

WEEKLY SURVEY OF AXIS AIRCRAFTOIL PRODUCTION

No. 23 - 13th December, 1944.

NOTE: This Survey summarises the conclusions of the Working Committee (Oil Production) of the Combined Strategic Targets Committee upon the current status of Axis oil production. The assessments are based on ground intelligence and deductions from air cover; the forecast of future output takes into account the enemy's potential repair performance, but makes no allowance for additional damage in further attacks. The present report includes the known results of all attacks up to and including December 10th.

I. ATTACKS.

The following attacks were made since our last report.

<u>Date</u>	<u>Location</u>	<u>Company</u>
6.12	LEUNA	I.G. Farben
7.12	LEUNA	I.G. Farben
8.12	DULBURG-LEINERICH	Teerverwertung
10.12	DULBURG-LEINERICH	Teerverwertung

II. EFFECTS ON PRODUCTION.

Reconnaissance continues to be handicapped by bad weather, and in consequence the condition of a number of plants, especially certain synthetic plants in Central and Eastern Germany, is not known. The following are the revised estimates of production in the period September-December. The December figure makes no allowance for the possible effects of future attacks or for the effects of the recent attacks on Leuna.

	<u>metric tons per month</u>	
Pre-raid normal output of finished products	1,344,000 tons	(100%)
Estimated production in September	311,000	(23%)
October	396,000	(29%)
November	441,000	(33%)
December	521,000	(40%)

Revised estimates of the output of the principal refined products in November and December are given in Table II and are summarised below:-

	<u>% of pre-raid normal output</u>	
	<u>November</u>	<u>December</u>
Gasoline	33%	45%
Kerosene	17%	15%
Gas/Diesel Oils	39%	50%
Fuel Oils	38%	37%
Lube Oils	23%	27%
Total	33%	40%

III. CONDITION OF THE PRODUCING PLANTS.

(a) Synthetic Plants

(i) Borinus hydrogenation plants. All five plants in the west are inoperative and no production is likely for some time.

In Central and Eastern Germany the situation is assessed as follows:-

BLECHHAMMER SOUTH is now thought to have received sufficient damage in the attack of November 30 to shut the plant down for possibly two weeks. Further damage was probably inflicted in the attack December 2. The plant may therefore be inactive at the present time but will probably resume production in the latter half of December.

BLECHHAMMER NORTH appears to have returned to production after several weeks of inactivity, in the last two or three days of November. Fresh damage was inflicted in the attack of December 2 and this plant also is likely to be shut down again for a couple of weeks.

LEUNA was active when covered in the middle of November, and has since been attacked by day on November 21, 24, 30 and December 6 and by night on December 6/7. Although the complex was hit on November 30, it seems unlikely that the day attacks have materially affected synthetic oil production. The night attack, however, was very heavy and offers prospects of better results.

BRUX has not been covered since the middle of October, when it was still inactive but ground reports have now thrown some light on its performance in the past two months. The attacks of October 16 and 20 seem to have been unsuccessful in prolonging inactivity and the plant is reported to have been working well by December 1. It may now therefore be producing up to 75% of capacity.

ZEITZ, BOLEN, and LUTZENDORF were all attacked on November 30 but it is unlikely that they suffered any serious damage.

POLITZ has not been attacked since October 7 and is probably now producing up to 75% of capacity.

MAGDEBURG has a similar history and is probably operating at a similar rate.

(ii) Fischer Tropach Plants. It is unlikely that any of the Ruhr plants are yet back in operation. The two plants in the East are certainly working at a high proportion of capacity, with Hanland probably at 75% and Deschowitz at 80% or 90%.

(b) German Refineries.

There is no change in the position which is, however, somewhat obscure in the absence of good cover.

On the evidence of poor cover, MISBUNG may be out of action for two or three weeks (and possibly more) as a result of the attack of November 29.

HAMBURG (Rhenania) may have recovered sufficiently from damage inflicted in the attacks up to November 21 to make resumption of some activity possible soon. But it has not been possible to establish clearly how much damage was inflicted in the November attacks.

At/

At the HARBURG (Ebano) plant, however, damage was almost certainly severe and is likely to prevent resumption of operations before the New Year.

HEIDE-HEIMSTEDT is the only German crude refinery which is positively known to be active at the present time. Similarly the following four finishing plants are certainly active:-

MOHNE
REUSCHOLZ
OSIENSTADT
DOLLBERG

(d) Austria: Refineries.

There is nothing fresh to report.

VOSENDORF, seen to be active on November 27, is probably in full production.

KLAGEN though inactive when last covered on October 10 may now be in production.

LOBAU is unlikely to have recovered yet from the effects of attacks in November.

The status of FLORSDORF, SCHNECHAU and KOMBENBURG all of which were probably active in November is not known in view of attacks since the last cover of these plants.

(e) Czechoslovakia: Refineries.

Ground intelligence has now supported photographic evidence to the effect that the KOLIN refinery is now active.

