

COPY NO. 16BOMBER COMBINED REPORT ON NIGHT OPERATIONS

31st. OCTOBER/1st. NOVEMBER, 1943.

Eden: Cologne: Dusseldorf: Oberhausen:EDEN

Eden 4 Mk. I OBOE Mosquitoes were despatched to Eden, accompanied by repeater aircraft. 3 bombed according to plan, but the fourth attacked on D.R. due to the failure of its equipment. All returned safely.

Cologne: Dusseldorf: 6 Mosquitoes were detailed to attack Cologne and Dusseldorf, using the GEE/D.R. technique. 5 completed their task; the sixth missed without trace.

Oberhausen 4 Mk. II OBOE Mosquitoes were sent to Oberhausen; 2 attacked directly and 2 on D.R. All returned safely.

WEATHER FORECAST

Midnight frontal positions:- (1) cold from 60° 00'N. to 55° 02'N. to England (2) warm from 57° 04'N. to East Anglia to Calais to 45° 02'N.

Bases:- Low cloud at 1,000' or below, with showers and poor visibility. Wind in several layers on warm front. East Anglia at dusk; much strato-cumulus at 1,500', patches at 1,000' or below with local breaks, visibility 1,000 yards. 8 Group: small amounts of strato-cumulus at 1,000-1,500', 10/10ths. medium cloud in thin layers above 10,000'. Risk of 10/10ths. stratus at 1,000' at most airfields for early return (from Ruhr) by 2100; but some diversions may hold till midnight. Diversions to N.E. Scotland W. of Peterhead.

Germany:- Patches of strato-cumulus with good clearances; also medium cloud in N.W. Ruhr and Eden: probably cloudless apart from cirrus and small amounts of medium cloud; poor visibility.

France:- Much cloud at 1,000' or below in N.E. Broken strato-cumulus in centre and S.

Frisians:- No low cloud. Visibility 1-2 miles.

Kattegat:- 7-10/10ths. strato-cumulus at 1,000-1,500'. Visibility 1 mile.

RESULTS

(a)	No. of aircraft despatched.....	16
(b)	" " " reporting attack on primary area.....	15*
(c)	" " " missing.....	1 (6.33)

\* This figure includes 2 repeaters who accomplished their task.

WEATHER EXPERIENCED

P.F.F. Bases:- 10/10ths. at 3,000' during operational period. Slight rain. Visibility 2-4,000 yards.

Ruhr:- No cloud. Hazy. Good visibility.

Eden:- No cloud. Thick industrial haze. Good visibility.

No moon.

..../THIRTY DEFENCES



BOMBER COMMAND REPORT ON NIGHT OPERATIONS

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3/4th NOVEMBER, 1943.DUSSELDORF : COLOGNE : Rheinhausen : Dortmund : Minelaying : Leaflets.SUMMARY

1. Dusseldorf. After a lapse of nearly five months, Dusseldorf was again raided in strength. 589 aircraft, all heavies apart from 12 Mosquitoes, were despatched, and 525 of these succeeded in reaching the primary. There was little cloud, and an accurate groundmarking attack was delivered by the light of a half moon; the bombing drifted steadily to the S.W., but as the aiming-point was situated in the extreme N.E. of the city, most of the 2,000 tons dropped fell within the built-up area. Simultaneously with the main attack, a special force of Lancasters equipped with G-H tested this precision device for the first time on a considerable scale, in a raid against the Mannesmann steelworks; their accuracy was such that 50% of their bombs fell within  $\frac{1}{2}$  mile of the target. Reconnaissance revealed considerable damage in Dusseldorf, especially to industries in the S. of the city. 18 heavy bombers were lost (3.1.3); 3 fighters were destroyed.
2. Cologne. 52 Lancasters (including 20 blind-markers) and 10 Mosquitoes were detailed to carry out a feint attack against Cologne 10 minutes before the start of the main raid on Dusseldorf. They achieved their main purpose, since the enemy ordered his fighters to Cologne 2 minutes before zero hour at Dusseldorf; surprisingly, the feint raiders reported no combats, and none were lost. The actual bombing was very scattered, and little damage was caused in Cologne.
3. Rheinhausen. 13 OBOE Mosquitoes were briefed on a precision attack against the steelworks at Rheinhausen; 6 bombed according to plan, 7 were on D.R. 2 raided alternative targets in the Ruhr, and one returned early. No casualties were sustained.
4. Dortmund. 2 G-H Mosquitoes were detailed on a precision test against Dortmund; but both attacked on D.R., since their sets became unserviceable. Both returned undamaged.
5. Minelaying. 23 Stirlings and Lancasters left on a mining operation off the Frisians. All but one reached the target; 128 mines were laid. 2 aircraft were equipped with H2S, the first time this device was used on a mining operation, although neither aircraft employed it during the actual period of release. All aircraft returned safely.

WEATHER FORECAST

6. Bases:- All fit at dusk. Minor front will cause a narrow belt of low cloud, base 1,500 ft., to affect Yorkshire at midnight, keeping visibility from deteriorating till later in this area. Elsewhere, conditions will become difficult after 2200; but East Anglia will hold till midnight, and all Groups should be able to deal with their own aircraft. Diversions up to midnight in Tangmere Valley, Sillth, Acklington and Drem areas.

Germany:- Front over N.W. Germany, lying at midnight from Groningen to S.E. of Paris to E. of Limoges, giving a wide belt of medium cloud, tops 12,000' or below, with very patchy cloud above. (This includes Ruhr). S. of 50°N. and E. of Mannheim; small amounts of medium cloud, with valley fog forming. N. of 50°N. and E. of 10°E: much strato-cumulus, perhaps with medium cloud above. Dusseldorf: doubtful amounts of strato-cumulus, probably less than 7/10ths (perhaps even less, with a risk of 10/10ths in patches). Tops 6-8,000'; chance of some medium cloud above. Similar conditions en route.

W. France:- Broken layer cloud, base 1,500' or above.

PLAN OF ATTACK

7. Route. East coast - 52°15'N. 03°00'E - 51°49'N. 03°53'E - 51°03'N. 05°18'E - 51°00'N. 06°17'E - DUSSELDORF - 51°22'N. 06°39'E - 51°49'N. 07°53'E - 52°15'N. 03°00'E.

8. Target Marking. Blind markers (OBOE Mosquitoes), were to drop red T.I. on the aiming-point, together with release-point flares. Backers up were to maintain the groundmarking with greens aimed to overshoot reds (or the centre of all greens visible) by 1 second. If T.I. could not be seen for cloud, backers-up were to join the supporters, retaining their greens but aiming back at release point flares. Supporters and main force aircraft were to aim at reds or the centre of greens, if visible; otherwise to bomb the flares on an exact heading of 060°M.

9. Timing. Zero Hour: 1945 hours. Duration of attack: 1942-2005 hours

Blind-markers: 9 Mosquitoes (+ 3 reserves,) at zero-3, zero, zero+3, +5, +7, +10, +13, +17, +20.

Backers-Up: 2 Lanc. at zero.  
2 Lanc. at zero + 1.  
15 Lanc.) from zero + 2 to zero + 20 (one per minute)  
4 Hal.)

Supporters: 7 Hal. at zero + 5.

Main Force: 93 Lanc. from zero to zero + 4.  
113 Hal. from zero + 4 to zero + 8.  
100 Lanc. from zero + 8 to zero + 12.  
100 Lanc. from zero + 12 to zero + 16.  
98 Lanc. from zero + 16 to zero + 20.

10. Marker Loads.

Blind Markers: 3 T.I. red (1 LB) + 2 flares (red with green stars) + 1 flare white.

Backers Up: 4 T.I. green (2 LB).

11. Tactics. (a) WINDOW was to be dropped at the rate of one bundle every 2 minutes from 52°10'N. 03°10'E. to 05°04'N. 06°24'E; at one bundle per minute for 20 miles of the target in both directions; and one bundle every 2 minutes from 51°04'N. 06°24'E. to 51°25'N. 06°28'E.

(b) A diversionary attack was to be carried out against Cologne between zero - 10 and zero - 1. 20 Y-type Lancasters were to mark the target blindly with red T.I. at zero - 10; 33 Lancasters were to bomb at zero - 8; and 10 Mosquitoes were to follow with green T.I. between zero - 8 and zero - 1 (2 at zero - 8, 2 at zero - 7, and one each remaining minute).

SORTIES

12.	(a)	No. of aircraft despatched.....	569
	(b)	" " " reporting attack on primary area.....	525
	(c)	" " " " " alternative area.....	9
	(d)	" " abortive sorties (technical defect or manipulative error.....32) (crew failure.....4) (reserve marker (not required) 1)	37
	(e)	" " aircraft missing.....	18

N.B. The above figures include 38 Lancasters which were detailed on a special attack against the Mannesmann works. 15 bombed the target on G-H, 16 found difficulty with their special equipment and joined the main force in attacking the town; 5 returned early and 2 were

WEATHER EXPERIENCED.

