CHAPTER 7

THE MALAY BARRIER

THE achievement of the home defence and Empire Air Training Scheme programs was the main task of the R.A.A.F., yet the force was also being used to aid Britain in weaving a pattern of defence in the Pacific and the Far East. With Dutch participation and increasing American interest, this pattern was now taking shape, but there were misgivings about the texture and durability of the fabric.

By the beginning of July 1940, the first R.A.A.F. Hudson unit (No. 1 General Reconnaissance Squadron) was on its way to Singapore and plans were being made to dispatch a second Hudson squadron (No. 8) and No. 21 (General Purpose) Squadron, with Wirraways, before the end of the month.[1]

The Australian Chiefs of Staff, on 23rd August, examined the latest appreciation by the British Chiefs of Staff and noted a declaration by the British Prime Minister, made on 12th August, that, should Japan, acting against "prudence and self-interest", attempt to invade Australia or New Zealand on a large scale, he had the explicit authority of his Cabinet to assure Australia that Britain would cut her losses in the Mediterranean and come to the aid of the Commonwealth or New Zealand, sacrificing everything except the defence of Britain on which all depended. Important reservations to this dramatic declaration were to come later[2] but the immediate reaction of the Australian Chiefs of Staff was to underline the importance to Australia of the defence of Malaya and the holding of Singapore, without which the British Fleet would have no suitable base for operations in the Far East. They asserted that Australia should strain all efforts to cooperate in the actual defence of this area which, strategically, they regarded as of greater ultimate importance to Australia than the Middle East. The security of Singapore appeared to depend largely on the defence of Malaya as a whole and, to a lesser degree, on the denial to the Japanese of the use of air bases in Indo-China and Thailand and of the air and naval bases in the Netherlands East Indies. Unopposed Japanese occupation of the East Indies would result in strategic disabilities so great that Australia should support the Dutch if Japan attempted to seize the islands, unless the British Government considered that the delay of a declaration of war against Japan would more than compensate for this loss. The opinion of the British Chiefs that the scale of attack on Australia or New Zealand would probably be limited to cruiser raids, possibly with light-scale seaborne air attack on ports, was not fully accepted. The possibility of medium-scale attack, and even invasion, could not be ruled out. It was true that with the Netherlands East Indies in their possession, the Japanese could blockade Australia and raid her coasts and shipping without serious risk. But, should the Japanese hold this advantage and have Singapore either in their hands or rendered comparatively impotent by the absence of a British or American Fleet, the invasion of Australia could be contemplated.

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[1] Each squadron had 12 aircraft plus 6 in reserve.

[2] On 22nd March 1941 the War Cabinet was informed by Mr Menzies, then in London, that he had learned that such a dramatic step certainly would not be practicable until after a lapse of considerable time and, even then, might not be possible. Menzies contended that a general declaration of this nature should be resolved into a specific plan that would be really practicable. The large forces in the Middle East, for example, including three Australian divisions, could not just be left to their fate. Their withdrawal would take time; shipping would have to be provided and convoys and naval protection organised.

So far as the R.A.A.F. was concerned, they added, taking into consideration its commitments for the E.A.T.S., and the unsuccessful attempts to obtain an adequate number of aircraft from Britain and the United States, it would be extremely undesirable to reduce the Service squadrons in Australia below their existing strength, which was barely enough to meet the training requirements for the maintenance of five squadrons overseas and the Home Defence air force. To this assessment the Australian Chiefs of Staff made a proviso: if conditions made necessary cooperation with the Dutch in the East Indies, two general reconnaissance landplane squadrons could be based at Darwin to operate in the islands, using Dutch aerodromes if need be as advanced bases.

While this planning was going on No. 8 Squadron, commanded by Wing Commander Heffernan,[3] had flown its aircraft to Sembawang near Singapore where, on 9th August, it had joined No. 1, commanded by Wing Commander Walters.[4] The technical and administrative staff of No. 8 Squadron embarked at Sydney on 10th August in the liner *Strathallan* which also took on board at Melbourne on 13th August No. 21 Squadron, commanded by Squadron Leader Wright.[5] In the same ship were Group Captain Brownell[6] and the staff of a station headquarters to be formed at Sembawang to administer the R.A.A.F. squadrons in Malaya. Two weeks later this headquarters had established itself as a R.A.A.F. station within the R.A.F. Far East Command. The three Australian squadrons each contained a nucleus of regulars supplemented by members of the Citizen Air Force. All were equipped, maintained and paid by Australia. The Hudson aircraft were lightly armed defensively and had a bomb capacity of 1,000 pounds.

A sharp reminder of Japanese hostility was provided by the signing, on 27th September, of a ten-years military, political and economic "defensive" pact between Japan, Germany and Italy. The implications for Australia in this pact were obvious; while Japan would "recognise and respect" the leadership of Germany and Italy in the establishment of a "new order" in Europe, Germany and Italy, in turn, would "recognise and respect" the leadership of Japan in the establishment of a "new order in Greater East Asia".

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[3] Air Cmdre P. G. Heffernan, OBE, AFC. Comd 1 Sqn 1939, 8 Sqn 1939-41, 4 SFTS 1941-42, RAAF Stn Richmond 1942, Pearce 1942-43; 27 OTU RAF 1943-45; Director of Training RAAF 1945-46. Regular air force offr; of Melbourne; b. Bowenfels, NSW, 16 Apr 1907.

[4] AVM A. L. Walters, CB, CBE, AFC. Comd 1 Sqn 1940-41; Director of Operations AAF 1942; comd 1 (Fighter) Wing 1942-43, 72 Wing 1943-44; Director of Air Staff Policy and Plans RAAF HQ 1944; AOC Northern Cd 1945. Regular air force offr; of Perth, WA; b. Melbourne, 2 Nov 1905.

[5] Air Cmdre F. N. Wright, OBE, MVO. Comd 21 Sqn 1939-41, 8 Sqn and RAF Stn Kota Bharu 1941; Director of Training RAAF 1943-45. Oil company representative; of Box Hill, Vic; b. Kalgoorlie, WA, 1 Oct 1905.

[6] Air Cmdre R. J. Brownell, CBE, MC, MM. (1st AIF: 9 Bn, 3 Fld Bty and RAF.) Comd Western Cd RAAF 1938-40, RAAF Far East and RAF Stn Sembawang 1940-41; AOC 1 Training Gp 1941-42, Western Area 1943-45, 495 Gp SWPA 1945. Regular air force offr; of Perth, WA; b. New Town, Tas, 17 May 1894.

On 22nd October a defence conference began in Singapore. All three Australian fighting Services were represented by their Deputy Chiefs of Staff,[7] Air Commodore Bostock being the air force delegate. For ten days this conference examined evidence that was alarming in its revelation of the inadequacy of defence measures throughout the Far East.

The general conclusion of the Australian delegation was that, in the absence of a main fleet in the Far East, the forces and equipment then available for the defence of Malaya were totally inadequate to meet a major attack by Japan. A tactical appreciation prepared by the Commander-in-Chief, China Station (Vice-Admiral Layton[8]), the General Officer Commanding Malaya (Lieut-General Bond[9]) and the Air Officer Commanding the R.A.F. in the Far East (Air Vice-Marshal Babington[1]) and dated 16th October, allotted roles to the three fighting Services. That for the air forces was responsibility for the defeat of the Japanese attack —"if seaborne, at sea and during landing; if land-based, by attack on advancing troops, landing grounds, lines of communication, concentrations of troops, bases and other military objectives; in the air, by defensive fighter tactics and by offensive bombing operations against Japanese air establishments." The roles allotted to the navy and the army, though essential and inter-related, were subordinated to that for the air forces in immediate planning. The appreciation included this depressing, if realistic, statement:

> Our ability to hold Malaya beyond the immediate vicinity of Singapore in the face of a determined attack is very problematical. Moreover, in the event of successful invasion, the survival of Singapore for more than a short period is very improbable.

The conference recommended immediate extension by the Australian Government of air force ground organisation and facilities in Australia and the New Guinea-Solomon Islands-New Hebrides area. The British Government should be asked to hasten the allotment of aircraft so that Australia could meet its share of responsibility for air concentration in Australia and in the Pacific islands.[2] The minimum strength in aircraft required by the R.A.A.F. for this purpose was 320 and the deficiency in modern aircraft at that time was 278 initial equipment planes without reserves. From her own production Australia's potential contribution in offsetting the total deficiency in modern aircraft in the Far East area was limited to 180 Beauforts. For Australia's air operational areas the concentration of aircraft proposed was: north Australia 96, south-east Australia 96, south-west Australia 48, New Guinea-Solomon Islands and New Hebrides 18. With these recommendations the Australian War Cabinet agreed.

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[7] The full delegation was: Capt J. Burnett, Asst Deputy CNS, Maj-Gen J. Northcott DCGS, Air Cmdre Bostock DCAS, Lt-Cdr G. C. Oldham, Maj C. H. Kappe, and Sqn Ldr W. L. Hely.

[8] Admiral Sir Geoffrey Layton, GBE, KCB, KCMG, DSO; RN. Comd 1st Battle Sqn and Second i/c Home Fleet 1939-40; C-in-C China Stn 1940-41, Eastern Fleet 1941-42, Ceylon 1942-45, Portsmouth 1945-47. B. 20 Apr 1884.

[9] Lt-Gen Sir Lionel Bond, KBE, CB; GOC Malaya 1939-41. Regular soldier; b. Aldershot, England, 16 Jun 1884.

[1] Air Marshal Sir John Tremayne, KCB, CBE, DSO. AOC RAF in Far East 1938-41; AOC-in-C Technical Training Cd 1941-43; Head of RAF Mission in Moscow 1943. B. 20 Jul 1891. (Renounced surname of Babington in 1945.)

[2] British planning at this time aimed at having ready about the end of 1942 6,600 front-line aircraft. The RAF plan revealed development in strategic thought for it included provision of 4,000 heavy and medium bombers by the summer of 1941 instead of 2,800 contemplated a year earlier. Hancock and Gowing, *British War Economy*, pp. 213-15.

Courses of action that the conference considered to be open to the enemy included: invasion of Australia or New Zealand, which might be ruled out if American intervention was probable; seizure of the islands to pave a way for invasion of Australia or New Zealand, and seizure of bases for attack on trade and convoys in Australian waters; attack on Hong Kong, which was probable; attack on Malaya with the object of seizing Singapore, which would be a vital blow and "must be defeated" (the enemy might already have occupied Indo-China and Thailand); an attempt to seize British Borneo, which would be difficult to withstand without command of the seas; attack on Burma by land and air from Indo-China and Thailand; attack on the Netherlands East Indies or Timor to secure bases for further operations; an attempt to seize Darwin for a base, which was unlikely because communications and maintenance would both present difficult problems, though an attempt to destroy Darwin's port facilities was probable.

The conference decided that the Far East area should be divided into the following air operational zones: Burma-Malaya-British Borneo, Netherlands East Indies, north Australia, south-east Australia, south-west Australia, New Guinea-Solomon Islands-New Hebrides, New Zealand, Fiji-Tonga, Indian Ocean. To meet the possibility of land and air attack on the first two zones from Indo-China and Thailand 400 aircraft (not including reserves) should be concentrated within range of Japanese forces in any locality except British Borneo where the maximum concentration would be 200. The minimum aircraft strength needed for effective Far Eastern defence[3] was estimated thus:

Burma and Malaya	582	
Netherlands East Indies . . .	346	
Australia	312	
New Zealand	60	
New Guinea-Solomons-New Hebrides reconnaissance line . . .	8	(flying-boats)
Fiji-Tonga	9	
Indian Ocean	87	

For Australia the task of estimating Japan's course of action and endeavouring to influence it was increasingly touchy. On 29th October the Advisory War Council held its first meeting. It called for evidence on all manner of vital war issues from witnesses representing a wide range of Service and civilian authorities. At this meeting Sir John Latham, whose appointment as first Australian Minister to Tokyo was agreed to by the council as "desirable", outlined his conception of the policy Australia should adopt towards Japan. This included a suggestion that the Commonwealth might, as a palliative, place an order with Japan for about £500,000 worth of aircraft. It was possible that such a transaction might put Japan's interests in opposition to those of Germany. The council decided that the proposal should be examined and inquiries made about the types of aircraft Japan could offer. About a month later the Aircraft Production Commission reported that Mitsubishi Shoji Kaisha Ltd was anxious to supply both Service and training types of aircraft. In the negotiations a type similar to the Avro Anson had been sought, but the conditions offered by the Japanese company did not provide for complete delivery until the end of 1941 when, it was considered, the aircraft production capacity of the British Commonwealth would be "more than adequate for all requirements".

