

CHAPTER VII

AN ADMINISTRATIVE STUDY OF THE PALESTINE CAMPAIGN

EVERY theatre in which the various phases of the Great War were fought out presents its own particular lessons, whether of tactics, strategy or administration. Administratively, however, the campaigns in Mesopotamia and Palestine provide by far the most interesting lessons for the British soldier.

Though there is little doubt that the day will come when the British Army again goes to fight on the Continent of Europe, it is more likely to go first to fight in some theatre of the Near or Middle East. Although the broad administrative lessons of the war in France and Flanders are applicable in their main principles to any theatre of operations, Palestine and Mesopotamia present conditions affecting the maintenance of an army in the field which were not present in Western Europe; these are the conditions we shall have to contend with in our future wars, and the lessons to be learnt from them are all the more worthy of our study.

In the Palestine Campaign, deserts, morasses, hills, valleys, rocks and rugged mountains all had to be conquered; while climatic conditions included extremes of heat and cold, drought and torrential rain, and diseases such as malaria and ophthalmia were serious menaces to an army in the field.

In talking of Palestine there is a natural tendency to be Biblical, and conditions there prior to the war had not changed very greatly since Biblical days. Ever since the chariots of Pharaoh "drave heavily," the going in Egypt and Sinai has been difficult. We read how the children of Israel were compelled to make bricks without straw; similarly, the army in Palestine had

to struggle against a shortage of many essentials, especially as regards transport. We know how great were the difficulties of Moses in providing food and water for the children of Israel in the desert. The methods employed during the war by the Q.M.G. in Egypt to contend with this difficulty were little less wonderful than those adopted by Moses many centuries ago. If, however, a simile from lighter literature is preferred, it will be found in "Alice in Wonderland," for it is certain that the D.A. & Q.M.G. at Kantara, just like the Walrus and the Carpenter, must have "Wept like anything to see such quantities of sand."

But to get back to the administrative lessons of the campaign. It is in this campaign, perhaps above all others included in the Great War, that we see the inter-dependence of tactics, strategy and administration and the preponderating influence of administrative considerations on the main plans of operations. Supply, in its widest sense, was a dominating factor throughout. Before discussing details in this connection, it will be well to consider a few points of geography and topography which have an important bearing on the subject.

First of all we should remember that the Suez Canal itself has been cut through the desert, and it lies at least thirty miles from the inhabited part of Egypt. The towns on the banks of the canal—Ismailia, Suez, and Port Said—are entirely dependent for their water supply on the Sweet Water Canal, which flows one hundred miles from the Nile at Cairo before it reaches them. Furthermore, the Canal ports were only connected with Egypt proper by a single line of railway; it was not until the very end of 1915 that the line was doubled to Ismailia.

As regards Sinai itself, there were no roads for wheels anywhere, and water was very scanty except in winter. The armies of bygone days have used the coastal route across the north of the Sinai peninsula to invade Egypt from time immemorial, as there are wells along it and water can be obtained by digging. The water, however,

is both scanty and unpalatable, and does not suit the digestion of the modern European soldier—it is even too much for a railway engine's inside, and they declined to work on it. The line of communication offered by this coastal route is quite inadequate to maintain the needs of a modern army—these needs being so vast, so technical and so complicated in their nature in comparison with those of ancient days.

To make Lord Allenby's subsequent campaign in Palestine possible, the Kantara base was a necessity, as was also the bridging of the desert by the broad-gauge railway and the pipe line from the Sweet Water Canal to the frontier of Palestine.

As regards Palestine itself, once the Sinai deserts were crossed the few so-called roads were passable for all forms of mechanical transport until the rains came; then transport had to get along as best it could, sometimes taking days to perform journeys that should have been completed in hours. East of the Wadi Ghuzzee there was a belt of from twenty to thirty miles of cotton soil, which in wet weather becomes a bottomless quagmire, impassable equally by railway lines, camels or lorries, and diversions had to be made towards the edge of the sand country to avoid it.