A ground source also reports that BRNO resumed operations on a small scale in November and this is regarded as very probable.

In view of the progress of repairs at the above plants, it is not unlikely that DUBOVA is also now in operation and there is no reason to suppose that KRALUPY and MORAVSKA OSTRAVA have ever stopped.

On the other hand BRATISLAVA and NOVI BOHUMIN are certainly inactive.

(f) Poland: Refineries.

TRZEBINIA and CZECHOWICE (DEBICZ) are regarded as probably active.

(g) Hungary: Refineries.

The cutting of the pipe-line from the oilfields may have rendered difficult the continued operation of ALMASFUZITO and SZONY which have shown limited activity in recent weeks. They may however still possess crude stocks and can be supplied by tank car and in view of the need for gasoline at the front they may well be operated up to the moment of capture.

Operations, if any, at PESTURDO have, however, probably stopped by now as this plant is very close to the battle and it is unlikely that there is any significant activity in the BUDAPEST plants.

(h)/

(h) Benzol Plants.

The results of recent attacks on the HANSA, PROSINE, OSTHEFELD, NEUMIRCHEN, LINZ, DUISBURG-LEIDERICH, and BRUCKHAUSEN benzol plants are not yet known.

ALMA FLUTO has joined LEIDERICH as a partially operating plant having restarted after damage received in early November.

Several benzol producers on the AACHEN coalfield have fallen into Allied hands as a result of the advance of the past four weeks. In the SAAR, a number of benzol plants are now already in the battle area and others are within range of artillery fire.

ECONOMIC ADVISORY BRANCH
(F.O. & M.F.W.)
13th December 1944.

TABLE I

SECRET

ESTIMATED OUTPUT OF AXIS OIL PLANTS FROM
INFORMATION AVAILABLE UP TO 11TH DECEMBER 1944.
(All figures in thousands of metric tons per month)

	<u>Normal Finished Products</u>	<u>Estimated output of Finished Products</u>				
	<u>Output</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>	
<u>SYNTHETIC PLANTS</u>						
1. Bergius Hydrogenation	368	39	87	148	201	
2. Fischer Tropsch	112.5	22	25	28	51	
Total from Synthetic Plants	480.5	61	112	176	252	
Percentage of Pre-raid Total	100%	13%	23%	37%	53%	

REFINERIES: Normal
Capacity
Finished
Products
Output (B).

4.	Germany	149 (From	42	75(A)	46(A)	42(A)
5.	France	260 avail-	0	0	0	0
6.	Belgium	42 able	0	0	0	0
7.	Holland	52 crude	0	0	0	0
8.	Czechoslovakia	43 Note (C).)	8(A)	8(A)	20(A)	23(A)
9.	Poland	78	0	4	8	10
10.	Austria	54	16	12	20	38
11.	Hungary	60	9	9	11	6
12.	Italy	80	0	0	0	0
13.	Jugoslavia	21	0	0	0	0
14.	Albania	2	0	0	0	0
15.	Roumania	740	0	0	0	0
		1586	697.5	75	105	119
Percentage of pre-raid total 100%			11%	16%	16%	17%

GRAND TOTALS:

(i) Synthetic Plants	480.5	61	112	176	252
(ii) Crude Oil	697.5	75	109	105	119
(iii) Other Sources (D)	166	175	175	160	150
TOTAL	1344	311	396	441	521

Percentage of pre-raid total 100% 23% 29% 33% 40%

NOTE: (A) Assumes imports of crude to extent of available capacity.
(B) Crude oil refinery capacity less 10% for refining loss.
(C) Figures for normal finished products output from available crude by individual countries not indicated. Total figure is used for comparative purposes.
(D) From sources comprising benzol, alcohol, tar oils, etc. and including unrefined oils used as liquid fuels.

TABLE II.

ESTIMATED OUTPUT OF PRINCIPAL FINISHED OIL PRODUCTS.

(All figures in thousands of metric tons)

	<u>GASOLINE</u>	<u>KEROSENE</u>	<u>GAS/DIESEL OILS</u>	<u>FUEL OILS</u>	<u>LUBE OILS^{XX}</u>	<u>TOTAL</u>
<u>Normal pre-raid</u> <u>Monthly Output</u>	532	100	284	260	148	1344
<u>Estimated Output in November</u>						
From: Bergius Plants	100	-	44	-	4	148
Fischer Tropsch	19	2	5	1	1	28
Refining of Mineral Oils	19	15	36	18	17	105
Other Sources	38	-	25	85	12	160
Total Resources	176	17	110	104	34	441
Percentage of Pre-raid Total	33%	17%	39%	38%	25%	33%
<u>Estimated Output in December</u>						
From: Bergius Plants	135	-	60	-	6	201
Fischer Tropsch	34	3	10	2	2	51
Refining of Mineral Oils	25	12	46	16	20	119
Other Sources	28	-	25	85	12	150
Total Resources	222	15	141	103	40	521
Percentage of Pre-raid Total	42%	15%	50%	37%	27%	40%

^{XX} NOTE: The figures shown for lubricating oil output are largely theoretical.

