at Rangoon, pass through Mandalay to Myitkyina. There are various branches such as that from Rangoon to Prome and from Sagaing to Ye-U. The road system in Burma is reasonably good, especially from Ye-U southwards. Communications, therefore, in Burma, may be said to be adequate for the maintenance and movement of large forces. It is clear, therefore, that it should always be possible for the Japanese with these communications to concentrate superior forces to meet any advance by us over the three indifferent roads over the mountains.

- 6. In Arakan the "chaungs" (or waterways) with which the coastal strip is intersected are almost as great an obstacle as the hills and the jungle. In dry weather they can be forded by infantry at low water, but at other times a six-foot tide makes them difficult to cross. In the rains of the South-West monsoon they are swollen by flood water which makes them greater obstacles. The banks are usually muddy and crumbling. Bridging presents considerable difficulties and special arrangements have to be made at each for the passage of tanks and mechanical transport.
- 7. There are other difficulties also for our forces operating southwards in Arakan. The two main rivers, the Mayu and the Kaladan, with their tributaries, converge on the main Japanese base at Akyab. By his command of the entrance to these two waterways, the enemy was able to make use of excellent water communications which were denied to us.

## Climatic Conditions.

- 8. The climate of Burma is affected by the two monsoons, the North-East in the winter and the South-West in the summer. The influence of the former produces fine dry weather with little cloud and conditions are good for operations both on land and in the air. The South-West monsoon on the other hand, blowing as it does across the Bay of Bengal, is heavily charged with moisture which it discharges over Burma and Eastern Bengal during the months of May to October. Precipitation of rain, especially on the Arakan coast, is extremely high, reaching in places as much as 200 inches. The climate varies too, according to the altitude, the temperatures above 3,000 feet being reasonably low and above 5,000 feet cool and invigorating. In the lowlands along the coast, the temperatures are high, with a high humidity which makes campaigning in those areas exhausting.
- 9. Malaria is endemic throughout the country below 3,000 feet but it is worse in some areas than others; for instance, the Kabaw Valley is reputed to be one of the worst malarial valleys in the world. There are two seasonal increases in the rate of infection, one at the beginning of the monsoon in May, and the other at the end of the monsoon in October and November. Much has been done to reduce the casualties from malaria during the past two years and the ineffective rate amongst all troops has fallen very considerably. This is due to much improved personal discipline, efficient draining of bad areas on the lines of communication, training and various medical prophylactic measures which have been introduced. In such a climate there are other

diseases which are products of the conditions; dysentry, the worst effects of which have been reduced by discipline and good hygiene measures, skin diseases of various types, especially during the rainy season, and scrub typhus which is endemic in various areas.

10. While the South-West monsoon has a bad effect upon the health of troops and causes them also acute discomfort from wet, its really worst effect is upon the communications in the country. The heavy rain turns Arakan, a rice growing area, into a muddy swamp quite impassable to wheeled vehicles unless the roads have proper foundations and surfaces capable of withstanding heavy rain. In Assam and Burma there is very little stone, most of the hills, which are clothed in forest or bamboo, being composed of a soft shale quite useless for road making. The making of roads is, therefore, very difficult as they have to be built to a high standard in order to stand up to the torrential rains which fall between May and October. The heavy rains also make the ordinary native tracks very nearly impassable as they get so slippery on the steep hillsides that neither man nor beast can stand up on them. Finally, as can be imagined, these heavy rains make the rivers and streams into very formidable obstacles, all of which have to be bridged to allow the passage of troops and transport.

Indeed, campaigning in the monsoon in Burma may be said to be one of the most arduous operations anywhere in the world today.

## The Japanese Soldier.

- 11. The Japanese soldier is fanatically brave when ordered to succeed or die, yet he is liable to panic when surprised or in doubt. His planning is bold yet he is at a loss if plans go wrong. Although most secretive and careful, he will go into action carrying diaries and military papers. He takes infinite pains to conceal his positions and then nullifies the result by talking in them at night. An expert in the use of ground and in silent movement, yet his patrol work is frequently bad. Although bold at infiltrating into, and then rushing a position from an unexpected direction, he becomes easily nonplussed by determined resistance. He is good at laying fixed lines of fire and skilful in the use of snipers, yet he is a bad shot.
- 12. Our successes in the fighting have, in no small measure, been due to the fact that we have taken full advantage of the enemy's weak points. The results have been gratifying, not only tactically, but also psychologically: signs are not lacking that the blind obedience, fanatical courage and determination to die rather than surrender, which the Japanese soldier has hitherto displayed, may not withstand the continuous reverses which he is now suffering and will suffer in the future. That this fact has been recognised by the Japanese High Command, and is causing some misgiving, has been seen in captured orders.

This must not be taken to mean, however, that the Japanese soldier now surrenders easily. His whole up-bringing and outlook make him regard capture as the worst disgrace. Conse-