13. Bases: 10/10ths strato-cumulus at 2-3,000' in N. at take-off, with some haze. Good visibility in East Anglia. By 2200 hours visibility in 4 and 6 Groups had fallen to 1-3000 yards, but remained above 2 miles in 1, 3, 5 and 8 Groups, with no cloud below 2,000'. Meanwhile fog had begun to form in the S.E. corner of East Anglia, soon affected 3 Group and became widespread after midnight; but many bases remained fit until that time.

Route:- A belt of layer cloud extended from the Dutch coast to 90 miles W. of Dusseldorf; average 7-10/10ths, around 14,000'. Another broken layer at 6,000'. Contrails at all heights above 15,000'.

Dusseldorf:- Variable cloud; generally small amounts, nil at times, some reports of 7/10ths, 1,000' thick, at 14,000'. Fog patches on surface. Visibility moderate to good. Half moon.

Wind at 20,000': 150-160°/25 m.p.h.  
at 28,000': 160°/30 m.p.h.  
Surface wind : N-NE/5-10 m.p.h.

FLIGHT PHOTOGRAPHIC STATISTICS.

4. (a) Special Target

No. of photographs examined.....	9
" " " showing ground detail (plotted within 1 mile)....	5
" " " " fire tracks (plotted within 1 mile).....	4
" " aircraft estimated to have bombed within 1 mile of aiming point.....	12
" " " reporting attack.....	15

(b) Town.

No. of photographs examined.....	430
" " " plotted within 3 miles (ground detail.....)	34
" " " " " (firetracks.....)	210
" " " " outside 3 miles (ground detail.....)	22
" " " " " (fire-tracks.....)	105
" " " unplotted.....	59
" " " estimated to have bombed within 3 miles of aiming point .....	290
" " " reporting attack.....	510

NARRATIVE OF ATTACK

5. The attack opened at zero - 3, with 3 red T.I. dropped in salvo by an BOE Mosquito; but these fell in a stick 3/4 mile long centred about 1/2 mile S. of the aiming-point (i.e. in the centre of Dusseldorf). The main force attack started at about the same time, and until zero + 4 remained well concentrated around these markers. After zero + 4, there was a gap of 5 minutes before the next BOE aircraft bombed, but this was bridged by the backers-up. The bulk of the main force continued to bomb the built-up area. Decoys soon became operative S. of the city, and attracted a number of crews; the Macherscheid fire site (5 miles S.S.W.) was also in action, and this diversion was made worse by a backer-up which dropped red T.I. (with which it had been accidentally loaded), 2 miles S.S.W. of the aiming point, aiming at a skymarker flare. With the usual undershooting, the attack spread rapidly S.S.W. towards the close. Most of the bombs nevertheless fell within the built-up area, since the aiming-point was situated in the extreme N.E. of the city. The G-H trial attack on the Arnemann works was successfully carried out at the same time as the main operation (see paragraph 21).

#### DAY RECONNAISSANCE.

16. Considerable damage resulted from this attack, especially to industries in the S. of the town, although many bombs must have fallen in areas already devastated by previous raids. Over 28% of such property as remained intact in the fully-built-up areas was affected, and 15% in suburban districts. 21 factories, including 4 armament and steel works of high priority, (Schlöss-Defries A.G., Deutsche Rohrenwerke A.G., Rheinmetall-Borsig A.G. and Mannesmann Rohrenwerke) were hit, the first 2 very seriously. Other industries affected included firms producing wire products, insulating material, paper machines, enamel, aluminium castings and several engineering works. The main railway station and the goods stations at Bilk and Oberbilk sustained further damage, and at least 7 hits were scored on railway tracks, causing injury to rolling stock. The municipal power station and gas works, 2 tram depots, the main inland revenue office, the Rathaus, the cattle-market, 3 hatted camps and various dockside warehouses and sheds were variously affected.

#### ALTERNATIVE TARGETS

17. 9 aircraft bombed alternative targets in the areas of: Cologne (2), Kempen, Housheim, Mönchengladbach, Moll, Grotenrath, Asch and Munchen-Gladbach. One other aircraft jettisoned its load of incendiaries over Gheel, because of engine failure, but later succeeded in attacking the primary with H.E.

#### SPECIAL EQUIPMENT.

18. OBOE. 9 OBOE Mosquitoes (3 Mk.I. and 1 Mk.II) were detailed to mark target, with 3 Mk.I aircraft in reserve. The serviceability of OBOE on this night was very poor, with the result that only 5 bundles of skymarkers and 3 T.I. were dropped; and the 2 aircraft which released skymarkers alone, reported that their signals had failed immediately afterwards, before the T.I. could be sent down. One reserve was called, and succeeded with 2 other aircraft in dropping both sky and ground markers. The cause of the high number of failures is obscure, but seems to have been mainly due to mutual interference between channels.

19. GEE. The Eastern Chain operated on the Wyoming frequency throughout, on the Indiana frequency from 1900 to 2020 hours. The interference on the Wyoming frequency was of the usual type, noise being the most important. A certain amount of this was also seen on the Indiana frequency, which was used by Bomber Command for the first time, but this was due to a break through and had been anticipated. Use of the Indiana frequency added about 50 miles to range, the averages being 275 and 280 miles on the outward and homeward routes respectively. A few navigators obtained A/B position lines to the target.

20. H2S. 72 Main Force aircraft carried H2S for navigational purposes. 53 reached the target with their sets in order, and 2 used it to confirm their position when bombing markers. 1 Y-aircraft was lost.

21. G-H. G-H was used for the first time in any large-scale operation, against the Mannesmann Rohrenwerke while the main force was attacking the city. 38 Lancaster II were equipped with the device; 15 attacked the primary according to plan, 16 found their sets unserviceable and bombed the city, 5 returned early and 2 were lost. Most of the failures were due to breakdowns in the equipment, but 6 were probably the result of weak aircraft transmissions, as these aircraft failed to obtain one of the pulses, and their sets had not been modified to increase signal strength. The photographic evidence suggests that 50% of the bombs fell within  $\frac{1}{2}$  mile of the aiming point; full technical details are given in O.R.S./P. 2. Report No. S.110.

#### ENEMY DEFENCES

22. Flak and Searchlights. The guns of Düsseldorf fired a barrage of heavy flak with a ceiling of 15,000', occasionally aiming at aircraft held by searchlight cones above this level. Moderate to intense light flak was fired

to 14,000'. Towards the end of the attack, the flak decreased and many searchlights remained stationary without seriously attempting to engage targets. En route, heavy flak with searchlights was encountered from Rotterdam, Antwerp, Cologne, Krefeld, Duisburg, Eindhoven, Tholen and Herenthals. 6 returning aircraft were damaged by flak.

23. Fighters. The proportion of combats in the target area was the lowest since the introduction of the running commentary system of fighter control, although the number of sightings was normal, and no increase was noticeable in the number of attacks en route. Of about 120 enemy aircraft seen, 80 were over Dusseldorf and as many as 55 of these were twin-engined. 9 Ju.88 and 2 Me.210 were identified in combat over the target, and 12 Ju.88, 5 Me.210 5 Me.110 and 1 Do.217 en route in both directions, 2 FW.190 were sighted over Dusseldorf.

Running commentary and Benito control were both already operative when our bombers were crossing the enemy coast; fighters were ordered to a beacon near Osnabruck, then to Bonn, Dortmund and, just as the diversionary raid on Cologne was ending and 2 minutes before zero hour at Dusseldorf, to Cologne. Surprisingly the feint raiders reported no combats in the Bonn area, although the fighters orbiting there seemed certain to contact them; perhaps enemy pilots could see the first bombs fall on Dusseldorf, and wait there immediately. No mention of Dusseldorf was heard on intercepted wireless traffic. A control operating E. of Juvinocourt reported hostiles flying towards Frankfurt and Darmstadt, and twice later announced their presence in the Koblenz area; the suspected aircraft were probably enemy fighters.

14 returning aircraft were damaged by fighters, one so badly that it became a total wreck and 4 others very seriously. 5 enemy fighters were claimed as destroyed, 2 Ju.88 to Halifaxes of 4 Group over Dusseldorf and a Me.210 to a 5 Group Lancaster near Gilze/Rijen.

CASUALTIES

24.	No. of aircraft missing.....	18 (3.1%)
	" " " damaged (flak.....6)	
	" " " (fighter.....14)	
	" " " (British incendiaries..10)	37
	" " " (British defences.....1)	
	" " " (other causes.....6)	

2 aircraft were seen shot down by flak on the way out, one at Tholen and one at Herenthals. In each case they fell to isolated bursts from individual batteries. 4 more were lost to the guns of Dusseldorf, and one to heavy flak at Krefeld. 4 losses to fighters were observed along the route, and 5 more over the target. There is no evidence to account for the other 5 losses; it is more likely that they fell to controlled fighters than to those co-operating with the running commentary.

A Halifax of 4 Group and a Halifax of 6 Group crashed on return and were destroyed. Only one man was left alive of the 2 crews. A Lancaster of 5 Group was wrecked on landing after sustaining severe fighter damage.