The coast line of Palestine and Syria is badly provided with harbours. From Port Said to Alexandretta the only intermediate port worthy of the name is Beirut; it is the only port that will take a ship of even 2,000 to 3,000 tons. On much of the coast line there is a considerable surf.

As regards climate, Palestine is notoriously malarious, and during the summer months localities such as the Jordan valley, the coastal plain, and the Vale of Esdraelon have the reputation of being barely habitable; even the hill country is by no means free. Very considerable organization was necessary to compete with the problem presented by the mosquito, and so long as the front remained comparatively stationary these efforts were most successful; but as soon as an advance

took place into areas where anti-mosquito work had not been undertaken, the daily sick rate rose from under 3 per cent. to over 5½ per cent. When the final advance took place the problem of dealing with 100,000 prisoners, of whom more than 20,000 were sick with malaria or influenza, presented enormous difficulties for the medical authorities. Typhus, enteric, cholera and ophthalmia, which proved such enemies to Napoleon's troops in Egypt over a hundred years ago, were, however, most successfully kept in check in our army. The incinerator and the disinfector certainly helped to win the war. Officers, other than those of the R.A.M.C., are sometimes inclined to question the necessity for the inclusion of a Hygiene Section in our war time divisional organization. In Palestine they were absolutely essential, and they played a most important part in the success of the campaign.

These questions of geography, which have just been outlined, had very far-reaching effects on the administrative organization of the campaign, and should be borne in mind when considering the lines of communication at various stages during the operations.

The campaign was started for the defence of Egypt, with a main base at Alexandria. In these early stages the line of the canal was held by us. With the resources then available it was probably the only course possible for the time being. The Turk soon showed, however, that it was possible for him to cross the desert and attack the canal. This pointed to the necessity of establishing a line of defences farther east, so that the canal itself might be immune from long-range artillery fire. We were at the time acting purely on the defensive, so a line of strong posts and almost continuous entrenchments was laid out some eight to ten miles east of and parallel to the canal. To make this possible and to maintain the troops in this line, roads, railways and pipe lines were built out from the canal from eight or nine points, with an immense amount of labour and expenditure of material. Hundreds of miles of wire

roads were made by pegging down broad strips of wire netting across the sand; these were most successful for infantry, bicycles and Ford cars, though they were torn up immediately by mounted troops or ordinary touring cars.

The next step was the realization that by occupying Rumani we would hold the key to Sinai, owing to the existence of the wells at that point. By establishing a force there the long line of desert posts could be dispensed with. But to maintain a force at Rumani sufficiently strong for its defence necessitated the building of a railway and the laying of a pipe line, as British troops could not live on the Rumani well water. Luckily, standard gauge railway was decided on, as the narrow gauge, had it been laid, would never have been able to meet the subsequent requirements of the Palestine Campaign. Our force was established at Rumani. There the Turks attacked it and were defeated. Though the subsequent pursuit of the beaten Turk was brought to a standstill largely on account of exhaustion of our troops from lack of water, the battle marked the end of our purely defensive operations. From then on our object was no longer the defence of Egypt and the canal, but the defeat of the Turkish Army. From the defensive we passed to a very aggressive and mobile offence. This necessitated an entire upheaval of our administrative arrangements. A main base at Alexandria could no longer compete with the situation; it had to be reconstituted partly at Port Said, but mainly at Kantara. Kantara for the Palestine, and Basra for the Mesopotamian, campaign are two of the wonders of the war. Kantara at the beginning was a small village on the banks of the canal, consisting of a few mud huts and a mosque; it grew into an important railway terminus with forty miles of sidings, with wharves and cranes capable of dealing with an average of five ocean-going ships daily; it had thirty miles of first-class macadamized roads, vast depots for ordnance stores, supplies and engineer

stores, also rest camps and depots for 120,000 men and thousands of animals. Here was established the main base for the Palestine force. The main ammunition base depot remained, however, at Alexandria, for the simple reason that it had got so dug in there in the early stages that it was subsequently impossible to move it with existing railway facilities. This was unfortunate, and it created difficulties, especially in the subsequent advance in Palestine.

