

WAR DEPARTMENT
WAR DEPARTMENT GENERAL STAFF
MILITARY INTELLIGENCE DIVISION G-2
WASHINGTON

31 March 1945

Forward to Colonel Taylor for information and report.

MEMORANDUM FOR COL. McCORLACK:

G. h. c.

Subject: Notes on German fuel position
by G-2 SHAEF

1. During recent months SHAEF's notes on the German fuel position have been so full of errors of fact and logic that, because of our obligation to present "Ultra" faithfully and without distortion, we have added copious footnotes before including the SHAEF notes in the ES. These footnotes have been of two types: (i) the actual "Ultra" message which had been used by SHAEF as the basis for comments or conclusions, or other "Ultra" evidence tending to modify or contradict a SHAEF conclusion; and (ii) quotations or statements tending to modify some particularly unreasoned SHAEF statement. Some footnotes illustrating (ii) are:

ES 31 Jan 45: "Among factors to be considered in connection with reports of local shortages at the front are: (i) the possibility that reserves are being accumulated; (ii) the need to keep the forward fuel stocks small in order to minimize the danger of loss from Allied low-level air attacks; and (iii) exaggeration by unit commanders of their fuel shortages, because of the competition for available stocks."

ES 25 Feb 45: (Quoting the Air Ministry) "Available evidence indicates that fuel dumps at army, corps and divisional levels continue to be lightly stocked and have been for some time. Likewise airfield stocks have been consistently low and the latest available evidence indicates that this situation is one of settled policy. The Germans depend on supplies from OKL, OKH, Luftgau, and army group depots. Some of these depots are underground, some are beyond the range of tactical air forces, and some are heavily defended by Flak."



DECLASSIFIED per Sec. 5. E O. 11652
by Director, NSA/Chief, CSS

Date: 12 May 78

Same issue: "Apart from supply returns, "Ultra" traffic dealing with condition of supplies tends, of course, to present a one-sided picture, since a commander is not apt to make special comments on his supply position when it is normal and adequate."

2. The most recent SHAEF notes on the German fuel position, dated 21 March 1945 (and not reported in ES), provide additional evidence that SHAEF's analysis of fuel returns is unscientific. The SHAEF notes, with added footnotes, are attached.

3. It is apparent that the present method of presenting SHAEF logistical notes in the ES is unsatisfactory. Disagreement with SHAEF's general conclusions is not intended, yet the addition of footnotes that refute specific SHAEF statements may leave that impression. Furthermore, the annotated logistical notes may give a confused picture and may be no contribution to intelligence. The alternative of publishing the SHAEF notes in the ES without annotation would detract from the authoritative character of our publication.

4. It is recommended that:

(a) The question of exploitation of "Ultra" material on German logistics be discussed with the War Office to determine, among other things, (i) the extent to which SHAEF notes are disseminated by War Office, (ii) the extent to which studies by the War Office, MEW or other ministries supplement or provide a substitute for the SHAEF notes, (iii) the possibility of making available to Washington any such supplementary or substitute material through our regular channel, and (iv) a better method of

exploiting both "Ultra" material on enemy logistics, and "Ultra" intelligence summaries originating in our theater HQ's.

(b) The last five SHAEF summaries, as annotated by us, be brought to the attention of G-2 SHAEF.

Attachments:

SHAEF Logistical Notes,
21 March; TAB A from
ES for 31 Jan, 7 and
25 Feb, respectively;
TAB B from ES for
16 Mar.

AMERICAN EMBASSY
OFFICE OF THE MILITARY ATTACHE
1, GROSVENOR SQUARE, W. 1,
LONDON, ENGLAND

14 May 1945

MEMORANDUM FOR COLONEL McCORMACK

Subject: Attached memorandum dated 31 March Concerning
G-2 Shaef Notes on German Fuel Position.

1. The charge made by the editors of ES, that Shaef's notes on the German fuel position have been "full of errors of fact and logic", seems to be based on certain misconceptions.

2. Shaef summaries were not intended to present detailed analyses. They were designed as quick aids to commands in the field, many of which had small supply staffs. They were written from week to week and attempted to give an overall picture to subordinate commands.

3. The notes which the editors of the ES have felt it necessary to add cut two ways. "The actual ultra message", or its equivalent, is a specific item which may not harmonize with the general picture. Logically such annotation should include all evidence relating to the problem. The other type of footnote, written "to modify some particularly unreasoned Shaef statement", is, to judge from two of the three examples cited, a statement of fact which the staff at Shaef has taken for granted. (The third example is erroneously headed "quoting the Air Ministry". Reference to the original will make clear that this was not issued as an official Air Ministry comment; it was the opinion of a liaison officer who used the Air Ministry link when addressing Tactical Air Commands. This particular opinion, it should be added, was later revised.)

4. The business of evaluating and interpreting supply returns is most complex and naturally leads to differences of opinion. Perhaps worth mentioning therefore is the fact that Shaef summaries were prepared by the same group from the early days of the North African campaign to the end of the German war. Mistakes they may have made, but their knowledge of German supply matters was considerable and their summaries generally speaking were sound appreciations of the situation at a given moment based on the evidence then available. It should also be remembered that the summaries reached Washington two or three days after they had been prepared. In the interim Washington frequently received additional or contradictory evidence. Inevitably Shaef notes were quickly outmoded.

5. The German war is over and the problems here raised are academic. It is suggested (a) that no action be taken on the recommendations of the editors and (b) that when a similar problem arises in the future, editors of the ES or its equivalent be sent on detached service to work for a limited time with the compilers of logistical notes at a headquarters like Shaef. By this means, it is believed, most differences of opinion can be quickly removed and the same yard-stick can be applied at home and abroad.