COLOGNE.

25. 52 Lancasters and 10 Mosquitoes were detailed to carry out a feint attack on Cologne 10 minutes before the start of the main effort (see paragraph 11). 12 of the 20 Y-type Lancasters dropped T.I. blindly on H2S, and all but 5 of the force reported attack; but a very poor concentration was achieved, some of the blind-markers apparently bombing as far as 12 miles S. and S.W. of the aiming-point. 5 aircraft bombed alternative targets at Bonn (2), Eschweiler, Gladbach and Overath. All returned safely, 2 sustaining slight damage from flak. Reconnaissance showed little damage in the town; the 2 platform coverings, nearest the Cathedral, of the main station, received a direct hit, and at one point the tracks were cut.

RHEINHAUSEN

26. 13 OBOE Mosquitoes (8 Mk.I and 5 Mk.II) were despatched to attack the steelworks at Rheinhausen; 3 of each type completed their task. 4 others bombed on D.R. and 2 attacked Dusseldorf and Duisburg, because their precision devices had failed. The thirteenth aircraft returned early with engine trouble. No incidents were reported and no casualties were sustained.

DORTMUND

27. 2 G-H Mosquitoes were detailed for Dortmund; but both attacked on D.R. since their sets were unserviceable. Both returned undamaged.

MINELAYING

28. 22 Stirlings and Lancasters laid 128 mines off the Frisians; a twenty-third sortie was abortive. 2 aircraft were equipped with H2S, the first time this device has been used on a mining operation; but neither employed it over the target area, one because the set was out of order and the other because it was flying at too low an altitude. No incidents were reported, and all aircraft returned safely.

LEAFLETS.

29. 27 Wellingtons and Whitleys, accompanied by 4 U.S. Fortresses, set out to disperse leaflets over various towns in Northern France. All completed their task, except one Wellington which jettisoned its bundles over a useful area, and one Whitley which returned early. 2 aircraft were damaged by flak, and one by non-enemy action; all returned safely.

MLM/PVD.  
BC/S. 26342/1/ORS4.  
6th January, 1944.



DUSSELDORF COLOGNE REINLAJEN DORTMUND Minelaying Leaflets 3/4 NOVEMBER 1943.

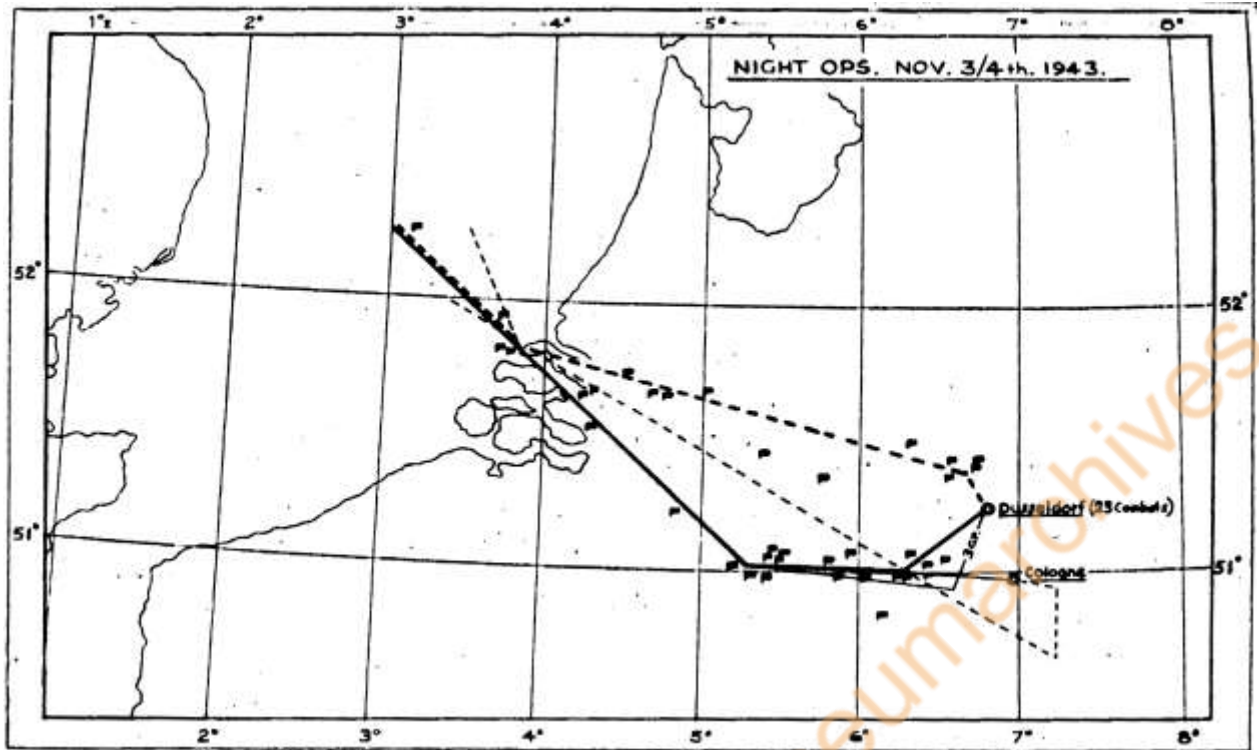
TARGET	GROUP	AIRCRAFT TYPE	SORTIES	A/C REPORTING ATTACK ON		ASBESTIVE SORTIES		MISS-ING	DAMAGE				INTERPRETATIONS		BOMB TONNAGE H.E. Inv.
				PRIM. AREA	ALT. AREA	OVER R.T.	NOT OVER R.T.		FLAK	FIGHTER	MISC. IN FLIGHT	OTHER CAUSES	ATTACK-KD	NOT ATTACK-KD	
DUSSELDORF	P.F.P.	MES. II.	9	4	-	4+1x	-	-	-	-	-	-	-	-	866.9 119.4 13.5 10.4 25.2 38.6
		MES. IV.	3	1	-	2	-	-	-	-	-	-	-	-	
		HAL. In.	4	4	-	-	-	-	-	-	-	-	-	-	
		LANC. III.	19	17	1	-	1	-	-	-	1+1	-	-	-	
	M.F.	HAL. In.	4	4	-	-	-	-	-	-	-	1B	-	-	170 HEAVY BOMBS 4,000 lb. 280 3 9
		LANC. I.	25	22	-	-	2	1	-	-	-	-	4	7	
	1	LANC. III.	115	109	-	-	1	1	4	-	2+2	-	6	7	
		HAL. II & V.	45	38	+2	-	2	3	1	2B	1B+1C +1	-	1	3	
	4	HAL. In.	90	79	4	-	5	2	1	2B+ 1C+2	2C+3	1E	10	4	
		LANC. I.	37	36	-	-	-	1	-	1	-	-	2	2	
5	LANC. III.	180	101	2+1 <sup>0</sup>	-	4	3	1	1B+3C	-	-	6	7		
	HAL. II & V.	55	47	-	-	6	2	2	-	2 AC	-	7	6		
6	HAL. In.	35	32	-	-	3	-	-	-	-	1E	4	7		
	DUSSELDORF TOTAL		551	416 <sup>0</sup> 536	9+1 <sup>0</sup>	7+1 <sup>x</sup>	26	16	5	1E+4B 6C+3	1B+6C +5	2E+1B	36	57	
DUSSELDORF	3	LANC. II.	13	5	7	-	1	-	-	-	-	-	4	P	12.2 23.1
REINLAJEN	6	LANC. II.	25	10	9	-	4	2	-	-	-	2	-	A	32.2 25.6
SPECIAL TARGET														M	3.6 5.4
REINLAJEN TOTAL			38	15	16 <sup>0</sup>	-	5	2	1	-	2	-	2	P	6000 4000 lb. 15. (15.8) 3 12 2 14 - 2
DUSSELDORF & SPECIAL TARGET		TOTAL	589	525	9+1 <sup>0</sup>	7+1 <sup>x</sup>	29	18	6	1E+4B 6C+3	1B+6C +7B.	2E+1B	38	41	

xx These a/c had special equipment w/o: bombed with main force on DUSSELDORF: included in a/c reporting attack on DUSSELDORF. x Reserve a/c NOT required o Also attacked Primary

DUSSELDORF COLOGNE REINLAJEN DORTMUND Minelaying Leaflets 3/4 NOVEMBER 1943 (Cont.)