Through the Kantara base went such volumes of supplies daily as 120 tons of meat, 250 tons of biscuits, 300 head of sheep and goats, 1,700 tons of forage, and 100,800 boxes of matches, to mention only a few items. The size of the base organization required by a modern army is colossal, for it must be remembered that the force to be maintained in Palestine was, at its greatest, under 500,000 men of all colours and 160,000 animals.

Of all physical obstacles to the advance of an army, deserts are probably the greatest. This arises, of course, from the water problem. Water was an ever-present difficulty throughout the campaign. In summer operations were liable to be prejudiced by a lack of water, in winter by an excess. On many occasions heavy rain jeopardized the supply arrangements, by converting the so-called roads into seas of liquid mud, rendering them almost impassable, and in places quite impassable, for either camels or mechanical transport. In many cases, too, the amount of water to be found in a given area, or the amount that could be carried there by pipe, camel or lorry, determined the size and composition of the force that could be employed in that area. In the early stages of the defence of Egypt and the canal it was perfectly clear that the only real defence—a defence, too, which made a change to the offensive possible—was to occupy the water-bearing country through which alone the Turks could advance. If it was denied to them they could not approach. Even in this area, however, it is doubtful whether European troops could have existed for long on such

water as there was. To take a large force there meant a pipe line and a standard gauge railway. Thus we find that for the passage of the Sinai peninsula the rate of progress was entirely dependent on the rate of advance of the railway and of the pipe line.

Later on the necessity for the capture of Beersheba as a preliminary to the attack on Gaza was largely determined by the necessity of securing the Beersheba water supply. The soldier administrator loves talking about "ration strengths," "fighting strengths" and "bayonet strengths," but in Palestine it was "drinking strengths" that mattered, and all sorts of adjustments in organization and breaking up of formations were resorted to in order to increase fire power without adding to drinking strength. As an instance of this there was the reinforcement of the mounted troops at Rumani by the machine gun companies of the 58rd and 54th Divisions, as there was not sufficient water there to maintain any more mounted troops. During the final advance it was generally possible to get enough water for the men to carry on with, but at many places the water was insufficient; even when water was found in sufficient quantities, it was usually in wells and not on the surface; consequently, if the machinery for working the wells was damaged, or a sufficiency of troughs was not available, the process of watering large numbers of animals was slow and difficult.

Water—or the lack of it—in fact, dictated the policy of defence and offence, and often of organization. The possibility of putting the policy into effect lay with the administrator and the engineer. Never since Sir John Forrest carried the waters of Perth, West Australia, three hundred miles to the gold fields of Kalgoorlie have such gigantic schemes of water pipe systems been installed across a desert as carried the waters of the Nile to the borders of Palestine.

This water problem will face us in many places where we may find ourselves at war before so very long; no apology is necessary, therefore, for laying so much

emphasis on its importance. The means used for competing with the problem in Palestine will have to be used again, and an investigation of them will in consequence well repay the time spent in their study.

Before the pipe line from Kantara was laid down and supplying water, the army had started on its march forward, covering the railway construction parties, and water had to be carried forward in trains of water tanks.

These water trains were filled at special sidings, where twenty or more trucks could be dealt with simultaneously, and on arrival at railhead were emptied into a long row of canvas reservoirs laid beside the rails. Here small camel tanks, called fantasses, were filled up, and these were carried forward by camel convoys for distribution to troops beyond railhead.

When the first section of the pipe line was completed, a new water siding was provided and the railway was relieved of carrying water for the first stage, and so on until water was finally pumped to railhead.

