

rail communications was well forward and an extensive fleet of inland water craft had been collected and organized. The preparation of aerodromes and Royal Air Force installations in Iraq had already reached an advanced stage.

The situation in Persia was less favourable. Means of communication were less developed to begin with, and a later start had been made to improve them. Construction of the ports of Khorramshahr and Bandar Shahpur was still far from complete; essential railway improvements were in hand but the fleet of locomotives and rolling stock was still much below requirements; the development of base facilities for the Army and the construction of aerodromes for the Royal Air Force were only beginning. Action to remedy this state of affairs had already been initiated, but stores arrived slowly and many delays and set-backs have been experienced.

14. The retarded progress of administrative preparations in Persia and the growing possibility of a German success in South Russia made it clear that an intensive administrative effort was required to ensure that operations in North Persia could, in fact, be maintained. I fixed 31st March, 1943, as the target date by which the base and lines of communication were to be ready to take the strain of operations. This decision necessitated a review of all plans, if the most economical use was to be made of the available resources; any projects not clearly essential had to be dropped, and long-term constructional works reconsidered to ensure that their continuance justified the effort involved. Some curtailment was thus effected.

In one respect, however, I decided to increase construction over previous planning. The base areas in Iraq and South Persia lie in one of the hottest regions of the world, and it was not to be expected that troops located there could sustain the intensive effort which operations must entail, unless provided with a reasonable scale of accommodation and amenities. I therefore authorised the construction of full-scale hatted accommodation throughout these areas.

15. The construction and stocking of base depots on the Persian line of communications could only have been completed in time at the cost of a considerable reduction in supply to Russia, which was already falling below expectations. The alternative to this was to rely upon the base depots in Iraq to maintain operations in North Persia, at least during the opening phases. This involved a very real risk; supplies for the Tenth Army and for the administrative and defence troops behind it, to the extent of some 2,000 tons daily, would have to be passed by barge across the Shatt-el-Arab, re-loaded to rail in the Persian ports and moved thence up the long and vulnerable Persian railway. In the circumstances, this risk had to be accepted. Such a contingency had been foreseen by the Commander-in-Chief, Middle East, who had ordered the construction at Tanuma, opposite Basra, of a lighter quay linked to the Persian railway; and had arranged for the provision from India of materials for a bridge of boats across the Shatt-el-Arab. When I assumed command, construction of the lighter quay was already well advanced, but it seemed doubtful whether the materials for the bridge of boats would arrive in time, or whether

the bridge would prove sufficient. I therefore authorised the construction of a wooden pile bridge across the Shatt-el-Arab, which would afford both rail and road access from the Depots in Iraq to the Persian Railway system.

The insecurity of the Persian railway was a further cause of anxiety especially over the mountainous section between Andimishk and Sultanabad, and I felt it was necessary to have an advanced base beyond this section to afford some insurance against railway interruption through sabotage or bad weather. My first intention was to locate this advanced base at Teheran, but the only practicable site was found to be within the Russian zone of railway control. An alternative site was ultimately found near Sultanabad, and so far as could be done without interference to the forwarding of Russian supplies, preparations were made so that the various depots could be completed and stocked rapidly should the need arise.

16. Other preparations to ensure the maintenance of operations in North Persia had to be deferred to avoid cutting down supplies to Russia. The length of the rail communications from the base to the area of possible operations, as well as the extreme climatic conditions, called for the establishment forward on the line of communications of advanced workshops for the repair of tanks, guns and vehicles, hospitals and convalescent depots, reinforcement camps, etc.; in the circumstances all had to be held back in Iraq, ready to move their positions as soon as it became clear that British defensive measures must have priority in transportation over supplies for Russia. My first estimate was that I should need not less than three weeks for essential administrative preparations before I could expect to maintain Tenth Army in North Persia; subsequent more detailed examination indicated that this estimate was too short.

17. Considerable development and organization were needed in other administrative aspects. I was concerned at the paucity of resources for the repair of vehicles and weapons of all types. It will be appreciated that countries such as Persia and Iraq, deficient as they are of almost all forms of industrial development, offer few facilities in the shape of factories, plant, and resources of skilled labour capable of adaptation to the maintenance of a modern army. Workshop buildings had to be constructed, plant and materials imported, and skilled labour provided from Army resources or trained locally. The extent of this problem may be gauged from the fact that over one and a quarter million square feet of workshop space had to be included in the construction programme; and after exploiting all available local resources the supply of skilled labour fell short by 15,000 of the army's full requirements. Great progress has been made in the provision of workshops, and in training to semi-skilled standards large numbers of Indian Pioneer troops and local civilians; but should the problem arise again, the mechanical upkeep of the army will remain a major problem.

18. Differences in the organization and working of administrative services of the British and Indian Armies presented another problem. Originally the Expeditionary Force to Persia and Iraq was drawn from India and the force