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[3] The tactical appreciation of 16th October 1940 recommended 16 fewer aircraft than the total agreed to by the conference.

The arrival of Air Chief Marshal Sir Robert Brooke-Popham at Singapore on 14th November 1940 to take up appointment as Commander-in-Chief, Far East, brought an infusion of vigour into the planning but it was planning for a vast area with very limited resources. Brooke-Popham had been made responsible for the operational control and the general direction of training of all British land and air forces in Malaya, Burma and Hong Kong and for the coordination of plans for the defence of these territories. He was to be concerned primarily with matters of major military policy and strategy, as distinct from administrative responsibility for normal day to day functions. He was authorised to communicate directly with the Australian and New Zealand Defence Departments on routine matters but was required to use the appropriate British Service departments for matters of major policy. Brooke-Popham had high qualifications for his new task. He had been a captain in the regular army when, in 1912, he joined the Royal Flying Corps. He served with distinction during the war of 1914-18, transferred to the Royal Air Force and became first commandant of its staff college. From 1928 to 1930 he had commanded the air and ground forces in Iraq and from 1931 to 1933 had been in charge of the Imperial Defence College. After some years as Inspector-General of the R.A.F. he had retired in 1937 to become Governor of Kenya, but was recalled to the Royal Air Force in 1939. He was now 62—two years older than General MacArthur, his opposite number in the American colony of the Philippines. In Malaya he found himself facing the prospect of organising an area for defence with the odds immensely against him and authority divided: despite his titular appointment he had no naval responsibility in the area and he was specifically under the direction of the British Chiefs of Staff who could, at the outset, give him no greater encouragement for the air defence he was to organise than an instruction that the total of 582 aircraft recommended as essential by the

Singapore Conference, must be reduced to 336.[4] This, it was held, should give "a very fair degree of security".

It was clear that Burma's defence must depend very largely on holding Malaya, the defence of which therefore must have priority. As Brooke-Popham saw it the Japanese were unlikely to attack Burma solely to cut the Burma Road to China.[5] To do so would involve Japan in war with Britain, probably with the Dutch and perhaps with the United States. If Japan was prepared to face such consequences she would be more likely to attack Singapore directly. Thus the Commander-in-Chief sought to concentrate his maximum air effort in Malaya. There had been some question of whether Burma should be controlled from India. The view of Air Headquarters in Malaya was that Burma should be retained in the Far East Command because the effective coordination of air forces operating from Burma and Malaya in defence of the Far East theatre could be achieved only by unified command.

The problems of air defence in Burma were complicated both by the terrain and the difficulty of assessing enemy intentions. Dense forest along the probable line of a Japanese invasion was generally unfavourable for air reconnaissance, though certain open defiles offered areas for effective bombing, and the hope was to have sufficient air strength to deter a Japanese advance. Airfields were being built for the concentration of air operations over either central or southern Burma. Eight new air bases were needed and aerodrome construction was given first preference in the allocation of very limited engineering equipment. Landing grounds were established on the Tenasserim Peninsula to facilitate the movement of aircraft between Burma and Malaya, the most important being at Tavoy, Mergui and Victoria Point, this last being particularly isolated and probably soon untenable if war came. To develop the new bases and to command the air forces then located in Burma, Group-Captain Manning,[6] an Australian who had retired from the Royal Air Force a few years before the war, was appointed in March 1941. His task was great and his resources few but he went to work with much energy.[7] Inter-Service relations in Burma were excellent and the army did everything possible to assist the R.A.F. in its preparations. The raising and training of aerodrome defence troops were conducted parallel with the construction of the airfields

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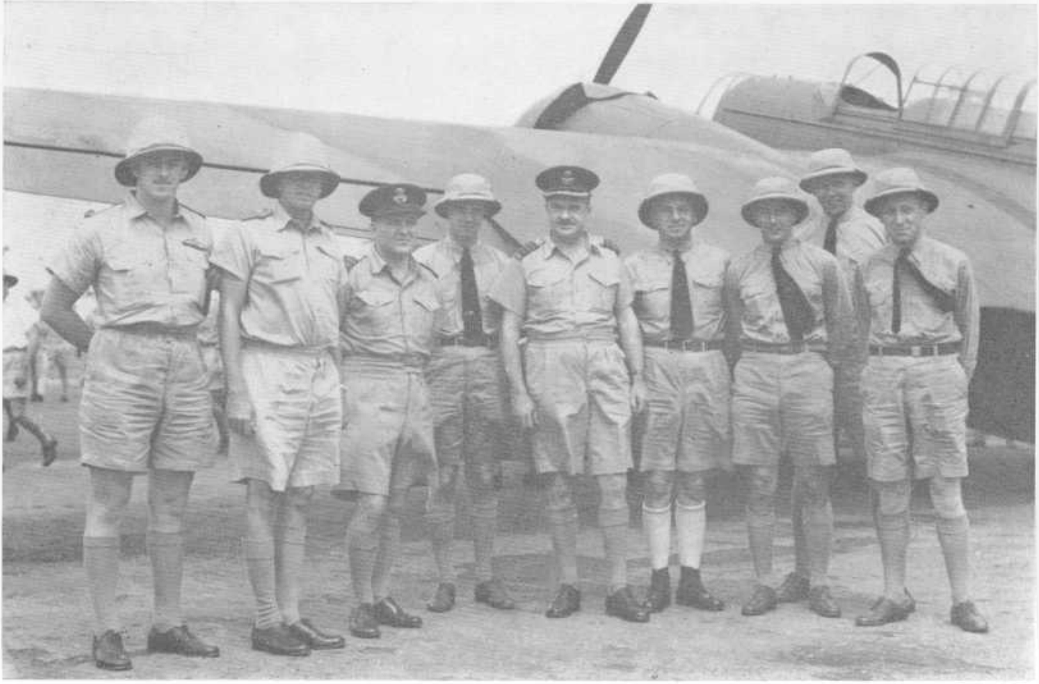
[4] This allocation was for the defence of Malaya and Borneo and for trade protection in the north-eastern section of the Indian Ocean; it did not provide for the defence of Burma.

[5] The Burma Road was officially opened in January 1939. On 24th June 1940 Japan sought its closure and after diplomatic exchanges and despite China's protests, Britain, on 16th July, agreed that it should be closed for 3 months. Britain reopened the road on 30th September—a sharp reaction to Japan's pact with Germany and Italy.

[6] Air Cmdre E. R. Manning, CBE, DSO, MC; RAF. (1914-18: 15 Hussars and RAF.) HQ FEAF (RAF) 1939-41; comd 221 and 223 Gps RAF 1941-42; Air HQ, India, 1942; comd 1 PDRC 1943-45. Stock and share broker; of Sydney; b. St Leonards, Sydney, 14 Feb 1889. Died 26 Apr 1957.

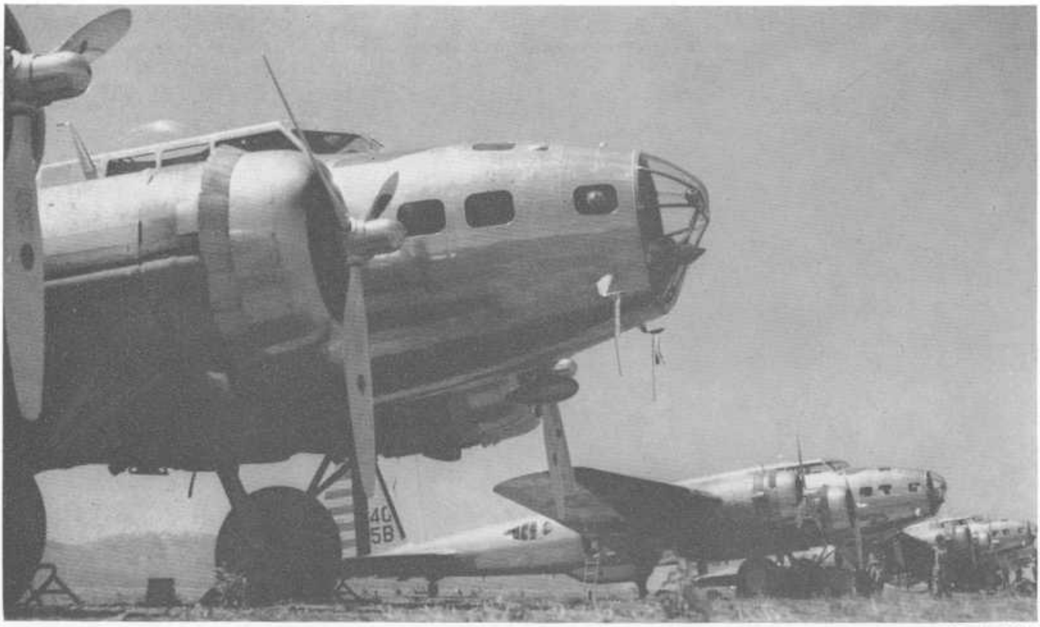
[7] AVM Sir Paul Maltby later AOC Far East RAF, who subsequently compiled the official despatch on the air operations in this theatre, wrote: "Although the Group staff was very small, progress was so good that all bases were completed by the end of 1941, with accommodation at each for some 450 all ranks. Facilities for dispersal were reasonable, pens being provided, as were some satellite strips. There was a measure of A.A. protection in the Rangoon area but none elsewhere."

Air Chief Marshal Sir Robert Brooke-Popham, Commander-in-Chief Far East, and General Sir Archibald Wavell.



(*R.A.A.F.*)

Officers of No. 13 Squadron and of the Royal Netherlands Air Force at R.A.A.F. Station, Darwin, on 16th March 1941. From left to right in open collars the R.A.A.F. officers are: F-O W. T. M. Boulton, Gp Capt C. Eaton (the station commander), W Cdr W. H. Garing and Gp Capt. F. W. F. Lukis. A Netherlands Glenn Martin bomber is in the background.



(*R.A.A.F.*)

Early type Flying Fortresses (B-17s) at Port Moresby, en route to the Philippines, on 10th September 1941.

themselves. But in the light of the task that would have to be performed if war came, the air strength in Burma was almost negligible in quantity: there were not even the restricted forces recommended by the Singapore Conference—one general reconnaissance, two bomber and one fighter squadrons. In February 1941 No. 60 Squadron R.A.F., equipped with Blenheim bombers, arrived from India and in November a Buffalo squadron (No. 67 R.A.F.) was sent from Malaya. No. 60 attained a very high standard of flying in monsoon conditions. Even so it was decided to transfer all but one flight temporarily to a newly-established air-armament school in Malaya so that it could be brought up to date in operational practice. The transfer was made at the end of November, leaving the R.A.F. in Burma with only one fighter squadron and one flight of bombers apart from a flight of six Moth aircraft used for training Burma's own volunteer air force; these aircraft were used for communications duties and certain limited reconnaissance work.

Offsetting, to some extent, this serious reduction of Burma's slender air strength, there was the American Volunteer Group of the International Air Force which began training in Burma in August for service in China.

In 1941 Japan and China had been at war for four years—since 7th July 1937. If Japan was now to attack in south-east Asia it could be with less than half of her army, because most of the rest of it was engaged in China—but her navy was free to undertake any new adventure, and her air force, after some early setbacks, commanded the skies over China and might well seek new skies to conquer.