Once El Arish had been reached, the army passed into a country where, within limits, the troops could be supplied with water from local resources, though considerable organization was often necessary for improving watering facilities and in local storage and distribution. Many minor pipe systems were installed, and the railway became the chief consumer of the original pipe supply, large camel water convoys being employed in certain areas for distribution to the troops.

The Turks in their retreat might have made things much more difficult for us in the way of water than they actually did by destruction of wells and water-lifting appliances. In many cases wells had been prepared for demolition, but the charges had been left unfired.

We may now leave the question of water supply and pass on to a general consideration of the lines of communication.

Our lines of communication at the best were never good, as we were depending in the main on a single line

of railway, liable to interruption from sandstorms and wash-outs. In consequence every subsidiary method of transportation that could be used was exploited to the utmost. From an administrative point of view the success of the campaign was largely due to the intensive employment of small ships of between 2,000 and 3,000 tons, and the landing of supplies and ammunition as and when opportunity offered, by means of surf boats and beach landings. The coast of Palestine and Syria, as already pointed out, does not, however, lend itself readily to this form of communication. Beach landings were, of course, very largely dependent on the weather, and were precarious in consequence. The submarine menace, too, made the protection of the sea line of communication by no means easy. Though sea lines of communication were precarious on account of weather and submarines, land lines were likewise dependent on weather. The railways suffered during the rain from wash-outs and in dry weather from sand storms; the railway engines could not use the well water on account of its salinity, and, like the men and animals, were dependent on the pipe supply from Egypt.

To meet the interruptions which were liable at various stages on the lines of communication, all ships carrying supplies for beach landings had to be specially loaded so that any particular commodity could be got at quickly in the event of shortages arising from any interruption in land communication, and there were many anxious moments and cases of hand to mouth existence, especially when a submarine made a lucky bag on the subsidiary sea line of communication.

This campaign provides most interesting examples of various means of handling supplies between the base and the troops. As an example, in the final stage of the advance into Syria, the railway had been badly damaged by the Turks and many of the culverts destroyed, and when we came to Haifa we found the big bridge between that place and Damascus had been blown up. Supplies from Egypt were conveyed to Haifa by sea, thence by

train from Haifa to the broken bridge, then by mechanical transport, or camel in wet weather, across to the railway line again, thence rail to Damascus, thence by mechanical transport, camel and donkey in the hills, to the troops. The number of times supplies of all natures had to be handled in transit added much to the difficulty of maintenance. In the final stages of the advance, when supply by sea became possible to Haifa, Beirut, Tripolis and Alexandretta, as they successively came within the area occupied by the Egyptian Expeditionary Force, we find the curious but thoroughly economical phenomenon of important ordnance stores which had been collected in Palestine being sent all the way down the line again to Kantara for shipment to Syrian ports; ordnance personnel being sent up to these ports as each new channel of supply was established. A similar policy was followed with the mobile workshops, which had to be kept as near the troops as practicable.

The difficulties, however, were by no means all on our side. If one examines the Turkish line of communication as it was in October, 1917, it will be seen that the maintenance of their force in Southern Palestine was no mean problem. From their main base at Haidar Pasha, opposite Constantinople, they were dependent on a single line of railway 1,275 miles long. This railway, in addition to maintaining the force in Palestine, had also to carry all stores for Mesopotamia as far as Muslimic, and also for the Hedjas force as far as Deraa. The Taurus and Amanus tunnels were at that time incomplete. It was not until October 9th, 1918, that the first broad gauge trains ran through the Taurus tunnel, and the first train to run direct from Constantinople to Aleppo arrived there only a few days before the city was occupied by our troops. Until these tunnels were completed, everything had to be unloaded at the western end and transported over the hills by pack transport and motor lorry, or had to be reloaded into narrow gauge trucks pulled by engines driven by compressed air, and

again reloaded at the eastern end of the tunnel. The Turks, too, were very short of rolling stock, and their engines were dependent on wood fuel, which had to be collected *en route*. In order to save rolling stock, reinforcements were often detrained at Rayak and marched from there to the front line, a distance of two hundred and fifty miles.