TARGET	GROUP	AIRCRAFT TYPE	SORTIES	A/C REPORTING ATTACK ON		ASBESTIVE SORTIES		MISS-ING	DAMAGE				INTERPRETATIONS		BOMB TONNAGE H.E. Inv.
				PRIM. AREA	ALT. AREA	OVER R.T.	NOT OVER R.T.		FLAK	FIGHTER	MISC. IN FLIGHT	OTHER CAUSES	ATTACK-KD	NOT ATTACK-KD	
DUSSELDORF & SPECIAL TARGET		TOTAL	589	525	9+1 <sup>0</sup>	7+1x	29	18	6	1E+4B 6C+3	1B+6C +7	2E+1B	38	41	
COLOGNE	P.F.P.	MES. IV.	10	10	-	-	-	-	-	-	-	-	-	-	P 229.2
		LANC. III.	20	18	2	-	-	-	2	-	-	-	-	-	A 26.2
	M.F.	LANC. III.	32	29	3+1 <sup>0</sup>	-	-	-	-	-	-	-	2	-	P 145 x 4,000 lb. A 6 x 4,000 lb.
COLOGNE TOTAL			62	57	5+1 <sup>0</sup>	-	-	-	2	-	-	-	2		
REINLAJEN	P.F.P.	MES. IX.	5	5	-	-	-	-	-	-	-	-	-	-	P 7.5
		MES. IV.	8	5	2	-	1	-	-	-	-	-	-	-	A 1.6
REINLAJEN TOTAL			13	10	2	-	1	-	-	-	-	-	-		
DORTMUND	P.F.P.	MES. IX.	1	1	-	-	-	-	-	-	-	-	-	-	P 1.3
		MES. IV.	1	1	-	-	-	-	-	-	-	-	-	-	
DORTMUND TOTAL			2	2	-	-	-	-	-	-	-	-	-		
DORTMUND TOTAL			666	594	16+2 <sup>0</sup>	8	30	18	8	1E+4B 6C+3	1B+6C +7	2E+1B	38	43	
MINELAYING		STER. III.	18	17	-	-	1	-	-	-	-	-	-	-	98 MINES
FRISLING	3	LANC. II.	5	5	-	-	-	-	-	-	-	-	-	-	30 MINES
MINELAYING TOTAL			23	22	-	-	1	-	-	-	-	-	-	-	128 MINES
N. FRANCE	91	WELL. Y.	13	12	-	-	-	1	-	-	-	-	-	-	92 Gps. to Paris.
	92	WELL. III.	3	3	-	-	-	-	-	-	-	-	-	-	91 & 93 Gps. to Orleans-Blain-Tours-Tourcoing-Roubaix-Douai-Lille-Combrail-Paris-Amiens-arras.
	-	WELL. X.	2	2	-	-	-	-	-	-	1 AC	-	-	-	
	93	WELL. III.	2	2	-	-	-	-	-	-	-	-	-	-	
WELL. X.	7	6	1	-	-	-	2	-	-	-	-	-	-		
LEAPLET TOTAL			27	25	1	-	1	2	-	-	1 AC	-	-		
(U.S.L. B.C. LEAPLET PORTAGES)			4	4	-	-	-	-	-	-	-	-	-		
TOTAL			214	214											

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# FINAL PLOT OF NIGHT PHOTOGRAPHS

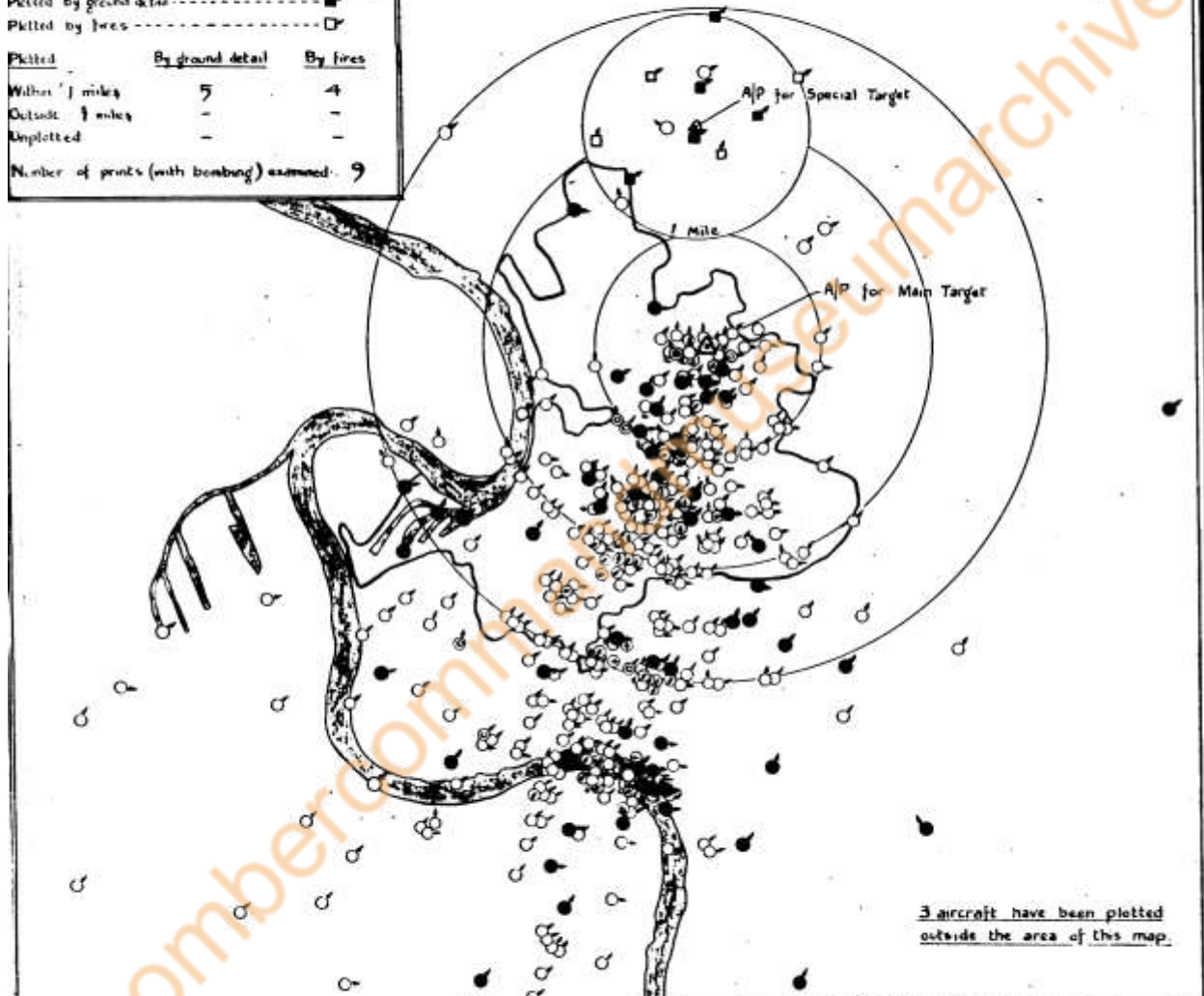
TAKEN 3/4 NOVEMBER 1943 TARGET: DUSSELDORF

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**SECRET**



Special Target	By ground detail	Man Force A/C
Plotted by ground detail	●	●
Plotted by fires	○	○
<b>Plotted</b>		
Within 1/2 miles	5	4
Outside 1/2 miles	-	-
Unplotted	-	-
Number of prints (with bombing) examined - 9		



3 aircraft have been plotted outside the area of this map.