After the Japanese occupation of Manchuria in 1931 it had been evident that eventually a war would be fought in China between, on the one hand, the mounting imperialism of Japan, and on the other, the Chinese plutocracy led by Chiang Kai-shek, perhaps supported by Japan's rival in the Pacific—the United States. In an effort to acquire some of the technical skill in warfare that the Japanese possessed, Chiang had, by 1936, established in China a German military mission, an Italian aviation mission and an American flying school.[8]

In May 1937, first Mr W. H. Donald,[9] Chiang's Australian-born adviser, and then Madame Chiang Kai-shek, welcomed to China a new American air adviser, Captain Claire Chennault, aged 47, just retired from the United States Army Air Force. Chennault was captivated by Madame Chiang—"one of the world's most accomplished, brilliant and determined women," he wrote later[10]—and Chennault remained in China to organise what became the strongest aid to reach the soil of Chiang's China from outside.

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[8] The first American flying school was established in 1932 by Col John Jouett, who had the support of Mr T. V. Soong, then Minister of Finance. In 1933 Chiang appointed Soong's brother-in-law, Dr H. H. Kung, in his place. Kung had recently spent some time in Italy and soon an Italian air mission headed by Col Lord, arrived in China. Italian aircraft were bought and an assembly works established at Nanchang, Italy reaping a harvest in the resultant expansion of her aircraft industry.

[9] William Henry Donald. South China Correspondent *New York Herald* 1911-19; Editor *Far Eastern Review* 1911-19; Confidential Adviser to Chiang Kai-shek 1928-42; captured by Japs and interned in Manila, PI. B. Lithgow, NSW, 22 Jun 1875. Died 9 Nov 1946.

[10] Claire Lee Chennault, *Way of a Fighter* (1949), p. 35.

At the outbreak of the war with China, Japan possessed comparatively large and integrated military and naval air services, armed from her own factories and organised with the aid of foreign advisers, notably the Master of Sempill.[1] Thus, with the aid of French, British and American and, in more recent years, German instruction the Japanese built up both military and naval air services to meet their own needs but without copying exactly the organisation of any one of the other powers. No appreciable cooperation existed between the two fighting Services, the army air force existing solely to support land forces, and the navy air force having responsibility for coastal defence, convoy protection and all sea patrols, including anti-submarine operations.

The Chinese, on the other hand, had a small and conglomerate air force built round machines and instructors drawn from five or six Western nations—including Australia, since among her senior air advisers in the 'thirties had been Garnet Malley,[2] an outstanding fighter pilot in the Australian Flying Corps in France in 1917-18. When Chennault arrived the Italian advisers were in the ascendant but their schools were inefficient, the Fiat fighters and Savoia bombers which they assembled in China and sold at high prices were obsolete, and they succeeded in persuading the Chinese officials that they possessed far more serviceable aircraft than they really did.

When fighting began on 7th July 1937, China had about 150 competent army pilots and about 200 of poor ability. She had approximately 90 front-line military aircraft, mostly fighters, the best being of American manufacture. As soon as the war began the Italian mission departed and the training of the Chinese Air Force was left to Chennault's American mission. Chennault himself has described the next four years of air fighting over China. The Chinese entered the war with three fighter groups equipped chiefly with American Curtiss and Boeing machines. Under Chennault's guidance the Chinese employed effective interception tactics and shot down so many bombers that the Japanese abandoned unescorted daylight bombing. The Chinese then succeeded in shooting down night bombers in numbers alarming to the Japanese—7 out of 13 in one night.

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[1] These services had their beginnings in a visit by two Japanese Army officers to France in 1911 to undergo air training and in the establishment, a year later, of a naval air training school near Yokosuka by naval officers who had received air training in both France and the United States. In 1919 a French mission of about 60 airmen went to Japan to assist in establishing an aviation section for the Japanese Army and in the next year—the year in which the navy completed its first aircraft carrier—the first Japanese military aviation school was opened near Tokyo. In 1921 a group of retired RAF officers (of whom the Master of Sempill was one) and other ranks, with other aviation experts, helped to reorganise the naval air arm. Later British missions gave instruction in aircraft inspection, tactics, gunnery and armament. When the London Naval Treaty of 1930 restricted Japanese naval construction, the naval air arm continued to expand. Meanwhile, and dating from 1924 when, following a substantial reduction of the army, the Army Air Service was given equal status with the infantry, cavalry and artillery, this branch grew, until by 1930 it consisted of 26 squadrons, 3 schools and 2 balloon companies. By 1936 the post of air corps commander had been created, the officer holding this appointment being responsible to the Emperor with status comparable to that of the Minister of War and the Chief of the Imperial General Staff—RAAF Intelligence Memorandum No. 6, 7th October 1941.

[2] Group Capt G. F. Malley, MC, AFC. (1st AIF: Arty and 4 Sqn AFC.) Aviation Adviser to Chinese Govt 1930-40; Director of Combined Operational Intelligence RAAF 1942; Staff Officer i/c Chinese Section, Aust Security Service 1944-45. Warehouse manager; of Mosman, NSW; b. Mosman, 2 Nov 1893.

The Japanese learned quickly and by September 1937 were escorting their bombers with strong fighter groups and causing the Chinese heavy losses that they could not easily replace. Before the end of the year the Chinese Air Force had been virtually destroyed. The Japanese, on the other hand, had gained immensely valuable experience. In fact Chennault had helped to teach them lessons that were to be immensely valuable to them a few years later.

In October, when the Chinese were still fighting in the outskirts of Shanghai, reinforcements arrived from Russia—the only solid response to the Chinese appeal for help from the "neutral" powers. Complete squadrons arrived at Nanking, Hankow, Sian and elsewhere, flying schools were established, and about 400 aircraft imported for use by the Chinese force. At length the Chinese Air Force was armed practically entirely with Russian machines. In this phase air fighting over China was often on a big scale; Chennault describes one battle in which 40 Russian and 20 Chinese-manned fighters took part and 36 out of 39 Japanese aircraft were shot down. Both Russians and Japanese were testing their machines and tactics in China as were Russians, Germans and Italians in Spain. The Russian squadrons were relieved every six months to spread the combat experience widely.

In the autumn of 1938, at Madame Chiang's suggestion, an international squadron of foreign volunteers was formed. It ceased to exist when its bombers were destroyed on the ground. Late in 1938 the war in China entered a new phase; the Chinese began to rely on guerilla operations. The Japanese, unwilling to commit their armies to further large-scale operations, began an attempt to break Chinese resistance by sustained bombing of their cities. In January 1939 the first raid was made on Chungking. "During the spring the bombing offensive exploded all over Free China like giant firecrackers at a macabre festival," wrote Chennault.[3] In 1939 the raids on Chungking were made usually by 27 bombers; in 1940 by from 90 to 100, protected by the new, fast and manoeuvrable Zero fighter. Against these the out-dated fighters that the Chinese were flying had no chance, and by the autumn of 1939 the Russian squadrons had left China. Later in the year, however, the Russians administered a particularly severe blow to the Japanese air force in Manchuria. This the Japanese themselves subsequently claimed was worth while because it forced them to adopt important changes in organisation, training and tactics, though to foreign observers the principal change was in the acceleration of the rate of expansion.

In October 1940 Chiang summoned Chennault and persuaded him to go to America to endeavour to obtain American aircraft and pilots to fight the Japanese. Chennault agreed and conceived an ambitious plan of checking Japan by air attack first on shipping and airfields at her advanced bases in Formosa, Canton and Indo-China and later by burning the homeland cities with incendiaries. He estimated that he could achieve this with a cadre of American pilots to lead the Chinese, 500 aircraft in 1941 and 1,000 during 1942. He proposed at the outset to form one group armed with P-40B (Tomahawk) fighters and one with Hudson bombers. After long negotiations in Washington aircraft were allotted to the Chinese, and President Roosevelt signed an order permitting reserve officers and men to resign from the army, navy and marine air forces to join an American Volunteer Group in China. The order was not made public and the project was disguised as a training organisation; Chennault was described on his passport as a farmer. The pilots were given a one-year contract at salaries from 250 to 750 dollars a month, and were told that the Chinese might pay 500 dollars for every Japanese aircraft destroyed.

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[3] Chennault, p. 87.

Because of delays in Washington the first group arrived too late to be ready for action when the clear summer days began in China. When Chennault, and later the volunteers who were to form the fighter group, arrived in Burma it was evident that the aircraft could not reach China before the monsoon made the Chinese airfields unserviceable, and he obtained leave to use a paved field of the Royal Air Force near Toungoo, in Burma. Chennault's meetings with R.A.F. officers in Burma and Malaya convinced him that they, like the American air force officers, were gravely underestimating the quality of Japanese aircraft and tactics. Inevitably the task of organising this irregular group on an air station belonging to a Power at war in Europe but preserving a careful neutrality towards Japan and likely to be ruffled by the unorthodoxy of the whole enterprise presented many difficulties. Chennault received generous support from Brooke-Popham but complained that Manning was uncooperative. Recalling that the A.V.G. started to train in Burma in August 1941, Brooke-Popham wrote that there was an understanding amounting practically to an agreement with Chiang Kai-shek that, if Burma was attacked, part or the whole of this volunteer group would be detailed for the defence of Burma. Chennault's group then consisted of three single-seater fighter squadrons equipped with Tomahawk aircraft. By October the group was ready for action.

In the same month the British Ambassador in Chungking reported that the situation in China was very serious and the Far East Command was asked to help. It was suggested that a British fighter squadron with volunteers from the R.A.F. might join the International Air Force, and possibly a bomber squadron as well. The British Chief of the Air Staff gave approval subject to Brooke-Popham's satisfaction that such squadrons would be able to operate effectively as part of the international force and that he accepted their detachment from the Malayan defences. Preliminary steps for the formation of the proposed squadrons were taken and vehicles, spare parts and bombs were moved to meet their needs, but by the first week in December the squadrons had not been formed.

In Burma Chennault's fighter squadrons were ready for action but they had no spares for the machines, except tyres brought by American Navy flying-boats from the Philippines. Bombers intended for the group were taken over by the United States Army Air Corps. Chennault declared later that Manning had an inadequate warning system, was failing to build adequate dispersal fields, and had committed his squadrons to "combat tactics that I regarded as suicidal". Manning, Chennault declared, refused to allow him to enter his fighter-control room.[6] The disadvantages in divided command, geographical separation and the shortage of men, aircraft and equipment were thus combining to produce difficulties and confusion.

When, in February 1941, Brooke-Popham visited Australia to confer with Government and Service representatives, the impression he gave to the War Cabinet was not as depressing as an examination of the restrictions imposed on his command might have suggested. He explained that the plans for the defence of Singapore, where the supreme need was for more munitions and more aircraft, were based on an assumption that it could hold out for six months until capital ships could arrive to relieve it. Before leaving England the British Prime Minister had instructed him that he was to hold Singapore until capital ships could be sent. Mr Churchill's assurance to him had been, "We will not let Singapore fall." Brooke-Popham said that he would be aided greatly if he were provided with a clear statement of policy concerning what actions by the Japanese would be regarded by the British Government as cause for war; he hoped the line could be drawn at the penetration of southern Thailand. The air defence of Malaya was being strengthened by 67 Brewster Buffalo fighters then being delivered from the United States. The Australian-built Wirraways, with which No. 21 R.A.A.F. Squadron was equipped, he described as "quite good machines for attacking ships over short distances", but added that naturally they were not the equal of the latest aircraft being produced.[7] Japanese aircraft, he thought, were not highly efficient and the Malayan air force would "put up a good show" against them. Though it would be unwise to emphasise it unduly, he said with mild caution, he did not regard the Japanese as air-minded, particularly against determined fighter opposition. They were not gaining air domination in China despite their overwhelming superiority in numbers. His air force would put up a much better show against the Japanese than against the Germans, and generally he thought the Malayan air force would cause such loss to the Japanese air force as to prevent it from putting the forces out of action either in Singapore or Malaya—clearly Chennault's high respect for Japanese airmen and aircraft was not shared by Brooke-Popham.

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[6] Chennault, p. 125.

[7] In his official despatch on the campaign dated 28th May 1942, Brooke-Popham declared that "the Wirraways could only be considered as training aircraft". His earlier opinion was in keeping with that of Air Chief Marshal Burnett.

