626. Armoured Forces.—The lack of an armoured component was due, not to any weakness in our Army organization, but to inability, owing presumably to lack of resources and commitments elsewhere, to send an armoured component to Malaya when it was asked for. Whatever the cause, however, the absence of an armoured component had a profound influence on the course of the operations, for while the Japanese had at their disposal medium and light tanks in considerable numbers we had until the last few days only armoured cars and Bren gun carriers. few light tanks which arrived from India towards the end of January were so obsolescent as to be of little value. Efforts were made to offset our deficiency in tanks by anti-tank weapons and other anti-tank devices. Useful as these proved, yet it remained clear that the tank itself is the only satisfactory counter to the tank.

It is true that armoured forces, which depend for their success primarily on speed, manoeuvrability and invulnerability are not so effective in jungle and wooded country, where their speed and manoeuvrability are limited, as they are in more open country. Nevertheless it is clear from the Malayan campaign that the influence of armoured forces even in that type of country is very great and that no force is complete without an armoured component.

627. Bren Gun Carriers.—Full value was not obtained from the Bren gun carrier whose cross-country performance was much restricted and which was too vulnerable to close range fire from troops in ambush. The numbers of these could be reduced.

628. Artillery.—Although our field artillery was at times most effective, it was seldom, owing to difficulties of observation and lack of suitable gun position sites, that full value could be obtained from its fire power. On the other hand artillery equipment tends to block roads which are invariably scarce in jungle types of country. Some reduction in the normal allotment of field artillery could therefore be accepted.

629. Mortars —The Japanese used the mortar with great effect as their chief supporting weapon. Their mortar equipment included telephones and cable for observation purposes. I strongly advocate these methods and recommend that the establishment of mortars for operations in Malayan type of country should be increased.

630. Engineers.—The engineers were very fully employed as they are always likely to be in similar conditions. No reduction in that arm is recommended.

631. Signals.—The fact that communications in the Malayan campaign were at times uncertain can be ascribed to the long distances over which they had to be maintained, to the limitations of the civil telephone system in a country which had been comparatively recently developed, to a shortage of reserve equipment and to the limitations imposed on wireless in the difficult conditions of Malaya. It is important that adequate reserves of equipment should be maintained in countries which are situated at a distance from the main sources of supply.

632. Transport.—As soon as operations started it became apparent that there was a superfluity of transport in the forward areas. Besides being very vulnerable to the encircling

tactics adopted by the enemy, it tended to block the roads when mobile operations were in progress. In fact, our organization based on trucks was less suited to the Malayan terrain than was the lighter transport of the Japanese. Steps were taken early to reduce this transport but, for operations in that type of country, establishments should be carefully overhauled to ensure that there is no more transport than is absolutely necessary in the forward areas.

## SECTION LXIV .- ADMINISTRATION.

633. There is no doubt that the proportion of administrative personnel to the fighting troops was much greater on the British side than it was on the Japanese. This was due principally to the fact that the Japanese, an Asiatic race, were better able to live on the country and required less in the way of maintenance services. Another reason was the fact that two of our divisions, the 9 Indian and the 8 Australian, were each short of a brigade group of fighting troops while, in the case of the A.I.F., at least, the administrative services were complete for a full division. A third reason was the fact that there was a certain overlapping of Base Services between the Malaya Command and the A.I F., due to the latter being organised as a self-contained force. It is for consideration whether, in similar circumstances in the future, some economies in manpower could not be effected by the fusion of some of these Services.

634. In general, the administrative organization described in Part I of this Despatch, which was designed with a view to an advance into Thailand but also to meet the contingency of an enemy attack on any part of the coast of Malaya, worked satisfactorily. Bearing in mind that rapid withdrawals were many times forced upon us the losses on the mainland, though considerable, were not excessive.

Island, many important dumps, depots and other installations quickly fell into their hands. This caused serious embarrassments in the closing stages, but it does not indicate that the siting of these installations was faulty. The sites had been selected in accordance with a carefully considered policy of dispersion to avoid excessive losses from air attack and also to avoid as far as possible the already congested Singapore Town area. Most of these installations had been carefully camouflaged. The comparatively few losses sustained from air attack are a proof of the success of this policy.

636. One of the outstanding administrative lessons of the campaign was that troops in forward areas, if cut off temporarily from the normal supply system, must have sufficient reserves of ammunition, petrol, food, water, medical supplies, etc., to enable them to continue fighting. We were forced to the expedient of ordering units which were in danger of being cut off to hold reserves in excess of the normal field service scale—a wasteful procedure because these reserves could not all be carried in the event of a rapid move.

In this connection we felt very acutely the lack of any proper facilities for air supply. There is no doubt that, as was proved later in Burma and elsewhere, air supply is the only practical solution to this problem.