F. W. Hilles
F. W. HILLES
Lt. Col., GSC

31 January 45

German Fuel Position

Estimate by G-2 SHAEF on 29 January*

1. Intelligence on the German fuel situation during the latter part of the Eifel offensive illustrates clearly the degree of immobility forced on German formations as the result of non-arrival of fuel at the front. The examples below prove this shortage was and still is affecting the ability to carry out intentions, and that other fronts are similarly affected.

[a. Western Front:]

(1) Supply returns of the Fifth Panzer Army for the period 7-10 January show a drop of 115 tons (22%) in the Army's over-all fuel holdings. The Chief QM complained bitterly, in the return for 7 January, of the dwindling fuel stocks, a situation aggravated by the lapse of time between allocation and arrival [ES 17 Jan 45]. The results are seen in the stocks held by 8 Panzer type formations on 8 January, which averaged .38 of one consumption unit. It is clearly impossible for the Germans to enter-

*Received through "Ultra" channels and based in large part on "Ultra" sources.

tain offensive intentions with such stocks. The returns further indicated that the allocations were not even sufficient to meet current consumption.

MIS Note: (i) One consumption unit is the fuel required to move the organic vehicles of a military formation 62.1 miles. The figure of .53 covers "O" fuel; the 8 January return for the 8 Panzer-type formations showed that stocks of diesel averaged .70 of 1 consumption unit.

(ii) On 10 January the Fifth Panzer Army reported the arrival of fuel trains which "brought up a considerable quantity" (ES 15, 17 Jan 45).

(2) The statement concerning the fuel crisis by the Führer Escort Brigade [which on 7 January reported that its tanks were seldom mobile, and that the repair and replacement of battle damaged vehicles was impeded by the fuel shortage.--ES 15 Jan 45].

(3) The supply return of the Nineteenth Army for 15 January showed unit fuel stocks to be only .5 of 1 consumption unit, and the over-all stocks, including blocked stocks, to be .65 of 1 consumption unit. Offensive intentions involving the use of armored and motorized

formations again are clearly out of the question.

MIS Note: The consumption unit figures given are for "O" fuel; according to the 15 January return, unit fuel stocks of diesel averaged 2.1 consumption units, and over-all diesel stocks amounted to 2.5 consumption units. (2)

(4) On 19 January Genfldn. Model ordered the Seventh Army to provide the Pz Lehr Div with fuel despite "known shortage."

MIS Note: This order was issued in connection with the urgent transfer of the Pz Lehr Div (ES 22 Jan 45). The transfer was accomplished.

(5) On 21 January the 3rd Pz Div stressed the difficulties that the "fuel situation" was causing in connection with operation and supply.

(6) An Allied "Y" Service report for 22 January indicated that moves of the 1st and 12th SS Pz Divs were being embarrassed by the fuel shortage.

(7) On 25 January the 9th Pz Div reported that armored elements were harried in the area south of St. Vith because of lack of fuel.

(8) On 26 January the Seventh Army reported that the withdrawal of its two right wing corps

depended on the arrival of 56 tons of fuel, exclusive of the fuel required for bringing up supplies.

MIS Note: On 29 January GAF Command West reported that the new main defense line of the Fifth Panzer and Seventh Armies had been occupied "according to plan."

[b. Italian Front:]

The provisional "0" fuel allocation to C-in-C Southwest for the third 10-day period in January amounted to only 1,200 tons, and this allocation was subject to cut due to the war situation in the East and West [ES 30 Jan 45]. This allocation is particularly revealing in view of the report of the Tenth Army on 15 January that the fuel situation was making the effective redistribution of forces temporarily impossible and considerably reducing tactical movements [ES 21 Jan 45].

MIS Note: The War Office made the following comment on the allocation: "Doubtless most of the '0' fuel allocation will go to the Tenth Army which [if the scheduled allocation is not reduced] should be able to maintain its recent average of 5 miles per day per vehicle."

2. On the basis of the recent "Ultra" evidence it is estimated:

(a) Fuel stocks in the West are virtually non-existent;

(b) Necessary withdrawals are being embarrassed and, in some cases endangered, by the fuel shortage; and

(c) In sectors for which full evidence is available, attacks involving Panzer formations could have only local objectives. Intelligence is available for all sectors except Army Group "G".

MIS Note: Among factors to be considered in connection with reports of local shortages at the front are: (i) the possibility that reserves are being accumulated; (ii) the need to keep the forward fuel stocks small in order to minimize the danger of loss from Allied low-level air attacks; and (iii) exaggeration by unit commanders of their fuel shortages, because of the competition for available stocks.

3. This situation is a direct result of:

(a) The non-arrival of fuel because of the transport breakdown--rail and road; and

(b) Insufficient allocations to cover consumption.

The latter suggests that the over-all shortage has begun indirectly to affect the tactical situation in the West and in Italy. The need for commanders of all levels, from von Rundstedt down, to keep one eye constantly on the fuel gauge--which need, owing to the transport breakdown and the tight over-all situation, has ceaselessly halted the Germans in the West--is now undoubtedly accentuated by the urgent German need for mobility all along the Eastern Front, and the persistently worsening over-all output.

7 February 45

German Logistical PositionNotes by G-2 SHAEP as of 2 February¹1. Fuel:

a. Over-all situation: With the immobilization of virtually the entire Ruhr synthetic industry, the simultaneous stoppage of the major plants in Eastern Germany, and the Russian threat to Silesian synthetics, the Germans face their greatest oil crisis at a moment when operational fuel requirements are higher than at any time in the last 6 months. The latest estimate of maximum current gasoline production is 100,000 tons per month. Ribbentrop's recent reassurance to the Japanese Ambassador² is vaguely unconvincing in view of other "Ultra" evidence. Latest reference is the additional Flak assigned to the remaining synthetic plants.³

NIS Notes:

¹Received through "Ultra" channels and based in part on information from "Ultra" sources. G-2 SHAEP's last logistical estimate, as of 16 January, was reported in ES 20 Jan 45.