The strength of the air forces in Malaya at this time was:

Bombers	2	squadrons	(Blenheim Mk I)	24	aircraft
Reconnaissance	2	„	(Hudsons Mk II) R.A.A.F.	24	„
Torpedo bombers	2	„	(Vildebeestes)	24	„
General purpose	1	„	(Wirraways) R.A.A.F.	12	„
Flying-boats	1	„	(Singapores)	4	„

Of these only the Blenheims and the Hudsons could be considered modern and the Blenheims lacked range, a serious disability in this theatre. The Vildebeestes had been declared obsolete by the British Chiefs of Staff in August 1940, and Brooke-Popham said that he was looking to Australia, with its contract for the manufacture of Beauforts, for replacements.

The other side of this picture was provided by the information then available to the Australian Chiefs of Staff from which they estimated that Japan now had 340 carrier-borne aircraft and 650 aircraft which might be based on land—a total of 990 of which approximately 275 were fighters, 550 bombers and 150 reconnaissance aircraft.[8] The combined British and Dutch first-line strength consisted of 91 fighters, 300 bombers and 112 reconnaissance aircraft, a total of 503 of which some were obsolete and for which there were few reserves. The gross totals were regarded as giving an imperfect picture for it was held that unless the Japanese established shore bases they would have to rely on carrier or cruiser-borne aircraft.[9] At the same time it was recognised that reinforcement of R.A.F., R.A.A.F., R.N.Z.A.F. and Dutch units might be difficult because the various Services were equipped with different types of aircraft and required different stores, including bombs.

In February 1941 British, Dutch and Australian representatives conferred at Singapore, with United States representatives present as observers. This conference defined particular actions by Japan which would call for active military counter-action—a need which Brooke-Popham had emphasised when in Australia. It also suggested that the commanders "on the spot" should have authority to act without initial reference to London. Mutual reinforcement was planned and preparation of the administrative arrangements for this was to begin immediately. Except that they insisted that there could be no definition of an act of war and automatic reaction to

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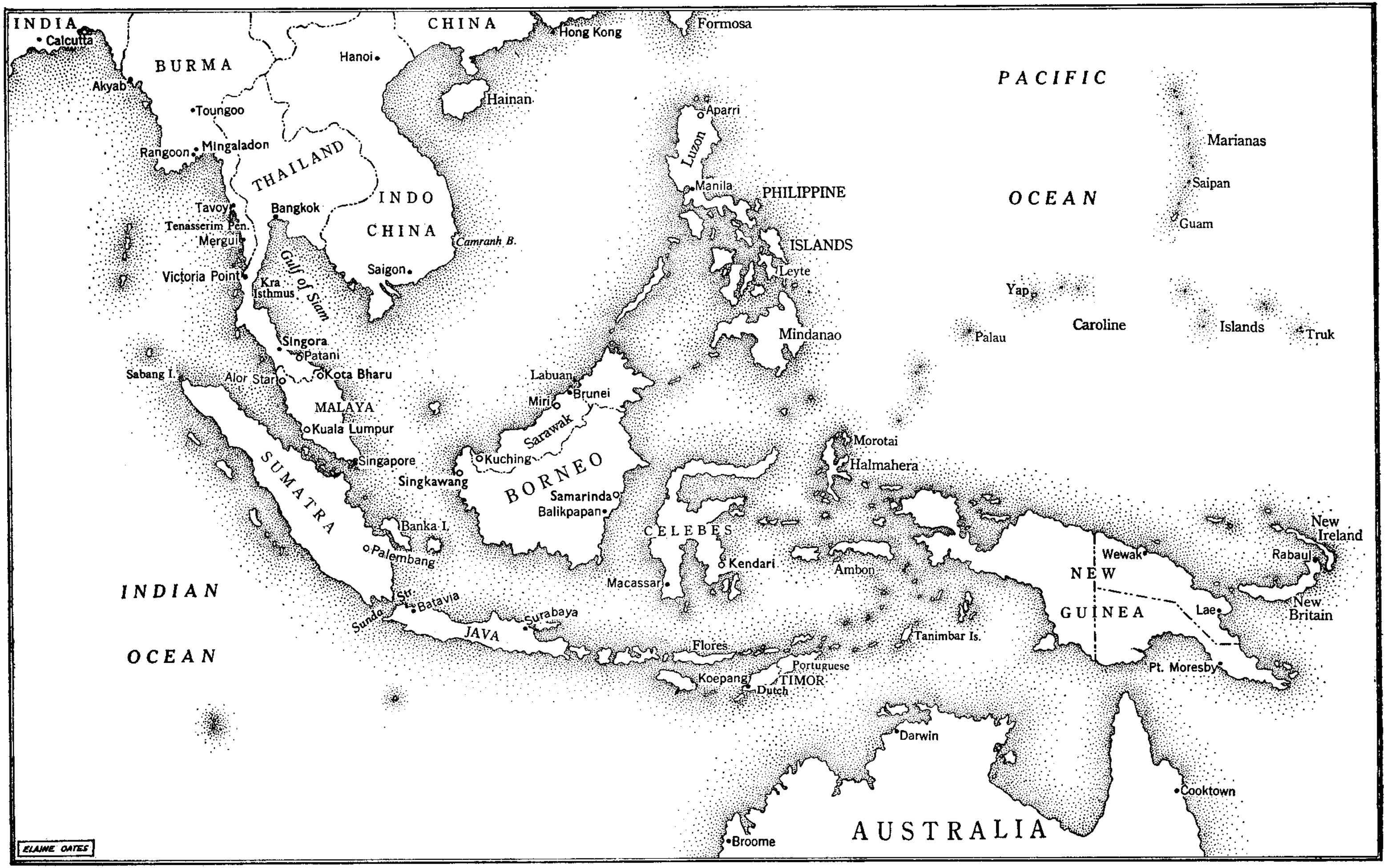
[8] At this time the Japanese naval order of battle as recorded by the Australian Chiefs of Staff included eight aircraft carriers built and two under construction. Japan's effective carrier strength in December 1941 was in fact nine. The British naval order of battle provided for one aircraft carrier (not then in the area) to be based on Trincomalee, Ceylon, in the event of war in the Far East. The United States Navy had four carriers—*Lexington, Saratoga, Enterprise* and *Yorktown*—based on Pearl Harbour.

[9] Subsequent knowledge has proved that this picture certainly was imperfect, but that its imperfection lay in a grave underestimation of the Japanese air strength. United States Strategic Bombing Survey—*Summary Report* (*Pacific War*) (1946), pp. 2-3, records that on 7th December 1941 the Japanese army air force had 1,375 aircraft and the navy air force 1,250, a total of 2,625 aircraft. The official American historians Craven and Cate (*The Army Air Forces in World War II,* Vol I, p. 80) state that at this time about 6,000 Japanese pilots had graduated from training units, 3,500 of whom were assigned to the navy and the remainder to the army. About 50 per cent of the army pilots had been in combat either in China or in the border fighting against the Soviet air force, while 10 per cent of the land-based navy pilots had been engaged in the China operations. About 600 of the best navy pilots were assigned to aircraft carrier units. Japanese pilots were receiving about 300 hours in training units before going to tactical units. The average first-line Japanese pilot in 1941 had about 600 flying hours and the average pilot in the carrier groups had more than 800 hours.


INDIA
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Bangkok
Mergui
Camranh B.
ISLANDS
Guam
Victoria Point
Kra Isthmus
Gulf of Siam
Saigon
Leyte
Yap
Caroline
Islands
Truk
Palau
Mindanao
Singora
Patani
Sabang I.
Alor Star
Kota Bharu
Labuan
Brunei
Miri
MALAYA
Kuala Lumpur
Sarawak
Morotai
SUMATRA
Singapore
Kuching
Halmahera
Singkawang
BORNEO
Samarinda
Balikpapan
Banka I.
CELEBES
New Ireland
Palembang
Kendari
Ambon
Wewak
Rabaul
NEW GUINEA
INDIAN
Macassar
Sunda Str.
Batavia
Surabaya
Lae
New Britain
JAVA
Tanimbar Is.
Flores
OCEAN
Portuguese
TIMOR
Koepang
Dutch
Pt. Moresby
Darwin
Cooktown
AUSTRALIA
Broome
ELAINE OATES

Far Eastern Theatre

it without reference to London, the British Chiefs of Staff approved the report of this conference.

Of special interest to the R.A.A.F. was a clause in this report which set out Australian preparations to reinforce the Dutch island of Ambon and Koepang in Dutch Timor with army and air force units from Darwin. Allied forces at Ambon were to be under Dutch control at the outset. The forces in Dutch Timor would come under Australian control on the arrival of their army units. The estimate of the Australian forces available in the Darwin-Ambon-Timor area was two bomber squadrons and two brigade groups, with possibly an additional reinforcing bomber squadron. In March the Australian War Cabinet approved the provision of these forces, noting that they would enable Australia to share in the "forward line" and so operate offensively. Considering the nature and extent of the Australian contribution, the War Cabinet thought it preferable that an Australian officer should be in command at Ambon. Additional commitments elsewhere made it necessary to reduce the army strength for this force from the two brigade groups recommended to about 1,200 troops for the defence of Ambon and the same number for Koepang. The R.A.A.F. units were not to be stationed permanently at Ambon and Koepang but advanced bases would be set up at these points and air force units at Darwin would operate from them. One of the squadrons was equipped with Wirraway aircraft which would restrict its range to the Darwin area until an intermediate landing ground had been established in the Tanimbar Islands. Because of political implications the movement of Australian troops to Ambon and Koepang was not to take place before the British Government had been consulted and until Australia was at war with Japan. But the War Cabinet did decide that in collaboration with the Dutch authorities in the East Indies, wireless telegraphy equipment, motor transport, general stores, bombs, aviation fuel and other supplies should be sent to Ambon and Koepang. The equipment and stores would bear Dutch markings and ostensibly would be on charge to the Netherlands East Indies forces.

In April 1941 a third Singapore conference was held, this time with American representatives joining British, Dutch, Australian, New Zealand and Indian members and with the British East Indies Station also represented. In the agreement which resulted—known as the A.D.B. Agreement—emphasis was placed on the needs of the Atlantic and European theatres and the necessity for reducing the needs of all others, and notably those of the Far East Command, to a minimum. The fate of Singapore would depend, it was contended, on the outcome of the struggle in the European theatre. The strategy for the Far East was basically defensive, but preparations for air operations against Japanese-occupied territory and against Japan herself from China and the Philippine Islands was recommended, as was the strengthening of the Philippine defences. The American reaction to this last recommendation was negative. The United States delegate reported later that he had discouraged British expectations in this direction, and in June the United States Army and Navy Chiefs sent a strongly worded statement to the British Military Mission in Washington declaring that the Philippine Islands would not be reinforced.[1]

The April Singapore conference also advocated provision of financial aid and equipment for China. Naval and air cooperation was planned, and the movement of the United States Asiatic Fleet from Manila to Singapore should the Philippines be attacked was proposed. "For the purposes of planning it was assumed that the Japanese would not be able to attack simultaneously at several widely dispersed places in the Far East and, in particular, that they would not challenge the combined British, American and Dutch might."[2]

Of outstanding importance was the American delegate's statement of the official American conception of the situation in the Far East. The leader of the Australian delegation,[3] Admiral Colvin, in his report on the conference submitted to the War Cabinet on 11th May, disclosed that the United States, regarding Europe and the Atlantic seaboard of North America as the vital war areas, considered that Singapore, though very important, was not absolutely vital. Its loss, while "most undesirable", could be accepted—a viewpoint not favoured by a British delegation which had engaged in high-level talks in Washington in March. The United States did not intend to reinforce its Asiatic Fleet, nor was it then expected that the United States forces in the Philippines would hold out very long against determined Japanese attacks.