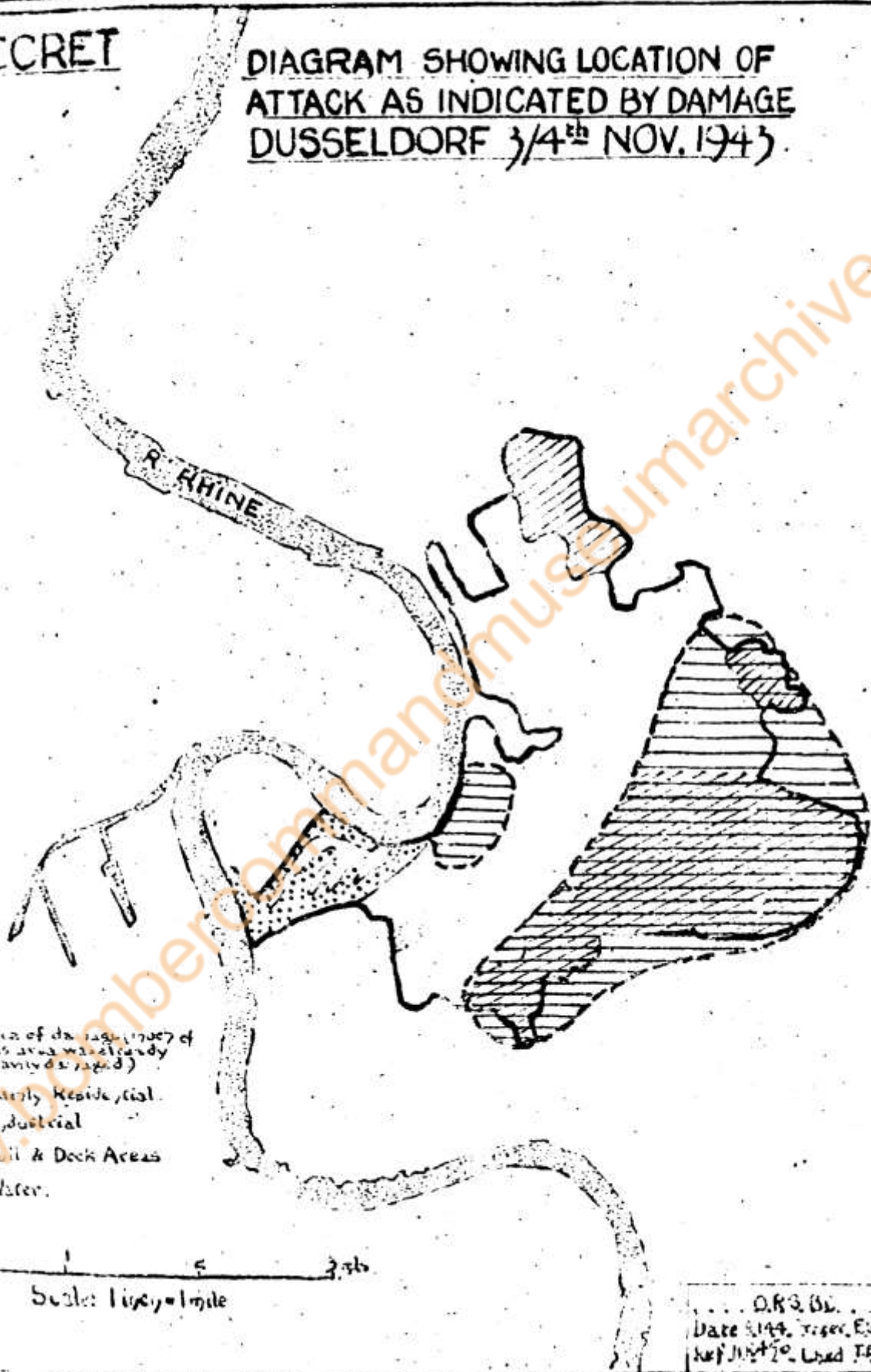
ORS/BL 312 B  
15-12-43 Baker JJ  
Ref - KRISTEN - VC

Scale 1 inch = 1 mile

Photographs taken with Bombing		
	PFF marker aircraft	Man Force aircraft
Plotted by ground detail	⊙	●
Plotted by fires	⊙	○
<b>Plotted</b>		
Within 3 miles	34	210
Outside 3 miles	22	105
Unplotted	4	55
Number of prints (with bombing) examined - 430		

**SECRET**

**DIAGRAM SHOWING LOCATION OF  
ATTACK AS INDICATED BY DAMAGE  
DUSSELDORF 3/4<sup>th</sup> NOV. 1943.**



Area of damage (most of this area was already heavily damaged)  
Mainly Residential  
Industrial  
Rail & Dock Areas  
Water.

Scale: 1 inch = 1 mile

D.R.S. 66.  
Date 3/14/44. Exec. EOB.  
Ref. J. 10470. Used T.E.

BOMBER COMMAND REPORT ON NIGHT OPERATIONS.

1/5th NOVEMBER, 1943.

Leverkusen, Aachen, Minelaying.SUMMARY

1. Leverkusen. 24 Mosquitoes were despatched to attack the chemical works at Leverkusen. 14 were fitted with OBOE (13 Mk.I and 1 Mk.II), the last being a "Fountain Pen" type; 4 carried red T.I. to act as markers. 3 markers and 2 other OBOE aircraft bombed by means of their precision device; one OBOE and 9 non-OBOE aircraft attacked visually. Fires were seen, and one large explosion was observed from 50 miles away; but cloud prevented an accurate assessment, and no reconnaissance was undertaken until after the major raid of 19/20th November. 4 OBOE aircraft resorted to alternative targets on the failure of the precision device; 3 bombed Cologne and one Aachen. All aircraft returned safely.
2. Aachen. 4 Mk.II OBOE Mosquitoes were sent to Aachen; 2 attacked satisfactorily by means of their precision device, and a third ran up according to plan but mistook a fade for the release signal and dropped its bombs 10 miles S. of the city. The fourth released on D.R. after its equipment had failed; 2 of its bombs fell 4 miles N. of the target. All returned undamaged.
3. Minelaying. 36 Stirlings and Wellingtons were detailed on a mining operation off the French Atlantic coast, and in the Kattegat. 28 accomplished their task, laying 66 mines. 2 used H2S to determine their position at the time of release. 4 Stirlings were lost to controlled fighters over Denmark, and 2 others were seriously damaged.

WEATHER FORECAST

4. Bases:- Low cloud should clear all bases during the afternoon and most areas should be fit at dusk, although visibility will remain poor N. of the Wash. Fog will reform there between 2000 and 2100, and in 3 and 8 Groups at 2200-2300; but coastal stations in E. Anglia, the S. coast and S.W. peninsula should keep clear, most of the night. No diversions in Training Groups except in Lossiemouth area.

Germany:- Feeble cold front will extend at midnight from Zuyder Zee to Mannheim to Vienna, giving cloud at medium levels. Most of the country will be covered with 10/10ths strato-cumulus. Visibility will be moderate. 8-10/10ths strato-cumulus over the North Sea, base about 1,500'.

France:- N.E. will be covered with strato-cumulus. Little cloud in N.W., apart from a few patches of lifted fog.

Kattegat:- Strato-cumulus will be based at 1,500'; breaks should be found, and visibility will be very good.

SORTIES

	<u>Leverkusen</u>	<u>Aachen</u>	<u>Minelaying</u>
5. (a) No. of aircraft despatched.....	24	4	36
(b) No. of aircraft reaching primary area...15	15	3	28
(c) No. of aircraft reaching alternative area.....	4	1	0
(d) No. of abortive sorties (tech.defect.5).	5	0	4*
(e) No. of aircraft missing.....	0	0	4

\* 2 of these sorties were abortive because the pilots were unable to pinpoint; 1 was shot up by a fighter on the way out, and 1 jettisoned its mines in the wrong position.

WEATHER EXPERIENCED/.....

WEATHER EXPERIENCED.

6. Bases:- Operational bases (i.e. 1, 3 and 8 Groups) were hit throughout the operational period with 9-10/10ths strato-cumulus at 1,500-2,500'. Visibility was moderate to good in East Anglia, and poor to moderate in the N. Mist and fog developed in the S.W. peninsula before midnight.

Leverkusen and Aachen:- 9-10/10ths strato-cumulus, base 2,000', tops 3,500', along route. 7-8/10ths over targets, breaking at times to 3/10ths. Ground haze. No moon. Visibility good, above cloud.

W. France:- Small amounts of cloud above 2,000'. Good visibility. Half moon.

Kattegat:- 10/10ths strato-cumulus, base 1,500-2000', tops 4-5,000', rising at times to 7,000' between 6<sup>00</sup> and 7<sup>00</sup> P. Light icing at 4,000' at 8<sup>00</sup> P. Half moon.

ENEMY DEFENCES

7. Flak and Searchlights. Moderate to intense heavy flak was met over Leverkusen, bursting at 29-30,000'. A few searchlights co-operated. Slight flak engaged our Mosquitoes over Aachen. Minelayers encountered light flak from Skagen and Laesø Island, and a little heavy flak from a ship in the Skaggorak. The usual ground opposition was met from coastal points on the French Atlantic coast.

8. Fighters. 3 combats were reported over N. Denmark and the Skaggorak, 2 with Ju.88's and the third with an unidentified aircraft. 2 other twin-engine aircraft were seen over N. Denmark. No fighters were observed over Germany or France. 36 sorties by controlled fighters were heard, 20 of which were active against hostiles in areas from N. Denmark to Holland. 4 victory claims were heard, 2 from Skagen and one near Blaavandshuk against homebound bombers, and one from Tyboron against an eastbound aircraft. In the last-named combat, the fighter was also damaged.

CASUALTIES

9. There is little doubt that the 4 missing minelayers, all Stirlings operated over the Kattegat, were shot down in the target area by controlled fighters. There was a half moon and visibility was good; our aircraft, flying in small numbers at heights between 5000' and 10,000', presented favourable targets for successful interception with ground control. 3 aircraft were apparently lost on the way home, one crashing S. of Thisted. The fourth aircraft was reported by Danish radio to have crashed near Grove. 2 other Stirlings were severely damaged by fighters in the same area. One Mosquito and one minelayer (off St. Nazaire) sustained minor damage from flak.

MLM/PVD.  
BC/S.26342/6/ORS4.  
7th January, 1944.

