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AIR HISTORICAL BRANCH

TRANSLATION NO. VII/100/1

THE CAMPAIGN IN ITALY

SPECIAL SUBJECTS

THE SUPPLY SITUATION

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THE TRANSPORT SITUATION

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BEING STUDIES

WRITTEN FOR U.S. HISTORICAL DIVISION

DECEMBER 1947

TRANSLATED BY

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OCTOBER, 1950

G. 274344/DMM/9/50/35.

THE CAMPAIGN IN ITALY

B: Special Subjects

I: The Supply Situation

CHAPTER I:

The Position Regarding Supplies and Reinforcements in the Italian Theatre of War (including the Islands) from Spring 1943 till the Salerno Landing

By Col. Ernst Faehndrich

I. The Organisation of the Supply Command and the Situation Regarding Supplies in the Italian Theatre of War from the End of the African Campaign till the Landing in Sicily.

1. During the campaign in Africa the department of the German quartermaster general in Rome built up stocks from Germany for troops in Africa and Italy in or near the ports of Italy and Sicily suitable for embarkation operations. On request from the organisations handling overseas transportation, he had to convey supplies to the loading points at the harbours and to get them ready for loading. He was responsible for providing for troops operating in Italy or awaiting transportation to Africa.

The following were at the disposal of the A.Q.M.G. Rome for these purposes:

Personnel for the administration of stocks (ammunition and fuel administration companies, field equipment troops, administration troops for food and clothing);
Truck units for the transport of supplies from railheads to stores and from there to harbours or airfields;
Supply staffs who were responsible for superintending stores and for the operations of the truck companies referred to.

The provision of shipping space and the loading of ships in harbours for transport overseas were the responsibilities of the department of the Chief of Sea Transport of the Navy. The German command authorities in North Africa had their own A.Q.M.G.

The A.Q.M.G. Rome was subordinate to the German General at H.Q. of the Italian Army. The German command authorities in North Africa indented for supplies from the A.Q.M.G. Rome. The A.Q.M.G. Rome himself dealt directly with Q.M.G. OKH on all questions relating to supplies (e.g. requisitioning, salvage).

At the beginning of 1943 the A.Q.M.G. Rome was taken over by and placed under C. in C. South whose appointment dated from December 1941. The reason for this change was that the scarcity of transport, especially of shipping space, necessitated a closer control of the allocations to the Army and

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Luftwaffe. This was bound to affect the supply arrangements of both services. In view of the great importance of the question of allocation, it was deemed practical to combine supply and command functions because the command level was not only invested with authority over the sections of the Army, Luftwaffe and Navy operating in Italy and Africa but also was best able to assess their requirements. Thus the A.Q.M.G. Rome received his instructions regarding supplies from the command authority most appropriate for this responsibility. The orders of the A.Q.M.G. Rome gained force by the authority of C. in C. South in whose name they were issued.

After the loss of Africa the task of supplying the German forces in Italy was fulfilled for the time being by the A.Q.M.G. of C. in C. South. As no OKH had so far been formed, requisitions went directly from divisional or army corps H.Qs. to the A.Q.M.G. of C. in C. South and his allocations were forwarded directly to them. The great distances between some of the administrative offices (the A.Q.M.G. of C. in C. South was established near Rome) and the absence of a command authority with its own supply organisation linking with the A.Q.M.G. of C. in C. South on the one hand, and with the divisional and army H.Qs. on the other, later gave rise to disadvantages during the first battles in Sicily and on the mainland.

2. When in April 1943 the loss of Africa became a probability and hence a landing on Sicily, Sardinia or Southern Italy could not be ruled out, it was ordered that supplies sufficient for three months' requirements be stored on Sicily and Sardinia. The A.Q.M.G. of C. in C. South was made responsible for carrying out this order. The quantities of materials involved cannot be remembered. They were made up in part of remaining stocks of supplies for Africa and some of them came by rail from Germany and were, in the case of Sicily, diverted to the prearranged places on the Island, while in the case of Sardinia they were brought to Genoa and Leghorn from whence they were transported to their destinations by sea.

In spite of Allied air attacks on the Italian railways, particularly on the lines south of Rome and Termoli but also against individual vital points in the North of Italy, and also in spite of other difficulties which will be mentioned later in connection with Italian rail traffic, it was possible to get the necessary supply trains through to their destinations, partly by holding back Italian civilian rail traffic. 400 waggons could be transhipped to Sicily in one day. Eight further ferry boats were held in readiness in case the Messina rail ferry was put out of action.

Allied air attacks on rail targets increased in June, the station at Naples being particularly severely damaged. But it was possible to continue stock-piling in Sicily by diverting trains (which would normally have passed through Naples) through Foggia and Cancellate as Salerno and Battipaglia were seldom attacked in June or July. For the most part existing damage was soon cleared away. It was not until August that air attacks seriously interfered with the working of the railways in southern Italy.

There was little shipping space available for transporting the reserve stocks to Sicily because owing to the increase in shipping losses, all vessels on hand were required for supplying the bridgehead at Tunis. It was not until after the loss of Africa that small ships could again be used for building up reserve stocks in Sicily.

