No. 5 (Tactical Reconnaissance) Squadron, equipped with Australian-made Wirraways and Boomerangs.

No. 10 Local Air Supply Unit, equipped with Australian-made Beauforts, used for dropping supplies and equipment to front-line troops. At first it was called Communication Flight and equipped with Ansons and Beauforts. Later, its name was changed and unit was re-equipped with Beaufighters.

No. 17 Air Observers' post, equipped with Austers, used similarly to No. 5 Squadron; also for artillery spotting and evacuation of wounded from forward air stations.

No. 39 Operational Base Unit.

In the following months Australian Wirraways, Boomerangs, Beauforts and Ansons were to become as familiar to the New Zealanders as had been the American Mitchells, Corsairs, Dauntlesses and Avengers.

On 8 December all squadrons of the 1st Marine Air Wing ceased operations preparatory to moving to the [Philippines](#). Thereafter, although the overall command of the area remained for several months with COMAIRNORSOLS, flying operations from [Bougainville](#) were carried

out solely by the RAAF and the RNZAF.

ROYAL NEW ZEALAND AIR FORCE

RNZAF IN THE SOUTH PACIFIC AREA, JULY-DECEMBER 1944

RNZAF IN THE SOUTH PACIFIC AREA, JULY-DECEMBER 1944

The moves forward of the **RNZAF** in the South-West Pacific in the second half of 1944, and the consequent lengthening of the lines of communication, inevitably resulted in an expansion of the base organisation in the rear area. Operational activities were reduced to garrison duties and routine defensive patrols against an ever-diminishing possibility of attack. At the same time, the administrative services provided by the bases in the South Pacific continued to play an essential part in the maintenance of units in the northern **Solomons** and **Bismarcks**.

Since the headquarters of No. 1 (Islands) Group had moved up at the beginning of the year. **Guadalcanal** had replaced Santo as the administrative centre of the area. Group Headquarters was responsible for the administrative control of **RNZAF** formations in the **Pacific**, from **Fiji** to the Bismarcks, while Station Headquarters on **Guadalcanal** administered the units on the island, as well as No. 6 (Flying Boat) Squadron at Halavo Bay on **Florida Island**. Squadrons in transit to or from the forward area came under its control, and units permanently stationed there included two servicing units. The various works flights and radar units in the area also depended upon it.

Domestically, the latter half of 1944 was a period of considerable activity. Camps and buildings which had been built a year or eighteen months before had rapidly deteriorated in the tropical climate, and much construction work was necessary in the repair of old accommodation and the provision of new.

To provide a leave centre for the men serving on **Guadalcanal**, a rest camp, known as Camp Tui, was established on the site originally occupied by No. 62 (Radar) Squadron, on the beach between Lunga and

Koli Point. It was maintained jointly by the RNZAF and the National Patriotic Fund Board, and men qualified for a three-days' stay every four months. From the time it opened, in August 1944, until it closed in June 1945, 3571 officers and men passed through it.

Operations from Guadalcanal were carried out during the period by No. 6 Squadron, by bomber-reconnaissance squadrons, and by fighter squadrons which paused there to complete their training on the way to the forward area. The Catalinas of No. 6 Squadron were used mainly on searches for suspected submarines which, when sighted, invariably proved to be whales, or on searches for missing aircraft and on special flights to pick up sick or injured from ships and outlying islands and bring them to the American Base Hospital at Tulagi.

In the first half of 1944, except during a short period in February, there were no New Zealand bomber-reconnaissance aircraft operating from Guadalcanal. In July, however, No. 3 Squadron moved up from Santo, and remained for a month before going farther north. No. 1 relieved it in August, and was in turn relieved at the end of October by No. 2. Operations for all three squadrons were similar. They carried out regular dawn and dusk patrols over the seas around Guadalcanal and anti-submarine sweeps over the main Allied shipping routes in the area, as well as a number of special searches for reported submarines and missing aircraft.

Normally there were always two fighter squadrons at Guadalcanal en route to the northern Solomons. Each stayed, on an average, three weeks, and while there helped to provide dawn and dusk patrols over the island and kept aircraft at readiness throughout the day to take off and intercept any strangers that were reported.

Besides their operational commitments, all squadrons trained for the work they would be doing when they went forward. The training comprised air tactics, gunnery and bombing practices, and practical courses on survival in the jungle.

ROYAL NEW ZEALAND AIR FORCE

ESPIRITU SANTO

ESPIRITU SANTO

Since the Americans had first landed on Santo in 1942, the south-eastern part of the island had been transformed into a vast camp, or rather a series of camps, connected by wide, well-graded roads cut through the jungle and the coconut plantations, complete with airstrips, docks, warehouses, hospitals and cinemas. The island was by now well removed from danger of any attack, but daily patrols were flown to watch for any hostile aircraft or shipping which might venture near.

Although the **RNZAF** had moved its administrative headquarters, No. 1 (islands) Group, north to **Guadalcanal**, its establishments on Santo remained an important part in its **Pacific** organisation. The **RNZAF** Base Depot handled all airborne traffic between New Zealand and the forward area, and served as a staging post and clearing centre for all personnel in transit. The Base Depot Workshops, established in 1943 to overhaul and repair aircraft, had since April 1944 been responsible for assembling all the Corsair aircraft with which the New Zealand squadrons going to the forward area were now equipped. A Test and Despatch Flight had also been formed, under the command of Flight Lieutenant D. A. Greig, to test and fly aircraft as they were assembled and to convert the pilots of fighter squadrons arriving from New Zealand to Corsairs. The latter activity lasted until the end of July, when there were enough Corsairs available to send eighteen to New Zealand. Thereafter, pilots were converted before going overseas.

In September the output of Corsairs, which at the peak period had averaged two a day, was reduced to two a week, and sixty-two men of the Assembly Unit were posted to Halavo Bay to learn about servicing Catalinas. They were destined to form the nucleus of a flying-boat servicing unit at **Segond Channel** when No. 5 Squadron arrived in November from **Lauthala Bay**.

The assembly of Corsairs at Santo ceased in December 1944, after which Base Depot Workshops was disbanded and a Corsair Assembly Unit officially formed and sent to [Los Negros](#) to carry on its work there.

The [RNZAF](#) maintained a bomber-reconnaissance squadron at Santo until July, the last to be stationed there being No. 3. Except for one reported sighting of a submerged submarine, all operations were uneventful. They consisted of anti-submarine patrols and escorts for shipping in [New Hebrides](#) waters. Besides these, as much time as possible was spent in training for bombing and strafing operations.

Fighter squadrons continued to stage at Santo throughout the year, and while they were available for operations if necessary, their main occupation was training.

No. 5 (Flying Boat) Squadron started operations from Segond Channel on 11 November. It had formed at [Lauthala Bay](#) in July, and since then had been employed on travel flights to [Tonga](#), [Samoa](#), and the Gilbert and Ellice Islands. At Segond its chief work was anti-submarine patrols and shipping escorts.

ROYAL NEW ZEALAND AIR FORCE

FIJI

FIJI

During 1944 the **RNZAF** maintained two stations on **Fiji: Nausori**, from which a bomber-reconnaissance squadron operated, and **Lauthala Bay**, which had been developed into a Flying Boat Operational Training Unit.

Nausori was occupied until October by No. 4 Squadron, and from then until the end of the year by No. 8, which had recently been formed under the command of Wing Commander **Parry**¹ in New Zealand. Operations for the year, which consisted of anti-submarine patrols, were in the main uneventful. By this time the Japanese had no submarines to spare for operations in Fijian waters. Like No. 4 Squadron before it, No. 8 maintained a detached flight at **Funafuti**.

No. 3 Operational Training Unit, which had been formally established in February 1944, was engaged in training Catalina crews for Nos. 5 and 6 Squadrons. Training comprised, first of all, circuits and landings, and when crews were proficient in handling the aircraft they progressed to navigation, instrument flying, gunnery, bombing, and day and night cross-country flights. Each crew consisted of a pilot, second-pilot, navigator, two wireless operator/air-gunners and three engineers. The men were posted direct from New Zealand, where they had had basic training in their roles, the pilots having learned to handle seaplanes at Hobsonville, on Walrus amphibians. Second pilots, after a tour with a squadron, returned to **Lauthala Bay** to qualify as captains.

¹ **Wg Cdr L. H. Parry**, AFC; Henderson; born Westport, 26 Dec 1916; law clerk.

ROYAL NEW ZEALAND AIR FORCE

NORFOLK ISLAND

NORFOLK ISLAND

Norfolk Island had originally been occupied by Australian troops and then by New Zealand Army units. It had never been necessary to use it as an operational base, but it was an important link in the lines of communication between New Zealand, **Australia**, and the South Pacific islands. New Zealand Air Force personnel had been stationed there since 1943, and in 1944 the **RNZAF** took over from the Army the responsibility for the island's defence. During the year the **RNZAF** maintained a radar station as a navigational aid and provided accommodation and servicing facilities for transit aircraft. An average of 150 planes a month staged through Norfolk.

ROYAL NEW ZEALAND AIR FORCE

CHAPTER 18 – BASE ORGANISATION IN NEW ZEALAND, 1943-45

CHAPTER 18

Base Organisation in New Zealand, 1943-45

THE war in the **Pacific** and the building up of our forces there had far-reaching effects on the role and composition of the Air Force at home. During 1942, as has been noted in **Chapter 9**, the **RNZAF**'s chief pre-occupation, apart from flying training, was with the obtaining of aircraft and weapons to resist invasion, and with the preparation of operational bases within the country. By 1943 the **RNZAF** had been included in the American South Pacific Command and supplies of aircraft and equipment were assured; at the same time, the threat of invasion had receded and the emphasis turned from home defence towards the formation, training, and equipping of squadrons for service overseas.

Whereas in the first three years of the war the training organisation had been designed to produce aircrew trained to the initial, elementary, or advanced stages of flying, it had now become necessary, in order to man the squadrons in the **Pacific**, to bring them up to fully operational standards.

Fighter and bomber operational training units had been formed in 1942, the former at **Ohakea** and the latter at **Levin**. Early in 1943 No. 1 (Bomber) OTU, which had moved from **Levin** to New **Plymouth**, was transferred to **Ohakea**, where it remained with No. 2 (Fighter) OTU until 1945. In January 1943 the fighter squadrons already formed were fully manned and No. 2 OTU was reconstituted as an air fighting and gunnery training school to raise the standard of pilots already trained. Later in the year the formation of new squadrons and the need to replace tour-expired pilots created a fresh demand and the unit reverted to a full-scale OTU. In October the intake, which had originally been twenty-four and then twelve in each course, was increased to thirty and the length of the course cut from eight weeks to six in order to increase the output. The 1944 programme, involving the formation of more fighter squadrons, still further increased the demand for pilots and a second

fighter school, known as No. 4 OTU, was formed at **Ardmore** in March of that year. Its location there was not entirely satisfactory from a training aspect and in June it was moved to **Ohakea**.

In May a Fighter Gunnery School was formed at **Gisborne** to improve the general standard of fixed gunnery and to provide instructors for the fighter OTUs. It was designed to train twelve pilots in each course of four weeks, and the trainees were ex-operational pilots or experienced instructors from the flying training organisation. The school was transferred to **Ardmore** when accommodation became available there after No. 4 OTU moved out. The change in the role of fighter squadrons in the **Pacific** in 1944 from air combat to ground attack reduced the need for gunnery training, and the function of the school was altered. It was renamed the Fighter Leaders' School and undertook the operational and administrative training of squadron and flight commanders and section leaders. It was finally disbanded in September 1945.

The last of the fighter squadrons to be formed under the 1944–45 programme was assembled in March 1945, and thereafter fighter training was limited to providing replacements for tour-expired pilots. The two fighter OTUs continued to operate, though with reduced outputs, until the end of the war, when they were closed down.

The bomber OTU at **Ohakea** continued to form and train crews for the bomber-reconnaissance squadrons until June 1945 when, following a decision to reduce the number of bomber-reconnaissance squadrons and increase the air transport organisation, it was transformed into a transport OTU to train crews on Dakotas. It functioned in its new role until September when it was finally disbanded.

Crews for the two flying-boat squadrons which were formed during 1943–44 were trained at **Hobsonville** and **Lauthala Bay**. Pilots were given a preliminary course on Walrus amphibians at **Hobsonville** and then were sent to **Lauthala Bay**, where crews were made up and did their operational training on Catalinas. Until February 1944 crew training at **Lauthala Bay** was done within the squadrons stationed there, but in that

month No. 3 (Flying Boat) OTU was formed and took over the work. The unit was disbanded in September 1945.

GROWTH OF THE AIR TRANSPORT ORGANISATION

The increasing strength of the **RNZAF** in the forward area and the lengthening of its lines of communication necessitated an increase in the air transport organisation. At the end of 1943 No. 40 Squadron received, as additional equipment, a number of Hudsons which became available as bomber-reconnaissance squadrons rearmed with Venturas; and these, converted for use as troop-carriers, were employed to supplement the Lodestars and Dakotas with which the unit was originally equipped. Aircraft allocations for 1944 included fifteen Dakotas which were used to strengthen the squadron, which by August had an establishment of 16 Dakotas, 9 Lodestars, and 12 Hudson troop-carriers.

At this time a new transport squadron, No. 41, was formed and took over the operation of the Lodestars and Hudsons.

As commitments increased and aircraft became available the number of scheduled flights from **Whenuapai** grew steadily throughout the year. In November 1944 No. 40 Squadron despatched twelve aircraft a week on regular runs extending as far as **Samoa, Fiji and Guadalcanal**, and No. 41 Squadron sent ten a week to **Guadalcanal**. Bases north of **Guadalcanal** were served by aircraft controlled by No. 1 (Islands) Group. A single Dakota had been stationed there at the beginning of the year, but soon proved unable to cope with the work, and by October the detachment had been increased to four. These were augmented by a utility flight, also controlled by the Group, which operated a number of Hudsons.

Twenty Dakotas were allotted to the **RNZAF** for the first six months of 1945 and these were used to replace the Lodestars and Hudsons of No. 41 Squadron. A further forty-nine were allotted for the second half of the year, and were to be used to form two more transport squadrons. The end

of the war made the establishment of the new squadrons unnecessary, and the orders for aircraft not yet delivered were cancelled.

During 1945 the regular transport services were augmented by a flight of four Sunderland flying boats, which had been made available by the British Government and which were used between New Zealand, **Noumea**, Santo and **Lauthala Bay**. They had been flown out from the **United Kingdom** via **West Africa**, South America, the **United States** and **Honolulu**, by a party under the command of Wing Commander D. W. Baird. They were not entirely satisfactory because of servicing difficulties, but they had the advantage of being able to carry twice the payload of a Dakota.

The following figures of men, mail, and equipment carried indicate the increasingly important part played by the transport squadrons as the war progressed. In July 1943, the first month in which No. 40 Squadron operated on a significant scale, **RNZAF** aircraft carried 157 men to the **Pacific Islands** and repatriated 226. In the same month they took 21,000 lb. of freight and 6000 lb. of mail forward, and brought back 7000 lb. and 10,000 lb. respectively. A year later the corresponding figures had risen to over 700 men, 76,000 lb. of freight, and 28,000 lb. of mail on the outward journey, and 7000 men, 66,000 lb. of freight, and 39,000 lb. of mail on the homeward trips.

In 1945 the figures increased still further. Altogether, from February 1943 until the end of September 1945, 37,000 passengers left from or arrived at **Whenuapai** by air and nearly four million pounds of freight and one and a half million pounds of mail was carried. These figures refer only to personnel, goods, and mail which passed through **Whenuapai** and do not take into account the very large amount of inter-island traffic.

The prompt delivery of mail by the transport squadrons was a major factor in maintaining morale in the Islands. Letters and newspapers reached even the most distant bases in a matter of days, and kept the troops in touch with what was going on at home. Also, whenever there

was space to spare, food was carried: fresh meat, vegetables, and butter. Although limited, these supplies provided relief from the monotony of the regular ration and also helped to keep up morale. Most welcome of all, probably, were the occasional supplies of beer taken up to augment the spasmodic shipments made by sea.

In addition to the transport squadrons and the training units which were permanently based in New Zealand, there were always fighter and bomber-reconnaissance squadrons in the country, either in the course of formation or resting and reforming between overseas tours. During 1943 fighter squadrons were stationed at **Seagrove** and **Whenuapai**. From the end of 1943 onwards, however, the fighter squadrons were generally at **Ardmore**. As there was at that time little probability that they would be needed for Operations within New Zealand, they were occupied exclusively in training and equipping for overseas service.

Bomber-reconnaissance squadrons, which also spent periods in New Zealand between tours in the **Pacific**, had a more active operational role. At the beginning of 1943 there were squadrons at **Waipapakauri**, **Whenuapai**, **Gisborne** and **Nelson**. In April 1943 No. 2 Squadron was moved from **Nelson** to **Ohakea**, and **Nelson** ceased to be an operational station. In the following month Nos. 7 and 8 Squadrons, which had operated from **Waipapakauri** and **Gisborne**, were disbanded. In October No. 2 Squadron was posted from **Ohakea** to operations overseas, and thereafter, although **Ohakea** and **Gisborne** were occupied by bomber-reconnaissance squadrons for a few months in 1944, the main operational base in New Zealand was **Whenuapai**. From there anti-submarine and shipping escort patrols were maintained for all shipping entering or leaving the port of **Auckland**.

ESTABLISHMENTS IN NEW ZEALAND, AUGUST-SEPTEMBER 1943

The **RNZAF** reached its peak strength in New Zealand of 30,500 in September 1943. Thereafter, although the strength in overseas theatres continued to increase for some time, home establishments were gradually reduced. At this time **Air Force** establishments comprised Air

Headquarters in **Wellington**, Northern, Central, and Southern Group Headquarters in **Auckland**, **Wellington**, and **Christchurch** respectively, and a total of thirty-three stations and depots throughout the country. The Group Headquarters were combined headquarters and housed Navy and Army as well as Air Force staffs. Northern and Central Groups were operational in function, and were equipped with filter rooms and fighter operations rooms, while Southern Group was primarily responsible for training. Northern Group, besides administering stations in New Zealand, also controlled **Norfolk Island**, where a radar unit and a servicing section catered for transient aircraft.

The most northerly station in New Zealand was **Waipapakauri**, which had been used since 1941 by aircraft making sea reconnaissances over the northern approaches to New Zealand. During 1942 and the first half of 1943 it had been regularly occupied by No. 7 (GR) Squadron. From June 1943 onwards it was used as an advanced and emergency landing ground for aircraft en route to and from the forward area, for the benefit of which it maintained a servicing section and signals section.

Onerahl, near **Whangarei**, had been used from August 1942 till the beginning of July 1943 to house No. 20 (Army Co-operation) Squadron. It was then put on a care and maintenance basis, but was still retained as an operational landing ground, with a small staff to provide refuelling facilities.

Whenuapai, the largest station in the **Auckland** area, administered Nos. 1 (BR) and 15 (F) Squadrons, both of which combined defensive patrols with training for overseas service; No. 40 Squadron and its offshoot, the **RNZAF** Pacific Ferry; No. 60 (Radar) Squadron; No. 1 **RNZAF** Hospital, and No. 4 Field Maintenance Unit. **Hobsonville**, close by, accommodated a Seaplane Training Flight, a Motor Boat Crew Training School, No. 1 Assembly Depot, and a General Engineering Section. Its main function at this time was the assembly of fighter aircraft shipped from the **United States**. In Auckland itself was No. 1 Personnel Despatch Centre, which was responsible for kitting and

documenting personnel on their way overseas.

Immediately to the south of **Auckland** on the Manukau Harbour were **Mangere** and **Seagrove**. The former, which had been taken over by the **RNZAF** at the outbreak of war, was used by No. 1 Anti-Aircraft Co-operation Flight and Northern Group Communications Flight. In August 1943 it also housed a Works Survey Flight and an anti-malaria treatment centre, and was used as a holding depot to accommodate personnel in transit to and from the forward area. **Seagrove**, which had been built in 1942 as a fighter station to augment the defences of **Auckland**, was occupied during the second half of 1943 by the American Marine Air Group 14. At the end of July No. 25 Squadron, **RNZAF**, was formed there, using SBD aircraft taken over from the Americans.

Royal New Zealand Air Force Station, **Hamilton**, had been formed in 1942 to administer several units which were moved to the **Waikato** from **Hobsonville** when it appeared that the **Auckland** area was likely to suffer from enemy attack. In August 1943 it was responsible for No. 1 Stores Depot, No. 1 Repair Depot, and No. 302 Elementary Ground Training Squadron.

Te Awamutu was built in 1942 and was intended as a stores depot for the **United States Forces**. The American Command decided that the site was too isolated, so the buildings were taken over by the **RNZAF** and the station was formed, in November 1942 as No. 4 Stores Depot.

Rotorua had become the pre-flying training centre for aircrew when the Initial Training Wing was moved there from **Levin** early in 1942. Unlike most units, the station was not housed in an Air Force camp, but trainees and staff were quartered in a number of hotels and boarding houses in the town.

Tauranga was occupied by No. 303 EGTS and the Central Flying School, which was responsible for training all flying instructors for the **RNZAF**.

One other station was added to Northern Group before the end of the

year, when **Swanson** was taken over from the Army for use as an Overseas Training Pool. Personnel were sent to it for course in weapon training and bush warfare before being posted to the **Pacific**.

All North Island stations outside the **Auckland** province came within the area of Central Group, which also administered what was known as Air Department Unit, comprising all personnel working at Air Headquarters.

New Plymouth, which had been formed early in the war as an Elementary Flying Training School, was occupied in 1943 by the School of General Reconnaissance, the School of Meteorology, and No. 308 Advanced Ground Training Squadron.

Ohakea accommodated No. 2 (BR) Squadron, which was engaged in anti-submarine and shipping escort patrols, No. 1 (BR) and No. 2 (Fighter) Operational Training Units, and No. 2 Repair Depot. It was also the headquarters of the **RNZAF** Band.

Royal New Zealand Air Force Station, **Palmerston North**, at the beginning of August 1943 was occupied by No. 21 (Army Co-operation) Squadron and No. 309 AGTS, and also administered the **RNZAF** Medical Stores Depot. The station was closed down shortly afterwards when the two squadrons were disbanded, and the airfield was classified, for **Air Force** purposes, as 'for emergency use only'.

The military camp at **Linton** was taken over in April 1943. No. 3 Ground Training Depot formed there and operated as an **RNZAF** station until November, when the camp was handed back to the Army. Besides the Ground Training Depot, a cookery school was established there for several months.