²Oshima reported that he had been told by von Ribbentrop on 7 January: "Although there are also problems in connection with the supply of oil, they are no hindrance to the continuation of the war" (DS 12 Jan 45).

³On 22 January a number of Flak units were transferred from the area S of Breslau to various other locations, including some which are known sites of synthetic oil plants. On 23 January Flakkorps I announced a general reshuffling of Flak forces in areas threatened by the Russian advance and ordered some to be employed in blocking positions (ES 27 Jan 45).

b. Battle areas: Our latest estimate of the German fuel position in the West [was reported in ES 31 Jan 45]. We conclude that the over-all shortage which is indirectly affecting the tactical situation in the West and in Italy is also applicable to the Eastern Front, where, for example, the Ninth Army reported on 21 January that a Panzer corps would be unable to cover its flanks by mobile operations because of the fuel shortage [ES 29 Jan 45]. Note also the employment of horse-drawn columns by Panzer-type divisions operating in the East [ES 20 Jan 45].⁴

2. Ammunition:

It is now clear for the first time that the German ammunition shortage is more than local. The [order restricting the expenditure of ammunition--ES 19, 23 Jan 45] ascribed the shortage to the raw material, production and transport situation, and put economy measures on the OKW level.⁵ The further restriction on ammunition expendi-

⁴The order provided for two horse-drawn columns of 60 tons (each?). In addition to its fuel columns, the transport columns of a 1944-type Panzer division aggregate from 540 to 630 tons; the transport columns of a Panzer Grenadier division aggregate about 25% less than those of a Panzer division.

⁵The OKW's order of 10 January, the last in a series of orders of similar vein dating back to at least February 1944, concluded: "The OKH, C-in-C West, C-in-C Southwest, and C-in-C Southeast are to report to the OKW the steps taken to save ammunition so that their experience will be available to all theaters."

tures in quiet sectors is particularly significant at a time when supply returns for such sectors show that expenditures are ludicrously low; for example, the Twenty-fifth Army during the period 1-5 January averaged about 19 tons daily.⁶ Special types in short supply apparently are light and medium field howitzer and Flak ammunition. Meanwhile, the rate of current production is probably being reduced through:

(a) attacks on coke ovens affecting the supply of toluol, a raw material vital to the explosives industry;

(b) the incidental damage to the production of synthetic ammonia in attacks on oil industries, affecting the supply of nitric acid;

(c) the loss of imported iron ore, probably causing a reduction in the allocation of steel to shell production.⁷

⁶On 6 January the Twenty-fifth Army reported that ammunition stocks in Army dumps totalled 6,927 tons.

⁷German allocation of steel to ammunition for 1943 was estimated by the JIC as follows (in thousands of metric tons):

| <u>Allocation</u> | <u>Total</u> | <u>Carbon</u> | <u>Alloy</u> |
|-------------------|--------------|---------------|--------------|
| Ammunition | 7,000 | 5,460 | 1,540 |
| All uses | 33,000 | 30,370 | 4,150 |

Thus, with only 20% of the 1943 total allocated to ammunition, the loss of Swedish and other imports may not immediately affect this important category. The Japanese have stated that the Germans have stored a year's supply of Swedish ore.

3. Motor vehicles, tanks, etc.:

The production figures for armored force vehicles quoted by Speer on 5 December [DS 13 Dec 44; ES 19 Dec 44, 16 Jan 45] were repeated by the Japanese Foreign Office on 10 January. The figures for heavy Panzer (500 monthly), which include Panthers, Tigers, and self-propelled guns on these chassis, are possibly high; 400-450 is believed to be more nearly correct. It is considered that the figure for medium tanks and assault guns (1,000 monthly), which must be mainly Mark IV, is very high; possibly 400 is nearer the truth. On all available evidence the figure for Czech '38 chassis (1,000 monthly by February) seems certainly far too high. It is considered that the current February figure, which possibly is a slight underestimate, is approximately 200 monthly.

[The 10 January request by the Chief QM of Army Group "B" for spare wheels, pinions, and shafts--ES 18 Jan 45] clearly shows the importance of Mark IV chassis and the difficulties with this type. The motor vehicle weakness is illustrated by the order for employment of horse-drawn columns in Panzer-type divisions (Item 1 b., above) and by the impossible demands on the vehicle resources of C-in-C Southwest [ES 27 Jan 45].

4. General armaments production:

With the loss of ore and finished steel in upper Silesia,⁸ it is anticipated that the amount of steel available to Germany will drop to 10 million tons annually. The current estimate by the Japanese is 13 million tons, and by the Economic Warfare Division of the Ministry of Economic Warfare is 14 million tons.⁹ The figure 10 million would, if the Japanese figures are correct, be about half of the minimum essential output.

The Japanese Foreign Office estimate of two years stocks of "munitions supplies" is demonstrably nonsense.¹⁰

⁸ According to the NEW, all of Silesia (including German, Polish, and Czech Silesia) accounted for 11.3% of German steel production during the first 7 months of 1944.

⁹ The NEW estimate was made in September 1944. The "current Japanese estimate" of 15 million tons was contained in a circular issued by the Japanese Foreign Office on 9 January, which added that that amount "will be just enough to meet military needs." On 15 January Oshima commented as follows: "I can hardly believe that Germany's former steel production of 25-26 million tons can have been reduced at one stroke to 13 million tons. The experts here believe that Germany will try to maintain a production of 20 million tons, and that this will be possible."

¹⁰ The Japanese Foreign Office circular stated: "Taking a comprehensive view of the results of the loss of occupied territories, in terms of resources, Germany's long range war potential has been greatly diminished. On the other hand there has been a reduction in consumption because of the shrinkage of the front, and there are stockpiles and reserves of important resources sufficient for munitions production for two years; so the effect upon Germany's war potential for the time being has not been great."