The prescribed three months' stocks were transported by sea to Sardinia from Genoa and Leghorn without noteworthy interference from the enemy.

After the loss of Africa the Islands were also supplied by air.

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3. After the cessation of fighting in Africa there were numerous military formations on the Italian mainland (independent units - especially all kinds of supply troops, supplementary M.T. personnel, convalescents and soldiers returned from Africa) as well as stocks of weapons and equipment which had been intended for Africa but not shipped. These military personnel and stocks, concentrated mainly in the ports of Leghorn, Naples, Taranto and Palermo and nearby localities, were placed under a "Reserve H.Q." as the "Africa Pool" ("Rueckstau Afrika"). The Reserve H.Q. was ordered to form two motorised divisions from these surplus men and materials. One of these divisions was to be sent to Sicily, the other to Sardinia. Later they became 15th and 90th Panzer Grenadier Divisions. Material still needed was supplied by the Q.M.G. to the A.Q.M.G. of C. in C. South against the latter's requisitions.

II. Development of the Organisation of the Supply
Command and the Situation Regarding Supplies
in the Italian Theatre of War during the
Fighting for Sicily (Beginning of July till
17 August 1943).

1. When the fighting for Sicily began the organisation of the supply command was as described in Section I, i.e., Divisional and General H.Qs. indented for requirements through the A.Q.M.G. of C. in C. South and received the allocations from him. As far as possible supplies were moved by rail, the facilities being provided by A.Q.M.G. Rome. Supplies which the A.Q.M.G. of C. in C. South was unable to allocate from the stocks intended for North Africa or for building up reserves in Sicily, were sent by the Q.M.G. from Germany.

However, in the course of July the way was prepared for changes in the organisation of the supply command. Growing doubts as to whether the reliability of the Italian allies would survive the heavy reverses suffered in the course of the war so far, had led OKW to assemble H.Q. Army Group B, recently withdrawn from the Eastern Front to start with along with C. in C. South, for operations which were fast becoming necessary in Northern Italy. The divisional and army headquarters which were to be made available for the C. in C. in case the operations he had in mind became necessary, were earmarked and notified. It was further arranged and prepared in compliance with orders that when this command authority assumed control, the A.Q.M.G. of Army Group B was also to take over the direction of supplies for German troops of all army units in Italy. The A.Q.M.G. of C. in C. South was to continue to operate as hitherto and to supply the formations placed under this command authority.

A large supply depot was planned in northern Italy for piling stocks for the Italian theatre of war. The reasons why the Germans thought it necessary to build up considerable stocks and other extensive supply installations in the Italian theatre of war will be dealt with in another place.

The first directive regarding the setting up of the "Northern Italy Supply Depot" was issued in the second half of July to the A.Q.M.G. of C. in C. South, it being the only organisation so far existing in Italy competent to carry out the requirements of this directive and which had the requisite subordinate supply staffs and troops to put it into effect. OKH appointed a senior commander of supply troops, General Bieringer, to take charge of the new supply depot. In July he was sent to the A.Q.M.G. of C. in C. South to assist in the preparatory work. The first base was set up in the Finale nell Emilia area at the end of the month. Enquiries regarding further bases were made at the beginning of August.

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The events culminating in the fall of Mussolini induced OKW to transfer H.Q. Army Group B, (Commander in Chief Field Marshal Rommel) to Munich at the end of July. From there the H.Q. exerted a decisive influence in the carrying out of the orders regarding the deployment and redivision of German formations which had been arriving in North Italy since the end of July from the South of France via the Brenner and also from the Villach - Laibach areas. For the benefit of Italian governmental and military authorities, these troops were designated as reinforcements for the defence of the mainland under C. in C. South, but they were only ostensibly under his command.

The A.Q.M.G. of Army Group B began to take up his duties after the arrival in Munich. These tasks were: to supply the formations of Army Group B arriving in North Italy; the direction of the supply machinery for all German troops and armed forces civilian staffs in Italy; the setting-up of the supply base in North Italy. When the A.Q.M.G. of Army Group B took over the direction of the supply organisation for the entire theatre of war in Italy, he also assumed responsibility for deciding the disposition of supply material brought from Germany - how much should still be delivered to C. in C. South, how much the troops of Army Group B should receive and how much should go into store in the North Italian supply base. The senior commander of supply troops, who was already on the spot, was made Commander of the North Italy Supply Depot under the A.Q.M.G. of Army Group B, and given the job of setting up this supply base. He was also commissioned to carry out other tasks as he was the only authority in North Italy directly responsible to the H.Q. of Army Group "B". Thus, as representative of the A.Q.M.G., he had wide powers in supplying troops of Army Group B in North Italy and was responsible for ensuring the smooth-running of supply trains to C. in C. South. The Commander of the North Italy Supply Depot transferred his H.Q. to Desenzano on the southern shore of Lake Garda. Numerous supply troops of all kinds were assigned to the A.Q.M.G. of Army Group to run the Supply Depot. However, the majority of these troops were scattered widely in Germany at the time and some of them were still in Russia, so that only a few were available for immediate use.

