of so important a part of the Empire is to be entrusted in great part to the Air Arm, as indeed it certainly will be, it is most necessary that the nucleus at least of an adequate Air Force should be maintained at all times either in Malaya itself or in a strategic reserve held somewhere in the East. Where such vital interests are at stake it is unwise to take risks as regards the provision of such a necessary means of defence.

SECTION LXX.—AIR DEFENCE.

666. Prior to the outbreak of the second World War there were no modern fighter aircraft in Malaya and there was no warning system. The anti-aircraft gun defence was confined to the immediate defence of the Naval Base and other installations on Singapore Island. It had been built up in accordance with a War Office plan.

667. During the period 1939/41 considerable progress was made in the development of the air defences. Fighter aircraft arrived, a warning system which covered Singapore and the most southern part of Malaya was organised, some anti-aircraft guns and searchlights were made available for the mainland and a coordinated air defence system was built up. The air detence system was modelled on that of Great Britain but with very much more slender resources it naturally fell far short of the target. The aerodromes on the mainland were inadequately protected and no defence, other than passive defence, was possible for such important centres as Kuala Lumpur, Ipoh, Penang and many others. The defence of the Naval Base was reasonably strong judged by pre-war standards, though the equipment was still considerably short of the approved scale. The warning system suffered from the disadvantages inherent in a country which was still not fully developed and in parts of which the population was sparse.

668. During the years immediately preceding the war the anti-aircraft gun defences had carried out much useful training with the co-operation of the Royal Air Force but the value of the firing practices had been limited by the lack of the most modern target-towing facilities.

669. During the campaign the Air Defence System worked satisfactorily within its limits. In the later stages, however, the Singapore defences were seriously handicapped by the contraction, and eventually by the total loss, of the warning system. The height (over 20,000 feet) at which the Japanese almost invariably flew when attacking the Singapore area in the early stages rendered the 3in. guns ineffective and undoubtedly reduced their own casualties. On the other hand our Light Anti-Aircraft guns had good targets throughout the campaign both on the mainland and in the closing stages on Singapore Island. Figures of aircraft brought down by anti-aircraft gunfire are notoriously difficult to assess accurately but it can be said with confidence that well over a hundred were brought down by this means during the campaign, in addition to many others which were badly damaged.

670. The need for mobility of the gun defences was the outstanding lesson of the campaign. The operations on the mainland were always fluid while even within the area of the Singapore defences the static equipments were

at a disadvantage compared with the mobile ones. Had all the units been fully mobile few, if any, guns need have been lost and they could have operated to an even greater advantage than they did.

All the anti-aircraft guns and searchlights allotted for the defence of aerodromes and of the Lines of Communication should be fully mobile, and a high proportion of those in a permanent fortress should also have a good degree of mobility. It is unlikely that a lay-out designed in peace will meet the conditions of war, and mobility provides one means of making rapid adjustments.

671. The system adopted whereby the action of the fighters and the gun defences in the Singapore area were co-ordinated by a senior Air Force Officer worked smoothly and satisfactorily but the appointment in those conditions of an Air Defence Commander, who would have under him all means of air defence. would undoubtedly be advantageous.

672. The Passive Air Defence Services throughout Malaya had been carefully worked out and, though they needed strengthening as the campaign progressed, they functioned on the whole very efficiently. The provision of material defence against air attack was, however, inadequate judged by modern standards both for people and for property. In this connection, however, it is only fair to point out that the congestion in some of the principal cities in Malaya combined with the technical difficulties of constructing underground shelters in places like Singapore make it almost impossible to provide air raid shelters on a satisfactory scale.

SECTION LXXI.-LABOUR.

673. The failure of civil Asiatic Labour and, in the closing stages, of some of the military labour also under air attack was one of the most crippling events of the Malayan campaign.

674. Pre-war plans to organise civil labour had never reached finality and efforts made to raise additional Army labour companies had, as previously explained in this Despatch, been frustrated through delay in obtaining official sanction. In consequence, when war broke out, reliance had to be placed initially on the peace-time system of obtaining labour through contractors. This system soon proved to be most-unsatisfactory, partly because much of the labour produced was unsuitable for the work in hand, partly because it was undisciplined and partly because the system was wasteful from the point of view of time spent on work. When sanction to raise additional Army Labour companies was received it was impossible to get the men owing to the wide difference between the scale of remuneration authorized and the rates current in Malaya. Early in January endeavours were made to improve matters by the appointment of a Director of Labour working directly under the Director-General of Civil Defence. He was, however, responsible only for labour on Singapore Island. An Army Director of Labour also was appointed. On the 20th January a measure to introduce compulsion was passed but there was no time for its value to be disclosed. The labour problem was never satis-; factorily solved. To the end labour continued to disappear under air attack.