Note also the surrender of rifles, machine guns, etc., of the GAF for the urgent need of the Eastern Front [ES 26 Jan 45].¹¹ Important incidental damage to heavy industry by Allied raids is still being reported. Note particularly those on the Dortmund - H"order H"uttenverein A.G. and the Hoesch A.G. [both at Dortmund] which, according to P/W's, are subcontractors for hulls and turrets to the Panther Assembly Works at Hannover - Linden.

5. Transportation:

a. Railways: The rail situation in the West is affected by the Russian advance as follows:

(1) The heavy flow of reinforcements to the East has seriously interfered with other traffic, which has, at least temporarily, been basically reduced. In spite of this reduction, some confusion in the handling of essential traffic has occurred--see 25 January message from the OKM to Army Group "B".¹² The nature of the departure of the

¹¹This order, issued by Luftgau VII (S Germany) to subordinate commands on 22 January, specified old model and captured small arms; and exempted "Dundroary" units, GAF units being prepared for the Eastern Front, and units of Jagdkorps I and Fliegerkorps IX.

¹²The message stated that, "because of wrong labelling," goods were being shipped directly to the Army Group area rather than through a front forwarding station, and that 1,500 freight cars were tied up in the Cologne - Nippes marshalling yard alone.

Sixth Panzer Army--by road to the entraining areas NW of Cologne and E of the Rhine--suggests that railways in the Eifel are still largely out of action.

(2) Loss of Silesia will greatly increase the economic importance of the Ruhr, with a corresponding increase in railway requirements into and out of the Ruhr. The present dislocation of railways between Cologne and Mainz further emphasizes the importance of the main line passing through the Ruhr (e.g. move of Sixth Panzer Army¹⁵). Continuation of the present series of attacks on the network around the Ruhr should soon have disorganizing effects on the inflated flow of traffic which it will now have to bear.

b. Waterways:

(1) Mittelland Canal: Reconnaissance on 14 January showed very little repair activity to the heavy damage near Gravenhorst, inflicted during the raid on 1 January. It is estimated that repairs probably will not be completed before April.

¹⁵ Thus far, "Ultra" evidence to support a conclusion that elements of the Sixth Panzer Army have been moving through the Ruhr consists only of the inclusion of transport authorities in the Ruhr as addressees of orders believed to concern the Army's move.

(2) Dortmund - Ems Canal: Reconnaissance on 14 January showed repairs well under way on the Glane by-pass after the attack of 1 January. The western branch of the by-pass may be serviceable within three weeks.

(3) Rhine: Traffic on the Rhine, particularly in the vicinity of Cologne, is seriously interfered with at present by a combination of destroyed bridges and a low water level.

25 February 1945

German Logistical Position

Notes by G-2 SHAEF as of 18 February¹

1. Fuel:

a. Over-all situation: The German oil crisis has been further aggravated by the recent successful attacks on synthetic plants, etc. The current production rate of motor and aviation fuel is estimated to be a maximum of 85,000 tons monthly. The degree of emergency is pointed out by the recent extremely heavy use of crude benzol as motor fuel on the Western Front. A captured document indicates that mixtures are to contain 70% benzol, and other information indicates that a 15% alcohol blend is to be introduced in army motor fuels. The former is an unsatisfactory mixture, and both plans are uneconomical in view of the importance of crude benzol and alcohol to the explosives and chemical industries, respectively.

b. Battle areas: The most significant repercussions on the Western Front of the over-all fuel shortage

MIS NOTES:

¹Received through "Ultra" channels and based in part on information from "Ultra" sources.

have been in the delays in tactical regrouping, and particularly in the embarrassment caused to northward troop movements--see Army Group "B" reports dated 3 and 5 February.²

The GAF effort in the West has again been restricted by OKL order in view of the increased fuel consumption in the East.³

All recent army supply returns show dwindling fuel stocks, even in quiet sectors where daily consumption has been incredibly low.⁴ The conclusion is inescapable

²The 3 February report referred to the sluggish arrival of elements of the 3rd Pz Gr Div (ES 7 Feb 45). The 5 February report stated that south - north movements were progressing only slowly because of fuel shortages, and added that the Army Group was making further fuel available for the units to be surrendered to the East (ES 10 Feb 45).

³The OKL order to GAF units in the West restricted the employment of fighters to "situations which promise success," and prohibited passenger and target presentation flights (ES 8 Feb 45).

⁴A 9 February appreciation by the Air Ministry states: "Available evidence indicates that fuel dumps at army, corps, and divisional levels continue to be lightly stocked and have been for some time. Likewise, airfield stocks have been consistently low and the latest available evidence indicates that this situation is one of settled policy. The Germans depend upon supplies from OKL, OKH, Luftgau, and army group depots. Some of these depots are underground, some are beyond the range of tactical air forces, and some are heavily defended by Flak."

that inadequate allocations reflect over-all shortage.

2. Ammunition:

Evidences of an over-all ammunition shortage are increasing. On the Western Front the most striking instances are:

(a) The failure, in the area of LXVII Corps, to hold ground or to make immediate counter-thrusts, allegedly because of the ammunition shortage.⁵

(b) The difficulties of Wehrkreis VI in providing ammunition, especially 150-mm. Inf gun and 120-mm. mortar, for [the units under] the 476th Div Staff and in providing mines for the

⁵A 3 February report stated that "because of the ammunition shortage, Neuhof was given up," and that "immediate counterthrusts [were] made difficult by the shortage of ammunition." A 30 January supply return of the Fifth Panzer Army (to which the LXVII Corps was subordinated) reported ammunition in army dump stocks totalling 2,872 tons (compared with 1,911 tons on 10 January) and did not include ammunition among special requirements.

Apart from supply returns, "Ultra" traffic dealing with condition of supplies tends, of course, to present a one-sided picture, since a commander is not apt to make special comments on his supply position when it is normal and adequate.