2. In view of the fact that during the period under review the two groups of German forces in the Italian theatre of war comprised (a) the formations of C. in C. South in southern Italy, on Sicily, Sardinia and Corsica and (b) the formations of Army Group B in Northern Italy, the development of the supply situation of both groups of forces will, in consequence, have to be dealt with separately.

In general, sufficient goods were available to C. in C. South for continuous supply, replenishment of stocks and even for building reserves on a limited scale. Most of these supplies were delivered by rail though coast-wise shipping was also used on both east and west coasts. In addition, at this time C. in C. South took over various stocks, as already mentioned, which had been intended for Africa.

Nevertheless, certain difficulties arose over the supply of goods to C. in C. South, particularly in connection with troops in the far south of the mainland and on Sicily. It was noticed that there was an inordinate delay between the time goods supplied by the Q.M.G. crossed the frontier into North Italy and their arrival at destinations in the South. This resulted in very disagreeable waiting periods and occasionally in the lack of urgently needed supplies. At that time the management of the rail traffic was in the hands of Italian departments and their staffs. The real reasons for the delays could therefore not be ascertained. In any case, trains disappeared after they passed into the control of the Italians for days and weeks at a time; often they were not found until a long search had been made and then they were discovered shunted on to a siding at some goods station or another. These difficulties were not overcome until later (after 8 September) at which

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time Italian departments became more co-operative in their dealings with the German authorities and helpful to their personnel. C. in C. South and Army Group B introduced a further measure of mutual assistance whereby supply troop H.Qs at railway stations gave advance notice of trains, thus obviating delays in transit. Especially important supply trains were taken over in North Italy by special detachments which were responsible for ensuring that the railway authorities expedited their clearance through to the detraining stations.

There were no enemy air raids at this time to cause difficulties with rail traffic from the north to a line roughly between Rome and Ortona.

C. in C. South was up against much more serious difficulties. As already mentioned, reserves sufficient for three months were stored on Sicily. Part of these supplies were stored in the Trapani area and fell into the Allies' hands immediately after the landing. Considerable stocks were lost also on the east coast, particularly in Syracuse and Augusta. It had been necessary to destroy other dumps. The remainder of the stocks, especially of fuel and ammunition was used very quickly. Thus a continuous flow of supplies became of even greater importance.

As already stated, Allied air attacks against the rail system in Southern Italy increased considerably during July and August. Under normal conditions the traffic capacity of these lines was limited and now it became very noticeably reduced. Considerable distances had to be covered by truck-transport over narrow roads in mountainous country in order to bring supplies to the required places, especially to Sicily. And these roads were also targets for Allied fighter and heavy bomber attacks.

The Straits of Messina - the life-line of the German formations on Sicily - finally became of great concern to all the Headquarters authorities involved, in view of the Allies' clear superiority in the air and on the sea. Although traffic across the Straits was never seriously jeopardised - contrary to expectations - either by air or by sea attacks, nevertheless the flow of ammunition and fuel supplies to the fighting units was very meagre owing to the limited capacity of the ferry services and to the retarding factors described above; in conformity with the unanimous opinion of the Chief of General Staff of XIV Panzer Corps and Commanders of all the participating divisions and regiments, the troops were required to exercise strict economy in the use of ammunition and fuel. From the end of July onwards troops lived from "hand to mouth". "The Chief of the General Staff of XIV Panzer Corps himself undertook the daily allocation of ammunition to the divisions in order to be able to take into account as far as possible the demands of the varying tactical situation." However, there was no instance of a body of troops having expended all its supplies and finally it was possible to bring up sufficient supplies of fuel to enable all vehicles, heavy weapons and wounded to be evacuated from the island. But the supply position and the assessment of the way it would probably develop compelled H.Q. XIV Panzer Corps and C. in C. South to face up to and make preparations for the early evacuation of Sicily. The directive of OKW brought to Sicily on 16 July 1943 by Colonel von Bonin, the newly-appointed Chief of General Staff of XIV Panzer Corps, showed that it was just this prospect of gradually increasing supply difficulties which had convinced OKW from the beginning that Sicily could not be held indefinitely:

"In view of the great numerical superiority of the Anglo-American forces and particularly in view of the great difficulties regarding supplies even for a relatively small German force on Sicily, it cannot be expected that we shall be able to hold the island indefinitely. (The main reasons for the difficulties are: the low traffic-capacity and the vulnerability of the railways in Southern Italy, the uncertainty of sea transport and the possibility of a blockade of the Straits of Messina.)"

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The arrival of about 10 German divisions in Northern Italy after the end of July made further demands on the supply organisation. For the first days after their arrival the infantry divisions continued to be supplied from stores in Germany or in the South of France, the contents of these stores being placed at the disposal of H.Q. Army Group B for this purpose. Motorised groups advancing more quickly were supplied from stocks at the newly-established base at Finale nell Emilia and also from stores taken over by the A.Q.M.G. of C.-in-C. South located, as far as can be remembered, at Genoa, Leghorn, Milan and Venice.