Before leaving the question of the lines of communication, it will be well to summarize the main points in this connection. The first is:—

That our main communications were liable to interruption, and therefore every means had to be employed to use subsidiary communications as opportunity offered. This applies especially to the last two phases of the campaign, in which sea communications enabled operations to be extended to a degree that would otherwise have been impossible. The next point to notice is the extraordinary diversity of transport used in the campaign, partly due to the urgent demands of other theatres, and partly to local conditions of climate and terrain.

What lessons do we get out of all this for our future wars? There is the lesson of the necessity for establishing advanced bases as our lines of communication extend, with their own sets of depots from which the continued maintenance of the fighting formations can be ensured during periods of interruption of the main lines of communication. This we see done in the Palestine campaign when we had the main base at Kantara, and advanced bases as the railheads advanced at El Arish, Rafa, Deir-el-Belah, Ludd, Jerusalem, Haifa, Beirut. The establishment of these advanced depots takes time; it often means considerable railway construction, and the stocking of the depots requires much transport. The time required for this will often decide the date by which further advance may be possible.

Now as regards the diversity of transport used. What ideas do we get in this connection, having in mind

the ever-increasing measure of mechanization now being applied to our Army ?

Since the war the tendency has been to eliminate animal transport and, where possible, to substitute mechanical transport. This is advisable for war in countries where sufficiently good road facilities exist, but we have not yet invented a mechanized camel, mule or donkey. Our liabilities are not confined to Western Europe, and the question is—Will our new organization meet all contingencies ? At certain times of the year—yes ; at other times, in certain theatres such as Palestine, Syria and Iraq—certainly no, for, in the words of the song—

“ How in the world can the old folks tell
It ain't a-goin' to rain no more ?”

Our organization should be sufficiently elastic to meet all possible contingencies. Is it ?

If we eliminate all animal transport we shall have no one trained in its management when the day comes to improvise it. Improvise it we certainly shall have to do in the future, as we have done in the past. It has been said that we are past masters in the art of improvisation, but we generally have had experienced men to make it ; in future it will not be too easy to do it by the light of nature unless we have some peace-time training in its management and some ideas as to how it has been organized in past campaigns. Mechanical transport has already reached a stage in its development that it can go practically anywhere that horse-drawn transport can go, but it cannot always go where pack transport can go. Pack transport work requires study, knowledge and practical experience if success is to be obtained. Where is this coming from when our army expands to a war footing ? The 30-cwt. lorry of to-day is ideal for our purpose as a load-carrying vehicle, but it cannot go everywhere. If a lorry of smaller capacity were used, we should intensify the difficulty of petrol supply ; transport columns would be extended to undue length, and the number of vehicles in use would be

multiplied, thus increasing the difficulties of providing drivers and spare parts and intensifying the problem of repair as well. Will our new organization suit the next war in China, on the North-East or North-West Frontier of India, in Afghanistan, Persia or Iraq? Remember always that the radius of action of a force in the field is limited by the possibility of maintenance. Distance and lack of transport facilities are the chief enemies in these countries, and it is the administrative staff officer who has to overcome them.

Let us consider a few examples from the Palestine campaign to illustrate this point. We will begin with the preparations for the first attack on Gaza.

By the middle of January, 1917, we had collected a force in the vicinity of El Arish, but for lack of transport were unable to maintain it much beyond that point. The camels then available were barely sufficient for first-line transport needs in the deep sand along the coast, and the railway was not yet across the Wadi. It was necessary to build up a supply depot at El Arish, and to collect and organize second-line transport before an advance was possible more than a day's march beyond railhead. Gaza was the objective, but it was fifty miles away, and therefore out of reach without transport. The decision was therefore made to advance on Gaza when the railway reached Rafa. The country would then admit of the use of wheeled transport to a limited extent, and the necessary supply echelons could then be formed to span the remaining twenty-five miles.