Erft position.⁶

The stage has now been reached at which ammunition planning and allocation one month in advance are no longer possible. An OKH statement to Army Groups mentions inroads on current production and announces a short-term basis for the allocation of ammunition in short supply [ES 15 Feb 45]. The use of Party channels to report Army Group North's ammunition crisis and to request immediate allocation is very interesting [ES 16 Feb 45]. Shortages of Flak ammunition continue to be reported.

3. Motor vehicles, tanks, etc:

No important information since last logistical notes.

⁶On 4 February Wehrkreis VI (the administrative district east of the Dutch frontier) stated that it could provide, as a first ammunition issue to be taken into the Erft position, only 90 shells for 4 medium infantry guns of the 476th Div Staff, and asked the Fifteenth Army to allot 338 more "as the bringing up from the OKH ordnance stores takes too long." On 7 February the Wehrkreis announced the allocation of 1,000 shells for the 75-mm. antitank guns, and stated: "All other ammunition requirements satisfied except shells for heavy Inf gun '40." In another report on 7 February the Wehrkreis announced that 15 tons of ammunition for "heavy Inf gun '33" had been allotted to the Div Staff from an army ammunition dump.

On 9 February the Wehrkreis reported to Higher Command Eifel that 1,270 "T", 2,700 "S", and 1,580 wooden box mines were being provided, but that additional mines would be needed for fortifications.

4. General armaments production:

"Ultra" continues to reveal considerable incidental damage to the armaments industry in heavy attacks on transportation and other targets. It is believed, however, that the most important single factor currently restricting ammunition output is the coal shortage, which affects production directly and, through transportation, indirectly. This situation existed before, but it has been aggravated since the fall of Upper Silesia. The best evidence is presented by [an order to an armaments inspectorate near Dortmund to insure coal requirements by a redistribution of sub-area quotas] and by reports from the Japanese Ambassador to Berlin and from the Japanese consul in Hamburg [DS 12 Feb 45]. [The report from Hamburg] shows that Jap officials believe that, despite strictest economy, exhaustion of coal stocks is expected in 2-3 months.

5. Transportation:

The main feature of the period has been the transport difficulties caused by the coal shortage. This shortage results from the loss of Upper Silesia, the difficulty in maintaining the present output from the Ruhr because of attacks on rail and water outlets, the limited stocks in

the rest of Germany, and difficulty in distributing and using such stocks economically. The shortage is apparently having an immediate effect on the transport potential.

The other feature of the period has been the considerable scale of the rail attack around the Ruhr. These attacks appear to have been especially effective during the hurried movement of reinforcements to the Eastern Front.. It is clear that serious delays and some casualties were caused. Up to 3 weeks were required in some cases to restore through traffic and important centers.⁷ Allied fighter and fighter-bomber planes are damaging an impressive number of locomotives and rolling stock, and are interfering seriously with movements both east and west of the Rhine.

Rail movements on the west bank of the Rhine south of Euskirchen still remain very limited. The main area of rail activity during the past week has been Koblenz - Frankfurt - Giessen.

⁷The recuperative potential of the transport network is illustrated by a 10 February report from Planning Staff West noting improvement in the Wuppertal area: "Congestion considerably decreased, except to South Germany.... In period 1-9 February the total number of cars daily has risen from 1,400 to 1,800."

Precautions against air attack have included holding up trains during daylight. The avoidance of daylight working in areas subject to fighter-bomber attacks means a reduction of 50% in traffic capacity. Further serious reduction is being caused by the growing number of seriously damaged installations.

16 March 45

PART I

German Logistical Position

Notes by G-2 SHAFF as of 8 March¹

1. Fuel:

a. Over-all situation: As of 26 February the German current gasoline production had been reduced to 15% of the pre-attack level; 3 remaining synthetic plants produce 40% of that amount.² All have been attacked subsequently. If they were attacked successfully, production possibly has been reduced to some 8% [of the pre-attack level].

Of the plants attacked [prior to 26 February], 3 large synthetic plants, Brux, Leuna and Pölitz, were very seriously damaged. Pölitz was described as a

MIS Notes:

¹Received through "Ultra" channels and based in part on information from "Ultra" sources. Several passages which do not deal with the Western Front or the over-all German position have been omitted. ✓

²Bohlen, Ruhland and Magdeburg.

shambles and Leuna as out for 6-8 weeks.³

Other signs of great over-all weakness are:

(1) Diesel fuel has been placed on a quota basis as is the case with gasoline.⁴

(2) An increasing number of pathetic appeals have been made for absurdly small fuel allocations.⁵

(3) There is an apparent inability to provide even the small quantity of fuel needed in the West.⁶

³Bruz was last attacked in mid-February, Leuna in mid-January, and Politz in early February. According to the Combined Strategic Target Committee, none of the three is expected to produce during March. Presumably the 6-8 week recovery estimate for Leuna was made some time before the issuance of the present SHAEF notes on 8 March.

⁴On 24 February the Chief QM's of C-in-C West and C-in-C Southwest were informed that "because of fresh inroads into production and increased requirements of other consumers, diesel oil is no longer to be considered, as hitherto, an alternative fuel." The message stated that diesel allocations in the future "will have to be placed on a quota basis like gasoline allocations." (ES 1 Mar 45).

⁵Many of these appeals noted in MIS have been from training units or other formations not engaged on active fighting fronts.

⁶On 11 March the Chief QM of C-in-C West released from one dump approximately 35,000 gallons of fuel to Army Group "B" and stated that some 16,000 gallons of diesel and 35,000 gallons of engine and gear oil from the same dump would be made available to Army Groups "B" and "G", "since the Allied threat exists." (ES 14 Mar 45).

b. Generator fuel: There is a great shortage of timber for gas generator fuel.⁷

c. Battle areas: Aside from indications of fuel shortages in the battle areas (reported separately or contained in day returns of various formations), several requests from Wehrkreis VI for small allocations from the stocks of C-in-C West and a statement by the Wehrkreis that its gasoline stocks are almost entirely consumed are indicative of the West Front fuel situation.