But the A.Q.M.G. of Army Group B was trying hard to extend immediately the North Italy supply system first in the Po plain on the north bank of the river and then in the Alps, principally in the Isare and Adige valleys along the Brenner road and also in the neighbouring valleys. Surveys were undertaken by mixed staffs of all types of supply troops under the orders of the Commander of the Supply Depot along the lines laid down by the A.Q.M.G. It was not the intention of H.Q. Army Group B to extend the supply system in the Po plain further to the south, rather, it was to be centred in the Alps. This intention was in keeping with the view expressed by H.Q. Army Group B that the decisive stand would not be made until the enemy had reached the northern Apennines ("The Gothic Line").

While the surveys were carried out quickly and successfully, the construction of supply installations made little progress during this period. The requisitioning of all property for use by the Army depended upon the assent of the local Italian H.Qs. (as far as I remember, Army Corps H.Qs.) which often in turn felt it was necessary to obtain the decision of the highest authorities in Rome. The consent was then made subject to the fulfilment of various conditions particularly in respect of the position of the requested places and buildings in relation to the localities, railway stations and roads. On the whole there was a tendency to disallow any proposed installation which would be controlled by a German H.Q. higher than divisional level as excepting the case of C.-in-C. South, this had not been officially agreed to by Italy. Thus Army Group B's first bases at Bressanone and Bolzano, and later in the Trento area were set up as reinforced distribution centres of 44th Infantry Division which was marching over the Brenner to Verona.

With the help of these bases at Bressanone and Bolzano and of the depot at Finale nell Emilia, together with the stocks taken over by C.-in-C. South, as already mentioned, and the help of bases in the South of France and in Germany, and finally, with the assistance of immediate deliveries to the divisions by rail or lorries by Army Group B, the supply of German troops in North Italy was carried out without hitch and the Army Group was able to build up the first reserves from the steady flow of supply goods from Germany.

III. Development of the Organisation of the Supply
Command Situation from the Conclusion of the
Fighting in Sicily till the end of the Battle
of Salerno.

1. No changes were made in the organisation of the supply command in Italy during the period under review. It was enlarged and consolidated as described in Section II. Even the assumption of command by H.Q. Tenth Army on 22 August over the formations in Southern Italy - for the time being of all forces south of a line from Gaeta to Pescara - involved no immediate change as G.H.Q. Tenth Army did not have an A.Q.M.G. section. Thus, all formations of the Tenth Army and the troops immediately under C.-in-C. South continued to be supplied by A.Q.M.G. of C.-in-C. South. The line between Piombino and Ancona was designated as the boundary between the commands of C.-in-C. South and Army Group B.

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The A.Q.M.G. of C.-in-C. South now placed requisitions only with A.Q.M.G. Army Group B. Allocations were made accordingly by the latter, who in turn applied to the Q.M.G. for supplies required in the Italian theatre of war.

Thus A.Q.M.G. Army Group B controlled supplies of the entire theatre and directly supplied the formations under H.Q. Army Group B. In carrying out the larger mission referred to - that of representing the Q.M.G. - the A.Q.M.G. of the Army Group had the secondary title of "Branch of the Q.M.G. of OKH in Italy".

The enlargement of the supply base progressed slowly because of the obstacles described in Section II. Apart from those established at the end of July and in the first half of August and named in the previous section, new bases were being set up in the Goito area (north west of Mantua) and between Lake Garda and the Adige valley (south east of Garda). These delays were all the more awkward owing to the fact that the existing bases would soon be filled to maximum capacity thanks to the steady flow of goods from Germany.

2. The task of supplying German troops in Northern Italy was accomplished without any hitch worth mentioning.

Similarly, supplies to C.-in-C. South could be regarded as assured as far as quantity was concerned, even though the demand for supplies increased after the successful Allied landing on the south coast of Italy and at Salerno and after the beginning of the battles on the mainland. This applies to the requirements for regular supplies as well as for replenishment of stocks and to stock-piling on a limited scale.

However, there were isolated instances of shortages. Where these concerned fuel, they had an effect on the course of the battle. The formations particularly involved were those being transferred from Calabria to Salerno. There were two causes for these shortages:

In the first place there was the interference with road and rail transport in Southern Italy brought about by the Allied air forces. The great distances over which the A.Q.M.G. of C.-in-C. South had to dispatch fuel to the formations needing it caused very appreciable delays.

The Chief of General Staff Tenth Army writes: "The first decisive consequence was that the traffic on the roads was delayed considerably as a result of the enemy air supremacy and the fuel which would have enabled the armoured and motorised formations to reach the battlefield in good time could not be delivered to them. For this reason 16th Panzer Division had to continue the battle alone longer than had been intended and reinforcements arrived by small instalments".

A further cause for the shortages is to be found in the fact that A.Q.M.G. of C.-in-C. South still had to supply individual formations since there was no A.Q.M.G. attached to H.Q. Tenth Army. Owing to the great distances already mentioned between the A.Q.M.G. and the fighting formations, arrangements for supplies could not be handled with the requisite firmness and precision. The result was that the divisional and army corps H.Qs. sometimes did not know where the reserves of C.-in-C. South were kept, though they were, in fact, close at hand. Again, there were isolated instances of stocks being destroyed too soon by units of supply troops in charge of reserves who were insufficiently orientated regarding the real situation and were afraid that the stocks would fall into enemy hands. Supplies destroyed in this way delayed the advance of 26th Panzer Division in Calabria.