Levin, by August 1943, was mainly concerned with administrative training. The units stationed there were the Officers' School of Instruction, Armament Training School, School of Administrative Training, Radio Operators' School (for WAAF and WRNS) and the WAAF

Reception Depot.

The only station on the East Coast was **Gisborne**, where No. 30 (TBF) Squadron was training for overseas service. In August No. 2 Gunnery Training Flight formed there to train air-gunners for **Pacific** operations. No. 304 EGTS was also stationed there.

Masterton, which in 1942 had been used by No. 14 Squadron when it was first formed, was now occupied only by No. 305 EGTS. The station was reduced to a care and maintenance basis at the beginning of November.

In the **Wellington** area there were, besides Air Headquarters, three establishments—No. 2 Stores Depot at **Mangaroa**, No. 2 Personnel Despatch Centre in **Wellington**, and **Rongotai**. The last housed a Communications Flight, No. 2 Anti-Aircraft Co-operation Flight, the Central Trade Test Board, the Preliminary Technical Training School, and the headquarters of No. 61 (Radar) Squadron.

The **RNZAF** also maintained an establishment at **Waiouru**, in the centre of the **North Island**, where, in conjunction with the Navy and Army, it operated the Services Wireless Telegraphy Station for overseas communications.

Southern Group embraced all stations in the **South Island**, numbering four in **Nelson- Marlborough**, five in **Canterbury**, and one in Otago. One of them, Woodburne, was equipped with a Fighter Operations Room and Filter Room in case fighter operations had to be carried out over the Cook Strait area, and No. 18 (Fighter) Squadron was stationed at **Fairhall**, a satellite camp. The main activity of the station was flying training, carried out by No. 2 FTS. Other units were No. **3 Fighter Maintenance Unit**, supporting No. 18 Squadron, and No. 310 AGTS. **Omaka**, which had previously been used by the School of General Reconnaissance, was occupied in August 1943 only by the NCOs' school. The seven Army camps at Delta, 11 miles from **Blenheim**, were taken over by the **Air Force** in June 1943. By the end of the year they were to

house all the pre-flying activities of aircrew; but in August the station was still forming and only one camp was occupied—by No. 4 Ground Training Depot. **Nelson** was occupied by the Technical Training School, which had moved there from **Rongotai** in April, and by the Photographic Training Unit. It continued as the centre of technical training for the **RNZAF** until the end of 1945.

Wigram, the senior **RNZAF** station in the country, was primarily a flying training school, and was also the home of the Electrical and Wireless School. Also stationed there at this time were the Beam Approach Training Flight, Southern Group Communications Flight, and No. 312 Electrical and Wireless Training Squadron. The last consisted of recruits undergoing preliminary training before entering the Electrical and Wireless School. Harewood, three miles away, had No. 3 EFTS, No. 3 Anti-Aircraft Co-operation Flight, No. 3 Electrical and Wireless Training Squadron, and No. 1 Ground Training Depot. **Norwood**, which was originally formed as a satellite landing ground for **Wigram**, had been developed into a small station and was used to accommodate the advanced training section of No. 1 SFTS.

In Christchurch itself there were portions of No. 3 Stores Depot and No. 3 Repair Depot. These were to move respectively to **Weedons** and Harewood, but full accommodation was not yet ready for them. In South Canterbury **Ashburton** was occupied by No. 2 EFTS, which had moved there from **New Plymouth** in 1942, and by No. 306 EGTS. The most southerly station, **Taieri**, housed No. 1 EFTS, No. 307 EGTS, and a Hudson Storage Flight.

REORGANISATION IN 1944

The year 1944 saw a steady building up of **RNZAF** strength in the **Pacific**, the further recession of the danger of a Japanese attack on New Zealand, and the cessation of the British Commonwealth Air Training Plan. As a consequence, by the end of the year the whole objective of the service was the support of the squadrons in the **Pacific** area. The need for local defence measures was eliminated, and the flying training

organisation could be greatly reduced. At the same time, however, the demand for technical and administrative personnel fit for tropical service increased. These factors produced a considerable change in the organisation of the **Air Force** during the year.

The three Group Headquarters, which had been formed to meet operational requirements, were abolished. Central Group had in fact been suspended in October 1943, and its functions shared between Air Headquarters and the other two groups. Northern and Southern Groups were disbanded in October 1944, when the need for their existence had long since passed.

During the year there was a general pruning and consolidation of home establishments, and stations were closed down as they became redundant. **Seagrove** was closed down in January, when No. 25 Squadron left to go overseas, and became a satellite landing ground for **Ardmore**. The next to go was **Omaka**. The NCOs' School had been moved to **Levin** at the end of August 1943 and replaced by the Officers' School of Instruction. In April 1944, when accommodation became available at **Levin**, the Officers' School of Instruction moved back there and **Omaka** closed down. For the rest of the war the buildings were used as a storage depot for **RNZAF** supplies in the **Blenheim** area. **Waipapakauri** was reduced in July to the status of an emergency landing ground, although refuelling, wireless, and meteorological services were carried on for some time on a reduced scale. **Gisborne**, which had been the training ground for Nos. 30 and 31 TBF Squadrons, was occupied from June to October by No. 2 (BR) Squadron, which was reforming and refitting after an overseas tour. When the squadron left in the latter month for another tour, the station was disbanded.

The reduction of the flying training organisation in the last quarter of the year resulted in **Ashburton** being closed down, the pupils of No. 2 EFTS being absorbed by No. 3 EFTS at Harewood. No. 1 EFTS at **Taiari** was disbanded, and its place was taken by a Grading School and by the Initial Training Wing transferred from Delta. No. 2 SFTS, **Woodbourne**,

was also disbanded and was amalgamated with No. 1 SFTS at Wigram. Delta was progressively closed down as its commitments were reduced, and the process was complete by January 1945. When the SFTS moved from Woodbourne it was possible to concentrate there the units at **Levin** and **Tauranga**, and these two stations were closed at the end of the year.

A new station was formed in **Auckland**, using accommodation which had been built at **Remuera** for an American Base Hospital. It housed No. 1 Port Depot, and absorbed the Personnel Reception Depot at **Mangere**, which was disbanded, and became responsible for the movement of all personnel and cargo into and out of New Zealand through **Auckland**. One other station was formed during the year: the Accommodation Camp at Anderson Park, **Wellington**. Like **Remuera**, it took over buildings which had been put up by the Americans as a hospital. It was used to accommodate as many as possible of the 1300-odd personnel working in Air Headquarters, who had previously been living in the city, some at **Rongotai** and the rest at various hostels and private lodgings.

The disbandment of stations and consolidation of establishments during the year resulted in a substantial saving of manpower in administrative trades, and the reduction in the flying training organisation released several hundred technical tradesmen. These savings, however, were counter-balanced by the increasing demand for fit men to serve in the **Pacific** theatre.

SOURCES OF MANPOWER, 1943-44

The manning problems which had emerged by 1942—the lowered educational standard of recruits and consequent need for more training, and the high percentage of men in ground trades unfit for overseas service—became progressively more severe as the war went on, and it was apparent that the **Air Force**'s expansion had out-stripped the resources of manpower of the right quality. To these problems was added another: the difficulty of obtaining men at all in competition with the Army and civilian industry.

It had been planned to form twenty operational squadrons for service in New Zealand and overseas, of which it was thought that seventeen or eighteen would form in 1943. In fact, only nine came into being that year, and another eight in 1944. On the assumption that the larger number would be formed, it was necessary to find enough fit men to man them. It was not possible to obtain the numbers required from civilian sources as not enough men were due for call-up during the year. Consequently arrangements were made to transfer suitable men from the Army for **Air Force** training. Volunteers were called for from Army units in New Zealand and **New Caledonia**, and between April and September 1943, 5331 men transferred. In addition, unmarried reservists between the ages of 20 and 35 were made available to the **Air Force** when they were called up. Besides these two sources, there were also the usual enlistments from civil life, including ATC cadets as they became of age. A further small source of recruits was tapped early in 1944 when men awaiting call-up by the Royal New Zealand Navy were enlisted in the **RNZAF**. Thus, by that time, every available source of manpower had been drawn on.

In March 1944 the expansion of the **RNZAF** necessary to meet commitments in the **Pacific** area had been completed, and it was decided that no further building up of the non-flying trades was needed. Recruiting thenceforth was to be limited to a rate sufficient to compensate for discharges and releases to essential industry. Men unfit for overseas service, and men with large families, were to be discharged as they were replaced by newly trained personnel. The overall strength remained more or less stable until September, when the rate of discharges was increased.

The total ground strength was distributed among the different classes of trades in New Zealand and the **Pacific** area in mid-1944 as follows:

<i>Trade Group</i>	<i>In New Zealand</i>	<i>In Pacific</i>	<i>Total</i>
Supply Administration	3024	722	3746
Medical-Dental	558	141	699

Administrative	2030	268	2298
Repair and Maintenance	4879	1570	6449
Signals	1773	789	2562
Works	1931	418	2349
Miscellaneous	5734	1483	7217
	—	—	—
TOTAL	19,929	5391	25,320
	—	—	—

Of these 11,150, including 3240 WAAF, could not be posted overseas on account of age, medical grading, or other reasons.

In order to fulfil New Zealand's operational commitments, a total of 1000 aircrew and 7500 ground staff was required in the **Pacific** to man the proposed twenty squadrons. With regard to ground staff, the policy was to allow one tour in the **Pacific** to two in New Zealand, replacing men overseas when they had served twelve months in the area. Thus, in order to operate the rotation scheme, some twenty to twenty-one thousand fit men were needed. After deducting the 11,000 who could not be posted overseas, the **RNZAF** was several thousand short of the required number. This deficiency was never entirely eliminated, and resulted in many men having to serve considerably more than a year at a time in the tropics.

In an effort to improve the position recruiting of non-flying personnel, which had been reduced to 150 a month, was stepped up in August 1944 to 500, and the number of discharges of unfit men was increased at the same time. In the three months September to November, 5000 men were released.

During the latter part of the year recruits were harder than ever to obtain. The Army urgently wanted more men, and competition between the services was extremely keen. There appears to have been no co-ordinating authority to consider the relative needs of the services and allocate the available manpower accordingly. Eventually, in November, the Army and the **Air Force** reached an agreement and decided that, of the 500 men reaching 20 years of age each month, the former should

get 200 and the latter 300.

A possible additional cause of the difficulty the **RNZAF** had in obtaining recruits in late 1944 is that many men did not believe that the service needed more personnel. Earlier in the year wide publicity had been given by the press to claims that the **RNZAF** was overstaffed and that personnel were not fully employed, and consequently recruits were disinclined to believe that they were really wanted.

The staffing position had been under examination, both by the **RNZAF** Inspector of Administration and by the Defence Forces Personnel Committee, for some time before the press campaign began. The committee, a civilian body which had been formed to investigate all service establishments and advise on economies in manpower, carried out a number of examinations of **RNZAF** stations in New Zealand and the **Pacific**. Where it considered that economies should be made, it recommended accordingly.

Public criticism of the **Air Force's** manning policy was so severe, and its effect on morale within the service so marked, that it should have been countered at the time. As no satisfactory, authoritative statement was issued to refute the charges, people continued to believe them and the **RNZAF** fell badly in public esteem. On some stations and in some trades, manpower was not used to the best advantage and there was room for improvement; but in general the position was not nearly as bad as the public was led to believe.

A certain discrepancy between available manpower and immediate needs at the time was inevitable. The **RNZAF** had been expanding its **Pacific** strength as rapidly as possible to meet its commitments, and was in the process of levelling off. There was necessarily a slight time-lag between the achievement of full strength and a review of that strength to see if it was too great or too small for the job in hand.

Greater experience and closer supervision of establishments might have resulted in a more accurate assessment of manning needs; but in a

force which had grown from 750 to 34,000, excluding those in [Canada](#) and the [RAF](#), in under five years, there were bound to be some loose ends which needed tying up. Practically none of the staff officers responsible for administering it had had long experience of service organisation. What they learned, they learned during the stress of war; and their task was made no easier by the fact that they were working to a policy which might be changed at any time to conform to altered requirements of the American Command under which the [RNZAF](#) served.

ROYAL NEW ZEALAND AIR FORCE

[SECTION]

THE war in the **Pacific** and the building up of our forces there had far-reaching effects on the role and composition of the Air Force at home. During 1942, as has been noted in **Chapter 9**, the **RNZAF**'s chief pre-occupation, apart from flying training, was with the obtaining of aircraft and weapons to resist invasion, and with the preparation of operational bases within the country. By 1943 the **RNZAF** had been included in the American South Pacific Command and supplies of aircraft and equipment were assured; at the same time, the threat of invasion had receded and the emphasis turned from home defence towards the formation, training, and equipping of squadrons for service overseas.

Whereas in the first three years of the war the training organisation had been designed to produce aircrew trained to the initial, elementary, or advanced stages of flying, it had now become necessary, in order to man the squadrons in the **Pacific**, to bring them up to fully operational standards.

Fighter and bomber operational training units had been formed in 1942, the former at **Ohakea** and the latter at **Levin**. Early in 1943 No. 1 (Bomber) OTU, which had moved from **Levin** to New **Plymouth**, was transferred to **Ohakea**, where it remained with No. 2 (Fighter) OTU until 1945. In January 1943 the fighter squadrons already formed were fully manned and No. 2 OTU was reconstituted as an air fighting and gunnery training school to raise the standard of pilots already trained. Later in the year the formation of new squadrons and the need to replace tour-expired pilots created a fresh demand and the unit reverted to a full-scale OTU. In October the intake, which had originally been twenty-four and then twelve in each course, was increased to thirty and the length of the course cut from eight weeks to six in order to increase the output. The 1944 programme, involving the formation of more fighter

squadrons, still further increased the demand for pilots and a second fighter school, known as No. 4 OTU, was formed at **Ardmore** in March of that year. Its location there was not entirely satisfactory from a training aspect and in June it was moved to **Ohakea**.

In May a Fighter Gunnery School was formed at **Gisborne** to improve the general standard of fixed gunnery and to provide instructors for the fighter OTUs. It was designed to train twelve pilots in each course of four weeks, and the trainees were ex-operational pilots or experienced instructors from the flying training organisation. The school was transferred to **Ardmore** when accommodation became available there after No. 4 OTU moved out. The change in the role of fighter squadrons in the **Pacific** in 1944 from air combat to ground attack reduced the need for gunnery training, and the function of the school was altered. It was renamed the Fighter Leaders' School and undertook the operational and administrative training of squadron and flight commanders and section leaders. It was finally disbanded in September 1945.

The last of the fighter squadrons to be formed under the 1944–45 programme was assembled in March 1945, and thereafter fighter training was limited to providing replacements for tour-expired pilots. The two fighter OTUs continued to operate, though with reduced outputs, until the end of the war, when they were closed down.

The bomber OTU at **Ohakea** continued to form and train crews for the bomber-reconnaissance squadrons until June 1945 when, following a decision to reduce the number of bomber-reconnaissance squadrons and increase the air transport organisation, it was transformed into a transport OTU to train crews on Dakotas. It functioned in its new role until September when it was finally disbanded.

Crews for the two flying-boat squadrons which were formed during 1943–44 were trained at **Hobsonville** and **Lauthala Bay**. Pilots were given a preliminary course on Walrus amphibians at **Hobsonville** and then were sent to **Lauthala Bay**, where crews were made up and did their operational training on Catalinas. Until February 1944 crew training at

Lauthala Bay was done within the squadrons stationed there, but in that month No. 3 (Flying Boat) OTU was formed and took over the work. The unit was disbanded in September 1945.

ROYAL NEW ZEALAND AIR FORCE

GROWTH OF THE AIR TRANSPORT ORGANISATION

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As commitments increased and aircraft became available the number of scheduled flights from **Whenuapai** grew steadily throughout the year. In November 1944 No. 40 Squadron despatched twelve aircraft a week on regular runs extending as far as **Samoa, Fiji and Guadalcanal**, and No. 41 Squadron sent ten a week to **Guadalcanal**. Bases north of **Guadalcanal** were served by aircraft controlled by No. 1 (Islands) Group. A single Dakota had been stationed there at the beginning of the year, but soon proved unable to cope with the work, and by October the detachment had been increased to four. These were augmented by a utility flight, also controlled by the Group, which operated a number of Hudsons.

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The following figures of men, mail, and equipment carried indicate the increasingly important part played by the transport squadrons as the war progressed. In July 1943, the first month in which No. 40 Squadron operated on a significant scale, **RNZAF** aircraft carried 157 men to the **Pacific Islands** and repatriated 226. In the same month they took 21,000 lb. of freight and 6000 lb. of mail forward, and brought back 7000 lb. and 10,000 lb. respectively. A year later the corresponding figures had risen to over 700 men, 76,000 lb. of freight, and 28,000 lb. of mail on the outward journey, and 7000 men, 66,000 lb. of freight, and 39,000 lb. of mail on the homeward trips.

In 1945 the figures increased still further. Altogether, from February 1943 until the end of September 1945, 37,000 passengers left from or arrived at **Whenuapai** by air and nearly four million pounds of freight and one and a half million pounds of mail was carried. These figures refer only to personnel, goods, and mail which passed through **Whenuapai** and do not take into account the very large amount of inter-island traffic.

The prompt delivery of mail by the transport squadrons was a major factor in maintaining morale in the Islands. Letters and newspapers reached even the most distant bases in a matter of days, and kept the

troops in touch with what was going on at home. Also, whenever there was space to spare, food was carried: fresh meat, vegetables, and butter. Although limited, these supplies provided relief from the monotony of the regular ration and also helped to keep up morale. Most welcome of all, probably, were the occasional supplies of beer taken up to augment the spasmodic shipments made by sea.

In addition to the transport squadrons and the training units which were permanently based in New Zealand, there were always fighter and bomber-reconnaissance squadrons in the country, either in the course of formation or resting and reforming between overseas tours. During 1943 fighter squadrons were stationed at **Seagrove** and **Whenuapai**. From the end of 1943 onwards, however, the fighter squadrons were generally at **Ardmore**. As there was at that time little probability that they would be needed for Operations within New Zealand, they were occupied exclusively in training and equipping for overseas service.

Bomber-reconnaissance squadrons, which also spent periods in New Zealand between tours in the **Pacific**, had a more active operational role. At the beginning of 1943 there were squadrons at **Waipapakauri**, **Whenuapai**, **Gisborne** and **Nelson**. In April 1943 No. 2 Squadron was moved from **Nelson** to **Ohakea**, and **Nelson** ceased to be an operational station. In the following month Nos. 7 and 8 Squadrons, which had operated from **Waipapakauri** and **Gisborne**, were disbanded. In October No. 2 Squadron was posted from **Ohakea** to operations overseas, and thereafter, although **Ohakea** and **Gisborne** were occupied by bomber-reconnaissance squadrons for a few months in 1944, the main operational base in New Zealand was **Whenuapai**. From there anti-submarine and shipping escort patrols were maintained for all shipping entering or leaving the port of **Auckland**.

ROYAL NEW ZEALAND AIR FORCE

ESTABLISHMENTS IN NEW ZEALAND, AUGUST-SEPTEMBER 1943

ESTABLISHMENTS IN NEW ZEALAND, AUGUST-SEPTEMBER 1943

The **RNZAF** reached its peak strength in New Zealand of 30,500 in September 1943. Thereafter, although the strength in overseas theatres continued to increase for some time, home establishments were gradually reduced. At this time **Air Force** establishments comprised Air Headquarters in **Wellington**, Northern, Central, and Southern Group Headquarters in **Auckland**, **Wellington**, and **Christchurch** respectively, and a total of thirty-three stations and depots throughout the country. The Group Headquarters were combined headquarters and housed Navy and Army as well as Air Force staffs. Northern and Central Groups were operational in function, and were equipped with filter rooms and fighter operations rooms, while Southern Group was primarily responsible for training. Northern Group, besides administering stations in New Zealand, also controlled **Norfolk Island**, where a radar unit and a servicing section catered for transient aircraft.

The most northerly station in New Zealand was **Waipapakauri**, which had been used since 1941 by aircraft making sea reconnaissances over the northern approaches to New Zealand. During 1942 and the first half of 1943 it had been regularly occupied by No. 7 (GR) Squadron. From June 1943 onwards it was used as an advanced and emergency landing ground for aircraft en route to and from the forward area, for the benefit of which it maintained a servicing section and signals section.

Onerahi, near **Whangarei**, had been used from August 1942 till the beginning of July 1943 to house No. 20 (Army Co-operation) Squadron. It was then put on a care and maintenance basis, but was still retained as an operational landing ground, with a small staff to provide refuelling facilities.

Whenuapai, the largest station in the **Auckland** area, administered

Nos. 1 (BR) and 15 (F) Squadrons, both of which combined defensive patrols with training for overseas service; No. 40 Squadron and its offshoot, the **RNZAF** Pacific Ferry; No. 60 (Radar) Squadron; No. 1 **RNZAF** Hospital, and No. 4 Field Maintenance Unit. **Hobsonville**, close by, accommodated a Seaplane Training Flight, a Motor Boat Crew Training School, No. 1 Assembly Depot, and a General Engineering Section. Its main function at this time was the assembly of fighter aircraft shipped from the **United States**. In Auckland itself was No. 1 Personnel Despatch Centre, which was responsible for kitting and documenting personnel on their way overseas.

Immediately to the south of **Auckland** on the Manukau Harbour were **Mangere** and **Seagrove**. The former, which had been taken over by the **RNZAF** at the outbreak of war, was used by No. 1 Anti-Aircraft Co-operation Flight and Northern Group Communications Flight. In August 1943 it also housed a Works Survey Flight and an anti-malaria treatment centre, and was used as a holding depot to accommodate personnel in transit to and from the forward area. **Seagrove**, which had been built in 1942 as a fighter station to augment the defences of **Auckland**, was occupied during the second half of 1943 by the American Marine Air Group 14. At the end of July No. 25 Squadron, **RNZAF**, was formed there, using SBD aircraft taken over from the Americans.

Royal New Zealand Air Force Station, **Hamilton**, had been formed in 1942 to administer several units which were moved to the **Waikato** from **Hobsonville** when it appeared that the **Auckland** area was likely to suffer from enemy attack. In August 1943 it was responsible for No. 1 Stores Depot, No. 1 Repair Depot, and No. 302 Elementary Ground Training Squadron.

Te Awamutu was built in 1942 and was intended as a stores depot for the **United States Forces**. The American Command decided that the site was too isolated, so the buildings were taken over by the **RNZAF** and the station was formed, in November 1942 as No. 4 Stores Depot.