The evidence of fuel shortage in the East shows the general insufficiency of the fuel supply, in spite of the probability that the East is now receiving the lion's share of current production.⁸ The failure of C-in-C Southwest,

⁷On 11 February the "Reich Plenipotentiary for Production of Generator Timber" announced that orders had been issued to increase the volume of motor traffic by assuring fuel for a larger number of producer gas driven vehicles. The orders included assignment of a high priority to wood-fuel timber shipments (ES 26 Feb 45).

⁸For this statement G-2 SHAEP cited a 14 February report by Army Group Vistula that it expected to be partially immobile that day as a result of the increased fuel consumption made necessary by the "beginning of movements to the Russian areas of concentration" (ES 20 Feb 45).

Because of fuel shortage, to employ the 26th Pz Div as a strategic reserve [ES 23 Feb 45] attests the tightness of the situation in Italy despite the relatively large stocks shown in the Armeegruppe Liguria day return for 27 February--amounting to 3 consumption units.⁹

Since the last logistical notes [as of 18 February, reported in ES 25 Feb 45] day returns of the First Parachute, Nineteenth and Twenty-fifth Armies on the Western Front and the Second Army on the Eastern Front all have shown motor transport fuel amounting to considerably less than one consumption unit [the amount required to move the Army's vehicles 62 miles].¹⁰ Those low fuel stocks are sufficient only in the case of the Nineteenth and Twenty-fifth Armies where relative inactivity facilitates an extraordinarily low daily consumption.

GAF orders restricting night and day operations

⁹The Armeegruppe Liguria stocks--fuel sufficient to move the vehicles of the Armeegruppe 186 miles--are adequate for current operations. The conservatism of the expenditures of C-in-C Southwest may be a precautionary measure dictated by his expectation of an Allied offensive (ES 23 Feb; 4, 6, 8 Mar 45).

¹⁰As noted by the Air Ministry on 9 February, fuel dumps at divisional, corps and army levels have been lightly stocked for some time, and the Germans depend upon supplies from the better protected depots of army groups, Luftgau and the OKH and OKL (ES 25 Feb 45).

have been renewed with increased emphasis because of the fuel situation.¹¹ Anticipated relief by the introduction of new fighter aircraft types is not materializing since special fuel for these also is short.¹²

2. Ammunition:

a. The principal causes for the increasing shortages of artillery and mortar ammunition appear to be:

(1) Production losses caused by bomb damage and power shortage.

(2) Breakdown in the distribution system between production stages.¹³

¹¹ Presumably G-2 SHAEF is referring to the Genobst. Jodl order of 13 February telling Army HQ's to aid in limiting air operations by restricting their demands for air operations (ES 26 Feb 45). That order was addressed to C-in-C West and to other commanders in areas where GAF operations have been negligible for some time. In the West, the carrying out of operation "Roper" (ES 6 Mar 45) and the increased activity against the Remagen bridgehead suggest that, despite general restrictions, the GAF is willing to use fuel for sufficiently important operations.

¹² There is ample evidence that the GAF is making efforts rapidly to expand its jet-propelled force and that the current bottle-neck in the program is due to a shortage of trained crews and not to a lack of fuel (TAB A of today's ES).

¹³ In support of this conclusion G-2 SHAEF cited a 12 February report from an unidentified authority that one shell-filling depot in the Ruhr had not received its February consignment of light field howitzer shells for filling, and that another depot in the Ruhr was finding it difficult (for unspecified reasons) to fill 80-mm. mortar shells. On 23 February the OKH agreed to the production of howitzer, mortar and infantry gun shells at locations near the Western Front, within 30 m. of Wesel (ES 3 Mar 45).

(3) Reduction in the supply of propellants or explosives because of the loss of the Silesian and Polish chemical industry, and reduction in the supply of chemical nitrates through the destruction of synthetic fuel and benzol plants.

b. The ample evidence of ammunition difficulties includes:

(1) Reduction in ammunition available for training.

(2) Substitution of less satisfactory shell types for high explosive shells of which there is a deficiency.

(3) Placing of available stocks on a quota basis [mentioned by Army Group "B" on 26 February--ES 2 Mar 45].

c. Principal shortages are light field howitzer, medium field howitzer and 120-mm. mortar ammunition. Day reports of various formations in the West generally show deficiencies in these items.¹⁴ The ammunition crisis of

¹⁴Most of the available day reports in the West, aside from those from the inactive Nineteenth and Twenty-fifth Armies, have come from the First Parachute Army. February reports from that Army contain several requests for the release of light and medium field howitzer ammunition from the blocked stocks of C-in-C West. On 6 February Army Group "H" requested the release of these two types of ammunition because the addition of new troops to the Army Group had resulted in a reassessment of the adequacy of existing stocks. The latest return for the First Parachute Army, dated 9 March, states: "Allocations of 100-mm. gun and light and medium field howitzer ammunition are insufficient to cover expenditures and to increase stocks on the right bank of the Rhine to any extent."

Army Group Vistula on 14 February [ES 20 Feb 45] was mainly the result of transport difficulties there.

3. Motor vehicles, tanks, etc.:

No important information since last logistical notes.

4. General armaments production:

Instances of incidental industrial damage continue to appear in "Ultra". The damage is of varied nature, affecting numerous fields of war production. Particularly interesting are the reported damage to the steel industry and the OKH message that a sharp cut was to be expected in the quantities of iron and steel available.¹⁵ Presumably the OKH message was caused by the lack of Swedish and Silesian ores. Industrial output has been reduced further by the coal situation. It is now known that the export of coal from the Ruhr fell from 2,000,000 tons in June-July to

¹⁵The OKH message of 24 February was sent by an officer in the office of the Director General of Motor Transport (ES 6 Mar 45). After warning of a cut to be expected, he stated that iron and steel were not to be used except for urgent purposes important for the war effort.

from 400,000 - 800,000 tons in November-December--a drop of 70%.¹⁶ There are clear indications that industrial stoppages due to the shortage of power are increasing; despite the severe restrictions on non-industrial consumers caused by coal transportation difficulties.