3. At the end of August the evacuation of Sardinia and Corsica was ordered. Troops and supplies were removed without difficulty as at that time enemy opposition was weak and did not assume considerable proportions until the bulk of the personnel and materials had already reached the mainland.

THE CAMPAIGN IN ITALY

B: Special Subjects

II: The Transport Situation

CHAPTER I:

The Development of the Rail Situation
until after the Salerno Landing.

Sea traffic was as important to the Western Powers as rail traffic was to Germany. The shipping routes were the arteries by which the Allies delivered the supplies on which their lives depended; the railways were the nerves by which vital impulses were brought to the German prosecution of the war. Thus it was a matter of life and death for both sides to maintain their supply lines in order.

Italy is a land of long coast lines. In peace time goods could be carried easily and profitably in ships into the ports to be found everywhere along the far-stretched coastline. The railways were not required to carry these goods more than short distances into the interior. The transport of goods over long distances was made by sea, the railways being used for only a small part of this kind of traffic. The railways were used for fast passenger traffic.

The Germans were unable to make much use of coastwise shipping in the war in Italy because the Axis Powers did not have control over the Mediterranean, and anyway, all supplies from Germany had to be brought to Italy by rail. Thus rail traffic in Italy assumed a much greater significance in the prosecution of the war and in the supply situation.

The rail network in Italy is relatively dense only in the north; owing to the "mountainous boot", only three lines lead to the south. Two of these have double tracks as far as the Naples-Salerno area, while the line on the east coast is single track below Ancona. All lines pass over many rivers and valleys and there are therefore a great number of bridges, viaducts and tunnels. For the most part the lines are electrified. The extensive electrification of the railways also explains the fact that there were not many steam locomotives and that such as there were had become almost obsolete.

There are many vulnerable points in the Italian rail system. The entire network was and is very susceptible to air attack. Any enemy air superiority could and must very soon have a highly prejudicial effect on rail traffic. The western and eastern lines run close to the coast for long stretches and are thus menaced from the sea as well.

During the campaign in North Africa German troops were supplied by sea from ports in Southern Italy and Sicily. The passage of the necessary supplies through Italy was controlled by a German transport liaison officer with full executive powers attached to the Italian G.H.Q. in Rome, and the trains went right through to Southern Italy or to Sicily. Owing to the very low carrying capacity of railways in Southern Italy, rail transport there was very difficult. At that time there was no interference by enemy air forces.

But the battle for Tunis and the later campaign in Sicily immediately increased the threat to Southern Italy from the air. Now supply trains

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could not be brought below the Naples area. Stations and bridges in Southern Italy were attacked. Several thousand waggons could not be sent back to the North owing to the numerous destroyed bridges and were lost. In July or August the first attacks were made against stations further north (Bologna, Brenner line).

The capitulation of Italy in September 1943 made it necessary for the entire railway system in Italy to be brought under German Control. A General was appointed to take command of transport throughout Italy. For Executive purposes he had under command the Military Traffic Control (W.V.D.) which was divided into Executive, Rolling Stock and Traffic Departments. This was superimposed on the Italian railways and was to run them in conjunction with the existing Italian railway executive. German railway troops could be used only in managerial and supervisory capacities over Italian personnel. The German railway personnel were too few in number and too inexperienced to run it themselves.

The staff of the General in command of Transport had separate departments to deal with the movement of troops and supplies, and also a department of Planning, Reconstruction, Restoration and Manpower. In time a special group developed in this department for the preparation of daily situation reports which, as air attacks steadily increased, gave details of damage caused and the time required to effect repairs.

Four garrison transport H.Qs, including unloading squads and station officers were placed under the General in command of Transport, namely in Rome, Bologna, Milan and Venice. These H.Qs. in conjunction with railway staffs were responsible for running and supervising military transport as directed by the General. They were the connecting link between the troops and the railway system.

Co-operation with the armies was ensured by the appointment of ordinary Transport Officers and of Transport Officers with full powers.

Continuous contact and liaison was maintained with the Italian Ministry of Transport by the appointment of a general staff officer with full executive powers to work at the Ministry.

A special Railway Engineer Regiment with subordinate battalions and companies of railway troops was placed at the disposal of the General in command of Transport for work of reconstruction and restoration. In January 1944 there were three battalions staffs with 21 railway engineer and railway construction companies. Later, one further battalion staff and 4 or 5 companies were added. The projects were aided by the executive department of the Military Traffic Control and by the Todt organisation.

As a properly functioning signals system is an important factor for the smooth and rapid running of a railway, a railway signals section was assigned to the General in Command of Transport.

With the help of this organisation and the willingness of the Italian railway staff, the entire rail system up to the front was taken over comparatively quickly, thus ensuring supplies for the front and the provision of new forces.

Air attacks in the Naples - Salerno area increased considerably after the landing and extended as far as south of Rome. Isolated attacks were made also against rail targets further north. However, it was possible to maintain traffic right up to the area south of Rome during September and October - after the first difficulties appeared. Only the front areas showed the great danger that enemy air superiority was to the entire rail network.