Colvin also quoted the opinion of Brooke-Popham that reinforcements sent to Malaya since October 1940 had so materially strengthened the position of his forces that he was most optimistic about the ability of Singapore to hold out and continue to operate as a fleet base. From staff conversations in Washington had come a plan for the establishment of protected air bases along a line through Burma, Malaya, Borneo, the Philippine Islands, New Guinea, the Solomon Islands, the New Hebrides and Fiji, to Tonga. This line was to be supported by a second line from Sumatra through the Netherlands East Indies and the east coast of Australia to New Zealand. It was considered that the air and land forces available were below the "safe minimum" at this time, but to some extent the power to concentrate air forces quickly would compensate for lack of numbers. The movement of land forces was much more difficult.

Under the reinforcement plan prepared by the conference the Dutch Army Air Service would provide three squadrons of Glenn Martin bombers to be based at Sembawang and a fighter squadron of Buffaloes at Kallang.[4] Stocks of Dutch bombs were to be procured for their use. Singkawang and Samarinda in Dutch Borneo would be provided as bases for the four

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[1] Watson, *Chief of Staff: Prewar Plans and Preparations*, p. 397.

[2] AVM Sir Paul Maltby, *Report on the Air Operations during the Campaigns in Malaya and the Netherlands East Indies from 8th December 1941 to 12th March 1942*, para. 8.

[3] The delegation comprised the CNS and 1st Naval Member, Admiral Sir Ragnar Colvin, Paymaster Capt J. B. Foley (naval staff officer), Col H. G. Rourke (army adviser), Gp Capt F. M. Bladin (air force adviser).

[4] A much earlier model than the versatile Glenn Martin Baltimore, successfully used in the Middle East and Italian theatres for close-support operations, sea reconnaissance and bombing.

R.A.F. bomber squadrons, the bases to be stocked with R.A.F. supplies. The only means of supplying these bases would be by transport aircraft to be provided by the Dutch who, for concealment, had deliberately avoided road-making in the dense jungle in which the bases were situated. Northern Sumatra, it was expected, would be required for an alternative air reinforcement route from India; the original route to Singapore, by way of Burma and north Malaya, was regarded as extremely vulnerable. Sumatra might also be required for landing fields for air operations against the flank of a Japanese force advancing down Malaya and the Dutch agreed to undertake airfield improvement in this territory.

Brooke-Popham wrote later that, in telegraphic comments on this agreement, he and the Commander-in-Chief, China (Vice-Admiral Layton), had emphasised particularly the great importance of offensive operations by the United States Fleet (a point which, he said, was deliberately omitted from the report of the British Chiefs of Staff) and the importance of strengthening the defences of Luzon in the Philippines.[5] The British Chiefs of Staff had replied that while they would welcome any strengthening of the Philippine defences other than at the expense of the United States' effort in the Atlantic, they were not prepared to press the point. Hong Kong they regarded as of little value as an advanced base for operations by American submarines and naval aircraft against Japanese sea communications. Apart from these points the Chiefs of Staff approved the A.D.B. report. But, although the United States representatives had signed it, the report raised objections in Washington because certain political matters, which do not concern us here, had been introduced. A second agreement, which placed these matters in an appendix, was prepared in London in August, but still Washington was dubious and a further conference on the issues to which America objected was proposed. Time was running out and this conference was never held. In May there was an interchange of visits between Darwin and Koepang and Ambon by units of the R.A.A.F. and the Netherlands Indies Air Force.

Australia's concern at the weakness of the defences in Brooke-Popham's command had been forcefully expressed, in the meantime, by Mr Menzies in London. On his return he reported to the War Cabinet (on 10th June) that the British Chiefs of Staff held out small hope that the aircraft strength proposed for Malaya would be achieved by the end of 1941. This had been disclosed in a paper prepared in reply to a memorandum from Menzies himself. An annexe to this paper contained a note by the British Air Staff on the proposed organisation of the R.A.A.F. which expressed general agreement with the Air Board's proposals. Choice of the same type of aircraft for general purpose and general reconnaissance squadrons was regarded as sound policy—a good bomber would be suitable for a striking force or for general reconnaissance work in which it could carry additional fuel in place of the bomb-load. A heavy bomber would be valuable but even medium bombers were difficult to acquire and provision of heavy bombers would be still more impracticable for at least two years unless unforeseen development brought the Far East theatre up to first priority. In view of the kind of attack Australia might expect, no strong case could be made on purely military grounds for the provision of fighter squadrons, though there might be psychological and other reasons for forming some squadrons of this type and, in any event, they would be valuable as reinforcements in the Far East where shore-based attack might have to be met.[6] The British Air Staff suggested that the Air Board "might wish to consider" the use of some Beauforts as torpedo bomber-general reconnaissance aircraft. Recent British successes in this form of attack had prompted the torpedo-bombing suggestion, but a warning was added that the introduction of the torpedo would impose new supply, maintenance and training problems at a time when there was a scarcity both of trained men and torpedoes in the European and Mediterranean theatres. For these reasons Britain would not be able to afford much aid in such development for some time to come.

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[5] Air Chief Marshal Sir Robert Brooke-Popham, *Despatch on Operations in the Far East, from 17th October 1940 to 27th December 1941*, para. 45.

In his memorandum to the British chiefs, Mr Menzies had emphasised that Australian cooperation in the provision of naval, military and air forces for overseas service was "entirely dependent on the sense of local security in the public mind". The Australian Government could not guarantee a reassuring outlook, he asserted, unless the strength of the forces for local defence was at the level recommended by his Government's advisers. Nor could the Commonwealth's war effort be sustained unless trade—a large part of which was seaborne and so required naval and air protection—was maintained at a level that enabled it to be paid for. The present strength of the Australian air force was inadequate for this level of protection.

On the specific issue of Malayan defence Menzies was told in London that, with the exception of anti-aircraft and anti-tank guns, small arms, and artillery ammunition, the deficiencies in army equipment were not serious. Concerning the air defence position and probable Japanese strength and efficiency, the report of the British chiefs which Menzies brought back contained much the same optimism noticed in Brooke-Popham's report to the Australian War Cabinet in February.

> The majority of the 450 shore-based aircraft which the Japanese can marshal against us[7] (the report stated) are of obsolete types . . . and we have no reason to believe that Japanese standards are even comparable with those of the Italians.... We fully realise that our air strength in the Far East is below that necessary for reasonable security in the absence of a fleet, but we do not consider that, in the present situation, we are running more serious risks there than elsewhere, though we are making every effort to restore the balance at the earliest possible moment.

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[6] This single-purpose conception of the use of fighter aircraft suggests that the British Air Staff either were thinking in very immediate terms and without any comprehension of the RAAF becoming a fully coordinated air force, or that they did not recognise at this time the value of fighter aircraft as escorts for bomber formations, though the Japanese had learned the lesson at considerable cost as early as September 1937.

[7] Note the comparison of this figure with that quoted by the Australian Chiefs of Staff in February—450 land-based aircraft as against 650.

But this optimistic though carefully qualified statement had not satisfied Menzies who had asked whether Hurricanes could be made available for Malayan defence. He was told that apart from the need to standardise types to simplify maintenance and the supply of spares, Hurricanes could be provided only at the expense of the Middle East, where even replacement of wastage was extending Britain's efforts. It was most important to obtain all the aircraft possible from the United States and the Brewster Buffalo "appeared to be eminently satisfactory", and would probably prove more than a match for any Japanese aircraft. Menzies told the War Cabinet further that since the Chiefs of Staff had prepared their paper the British Government had stated (on 22nd May):

> We have an interest in any move likely to prejudice the security of the line which runs from Malaya to New Zealand through the Netherlands East Indies and we agree that any attack on any part of that line equally affects all parties and must be dealt with as an attack on the whole line.

On the assumption that the Japanese established themselves in the Netherlands East Indies the British Chiefs considered that "the threat of direct air attack on Australia would not be a serious one". Assuming that other commitments remained unchanged, the Japanese total of about 450 aircraft (150 fighters, 150 light bombers and 150 heavy bombers) for operations based on the Netherlands East Indies, would leave no aircraft for attacks on British territory from Thailand. The existence of only one aerodrome within range of Australia with facilities for heavy bomber operations (Kendari in Celebes) would limit the scale of attack on Australia to a maximum of between forty and fifty aircraft operating at extreme range over the Timor Sea—a scale of attack which in practice would probably be negligible and limited to the immediate vicinity of Darwin.

Summing up, Menzies said that the British Chiefs of Staff had shown a degree of complacency about the defence of the Pacific region. It was evident, he said, that "for too long we readily accepted the general assurances about the defence of this area".[8] It had been only at the Singapore conference in October 1940 that the Australian representatives had discovered the weakness of the local defence position in Malaya and it had been "only recently" that the real situation relating to a fleet for the Far East had become apparent.[9] Other theatres were not devoid of both air and naval protection as the Far East theatre would be in war with Japan should a redisposition not be made. While in London Menzies had obtained an assurance that should war occur in the Far East, there would be an immediate review of air resources to determine what redisposition might be made to meet the danger on all fronts.

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[8] Without attempting to judge the wider issue, which does not concern us here, it is noteworthy that Mr Churchill has since made it clear that, at this time, the Chief of the Imperial General Staff, General Sir John Dill, definitely placed Singapore before Egypt in British strategy and that Churchill was in strong disagreement with him. In a paper dated 6th May 1941 the CIGS wrote: "It is the United Kingdom and not Egypt that is vital. . . . Egypt is not even second in order of priority for it has been an accepted principle in our strategy that, in the last resort, the security of Singapore comes before that of Egypt. Yet the defences of Singapore are still considerably below standard." In a sharp counter to this in which he said the Cabinet and the Navy and Air Chiefs of Staff supported him, Churchill (13th May 1941) wrote to Dill: "The defence of Singapore is an operation requiring only a very small fraction of the troops required to defend the Nile Valley against the Germans and Italians. I have already given you the political data upon which the military arrangements for the defence of Singapore should be based, namely, that should Japan enter the war the United States will in all probability come in on our side; and in any case Japan would not be likely to besiege Singapore at the outset, as this would be an operation far more dangerous to her and less harmful to us than spreading her cruisers and battle-cruisers on the Eastern trade routes." In recording this reply Churchill remarks that at this time the Japanese were not established in Indo-China, adding later, "Nevertheless the confidence which we felt about Home Defence did not extend to the Far East should Japan make war upon us. These anxieties also disturbed Sir John Dill. I retained the impression that Singapore had priority in his mind over Cairo. This was indeed a tragic issue, like having to choose whether your son or your daughter should be killed. For my part I did not believe that anything that might happen in Malaya could amount to a fifth part of the loss of Egypt, the Suez Canal, and the Middle East. I would not tolerate the idea of abandoning the struggle for Egypt, and was resigned to pay whatever forfeits were exacted in Malaya. This view also was shared by my colleagues." W. S. Churchill, *The Second World War*, Vol III (1950), pp. 375-79.

While the Australian Prime Minister and his War Cabinet and the Chiefs of Staff were searchingly examining the Far East situation, Air Vice-Marshal Pulford,[1] who succeeded Air Vice-Marshal Babington on 24th April 1941 as Air Officer Commanding Far East Command, was taking stock of the organisation and administrative background to his new headquarters. What he found was far from encouraging. Despite a severe shortage of staff officers Air Headquarters retained all administrative and operational control. This authority was exercised through subordinate formations. In an effort to decentralise control, a group headquarters was established on the mainland and certain powers were delegated to it. But in the opinion of some officers the powers actually delegated were too narrow and the result was a tendency for Air Headquarters to by-pass group headquarters in an emergency and thus create confusion.

On the next step down in the chain of command were the station headquarters, formed on established aerodromes where one or more squadrons or other units were based. These headquarters were responsible for local air force administration which included messing, accommodation, maintenance and servicing facilities, communications and the immediate operational control of their respective units, plus airfield defence, demolition and emergency movement. Thus a squadron was extremely dependent on the efficiency of the station organisation and control. One of the most vital factors in the whole command organisation was the insistence that all operations, other than for fighter squadrons, must be ordered and controlled from Command Operations Room at Air Headquarters on Singapore Island. Normally the station operations room came into the chain of command, but this did not reduce the grave danger of Air Headquarters becoming too deeply concerned in detail, thereby stripping the station commander of scope for initiative and turning him into little more than a "speaking tube" for the transmission of orders. For fighter operations Fighter Control Headquarters gave orders through station headquarters except where, on the mainland of Malaya, group headquarters exercised control, so that the long distances and the vulnerability of communications might be offset.

