On balance, taking into account both the encouraging aspects of the problem, and the absence of land operations, sickness remained high, and it must be expected to be high in the future in the operational areas of North-East India and Burma.

48. *Food in relation to Health*

Elsewhere in this Despatch under the heading of "Supplies" I have mentioned* the shortages in India of various foodstuffs. This had a medical aspect at times, in relation to the health of the troops.

Fresh meat was not available in forward areas for Indian Troops, and dehydrated meat could not be provided in any quantity.

For the British Troops in Assam fresh meat could only be issued approximately on one day in each week. Fresh fruit and vegetables were not available for troops in Assam or forward troops in Arakan. Tinned milk (the only logical substitute for meat for Indian troops) was short. Certain important items of diet could not be supplied to hospitals—e.g., chickens or eggs.

The position however, was improving, particularly as regards hospitals, at the end of the period.

49. *Malaria and anti-malarial Measures.*

Our measures achieved over all a great deal of success.

In regard to the anti-malarial engineering projects at such hyperendemic localities as the Manipur Road base and the camp sites on the Tamu and Tiddim roads, an anti-malarially controlled or protected area was set out. In this area the daily sick rate was reduced frequently to two per thousand per day. In certain units partially protected, but outside the controlled area, it has been seven per thousand per day. Outside the controlled area, the sick have been twelve to fifteen per thousand per day. Another major anti-malarial measure which has proved effective was the establishment of controlled malaria harbours along lines of communications at distances suitable to troops movements. In addition, all main routes on the lines of communication in Assam and East Bengal were surveyed, and route maps giving details of malarial incidence were prepared.

Two anti-malarial engineering units were raised; one for the 4th Corps Area and one for Arakan. They are field companies of engineers specially trained in anti-malarial measures, and suitable for undertaking the whole of a large sector of line of communication, or any other comprehensive block of work.

Anti-malarial units of the normal type increased during the period, till the whole Eastern Army Area was adequately served.

Labour for these units was however a difficulty and anti-malarial works had to compete with other demands for labour, of which there was never sufficient for all needs on the lines of communication.

Suppressive treatment for malaria with mepacrine continued to be very effective, but the quantities of the drug involved have been enormous, and at times were was an anxiety as to the supply.

50. *Other Diseases.*

Dysentery, though not extensive, increased during June and July but abated later. The 4th Corps area produced a markedly greater number of cases than Arakan, and the rate among British Troops was much higher than among Indians (treble).

Venereal disease constituted a serious problem. The main sources of infection were in the larger towns, but there was also widespread risk of infection in Assam and Manipur. The Adviser in Venereal Disease instituted a comprehensive campaign against the evil in Calcutta and elsewhere.

Cholera and small-pox have been epidemic in some localities and mass inoculations and vaccinations were carried out. The danger was increased by the widespread famine in Bengal; and in Calcutta an epidemic of cholera has raged among the civilian population throughout the period of this Despatch.

Some sporadic cases of tropical typhus also occurred, causing a number of casualties in one British infantry battalion. This became the subject of investigation and research.

51. *Hospital Development.*

There has been a steady improvement in the condition of all hospitals in North East India.

This improvement has been very greatly assisted by the reduction in the number of admissions; so that hospitals have been able to receive, hold and treat patients. Moreover, two-thirds of the hospitals and other medical installations in North East India have been moved east of the Brahmaputra, and this has facilitated the early return of recovered personnel to forward reinforcement camps.

52. *Medical Commitments outside the Military Sphere.*

The influx of large bodies of labourers into very malarious areas inaccessible to ordinary transport necessitated sending additional medical units (including hygiene and anti-malarial sections) to look after them.

Although technically medical arrangements for civil labour are a civil responsibility, in practice especially in forward operational zones, military medical resources had to take over. Indeed, with the great increases in Civil Transport Corps and road-making labour, the problem became serious, and a military medical supervisory chain of officers had to be provided for each of the areas where large numbers of civil labourers were employed.

53. *Evacuation.*

The reduction in evacuations, resulting from the forward-holding policy, greatly eased this problem. An improvement in the accommodation in river hospital steamers also occurred with the provision of suitable fittings.

In Arakan, however, under monsoon conditions the difficulties were great, and caused some unavoidable suffering to patients. The road was closed in the Ramu-Dohazari sector for nearly two months, and the Tambru-Ramu Road, though open, became so bad that serious cases could hardly be sent along it at all.

Conditions for evacuation by sea from Cox's Bazar were also bad. Returning mail and transport vessels were used, but had no accommodation for stretcher cases. Uutimately, one vessel "Nalchera" was allotted entirely for

* *See* Part II, paragraph 32 under 'Economic Emergency and Famine in Bengal'