

New Zealand direct from Service Flying Training Schools, and who therefore lacked operational training.

(b) To convert personnel of No. 36 and No. 100 (T.B.) Squadrons from Vildebeestes to twin-engine aircraft in anticipation of their re-equipment with Beauforts.

(c) To train pilots from New Zealand on twin-engine aircraft to fill vacancies in Bomber Squadrons.

Training aircraft were provided from Wirraways thrown up by No. 21 (F) Squadron when it re-armed with Buffaloes, and by Blenheims borrowed from No. 34 (B) Squadron. The Wing Commander Training at A.H.Q. (Wing Commander Wills-Sandford) was appointed Commanding Officer. The Unit had to be disbanded on 8th December, on the outbreak of hostilities, but it had completed most valuable work.

#### *Lack of Armament Training Facilities.*

70. Up till October 1941, the only armament training facilities in the Command were on Singapore Island, and at an improvised air range near Penang. Maximum use was made of the Singapore ranges, but they were very insufficient to meet requirements. In October 1941, the new Command Armament Training Station at Kuantan was opened, but there was time for one squadron only to complete a course before the outbreak of war.

71. The air firing situation was particularly unsatisfactory. There was an acute shortage of target towing aircraft, and the few available were slow.

#### *Lack of Transport and Communication Aircraft.*

72. The lack of transport and communication aircraft was acutely felt during the pre-war period when training was all important. G.H.Q. and H.Q.M.C. had frequently to ask for communication flights, aircraft for which had necessarily to be found, mainly by G.R. Squadrons. Although such requests were pruned and co-ordinated, flights were nevertheless sufficiently frequent to interfere seriously with the training of squadrons, many of whose vital flying hours were thus expended. Furthermore, visits to subordinate units by A.H.Q. staff had to be correspondingly curtailed.

#### *Fighter Squadrons.*

73. In June-July 1941 a Fighter Group Operational Cadre was formed to take over the training and operation of all fighter aircraft in Singapore: the Senior Officer (Group Captain E. B. Rice) at the same time being appointed Air Defence Co-ordinator, Malaya.

74. The following Fighter Squadrons, with an establishment of 16 I.E. and 8 I.R. Buffaloes, were formed on the dates shown:—

No. 67 (F) Squadron, formed at the end of March 1941. The Squadron and two Flight Commanders to be appointed from U.K., the remaining pilots from bomber squadrons within the Command. Establishments were completed with pilots from New Zealand F.T.S's. The Squadron was transferred to Burma in October 1941, shortly after it had been passed as operationally efficient (para. 56).

No. 243 (F) Squadron, formed in April, 1941. Personnel were found as in the case of No. 67 Squadron, but a slightly higher proportion were F.T.S. personnel.

No. 453 (F) Squadron, formed October 1941. The Squadron and two Flight Commanders were appointed from U.K. This was an R.A.F. "infiltration" squadron\* filled from F.T.S's in Australia. Some of the personnel were not entirely suitable for a Fighter Squadron, and the Squadron Commander was in Australia selecting replacements when war broke out.

No. 488 (F) Squadron, formed in October-November 1941. The Squadron and two Flight Commanders came from U.K. This was an R.N.Z.A.F. infiltration squadron and was filled from F.T.S's in New Zealand with excellent material; but their standard of flying on arrival was backward. This squadron had taken over the aircraft on which No. 67 (F) Squadron had trained, and many of these were in poor condition.

No. 21 (F) Squadron, R.A.A.F., which had formed as a General Purpose Squadron in Australia and moved into the Command in 1940, was in October 1941 re-equipped with Buffaloes and converted into a Fighter Squadron, with 12 I.E. and 6 I.R. aircraft. The Squadron had been previously equipped with 2-seater Wirraways, some of which were returned to Australia, the remainder being retained to assist in training Nos. 453 (F) and 488 (F) Squadrons. It will be observed, therefore, that the pilots of this squadron had not been selected originally for fighter aircraft, and some were not in fact entirely suitable for this role.

75. The main role of the Buffalo Squadrons was "day defence" only, primarily of the Singapore area, but night flying training was instituted to ensure that pilots could take off before dawn and land after nightfall.

76. Except for No. 488 (F) Squadron all the above squadrons were considered operationally trained by the outbreak of war. No. 488 (F) Squadron was deficient in squadron and flight training and was not passed as operationally ready until the latter half of December 1941. Training and assessment of operational readiness had, however, been based on an under-estimation of the enemy. The tactics thus taught and practised proved unsuitable and costly against the Japanese Navy "O" fighter, which was greatly superior to the Buffalo in performance. Moreover, advanced training had suffered because, prior to the formation of an O.T.U. in September 1941 (see para. 69), all pilots had joined their squadrons without having received individual operational training.

77. The standard of gunnery in all squadrons was low because:—

(a) Towing aircraft were very slow and there were very few of them,

(b) Cine gun equipment was lacking,

(c) Continual trouble was experienced with the .5 gun and synchronising gear. This was largely overcome by local modification by

\* *is* — an R.A.F. as distinct from a Dominion squadron but manned by Dominion personnel.