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CHAPTER II:

The Rail Situation at the Turn of the Year
1943/44 until the Landing at Anzio - Nettuno

It became clear at the turn of the year 1943/44 and during the first half of January that it would never again be possible to maintain regular rail traffic south of the line Rome - Pescara. The lines from Rome to Sezze and Frosinone, from Avezzano to Sora, all of which led to the front and the branch lines Rome, Avezzano, Solmona, Pescara were continuously under the observation and domination of enemy fighter-bombers. But the link line from Rome to Pescara could always be used again for transportation in both directions, in spite of its steep gradients and abundant curves. But the lack of serviceable mountain locomotives, which are essential on this line, made itself felt to an ever-increasing extent. Apart from this, the carrying capacity of the line was not very great.

Bombing attacks on railway stations and previously reported concentrations of trucks, the shooting up of control points and locomotives, the destruction of more and more bridges and the cutting of railway tracks by bomb-craters -- all these factors combined to make only very small-scale local traffic possible. Of course, it was always possible to move single waggons containing ammunition and food towards the front by night, thus relieving to some extent demands made on road convoys. Daylight trips of this kind could be made only in foggy or cloudy weather.

The heavy damage caused to locomotive repair shops in Rome resulted in an ever-increasing number of engines standing idle for want of repairs. Sidings at stations in the Rome area became more and more blocked with empty trucks as the return traffic to the north grew heavier and slower. The cause of this blockage was the increasing number of air attacks on the lines north of Rome.

The enemy's plan gradually became evident during the first weeks of January: their intention was to cut all rail communications with Rome, thereby making it impossible for the stations outside Rome to be used for getting supplies to the front. At this time the Germans no longer used the west coast railway from Leghorn through Grosseto and Civitavecchia to Rome for scheduled supply traffic. The proximity of the line to the coast and the consequently limited possibilities of giving warning of approaching enemy aircraft had resulted in numerous break-downs for some time and apart from this, traffic had been interrupted by the destruction of bridges. Small groups of railway engineers were assigned to this line for repair work. The enemy must have over-estimated the importance of this line to the German supply position. The continuous menace of air attacks often interrupted work on the line during the daytime. As the line from Florence to Rome still had a capacity of 18 to 20 trains in January, the west coast line could be left. However, steam trains were still used as opportunity arose on the stretch from Siena through Grosseto.

The isolation of Rome was now becoming more effective on the central line from Bologna through Florence. Carpets of bombs had already fallen at regular intervals on selected stations - Prato, Pontassieve, Arezzo and Orte. As the attacks were made on the same targets each time and there were long intervals between the raids, it was possible to restore the lines relatively quickly, in spite of heavy damage caused. This was particularly true of the northern part of this line as far as Arezzo. At this time there was an adequate supply of willing Italian labour available there.

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Labour for repair work was more difficult to obtain north of Rome to Orte and the menace of enemy fighter-bombers was greater. In addition, it was noticed that in January intervals between raids on Orte diminished. As soon as damage from one raid was almost restored, another carpet of bombs was practically certain to be dropped. Through rail traffic to Rome became rarer up to the time of the Anzio-Nettuno landing.

The rail transport situation in the rest of Italy was entirely satisfactory during the first weeks of January. The main passes through the Alps, the Brenner line and the Tarvis pass, were in working order. The lines from France by way of Mt. Cenis and Ventimiglia were intact but there was little traffic on them. In general, railway traffic in northern Italy operated without interference. All the Po crossings were in order and had not so far been attacked. While the Brenner line had frequently been attacked, its traffic-capacity was always quickly restored to 24 - 30 trains per day.

The lines across the Apennines to the south were serviceable, damage at Prato and Rimini always being made good quickly. The line through Ancona brought trains as far as Pescara, but the single-track beyond Ancona could not of course accommodate a very great amount of traffic. The loop-line north of Ancona through Falconara, Fabriano, Terni to Orte was used to relieve the main line through Florence of some traffic and also as an alternative route when the central line was put out of action for lengthy periods. The steam train through Siena to Chiusi served as a further means of by-passing the target areas of Pontassieve and Arezzo. Poggibonzi was the only place on this line that was frequently subjected to enemy air attacks.

Bombing attacks so far had naturally resulted in interruptions and delays to rail traffic; these adversely affected troop movements owing to the loss of time involved. It was always possible to bring supply transports into the Italian theatre and in the east to bring them down as far as Pescara, but they could proceed to Rome and further south only occasionally and under great difficulties.

Shortly before the landing at Anzio-Nettuno air attacks were stepped up on the already heavily bombed stations at Prato, Poggibonzi, Pontassieve, Arezzo, Rimini, Foligno, Orte and the Tiber bridges at and north of Orte. The enemy intended in this way to increase the difficulties the Germans were experiencing in getting supplies from the north. Break-downs at stations in the north could always be cleared up in 1 to 3 days. Damage to bridges caused break-downs of longer duration, particularly in the case of the completely destroyed Paglia bridge north of Orvieto. Repair work at Orte, progressed slowly owing to lack of manpower. Units of the Todt organisation were supposed to assist in this work. Groups of railway engineers were assembled in the Orte-Orvieto sector.