Rotorua had become the pre-flying training centre for aircrew when

the Initial Training Wing was moved there from **Levin** early in 1942. Unlike most units, the station was not housed in an Air Force camp, but trainees and staff were quartered in a number of hotels and boarding houses in the town.

Tauranga was occupied by No. 303 EGTS and the Central Flying School, which was responsible for training all flying instructors for the **RNZAF**.

One other station was added to Northern Group before the end of the year, when **Swanson** was taken over from the Army for use as an Overseas Training Pool. Personnel were sent to it for course in weapon training and bush warfare before being posted to the **Pacific**.

All North Island stations outside the **Auckland** province came within the area of Central Group, which also administered what was known as Air Department Unit, comprising all personnel working at Air Headquarters.

New Plymouth, which had been formed early in the war as an Elementary Flying Training School, was occupied in 1943 by the School of General Reconnaissance, the School of Meteorology, and No. 308 Advanced Ground Training Squadron.

Ohakea accommodated No. 2 (BR) Squadron, which was engaged in anti-submarine and shipping escort patrols, No. 1 (BR) and No. 2 (Fighter) Operational Training Units, and No. 2 Repair Depot. It was also the headquarters of the **RNZAF** Band.

Royal New Zealand Air Force Station, **Palmerston North**, at the beginning of August 1943 was occupied by No. 21 (Army Co-operation) Squadron and No. 309 AGTS, and also administered the **RNZAF** Medical Stores Depot. The station was closed down shortly afterwards when the two squadrons were disbanded, and the airfield was classified, for **Air Force** purposes, as 'for emergency use only'.

The military camp at **Linton** was taken over in April 1943. No. 3

Ground Training Depot formed there and operated as an **RNZAF** station until November, when the camp was handed back to the Army. Besides the Ground Training Depot, a cookery school was established there for several months.

Levin, by August 1943, was mainly concerned with administrative training. The units stationed there were the Officers' School of Instruction, Armament Training School, School of Administrative Training, Radio Operators' School (for WAAF and WRNS) and the WAAF Reception Depot.

The only station on the East Coast was **Gisborne**, where No. 30 (TBF) Squadron was training for overseas service. In August No. 2 Gunnery Training Flight formed there to train air-gunners for **Pacific** operations. No. 304 EGTS was also stationed there.

Masterton, which in 1942 had been used by No. 14 Squadron when it was first formed, was now occupied only by No. 305 EGTS. The station was reduced to a care and maintenance basis at the beginning of November.

In the **Wellington** area there were, besides Air Headquarters, three establishments—No. 2 Stores Depot at **Mangaroa**, No. 2 Personnel Despatch Centre in **Wellington**, and **Rongotai**. The last housed a Communications Flight, No. 2 Anti-Aircraft Co-operation Flight, the Central Trade Test Board, the Preliminary Technical Training School, and the headquarters of No. 61 (Radar) Squadron.

The **RNZAF** also maintained an establishment at **Waiouru**, in the centre of the **North Island**, where, in conjunction with the Navy and Army, it operated the Services Wireless Telegraphy Station for overseas communications.

Southern Group embraced all stations in the **South Island**, numbering four in **Nelson- Marlborough**, five in **Canterbury**, and one in Otago. One of them, Woodburne, was equipped with a Fighter Operations Room and Filter Room in case fighter operations had to be carried out

over the Cook Strait area, and No. 18 (Fighter) Squadron was stationed at **Fairhall**, a satellite camp. The main activity of the station was flying training, carried out by No. 2 FTS. Other units were No. 3 **Fighter Maintenance Unit**, supporting No. 18 Squadron, and No. 310 AGTS. **Omaka**, which had previously been used by the School of General Reconnaissance, was occupied in August 1943 only by the NCOs' school. The seven Army camps at Delta, 11 miles from **Blenheim**, were taken over by the **Air Force** in June 1943. By the end of the year they were to house all the pre-flying activities of aircrew; but in August the station was still forming and only one camp was occupied—by No. 4 Ground Training Depot. **Nelson** was occupied by the Technical Training School, which had moved there from **Rongotai** in April, and by the Photographic Training Unit. It continued as the centre of technical training for the **RNZAF** until the end of 1945.

Wigram, the senior **RNZAF** station in the country, was primarily a flying training school, and was also the home of the Electrical and Wireless School. Also stationed there at this time were the Beam Approach Training Flight, Southern Group Communications Flight, and No. 312 Electrical and Wireless Training Squadron. The last consisted of recruits undergoing preliminary training before entering the Electrical and Wireless School. Harewood, three miles away, had No. 3 EFTS, No. 3 Anti-Aircraft Co-operation Flight, No. 3 Electrical and Wireless Training Squadron, and No. 1 Ground Training Depot. **Norwood**, which was originally formed as a satellite landing ground for **Wigram**, had been developed into a small station and was used to accommodate the advanced training section of No. 1 SFTS.

In Christchurch itself there were portions of No. 3 Stores Depot and No. 3 Repair Depot. These were to move respectively to **Weedons** and Harewood, but full accommodation was not yet ready for them. In South Canterbury **Ashburton** was occupied by No. 2 EFTS, which had moved there from **New Plymouth** in 1942, and by No. 306 EGTS. The most southerly station, **Taieri**, housed No. 1 EFTS, No. 307 EGTS, and a Hudson Storage Flight.

ROYAL NEW ZEALAND AIR FORCE

REORGANISATION IN 1944

REORGANISATION IN 1944

The year 1944 saw a steady building up of **RNZAF** strength in the **Pacific**, the further recession of the danger of a Japanese attack on New Zealand, and the cessation of the British Commonwealth Air Training Plan. As a consequence, by the end of the year the whole objective of the service was the support of the squadrons in the **Pacific** area. The need for local defence measures was eliminated, and the flying training organisation could be greatly reduced. At the same time, however, the demand for technical and administrative personnel fit for tropical service increased. These factors produced a considerable change in the organisation of the **Air Force** during the year.

The three Group Headquarters, which had been formed to meet operational requirements, were abolished. Central Group had in fact been suspended in October 1943, and its functions shared between Air Headquarters and the other two groups. Northern and Southern Groups were disbanded in October 1944, when the need for their existence had long since passed.

During the year there was a general pruning and consolidation of home establishments, and stations were closed down as they became redundant. **Seagrove** was closed down in January, when No. 25 Squadron left to go overseas, and became a satellite landing ground for **Ardmore**. The next to go was **Omaka**. The NCOs' School had been moved to **Levin** at the end of August 1943 and replaced by the Officers' School of Instruction. In April 1944, when accommodation became available at **Levin**, the Officers' School of Instruction moved back there and **Omaka** closed down. For the rest of the war the buildings were used as a storage depot for **RNZAF** supplies in the **Blenheim** area. **Waipapakauri** was reduced in July to the status of an emergency landing ground, although refuelling, wireless, and meteorological services were carried on for some

time on a reduced scale. **Gisborne**, which had been the training ground for Nos. 30 and 31 TBF Squadrons, was occupied from June to October by No. 2 (BR) Squadron, which was reforming and refitting after an overseas tour. When the squadron left in the latter month for another tour, the station was disbanded.

The reduction of the flying training organisation in the last quarter of the year resulted in **Ashburton** being closed down, the pupils of No. 2 EFTS being absorbed by No. 3 EFTS at Harewood. No. 1 EFTS at **Taiari** was disbanded, and its place was taken by a Grading School and by the Initial Training Wing transferred from Delta. No. 2 SFTS, **Woodbourne**, was also disbanded and was amalgamated with No. 1 SFTS at Wigram. Delta was progressively closed down as its commitments were reduced, and the process was complete by January 1945. When the SFTS moved from Woodbourne it was possible to concentrate there the units at **Levin** and **Tauranga**, and these two stations were closed at the end of the year.

A new station was formed in **Auckland**, using accommodation which had been built at **Remuera** for an American Base Hospital. It housed No. 1 Port Depot, and absorbed the Personnel Reception Depot at **Mangere**, which was disbanded, and became responsible for the movement of all personnel and cargo into and out of New Zealand through **Auckland**. One other station was formed during the year: the Accommodation Camp at Anderson Park, **Wellington**. Like **Remuera**, it took over buildings which had been put up by the Americans as a hospital. It was used to accommodate as many as possible of the 1300-odd personnel working in Air Headquarters, who had previously been living in the city, some at **Rongotai** and the rest at various hostels and private lodgings.

The disbandment of stations and consolidation of establishments during the year resulted in a substantial saving of manpower in administrative trades, and the reduction in the flying training organisation released several hundred technical tradesmen. These savings, however, were counter-balanced by the increasing demand for fit men to serve in the **Pacific** theatre.

ROYAL NEW ZEALAND AIR FORCE

SOURCES OF MANPOWER, 1943-44

SOURCES OF MANPOWER, 1943-44

The manning problems which had emerged by 1942—the lowered educational standard of recruits and consequent need for more training, and the high percentage of men in ground trades unfit for overseas service—became progressively more severe as the war went on, and it was apparent that the **Air Force's** expansion had out-stripped the resources of manpower of the right quality. To these problems was added another: the difficulty of obtaining men at all in competition with the Army and civilian industry.

It had been planned to form twenty operational squadrons for service in New Zealand and overseas, of which it was thought that seventeen or eighteen would form in 1943. In fact, only nine came into being that year, and another eight in 1944. On the assumption that the larger number would be formed, it was necessary to find enough fit men to man them. It was not possible to obtain the numbers required from civilian sources as not enough men were due for call-up during the year. Consequently arrangements were made to transfer suitable men from the Army for **Air Force** training. Volunteers were called for from Army units in New Zealand and **New Caledonia**, and between April and September 1943, 5331 men transferred. In addition, unmarried reservists between the ages of 20 and 35 were made available to the **Air Force** when they were called up. Besides these two sources, there were also the usual enlistments from civil life, including ATC cadets as they became of age. A further small source of recruits was tapped early in 1944 when men awaiting call-up by the Royal New Zealand Navy were enlisted in the **RNZAF**. Thus, by that time, every available source of manpower had been drawn on.

In March 1944 the expansion of the **RNZAF** necessary to meet commitments in the **Pacific** area had been completed, and it was decided

that no further building up of the non-flying trades was needed. Recruiting thenceforth was to be limited to a rate sufficient to compensate for discharges and releases to essential industry. Men unfit for overseas service, and men with large families, were to be discharged as they were replaced by newly trained personnel. The overall strength remained more or less stable until September, when the rate of discharges was increased.

The total ground strength was distributed among the different classes of trades in New Zealand and the **Pacific** area in mid-1944 as follows:

<i>Trade Group</i>	<i>In New Zealand</i>	<i>In Pacific</i>	<i>Total</i>
Supply Administration	3024	722	3746
Medical-Dental	558	141	699
Administrative	2030	268	2298
Repair and Maintenance	4879	1570	6449
Signals	1773	789	2562
Works	1931	418	2349
Miscellaneous	5734	1483	7217
	—	—	—
TOTAL	19,929	5391	25,320
	—	—	—

Of these 11,150, including 3240 WAAF, could not be posted overseas on account of age, medical grading, or other reasons.

In order to fulfil New Zealand's operational commitments, a total of 1000 aircrew and 7500 ground staff was required in the **Pacific** to man the proposed twenty squadrons. With regard to ground staff, the policy was to allow one tour in the **Pacific** to two in New Zealand, replacing men overseas when they had served twelve months in the area. Thus, in order to operate the rotation scheme, some twenty to twenty-one thousand fit men were needed. After deducting the 11,000 who could not be posted overseas, the **RNZAF** was several thousand short of the required number. This deficiency was never entirely eliminated, and resulted in many men having to serve considerably more than a year at a time in the tropics.

In an effort to improve the position recruiting of non-flying personnel, which had been reduced to 150 a month, was stepped up in August 1944 to 500, and the number of discharges of unfit men was increased at the same time. In the three months September to November, 5000 men were released.

During the latter part of the year recruits were harder than ever to obtain. The Army urgently wanted more men, and competition between the services was extremely keen. There appears to have been no co-ordinating authority to consider the relative needs of the services and allocate the available manpower accordingly. Eventually, in November, the Army and the **Air Force** reached an agreement and decided that, of the 500 men reaching 20 years of age each month, the former should get 200 and the latter 300.

A possible additional cause of the difficulty the **RNZAF** had in obtaining recruits in late 1944 is that many men did not believe that the service needed more personnel. Earlier in the year wide publicity had been given by the press to claims that the **RNZAF** was overstaffed and that personnel were not fully employed, and consequently recruits were disinclined to believe that they were really wanted.

The staffing position had been under examination, both by the **RNZAF** Inspector of Administration and by the Defence Forces Personnel Committee, for some time before the press campaign began. The committee, a civilian body which had been formed to investigate all service establishments and advise on economies in manpower, carried out a number of examinations of **RNZAF** stations in New Zealand and the **Pacific**. Where it considered that economies should be made, it recommended accordingly.

Public criticism of the **Air Force's** manning policy was so severe, and its effect on morale within the service so marked, that it should have been countered at the time. As no satisfactory, authoritative statement was issued to refute the charges, people continued to believe them and the **RNZAF** fell badly in public esteem. On some stations and in some

trades, manpower was not used to the best advantage and there was room for improvement; but in general the position was not nearly as bad as the public was led to believe.

A certain discrepancy between available manpower and immediate needs at the time was inevitable. The **RNZAF** had been expanding its **Pacific** strength as rapidly as possible to meet its commitments, and was in the process of levelling off. There was necessarily a slight time-lag between the achievement of full strength and a review of that strength to see if it was too great or too small for the job in hand.

Greater experience and closer supervision of establishments might have resulted in a more accurate assessment of manning needs; but in a force which had grown from 750 to 34,000, excluding those in **Canada** and the **RAF**, in under five years, there were bound to be some loose ends which needed tying up. Practically none of the staff officers responsible for administering it had had long experience of service organisation. What they learned, they learned during the stress of war; and their task was made no easier by the fact that they were working to a policy which might be changed at any time to conform to altered requirements of the American Command under which the **RNZAF** served.

ROYAL NEW ZEALAND AIR FORCE

CHAPTER 19 – FINAL STAGES OF THE WAR IN THE SOUTH-WEST PACIFIC

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ROYAL NEW ZEALAND AIR FORCE

[SECTION]

WITH the relief of the Americans by the Australians, the campaign on **Bougainville** assumed a more positive character. For the Americans, the island had not been an objective in itself but a stepping stone in the advance northward, and their land operations were limited to ensuring the integrity of the Empress Augusta Bay base. The task of the 2nd Australian Corps, on the other hand, was the reconquest of the island.

The campaign developed into three separate drives. To the north, the enemy was to be pushed up the west coast to the Bonis Peninsula and contained there until he could be starved out or destroyed. Inland from **Torokina**, the Australians were to push along the Numa Numa trail to Pearl Ridge, in the centre of the island, possession of which would give protection against attack from the east and a jumping-off place for operations against the Japanese east coast bases. Southward, the plan was to occupy the coastal lowlands and eventually bring the enemy to action in the Buin area, where his major forces were concentrated and where the decisive battles of the campaign would be fought. It was in support of these operations, in addition to the continuous pounding of **Rabaul** and **New Ireland**, that the **RNZAF** operated during the last ten months of the war.

The first actions fought by Australian troops on **Bougainville** were on the Numa Numa trail. On 29 November elements of the 9th Battalion, which had relieved the Americans in the Doiabie Valley on the 23rd, took a Japanese position which was blocking their path at Piaterapaia. Three weeks later E Company of the battalion captured Artillery Ridge, the last high feature before Pearl Ridge. On New Year's Eve Pearl Ridge itself was occupied after a two-day battle by the 25th Battalion (7th Brigade), which had taken over from the 9th Battalion.

During these operations **RNZAF** fighters several times gave close support to the infantry, a role which was to become increasingly

important in the months to come. On 7 December eight aircraft of No. 15 Squadron, led by Squadron Leader **Winstone**,¹ were ordered to attack a Japanese position which was holding up the troops in their advance from Piaterapaia. The objective was a group of five huts, dispersed over an area of fifty yards square on the top of a hill. The Corsairs were led in by two Boomerangs of No. 5 Tactical Reconnaissance Squadron, RAAF, which had previously reconnoitred the area. The Boomerangs marked the target by strafing it, and the Corsairs, after a preliminary run over, dived and dropped their bombs from 800 feet. The huts were destroyed, along with an estimated thirty to forty Japanese, and an area of 150 yards of tall scrub was flattened.

The bombs were 325-pound depth-charges. They had not been used before against land targets on **Bougainville**, but experience by **RAF** squadrons in **Burma** had shown that they were ideal for jungle bombing. They burst on impact, making no crater, and produced a very strong lateral blast which destroyed all cover within a considerable radius.

Another strike was made in the same region the following week. The Australians were to attack Japanese troops entrenched on a hillside half a mile south of Retsiopaia, and eight aircraft of No. 15 Squadron, each carrying a depth-charge or a 500-pound bomb, went in first to soften up the position.

¹ **Sqn Ldr D. P. Winstone**, DFC; **Auckland**; born **Auckland**, 2 Jan 1917; salesman.

ROYAL NEW ZEALAND AIR FORCE

SOUTH BOUGAINVILLE CAMPAIGN

SOUTH BOUGAINVILLE CAMPAIGN

The advance to southern **Bougainville** was the responsibility of the 3rd Australian Division. The operation was to be carried out in several stages, allowing time for the development of road communications and the establishment of forward bases at the conclusion of each stage. December was spent in reconnaissances and patrols, gaining information about the enemy's strength and dispositions. On the 18th two companies of the 15th Battalion crossed the Jaba River at its mouth, and another company landed four miles farther down the coast. By the next night the forward company had established a patrol base within a mile of the Tavera River. Ten days later the river was crossed, and the patrol base moved forward towards the Adele River.

The information gained by the patrols enabled the 29th Brigade early in the new year to launch the first stage of the offensive, which was to be carried as far as the Puriata River. Mawaraka and Motupena Point, at the southern extremity of Empress Augusta Bay, were occupied against light opposition on 17 and 19 January. Patrols on the coastal track southward from Motupena Point did not encounter any enemy, and on 2 February company was landed by barge at Toko, near the mouth of the Puriata, where it established itself against minor opposition.

Inland, where the advance was along the line of the main trail leading south from the Jaba River, enemy resistance was more severe and slower progress was made.

The drive southward along the main trail was assisted by thrusts inland from Mawaraka and Toko, which took the enemy in the rear. The capture of Darara on 23 February, by a force operating from Toko, gave the Australians command of the chief ford across the Puriata, and thereafter Japanese communications were limited to crossings farther

upstream.

Having reached the Puriata, the Australians prepared for the next stage of their advance, which was to carry them first to the Hongorai and then to the Hari River. Two columns crossed the Puriata early in March. One crossed at the chief ford and established itself in depth on the main track to Buin with its forward company in the neighbourhood of Tokinatu. The other, further inland, crossed at Makapeka and advanced towards the Horinu area.

Both columns met stiffening opposition, and at the end of the month the whole advance was held up by a determined enemy counter-offensive which was intended to push them back across the Puriata and reoccupy the Toko area. The counter-offensive failed after several days of bitter fighting, and after regrouping their forces the Australians continued their advance in the latter half of April.

By the 27th the inland column had reached the Hongorai in the region of Rumiki and had cleared the enemy from a lateral trail which gave communication with the other column on the main road at Tokinatu. On 17 April the main road force resumed its advance, and on 7 May it reached the Hongorai ford.

The inland force, fighting its way south along a track which became known as the Commando Road, crossed the Hongorai on 17 May. The Buin Road force crossed it lower down, on both sides of the main ford, on the 20th. Three days later the road was cleared of the enemy for 3000 yards beyond the ford. On 28 May a new lateral track between the two forces was secured, and this greatly eased the problem of supplying the Commando Road column.

The Australians continued to advance until the end of June, fighting every inch of the way along Commando Road and the Buin Road, and by the 30th they had reached the Mivo River. From there they sent patrols westward to reconnoitre the next stage, which was to take them to the Silibai.

During July forward movement was prevented by torrential rains, which flooded the rivers and destroyed or damaged most of the bridges that had been built on the Buin Road. The disruption of the line of communications made impossible the assembly of stores and supplies in the forward area, and the projected date for the next phase of the advance had to be postponed until 21 August. Such was the position when, on 15 August, it was announced that **Japan had accepted the Allies' terms of surrender.**

ROYAL NEW ZEALAND AIR FORCE

CENTRAL AND NORTHERN BOUGAINVILLE

CENTRAL AND NORTHERN BOUGAINVILLE

The capture of Pearl Ridge at the beginning of January, and the establishment of strong defensive positions there, had prevented any further enemy attack on **Torokina** from the east. For the next six months activity was limited to offensive patrols on the eastern side of the central range, to lower the morale of the enemy troops stationed there. In June pressure was increased. Forward enemy garrisons were attacked, and Australian outposts were established on the eastern side of the range. When the end of the war came, long-range patrols, operating from a temporary base on the lower reaches of the Wakuna River, were harassing enemy communications on the east coast in the Numa Numa area.

Operations in northern **Bougainville** were part of the responsibility of the 11th Brigade until June 1945, when it was relieved by the 23rd Brigade. Early in January a base was established at Amun, ten miles up the coast from Cape Moltke, and from there the advance was continued without opposition for another 20 miles to Puto. The first contact with the enemy in any strength was made on 17 January on the coastal track a mile south of Tsimba, at the mouth of the Genga River.

The Japanese had moved troops down from **Buka**, and from carefully prepared positions they hotly contested the Australians' efforts to reach the Genga. Artillery and air strikes were used to break down the enemy resistance, and by 9 February the south bank of the river was reached. From there a series of small outflanking movements forced the enemy to withdraw, and on 21 February the forward Australian troops reached the mouth of the Gillman River. The main axis of the advance was along the coastal trail, but the Japanese had established defensive positions, including artillery, on the ridges and foothills to the east and on a number of small islands lying off shore. These had to be dealt with, as

they commanded the trail and helped considerably to slow up the Australians' progress.

A further series of operations, against determined opposition, resulted in the Japanese being cleared from the Soraken Peninsula. Then the Australians advanced to Pora Pora and Ratsua, on the western side of the base of the Bonis Peninsula. From there, early in May, a line was established to Ruri Bay, on the east coast, and the Japanese on Bonis were cut off from the rest of **Bougainville.**

The line, about 10 miles long, was held at intervals by posts of company strength. Attempts were made to advance northward but they were unsuccessful. The enemy occupied the peninsula in strength and had developed strong defensive positions that could not be overcome with the forces available.