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[9] From London Menzies had advised the War Cabinet in March that it would be unwise for Australia to be deluded about the immediate dispatch of a fleet of capital ships to Singapore. It would be far better, he said, to face the facts and prepare a definite plan of naval reinforcement east of Suez on a progressive basis according to the probable outcome of events in the Mediterranean and he had asked that this be done.

[1] AVM C. W. H. Pulford, CB, OBE, AFC. (HMS *Ark Royal*, Gallipoli 1915; comd 1 Sqn 1917-18, 201 Sqn 1918.) AOC 20 Gp 1940-41; AOC RAF Far East 1941-42. Regular air force officer; of London; b. Agra, India, 26 Jan 1892. Died while marooned on Tjebier Island, near Sumatra, about 10th March 1942.

Communications channels in the command comprised the telephone, teleprinter, wireless-telegraphy and radio-telephone. The security of the general telephone system, which passed through civil exchanges, was doubtful to say the least; lack of alternative or emergency lines made the system extremely vulnerable. The internal service telephone system, adequate on Singapore Island, was so poor on the mainland, where there was no efficient field signals service for repair and maintenance, that organisation was hampered and station and unit efficiency and safety impaired if not endangered. Teleprinters were too few in number and, like the telephones, depended on vulnerable land cables. Wireless-telegraphy channels were inadequate; they were liable to enemy interception and jamming and, where used for ground-to-air communications, were too often linked with other frequencies and therefore unreliable. Radio-telephone equipment was obsolete and of very limited range.

Under the severe restrictions understandably imposed by the British Chiefs of Staff, the 336 aircraft considered sufficient for a "fair degree of security" for his command, were regarded by the Commander-in-Chief, also quite understandably, as "an irreducible minimum". As he saw it the problem of defence in the Far East was fundamentally a naval one. Although the army and the air force might defend areas of land and repel the enemy, his final defeat could not be brought about without control of sea communications. But this control called for air superiority.

One of the disabilities Brooke-Popham had to contend with was the lack of adequate Intelligence. The Far Eastern Combined Bureau on which he relied was not a combined service Intelligence centre in the true sense of the words. Under the administrative control of the Admiralty and with a naval officer at its head, it gave army and air Intelligence a minor place and air Intelligence in particular was inadequate. Though this defect was to some extent corrected later, Brooke-Popham had recorded his opinion that a "really suitable" head for the bureau had not been found even by December 1941.[2] Air Vice-Marshal Maltby,[3] who later became assistant air officer commanding Far East Command, in his despatch on the air campaign in Malaya, wrote that the nucleus of a command air Intelligence organisation was "fortunately in being" by this time, but "its development was backward and in particular the information it had collated for briefing aircrews was scanty". He added that the system for collecting Intelligence throughout the Far East was only sufficient to enable the bureau to obtain incomplete air information, the reliability of most of which was "far from high". Training of squadrons in fighter tactics was affected by lack of knowledge of Japanese fighter squadrons and their aircraft. Estimation of the Japanese Naval Air Force was high; information on the Japanese Army Air Forces reported that "although the numbers were great and they were known to possess long-range fighters, efficiency was low, and that, despite their fanatical bravery, reasonable opposition would turn them from their target".

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[2] In November 1940 on their way to Singapore, members of Brooke-Popham's staff visited the Middle East Intelligence Centre in Cairo where they sought and were given data on the organisation and methods of that centre which had been established in July 1939 as the first organisation of its kind under one head. It provided the C-in-C in the Middle East with strategic, political, economic and operational Intelligence.

[3] AVM Sir Paul Maltby, KBE, CB, DSO, AFC, RAF. (1915-19: RFC.) AOC 24 Training Gp 1938-40, 71 Army Cooperation Gp 1940-41; Asst AOC RAF Far East Cd and AOC RAF in Java, 1942. Regular air force offr; b. 5 Aug 1892.

In the opinion of R.A.A.F. officers serving in Malaya, Maltby's criticism of the Intelligence service was more than justified, particularly in relation to the briefing of aircrews. Not only was essential information on enemy armament and aircraft performance lacking, but methods of aircrew interrogation were inadequate; too few Intelligence officers were available, and those so engaged were mostly untrained or inexperienced. In the reorganisation of the Intelligence service, which was taking place at the end of 1941, R.A.A.F. methods were being used as a basis.

Recognising that the main reason for the defence of Malaya was to preserve the naval base at Singapore, Brooke-Popham therefore judged it to be highly important that enemy aircraft should be kept as far away from this base as possible, which meant extending the defences to the northern extremity of Malaya. This extension, he noted, was not dictated by a policy of defence by air power; had the policy been defence by land forces, the dispositions themselves might have been different "but it still would have been essential to hold the greater part of Malaya to deny aerodromes or their possible sites to the enemy". Airfield policy therefore called, first, for sufficient airfields to enable a large proportion of air strength to be concentrated in any given area, and, second, for the selection of sites as far forward as possible to give the greatest possible range for both reconnaissance and offensive strikes; and there was obvious value in being able to strike more than once at enemy convoys before they had time to reach the coast.

The organisation as it was when the R.A.A.F. squadrons began to take part in seaward reconnaissance was but a pale shadow of the Commander-in-Chief's full objectives. Nos. 1 and 8 Squadrons R.A.A.F. both arrived in Malaya well trained and equipped for reconnaissance work. They had been actively engaged in trade protection off the Australian coast and they expected to find in Malaya an organisation from which they would learn a great deal more. They were disappointed. The only evidence of a "search and patrol" system, for example, was a small photographic representation of standard searches which was quite inadequate for practical operations. The signals organisation was poor, the operating and procedure standard was low and there was no efficient direction-finding system. Under the system of organisation adopted, station headquarters had little opportunity to gain practical experience. Severe restrictions on flying hours also checked initiative in station and squadron commanders who, to gain some opportunity for exercises, engaged in what were termed "tarmac patrols" in which station wireless-telegraph frequencies were used and the aircraft with their crews in them "operated" on the ground; and in supplementary naval reconnaissance courses in which models and silhouettes were used and great emphasis was placed on the recognition of Japanese vessels.

The working hours at Seletar and Sembawang were 7.30 a.m. to 12.30 p.m. Both No. 21 Squadron at Seletar and Nos. 1 and 8 at Sembawang soon began working a further two hours—from 2 to 4 p.m.

The background for the use of such squadrons depended greatly, of course, on the aerodrome organisation throughout Malaya. The clash of opinion between the army and the air force on the siting of Malayan airfields dated back to pre-war years. Until 1937 the army's policy in Malaya had always been to leave the east coast of the peninsula as undeveloped as possible—as a deterrent to enemy troop movements—because it had insufficient forces to defend the long coastline. Even late in 1941 this policy still exerted an influence in determining what could be accomplished in a given, brief period. But now the Commander-in-Chief was pressing hard for development of east coast defences and emphasising the strategic and tactical importance of the eastern half of the peninsula. A physical reason for this was the rugged, heavily-forested mountain spine running down the centre of the peninsula for the greater part of its length. The rainfall increases as the central range is approached from either the east or the west and heavy cloud over the mountains creates a considerable and constant flying hazard; a hazard which, with the aircraft then possessed by the command, made airfields in the west virtually ineffective as bases for vital seaward operations to the east.

Key points on the eastern coast were: Mersing in the south; Kuantan, roughly half way between Singapore and the Thai frontier and, farther north, Kota Bharu in Kelantan, no great distance from the Malaya-Thailand boundary. Kota Bharu airfield with its two satellites a few miles to the south was important as a base from which to strike as far into the Gulf of Siam and into Indo-China as aircraft range would allow. But the only ground supply link was a railway, obviously vulnerable, as was the only ground link with Kuantan—a single road. The tactical weakness of these airfields close to the coast presented a very real problem for the army. Should the enemy decide, as could be expected, to make a thrust southward in western Malaya, the field army must detach considerable forces for their defence. Explaining this later in his despatch Maltby recalled that the troops so disposed were Indian State troops who had had little training in this highly specialised work and who were severely handicapped by shortage of weapons, particularly anti-aircraft guns.[4]

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[4] General Percival held similar views on having forward airfields on the east coast. He wrote later: ". . . it was obvious that the protection of these aerodromes was going to be a commitment which the army at its existing strength could not possibly undertake satisfactorily. The danger of constructing aerodromes in an area where the defence forces might not be strong enough to prevent them falling into the hands of the enemy was also obvious. . . . The solution of the problem, as I saw it, depended mainly on the probability or otherwise of there being sufficient modern aircraft on the spot when the time came for them to go into action to deal the enemy such a shattering blow that he would only be able to land a small proportion of his invasion forces. If this was not likely to happen, then it would be much better to construct the aerodromes farther inland where it would be easier for the army to defend them and infinitely more difficult for an enemy, even if he succeeded in landing, to capture them." A. E. Percival, *The War in Malaya* (1949), pp. 42-3.

In the latter part of 1941, Air Headquarters was seeking reinforcements for administrative and special duties officers in both Australia and New Zealand.[5] Eventually more than 116 officers in this category were drawn from Australia for service with Far East Command. After only a brief disciplinary course and a hurried survey of their prospective duties these officers were put to work on a great variety of tasks and, inevitably, quite often with a rank far from commensurate with their responsibilities. Maltby, in his report, stated that the work of the headquarters was increased by the inexperience of officers at stations who needed more "nursing" than was normally required. Responsible Australian officers have since admitted that some of the men selected for these administrative posts were quite unsuitable—perhaps it would have been surprising if, in the circumstances, this had not been so. One R.A.F. commanding officer supported his refusal to recommend Australian administrative officers for promotion with a memorandum, the main contents of which, although confidential, seemed to become fairly widely known among Australians. Members of the R.A.A.F. certainly found it difficult to gain promotion and there were instances of men holding acting rank as high as that of squadron leader while continuing to draw the pay of a flying officer. On the other hand, in the experience of some Australians concerned, the confused situation in the command suggested a need not so much for "nursing" as for freedom from the restrictions of a time-wasting adherence to peacetime administration. An officer in this category was Flight Lieutenant Burlinson,[6] who enlisted in Australia and, soon after his arrival in Singapore in June 1941, was appointed Group Defence Officer. Burlinson recorded his early reactions thus:

> After a week of studying files it became apparent that the four stations on Singapore Island—Seletar, Tengah, Sembawang and Kallang—were defended on the old principles of the "thin red line"; as a friend said, "very thin and not much of a line". One clause in the orders for the defence of each of these stations appeared in identical words in each set of orders. This clause referred to the Mobile Relief Column which was to rush to the aid of the station garrison in the event of pressing need. This force was referred to in such general terms and inconclusive detail that it was obvious that there was a nigger somewhere in the woodpile. . . . Major Peel Thompson[7] of the Manchesters . . . General Staff Officer II, Headquarters, Singapore Fortress . . . gave me all the help it was in his power to give.[8] . . . When I had outlined my question [about the relief column] he smiled and said, "My friend, you have been reading the papers, you have entirely the wrong idea of the defence of Singapore." [Thompson then showed Burlinson a map of the disposition of all troops on Singapore Island.] . . . Somewhere inland from

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[5] Advertisements appeared in the Australian and New Zealand press calling for men aged between 32 and 50 years with executive experience to join the RAF for service with the Far East Command. Almost 6,000 applications were received from the two Dominions.

[6] Sqn Ldr G. R. F. Burlinson, RAFVR, 109314. Admin duties RAF Stn Kallang and AHQ FEAF (RAF) 1941; aerodrome defence duties ACSEA 1942-43; RAF Regt duties 1943-45. Business manager; of Sydney; b. Dunedin, NZ, 12 Oct 1899.

[7] Major Peile Thompson. 1 Manchester Regt; GSO2 HQ Singapore Fortress 1941. Regular soldier; b. 28 Feb 1911.