The measures taken by the Army Group to deal with the landing at Nettuno also affected rail transport. Troop units in other parts of Italy had to be hurried to the south. In the course of these troop movements, delays caused by blockages resulting from enemy air action on the single tracks became much more noticeable. Very often trains were unable to proceed according to schedule or at the desired speed.

Detraining always had to take place north of Orte, and later, even north of Orvieto.

The east coast line was the first to be made serviceable again. A troop movement was carried out at Speed 6 (high speed) via Rimini, Fabriano, Terni in the Narni area, to Orte. Violent fluctuations in the strength of the electric current on the section between Fabriano and Terni reduced the speed considerably. Delays in entraining and the fact that detraining had to take place so far north of Rome obviously caused the Command considerable difficulties. Long marches and transportation by vehicles had to be carried

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out. Troop movements from the east to the west were made with utmost difficulty via Avezzano.

The demand for supply goods increased as a result of the heavy defensive fighting at the front and the new front at the bridgehead. Generally speaking, it was possible to deliver supply goods only as far as the Terni area, Orte and Orvieto. Single transports succeeded in getting further south to L'Aquila by way of Rieti but this mountainous line had only a small traffic capacity. Summing up, it may be said that the last months of 1943 brought frequent unfortunate damage to large marshalling yards and, south of the Appenines, the loss of locomotive repair shops. The frequent recurrence of blockages on the lines, usually at the same stations and installations also caused line blockages of varying duration. Trains were consequently held up and many detours were necessary.

The increase in the number and size of air attacks during the first weeks of January, particularly the stepping-up of raids in the Rome area and against Orte showed that it was no longer possible for the available repair gangs to keep pace with the destruction. By the end of January direct rail transportation to Rome and further south had become scarcely feasible and when it was possible it was always only for a very short time and was exceptional.

Thus it was often necessary to bridge distances of 90 to 120 Km. north of Rome by lorry convoys. South of Rome also distances of 30 - 80 km. to the front had to be covered by lorry transport.

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CHAPTER III:

The rail situation in Spring 1944
up to the May Offensive

The growth of enemy air attacks before and during the landing at Anzio-Nettuno and the virtual isolation of Rome as regards rail communications already achieved since the end of January, showed the dangers and problems to which rail traffic in Italy would be exposed by further extension and intensification of the air war.

Rome was practically inaccessible by rail. Not until the first days of February did it once again become possible on a few consecutive nights to get a few trains travelling in both directions via Orte. In particular, several heavy railway guns urgently needed for the fighting at the Nettuno bridgehead, were brought into positions south of Rome. It was no longer possible to return the 6 - 10,000 trucks and numerous repair locomotives from the stations in the Rome area to the north and into Germany, where rolling stock was urgently needed for many transport requirements.

As the weeks went by the coal situation in Rome and to the south of it became more and more difficult owing to the continued isolation of the area by rail. Electric trains could not be used as repairs could not be carried out to conductor cables owing to lack of materials and personnel. Of course, several steam trains still ran from February to April on the west coast line to Rome. But metaphorically speaking, they were no more than a drop of water on a hot stone. The position regarding locomotives also progressively deteriorated, as no repairs could be carried out in the workshops near Rome. Losses were increased through wear and tear of engines and by the machine-gunning of trains by enemy aircraft.

The destruction of the locomotive works south of the Appenines, especially at Foligno, meant that engines in need of repairs had to travel up to the shops in northern Italy and were consequently longer out of commission. Hence there was a definite strain in the locomotive situation. In the first half of May the position became still more difficult as a result of the bombing of the repair shops at Florence. But the increased demands on transport caused by the landing at Nettuno and later on, by the German counter-attacks could be met in February and up until the last part of March.

About half of the 18 trains which crossed the frontier per day into Italy for the A.Q.M.G. of the Army Group proceeded down to central Italy. The bulk of them were unloaded in the Orte, Arezzo and Orte and Spoleto areas. Single trains continued down the east coast line as far as Pescara.

It frequently happened that isolated stations were damaged and this gave rise to the need for transferring goods from trains to lorries and back again to trains. In the case of troop trains the unloading was carried out immediately. Of course, empty trucks and locomotives had to be available on the other side of the blockage on the line. Trains carrying food supplies for the civilian population of Rome caused the Army Group special anxiety. These trains had to be brought as far south as possible to facilitate transshipment to the distributing centres in Rome.

Rail communications in northern Italy were impeded from time to time from February to the end of March as a result of air attacks against the large marshalling yards and traffic centres. In particular, when Verona was bombed, serious hold-ups occurred of trains in all directions. This caused curtailment

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of trans-frontier traffic for short periods and also reduced the volume of traffic on branch-lines. However, thanks to the abundant labour forces available there, this damage to rail communications in northern Italy could to some extent be made good quickly. During this period about 50 trains in each direction crossed the frontier every day (including steam and passenger trains). Generally speaking, it was possible to cope with the flow of supplies from Germany.

The growth of air attacks since January in spite of the often still dull and cloudy weather made it evident that a considerable intensification of bombing was to be expected in preparation of the anticipated large-scale Allied offensive, as soon as normal clear weather in Italy set in. It had already been seen that south of the Apennines the manpower available was no longer adequate to enable rapid repairs - and speed was always an important factor - to be carried out.