At this time very little mechanical transport was available, and the country where it could be employed had barely been reached.

For the advance on Gaza first, second and third line transport, consisting of camels, limbered G.S. wagons, and lorries and vans of various types were collected, and organized into fifteen divisional trains. Apart from the first line transport, the amount available only gave a total lift of 572 tons, an inadequate amount for a force of three divisions and two mounted divisions for even

one day. The operation therefore had to be a one-day show. The supply trains would admit of nothing more. If the coup did not come off, the troops must withdraw to be within reach of food and ammunition. If successful, there was water in Gaza, and supplies could be landed from the sea. As is well known, the attack was not successful, and the force withdrew.

Similarly, for the third Battle of Gaza everything depended on water and the provision of sufficient transport. The standard gauge railway was carried across the Wadi Ghuzzee at Shellal, the units of the XXI Corps in front of Gaza were stripped of their divisional transport, and a pipe line was built from the Shellal reservoirs to the concentration area at Karms. By this means the XX Corps and the Desert Mounted Corps were given sufficient transport to enable them to move out twenty miles from railhead. About 30,000 camels were utilized for the task.

Subsequently the transport was turned over again to the XXI Corps for the pursuit; the 54th Division was stripped of all its transport and left behind in Gaza with a dump of supplies to keep them going, for the fewer the troops to be maintained beyond railhead, the farther they could go.

Many similar instances of makeshift arrangements of transport, and of the dependence of tactics and strategy on administration, can be quoted from this campaign; one more will suffice for purposes of illustration.

In January, 1918, the line Jerusalem—Jaffa had been gained by Sir Edmund Allenby's troops. The railway had reached a point about fifteen miles south of Ludd, and had not yet acquired great carrying capacity. The bridges on the railway line between Jaffa and Jerusalem had been destroyed by the Turks, and a great deal of work was required before this line could be put in working order again. To the task of maintaining his army was added the necessity of feeding the population of Jerusalem, consisting of some 80,000 persons, over a difficult mountain road. With the transport available

it was impossible to continue the advance chiefly, though not entirely, on account of the difficulty of maintaining supplies. The army had outrun its communications, and farther advance was impracticable until these communications could be got into proper working order and supply could be once more assured.

The instances quoted above are sufficient to show to what a very great extent the problems of supply and transport influenced the whole conduct of the campaign.

One more difficulty, which has already been mentioned, calls for some further notice—that was the problem of dealing with the very large number of prisoners captured during the final stages of the advance. In some instances they were captured fifty to sixty miles in front of railhead, and they had to be marched down, watered and fed on the way, until they reached their base destinations. There were between 80,000 and 100,000 to be dealt with, and many of them were in a state of exhaustion or were actually medical cases, which added to the difficulty. Camps and hospitals had to be provided for them. Concurrently with this came the influenza outbreak of 1918, which threw an unprecedented strain on the medical organization and on the ordnance service in providing the necessary accommodation for our own sick as well as for the prisoners-of-war. This is a type of difficulty we may meet again in campaigns fought under somewhat similar conditions.

There is nothing really new in the nature of the administrative problems of the Palestine campaign. Similar difficulties have been met and overcome in the past. History is certain to repeat itself, and we shall have to do it again in our future wars. The more we study the problems, the easier their solution will become. In Palestine, owing to the demands of other theatres and the difficulties created by submarines, there was always a shortage—calling for the production of bricks without straw—and nearly always the chief difficulty was lack of sufficient transport. It was the

same really in other theatres, though possibly less so in France. It is the same old lesson over again that every war has taught from the beginning of time. The great strategical movements of armies have depended always upon their means of obtaining food and warlike supplies. Or as Napoleon put it: "Le secret de la guerre est dans le secret des communications."