INTERCEPTION

www.royalcanadianairforce.com/marchives.ca

TARGET	GROUP	AIRFIELD GROUP	SQUADS	A/G REPORTING ATTACK ON		AGGRESSIVE SQUADS		TOTALING	DAMAGE					RESULTS TO DATE TONNAGE H. K. Tons.	
				PRIM. AREA	ALT. AREA	OVER E. T.	NOT OVER E. T.		BLK	PIG-TER	MISC. IN FLIGHT	OTHER CLONES	ATLACK-ED		NOY ATLACK-ED
LAWSON	B P.P.F.	MOS. IX.	4	4	-	-	-	-	1	-	-	-	-	-	13.1
		MOS. IV.	20	11	1	2	3	-	-	-	-	-	-	-	3.6
LAWSON TOTAL			24	15	4	2	3	-	1	-	-	-	-	-	
LARGE	B P.P.F.	MOS. IX.	4	3	1+1 <sup>0</sup>	-	-	-	-	-	-	-	-	-	3.6
															1.7
LARGE TOTAL			28	18	5+1 <sup>0</sup>	2	3	-	1	-	-	-	-	-	
Miscellaneous															
BRENT	1	WELL. X.	5	5	-	-	-	-	-	-	-	-	-	-	10 MDRS
LORING	1	WELL. X.	6	6	-	-	-	-	-	-	-	-	-	-	12 MDRS
ST. H. LAURE	1	WELL. X.	5	5	-	-	-	-	1	-	-	-	-	-	10 MDRS
K. TOWN	3	STIR. III.	18	10	-	-	4	4	-	1B+1AC	-	-	3	-	29 MDRS
L. BORD	3	STIR. III.	2	2	-	-	-	-	-	-	-	-	-	-	5 MDRS
MISCELLANEOUS TOTAL			36	28	-	-	4	4	1	1B+1AC	-	-	3	-	66 MDRS
TOTAL			64	46	5+1 <sup>0</sup>	2	7	4	2	1B+1AC	-	-	3	-	

Also attached Primary.

www.bombercommandmuseumarchive.ca

BOMBER COMMAND REPORT ON NIGHT OPERATIONS,  
5/6 NOVEMBER, 1943.

Hannover, Hamburg etc. & Leaflets.

SUMMARY

1. Hannover. 5 Mosquitoes, bombing on P.R., carried out an uneventful harassing raid on Hannover.
2. Hamburg. 6 Mosquitoes were detailed on a harassing attack against Hamburg. 3 completed their task, bombing on D.R.; 2 returned early with GEE failure, and one, being unable to pinpoint the primary, attacked Heligoland. No incidents were reported.
3. Bochum. 10 Mosquitoes, equipped with OBOE Mk.I., were despatched on a precision raid against the Bochum armaments works. 8 attacked according to plan and one on D.R., after its device had failed. The tenth aircraft did not complete its run, and crashed on return. Both the crew were killed. No other casualties were sustained.
4. Dusseldorf. 4 Mosquitoes, equipped with OBOE Mk.II ("Penwiper") were sent to the armaments works at Dusseldorf. 2 attacked successfully on OBOE and the other 2 on D.R., because their equipment was unserviceable. All returned undamaged.
5. Dortmund. One Mk.II ("Fountain Pen") Mosquito carried out a successful raid on the steelworks at Dortmund, a target 265 miles from the further ground station.
6. Leaflets. 26 Wellingtons dispersed leaflets over allotted areas in Northern France; a twenty-seventh aircraft experienced technical trouble and dropped its bundles near Mortagne instead of over Chartres. No casualties were sustained.

WEATHER FORECAST

7. Midnight frontal positions:- (1) warm from 60°N. 04°E - 55°N. 02°W - 50°N 06½°W.

Bases:- A frontal belt will move across the British Isles from the N.W. but until 0200, very little rain is expected E. of a line Spurn - Portland Bill. After that time, cloud cover should prevent fog formation, although visibility troubles may occur in East Anglia. Generally, visibility will be greater than 2,000 yards. Variable amounts of strato-cumulus, patchy in most areas, but 10/10ths in 6 Group.

Germany:- Much strato-cumulus, with breaks. Cloud amounts at any one place are difficult to forecast - probably either 10/10ths or nil.

France:- Much broken strato-cumulus.

SORTIES,

Bombing

Leaflets

8. (a) No. of aircraft despatched.....	26 .....	27
(b) No. of a/o reaching primary area...	23 .....	26
(c) No. of aircraft reaching alternative area.....	1 .....	1
(d) No. of abortive sorties (GEE failure .....	2) 2 .....	0
(e) No. of aircraft missing.....	0 .....	0

WEATHER EXPERIENCED.....



WEATHER EXPERIENCED.

9. Bases (8 Group):- Fit during operational period. Rain spread from the after 0200.

Hannover and Hamburg:- A belt of strato-cumulus covering Kiel Bay and extending in an arc just E. of Hannover and Hamburg moved slowly E. Early aircraft found no cloud, but late arrivals reported that both targets were covered with 10/10ths.

Ruhr:- No cloud during attacks. Hazy.

Good visibility above cloud. No moon.

ENEMY DEFENCES.

10. Moderate flak was encountered from most targets, but none from Hamburg. Searchlights were active at Bochum and Dortmund. No fighter activity was reported, except by 1 Wellington of 92 Group, which had an inconclusive combat with 3 unidentified aircraft in the Cherbourg area.

CASUALTIES.

11. No aircraft was lost on this night. One Mosquito crashed on return, and was wrecked with the loss of both the crew. 2 Wellingtons and one Mosquito received minor hits from flak.

NLM/PVD.

BC/S.26342/6/ORS.

8th January, 1944.

UNIT	GROUP	AIRCRAFT TYPE	SORTIES	A/C REPORTING ATTACK ON		SORTIVE SORTIES		MISS-ING.	DAMAGE				DISCREPANCIES		TONS OF BOMBS (H.E.)
				PRIM. AREA	ALT. AREA	OVER E.T.	NOT OVER E.T.		PLAN	FIGHTER	MISC. IN FLIGHT	OTHER CAUSES	ATTACK-ED	NOT ATTACK-ED.	
LENOX	8 P.F.F.	MDS. IV.	5	5	-	-	-	-	-	-	-	-	-	-	
LEWIS	8 P.F.F.	MDS. IV.	6	3	1	-	2	-	-	-	-	-	-	-	P 2.8 A .7
BOCHUM	8 P.F.F.	MDS. IX. MDS. IV.	9 1	9 1	-	-	-	-	1	-	-	-	-	-	P 11.6
DISCHIDORF	8 P.F.F.	MDS. IX.	4	4	-	-	-	-	-	-	-	-	-	-	P 5.4
BOREHAM	8 P.F.F.	MDS. IX.	1	1	-	-	-	-	-	-	-	-	-	-	P 1.3
BOMBING TOTAL			26	23	1	-	2	-	1	-	-	1E	-	-	
N. FRANCE	91	WELL. IC.	8	8	-	-	-	-	-	-	-	-	-	-	93 Group to Arras, St. Quentin, Cambrai, Abbeville, Bouvains.
	92	WELL. X.	2	2	-	-	-	-	-	-	-	-	-	-	
	93	WELL. IC.	3	3	-	-	-	-	-	-	-	-	-	-	
		WELL. X.	6	6	-	-	-	-	2	-	-	-	-	-	
LEAPLET TOTAL			27	26	1	-	-	-	2	-	-	-	-	1	USAC to Paris, Amiens, Rouen, Caen
AIRC PORTNESS (LEAPLETS)			5	5	-	-	-	-	-	-	-	-	-	-	
TOTAL			53	49	2	-	2	-	3	-	-	1E	-	1	

■ NOT INCLUDED IN TOTAL.

91 Gp. to REIMS, LAVAL, LERONS, ARGENTAN, ANGERS, PONTAINBLEAU, MONTMORILLON, MONTARGIS.  
92 Gp. to ORLANS, CHARTRES, MELUN, MONTARGIS, VERSAILLES.

BOMBER COMMAND REPORT ON NIGHT OPERATIONS,

6/7th NOVEMBER, 1943.

Bochum : Hamborn : Dusseldorf : Duisburg : Minelaying : Leaflets.

SUMMARY

Bochum. 9 Mosquitoes, equipped with OBOE Mk.I and manned by crews being trained in the use of this equipment, were despatched to attack the Vereinigte Stahlwerke at Bochum. 4 bombed according to plan, although one of these made a very poor run. 3 others had OBOE failures, and attacked the primary on D.R.; one bombed Rooklinghausen and one, experiencing engine trouble over Holland, dropped its load on Gronau. All aircraft returned safely.

Hamborn. 2 G-H Mosquitoes were sent on a precision test against the blast furnaces of Vereinigte Stahlwerke at Hamborn. Both had technical failures and bombed on D.R. No incidents were reported.

Dusseldorf. 4 Mosquitoes, not equipped with OBOE, set out on a harassing raid against Dusseldorf. 2 attacked the primary on D.R. The other two experienced GSE failure; one bombed blindly in the Ruhr area, and the other returned early. No casualties were sustained.

Duisburg. 4 Mosquitoes, not equipped with OBOE, completed an uneventful harassing attack on the town of Duisburg, bombing on D.R.

Minelaying. 16 Wellingtons laid 32 mines off the Dutch coast and the French Atlantic Ports without incident.