[8] By this time Burlinson, though still a pilot officer, had been appointed Command Defence Officer.

Singapore was a little cluster of four pins. Pointing to these the GSO II said, "Here, my friend, you have the whole of the reserve of which you spoke—of four platoon strength. It is NOT mobile and has seventeen different roles to perform."

To Burlinson the R.A.F. administration system seemed capable of "amazing efficiency in times of peace, coolness and plenty of time". Its lack of adaptability to high-speed work in an emergency was also immediately obvious. In July 1941, still holding the probationary rank of pilot officer, he was sent on a tour of inspection in the course of which he visited all the airfields in Malaya. On arrival at the northernmost airfield, Kota Bharu, he was taken to meet Brigadier Key,[9] who was charged with its defence. Key had three battalions of infantry dispersed along 45 miles of frontier and 40 miles of coastline. The R.A.F. station was less than a mile and a half from the coast. As the artillery available consisted of one serviceable field gun, it was obvious that so far as army defences were concerned, enemy destroyers might lie off shore and shell either Kota Bharu or Gong Kedah (where a new airfield had been constructed 30 miles to the south) without risk. Asked by Burlinson whether he could guarantee that these two airfields could be maintained in service in the face of an enemy attack with one full division, the brigadier replied that he could give no such guarantee and that, anyway, the enemy naval escort could render both airfields untenable without any troops landing. Burlinson returned to Singapore and wrote a special report to Pulford who sent a letter to the General Officer Commanding the Army in Malaya (Lieut-General Percival[1]) enclosing a copy of the report. Some days later Pulford showed Burlinson the reply he had received from Percival. Of this Burlinson wrote later that it "made no attempt to deal with the detailed dispositions which showed the weakness of the defences in the Kota Bharu area, but merely said that the General was satisfied with the dispositions and that in any case he was not accustomed to receiving critical reports signed only by a second lieutenant".

Burlinson was only one of the Australian professional or business men of some standing at home who, now administrative officers serving in Malaya, felt disturbed by what they regarded as complacency and inefficiency. Another was Flight Lieutenant Bulcock[2] who graduated in Malaya as an equipment officer,[3] and who has recorded his impressions in, at times, bitter phrasing. Of Seletar, R.A.F. station and maintenance unit on the eastern side of Singapore Island, facing Johore Strait, he wrote:

> Its immensity was staggering to those seeing it for the first time—palatial messes, barracks, tennis courts, squash courts, football fields, swimming pool, golf course,

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[9] Maj-Gen B. W. Key, CB, DSO, MC. Comd 8 Ind Inf Bde 1940-42; GOC 11 Ind Div Jan-Feb 1942. Regular soldier; b. 19 Dec 1895.

[1] Lt-Gen A. E. Percival, CB, DSO, OBE, MC. GOC 43 Div 1940, 44 Div 1940-41, Malaya 1941-42. Regular soldier; b. Aspenden, Herts, Eng, 26 Dec 1887.

[2] F-Lt R. P. Bulcock, RAFVR, 109313. Equipment Offr, RAF Stns Kallang, Kuantan and 153 MU 1941-42; Embarkation Officer, Tjilatjap, Jan-Mar 1942. Master printer and managing director; of Brisbane; b. Brisbane, 3 June 1904.

[3] "Most of us passed with credit and the few who failed were given an honorary but dishonourable sixty per cent so that the instructor could hurry back to India." Roy Bulcock, *Of Death But Once* (1947), p. 21.

> picture show and yacht club—all situated within the seven-mile steel boundary fence enclosing the aerodrome. . . . The forms which formed the R.A.F. accounting system had been drawn up, many in quintuplicate, from a pattern used by Selfridges in London and we had to learn the use of a sufficient percentage of them to make our work fireproof. . . . For a peacetime system it was undoubtedly a perfect method of preventing loss or pilfering, but how would it work in war? The answer was that it didn't. The whole scheme was immediately curtailed by about two-thirds of the work involved as soon as operations commenced.[4]

In contrast to this picture was the feverish work going on on the mainland and particularly at the northern stations against almost impossible odds. Posted to R.A.F. Station Kuantan, Bulcock found that:

> Nearly all the buildings had been completed and stood out like a fire on the ocean, for that excellent camouflage the rubber trees had been ruthlessly shorn away. This may have been to combat the mosquito menace, but the army camp of 2,000 Indians half a mile away was completely hidden by rubber trees . . . making the camp quite invisible from the air even at 500 feet. . . . The C.O. and the adjutant were the only officers there [when Bulcock arrived] together with four O.Rs. . . . More personnel were to arrive shortly and 36 Squadron of Vildebeestes was flying in to complete a fortnight's course of armament training and bombing practice. . . . There was no equipment . . . excepting a certain amount of barrack furniture and my first job was to requisition all the thousand-and-one items necessary to equip an R.A.F. aerodrome, workshops, bombing range and marine base.[5]

Bulcock, then a pilot officer, was appointed Transport Officer and acted as Engineering Officer, Workshops Officer, Embarkation Officer, and Rations and Messing Officer; he supervised the refuelling of aircraft, the building of new petrol dumps and shelter-sheds and the storage of bombs and torpedoes. As time went on, he has recorded, Kuantan station did acquire tons of bombs, torpedoes and petrol, though with a strength in men now approaching 600, it had barrack equipment for only 300. To demands sent to headquarters the reply was that the station was already fully equipped. Repairs to aircraft and engines were needed but there were no tools. Aircraft engines had to be repaired in Singapore, transport being by sea with only one ship a week, though a maintenance unit at Kuala Lumpur could be reached by road in one day. Here Bulcock enlisted the aid of another Australian, Wing Commander Groom.[6] Conditions at Kuala Lumpur were immensely superior to those at Kuantan—the next engine for maintenance from Kuantan went to Kuala Lumpur and a replacement engine came back by road on the following day and at least two weeks were saved. In reply to "dozens of letters" Air Headquarters eventually promised that a senior officer would investigate the situation at Kuantan. A group captain did come; his visit ended in Bulcock being asked to put all his "troubles" in writing.[7]

On the other mainland stations, too, officers and airmen wrestled with the problems of airfield construction—shortages of material, particularly metalling for runway surfaces—and of securing labour. Sixteen new bases had been listed for construction in remote secondary jungle country. Five of the existing bases had to be brought up to modern standards and two needed reconstruction. No. 1 Aerodrome Construction Squadron R.N.Z.A.F. which arrived from New Zealand in August, September and October 1941 did splendid work but by the beginning of December much of the works program remained unfinished.[8]

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[4] Bulcock, pp. 18-19.

[5] Bulcock, p. 24.

[6] Gp Capt A. D. Groom, DSO, 37075, RAF. 13 and 4 MU's, ACSEA, 1940-41; 153 MU, ME, 1943. Regular air force offr; of Brisbane; b. Toowong, Qld, 9 Sep 1913.

[7] Bulcock, pp. 24-30.

Air Headquarters was endeavouring to develop an improved radar system for use by an Observer Corps, which was being built up on the inadequate organisation that existed when Brooke-Popham took command, and Fighter Control Headquarters was to direct this system. By 1st December only six of the proposed 20 radar stations had been completed and these were all in the vicinity of Singapore Island.

Aircraft dispersal areas and "splinter-proof" pens were planned on what was considered an adequate scale—one in keeping with the estimated scale of the Japanese attack. Neither time nor resources were sufficient for the establishment of an adequate fighter defence and few anti-aircraft guns were available.[9]

Early in the period of his command Brooke-Popham realised that relations between the army and the air force were not happy. Jealousy, he has recorded, hindered cooperation, and it was some months before this was corrected. Progress in this respect was achieved by getting the headquarters of the two Services on to the same site with a single combined operations room. Between the air force and the navy relations were good and between the navy and the army they continually improved.

In the far north, just across the Thai frontier, the central mountain spine ends, and there, in the region of Singora on the east coast of the Kra Isthmus, the terrain was suitable for airfields. Inland the Haad Yai railway junction was an important factor and Brooke-Popham's headquarters planned accordingly. On 11th August Headquarters No. 223 Group had been formed at Kuala Lumpur. The basic operational plan at that stage provided that if the Japanese made a positive move to occupy Thailand a British brigade would move across the border to occupy Singora. The air force was to provide direct and, if necessary, close support for this operation, a task in which No. 21 Squadron was to be given a share. But on 14th October this plan was cancelled in favour of a more extensive one known as MATADOR. This provided for the movement of part of the III Indian Corps across the border to forestall the Japanese. Direct and, if necessary, close support and reconnaissance facilities were to be provided by the air force and again No. 21 Squadron was allotted a task from its base at Sungei Patani. Headquarters No. 223 Group, now known as "Norgroup", was to be re-formed at the Headquarters of III Indian Corps in Kuala Lumpur on 24th November and was to control the operations of the squadrons concerned. A start of at least 24 hours over the Japanese would be essential to this operation. Doubt about the reaction of the Thais made the planning complex, but it was proceeded with and efforts were made to preserve secrecy.

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[8] A full account of the work of this squadron is given by J. M. Ross, *Royal New Zealand Air Force* (1955), a volume in the series *Official History of New Zealand in the Second World War 1939-45*, pp. 97-105.

[9] The C-in-C had laid it down that each aerodrome was to have 8 heavy and 8 light AA guns, a scale that was not reached by any single aerodrome and some had no guns at all.—Maltby Despatch, para. 29.

In the Malayan air defences one of the greatest weaknesses was lack of fighter aircraft and of reserves of aircraft of any kind. The arrival of Brewster Buffalo fighters from the United States in February 1941 had eased the first problem somewhat but inadequacy of reserves still caused a reduction in the number of flying hours that squadrons were permitted. Altogether 167 Buffaloes were received and by the end of May the formation of four squadrons armed with these aircraft had been authorised. One of these units was No. 453 Squadron, the fourth squadron to be contributed by Australia to the Far East Command. On reaching Singapore by sea from Australia in August 1941 it joined the two R.A.A.F. squadrons (Nos. 8 and 21) at Sembawang[1] where Group Captain McCauley,[2] who took command there in August, was engrossed in the task of organising his station and contributing to the welfare of the R.A.A.F. throughout Malaya. No. 453 Squadron was the first "infiltration" or *Article XV* squadron to go into service in this theatre. On arrival it was formally established as a unit in the Far East Command with Squadron Leader Allshorn[4] as commanding officer; in October a R.A.F. officer, Squadron Leader Harper,[5] arrived from England to take command. All the aircrew (with the exception of Harper) and practically all the ground staff of No. 453, were Australians and wore R.A.A.F. uniform. Operational training, begun promptly, was advanced as rapidly as possible so that barely three months after its arrival, and though not yet regarded as having reached the accepted standard for R.A.F. operational fighter squadrons, Pulford tested it for efficiency and, on 19th November, granted it operational status.

Meanwhile Nos. 8 and 21 Squadrons had also been experiencing changes. In February 1941 Wing Commander Wright was appointed to succeed Wing Commander Heffernan (who returned to an appointment in Australia) in command of No. 8 Squadron and also became commander of R.A.F. Station Kota Bharu. Squadron Leader Fyfe[6] then took command of No. 21 which continued to operate with Wirraways though the need to replace these with more modern machines was becoming urgent. The probability of obtaining new aircraft seemed slender but the Australian Government sent a direct request to Brooke-Popham that he should do everything possible to secure them for the squadron; Buffaloes were the only answer and in September 18 of these aircraft were listed for delivery to it. In the same month a temporary advanced flying training unit was formed at Kluang in central-southern Malaya in an endeavour to meet the training needs of Australian and New Zealand pilots who were arriving direct from flying training schools. More than four months of training was required before such airmen could be expected to be ready for operational flying. To help in the establishment of this unit five of No. 21 Squadron's most experienced pilots and six of its Wirraways were transferred to it.[7] The squadron was handicapped also by a decision of Air Headquarters, made simultaneously, that it should change its role from general reconnaissance and become a fighter and army cooperation squadron. Not all the pilots were readily adaptable to the change—they had not been selected as fighter pilots in the first place and inevitably some were now unsuitable. Another difficulty arose from the posting back to Australia of tour-expired pilots,[8] whose services could ill be spared. Allshorn took command of No. 21 in October.

