balance of strength hardly justifies a German offensive, unless we make a serious mistake and leave an opening. He may, however, be reinforced in the second part of August, though nothing is known to be scheduled. On the other hand the Axis may make great efforts to strengthen *Panzer Armee* in the shortest time.

- 3. Land Forces—Numbers and Morale.—Broadly speaking, though all our forces have been through hard times, their morale is high. German morale is probably a little lower and Italian morale not more than 50 per cent. In view of the known inefficiency of the Italian forces, any offensive action taken by the Axis forces in August would have to be 80 per cent. German.
- 4. Material.—The Eighth Army has some 60 Grant tanks now and will receive another 60 Grant tanks early in August, but there will be no more coming until September. The deduction is that it is necessary to husband our armour carefully in view of the fact that during August the enemy may build up to between 150 and 200 German tanks.

Eighth Army's deficiencies in transport are mounting. A summary of the present state of equipment of the major formations of Eighth Army is attached as Appendix X.\* It is also necessary to husband our ammunition resources. These stand at present as shown in Appendix B\* attached. The enemy has however similar deficiencies and his reinforcing division is notably deficient in anti-tank weapons and transport.

- 5. Training.—None of the formations in Eighth Army is now sufficiently well trained for offensive operations. The Army badly needs either a reinforcement of well trained formations or a quiet period in which to train.
- 6. Fighting value with reference to air forces.

  —At present we have such air superiority that, while our troops are relatively free from molestation, the enemy is continually attacked by night and day. Our land forces are considerably heartened by this, and a large measure of tactical freedom and security accrues from it. Unless the enemy is strongly reinforced and our air forces are correspondingly reduced, this superiority will assist our offensive or defensive and gravely impede the enemy. Our air superiority is a very considerable, if somewhat indefinable, asset.
- 7. Vulnerable Points.—To us the two vulnerable points are Cairo and Alexandria. Occupation of the Cairo area by the enemy would eventually dry up the Sweet Water Canal besides securing an important area for air and land maintenance. Alexandria is useful as a naval base and port of ingress for supplies. The present position of Eighth Army at El Alamein denies direct access to either place by road and flanks any attempt to by-pass. The defences of Alexandria-Cairo-the Delta proper, east of the Nubariya canal and the Wadi Natrun area will be well forward by 14th August and should be complete, in so far as defences are ever complete, by the end of August. Bottlenecks exposed to air action are the Nile crossings at Cairo and northwards, these are being supplemented by two floating bridges south of Cairo and by improving the routes from these

bridges eastwards. All arrangements for demolitions in the Delta are being made. The enemy has few really vulnerable points. There are bottlenecks at Sollum and about Matruh and Bagush, and his long L. of C. is vulnerable to attack by raids from the air or inland or from the sea. But otherwise the enemy is not physically vulnerable, except to direct assault. Morally his Italians are always vulnerable. The soft sand areas of the country east of El Alamein, notably the "Barrel Track" axis, the Wadi Natrun, the sand area to its north, are all added difficulties for the enemy's movement, particularly as they cannot be widely known to him.

8. Ground.—The armies are now in close contact over a forty mile front between the sea and the Qattara Depression. Most of the area is open and can be largely controlled by artillery fire.

The front divides into three main sectors:—

A. From Tel Eisa to exclusive the Ruweisat Ridge. This area is held by two divisions (five infantry brigade groups). The Tel Eisa salient has considerable offensive value, but is not essential to its defence, unless the Miteiriya Ridge is also held by us. Most of the area is difficult for wheeled movement. It is on our side strongly defended by the fortified locality of El Alamein and the mined positions to the south. This area is well supported by strong prepared localities to a depth of twenty-five miles. The enemy lies in open flat country. His positions lack any well defined features and are covered by extensive minefields. At El Daba he has dumps.

B. From inclusive the El Mreir depression to inclusive the Bab el Qattara depression. This area is held by two divisions (four brigade groups) supported by the equivalent of one armoured brigade. We hold the high ground in this area at Pt. 63 on the Ruweisat Ridge. This position is naturally strong and has been fortified to considerable depth. The enemy holds strongly a series of depressions which give good cover. His front has been well mined and has some wire.

In sectors A and B both the enemy and ourselves have attacked in turn without success.

- C. From exclusive the fortified locality in the Bab el Qattara depression to inclusive the complete obstacle of the great Qattara Depression. The enemy is well posted on strong ground at Kelat and Taqa in positions which he has prepared for defence. The object of these positions is to protect his southern flank from being turned by our mobile troops. We have no defences in depth opposite this sector, which is lightly covered by mobile troops.
- 9. Time and Space.—Had the enemy the available resources, Italy and Germany are far nearer to El Alamein than is anywhere in the United Nations. The enemy should therefore be able to reinforce quicker than we. On the other hand, apart from distant Bengasi, he has only two serviceable sea ports, Tobruk and, much less useful, Matruh. He may also make use of the railway to a limited extent. He is faced with long road hauls and a sea passage vulnerable to air and submarine attack. This