Leaflets. 8 Wellingtons, accompanied by 2 U.S. Fortresses, dispersed leaflets over towns in Northern France without loss.

WEATHER FORECAST

Midnight frontal positions:- (1) cold from Central Denmark - E. of Brussels E. of Nantes. (2) indefinite frontal system over S. Germany E. of 10°E.

Bases:- Fit all night, apart from local smoke in 5 and Training Groups, and frequent showers near East Coast and in W. Midlands and Wales, where cloud tops may extend above 20,000'.

Germany:- Cloud tops to 20,000' on front 1; which will reach the Ruhr 0100. After that time there will be little cloud in the Ruhr. The Upper Air will be clear early in the night, but cloud will increase later. E. of E., there will be much strato-cumulus, with medium cloud above and rain and few showers S. of 53°N.

France:- W. coast: fair, with small amounts of cloud at 2,000', and absence of local showers in N. Good visibility. Bordeaux area will be affected by the front all night.

Prisians and Dutch coast:- 4-8/10ths cumulus and cumulo-nimbus, base 500-2,000' (falling to 1,000' in showers), tops 12-15,000'. Good visibility. Ceiling level 3-4000'.

STATISTICS

	<u>Bombing</u>	<u>Minelaying</u>	<u>Leaflets</u>
(a) No. of aircraft despatched.....	19	16	8
(b) No. of aircraft reaching primary area.....	15	16	8
(c) No. of aircraft reaching alternative area.....	3		
(d) No. of abortive sorties (tech. defect.....)	1		
(e) No. of aircraft missing.....	0	0	0
(f) No. of mines laid.....		32	

WEATHER EXPERIENCED.

9. Bases:- Fine, with good visibility. Showery over East coast.

Ruhr:- 5-8/10ths over North Sea, tops 15,000', increasing to 10/10ths over Ruhr, tops 25-26,000'. Very good horizontal visibility. No moon. Light ~~ning~~ing over North Sea.

Frisians:- 5-8/10ths convection cloud, base 1,000-1,500', falling below 1,000' in showers. Occasional hail. Very bumpy.

N.W.France:- Variable amounts of cloud, mainly 4-6/10ths., base above 1,000'. Good visibility,

ENEMY DEFENCES.

10. Opposition in the Ruhr was slight, except at Bochum, where flak was fairly intense. Minolayers were fired on from the usual coastal points. The only evidence of any fighter activity was reported by Wellingtons of 92 Group, one of which was engaged in combat by an unidentified aircraft off Dieppe, while another saw a Ju.88 near Cherbourg.

CASUALTIES.

11. No aircraft was lost. One Mosquito received a minor hit from flak over Bochum.

MLL/PVD.

BC/S.26342/6/ORS4.

8th January, 1944.

TARGET	GROUP	AIRCRAFT TYPE	SORTIES	A/C REPORTING ATTACK ON		AGGRESSIVE SORTIES		MISSING	DAMAGE			DESCRIPTIONS		TONS OF BOMBS (H. L.)
				FRONT AREA	ALT. AREA	OVER N. T.	NOT OVER N. T.		PLAN	FIGHTER	MINC. IN FLIGHT	OTHER CLAIMS	APPLIED	
BOCHUM	8 P.F.F.	MES. IX	4	4	-	-	-	-	1	-	-	-	-	7.8
		MES. IV	5	3	2	-	-	-	-	-	-	-	-	1.5
BOCHUM TOTAL			9	7	2	-	-	-	1	-	-	-	-	
HAMBOURG	8 P.F.F.	MES. IX	1	1	-	-	-	-	-	-	-	-	-	
		MES. IV	1	1	-	-	-	-	-	-	-	-	-	2.0
HAMBOURG TOTAL			2	2	-	-	-	-	-	-	-	-	-	
DUSSKLOPP	8 P.F.F.	MES. IV	4	2	1	-	1	-	-	-	-	-	-	1.7
DUISBURG	8 P.F.F.	MES. IV	4	4	-	-	-	-	-	-	-	-	-	5.6
BOMBING TOTAL			19	15	3	-	1	-	1	-	-	-	-	
MINELAYING														
BRIST	1	WELL. X.	4	4	-	-	-	-	-	-	-	-	-	8 MINES
LORIENT	1	WELL. X.	4	4	-	-	-	-	-	-	-	-	-	8 MINES
ST. NAZAIRE	1	WELL. X.	4	4	-	-	-	-	-	-	-	-	-	8 MINES
S. OF TROU	1	WELL. X.	4	4	-	-	-	-	-	-	-	-	-	8 MINES
MINELAYING TOTAL			16	16	-	-	-	-	-	-	-	-	-	32 MINES
LEAPLETS S. FRANCE	92	WELL. X.	8	8	-	-	-	-	-	1	-	-	0	92 Gp. to Special Target Abbeville & Cherbourg.
USABC (PARIS LEAPLETS)		PORTRESS	2	2	-	-	-	-	-	-	-	-	-	
TOTAL			43	39	3	-	1	-	1	-	1	-	2	

\* NOT INCLUDED IN TOTAL.

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BOMBER COMMAND REPORT ON NIGHT OPERATIONS

7/8th NOVEMBER 1943.

Essen: Minelaying: Leaflets.SUMMARY.

1. Essen. 6 Mk. II OBOE Mosquitoes ("Penwiper" type) were despatched on a precision test against Essen; but none were able to use their device, because one of the ground stations failed. 2 were recalled, and the rest attacked on D.R. All returned undamaged.
2. Minelaying. 35 Stirlings and Wellingtons were detailed to lay mines off the French Atlantic ports. 33 reached their targets, laying a total of 72 mines. One aircraft returned early, and one was lost without trace.
3. Leaflets. 7 Wellingtons, accompanied by 2 U.S. Fortresses, dispersed leaflets over allotted areas in Northern France without loss.

WEATHER FORECAST.

1. Midnight frontal positions:- (1) 55°N.08°E - 53°N.10°E - 51°N.15°E - 47°N.45°E - Milan.

Essex:- Mainly fit, with small amounts of low cloud, and varying amounts of medium and high cloud down to 15-20,000'. After 0600, slight rain will fall in S Group and further E., with broken low cloud (not below 1,500') and thick layers of medium cloud (base 3,000', tops 18,000'). Rain will fall continuously after 0800. Visibility will generally be 2-3 miles, deteriorating locally in N. to 1,500-2,000 yards, and locally in S. to 1,000 yards. 10/10ths medium cloud over East Anglia towards dawn.

Germany:- Much thick low and medium cloud will extend to great heights in the frontal zone, with rain. W. of the front, a stream of cold unstable air will be sweeping down from the North Sea into Germany. On the N.W. coast, conditions will be very severe, with 8-10/10ths cumulo-nimbus towering to 20-25,000', freezing level 2-3,000' and heavy showers. Cloud amount will decrease and tops lower towards the S.E. 7-8/10ths., tops 15,000', in Ruhr. 3-4/10ths., tops 10-15,000', in Rhineland. Very good clearances late in night in Munich area. Augsburg: doubtful amounts, probably 5-7/10ths low and medium cloud, but possibly 7-10/10ths at any one time.

France:- Well broken convection and layer cloud over W. coast, with good visibility. Cloud will disperse to small amounts inland.

SORTIES.

		<u>Bombing</u>	<u>Minelaying</u>	<u>Leaflets.</u>
(a)	No. of a/c despatched .....	6	35	7
(b)	No. of a/c reaching primary area .....	4	33	7
(c)	No. of abortive sorties .....	2(recalled)	1(Tech. &cf.)	0
(d)	No. of a/c missing .....	0	0	0
(e)	No. of mines laid .....		72	

...../WEATHER EXPERIENCED



BOMBER COMMAND REPORT ON NIGHT OPERATIONS.

8/9th NOVEMBER, 1943.

Duisburg : Cologne.

MARY

Duisburg. 4 Mk.II OBOE Mosquitoes were despatched on a precision attack against the blast furnaces and steel works at Meiderich; but 3 experienced OBOE crews were diverted to D.R., and the fourth turned back with engine trouble. All returned safely.

Cologne. 3 Mosquitoes, not equipped with precision devices, carried out an uneventful harassing raid on Cologne.

WEATHER FORECAST

Midnight frontal positions:- (1) occlusion from 60 W. 02 E. - 55 N. 02 1/2 E. - Portsmouth - Cherbourg peninsula - Nantes.

Bases:- Generally fit at dusk, with broken cloud at 2,000'; but visibility will be very poor in 3, and 8 Groups and eastern airfields. Clear skies for return from S.E. Germany, but 5 and 8 Groups will need diversions. S. and W. coasts, Scotland and N.E. England will be available.

Continent:- Along the front there will be a belt of rain and cloud, with tops to 20,000' or above over North Sea, but below 20,000' over Channel and France. Ceiling level to 6,000'. Cloud will persist inland as far as 07-08°E., thence clearing. Duisburg:- probably small amounts of cloud, but a layer of stratocumulus, not more than 2,000' thick may remain. Very poor visibility.