The Army Group were assigned several Italian construction battalions which were being formed at that time. The first of these battalions were to be available at the end of March or the beginning of April. Repair gear, e.g. girders, rails etc., was distributed at various points along the single lines. In northern Italy the strengthening of the Po bridge was undertaken and various by-pass lines were planned and work was started on them (Verona, Bologna). Active protection by German fighter aircraft could not be counted on. Only weak anti-aircraft defence (ground forces) could be spared and they were limited to covering constructions that were in special danger, e.g. the Tiber bridges and the Paglia bridge north of Orte. The possibilities of laying smoke screens were considered but in view of the scant supplies of the necessary materials, this measure gave no promise of success. Loop lines for parking trains in wooded country were planned but they could not be constructed owing to shortage of labour. Thus all the responsible authorities regarded the coming good-weather season with misgivings.

This dreaded period began on 20 March. The new, intensive, and in some respects differently conducted, air offensive began. Within a few days all the lines to the south on the level of Pisa - Florence - Rimini were cut in several places by carpet-bombing. On all the lines - through Siena, through Florence to Orte, through Rimini to Ancona and through Falconara to Orte, bridges were attacked and damaged while some were completely destroyed. Attacks were also made on many stations in the Rome area, on several bridges and particularly on trains parked on open stretches of line.

In addition to the carpet bombing, another form of attack now made itself felt, which in addition to causing heavy damage, was extremely unpleasant. This was the activity of fighter-bombers. From this time, all lines south of the Apennines were threatened all day long by fighter-bomber attacks. Stationary and moving trains were shot up; electrical conductor-cables and standards were machine-gunned at many places and over considerable lengths; bombs were dropped on small bridges and on open stretches of the lines; the railway telephone network was cut and destroyed at many places thus causing delays in notification of damage; the labour forces were under the perpetual menace of air attacks : these were the new factors which appeared as a result of the operations of fighter-bombers which continued from dawn to dusk.

Damage was caused at many different and at an ever-increasing number of new places and they could be located only after loss of vital time in searching; the demand for repair gangs steadily increased; the labour forces continually needed to be shifted and re-organised, involving a loss of time which told against rapid reconstruction; power stations failed because repairs carried out proved unsuccessful through lack of skilled electricians; more and more locomotives and rolling stock were destroyed and this also caused lines to be blocked; repair work had to be carried out

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for the most part at night; in the entire area rail traffic was at a stand-still except during the hours of darkness : all these troubles arose from the new air offensive. The difficulties multiplied and seemed to become insurmountable.

Supplies to the front line and to the population of Rome would have been jeopardised if an alternative means of transportation had not been found. Trains now had to be unloaded north and west of Florence. But in order to ensure supplies, arrangements had to be made to bring trains into the area Arezzo, Chiusi, Perugia and Foligno and Terni.

It was arranged to concentrate railway engineers, forces of the Todt organisation, Italian construction battalions and German railway troops on the line from Florence to Orte. But the loop line via Siena and the east coast line through Ancona to Orte could not be completely stripped of railway engineers and other labour forces. Repairs had still to be carried out on those lines. The switch-lines could not be given up altogether. Later developments showed that it was often still possible - and even easier - to bring trains via Rimini to the desired area.

It was necessary to provide an air raid warning system at all places where repair work was being carried out in order to obviate losses. Radio stations were installed and signals reporting centres set up. Mobile locomotive workshops were equipped, constructional materials allocated and auxiliary water supplies made ready. Available tunnels were used for parking trains. At the beginning of April 4 or 5 railway engineer companies were brought down from France. Strong forces of light and heavy A.A. batteries were deployed along the line from Florence to Chiusi.

As a result of all these measures it was always possible to re-open the lines for several hours or nights at a time and thus spasmodically to get trains through to the Lake Trasimeno area and to Chiusi, and on the east coast line as far as the Foligno-Terni area. Load transfer points were organised to enable damaged sections of the line to be bridged by alternative transport, the goods then being reloaded onto another train on the other side of the damaged section.

Air attacks in northern Italy against the main railway stations at Verona, Padua, Mestre, Ferrara, Bologna and also in the west against Turin and Milan, caused considerable damage to locomotives and rolling stock. Serious congestion of rail traffic now occurred throughout the Italian theatre. Traffic on all lines had to be greatly reduced and the number of trains crossing the frontier into Italy cut down. Nevertheless it was always possible in a relatively short time to carry out sufficient repairs to enable traffic to be resumed and for the trains required by the Army Group to be brought up.

The persistent and heavy damage south of the line Pisa - Florence - Rimini meant that enormous and almost impossible claims were made on road transport. To get to Rome, these road convoys had to cover more than 300 km. through much mountainous country and partly along roads menaced by partisans. Thus every train that could be got through into the Arezzo, Lake Trasimeno, Foligno or Terni areas meant a corresponding appreciable relief in the demands made on road convoys and a notable reduction of the total distance goods had still to be taken by road before reaching their destination.

Distribution
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