In July it was decided that the line was too thinly held to be effective, for the Japanese were becoming increasingly aggressive. Consequently, the company bases were withdrawn and concentrated at Bonis Plantation and Ruri Bay. From there, on either side of the peninsula's base, strong patrols were sent out to cover the escape routes to the south. By the end of July enemy activity south of their main defensive line had been reduced to a minimum as a result of these patrols, and this state of affairs lasted until hostilities ceased on 15 August.

A fourth theatre of war on **Bougainville, in which the **RNZAF** was from time to time called upon to assist, was in the south-east. There, particularly in the Kieta area, the natives carried on their own private guerrilla war with the Japanese and in the course of the year caused them some hundreds of casualties.**

ROYAL NEW ZEALAND AIR FORCE

RNZAF STRENGTH ON BOUGAINVILLE, 1945

RNZAF STRENGTH ON BOUGAINVILLE, 1945

The year 1945 opened with two New Zealand fighter squadrons, Nos. 24 and 21, stationed on **Bougainville**. They were relieved in January and February by Nos. 20 and 18 respectively, both of which remained on the island until April.

In April the need to provide fighter squadrons for garrison duty in the **South Pacific Area** ceased. Thenceforth, squadrons coming from New Zealand went straight to the forward area instead of being held for a tour of duty at Santo or **Guadalcanal**. Consequently it was possible to increase the number operating from **Bougainville** to four, at which figure it remained until the end of the war.

At the beginning of May the squadrons stationed there were Nos. 14, 16, 22 and 26, all of which had arrived during April. They were relieved in June and July by Nos. 15, 23, 24 and 18 respectively, the four squadrons which were on the island when the war ended.

The **Piva**-based squadrons were responsible for flying dawn and dusk patrols over the **Empress Augusta Bay** area, in the unlikely event of Japanese aircraft venturing into the region. Their main occupation, however, was to make bombing and strafing attacks on Japanese positions on **Bougainville**.

Roughly, the operations were divided into three categories: close support of the ground troops, when enemy forces and strongpoints were attacked a few hundred yards in front of the Australians' lines; tactical support, when the enemy's troop concentrations, gun positions, communications and headquarters behind the front line were hit; and strategic support, when supply dumps, camps and communications in the base areas were the targets. In addition, aircraft daily flew low round

the coast, searching for any Japanese who ventured out in canoes or other small craft.

Until the beginning of April, all sorties by **Piva**-based aircraft in support of the ground forces were ordered by COMAIRNORSOLS on request by Headquarters 2nd Australian Corps. Thereafter, however, closer liaison was established between the **Air Force** and the troops in the field for close-support operations.

Twelve Corsairs, at fifteen-minute readiness, were kept at the disposal of the forward brigade in south-west **Bougainville**. Field Headquarters at **Piva** was in direct contact, through the RAAF tactical reconnaissance organisation, with the forward command, which called for strikes on particular targets, provided target information, and arranged to have the targets marked. When a call for a close-support strike came through, the pilots assembled for briefing in the crew room, where the Air Liaison Officer and the Intelligence Officer gave them all the available information about their target and they received their operational instructions. The minimum time needed, from receipt of the first warning until the pilots were ready to take off, was forty-five minutes.

During the first three months of the year, when two squadrons were at **Piva**, the sorties flown by New Zealand aircraft ranged from eight to forty-six daily, depending on the weather, the number of aircraft available, and operational requirements. A normal day's effort consisted of about thirty sorties.

In April, with four squadrons available, the weight of attack rose sharply, and the daily sorties averaged between fifty and sixty. In the next three months the average rose even higher. At times aircraft from **Green Island** were called in to lend their support, and on special occasions over a hundred sorties were flown in a day.

The usual bomb-load for a Corsair was 1000 pounds, which might take the form of one 1000-pounder or two 500-pounders, although on

occasions two 1000-pounders were carried. The type of bomb used varied with the nature of the target, and was sometimes dictated by the supplies available. General purpose bombs were most commonly used. When employed against troop positions, particularly in swampy country, they were modified by having a stick, 2 ft. 6 in. long, projecting from the nose. The stick, on striking the ground, caused the bomb to explode before it was buried. The blast, instead of being deflected upwards from a crater, spread laterally, causing casualties and destroying cover over a wide area. A similarly satisfactory effect was obtained against hut concentrations and defensive positions; 325-pound and 650-pound depth-charges were also used with similar results.

The scale of attack, steadily mounting from the beginning of the year, is best illustrated by the following table showing the total sorties against Japanese positions on **Bougainville** and **Buka** during the period:

	<i>Number of Sorties</i>	<i>Tons of Bombs Dropped</i>
January	689	322
February	746	395
March	871	493
April	1401	663
May	2512	1041
June	2038	716
July	1930	522
August	405	104
TOTAL	10,592	4256

Fighter-bomber attacks on Japanese positions were normally made from 3000 feet, the aircraft diving to 2000 feet to release their bombs, and then pulling out of the dive and retiring at high speed. After bombing, they returned and made strafing runs over the target area, unless ordered not to because of the danger of anti-aircraft fire.

As the terrain was covered with dense jungle and the enemy took full advantage of the concealment it offered, pinpoint targets were extremely difficult to locate from the air. A lead-in aircraft was used to identify the objectives from a low level and drop smoke bombs on it to

guide the attacking force. Normally this task was done by Boomerangs or Wirraways of No. 5 Tactical Reconnaissance Squadron, RAAF, but where the intensity of ground fire made it dangerous for the relatively slow reconnaissance machines, a Corsair flown by an experienced pilot was used. Having observed the fall of his bombs, the lead-in pilot, known as 'Smoky Joe', orbited the area and told the strike aircraft by radio telephone exactly where to drop their bombs in relation to the marker smoke.

In close-support operations the target was frequently marked by the ground forces by means of mortar fire.

ROYAL NEW ZEALAND AIR FORCE

CLOSE AND TACTICAL AIR SUPPORT, SOUTH BOUGAINVILLE CAMPAIGN

CLOSE AND TACTICAL AIR SUPPORT, SOUTH BOUGAINVILLE CAMPAIGN

Before the Australians began their forward move from the Jaba River line in January, RNZAF Corsairs were employed in softening up Japanese positions and interrupting communications in areas immediately to the south. When Australian patrols penetrated southwards towards Mawaraka, an increasing number of air attacks was made on troop concentrations and bivouac areas which they reported.

After the middle of January, as the offensive got into its stride, ground and air operations became progressively more integrated. Strikes behind the Japanese lines were ordered by Headquarters 3rd Division as part of the general preparation for the advance, while attacks on objectives immediately confronting the ground troops were made on request from the battalion in the field.

During the advance to the Puriata, constant air attacks in the area immediately to the north of the river helped considerably to lower the morale of the enemy and break down his opposition. In support of the Australians' operations eastward from Mawaraka towards Mosigetta, aircraft of No. 20 Squadron were called on to clear an area of swamp and jungle immediately in front of the troops. They combed it thoroughly with 1000-pound and 500- pound stick-bombs and depth-charges and by strafing, starting from a line only 80 yards in front of the foremost Australian positions.

When the north bank of the Puriata was reached, air attacks were switched to the area to the south, and the softening process was repeated there. The procedure was the same in each stage of the campaign: first, a pounding of the troops and communications behind the line, and then, as the Australians advanced, the blasting of opposition immediately in their path.

A very successful close-support operation was carried out on 26 April by forty-one aircraft of Nos. 14, 22 and 26 Squadrons. The target was a 700-yard strip of road in the Hiru Hiru area, down which the Australian advance was blocked by strong Japanese defensive positions. To clear it, bombs had to be dropped in the jungle on either side, 25 yards apart and 25 yards from the road, from a point 300 yards ahead of the foremost Australian troops.

The three squadrons held a combined briefing at **Piva** at six o'clock in the morning, and took off an hour later. When they arrived the target area was marked by mortar bombs, and tactical reconnaissance aircraft laid smoke bombs along the line of the trail itself.

No. 14 Squadron, led by Squadron Leader **McNab**,¹ went in first with six 1000-pound stick bombs and twenty-six 325-pound depth-charges. The first section of four aircraft laid their bombs on the left side of the road, and the next section bombed the right. Then Nos. 3 and 4 Sections treated the next hundred yards similarly. Each aircraft carried two bombs, and sections followed one another in on a second run.

¹ **Sqn Ldr P. R. McNab; Blenheim; born Auckland, 13 Jun 1916; clerk.**

As soon as No. 14 had finished, No. 26 Squadron followed it, led by Squadron Leader **Delves**.¹ After dropping eleven 1000-pounders, the aircraft formed up in pairs and made three strafing runs over the target.

When they were clear, Squadron Leader **Court**² led in No. 22 Squadron, which dropped fourteen 1000-pounders on the last section of road and then strafed it thoroughly.

The bombing was excellent, and the enemy positions were completely shattered. Australian patrols, which had moved up through the jungle on either flank, captured numbers of dazed Japanese trying to escape from the area. By evening the ground forces had advanced the

full 1000 yards over the bombed area.

Such attacks as this enabled the advance to go on much more rapidly than would otherwise have been possible. Difficulties of supply were so great that only a relatively small spearhead could be maintained in the front line. To put in the ground forces which would have been needed to overcome Japanese resistance without the help of constant air support, it would have been necessary to spend months in building an elaborate system of roads and bridges.

¹ **Sqn Ldr G. A. Delves, m.i.d. Wanganui, 30 Aug 1918; clerk.**

² **Sqn Ldr J. R. Court, DFC, m.i.d.; Auckland; born Auckland, 14 Apr 1920; warehouseman.**

ROYAL NEW ZEALAND AIR FORCE

NORTHERN BOUGAINVILLE

NORTHERN BOUGAINVILLE

Air operations in northern Bougainville followed the same pattern as those in the south: softening-up raids behind the enemy's line, and direct attacks on his forward positions when they were called for.

No. 18 Squadron had an interesting day in this area on 3 March. Pilot Officer Albert,³ who was flying on a routine search with Squadron Leader Corbet,⁴ sighted two Japanese medium tanks in the vicinity of Ruri Bay. It was the first time any had been seen or suspected on Bougainville. Neither pilot was carrying bombs, so they both made several strafing runs. Then Corbet returned to base to report the sighting and call up reinforcements, leaving Albert on guard. One of the tanks was apparently disabled, as it remained in the open; but the other moved into the cover of the jungle.

The first sighting was made at 10.50 a.m., and at 12.30 Corbet was back from Piva, accompanied by Flying Officer Kirk.⁵ Both were armed with 1000-pound bombs. They attacked the tank which could be seen in the jungle some 30 yards off the road. Corbet's bomb fell short, but Kirk's was almost a direct hit. It cleared the jungle in the vicinity, and exposed a third tank ten yards away. Both were damaged and covered with bomb debris. Both pilots then strafed the tank in the open, but did not observe any results.

In the afternoon another strike was made by seven aircraft. They bombed the two tanks in the jungle and set one of them on fire. All the pilots, and a reconnaissance pilot who was observing the operation, agreed that both were badly damaged. Then they strafed the third tank, which had not moved since it was first sighted. After a beam attack it was obscured by heavy black smoke and red oil flames, and shortly afterwards its ammunition went off in a series of explosions, completely

wrecking it.

Next morning the tanks in the jungle had been moved, but one of them was discovered by a tactical reconnaissance Boomerang in the late afternoon, heavily camouflaged and hidden under trees. As soon as it was reported, three aircraft of No. 18 Squadron took off to bomb it. It was dark when they reached it, but the reconnaissance pilot marked the target with tracer fire. This tank was finally knocked out on the morning of 5 March in another attack by nine aircraft of No. 18 Squadron. Two of the bombs were almost direct hits and blew off the tank's turret and two doors.

A number of other attacks were made on the area in the next two days by fighter-bombers and by bomber-reconnaissance aircraft from **Green Island**. A combined strike on 6 March by eight aircraft from Nos. 18 and 20 Squadrons, on a suspected tank depot and supply dump, was highly successful. Natives later reported that two tanks and a large truck had been destroyed and a large number of Japanese killed.

Strategic bombing on **Bougainville** in 1945 was directed mainly at Muguai, in southern **Bougainville**, where the headquarters of the Japanese 17th Army was located. Targets included a number of regimental and divisional Army and Navy headquarters, engineering shops, and food, ammunition and oil dumps.

Until April most of the attacks on the area were carried out from **Piva**, but in that month the main responsibility was allotted to **RNZAF Corsairs** and **Venturas** and **American Mitchells** operating from **Green Island**. Besides scheduled strikes, a number of extra ones were made when bad weather farther north prevented operations from **Green Island** against **Rabaul** and **New Ireland**.

The bombing of southern **Bougainville** achieved a threefold result. It destroyed large quantities of stores and killed numerous Japanese; it kept the headquarters staffs on the move and in a state of disorganisation; and it made the natives most unwilling to work for, or

anywhere near, the Japanese.

³ **Fg Off K. L. Albert; Wellington; born Wellington, 29 Oct 1922; draughtsman.**

⁴ **Sqn Ldr G. H. Corbet, Bronze Star (US); Invercargill; born Invercargill, 18 Aug 1916; clerk.**

⁵ **Fg Off G. M. G. Kirk; Tauranga; born Frankton Junction, 21 Nov 1924; dairy farmer.**

ROYAL NEW ZEALAND AIR FORCE

RNZAF UNITS ON GREEN ISLAND

RNZAF UNITS ON GREEN ISLAND

New Zealand squadrons were maintained on **Green Island** until June 1945, when **RNZAF** operations from there ceased.

Of the two fighter squadrons stationed there at the beginning of the year, No. 14 completed its tour of duty in late January and was relieved by No. 17. No. 16 returned to New Zealand in the middle of February and was replaced by No. 15. No. 17 remained on the island until the end of March, when it was relieved by No. 24. No. 21 relieved No. 15 in April. In May No. 20 Squadron came up and was quartered at **Green Island** while awaiting the erection of accommodation at **Jacquinet Bay**.

Fighter-bomber operations from **Green Island** were discontinued in the middle of May in order that the servicing units could prepare to move to **Jacquinet Bay**. At the end of the month all the pilots of No. 20 Squadron and half of No. 21 had moved to the new location, and the rest of No. 21 joined them on 12 June.

No. 1 (Bomber Reconnaissance) Squadron, which had been on **Green Island** since October 1944, was relieved at the beginning of the year by No. 2. No. 2, in turn, was relieved in March by No. 3, which remained there until 9 June, when it went to **Jacquinet Bay**.

The three servicing units which had been posted to **Green Island** in 1944 continued to support the flying squadrons based there in rotation. When the **RNZAF** left the island they were transported by LST to **Jacquinet Bay** with their equipment.

No. 3 (Fighter) Servicing Unit was the first to go, leaving **Green Island** on 18 May and arriving at **Jacquinet Bay** next morning. No. 14 (Bomber Reconnaissance) was the next. The main body sailed on 27 May, leaving a small party behind for some weeks to complete repair

work on several unserviceable aircraft. The third unit, No. 30, was also to have left during the last week in May, and had all its equipment packed and ready to move; but it was delayed because no further shipping was available. After nearly two months of waiting, it finally sailed on 14 July.

The fighter squadrons stationed at **Green Island** during 1945 continued to provide aircraft for local defence, offensive operations against **Rabaul** and **Bougainville**, and 'Dumbo' escorts.

In the early part of the year many bombing strikes were made on barges, camps, and other targets in the **Rabaul** area; but from March onwards operations over the Gazelle Peninsula were confined mainly to security patrols. Whenever the weather permitted, sections of four aircraft were maintained over the area from dawn to dusk, denying the Japanese the use of their aerodromes and reporting any untoward activities.

Enemy opposition was limited to anti-aircraft fire, which varied in intensity and accuracy but was seldom absent. The weather was often a more formidable hazard.

Nos. 14 and 16 Squadrons had a disastrous day on 15 January. Twelve aircraft from **Green Island** and twenty from **Piva** made a combined bombing attack on Toboi, a few miles south-west of **Rabaul**. Immediately after the attack Flight Lieutenant **Keefe**,¹ of No. 14 Squadron, had his aircraft hit by anti-aircraft fire. He baled out and landed in Simpson Harbour.

Keefe was an exceptionally fine swimmer and struck out for the harbour entrance. For some time he made good progress, and reached a point midway between Matupi Island and Vulcan Crater. Then, in the middle of the afternoon, by which time he had been swimming for six hours, the tide and wind changed and he began to drift back up the harbour. All day he was covered by aircraft of Nos. 14 and 16 Squadrons. A Catalina stood by, but anti-aircraft fire prevented it from going in to

rescue him. Two rafts were dropped, one falling within 100 yards of him, but he was not seen to attempt to use them.

At evening, with their petrol running low, the patrolling aircraft had to leave to return to **Green Island**. On the way they ran into a tropical storm which had developed with unexpected suddenness. Flying in darkness through torrential rain, five of the Corsairs crashed into the sea on the way home, and one crashed at Green Island when about to land. A seventh simply disappeared. An intensive search next morning failed to find any trace of the missing pilots or their aircraft.

The following account of the episode is taken from No. 14 Squadron's operations record book:

A combined strike was scheduled for targets No. 1 and 2 at Toboi, on the Western side of Simpson Harbour. Twenty **Piva**-based Corsairs were to lead in on No. 1, followed by eight aircraft from 16 Squadron and four from us on No. 2 target. Flying Officer Corbett's ² aircraft went unserviceable so we had only three aircraft, each carrying 2 - 500 lb. bombs. Just after release, and when between 2,000 and 2,500 feet, Flight Sergeant **Cook**, ³ the last man in, saw Flight Lieutenant Keefe, who was immediately ahead of him, get hit by anti-aircraft fire in the port wing. There was a burst of flame and the aircraft climbed steeply to 3,000 ft. with black smoke pouring from the engine and pieces of the aircraft flying about. At 3,000 ft. it did a wing-over and went straight down. Flight Lieutenant Keefe managed to bale out, landing in the water between half a mile and a mile North of Beehives. Apparently he was unharmed, as he started to make immediate progress towards the entrance of the harbour. When he was about mid-

¹ **Flt Lt F. G. Keefe**; born **Auckland**, 23 Jul 1916; driver-mechanic; died of wounds while p.w. 1945.

² **Fg Off D. A. Corbett**; **Auckland**; born Millerton, 10 Oct 1922; University student.

³ **F/S A. I. Cook**; Bluff; born **Invercargill**, 7 Dec 1924; cadet telegraphist.

way between Matupi Island and Vulcan Crater the tide and wind changed. This was mid-afternoon. Remaining more or less stationary for at least an hour, he then started to drift gradually back into the harbour. If there was any possibility whatsoever, Dumbo was going in, but as a precaution two small bamboo rafts were sent up by Ventura. As Flight Lieutenant Keefe was losing ground, it was considered to be suicidal for Dumbo to do anything, so the rafts were dropped at about 1800 hours. One landed 100 yds. East of him and the other 100 yds. West, but no-one observed him making any attempt to reach them. Squadron Leader **Green** ¹ of No. 16 Squadron made two low runs over Keefe and saw him lying across a log. He could not say for sure, but it appeared as if Keefe's head was under water. There were 15 Corsairs patrolling overhead at the time. They were ready to give protection should Dumbo put down, but as there was nothing more they could do they set out for base at about 1845 hours.

Flight Lieutenant **Hay**, ² leading our two sections and followed by a section from 16 Squadron, came round Cape St. George and, as there was a front between there and base, he set course for Feni Island, no doubt in an attempt to get round it. The front developed very rapidly just before the aircraft left **Rabaul** and there was no means of knowing how thick or wide it was going to be. When just South of Feni, Hay received a course of 125 degrees from Shepherd Base and decided to turn on to it. As they entered the front, Flight Sergeant **Walther** ³ noticed that his altimeter was reading 300 ft. although, because of high pressure, their height was estimated to be about 450 ft. In a flash of lightning, only a minute or two after entering the front, Walther, who was No. 4, saw Hay and Flight Sergeant **McArthur** ⁴ collide. With the latter's aircraft burning at the wing-roots, they dropped behind. Immediately after the collision he saw the lights of Flying Officer Steward, ⁵ No. 3, go down. This left Walther on his own and he put up a magnificent effort in getting home.

Pilot Officer Crump's ⁶ section, led by Flight Sergeant **Munro**, ⁷ as Crump's R/T was not working, became separated from the others, but Munro did a grand job in bringing them home as it entailed nearly twenty minutes blind flying after dark and in heavy rain. Unfortunately, fate was still against them. Munro, with Flight Sergeant **Mitchell** ⁸ on his right, were going down the down-wind leg at 500 ft. before landing with a ceiling of less than 600 ft. when the former was seen to pull up sharply and disappear into cloud. What happened to him, nobody knows.

No. 16 Squadron did not escape. Of their section, which had formed with Hay, two were seen to hit the water and explode immediately prior to the collision. The remaining pair managed to get home but they were extremely lucky. Squadron Leader Green led his pair home almost on a

¹ **Sqn Ldr P. S. Green**, DFC, m.i.d.; **Wellington**; born Kawakawa, 15 Dec 1919; statistician.

² **Flt Lt B. S. Hay**, m.i.d.; born **Taihape**, 2 Dec 1921; clerk; killed on air operations 15 Jan 1945.

³ **W/O D. G. Walther**; **Woodville**; born **Woodville**, 28 Aug 1921; dairy farmer.

⁴ **F/S J. S. McArthur**; born **Christchurch**, 18 Aug 1920; electrician; killed on air operations 15 Jan 1945.

⁵ **Fg Off A. N. Seward**; born **Hamilton**, 4 Dec 1922; farmhand; killed on air operations 15 Jan 1945. [Name incorrectly given as Steward in squadron record book.]

⁶ **Fg Off H. P. Crump**, m.i.d.; **Dargaville**; born **Dargaville**, 19 Sep 1921; University student.

⁷ **F/S I. J. Munro**; born **Kaitaia**, 15 Aug 1924; farmhand;

killed on air operations 15 Jan 1945.

