

short of the mark, dominating all being the prior and acute claims of the war in Europe and the Middle East.

#### ACTION TAKEN IN MALAYA TO IMPLEMENT PLANS

##### *Development of Air Bases*

##### *Problems of construction*

17. The siting of aerodromes in Malaya was mainly influenced by the topography of the country. A rugged, heavily forested mountain chain runs down the centre of the peninsula cutting off the eastern and western coastal belts from each other until Johore is reached at its southern end. Much of both coastal belts is covered by a medley of broken hills; the rest consists of plains planted with rubber and paddy, or of potential mining sites. Rainfall is heavy throughout the year, increasing as the central mountain range is approached. Constant cloud over this range handicaps flight from one side of the peninsula to the other. Consequently, in order to provide reconnaissance over the South China Sea, from which direction the threat to Malaya by sea was greatest, a number of aerodromes had to be sited on the East Coast.

18. Workable sites were difficult to obtain. Every effort was made throughout 1941 to accelerate construction, but progress was not as rapid as had been hoped, despite the fact that, in some cases, sites involving a minimum of work were selected at the sacrifice of operational requirements.

19. There were 11 separate provincial government authorities in Malaya concerned with the acquisition of land; negotiations with each had to be separate. In the earlier stages, delay occurred owing to misunderstanding of the land acquisition legislation; later, emergency powers of acquisition were invoked and this source of delay ceased.

20. Mechanical plant was very short. That which was available was in poor condition, whilst there were few personnel qualified to operate or maintain it, a combination which constituted a primary handicap to progress.

21. Labour generally throughout Malaya was insufficient to meet the needs of the defence expansion programmes of the three Services, and later of the Civil Government. A permanent Labour Committee existed but its function was, in practice, mainly limited to controlling wages in order to eliminate expensive and wasteful competition between the three fighting Services and Government departments. The powers of this Committee were limited; all labour was voluntary, not conscripted, and no control could be exercised over the rates paid by civilian firms. By mutual agreement, however, it was possible to arrange a certain priority of employment of the labour available; and this was exercised to the benefit of the Royal Air Force in Kelantan State (in N.E. Malaya):

To improve the labour situation, negotiations were opened with the Civil Government in May, 1941, for forming locally enlisted works units to be clothed in uniform and officered by Europeans. Approval was obtained in August, 1941, and the matter was then put to the Air Ministry, but by the time final sanction was given it was too late to be effective. Fortunately an aerodrome construction unit arrived from New Zealand at the end of October, 1941. It did excellent work.

22. Most R.A.F. sites were in remote and sparsely populated spots to which it was necessary first to build roads. Native labour had to be collected, conveyed to the spot and housed. When this had been done it was still necessary to carry to the area almost all the building material required.

23. Much effort was necessarily diverted to anti-malarial measures, which had to be put in hand concurrently with construction in order to protect labour from epidemic. On completion, drained areas had to be maintained and oiled.

24. Supplies of material fell far short of the total needs of the services and civil departments. A Joint Priorities Committee was established in the Spring of 1941. It sat regularly and allocated supplies in accordance with the priorities decided from time to time. During the latter half of 1941, some shortages became particularly acute. Metalling material for runways was also always particularly short, a serious matter on aerodromes constantly subjected to tropical rainfall, which in itself was a major handicap to rapid construction.

25. It is clear, therefore, that the problems which confronted the Air Ministry Works Department were as numerous and complicated as any encountered in other theatres in war time. That it did excellent work does not alter the fact that it was severely handicapped in executing quickly a very large and urgent programme of expansion by the absence, particularly during the early stages, of the accelerated administrative procedure which the situation demanded.

##### *State of Construction, 1st December, 1941*

26. The locations of R.A.F. Stations and Establishments in Malaya and Singapore Island, together with remarks about their state of completion a few days before war broke out in the Far East, are shown in Appendix "A."

27. Of the occupied bases in Malaya, both Alor Star and Kota Bharu were old civil grounds with little room for dispersal. The buildings at Alor Star had been constructed on the old R.A.F. peace-time layout and were congested and too near the runway. This station was high in the priority list for reconstruction when opportunity offered. Both stations were in the forefront of operations in the first days of the war; their deficiencies proved a great handicap.

28. The old bases, and the first of those built on the new programme, had no form of camouflage. The ground had first been deforested and no attempt had been made to use natural surroundings or irregular outlines to obtain concealment. They stood out stark and bare, against the surrounding country. This was largely due to failure before 1940 to realise, not only in the Far East but in Europe also, the need for dispersal and camouflage on the scale which war experience proved to be necessary. In later bases, excellent concealment was obtained by retaining natural surroundings, avoiding straight lines and using a type of construction which, amongst the trees, was indistinguishable from the native huts. Financial considerations, however, continued to prevent the acquisition of sufficient land for effective dispersal.