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[1] No. 1 Squadron, in keeping with a plan that the general reconnaissance units should exchange stations every six months, had recently moved to Kota Bharu.

[2] Air Marshal Sir John McCauley, KBE, CB. Comd RAAF Far East and RAF Stn Sembawang 1941-42; Deputy Chief of the Air Staff 1942-44; Air Cmdre (Operations) 2nd TAF ETO 1944-45; Chief of Staff BCOF 1947-49; AOC Eastern Area 1949-54; Chief of the Air Staff 1954-57. Regular air force offr; of Sydney; b. Sydney, 18 Apr 1899.

[4] W Cdr W. F. Allshorn, 165. Comd 453 Sqn 1941, 21 Sqn 1941-42, 4 Sqn 1942-43, 74 Wing HQ 1943, 83 Sqn 1943-44. Regular air force offr; of Camden, NSW; b. Randwick, NSW, 20 Apr 1913.

[5] W Cdr W. J. Harper, RAF, 40110. Comd 453 Sqn 1941-42, 135 Sqn, RAF, 1942, 92 Sqn, RAF, 1943, University of Leeds Sqn 1943-44. Regular air force offr; b. Calcutta, 22 July 1916.

[6] Gp Capt E. G. Fyfe, DSO, 114. Comd 21 Sqn 1941, 5 FSHQ and RAAF Stn Batchelor 1942, 4 OTU 1942-43, 77 Wing HQ 1943-44. Regular air force offr; of Melbourne; b. Elsternwick, Vic, 20 Mar 1914.

So far as army cooperation was concerned such exercises as could be undertaken in Malaya were not up to the standard demanded by the latest developments in Europe and the Middle East. Through lack of staff it was not possible to develop the lessons from other war theatres in an adequate way. In an effort to overcome this weakness in inter-Service cooperation instructions were issued for the joint information of army and air force units. These related to bombing operations in close support of ground operations and the development of tactical reconnaissance by fighter aircraft. Classes for training aircrews in army organisation and tactics were arranged but lack of signals equipment severely restricted this. A unit could scarcely have been subjected to more frequent or more hampering interruptions to its crucial operational training, yet on 19th November, the day on which No. 453 Squadron had "graduated", Pulford also tested No. 21 and certified to its operational efficiency. The fact that there were now four Buffalo squadrons placed a very heavy strain on the command's reserves of this aircraft. These units also were at a disadvantage because all had been formed as Buffalo squadrons in Malaya and lacked a leavening of combat-experienced pilots.

The two R.A.A.F. Hudson squadrons, whose primary task was seaward-reconnaissance and attack on enemy seaborne forces, with operations as light bombers as a secondary role, had now been in Malaya long enough to be regarded as "seasoned". They were heading the lists in the various phases of training, particularly in bombing-up, navigation and bombing.

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[7] F-Lt R. A. Kirkman, and F-Os C. R. McKenny, D. M. Sproule, A. M. White, and H. V. Montefiore. They were not graded as flying instructors but were experienced Wirraway pilots who could fly the aircraft efficiently from either front or rear seat.

[8] The length of the operational tour in the Far East for RAAF aircrew at this time was 18 months. RAF aircrew stayed for an indeterminate period; some, by 1941, had served 7 years in the Far East.

Maltby, in his despatch, said that they had reached a higher standard of training than had the R.A.F. Blenheim squadrons but, as with No. 21 Squadron, some of their fully trained aircrews were required for the further expansion of the R.A.A.F. in Australia and as proficiency was reached these crews were posted home for that purpose. Maltby wrote of them:

> There was therefore . . . a wide variation between crews in the degree of their training and especially in night flying in which a high degree of skill was desirable for operating through the violent tropical thunderstorms which prevail over Malaya at night during the monsoons.

Because, in so small a force, specialisation was impracticable, bomber and general reconnaissance aircraft were bracketed together, and Hudson and Blenheim crews had to be trained for both day and night bombing. The probable targets in Indo-China were by this time just within reach of the Blenheim IV, of which there was one squadron—No. 34 R.A.F. —and the Hudson aircraft of the R.A.A.F. if based at the northern extremity of Malaya, but the command had too few Blenheims, and since seaborne invasion was the main threat to Malaya the Hudsons were needed for the vital seaward-reconnaissance.

All these problems had been assuming more and more urgency as Japan increased her pressure on the timid Thai authorities and the powerless Vichy French régime. On 23rd July the Japanese had demanded bases in French Indo-China. This was acknowledged in Vichy with "no objection to temporary occupation". There then existed an economic agreement between Britain and Indo-China which professed a mutual desire for friendly relations. Just how futile Vichy's profession of friendship really was became clear when, on 24th July, Japanese warships were reported off Camranh Bay on the French Indo-China coast, and when, four days later, Japanese troops landed at Saigon. On 26th July all Japanese assets in the United States were frozen, a drastic American counter-stroke which the British and Netherlands Governments promptly imitated. Japan was thus being deprived, among other things, of the oil supplies on which her whole war machine depended. The pact between Japan and Indo-China was formally signed at Vichy on 29th July, the announcement disclosing that it gave the Japanese the use of eight airfields in Indo-China. By the end of July the Japanese forces were well established in Indo-China and were busily engaged in improving the existing aerodromes and building new ones. It was obvious that Japan had no intention of limiting herself to the terms of any formal agreement and that Vichy had no intention of trying to restrain her.

Brooke-Popham's command was now being seriously endangered by penetration of southern Indo-China, with only the Gulf of Siam separating the Japanese forces from the Kra Isthmus and the land route into Malaya. But any direct military action by his forces was out of the question for, apart from the insufficiency of these forces, he had been instructed very precisely that it was Britain's policy to avoid war: "Avoidance of war with Japan is the basis of Far Eastern policy and provocation must be rigidly avoided," a message from the British Government had informed him in March. His perplexity was great. As he later explained in his despatch, he found it difficult to determine whether this move by the Japanese signified definite plans for an offensive in the near future, or whether it was merely the acquisition of a strategic asset to be used in negotiation, or again, whether it was the first step towards the occupation of Thailand.

In August when Mr Churchill and President Roosevelt held their memorable Atlantic Charter meeting in Placentia Bay, Newfoundland, Roosevelt agreed to inform the Japanese Ambassador in Washington that "any further encroachment by Japan in the South-West Pacific would produce a situation in which the United States Government would be compelled to take counter-measures, even though these might lead to war between the United States and Japan". On 15th August Churchill informed Menzies of this American warning to Japan adding:

> Once we know this has been done we should range ourselves beside him [Roosevelt] and make it clear that if Japan becomes involved in war with United States she will also be at war with Britain and British Commonwealth. . . . If this combined front [the United States, the British Commonwealth, Russia and the Netherlands] can be established including China, I feel confident that Japan will lie quiet for a while. It is, however, essential to use the firmest language and the strongest combination.[9]

Within two months of this expression of qualified confidence by Churchill, Brooke-Popham was again in Australia for further consultations in which he once more expressed his confidence in the Malayan defences. The Commander-in-Chief told a meeting of the Advisory War Council on 16th October—the first since Mr Curtin's accession to the Prime Ministership—that the strength of the air force in Malaya was improving and referred specifically to the five Buffalo fighter squadrons. The Buffaloes, he said, were superior to the fighters used by the Japanese and were well suited to the operations in Malaya.[1] He admitted a shortage of long-range and torpedo bombers and again mentioned his reliance on Australian production of Beauforts. It was possible now, he said, to send another fighter squadron to Hong Kong where the military forces had been strengthened. Despite the lack of enthusiasm of the British Chiefs of Staff this vulnerable island still held a high place in Brooke-Popham's strategic concept. He told the Advisory War Council that with the Philippines it might form "pincers" which could be brought into operation if Japan moved south.[2] All indications, he said, suggested that Japan had temporarily diverted her attention to the north. It was thought that Russia's preoccupation with the war with Germany presented Japan with an opportunity to rid herself of the Russian threat from Vladivostok. Brooke-Popham also considered that it would take Japan some time to reconcentrate for a move southward and that for the next three months she would not be able to undertake a large-scale attack in the south. This gave time for the strengthening of defences and the "perfection" of plans, though he acknowledged the possibility of Japan invading Thailand and working down through the Kra Isthmus for an attack on Malaya in conjunction with a seaborne attack from Indo-China. While the Russian threat to Japan in the north remained, the maximum number of aircraft she could provide for operations in the south was about 500, not all of which were of modern type. But her principal limitation in the south was lack of adequate airfields and she was taking steps to improve those in Indo-China. This limitation in airfields restricted the availability of Japanese aircraft for operational use at this stage to about 250. The existing British, Dutch and Australian air forces could cope with any aircraft the Japanese could base on their present airfields in the next three months.

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[9] Churchill, Vol III, p. 399.

[1] Apart from complaints about this aircraft's inefficiency from pilots in his own command, of which he must then have been aware, Brooke-Popham in his official despatch admitted that the Buffalo's performance at heights of 10,000 feet and over was relatively poor, a fact which he had already demonstrated (in September) by a test in Burma. This showed its inferiority to the American Tomahawk which members of the AVG doubted would be a match for Japanese fighters. Yet at this time there was Intelligence information to show that the Japanese Zero was powerfully armed (two 7.7-mm guns and two 22-mm cannon), had a maximum speed of 345 m.p.h. and a range, with maximum fuel load, of 1,500 miles—an impressive performance by any standards then known and one which, clearly, was far beyond that of the Buffalo. Brooke-Popham should not have lacked this information which in fact was issued with a noteworthy review of the origin, growth, organisation and development of the Japanese Navy and Army Air Services as a RAAF Intelligence memorandum, just 10 days before Brooke-Popham's comments to the Advisory War Council.

Curtin's view was that it seemed unlikely that the aircraft program (336 for Malaya, Burma and Borneo) would be completed by the end of the year. Brooke-Popham replied that about 180 aircraft were "in hand", including seven Catalinas, more of which were needed for reconnaissance in the Indian Ocean based on Ceylon and for operations as far away as the east coast of Africa.

But the Prime Minister was not reassured. Vital deficiencies in April, when Mr Menzies was in England, appeared to be still outstanding, he said. This was probably due to a general shortage and was also associated with the soundness or otherwise of the view that Japan would move in the north before turning her attention again to the south. The urgent needs of the Far East should be represented strongly to the British Government. Brooke-Popham answered that he had made all representations short of resigning. The British Chiefs of Staff were not neglecting the Far East and probably had made a fair allocation of aircraft from the resources available.

At this same meeting the Prime Minister spoke of information received from London that the British Government intended to dispatch a squadron of capital ships and a battle cruiser to the Indian Ocean; the High Commissioner in London was "not without hope" that a modern ship—either *King George V* or *Prince of Wales*—would be included in this squadron.

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[2] Brooke-Popham proposed that such a squadron for service in Hong Kong should be formed and that Australian airmen (presumably from those already serving in Malaya) should volunteer for service with it. The War Cabinet approved of this on 7th November 1941. Mr Churchill records that early in 1941 several telegrams arrived from Brooke-Popham urging the reinforcement of Hong Kong. "I did not agree . . .," the British Prime Minister wrote, and later, "This is all wrong. If Japan goes to war with us there is not the slightest chance of holding Hong Kong or relieving it. It is most unwise to increase the loss we shall suffer there. . . . Later on it will be seen that I allowed myself to be drawn from this position, and that two Canadian battalions were sent as reinforcements." Churchill, Vol III, p. 157.

Early in August Mr Churchill had appointed Mr Duff Cooper, formerly Minister for Information, to become Minister of State in the Far East. Three months later Duff Cooper visited Australia for consultations. Addressing a meeting of the Advisory War Council on 7th November, he outlined a plan for the establishment of a Defence Council in Singapore. Curtin was not impressed. He said that he preferred the appointment of a member of the British War Cabinet (preferably Duff Cooper himself) as the sole authority in Singapore.