⁸ Fg Off R. R. Mitchell; Petone; born Palmerston North, 10 Apr 1924; fireman.

direct course at low level. One got lost and was lucky to fluke base as his R/T was out of action. The other pair reached the island safely but in a turn Flying Officer **Randell ¹ lost height and crashed.**

After the war it was reported by Japanese captured at **Rabaul that Keefe had swum ashore at Vulcan Crater, and later had taken a small boat and tried to row down the harbour. A wounded arm made it impossible for him to row properly, and he was taken prisoner by a Japanese naval party. He died of his wound while a prisoner of war.**

In addition to regular patrols over **Rabaul, Green-based fighters took part in a number of bombing strikes on the Japanese bases in southern **Bougainville** in April and the early part of May, thereby releasing the **Piva** squadrons for an all-out effort in support of the Australian ground forces. Attacks were also made on targets on **Buka** and northern **Bougainville**.**

¹ Fg Off G. Randell; born **Tauranga, 14 Oct 1920; electroplater; killed on air operations 15 Jan 1945.**

ROYAL NEW ZEALAND AIR FORCE

BOMBER-RECONNAISSANCE OPERATIONS FROM GREEN ISLAND

BOMBER-RECONNAISSANCE OPERATIONS FROM GREEN ISLAND

No. 2 Squadron opened its tour of duty at **Green Island** early in January with medium-level bombing strikes and night heckles over **Rabaul**. In the middle of the month the American PBJ squadron which shared its duties was temporarily engaged elsewhere, and for ten days No. 2 Squadron was the only bomber unit operating. During this period, owing to the absence of PBJs to act as bombing leaders for medium-level strikes, all attacks were made from low level and were directed mainly against **New Ireland**. During this period, also, a change was made in the bomb-load for night heckles. To obviate the necessity of sending an aircraft over **Rabaul** every night, half the bombs carried were fused to give a 24-hour delay. A number were dropped on bivouac areas, where it was hoped the undergrowth would conceal them until they exploded. Crews on night heckles also dropped empty bottles, which made a noise like whistling bombs and were considered to have a suitable effect on Japanese morale.

The major part of the squadron's operational effort was directed against **Rabaul**. During its tour it took part in thirty-one daylight raids on the area and ten night heckles. The normal strength of a raid was seven or eight aircraft, each carrying between 3000 and 4000 pounds of bombs.

A typical medium-level attack was made on 11 February. Eight aircraft of No. 2 Squadron, led by an American PBJ, combined with a formation of seven other PBJs to bomb a truck park at **Rabaul**. The American formation bombed first, and then the New Zealanders came over, flying at 11,000 feet. When their leader gave the signal, they all dropped their bombs simultaneously. Of the total load of sixteen 1000-pound bombs and forty-eight 325-pound depth-charges, 90 per cent exploded in the truck park and covered it with dense black smoke. Two

fires were started, one sending smoke up to 1000 feet.

Attacks against **New Ireland** targets, by formations of up to eight aircraft, numbered seventeen for the tour, and strikes on **Bougainville** six.

The squadron's heaviest attack, and the heaviest made by any eight New Zealand aircraft in the **Pacific**, was against Monoitu, in south-west **Bougainville**. The Australian Intelligence Bureau had reported large concentrations of enemy transport, supplies, and troops there, and on 28 February No. 2 Squadron was sent to attack them. Eight aircraft, each carrying 5000 pounds of bombs, flew down from Green island. They made one dummy run over their objective to make sure of identifying it, and then came round again and dropped everything they had. Of sixteen 1000-pounders and forty-eight 500-pounders, only two bombs failed to hit the target. There were huge explosions in the area, and three large fires were started.

No. 3 Squadron relieved No. 2 in March. During its tour it was employed chiefly against targets on **Bougainville**: Muguai, **Kahili**, Kara and Nakara in the south, Numa Numa on the east coast, and **Buka** and **Bonis** in the north. Only six attacks were made on **Rabaul**. A number of others which were planned had to be abandoned or diverted to **New Ireland** because of bad weather over the target. The squadron did, however, have an aircraft over **Rabaul** on early morning weather and shipping reconnaissance on every day when the weather was good enough for flying. Night heckles, too, were carried out on twelve occasions. From March onwards Venturas engaged on this duty were accompanied by two Corsairs in an attempt to catch the Japanese aircraft occasionally seen practising night flying.

Miscellaneous operations by No. 2 and No. 3 Squadrons included photographic reconnaissance flights and a number of unsuccessful searches for reported enemy submarines.

In April a number of Venturas were modified to enable a bomb-sight

suitable for medium-level bombing to be fitted. Thereafter, it was no longer necessary for New Zealand formations always to be led on to their target by a PBJ. The first occasion on which a Ventura was used as a bombing leader was on 8 April, when six aircraft of No. 3 Squadron successfully attacked Vunakanau, on the Gazelle Peninsula. Wing Commander **Morrison**¹ led the formation and Flight Lieutenant **Kidson**² was bomb-aimer.

¹ **Gp Capt I. G. Morrison, OBE; RNZAF; born Amberley, 16 Mar 1914; RAF 1936–39; RNZAF 1939; advertising salesman; Air Member for Supply Oct 1954–.**

² **Sqn Ldr M. Kidson, DFC, AFM; RNZAF; born Wellington, 12 Jul 1913; clerk.**

ROYAL NEW ZEALAND AIR FORCE

OPERATIONS FROM EMIRAU

OPERATIONS FROM EMIRAU

The **RNZAF** maintained a bomber-reconnaissance squadron at **Emirau** until July 1945, and a fighter squadron until August, when all forces were withdrawn from the island. The squadrons operating there in 1945 were:

Bomber Reconnaissance

No. 4 (November 1944–February 1945)

No. 8 (February–March)

No. 9 (March–May)

No. 1 (May–June)

No. 4 (June–July)

Fighter

No. 19 (November 1944–January 1945)

No. 22 (January–March)

No. 23 (March–May)

No. 25 (May–July)

No. 14 (July–August)

Throughout the period the squadrons were based on Nos. 10 (BR) and 5 (F) Servicing Units.

Operations followed much the same pattern as they had since the **RNZAF** was first established on the island. Fighter activities were

directed at keeping a constant patrol over [Kavieng](#) during daylight and dropping occasional bombs to harass the enemy. The bomber-reconnaissance squadrons, early in the year, continued to provide three aircraft each morning to search for Japanese shipping to the north, and others to fly dawn and dusk patrols round the coast of [New Ireland](#). In addition, formations of up to eight aircraft took part when required in strikes on particular targets.

In February, and again in May, June and July, Venturas and American Mitchells from [Emirau](#) joined with formations from [Green Island](#) in a number of combined attacks on [Rabaul](#).

ROYAL NEW ZEALAND AIR FORCE

MOVE TO LOS NEGROS

MOVE TO LOS NEGROS

In June all **RNZAF** units on **Emirau** were ordered to prepare for a move forward. Their ultimate destination was to be **Borneo**, but they were to spend some weeks en route at **Los Negros**. An advance party of **No. 10 Servicing Unit** travelled to **Los Negros** by air on 7 July to prepare a camp and service the aircraft of **No. 4 (BR) Squadron**, which were due to follow in a few days. Owing to shipping difficulties, the balance of the unit, with its equipment, did not leave until 9 August. **No. 14 (F) Squadron** ceased operations from **Emirau** on 7 August and flew to **Los Negros** the next day. Its servicing unit, **No. 5**, followed by sea on the 20th.

New Zealand forces on **Los Negros** during 1945 comprised **No. 4 Servicing Unit**, the **Corsair Assembly Unit**, which was transferred from **Santo** in February, and a succession of fighter squadrons:

No. 23 (November 1944–January 1945)

No. 25 (January–March)

No. 19 (March–May)

No. 17 (May–September)

No. 14 (August–October)

No. 4 (BR) Squadron, which came from **Emirau** in July, and **No. 14** did not become operational until after the war ended, owing to the late arrival of their servicing units.

Fighter operations during the year were similar to those carried out in 1944: dawn and dusk patrols, and scrambles to intercept unidentified aircraft. When interceptions were made strangers invariably turned out

to be friendly; but there were occasions when they evaded interception and were presumably Japanese.

One enemy air raid was made on the night of 28–29 April. Two torpedo-carrying aircraft, flying low over the water, came in shortly after midnight to attack shipping in Seeadler Harbour. One of them hit and severely damaged a floating dock. The defences were taken by surprise, and both aircraft retired unscathed. Japanese records captured after the war showed that one of them was lost on the return trip to Rabaul. They also disclosed that the pilot of the other one thought he had hit an aircraft carrier with his torpedo.

When the war ended it was thought that a fighter squadron and servicing unit from Los Negros would be going to Japan, and volunteers were called for. The rumour came to nothing, however, and the next two months were spent in making all aircraft serviceable and despatching them to Bougainville on their way back to New Zealand.

At the same time a start was made with repatriating as many personnel as possible. Royal New Zealand Air Force strength on the island was 1085 in the middle of September, and at the end of the month it had been reduced to 533. Equipment was checked and packed ready to be shipped home and camps were dismantled. By the end of October only a small rear party, engaged in final clearing up, remained.

ROYAL NEW ZEALAND AIR FORCE

JACQUINOT BAY

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Australian forces had occupied **Jacquinet Bay**, on the south-east coast of **New Britain**, in November 1944. At the beginning of February 1945 a detachment of No. 1 Airfield Construction Squadron, RAAF, was posted there to begin the construction of an airfield. Other RAAF units moved in in the next two months.

It was intended that No. 79 GR Wing, RAAF, should be based there to support the final assault on **Rabaul**, and a number of ancillary units of the wing were posted there in March and April. About that time, however, plans were changed. It was decided that **Rabaul** should not, after all, be taken by direct assault but should be kept in a state of siege. Consequently, No. 79 Wing was moved westward to support operations against **Borneo**.

Royal New Zealand Air Force units were established at Jacquinet Bay in May. On the 18th four aircraft of No. 21 Squadron were flown in to take over scramble alert duties, and on the same day an advance party arrived by air to arrange for camp sites. On the 19th No. 3 **Servicing Unit** arrived, with most of its equipment, by LST. Aircraft for the use of No. 20 Squadron were flown in on the 20th, the pilots returning to **Green Island** by transport plane the same day as no living accommodation was yet available. The squadron finally moved in to the new base on the 29th. On the same date the Officer Commanding and eight other pilots of No. 21 Squadron arrived from **Green Island**. No. 14 **Servicing Unit** also arrived to prepare for the reception of No. 3 (BR) Squadron, which was to move from **Green Island** early in June. When the balance of No. 21 Squadron arrived on 8 June and No. 3 Squadron on the 9th, the **RNZAF** establishment at **Jacquinet Bay** was complete except for No. 30 **Servicing Unit**, which had been delayed on Green Island through lack of shipping.

When they first landed at **Jacquinot Bay**, all units had to unload their equipment and erect camps and working accommodation. Existing buildings were still occupied by elements of the RAAF Wing and by a **Netherlands East Indies** fighter squadron, and until these moved out, early in June, there was considerable congestion, particularly in messing facilities. All work was hampered during the first few weeks by incessant heavy rain.

Although a few fighters had been available for scramble alerts since 19 May, **RNZAF** units were not ready to undertake regular operations until the 29th. On that date No. 20 Squadron began to carry out offensive patrols over the **Rabaul** area, strafing Japanese troops and barges and bombing suitable targets whenever they presented themselves. When the weather permitted, five patrols daily were flown until the middle of July. After that, until the squadron ceased operations on 12 August, missions consisted mainly of concentrated bombing attacks by formations of up to a dozen aircraft on selected targets.

No. 21 Squadron, which remained at **Jacquinot Bay** until 2 July, when it was relieved by No. 19, was able to take little part in operations owing to the absence of the second fighter servicing unit. Its activities were confined to a few **Rabaul** patrols, using aircraft maintained by No. **3 Servicing Unit**.

No. **30 Servicing Unit** arrived in the middle of July. No. 19 Squadron was then able to begin operations, maintaining three aircraft on scramble alert and flying a number of **Rabaul** patrols and bombing strikes. Its last major operation of the war was a successful bombing attack on Rapopo, when seven aircraft hit an oil dump with spectacular results.

No. 20 Squadron was relieved by No. 16, which reached **Jacquinot Bay** in time to hear that peace had been declared and was employed for the next few weeks on security patrols over the Gazelle Peninsula.

Bomber-reconnaissance operations were at first restricted by lack of bombs. No. 3 Squadron remained at [Jacquinot Bay](#) until 28 June, when it returned to New Zealand on completing its tour. During its three weeks there, its flying consisted chiefly of photographic sorties over the Bismarcks.

No. 2 Squadron, which came up from New Zealand towards the end of June, spent its first three weeks in practice bombing and familiarisation flights over the area, and started offensive operations on 14 July. From then on until the end of the war it carried out a series of medium-level bombing attacks, mainly against targets on the Gazelle Peninsula and on the islands off the north coast of [Bougainville](#). After the war ended the squadron flew on security patrols over [Rabaul](#) and [New Ireland](#), and dropped surrender pamphlets over Japanese positions.

On 6 September aircraft of the squadron helped to give cover to HMS *Glory*, on which Lieutenant-General V. A. H. Sturdee, General Officer Commanding 1st Australian Army, received the surrender of Lieutenant-General Imamura and Vice-Admiral Kusaka, commanding the Japanese forces in the South-West Pacific.

ROYAL NEW ZEALAND AIR FORCE

OPERATIONS IN THE SOUTH PACIFIC AREA

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While the war was being pushed to a successful conclusion in the north, **RNZAF** establishment in the South Pacific continued to play their part in maintaining lines of communication and administrative services. Fighter squadrons were stationed at Santo and **Guadalcanal** until April, spending a few weeks there on garrison duties and training before going on to the forward area. The practice ceased when the American Command decided that garrison forces were no longer necessary in the South Pacific.

Bomber-reconnaissance squadrons operated from **Fiji** and **Guadalcanal** until March and June respectively. No. 9 Squadron relieved No. 8 at **Nausori** at the beginning of the year and sent a detached flight to **Funafuti**. Operations from both places comprised anti-submarine patrols, all of which were uneventful.

At Guadalcanal No. 3 Squadron, coming up from New Zealand for its third tour, started operations on 9 February. When it moved forward to **Green Island** in March it was relieved by No. 1. No. 4 Squadron took over from No. 1 in May, and stayed at **Guadalcanal** until 22 June. The duties of all three squadrons were similar: dawn and dusk anti-submarine patrols over the central and southern **Solomons**, and escorts for Allied shipping in the area. At no time during the year was any enemy craft seen.

Of the two flying-boat squadrons, No. 5 operated from Second Channel, on Santo, until after the war, when it was withdrawn to **Lauthala Bay**. No. 6 was based at Halavo Bay, **Florida Island**, with detached flights at various times at **Funafuti**, **Emirau**, Los Negros, **Green Island** and **Jacquinet Bay**. Both squadrons flew long-range anti-submarine patrols, all of which were uneventful, and carried out

occasional transport flights and air-sea rescue missions.

ROYAL NEW ZEALAND AIR FORCE

RNZAF DISPOSITIONS, AUGUST 1945

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When the Japanese finally surrendered, on 15 August 1945, all **RNZAF** fighter squadrons, with the exception of those resting and reforming in New Zealand, were operating in the **Solomons-Bismarcks** area. Four, with their servicing units, were on Bougainville, two at **Los Negros**, and three at **Jacquinot Bay**. A move forward to **Borneo** had been planned but had not yet taken place.

Of the bomber-reconnaissance squadrons, four had been disbanded after completing their tours as there was little prospect of further employment for them after the completion of the South-West **Pacific** campaign. The other two, Nos. 2 and 4, were at **Jacquinot Bay** and **Los Negros** respectively.

The two flying-boat squadrons were based at Santo and Halavo, and the flying-boat OTU was still at **Lauthala Bay**.

Headquarters of the New Zealand Air Task Force was at **Bougainville**. Of the subsidiary field headquarters which had formed in 1944, those at **Piva** and **Los Negros** were still operating. The **Green Island** organisation had moved to **Jacquinot Bay**, and that at **Emirau** was in the process of moving to **Los Negros**, en route for **Borneo**.

No. 1 (Islands) Group Headquarters had closed down on 1 August, and **RNZAF Station, Guadalcanal**, was responsible for the administration of units within its area. No. 1 Islands Works Squadron had its headquarters still at **Guadalcanal**, with detached flights at Santo and **Bougainville**. No. 2 was at **Los Negros**, where it had gone earlier in the year, and had a detached flight at **Jacquinot Bay**.

ROYAL NEW ZEALAND AIR FORCE

JAPANESE SURRENDER

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News of the acceptance by the Japanese of the Allies' surrender terms came to units in the **Pacific**, after a week of conflicting rumours, as something of an anti-climax. For several days hopes were alternately raised and lowered; and when finally the announcement was made that the war was over, there was little evidence of elation. The predominant sentiment was a desire to get home as quickly as possible, now that there was no need to stay longer in the heat and discomfort of the tropics.

Units in the forward area remained at a state of readiness, and daily patrols were flown over the enemy's positions. Squadrons operating over **Rabaul** and **New Ireland** reported no untoward incidents. The Japanese, having been ordered to lay down their arms, showed no further interest in Allied aircraft. Over Bougainville, however, aircraft were fired on from the ground on several occasions in the days immediately following the surrender.

Although operations ceased on 15 August, the formal surrender ceremonies did not take place until the following month. At the main surrender, which took place on board the USS *Missouri* in Tokyo Bay on 2 September, New Zealand was represented by the Chief of the Air Staff, Air Vice-Marshal Isitt, who had flown up from New Zealand. In the South-West Pacific, Air Commodore G. N. Roberts was the senior New Zealand officer present when General Imamura, Commander of the Japanese South-East Army, surrendered to General Sturdee on HMS *Glory*, off **Rabaul**. Two days later, at **Torokina**, he again represented New Zealand when Lieutenant-General Savige, commanding the 2nd Australian Corps, received the surrender of Lieutenant-General Kanda and the Japanese troops on **Bougainville**.

ROYAL NEW ZEALAND AIR FORCE

CHAPTER 20 – CONCLUSION

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Conclusion

WHEN the war came to its abrupt conclusion in August 1945, three immediate tasks were faced by the **RNZAF** in the **Pacific** area: the repatriation of New Zealand prisoners of war from **Malaya**, the transport back to New Zealand of the 7000 men stationed at the various bases in the South and South-West Pacific, and the demobilisation of all personnel who would not be required for further service.

To evacuate New Zealand personnel from **Malaya**, a special flight was formed within the air transport organisation at **Whenuapai** under the command of Squadron Leader **Pirie**.¹ Dakotas were fitted up as air ambulances; medical staffs and supplies of food, clothing, and comforts were assembled; and a small ground staff was organised to undertake inspections of the aircraft at a staging point on the route between New Zealand and **Singapore**. The preparations were completed within a few days of the Japanese surrender, but it was not possible for the flight to leave immediately for **Malaya** as the relieving British forces did not enter **Singapore** until 5 September.

The first two aircraft eventually left New Zealand on 4 September to fly via Santo, **Bougainville**, Biak and Morotai to Brunei Bay in **Borneo**, where they were to remain until word was received that an aerodrome at **Singapore** was open. Both aircraft met with disaster at Morotai when an American Liberator taxied into them, destroying one and damaging the other. They were immediately replaced by two others.

The first two New Zealand aircraft to reach **Malaya** landed on **Kallang** airfield on 12 September. Pirie and his crew acquired a house owned by a Chinese merchant in the neighbourhood, in which they set up a headquarters. Wing Commander de Lange, the New Zealand liaison officer in **India**, arrived in **Singapore** the same day, having been delayed by a forced landing on his flight from **India**, and also took up his quarters in the house. It was soon found that **RAPWI**,² the British

organisation which had been set up for the repatriation of prisoners of war in the area, had little or no information as to the whereabouts of New Zealanders, so the **RNZAF** detachment set about finding them itself. Members of the Evacuation Flight, together with war correspondents and New Zealand Film Unit cameramen, visited all prisoner-of-war and internment camps on **Singapore** Island. As New Zealanders were found, they were brought to the Flight's headquarters, where they were fed, clothed, and interrogated on the possible whereabouts of other New Zealanders, and quartered until they could be put on aircraft leaving for home.

A report came in that there were New Zealand prisoners of war and civilian internees in **Java**, **Sumatra**, and **Thailand**. As no definite information could be obtained in **Singapore**, an aircraft was sent to **Batavia** on 16 September to bring back any who could be found there, and some days later one went to **Bangkok** and picked up twenty-one New Zealanders who had assembled there. At the same time others were brought in from outlying areas by Australian aircraft.

In the meantime, more Dakotas had arrived from New Zealand and repatriation had begun. Aircraft left **Singapore** for **Whenuapai** on 15, 16 and 17 September, each carrying sixteen prisoners of war and internees, flying via Brunei Bay, Morotai, Darwin, Cloncurry and **Brisbane**. Up to the end of the month the Flight was responsible for finding and collecting all New Zealanders in the area. After that a New Zealand Army contact team arrived and took over all matters dealing with non- **Air Force** personnel, and the **RNZAF** unit was able to concentrate on its main task of carrying released personnel from **Singapore**, where they were congregated, back to New Zealand.

The job was completed by the middle of October, and the last aircraft left **Singapore** on the 17th. Altogether the Flight repatriated 156 New Zealand prisoners of war and civilian internees and two Australians.

As soon as operation ceased, preparations were made to repatriate the men serving in the South and South-West Pacific. Shipping was still scarce and, although the Union Steam Ship Company's *Wahine* was chartered and made three trips to the Islands, bringing back about 2000 men, the major part of the work was borne by the two transport squadrons, assisted by Catalinas of No. 5 Squadron and the four aircraft of the Sunderland transport flight.

During September and October stations in the South-West Pacific Area progressively closed down as quickly as circumstances permitted. The fighter and bomber-reconnaissance squadrons flew their aircraft back to New Zealand, where most of them were disbanded. The last to leave the forward area was No. 24 Squadron, which was stationed at **Bougainville** until the end of October. No. 6 (Flying Boat) Squadron was disbanded overseas at the end of August, and No. 5 Squadron was withdrawn from Santo to **Fiji**.

In allocating priorities for repatriation a system of points was worked out, based on length of service overseas, marital status, number of children, and other factors affecting the eligibility of personnel for release from the service. Men who were due for repatriation in any case were given first priority, followed by others in their turn. For those who were low on the priority list, the period of waiting passed slowly. The stimulus of war was gone, and the men were impatient to return home. To keep up morale and help to make the time pass, sporting activities were greatly extended. Swimming and yachting were popular recreations, and most units had cricket teams which played a series of keenly contested matches. In addition, classes were organised in a wide variety of subjects to enable men to study and prepare themselves for rehabilitation when they arrived home.