SECRET

TABLE III. CURRENT PRODUCTION STATUS OF PRINCIPAL OIL PLANTS.

December 12th, 1944.

(Figures in brackets denote normal monthly output of motor fuel in thousands of metric tons).

PRODUCTION STATUS	23 SYNTHETIC PLANTS	22 GERMAN REFINERIES	22 OTHER REFINERIES	23 BENZOL PLANTS
Category 1. IN FULL PRODUCTION				WILD-FORTSETZUNG (0.6) ROBERT MUEHL (0.5) WEISSHAU (0.5) MINISTER STEIN (0.5) SALZGITTER (0.8) VOLKLINGEN (0.6) CASTROP RAUXEL TAR (1.0) MOLANSA OBERHA. TAR (0.6)
Category 2. IN PARTIAL PRODUCTION (Confirmed by air cover).	POLIZE (45.0) RUHLAND (8.5) LESCHOWITZ (4.0) (CENTRAL)	WILD-RENNINGSTADT (0.8) MOHRENB (Nil) OELBESCHWITZ (Nil) ALISCH (Nil) DOLLENGEN (Nil)	VIENNA-VORLUDOLF (0.1) KOLIN (0.3) ALENZ FUZITO (1.5) SEONY (2.3)	BRUCKLAUSEN (1.0) WIDERRICH (0.9) ALMA ELUTO (0.5)
Category 3. PROBLEM IN PARTIAL PRODUCTION (Confirmation by air cover lacking).	SEITE (12.3) BOHLEN (12.5) HUNNEDORT (15.0) MUELBURG (10.0)	DORNHUND (Schmitz) (Nil) PNEIS (Nil)	VIENNA-LAGLAN (0.3) FANDUBICE (0.5) DUBOVI (0.5) KRALUPY (0.5) MORANSA OBERHA. (1.2) TRZEBITIA (1.6) CZECHOVICH (DELETED) (1.6)	
Category 4. PRODUCTION THEREAFTER- ILY SUSPENDED (Damage to non-vital installations).	NORDSTERN (55.0) SCHOLLEN (30.0) REICHENBACH SOUTH (2.5) REICHENBACH NORTH (9.0) HONNURG (9.5) SPARKADE NOLLEN (5.0) HARBIE RICKEL (6.5)	WILBURG (Elschke) (14.0) WILBURG (10.0) WILBURG-PLACER (Nil) (Hess) (Nil) SALZGITTER (Nil)	VIENNA-LORAU (0.9)	WOLFSBACH BENZOL (1.0) SARGELING GLUCK (1.0) WILSTEDT (0.8) 20 OTHER BENZOL (0.7) VICTOR (0.5) CONSOLIDATION I/VI (0.5) DUISBURG-WEIDERRICH (0.5) TAR (0.5)

/Category 5.

PRODUCTION STATUS	25 SYNTHETIC PLANTS	22 GERMAN REFINERIES	22 OTHER REFINERIES	23 BENZOL PLANTS.
Category 5. PRODUCTION SUSPENDED (Pending repair of vital installations)	BOETTROP-WILHELM (7.2) CASTROP-RAUXEL (4.5) ELLEN (5.0) DORTMUND (4.0)	HAMBURG (Edono) (2.0) ROSITZ (Nil)		
Category 6. PRODUCTION SUSPENDED INDIFFERENTLY (Inoperable: no repairs)	WESSELING (8.5) + LUDWIGSHAFEN (7.2) + OSWINGEN (1.8)	HAMBURG (Eurotank) (13.0) OSTERMOOR (0.7) HAMBURG-WILHELMSBURG (Schliemann) (Nil) HAMBURG-GRASBROOK (Nil) (Albrecht & Schliemann) HAMBURG-REINOLD (Schindler) (Nil) WIESEN (Nil) SCHULAU (Nil) FELTOW (Nil)	BRATISLAVA (4.0) NOVY BOHUMIN (1.5) BUDAPEST-OSZEP (5.8) BUDAPEST (Mogyor) (2.2) BUDAPEST (Ferto) (1.5) FRIEDRICH (2.5) BUDAPEST (Hosai) (1.5)	
Category 7. PRODUCTION STATUS UNKNOWN (Post-raid cover pending)	BRUX (29.0) LUXEM (25.0)	HAMBURG-WILHELMSBURG (OPAG & Rhonania) (Nil)	VIENNA-FLORSDORF (0.5) VIENNA-OSTWIG (0.5) KOPPELBERG (0.5)	HAMBURG (1.0) PROSPER (0.9) OSTERFELD (0.8) WITTKIRCHEN (0.6) LINZ (0.6)

* OPAG synthetic lub-oil plant is active.

+ has probably not yet commenced production of synthetic oil.