5. Transportation:

Mounting difficulties in rail transport to and from the Ruhr are increasingly evident. Heavy damage to viaducts at Bielefeld and Altenbeken [25 m. SE of Bielefeld] and the serious dislocation of the rail system north of Hagen, which requires long term repairs, have restricted traffic effectively. Although the Bielefeld viaduct is now repaired,¹⁷ after an interruption of approximately a week,

¹⁶The source of the information on which this statement by G-2 SHAEF is based is not known. An FEA report for the week ended 20 January 45 states:

It is reported that the coal position was becoming catastrophic in Germany early in December, that output in the Ruhr had fallen to 30% of normal, and that the transport position only allowed the delivery of small quantities. The report is felt to be somewhat exaggerated in tone and in regard to details, including the figure of 30%.

A 2 February message from Naval Chief Command West stated that Ruhr coal for the armaments industry was lying in continually growing dumps but could not be transported away in adequate quantities.

¹⁷Operational cables report that 6-8 spans of the viaduct were again knocked out on 14 March by RAF Lancasters.

economic traffic apparently has been diverted, mainly via Münster and Osnabrück. Furthermore, a shortage of rolling stock is appearing in the Ruhr area. Presumably this has been caused by difficulties in returning empties in view of the serious traffic disruption and the slow turn around of RR cars.¹⁸

The rail dislocation apparently is causing widespread use of motor transport in Wehrkreis VI, with a resultant absorption of precious fuel and motor transport. Recent troop movements toward the Ruhr have caused additional strain on railways.

The Dortmund - Ems and Mittelland Canals are again closed as a result of recent attacks. Both waterways have been closed almost continuously since the beginning of the year. Recent attacks have been extremely successful; the canals are barely recognizable as such.

¹⁸On 26 February C-in-C West ordered empty tank cars returning from unloading points north of the line Trier - Koblenz - Limburg - Giessen to be sent to Seelze (6 m. WWV of Hannover), and those from south of that line to be sent to Nürnberg. He emphasized that the delivery of gasoline to the front depended upon the speedy return of empty cars (ES 3 Mar 45).

PART II

Supply Returns Message of 24 February
from the Quartermaster General (OKH)
to Army Groups "A", "B", "C" and "G",
and to C-in-C Armed Forces Denmark

The rendering of reports on Army supplies has recently left much to be desired. I know the difficulties, but I will not be put off with statements that because of lack of signal communications no reports have been received. There are quite enough officers and officials on QM staffs for them to collect the most important reports as orderly officers. Daily returns must reach the Quartermaster General, OKH, by 1100 hrs no matter how they get there.

For the future, I forbid such expressions as "increased fuel consumption", "the fighting necessitates a large consumption of ammunition", "tactical movements are causing unusually high fuel consumption", "rapid delivery on a large scale by road tonnage is necessary", and "accelerated preparation of supply goods." Such vague phrases show me that the Chief QM concerned has not the faintest idea of his supply situation (otherwise he would give exact figures), or that he is anxious to cover himself by using cliches. I demand of Chief QM's the unvarnished, naked, sober truth, based on unequivocal statistics, for which the

person submitting the report will answer with his life.

In future, I shall disregard reports that do not take this form. Nor have I time to enter into long-winded discussions. "Much ado" is not the end of your story, nor is the knowledge that "anyhow it has been reported to QMG, OKH." I read reports submitted to me; but you must also report what you yourselves have done, or intend to do. I have, unfortunately, to note an absence of this. There is a place for leadership in supply matters also.

If the submission of slovenly, inaccurate, unpunctual supply reports prejudices operations, I shall in future ask for a court-martial.

27 March 1945

German Fuel Position on the Western Front
Since the Opening of the Allied Offensive
in February*

Summary by G-2 SHAEF on 21 March

1. Although the Germans were clearly aware of the impending Allied offensive and the threatened sectors of their front before either Veritable or Grenade operations were begun, supply returns for early and middle February showed no building up fuel stocks. This failure to accumulate a fuel reserve for battles west of the Rhine can be explained by:

a. The outstanding success of the Allied Air Force attacks in the oil offensive at the beginning of the year;

b. The striking success of the Russian offensive, which enforced the transfer to the Eastern Front of priority for petrol, and simultaneously depleted small western fuel stocks by forcing the Germans to move eastward troops urgently needed to stop the rout on the Russian Front; and

c. The difficulty of bringing up fuel and other supply trains over the heavily bombed

*Received through "Ultra" channels and based in large part on "Ultra" sources.

railways behind the fronts where Veritable and Grenade were to be launched.

2. The result of these difficulties was that at the opening of Veritable, despite previous low consumption, the total fuel stocks¹ of the First Parachute Army amounted to only .6 of one consumption unit.² Among the combat units of the Army, on 8 February the 116th Pz and the 15th

¹Throughout this and other reports on the German fuel position SHAEF considers only the situation with respect to "O" fuel; the exclusion of diesel fuel from consideration is not indicated. According to 8 fuel returns from Armies and Army Groups during the period 28 February - 15 March, in terms of consumption units diesel now constitutes approximately 15 per cent of the total fuel used. The rationing which long has been applied to "O" fuel was not extended to diesel until late in February of this year (ES 1 Mar 45).