By using every available aircraft of the transport organisation, repatriation proceeded fairly rapidly, and by the end of the year the only men left in the South-West Pacific Area were small rear parties on **Los Negros** and **Bougainville** in charge of the stores and equipment awaiting

shipping. In the South Pacific, a detached flight of No. 5 Squadron was at **Segond Channel**, and rear parties were engaged in closing down the stations at **Guadalcanal** and **Santo**. All these parties were administered from **Lauthala Bay**.

A flying-boat servicing party was stationed at île Nou in New Caledonia to attend to transient aircraft, and at **Norfolk Island** there was an air-sea rescue flight, a servicing unit for transport aircraft, and a radar unit.

All told, the number of personnel remaining in the **Pacific**, including those in **Fiji**, fell from over 7000 at the end of August 1945 to just over 700 at the end of December.

DEMOBILISATION

At home in the last four months of 1945 and the early part of 1946, the major task of the **Air Force** was the return of men as quickly as possible to civilian life. The machinery for this was already in existence. Since the middle of 1944 substantial numbers had already been released from the service, and towards the end of that year, when the end of the European war was in sight, preparations had been made in Air Headquarters to set up an organisation capable of handling general demobilisation. As a result of this, it was decided in May 1945 to establish non-effective pools in Auckland, **Wellington**, and **Christchurch** to undertake the discharge of men from the service. The pools, each of which was designed to handle a hundred men daily, started to operate in July, by which time a steady flow of men from the European theatre was arriving in New Zealand for discharge.

The detailed plans for final demobilisation were put into operation on 11 August when it was clear that the Japanese were about to surrender. As a result, the release organisation was in full swing within a day or two after the end of the war. Men returning from overseas were posted to one or other of the non-effective pools, where they were medically examined and where all the necessary accounting and

documentary action was taken for their release. To relieve the pressure on the pools, release organisations were set up on a number of New Zealand stations, and a large proportion of men serving in New Zealand were discharged by their home units.

The factor which determined the rate at which personnel could be discharged was the availability of medical boards, and especially of X-ray units. All personnel had to be thoroughly examined before returning to civilian life, and this, in the first few weeks after the war, caused a bottleneck. The difficulty was eased by setting up several systems of medical boards. Where possible, personnel were examined on their home stations. Others had their examinations at the non-effective pools, where service and civilian medical boards operated. Others, again, appeared before civilian boards which were established in eight of the main towns throughout New Zealand.

Releases were granted according to a priority system based on length of service and other factors. The general system of priorities was overridden in certain instances, following a direction by the Prime Minister that men in a number of essential industries were to be given first priority. At the same time, personnel in some air force trades could be given no priority, as they were needed to carry on the machinery of demobilisation and to maintain the continuing functions of the **Air Force**. Those particularly affected were men in the equipment, clerical, and accounting trades.

A total of 1642 men and women was released from the service in August 1945, and in the next four months the figures were 8215, 3503, 4328 and 3268 respectively. The year ended with the strength of the **RNZAF** at 12,228 men and women. Of these, 9899 were in New Zealand and the rest overseas in the **Pacific** or awaiting repatriation from the **United Kingdom**. Discharges continued at a fairly high rate until the end of March 1946, by which time 26,929 personnel had been released since VJ Day, and the greater part of the work of demobilisation had been completed. A number of men anxious for release still remained in the service performing essential duties. In July, however, it was decided that

all those who wanted their release should be demobilised, even if they had no priority and were doing essential work. This was effected, and 15 July 1946 marked the end of purely wartime service. Thereafter, all those remaining were personnel who had volunteered for engagements of up to two years in the Interim Air Force, or who hoped to make the service their permanent career.

THE POST-WAR AIR FORCE

Since the foregoing chapters were written, the Royal New Zealand Air Force has passed through a period of uncertainty and confusion that resulted from the sudden transition from war to peace conditions, and has been developed into a compact, well-organised force of between 4000 and 5000 men, capable of rapid expansion should the need arise. To bridge the gap between the end of the war and the reorganisation of the service to meet peace time conditions, the **Air Force was run on what became known as an 'interim' basis. In March 1946 recruiting depots were set up at **Wigram** and **Hobsonville** to enlist men for interim service. It was impossible to forecast what the size of the peacetime air force would be, since its probable functions and commitments were not known. Consequently it was not possible to offer permanent careers to those men who wanted to remain in the service or to prospective recruits. Instead, men were enlisted on interim engagements of up to two years. While many would not accept service under these terms with no guarantee of a future career, a number did accept and helped the **Air Force** through a particularly difficult period. The interim period came to an end in 1948, and thereafter, although a small percentage continued to serve on indefinite engagements, the great majority of those who were retained in the service were given definite contracts of five, eight, or more years.**

Most of the stations that were established to meet the needs of wartime expansion were closed down as soon as possible after hostilities ended, and where necessary their functions were taken over by those stations which remained to become part of the permanent air force

organisation. Stations which remained in operation at the end of 1946 were: **Lauthala Bay**, in **Fiji**, which was to become the permanent home of No. 5 Flying Boat Squadron; **Whenuapai**, from which Nos. 40 and 41 Transport Squadrons continued to operate; **Hobsonville**, which in the post-war period became responsible for all technical trade training for the **RNZAF**; **Te Rapa**, which is the main stores depot in the **North Island**; **Mangaroa**, which acted as a disposal depot for surplus stores until it closed down in July 1949; **Te Awamutu**, which continued to function as a stores depot until January 1948, when it became a bulk store for No. 1 Stores Depot, **Te Rapa**; **Ohakea**, which since the war has been responsible for the operational training of aircrew; Headquarters Unit, **Wellington**, which was transferred in April 1946 from the accommodation camp at Anderson Park to the naval camp at **Shelly Bay** and is responsible for the administration of personnel stationed at **RNZAF HQ**; **Wigram**, where the bulk of flying training activities is centred; and **Weedons**, which has been retained as the stores depot for **South Island** stations. Two other stations which were placed on a care and maintenance basis in the immediate post-war period have since been reopened: **Woodbourne**, which is now the repair depot for the **RNZAF**, and **Taieri**, which undertakes the initial flying training of regular aircrew and those enlisted under the compulsory military training scheme.

Most of the wartime operational squadrons had been disbanded by the end of 1945. No. 2 Bomber Reconnaissance and No. 5 Flying Boat Squadrons were retained in cadre and were later reformed. In 1946 No. 2 Squadron, by arrangement with Air Ministry, was renamed No. 75 Squadron to commemorate the New Zealand bomber squadron which served with the **Royal Air Force** throughout the war. Its role was changed from bomber- reconnaissance to fighter ground-attack, and it was re-equipped in 1947 with Mosquitos and in 1950 with Vampires. Since the war it has been stationed at **Ohakea**. No. 14 squadron was also retained as a permanent squadron, and has seen more overseas service than any other **RNZAF** unit. From March 1946 until November 1948 it formed part of the New Zealand component of the British Commonwealth

Occupation Forces in **Japan**, where it was engaged in security patrols in co-operation with squadrons of other Commonwealth air forces. After its return to New Zealand it reformed at **Ohakea**, and in October 1952 it was posted to **Cyprus**, where it is operating with the **Royal Air Force** under the command of the Middle East Air Force.

Nos. 40 and 41 Transport Squadrons operated for some time after the war in both service and quasi-civil capacities. It was some time before civil air services could be organised to cope with peacetime requirements, and in the interim the **RNZAF**, besides meeting service needs both within New Zealand and between New Zealand and **Fiji** and **Japan**, provided air transport for civilians both on internal routes and between New Zealand, **Fiji**, and the Cook Islands. In the latter half of 1947 both services were taken over by National Airways and No. 40 Squadron was disbanded. No. 41 Squadron, however, was retained, and in September 1949 a flight of three aircraft was stationed at **Singapore**, where it spent over two years providing courier services for the **RAF** in the **Far East** and supporting the security forces operating in **Malaya**. Three crews from the squadron were lent to the **Royal Air Force** at the time of the Russian blockade of **Berlin** and flew **RAF** aircraft throughout the period of the airlift.

By 1948 the shape of future policy for the **Air Force** could be more clearly seen. The cold war had dispelled any illusion which might have existed that the defeat of **Germany** and **Japan** was a prelude to an era of peace and security. The memory of the failure of the League of Nations in the nineteen-thirties discouraged the idea that the **United Nations Organisation** would, in time of major crises, be any more successful in preserving peace. A more realistic conception of the need for defence exists today than prevailed thirty years ago. In New Zealand, as in the other countries of the Commonwealth, the fighting services are maintained and equipped to as full a scale as possible having regard to the concurrent needs of a peacetime economy.

The future role of the **RNZAF** in peace and war has been agreed on by the British and New Zealand Governments, and it is to fulfil that role

that the post-war **Air Force** has been developed. Two vital factors have influenced policy: **Britain** has been weakened by the recent war to such an extent that she can no longer afford to bear the full burden of maintaining defence forces for the Commonwealth in peacetime; and we have learned that in a future war adequate forces must be available at the outset unless a sudden attack is to bring swift defeat. It is unlikely that there will again be a period of 'phoney' war during which forces can be built up and the war machine put into gear. As a result, the task of the Royal New Zealand Air Force today is to assist the **Royal Air Force** within the limits of its resources to fulfil its peacetime commitments, and to train and maintain units and adequate reserves which could be despatched immediately wherever they are needed if war breaks out.

The Air Force which grew up during the war was based on remarkably slender foundations. In September 1939 it numbered fewer than 1000 officers and men, relatively few of whom had seen more than one or two years of service. Its expansion over the next five years was characterised by two things: the need to adapt the organisation of the service to rapidly changing circumstances, and the comparative inexperience of the officers who administered it. That the service functioned as well as it did and was able to play a significant part in winning the war reflects credit on its leaders; but it is reasonable to suppose that an equal result would have been obtained more efficiently and economically if more of all ranks had been trained in peace for the duties they were called upon to perform in war. In the years since 1945 the organisation of the service has been modified to bring it into line with modern requirements, and particular emphasis has been placed on the training of all ranks to ensure that not only are they technically proficient in their respective spheres, but that they are thoroughly grounded in the general service knowledge which is necessary to make them good officers, NCOs or airmen. All young officers pass through the Officers' School at **Whenuapai**, and airmen recruits undergo a course of general service training before starting their trade training. Promotion examinations have been reintroduced for both officers and airmen, which ensures that every man has not only technical ability but also the

general and administrative knowledge applicable to his rank.

A Boys' School, which has been established at [Woodbourne](#), provides an avenue of entry into the service for youngsters of school age. At it they continue their general education and receive a thorough grounding in service training before going on to trade training schools for instruction in the trades they are destined to follow. In the years to come, the men who have passed through the school will form the hard core of highly trained technical and administrative NCOs and airmen of the Regular Air Force.

In addition to training at home, a number of officers each year attend staff colleges in the [United Kingdom](#) and [Australia](#), and others gain experience by serving on exchange with the Royal Air Force. A number of apprentice airmen, too, are recruited each year to undergo training at [Royal Air Force](#) schools before returning as qualified tradesmen to the [RNZAF](#).

To back up the Regular Air Force, the non-regular components of the [RNZAF](#) have been reorganised and expanded. The Territorial [Air Force](#), which went into abeyance during the war, has been reconstituted, and now consist of four fighter ground-attack squadrons and a maritime squadron, which are being trained to take their place alongside the Regular Air Force if war occurs. Reserves which can also be called up in time of war are provided partly by ex-regular officers and airmen and partly by men who have completed their compulsory training under the Military Training Act of 1949.

With the exception of the Flying Training School and the Territorial (fighter ground-attack) squadrons, which use American Harvards and Mustangs respectively, all flying units have been re-equipped with British types of aircraft. This, plus the fact that methods of training and organisation are patterned as closely as possible on [Royal Air Force](#) practices, means that New Zealanders and New Zealand units can serve with the [Royal Air Force](#) if called upon to do so with a minimum of adjustment and reorganisation.

No fighting service can be fully prepared for war when bound by the limits of peacetime economy. All that can be done is to ensure that the resources available are used to the best advantage to provide an efficient force for immediate action and a reserve which can be brought into action as quickly as possible. That is what the Royal New Zealand Air Force is doing today, confident in the experience of difficulties overcome in the past and the knowledge that it can meet those of the future.

¹ Sqn Ldr M. L. Pirie, MBE; Auckland; born Hunterville, 24 Feb 1915; hotel clerk.

² Repatriation of Allied Prisoners of War and Internees.

ROYAL NEW ZEALAND AIR FORCE

[SECTION]

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The job was completed by the middle of October, and the last aircraft left **Singapore** on the 17th. Altogether the Flight repatriated 156 New Zealand prisoners of war and civilian internees and two Australians.

ROYAL NEW ZEALAND AIR FORCE

REPATRIATION FROM THE SOUTH PACIFIC

REPATRIATION FROM THE SOUTH PACIFIC

As soon as operation ceased, preparations were made to repatriate the men serving in the South and South-West Pacific. Shipping was still scarce and, although the Union Steam Ship Company's *Wahine* was chartered and made three trips to the Islands, bringing back about 2000 men, the major part of the work was borne by the two transport squadrons, assisted by Catalinas of No. 5 Squadron and the four aircraft of the Sunderland transport flight.

During September and October stations in the South-West Pacific Area progressively closed down as quickly as circumstances permitted. The fighter and bomber-reconnaissance squadrons flew their aircraft back to New Zealand, where most of them were disbanded. The last to leave the forward area was No. 24 Squadron, which was stationed at **Bougainville until the end of October. No. 6 (Flying Boat) Squadron was disbanded overseas at the end of August, and No. 5 Squadron was withdrawn from Santo to **Fiji**.**

In allocating priorities for repatriation a system of points was worked out, based on length of service overseas, marital status, number of children, and other factors affecting the eligibility of personnel for release from the service. Men who were due for repatriation in any case were given first priority, followed by others in their turn. For those who were low on the priority list, the period of waiting passed slowly. The stimulus of war was gone, and the men were impatient to return home. To keep up morale and help to make the time pass, sporting activities were greatly extended. Swimming and yachting were popular recreations, and most units had cricket teams which played a series of keenly contested matches. In addition, classes were organised in a wide variety of subjects to enable men to study and prepare themselves for rehabilitation when they arrived home.

By using every available aircraft of the transport organisation, repatriation proceeded fairly rapidly, and by the end of the year the only men left in the South-West Pacific Area were small rear parties on **Los Negros** and **Bougainville** in charge of the stores and equipment awaiting shipping. In the South Pacific, a detached flight of No. 5 Squadron was at **Segond Channel**, and rear parties were engaged in closing down the stations at **Guadalcanal** and **Santo**. All these parties were administered from **Lauthala Bay**.

A flying-boat servicing party was stationed at île Nou in New Caledonia to attend to transient aircraft, and at **Norfolk Island** there was an air-sea rescue flight, a servicing unit for transport aircraft, and a radar unit.

All told, the number of personnel remaining in the **Pacific**, including those in **Fiji**, fell from over 7000 at the end of August 1945 to just over 700 at the end of December.

ROYAL NEW ZEALAND AIR FORCE

DEMOBILISATION

DEMOBILISATION

At home in the last four months of 1945 and the early part of 1946, the major task of the **Air Force** was the return of men as quickly as possible to civilian life. The machinery for this was already in existence. Since the middle of 1944 substantial numbers had already been released from the service, and towards the end of that year, when the end of the European war was in sight, preparations had been made in Air Headquarters to set up an organisation capable of handling general demobilisation. As a result of this, it was decided in May 1945 to establish non-effective pools in Auckland, **Wellington**, and **Christchurch** to undertake the discharge of men from the service. The pools, each of which was designed to handle a hundred men daily, started to operate in July, by which time a steady flow of men from the European theatre was arriving in New Zealand for discharge.

The detailed plans for final demobilisation were put into operation on 11 August when it was clear that the Japanese were about to surrender. As a result, the release organisation was in full swing within a day or two after the end of the war. Men returning from overseas were posted to one or other of the non-effective pools, where they were medically examined and where all the necessary accounting and documentary action was taken for their release. To relieve the pressure on the pools, release organisations were set up on a number of New Zealand stations, and a large proportion of men serving in New Zealand were discharged by their home units.

The factor which determined the rate at which personnel could be discharged was the availability of medical boards, and especially of X-ray units. All personnel had to be thoroughly examined before returning to civilian life, and this, in the first few weeks after the war, caused a bottleneck. The difficulty was eased by setting up several systems of

medical boards. Where possible, personnel were examined on their home stations. Others had their examinations at the non-effective pools, where service and civilian medical boards operated. Others, again, appeared before civilian boards which were established in eight of the main towns throughout New Zealand.

Releases were granted according to a priority system based on length of service and other factors. The general system of priorities was overridden in certain instances, following a direction by the Prime Minister that men in a number of essential industries were to be given first priority. At the same time, personnel in some air force trades could be given no priority, as they were needed to carry on the machinery of demobilisation and to maintain the continuing functions of the **Air Force**. Those particularly affected were men in the equipment, clerical, and accounting trades.

A total of 1642 men and women was released from the service in August 1945, and in the next four months the figures were 8215, 3503, 4328 and 3268 respectively. The year ended with the strength of the **RNZAF** at 12,228 men and women. Of these, 9899 were in New Zealand and the rest overseas in the **Pacific** or awaiting repatriation from the **United Kingdom**. Discharges continued at a fairly high rate until the end of March 1946, by which time 26,929 personnel had been released since VJ Day, and the greater part of the work of demobilisation had been completed. A number of men anxious for release still remained in the service performing essential duties. In July, however, it was decided that all those who wanted their release should be demobilised, even if they had no priority and were doing essential work. This was effected, and 15 July 1946 marked the end of purely wartime service. Thereafter, all those remaining were personnel who had volunteered for engagements of up to two years in the Interim Air Force, or who hoped to make the service their permanent career.

ROYAL NEW ZEALAND AIR FORCE

THE POST-WAR AIR FORCE

THE POST-WAR AIR FORCE

Since the foregoing chapters were written, the Royal New Zealand Air Force has passed through a period of uncertainty and confusion that resulted from the sudden transition from war to peace conditions, and has been developed into a compact, well-organised force of between 4000 and 5000 men, capable of rapid expansion should the need arise. To bridge the gap between the end of the war and the reorganisation of the service to meet peace time conditions, the **Air Force** was run on what became known as an 'interim' basis. In March 1946 recruiting depots were set up at **Wigram** and **Hobsonville** to enlist men for interim service. It was impossible to forecast what the size of the peacetime air force would be, since its probable functions and commitments were not known. Consequently it was not possible to offer permanent careers to those men who wanted to remain in the service or to prospective recruits. Instead, men were enlisted on interim engagements of up to two years. While many would not accept service under these terms with no guarantee of a future career, a number did accept and helped the **Air Force** through a particularly difficult period. The interim period came to an end in 1948, and thereafter, although a small percentage continued to serve on indefinite engagements, the great majority of those who were retained in the service were given definite contracts of five, eight, or more years.

Most of the stations that were established to meet the needs of wartime expansion were closed down as soon as possible after hostilities ended, and where necessary their functions were taken over by those stations which remained to become part of the permanent air force organisation. Stations which remained in operation at the end of 1946 were: **Lauthala Bay**, in **Fiji**, which was to become the permanent home of No. 5 Flying Boat Squadron; **Whenuapai**, from which Nos. 40 and 41

Transport Squadrons continued to operate; **Hobsonville**, which in the post-war period became responsible for all technical trade training for the **RNZAF**; **Te Rapa**, which is the main stores depot in the **North Island**; **Mangaroa**, which acted as a disposal depot for surplus stores until it closed down in July 1949; **Te Awamutu**, which continued to function as a stores depot until January 1948, when it became a bulk store for No. 1 Stores Depot, **Te Rapa**; **Ohakea**, which since the war has been responsible for the operational training of aircrew; Headquarters Unit, **Wellington**, which was transferred in April 1946 from the accommodation camp at Anderson Park to the naval camp at **Shelly Bay** and is responsible for the administration of personnel stationed at **RNZAF HQ**; **Wigram**, where the bulk of flying training activities is centred; and **Weedons**, which has been retained as the stores depot for **South Island** stations. Two other stations which were placed on a care and maintenance basis in the immediate post-war period have since been reopened: **Woodbourne**, which is now the repair depot for the **RNZAF**, and **Taieri**, which undertakes the initial flying training of regular aircrew and those enlisted under the compulsory military training scheme.

Most of the wartime operational squadrons had been disbanded by the end of 1945. No. 2 Bomber Reconnaissance and No. 5 Flying Boat Squadrons were retained in cadre and were later reformed. In 1946 No. 2 Squadron, by arrangement with Air Ministry, was renamed No. 75 Squadron to commemorate the New Zealand bomber squadron which served with the **Royal Air Force** throughout the war. Its role was changed from bomber- reconnaissance to fighter ground-attack, and it was re-equipped in 1947 with Mosquitos and in 1950 with Vampires. Since the war it has been stationed at **Ohakea**. No. 14 squadron was also retained as a permanent squadron, and has seen more overseas service than any other **RNZAF** unit. From March 1946 until November 1948 it formed part of the New Zealand component of the British Commonwealth Occupation Forces in **Japan**, where it was engaged in security patrols in co-operation with squadrons of other Commonwealth air forces. After its return to New Zealand it reformed at **Ohakea**, and in October 1952 it was

posted to **Cyprus**, where it is operating with the **Royal Air Force** under the command of the Middle East Air Force.

Nos. 40 and 41 Transport Squadrons operated for some time after the war in both service and quasi-civil capacities. It was some time before civil air services could be organised to cope with peacetime requirements, and in the interim the **RNZAF**, besides meeting service needs both within New Zealand and between New Zealand and **Fiji** and **Japan**, provided air transport for civilians both on internal routes and between New Zealand, **Fiji**, and the Cook Islands. In the latter half of 1947 both services were taken over by National Airways and No. 40 Squadron was disbanded. No. 41 Squadron, however, was retained, and in September 1949 a flight of three aircraft was stationed at **Singapore**, where it spent over two years providing courier services for the **RAF** in the **Far East** and supporting the security forces operating in **Malaya**. Three crews from the squadron were lent to the **Royal Air Force** at the time of the Russian blockade of **Berlin** and flew **RAF** aircraft throughout the period of the airlift.

By 1948 the shape of future policy for the **Air Force** could be more clearly seen. The cold war had dispelled any illusion which might have existed that the defeat of **Germany** and **Japan** was a prelude to an era of peace and security. The memory of the failure of the League of Nations in the nineteen-thirties discouraged the idea that the **United Nations Organisation** would, in time of major crises, be any more successful in preserving peace. A more realistic conception of the need for defence exists today than prevailed thirty years ago. In New Zealand, as in the other countries of the Commonwealth, the fighting services are maintained and equipped to as full a scale as possible having regard to the concurrent needs of a peacetime economy.