²One consumption unit is the fuel required to move the organic vehicles of a unit 100 km (62.1 miles). Several recent supply returns show the lack of significance of the "consumption unit" measure in evaluating the fuel position of German formations:

| <u>Army</u> | <u>Date</u> | <u>Consumption unit</u> <u>(in cubic meters)</u> | <u>Consumed</u> <u>that date</u> <u>(in cubic meters)</u> |
|-----------------|-------------|---|---|
| Twenty-fifth | 28 Feb | 159 | 7 |
| First Parachute | 1 Mar | 485 | 78 |
| Fifth Panzer | 1 Mar | 438 | 45 |
| Seventh | 2 Mar | 478 | 55 |
| Nineteenth | 6 Mar | 212 | 8 |

If it can be assumed that these returns are representative, an Army actively engaged in operations (such as the First Parachute, Fifth Panzer, or Seventh) uses one consumption unit in 6 to 9 days; and for Armies on inactive fronts (such as the Twenty-fifth or Nineteenth), one consumption unit lasts for 22-26 days.

Pz Gr Divs had fuel for only 21 and 36 miles respectively. The fuel position of the Army had not improved by 16 February, when stocks amounted to less than 300 tons, still under one consumption unit. Fuel available to the 116th Pz and 15th Pz Gr Divs on that date allowed their vehicles ranges of 45 and 25 miles respectively. The Chief Quartermaster stated: "Fuel consumption is no longer covered by deliveries."

3. A supply report of 18 February from the Twenty-fifth Army, located in Holland, showed that supplies of "O" fuel were not assured even in that comparatively quiet sector. On the whole, however, fuel stocks of the Nineteenth [located in the Baden area east of the Upper Rhine] and Twenty-fifth Armies, though very low, have been adequate to meet the consumption rate of a few tons per day.

4. By the 1st of March the small stocks in fuel dumps of the First Parachute Army were apparently

exhausted.³ In the next week the operating range of the 116th Pz Div decreased from 22 to 10 miles. On 8 March the Army supply report stated that fuel was "not assured"

³Total stocks with units of the First Parachute Army on 1 March were reported as 360 cbm; dump stocks of the Army were reported as "nil". However, Army Group "H" reported dump stocks on 1 March as 330 cbm; on 2 March the Army Group reported dump stocks of 112 cbm; and further reported that on that date 221 cbm. had been issued to the Armies.

The difference in the stocks of Army Group "H" on two consecutive days indicate the fallacy of basing conclusions on isolated returns of any formation--and "Ultra" seldom yields consecutive daily returns for the same unit. There are still other reasons that make an Army Group report of stocks suspect:

(i) A return of the Twenty-fifth Army for 28 February listed Army dump stocks as 89 cbm. but added that 86.2 cbm. were "blocked" for Army Group "H". [Presumably, stocks with units that are blocked for higher echelons are not included in the returns of the latter.]

(ii) A return of 13 March by the First Parachute Army stated that "of small allocations, majority declared by Army Group to be blocked stocks." ["Majority are from blocked stocks" may be meant; however, it is more likely that the phrase denotes retention of control by the Army Group even after allocation.]

(iii) An Army Group "B" return for 2 March listed dump stocks of 107 cbm, and "strategic operative reserve stocks" of 31 cbm.

Moreover, there are several indications that fuel deliveries are made daily from the next higher echelon; therefore the dump stocks, at least those with divisions and armies, are significant only in relation to the probable effects of a complete stoppage of deliveries.

³Footnote continued:

Also, stocks reported, say, by an Army Group on a particular day fail to provide conclusive evidence of the probable next day's deliveries to its units, since circumvention of normal channels is not an unusual practice. For example:

(i) On 16 March Army Group "B" provided 10 cbm. for the 3rd Pz Gr Div.

(ii) On 17 March Army Group "B" provided 40 cbm. for a Corps.

(iii) C-in-C West on 17 March was supplying fuel to the Seventh Army.

and revealed that fuel dumps were again empty, while unit stocks were dwindling as consumption increased. It was not surprising therefore that on 15 March the fuel situation was stated to be of "utmost gravity," with a frantic effort being made to create some stocks from very small current allocations.

5. The First Parachute Army was not an isolated case, for the daily supply return of the Fifth Panzer Army on 2 March stated that the fuel situation was becoming strained to the utmost. The difficulty of transportation could be inferred as the particular cause in this case.

6. The 2 March supply report of the Seventh Army's Chief Quartermaster revealed the effects of the

fuel crisis in the West, and a detailed study of the paragraph concerning fuel make it appear that the Chief Quartermaster's opening remark about the "continuing strained fuel situation" was a serious understatement. The three operational corps of the Seventh Army had fuel averaging only .15 of one consumption unit, and the 2 Pz Div had petrol for about 7 miles. Fuel stocks dumps were down to 3 tons. This was the situation when the U.S. Third Army was poised for its breakthrough to the Rhine.

7. Fuel returns covering the Twenty-fifth Army, the First Parachute Army and the Nineteenth Army for the first week in March all revealed that low unit stocks were being maintained at the expense of stocks in [rearward] fuel dumps, and that even in quiet sectors the supplies in fuel dumps were dwindling to nothing. In the case of the Nineteenth Army this tendency was arrested by 15 March, but even then the Army's over-all stocks were still less than one consumption unit.

8. The Allied dash to the Rhine exposed the fundamental weakness of the German fuel position in the West. Bereft of concrete defenses and faced with the full onslaught of Allied mobility, many German formations and units were surrounded or pushed aside by the advance.

• Immobility through lack of fuel was undoubtedly a big factor in the defeat of the Seventh Army.

It is probable that the Germans are again endeavoring to build up fuel stocks east of the Rhine, but for the following reasons it is unlikely that these stocks will become large enough to be important:

a. The efforts of Army Group "B" to liquidate, or at least contain, the Remagen bridgehead are draining resources in fuel, as well as in men and equipment, which would otherwise have been preserved to combat future Allied crossings of the Rhine.

b. Army Group "G" is currently making demands on the fuel allocations to C-in-C West.

c. The fuel requirements of the Eastern Front, the Allied aerial offensive against German oil production, and the Army's difficulties in transporting its fuel by rail continue undiminished.