The future role of the **RNZAF** in peace and war has been agreed on by the British and New Zealand Governments, and it is to fulfil that role that the post-war **Air Force** has been developed. Two vital factors have influenced policy: **Britain** has been weakened by the recent war to such an extent that she can no longer afford to bear the full burden of

maintaining defence forces for the Commonwealth in peacetime; and we have learned that in a future war adequate forces must be available at the outset unless a sudden attack is to bring swift defeat. It is unlikely that there will again be a period of 'phoney' war during which forces can be built up and the war machine put into gear. As a result, the task of the Royal New Zealand Air Force today is to assist the [Royal Air Force](#) within the limits of its resources to fulfil its peacetime commitments, and to train and maintain units and adequate reserves which could be despatched immediately wherever they are needed if war breaks out.

The Air Force which grew up during the war was based on remarkably slender foundations. In September 1939 it numbered fewer than 1000 officers and men, relatively few of whom had seen more than one or two years of service. Its expansion over the next five years was characterised by two things: the need to adapt the organisation of the service to rapidly changing circumstances, and the comparative inexperience of the officers who administered it. That the service functioned as well as it did and was able to play a significant part in winning the war reflects credit on its leaders; but it is reasonable to suppose that an equal result would have been obtained more efficiently and economically if more of all ranks had been trained in peace for the duties they were called upon to perform in war. In the years since 1945 the organisation of the service has been modified to bring it into line with modern requirements, and particular emphasis has been placed on the training of all ranks to ensure that not only are they technically proficient in their respective spheres, but that they are thoroughly grounded in the general service knowledge which is necessary to make them good officers, NCOs or airmen. All young officers pass through the Officers' School at [Whenuapai](#), and airmen recruits undergo a course of general service training before starting their trade training. Promotion examinations have been reintroduced for both officers and airmen, which ensures that every man has not only technical ability but also the general and administrative knowledge applicable to his rank.

A Boys' School, which has been established at [Woodbourne](#), provides

an avenue of entry into the service for youngsters of school age. At it they continue their general education and receive a thorough grounding in service training before going on to trade training schools for instruction in the trades they are destined to follow. In the years to come, the men who have passed through the school will form the hard core of highly trained technical and administrative NCOs and airmen of the Regular Air Force.

In addition to training at home, a number of officers each year attend staff colleges in the **United Kingdom** and **Australia**, and others gain experience by serving on exchange with the Royal Air Force. A number of apprentice airmen, too, are recruited each year to undergo training at **Royal Air Force** schools before returning as qualified tradesmen to the **RNZAF**.

To back up the Regular Air Force, the non-regular components of the **RNZAF** have been reorganised and expanded. The Territorial **Air Force**, which went into abeyance during the war, has been reconstituted, and now consist of four fighter ground-attack squadrons and a maritime squadron, which are being trained to take their place alongside the Regular Air Force if war occurs. Reserves which can also be called up in time of war are provided partly by ex-regular officers and airmen and partly by men who have completed their compulsory training under the Military Training Act of 1949.

With the exception of the Flying Training School and the Territorial (fighter ground-attack) squadrons, which use American Harvards and Mustangs respectively, all flying units have been re-equipped with British types of aircraft. This, plus the fact that methods of training and organisation are patterned as closely as possible on **Royal Air Force** practices, means that New Zealanders and New Zealand units can serve with the **Royal Air Force** if called upon to do so with a minimum of adjustment and reorganisation.

No fighting service can be fully prepared for war when bound by the limits of peacetime economy. All that can be done is to ensure that the

resources available are used to the best advantage to provide an efficient force for immediate action and a reserve which can be brought into action as quickly as possible. That is what the Royal New Zealand Air Force is doing today, confident in the experience of difficulties overcome in the past and the knowledge that it can meet those of the future.

ROYAL NEW ZEALAND AIR FORCE

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APPENDIX WARTIME OPERATIONAL SQUADRONS OF THE ROYAL NEW ZEALAND AIR FORCE

Appendix WARTIME OPERATIONAL SQUADRONS OF THE ROYAL NEW ZEALAND AIR FORCE

NO. 1 BOMBER RECONNAISSANCE SQUADRON

Formed (as the New Zealand General Reconnaissance Squadron)

March 1940; disbanded September 1945.

***Aircraft:* Baffins, Vincents, Vildebeestes up to 1941; Hudsons, 1941–43; Venturas, 1943–45.**

Commanding Officers

Squadron Leader G. N. Roberts	May 1940–August 1941
Squadron Leader G. H. Fisher	August 1941–July 1942
Squadron Leader F. J. Lucas	July–December 1942
Squadron Leader C. L. Monckton	December 1942–March 1943
Squadron Leader E. W. Tacon	March–May 1943
Squadron Leader H. C. Walker	May 1943–April 1944
Squadron Leader K. C. King	April–July 1944
Wing Commander A. N. Johnstone	August 1944–January 1945
Wing Commander A. A. N. Breckon	February–June 1945

Tours of Duty

New Zealand March 1940–October 1943
Guadalcanal October–November 1943
August–October 1944
March–May 1945
New Georgia November 1943–February 1944
Green Island October 1944–January 1945
Emirau May–June 1945

NO. 2 BOMBER RECONNAISSANCE SQUADRON

Formed (as No. 2 General Reconnaissance Squadron) January 1941. Reformed after the war and in October 1946 renamed 75 Squadron to commemorate the New Zealand Bomber Squadron which served with the **RAF. Present role: fighter ground-attack.**

***Aircraft:* Vildebeestes and Vincents to 1941; Hudsons, 1941–43; Venturas, 1943–46.**

Commanding Officers

Squadron Leader R. J. Cohen	January 1941–May 1942
Squadron Leader J. J. Busch	May–December 1942
Squadron Leader E. A. Moen	December 1942–April 1943
Squadron Leader R. H. A. Hogg	April–August 1943
Squadron Leader A. B. Greenaway	August 1943–June 1944
Wing Commander W. A. Cameron	June 1944–May 1945
Wing Commander K. G. King	May–September 1945

Tours of Duty

New Zealand	January 1941–November 1943
Santo	November 1943–February 1944
Guadalcanal	February 1944 and November 1944–January 1945
New Georgia	February–April 1944
Bougainville	April–May 1944
Green Island	January–March 1945
Jacquinot Bay	June–September 1945

NO. 3 BOMBER RECONNAISSANCE SQUADRON

Formed (as No. 3 General Reconnaissance Squadron) April 1941; disbanded June 1945.

***Aircraft:* Baffins and Vincents, 1941–42; Hudsons, 1942–44; Venturas, 1944–45.**

Commanding Officers

Squadron Leader C. L. Monckton	April 1941–April 1942
Squadron Leader J. W. H. Bray	May–September 1942
Squadron Leader G. H. Fisher	September 1942–July 1943

Squadron Leader J. J. Busch July–November 1943
Squadron Leader A. B. Greenaway December 1943–January 1944
Wing Commander I. G. Morrison February 1944–June 1945

Tours of Duty

New Zealand April 1941–September 1942
Santo October–November 1942
October 1943–January 1944
May–July 1944
Guadalcanal December 1942–October 1943
July–August 1944
February–March 1945
Bougainville August–October 1944
Emirau October–November 1944
Green Island March–June 1945

NO. 4 BOMBER RECONNAISSANCE SQUADRON

Formed (as No. 4 General Reconnaissance Squadron) in **Fiji**, October 1940; disbanded September 1945.

Aircraft: Vincents and converted civil aircraft to 1941; Hudsons, 1941–43; Venturas, 1943–45.

Commanding Officers

Squadron Leader G. R. White October 1940–October 1942
Wing Commander B. M. Lewis November 1942–May 1943
Squadron Leader E. W. Tacon May–December 1943
Squadron Leader E. Brooke-Taylor December 1943–April 1944
Squadron Leader N. R. Lecher April 1944–January 1945
Wing Commander F. R. Dix January–February 1945
Squadron Leader A. F. A. Tye March–June 1945
Squadron Leader L. H. Parry July–August 1945
Squadron Leader G. S. A. Stevenson September 1945

Tours of Duty

Fiji October 1940–November 1944
Emirau November 1944–February 1945
Guadalcanal May–June 1945

Emirau June–July 1945
Los Negros July–September 1945

NO. 5 FLYING BOAT SQUADRON

The first No. 5 Squadron was formed in **Fiji** in November 1941 and disbanded in November 1942.

Aircraft: Singapores.

Commanding Officers

Squadron Leader E. M. Lewis	November–December 1941
Flight Lieutenant W. J. Craig	December 1941–February 1942
Flight Lieutenant R. H. Hickson	February–March 1942
Squadron Leader R. J. R. H. Makgill	April–November 1942

A new No. 5 Squadron was formed in **Fiji** in July 1944. It was reformed after the war and is at present stationed in **Fiji**, operating in the maritime role.

Aircraft: Catalinas.

Commanding Officer: Wing Commander J. W. H. Bray.

Tours of Duty

Fiji August–October 1944
Santo October 1944–October 1945

NO. 6 FLYING BOAT SQUADRON

Formed in **Fiji** May 1943; disbanded September 1945.

Aircraft: Catalinas.

Commanding Officers

Wing Commander G. G. Stead	May–October 1943
Wing Commander I. A. Scott	October 1943–August 1944
Wing Commander J. R. S. Agar	August 1944–June 1945
Wing Commander K. G. Smith	June–September 1945

Tours of Duty

Fiji **March–October 1943**
Santo **October–December 1943**

Halavo Bay December 1943–September 1945

NO. 7 GENERAL RECONNAISSANCE SQUADRON

Formed February 1942; disbanded May 1943.

***Aircraft:* Vincents, Vildebeestes.**

Commanding Officers

Squadron Leader A. J. Turner February–December 1942

Squadron Leader R. A. Kirkup December 1942–May 1943

***Tour of Duty:* New Zealand.**

NO. 8 GENERAL RECONNAISSANCE SQUADRON

Formed March 1943; reformed as No. 30 Dive Bomber Squadron, May 1943.

***Aircraft:* Vincents, Vildebeestes.**

Commanding Officers

Squadron Leader C. L. Monckton April–September 1942

Squadron Leader I. G. Morrison September 1942–April 1943

Flight Lieutenant M. Wilkes April–May 1943

***Tour of Duty:* New Zealand.**

NO. 8 BOMBER RECONNAISSANCE SQUADRON

Formed October 1944; disbanded March 1945.

***Aircraft:* Venturas.**

Commanding Officers

Wing Commander L. H. Parry October–November 1944

Wing Commander I. R. Salmond November 1944–March 1945

Tours of Duty

Fiji November–December 1944

Guadalcanal January–February 1945

Emirau February–March 1945

NO. 9 BOMBER RECONNAISSANCE SQUADRON

Formed (as No. 9 General Reconnaissance Squadron) in New Caledonia, July 1942; disbanded June 1945.

Aircraft: Hudsons, 1942–43; Venturas, 1943–45.

Commanding Officers

Squadron Leader D. B. Grigg July 1942–June 1943

Squadron Leader J. J. Busch June–July 1943

Squadron Leader A. C. Willis July–August 1943

Wing Commander A. C. Allen October 1943–May 1945

Tours of Duty

New Caledonia July 1942–March 1943

Santo March–October 1943 and February–May 1944

New Zealand November 1943–February 1944

Bougainville May–August 1944

Fiji January–March 1945

Emirau March–May 1945

NO. 488 FIGHTER SQUADRON

Formed September 1941; disbanded on return from Java, March 1942. A new No. 488 Squadron was formed in the RAF in 1943.

Aircraft: Buffalos, Hurricanes.

Commanding Officers

Squadron Leader W. J. Clouston October 1941–January 1942

Squadron Leader J. M. MacKenzie January–March 1942

Tour of Duty

Singapore October 1941–February 1942

Java February 1942

NO. 14 FIGHTER SQUADRON

Formed April 1942. Reformed after the war and served with the British Commonwealth Occupation Forces in **Japan. At present serving in **Cyprus** as a fighter ground-attack squadron.**

***Aircraft:* Kittyhawks, 1942–44; Corsairs, 1944–47.**

Commanding Officers

Squadron Leader J. N. McKenzie April 1942–February 1943
Squadron Leader J. B. Fitzgerald February–June 1943
Squadron Leader S. G. Quill June 1943–April 1944
Squadron Leader J. C. Blundell April–June 1944
Squadron Leader D. W. Cocks July 1944–February 1945
Squadron Leader P. R. McNab February–June 1945
Squadron Leader J. R. C. Kilian June–September 1945

Tours of Duty

New Zealand April 1942–April 1943
Santo April–June 1943
October–November 1943
November–December 1944
March 1945
Guadalcanal June–July 1943
February 1944
June 1944
New Georgia November–December 1943
Bougainville February–March 1944
June–August 1944
April–May 1945
Green Island December 1944–January 1945
Emirau July–October 1945

NO. 15 FIGHTER SQUADRON

Formed June 1942; disbanded October 1945.

***Aircraft:* Kittyhawks, 1942–44; Corsairs, 1944–45.**

Commanding Officers

Squadron Leader A. Crighton June 1942–March 1943

Squadron Leader M. J. Herrick March–December 1943
Squadron Leader J. A. A. Gibson December 1943–July 1944

Squadron Leader D. P. Winstone August–December 1944

Squadron Leader M. R. Clarke January–September 1945

Tours of Duty

New Zealand June–October 1942

Tonga October 1942–March 1943

Guadalcanal April–June 1943

September–October 1943

May–June 1944

New Georgia October–November 1943

December 1943–January 1944

Santo September–October 1944

January–February 1945

Bougainville June–July 1944

November–December 1944

June–September 1945

Green Island February–April 1945

NO. 16 FIGHTER SQUADRON

Formed June 1942; disbanded October 1945.

Aircraft: Kittyhawks, 1942–44; Corsairs, 1944–45.

Commanding Officers

Squadron Leader A. N. Jones June 1942–May 1943

Squadron Leader J. S. Nelson May–September 1943

Squadron Leader J. H. Arkwright October 1943–January 1944

Squadron Leader A. G. Sievers January–June 1944

Squadron Leader M. C. P. Jones June–September 1944

Squadron Leader P. S. Green October 1944–June 1945

Squadron Leader J. H. Mills July–October 1945

Tours of Duty

New Zealand June 1942–June 1943

Santo June–July 1943

November 1943–July 1944

Guadalcanal April 1945
 July–September 1943
 March 1944
 July–August 1944
 November–December 1944
New Georgia November 1943–January 1944
Bougainville March–May 1944
 August–September 1944
 April–June 1945
Green Island December 1944–February 1945
Jacquinot Bay August–October 1945

NO. 17 FIGHTER SQUADRON

Formed October 1942; disbanded September 1945.

***Aircraft:* Kittyhawks, 1942–44; Corsairs, 1944–45.**

Commanding Officers

Squadron Leader J. V. A. Reid October 1942–July 1943
Squadron Leader P. G. Newton July 1943–January 1944
Squadron Leader D. F. St. George April–November 1944
Squadron Leader B. V. Le Pine November 1944–September 1945

Tours of Duty

New Zealand October 1942–July 1943
Santo July–September 1943
 December 1943
 August 1944
 January 1945
Guadalcanal September–October 1943
 April 1944
 August–September 1944
New Georgia January 1943–January 1944
Bougainville January 1944
 April–June 1944
 September–November 1944
Green Island January–March 1945
Los Negros May–September 1945

NO. 18 FIGHTER SQUADRON

Formed June 1943; disbanded October 1945.

Aircraft: Kittyhawks, 1943-44; Corsairs, 1944-45.

Commanding Officers

- Squadron Leader J. A. Oldfield Jane 1943-March 1944**
- Squadron Leader R. H. Balfour May-July 1944**
- Squadron Leader P. R. McNab August-November 1944**
- Squadron Leader G. H. Corbet November 1944-April 1945**
- Squadron Leader W. A. Hardman May-September 1945**

Tours of Duty

- New Zealand June-September 1943**
- Santo September-October 1943**
January 1944
August-September 1944
- New Georgia October-November 1943**
- Guadalcanal May-June 1944**
September-November 1944
January-February 1945
- Bougainville January-March 1944**
June-July 1944
February-April 1945
June-October 1945
- Green Island November-December 1944**

NO. 19 FIGHTER SQUADRON

Formed December 1943; disbanded October 1945.

Aircraft: Kittyhawks, 1943-44; Corsairs, 1944-45.

Commanding Officers

- Squadron Leader H. R. Wigley December 1943-April 1944**
- Squadron Leader M. T. Vanderpump May-July 1944**
- Squadron Leader J. R. C. Kilian July 1944-May 1945**
- Squadron Leader H. A. Eaton June-October 1945**

Tours of Duty

Guadalcanal February–March 1944
June–July 1944
October–November 1944
Bougainville March–April 1944
July–August 1944
Emirau November 1944–December 1945
Santo February–March 1945
Los Negros March–May 1945
Jacquinot Bay June–October 1945

NO. 20 FIGHTER SQUADRON

Formed January 1944; disbanded September 1945.

***Aircraft:* Kittyhawks, 1944; Corsairs, 1944–45.**

Commanding Officers

Squadron Leader S. R. Duncan January–July 1944
Squadron Leader G. M. Robertson July–November 1944
Squadron Leader L. R. Reynolds December 1944–September 1945

Tours of Duty

Guadalcanal April–May 1944
September–October 1944
Bougainville May–June 1944
January–April 1945
Santo August–September 1944
January 1945
Green Island October–November 1944
Jacquinot Bay May–August 1945

NO. 21 FIGHTER SQUADRON

Formed May 1944; disbanded September 1945.

***Aircraft:* Corsairs.**

Commanding Officers

Squadron Leader L. R. Bush May 1944–February 1945

Squadron Leader W. J. MacLeod March–September 1945

Tours of Duty

Guadalcanal June–July 1944
November–December 1944
Bougainville July–September 1944
December 1944–February 1945
Green Island April–May 1945
Jacquinot Bay May–July 1945

NO. 22 FIGHTER SQUADRON

Formed June 1944; disbanded September 1945.

***Aircraft:* Corsairs.**

Commanding Officers

Squadron Leader B. H. Thomson June 1944–March 1945
Squadron Leader J. R. Court March–July 1945
Squadron Leader G. A. Delves August–September 1945

Tours of Duty

Santo August 1944
December 1944–January 1945
Guadalcanal August–September 1944
Bougainville September–November 1944
April–July 1945
Emirau January–March 1945

NO. 23 FIGHTER SQUADRON

Formed August 1944; disbanded October 1945.

***Aircraft:* Corsairs.**

Commanding Officers

Squadron Leader J. J. de Willimoff August 1944–May 1945
Squadron Leader D. E. Hogan May–October 1945

Tours of Duty

Santo September–October 1944

Los Negros November–December 1944
Guadalcanal February–March 1945
Emirau March–May 1945
Bougainville June–October 1945

NO. 24 FIGHTER SQUADRON

Formed September 1944; disbanded October 1945.

***Aircraft:* Corsairs.**

Commanding Officers

Squadron Leader M. T. Vanderpump October 1944–January 1945

Squadron Leader A. G. S. George February–October 1945

Tours of Duty

Santo October–December 1945
March 1945

Bougainville December 1944–January 1945

July–October 1945

Green Island March–May 1945

NO. 25 DIVE BOMBER SQUADRON

Formed July 1943; disbanded May 1944.

***Aircraft:* Dauntlesses.**

***Commanding Officer:* Squadron Leader T. J. McL. de Lange**

Tours of Duty

New Zealand July 1943–January 1944

Santo January–March 1944

Bougainville March–May 1944

NO. 25 FIGHTER SQUADRON

Formed October 1944; disbanded September 1945.

***Aircraft:* Corsairs.**

Commanding Officer: Squadron Leader G. M. Fitzwater

Tours of Duty

Santo **December 1944**
Guadalcanal **December 1944–January 1945**
Los Negros **January–February 1945**
Emirau **May–July 1945**

NO. 26 FIGHTER SQUADRON

Formed March 1945; disbanded July 1945.

Aircraft: Corsairs.

Commanding Officer: Squadron Leader G. A. Delves

Tours of Duty

Guadalcanal **March–April 1945**
Bougainville **April–June 1945**

NO. 30 DIVE BOMBER SQUADRON

Formed September 1943; disbanded May 1944.

Aircraft: Avengers.

Commanding Officers

Squadron Leader R. G. Hartshorn **September 1943–April 1944**
Squadron Leader H. N. James **April–May 1944**

Tours of Duty

New Zealand **September 1943–January 1944**
Santo **February–March 1944**
Bougainville **March–May 1944**

NO. 31 DIVE BOMBER SQUADRON

Formed December 1943; disbanded August 1944.

Aircraft: Avengers.

Commanding Officer: Squadron Leader M. Wilkes

Tours of Duty

New Zealand December 1943–May 1944

Bougainville May–July 1944

NO. 40 TRANSPORT SQUADRON

Formed June 1943; disbanded 1947.

***Aircraft:* Hudsons, Lodestars, Dakotas.**

Commanding Officers

Wing Commander J. Adams June 1943–November 1944

Wing Commander R. A. Kirkup November 1944–April 1946

Tour of Duty

Based at **Whenuapai throughout its existence.**

NO. 41 TRANSPORT SQUADRON

Formed August 1944.

***Aircraft:* Hudsons, Lodestars, Dakotas; Hastings and Freighters since 1951.**

Commanding Officer

Wing Commander H. C. Walker September 1944–August 1945

Tour of Duty

Based at **Whenuapai throughout its existence.**

ROYAL NEW ZEALAND AIR FORCE

NO. 1 BOMBER RECONNAISSANCE SQUADRON

NO. 1 BOMBER RECONNAISSANCE SQUADRON

Formed (as the New Zealand General Reconnaissance Squadron)

March 1940; disbanded September 1945.

***Aircraft:* Baffins, Vincents, Vildebeestes up to 1941; Hudsons, 1941–43; Venturas, 1943–45.**

Commanding Officers

Squadron Leader G. N. Roberts	May 1940–August 1941
Squadron Leader G. H. Fisher	August 1941–July 1942
Squadron Leader F. J. Lucas	July–December 1942
Squadron Leader C. L. Monckton	December 1942–March 1943
Squadron Leader E. W. Tacon	March–May 1943
Squadron Leader H. C. Walker	May 1943–April 1944
Squadron Leader K. C. King	April–July 1944
Wing Commander A. N. Johnstone	August 1944–January 1945
Wing Commander A. A. N. Breckon	February–June 1945

Tours of Duty

New Zealand	March 1940–October 1943
Guadalcanal	October–November 1943
	August–October 1944
	March–May 1945
New Georgia	November 1943–February 1944
Green Island	October 1944–January 1945
Emirau	May–June 1945

ROYAL NEW ZEALAND AIR FORCE

NO. 2 BOMBER RECONNAISSANCE SQUADRON

NO. 2 BOMBER RECONNAISSANCE SQUADRON

Formed (as No. 2 General Reconnaissance Squadron) January 1941. Reformed after the war and in October 1946 renamed 75 Squadron to commemorate the New Zealand Bomber Squadron which served with the **RAF. Present role: fighter ground-attack.**

***Aircraft:* Vildebeestes and Vincents to 1941; Hudsons, 1941–43; Venturas, 1943–46.**

Commanding Officers

Squadron Leader R. J. Cohen	January 1941–May 1942
Squadron Leader J. J. Busch	May–December 1942
Squadron Leader E. A. Moen	December 1942–April 1943
Squadron Leader R. H. A. Hogg	April–August 1943
Squadron Leader A. B. Greenaway	August 1943–June 1944
Wing Commander W. A. Cameron	June 1944–May 1945
Wing Commander K. G. King	May–September 1945

Tours of Duty

New Zealand	January 1941–November 1943
Santo	November 1943–February 1944
Guadalcanal	February 1944 and November 1944–January 1945
New Georgia	February–April 1944
Bougainville	April–May 1944
Green Island	January–March 1945
Jacquinot Bay	June–September 1945

ROYAL NEW ZEALAND AIR FORCE

NO. 3 BOMBER RECONNAISSANCE SQUADRON

NO. 3 BOMBER RECONNAISSANCE SQUADRON

**Formed (as No. 3 General Reconnaissance Squadron) April 1941;
disbanded June 1945.**

***Aircraft:* Baffins and Vincents, 1941–42; Hudsons, 1942–44;
Venturas, 1944–45.**

Commanding Officers

Squadron Leader C. L. Monckton April 1941–April 1942
Squadron Leader J. W. H. Bray May–September 1942
Squadron Leader G. H. Fisher September 1942–July 1943
Squadron Leader J. J. Busch July–November 1943
Squadron Leader A. B. Greenaway December 1943–January 1944
Wing Commander I. G. Morrison February 1944–June 1945

Tours of Duty

New Zealand April 1941–September 1942
Santo October–November 1942
October 1943–January 1944
May–July 1944
Guadalcanal December 1942–October 1943
July–August 1944
February–March 1945
Bougainville August–October 1944
Emirau October–November 1944
Green Island March–June 1945

ROYAL NEW ZEALAND AIR FORCE

NO. 4 BOMBER RECONNAISSANCE SQUADRON

NO. 4 BOMBER RECONNAISSANCE SQUADRON

Formed (as No. 4 General Reconnaissance Squadron) in **Fiji, October 1940; disbanded September 1945.**

***Aircraft:* Vincents and converted civil aircraft to 1941; Hudsons, 1941–43; Venturas, 1943–45.**

Commanding Officers

Squadron Leader G. R. White	October 1940–October 1942
Wing Commander B. M. Lewis	November 1942–May 1943
Squadron Leader E. W. Tacon	May–December 1943
Squadron Leader E. Brooke-Taylor	December 1943–April 1944
Squadron Leader N. R. Lecher	April 1944–January 1945
Wing Commander F. R. Dix	January–February 1945
Squadron Leader A. F. A. Tye	March–June 1945
Squadron Leader L. H. Parry	July–August 1945
Squadron Leader G. S. A. Stevenson	September 1945

Tours of Duty

Fiji	October 1940–November 1944
Emirau	November 1944–February 1945
Guadalcanal	May–June 1945
Emirau	June–July 1945
Los Negros	July–September 1945

ROYAL NEW ZEALAND AIR FORCE

NO. 5 FLYING BOAT SQUADRON

NO. 5 FLYING BOAT SQUADRON

The first No. 5 Squadron was formed in **Fiji** in November 1941 and disbanded in November 1942.

Aircraft: Singapores.

Commanding Officers

Squadron Leader E. M. Lewis	November–December 1941
Flight Lieutenant W. J. Craig	December 1941–February 1942
Flight Lieutenant R. H. Hickson	February–March 1942
Squadron Leader R. J. R. H. Makgill	April–November 1942

A new No. 5 Squadron was formed in **Fiji** in July 1944. It was reformed after the war and is at present stationed in **Fiji**, operating in the maritime role.

Aircraft: Catalinas.

Commanding Officer: Wing Commander J. W. H. Bray.

Tours of Duty

Fiji August–October 1944
Santo October 1944–October 1945

ROYAL NEW ZEALAND AIR FORCE

NO. 6 FLYING BOAT SQUADRON

NO. 6 FLYING BOAT SQUADRON

Formed in **Fiji May 1943; disbanded September 1945.**

Aircraft: Catalinas.

Commanding Officers

Wing Commander G. G. Stead May–October 1943

Wing Commander I. A. Scott October 1943–August 1944

Wing Commander J. R. S. Agar August 1944–June 1945

Wing Commander K. G. Smith June–September 1945

Tours of Duty

****Fiji** March–October 1943**

Santo October–December 1943

Halavo Bay December 1943–September 1945

ROYAL NEW ZEALAND AIR FORCE

NO. 7 GENERAL RECONNAISSANCE SQUADRON

NO. 7 GENERAL RECONNAISSANCE SQUADRON

Formed February 1942; disbanded May 1943.

Aircraft: Vincents, Vildebeestes.

Commanding Officers

Squadron Leader A. J. Turner February–December 1942

Squadron Leader R. A. Kirkup December 1942–May 1943

Tour of Duty: New Zealand.

ROYAL NEW ZEALAND AIR FORCE

NO. 8 GENERAL RECONNAISSANCE SQUADRON

NO. 8 GENERAL RECONNAISSANCE SQUADRON

Formed March 1943; reformed as No. 30 Dive Bomber Squadron, May 1943.

Aircraft: Vincents, Vildebeestes.

Commanding Officers

Squadron Leader C. L. Monckton April–September 1942

Squadron Leader I. G. Morrison September 1942–April 1943

Flight Lieutenant M. Wilkes April–May 1943

Tour of Duty: New Zealand.

ROYAL NEW ZEALAND AIR FORCE

NO. 8 BOMBER RECONNAISSANCE SQUADRON

NO. 8 BOMBER RECONNAISSANCE SQUADRON

Formed October 1944; disbanded March 1945.

Aircraft: Venturas.

Commanding Officers

Wing Commander L. H. Parry October–November 1944

Wing Commander I. R. Salmond November 1944–March 1945

Tours of Duty

Fiji November–December 1944

Guadalcanal January–February 1945

Emirau February–March 1945

ROYAL NEW ZEALAND AIR FORCE

NO. 9 BOMBER RECONNAISSANCE SQUADRON

NO. 9 BOMBER RECONNAISSANCE SQUADRON

Formed (as No. 9 General Reconnaissance Squadron) in **New Caledonia, July 1942; disbanded June 1945.**

***Aircraft:* Hudsons, 1942–43; Venturas, 1943–45.**

Commanding Officers

Squadron Leader D. B. Grigg July 1942–June 1943

Squadron Leader J. J. Busch June–July 1943

Squadron Leader A. C. Willis July–August 1943

Wing Commander A. C. Allen October 1943–May 1945

Tours of Duty

****New Caledonia** July 1942–March 1943**

****Santo** March–October 1943 and February–May 1944**

****New Zealand** November 1943–February 1944**

****Bougainville** May–August 1944**

****Fiji** January–March 1945**

****Emirau** March–May 1945**

ROYAL NEW ZEALAND AIR FORCE

NO. 488 FIGHTER SQUADRON

NO. 488 FIGHTER SQUADRON

Formed September 1941; disbanded on return from Java, March 1942. A new No. 488 Squadron was formed in the RAF in 1943.

***Aircraft:* Buffalos, Hurricanes.**

Commanding Officers

Squadron Leader W. J. Clouston October 1941–January 1942

Squadron Leader J. M. MacKenzie January–March 1942

Tour of Duty

Singapore October 1941–February 1942

Java February 1942

ROYAL NEW ZEALAND AIR FORCE

NO. 14 FIGHTER SQUADRON

NO. 14 FIGHTER SQUADRON

Formed April 1942. Reformed after the war and served with the British Commonwealth Occupation Forces in **Japan. At present serving in **Cyprus** as a fighter ground-attack squadron.**

***Aircraft:* Kittyhawks, 1942–44; Corsairs, 1944–47.**

Commanding Officers

Squadron Leader J. N. McKenzie April 1942–February 1943

Squadron Leader J. B. Fitzgerald February–June 1943

Squadron Leader S. G. Quill June 1943–April 1944

Squadron Leader J. C. Blundell April–June 1944

Squadron Leader D. W. Cocks July 1944–February 1945

Squadron Leader P. R. McNab February–June 1945

Squadron Leader J. R. C. Kilian June–September 1945

Tours of Duty

New Zealand April 1942–April 1943

Santo April–June 1943

October–November 1943

November–December 1944

March 1945

Guadalcanal June–July 1943

February 1944

June 1944

New Georgia November–December 1943

Bougainville February–March 1944

June–August 1944

April–May 1945

Green Island December 1944–January 1945

Emirau July–October 1945

ROYAL NEW ZEALAND AIR FORCE

NO. 15 FIGHTER SQUADRON

NO. 15 FIGHTER SQUADRON

Formed June 1942; disbanded October 1945.

***Aircraft:* Kittyhawks, 1942–44; Corsairs, 1944–45.**

Commanding Officers

Squadron Leader A. Crighton June 1942–March 1943
Squadron Leader M. J. Herrick March–December 1943
Squadron Leader J. A. A. Gibson December 1943–July 1944
Squadron Leader D. P. Winstone August–December 1944
Squadron Leader M. R. Clarke January–September 1945

Tours of Duty

New Zealand June–October 1942
Tonga October 1942–March 1943
Guadalcanal April–June 1943
September–October 1943
May–June 1944
New Georgia October–November 1943
December 1943–January 1944
Santo September–October 1944
January–February 1945
Bougainville June–July 1944
November–December 1944
June–September 1945
Green Island February–April 1945

ROYAL NEW ZEALAND AIR FORCE

NO. 16 FIGHTER SQUADRON

NO. 16 FIGHTER SQUADRON

Formed June 1942; disbanded October 1945.

***Aircraft:* Kittyhawks, 1942–44; Corsairs, 1944–45.**

Commanding Officers

Squadron Leader A. N. Jones	June 1942–May 1943
Squadron Leader J. S. Nelson	May–September 1943
Squadron Leader J. H. Arkwright	October 1943–January 1944
Squadron Leader A. G. Sievers	January–June 1944
Squadron Leader M. C. P. Jones	June–September 1944
Squadron Leader P. S. Green	October 1944–June 1945
Squadron Leader J. H. Mills	July–October 1945

Tours of Duty

New Zealand	June 1942–June 1943
Santo	June–July 1943
	November 1943–July 1944
	April 1945
Guadalcanal	July–September 1943
	March 1944
	July–August 1944
	November–December 1944
New Georgia	November 1943–January 1944
Bougainville	March–May 1944
	August–September 1944
	April–June 1945
Green Island	December 1944–February 1945
Jacquinot Bay	August–October 1945

ROYAL NEW ZEALAND AIR FORCE

NO. 17 FIGHTER SQUADRON

NO. 17 FIGHTER SQUADRON

Formed October 1942; disbanded September 1945.

***Aircraft:* Kittyhawks, 1942–44; Corsairs, 1944–45.**

Commanding Officers

Squadron Leader J. V. A. Reid October 1942–July 1943
Squadron Leader P. G. Newton July 1943–January 1944
Squadron Leader D. F. St. George April–November 1944
Squadron Leader B. V. Le Pine November 1944–September 1945

Tours of Duty

New Zealand October 1942–July 1943
Santo July–September 1943
 December 1943
 August 1944
 January 1945
Guadalcanal September–October 1943
 April 1944
 August–September 1944
New Georgia January 1943–January 1944
Bougainville January 1944
 April–June 1944
 September–November 1944
Green Island January–March 1945
Los Negros May–September 1945

ROYAL NEW ZEALAND AIR FORCE

NO. 18 FIGHTER SQUADRON

NO. 18 FIGHTER SQUADRON

Formed June 1943; disbanded October 1945.

***Aircraft:* Kittyhawks, 1943–44; Corsairs, 1944–45.**

Commanding Officers

Squadron Leader J. A. Oldfield **Jane 1943–March 1944**
Squadron Leader R. H. Balfour **May–July 1944**
Squadron Leader P. R. McNab **August–November 1944**
Squadron Leader G. H. Corbet **November 1944–April 1945**
Squadron Leader W. A. Hardman **May–September 1945**

Tours of Duty

New Zealand **June–September 1943**
Santo **September–October 1943**
 January 1944
 August–September 1944
New Georgia **October–November 1943**
Guadalcanal **May–June 1944**
 September–November 1944
 January–February 1945
Bougainville **January–March 1944**
 June–July 1944
 February–April 1945
 June–October 1945
Green Island **November–December 1944**

ROYAL NEW ZEALAND AIR FORCE

NO. 19 FIGHTER SQUADRON

NO. 19 FIGHTER SQUADRON

Formed December 1943; disbanded October 1945.

***Aircraft:* Kittyhawks, 1943–44; Corsairs, 1944–45.**

Commanding Officers

Squadron Leader H. R. Wigley	December 1943–April 1944
Squadron Leader M. T. Vanderpump	May–July 1944
Squadron Leader J. R. C. Kilian	July 1944–May 1945
Squadron Leader H. A. Eaton	June–October 1945

Tours of Duty

Guadalcanal	February–March 1944
	June–July 1944
	October–November 1944
Bougainville	March–April 1944
	July–August 1944
Emirau	November 1944–December 1945
Santo	February–March 1945
Los Negros	March–May 1945
Jacquinot Bay	June–October 1945

ROYAL NEW ZEALAND AIR FORCE

NO. 20 FIGHTER SQUADRON

NO. 20 FIGHTER SQUADRON

Formed January 1944; disbanded September 1945.

***Aircraft:* Kittyhawks, 1944; Corsairs, 1944–45.**

Commanding Officers

Squadron Leader S. R. Duncan January–July 1944

Squadron Leader G. M. Robertson July–November 1944

Squadron Leader L. R. Reynolds December 1944–September 1945

Tours of Duty

Guadalcanal April–May 1944

September–October 1944

Bougainville May–June 1944

January–April 1945

Santo August–September 1944

January 1945

Green Island October–November 1944

Jacquinot Bay May–August 1945

ROYAL NEW ZEALAND AIR FORCE

NO. 21 FIGHTER SQUADRON

NO. 21 FIGHTER SQUADRON

Formed May 1944; disbanded September 1945.

Aircraft: Corsairs.

Commanding Officers

Squadron Leader L. R. Bush May 1944–February 1945

Squadron Leader W. J. MacLeod March–September 1945

Tours of Duty

Guadalcanal June–July 1944

November–December 1944

Bougainville July–September 1944

December 1944–February 1945

Green Island April–May 1945

Jacquinet Bay May–July 1945

ROYAL NEW ZEALAND AIR FORCE

NO. 22 FIGHTER SQUADRON

NO. 22 FIGHTER SQUADRON

Formed June 1944; disbanded September 1945.

Aircraft: Corsairs.

Commanding Officers

Squadron Leader B. H. Thomson June 1944–March 1945

Squadron Leader J. R. Court March–July 1945

Squadron Leader G. A. Delves August–September 1945

Tours of Duty

Santo August 1944

December 1944–January 1945

Guadalcanal August–September 1944

Bougainville September–November 1944

April–July 1945

Emirau January–March 1945

ROYAL NEW ZEALAND AIR FORCE

NO. 23 FIGHTER SQUADRON

NO. 23 FIGHTER SQUADRON

Formed August 1944; disbanded October 1945.

Aircraft: Corsairs.

Commanding Officers

Squadron Leader J. J. de Willimoff August 1944–May 1945

Squadron Leader D. E. Hogan May–October 1945

Tours of Duty

Santo September–October 1944

Los Negros November–December 1944

Guadalcanal February–March 1945

Emirau March–May 1945

Bougainville June–October 1945

ROYAL NEW ZEALAND AIR FORCE

NO. 24 FIGHTER SQUADRON

NO. 24 FIGHTER SQUADRON

Formed September 1944; disbanded October 1945.

Aircraft: Corsairs.

Commanding Officers

Squadron Leader M. T. Vanderpump October 1944–January 1945

Squadron Leader A. G. S. George February–October 1945

Tours of Duty

Santo October–December 1945

March 1945

Bougainville December 1944–January 1945

July–October 1945

Green Island March–May 1945

ROYAL NEW ZEALAND AIR FORCE

NO. 25 DIVE BOMBER SQUADRON

NO. 25 DIVE BOMBER SQUADRON

Formed July 1943; disbanded May 1944.

Aircraft: Dauntlesses.

Commanding Officer: Squadron Leader T. J. McL. de Lange

Tours of Duty

New Zealand July 1943–January 1944

Santo January–March 1944

Bougainville March–May 1944

ROYAL NEW ZEALAND AIR FORCE

NO. 25 FIGHTER SQUADRON

NO. 25 FIGHTER SQUADRON

Formed October 1944; disbanded September 1945.

Aircraft: Corsairs.

Commanding Officer: Squadron Leader G. M. Fitzwater

Tours of Duty

Santo	December 1944
Guadalcanal	December 1944–January 1945
Los Negros	January–February 1945
Emirau	May–July 1945

ROYAL NEW ZEALAND AIR FORCE

NO. 26 FIGHTER SQUADRON

NO. 26 FIGHTER SQUADRON

Formed March 1945; disbanded July 1945.

Aircraft: Corsairs.

Commanding Officer: Squadron Leader G. A. Delves

Tours of Duty

Guadalcanal March–April 1945

Bougainville April–June 1945

ROYAL NEW ZEALAND AIR FORCE

NO. 30 DIVE BOMBER SQUADRON

NO. 30 DIVE BOMBER SQUADRON

Formed September 1943; disbanded May 1944.

Aircraft: Avengers.

Commanding Officers

Squadron Leader R. G. Hartshorn September 1943–April 1944

Squadron Leader H. N. James April–May 1944

Tours of Duty

New Zealand September 1943–January 1944

Santo February–March 1944

Bougainville March–May 1944

ROYAL NEW ZEALAND AIR FORCE

NO. 31 DIVE BOMBER SQUADRON

NO. 31 DIVE BOMBER SQUADRON

Formed December 1943; disbanded August 1944.

Aircraft: Avengers.

Commanding Officer: Squadron Leader M. Wilkes

Tours of Duty

New Zealand December 1943–May 1944

Bougainville May–July 1944

ROYAL NEW ZEALAND AIR FORCE

NO. 40 TRANSPORT SQUADRON

NO. 40 TRANSPORT SQUADRON

Formed June 1943; disbanded 1947.

***Aircraft:* Hudsons, Lodestars, Dakotas.**

Commanding Officers

Wing Commander J. Adams June 1943–November 1944

Wing Commander R. A. Kirkup November 1944–April 1946

Tour of Duty

Based at [Whenuapai](#) throughout its existence.

ROYAL NEW ZEALAND AIR FORCE

NO. 41 TRANSPORT SQUADRON

NO. 41 TRANSPORT SQUADRON

Formed August 1944.

***Aircraft:* Hudsons, Lodestars, Dakotas; Hastings and Freighters since 1951.**

Commanding Officer

Wing Commander H. C. Walker September 1944–August 1945

Tour of Duty

Based at [Whenuapai](#) throughout its existence.

ROYAL NEW ZEALAND AIR FORCE

GLOSSARY

Glossary

ADU	Aerodrome Defence Unit
AGTS	Advanced Ground Training Squadron
AMP	Air Member for Personnel
AMS	Air Member for Supply
AOC	Air Officer Commanding
APU	Auxiliary Power Unit
ATC	Air Training Corps
B17	Flying Fortress
B24	Liberator
B25	Mitchell
B26	Marauder
BR	Bomber Reconnaissance
C47	Dakota
C60	Lodestar
CAS	Chief of Air Staff
CHL	Chain Home, Low-flying
COL	Chain Overseas, Low-flying
D	Director (of Training, etc.)
DB	Dive Bomber
DCAS	Deputy Chief of Air Staff
D/F	Direction Finding
DOSD	Director of Organisation and Staff Duties
EFTS	Elementary Flying Training School
EGTS	Elementary Ground Training Squadron
F	Fighter
F4F	Wildcat
F4F-4	Wildcat
F4U	Corsair
F6F	Hellcat
FB	Flying Boat
FOTU	Fighter Operational Training Unit

FTS	Flying Training School
GCI	Ground Control Interception
GR	General Reconnaissance
GTD	Ground Training Depot
ITW	Initial Training Wing
LCI	Landing Craft, Infantry
LST	Landing Ship, Tank
NCO	non-commissioned officer
NZLO	New Zealand Liaison Officer
NZPAF	New Zealand Permanent Air Force
NZSC	New Zealand Staff Corps
NZTAF	New Zealand Territorial Air Force
ONS	Organisation for National Security
P38	Lightning
P39	Airacobra
P40	Kittyhawk
P70	Havoc
PBO	Hudson
PBJ	Mitchell
PBY	Catalina
PC	Submarine chaser
PPI	Plan Position Indicator
PT (boat)	Patrol Torpedo Boat
PV1	Ventura
RAAF	Royal Australian Air Force
RAF	Royal Air Force
RAPWI	Repatriation of Allied Prisoners of War and Internees
RCAF	Royal Canadian Air Force
RFC	Royal Flying Corps
RNAS	Royal Naval Air Service
RNZAF	Royal New Zealand Air Force
R/T	Radio Telephony
SBD	Dauntless
SFTS	Service Flying Training School
SSC	Short Service Commission
TBF	Avenger
TEA	Tasman Empire Airways

TRU	Transportable Radar Unit
TTS	Technical Training School
USAAF	United States Army Air Force
USMC	United States Marine Corps
USN	United States Navy
VCAS	Vice-Chief of Air Staff
VHF	Very High Frequency
WAAF	Women's Auxiliary Air Force
W/T	Wireless Telegraphy

ROYAL NEW ZEALAND AIR FORCE

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[BACKMATTER]

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