STATISTICS

(a) No. of aircraft despatched.....	7
(b) No. of aircraft reporting attack on primary area.....	6
(c) No. of abortive sorties (engine failure.....1).....	1
(d) No. of aircraft missing.....	0

WEATHER EXPERIENCED.

Duisburg:- 9-10/10ths cloud, tops 15-20,000'. Good visibility above.

Cologne:- 5-6/10ths thin cloud, tops 10,000'. Good visibility above.

No moon.

ENEMY DEFENCES.

One Ju.88 was seen at Overflakkee on the homeward journey. Moderate heavy flak was encountered over Cologne.

REMARKS

All our aircraft returned safely. One Mosquito was hit by flak over Duisburg, but received only slight damage.

W/P.D.  
C/S. 26342/3/OPG4.  
10th December, 1943.



(7/24) (REVISED), 1943

AGENT	GROUP	AIRCRAFT TYPE	BOMBS	A/C BOMBING ATTACK ON		ABORTIVE SORTIES		MISC-ING.	FLAK	FIGHTER	MISC. IN FLIGHT	OTHER CAUSES	INTERCEPTS		TONS OF BOMBS. (N.E.)	
				PRIM. AREA	ALT. AREA	OVER E. T.	NOT OVER E. T.						ATTACK-ED	NOT ATTACK-ED		
DUISBURG	8 P.F.P.	IES. IX.	4	3	-	1	-	-	1	-	-	-	-	-	-	P 4.0
COLOGNE	8 P.F.P.	IES. IV.	3	3	-	-	-	-	-	-	-	-	-	-	-	P 2.7
BOMBING TOTAL			7	6	-	1	-	-	1	-	-	-	-	-	-	

BCB/PVL  
(RS)

(7/24) (REVISED), 1943

AGENT	GROUP	AIRCRAFT TYPE	BOMBS	A/C BOMBING ATTACK ON		ABORTIVE SORTIES		MISC-ING.	FLAK	FIGHTER	MISC. IN FLIGHT	OTHER CAUSES	INTERCEPTS		TONS OF BOMBS. (N.E.)	
				PRIM. AREA	ALT. AREA	OVER E. T.	NOT OVER E. T.						ATTACK-ED	NOT ATTACK-ED		
DUISBURG	8 P.F.P.	IES. IX.	4	3	-	1	-	-	1	-	-	-	-	-	-	P 4.0
COLOGNE	8 P.F.P.	IES. IV.	3	3	-	-	-	-	-	-	-	-	-	-	-	P 2.7
BOMBING TOTAL			7	6	-	1	-	-	1	-	-	-	-	-	-	

BCB/PVL  
(RS)

(7/24) (REVISED), 1943

AGENT	GROUP	AIRCRAFT TYPE	BOMBS	A/C BOMBING ATTACK ON		ABORTIVE SORTIES		MISC-ING.	FLAK	FIGHTER	MISC. IN FLIGHT	OTHER CAUSES	INTERCEPTS		TONS OF BOMBS. (N.E.)	
				PRIM. AREA	ALT. AREA	OVER E. T.	NOT OVER E. T.						ATTACK-ED	NOT ATTACK-ED		
DUISBURG	8 P.F.P.	IES. IX.	4	3	-	1	-	-	1	-	-	-	-	-	-	P 4.0
COLOGNE	8 P.F.P.	IES. IV.	3	3	-	-	-	-	-	-	-	-	-	-	-	P 2.7
BOMBING TOTAL			7	6	-	1	-	-	1	-	-	-	-	-	-	

BCB/PVL  
(RS)

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BOMBER COMMAND REPORT ON NIGHT OPERATIONS.

9/10th NOVEMBER, 1943.

Bochum : Duisburg.

SUMMARY

1. Bochum. 9 out of 15 Mk.I OBOE Mosquitoes despatched against the Vereinigte Stahlwerke blast furnaces at Bochum, bombed successfully by means of their precision devices. 3 experienced OBOE failure and attacked the primary on D.R. 2 attacked Cloesfeld and Recklinghausen, and one returned early with engine trouble. No aircraft was lost, but one was so badly damaged by flak that it was wrecked on landing.
2. Duisburg. 3 Mk.II OBOE Mosquitoes were detailed on a precision test against the Vereinigte Stahlwerke rolling mills at Ruhrort. 2 bombed successfully on OBOE, and the third on D.R. for technical reasons. All returned undamaged.

WEATHER FORECAST.

3. Bases:- Weak warm front (midnight position: Catterick - Shoreham) will cause light showers and patchy low cloud below 1,500' throughout the night. Most bases will be fit for take-off, with visibility 2 miles, but conditions will deteriorate after midnight. Visibility will become very bad except in N.E. England and E. Scotland.

Germany:- Occluded front (midnight position: E. of Hamburg - 50°N. 07°E.) will move south-eastwards across Germany, accompanied by much medium and low cloud; main tops, 10-15,000'. On either side of the front, there will be much strato-cumulus, with fog forming where breaks permit. Friedrichshafen probably 7-10/10ths strato-cumulus, 1,500'-2,000' thick, with tops at 5,000'; perhaps also 7/10ths medium cloud to 15-18,000'.

SORTIES

4. (a) No. of aircraft despatched.....18
- (b) No. of aircraft reporting attack on primary area.....15
- (c) No. of aircraft reporting attack on alternative area..... 2
- (d) No. of abortive sorties (engine failure.....1)..... 1
- (e) No. of aircraft missing..... 0

WEATHER EXPERIENCED.

5. Ruhr:- 10/10ths strato-cumulus, tops 8,000'. 2-3/10ths cirrus above. No moon. Good visibility.

ENEMY DEFENCES

6. The most intense and accurate flak opposition was met from the defences of Bochum. Slight fighter activity was overheard from the St. Trond/Charleroi area but no hostiles were seen.

CASUALTIES

7. No aircraft was lost; but 2 were badly damaged by flak over Bochum, one beyond repair.

MLM/PVD.  
EC/S. 26342/3/CRS4,  
15th January, 1944.

SQUADRON	GROUP	AIRCRAFT TYPE	SORTIES	A/C REPORTING ATTACK ON		AGGRESSIVE SORTIES		MISSING	DAMAGE				INTERACTIONS		TONS OF BOMBS (N.B.)
				PRIM. AREA	ALT. AREA	OVER E.T.	NOT OVER E.T.		FLAK	FIGHTER	MISC. IN FLIGHT	OTHER CAUSES	ATTACKED	NOT ATTACKED	
BOCHUM	8 P.F.P.	MES. II.	8	7	1	1	-	-	-	-	-	-	-	-	P. 13.8
		MES. IV.	7	5	1	-	1	-	12+ TAC	-	-	-	-	-	2.2
BOCHUM TOTAL			15	12	2	-	1	-	12+ TAC	-	-	-	-	-	
DUISBURG (REPORT)	8 P.F.P.	MES. II.	3	3	-	-	-	-	-	-	-	-	-	-	P. 4.0
DUISBURG TOTAL			3	3	0	0	0	0	0	0	0	0	0	0	
TOTAL			18	15	2	-	1	-	12+ TAC	-	-	-	-	-	

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BOMBER COMMAND REPORT ON NIGHT OPERATIONS10/11th. NOVEMBER, 1943.MODANE: Dortmund: Minelaying: Leaflets:SUMMARY

1. Modane 313 Lancasters were sent to raid the railway station and marshalling yards at Modane. A most accurate groundmarking attack was delivered in full moonlight, 200 aircraft bombing within 1 mile of the aiming-point. Many hits were scored on the yards, tracks and station buildings, and the railway was still inoperative 27 days after the raid. No losses were sustained, although one aircraft crashed while taking off.
2. Dortmund 2 G-H Mosquitoes were despatched on a precision test against Dortmund. One bombed according to plan, and the other on D.R. because of the failure of its equipment. Both returned safely.
3. Minelaying 7 Stirlings laid 19 mines off the French Atlantic ports. All returned undamaged.
4. Leaflets 20 Wellingtons dispersed leaflets over allotted areas in Northern and Central France, without loss.

WEATHER FORECAST

5. Bases:- A cold front will move across the country from N. Scotland during the night, giving a belt of bad weather 50 miles wide with rain, low cloud and possibly heavy squalls. 6 Group will be affected by 1900, 5 Group by 2100 and 3 Group by dawn. For take-off in the frontal zone, cloud base may be below 1,000'; ahead of the front, strato-cumulus will be based at 1,500'; behind, there will be little cloud and good visibility. Good flying conditions except in frontal zone, where tops should not extend above 15,000', and freezing level should not be below 5-6,000'. For return (from S. France), all bases N. of Thames estuary should be fit, with little cloud and good visibility.

Germany: Variable amounts of strato-cumulus in N., becoming patchy in Rhine valley; but here and in S. Germany, fog will develop extensively. Danzig: fog and low strato-cumulus.

France:- Variable amounts of strato-cumulus, with fog in many places, but not immediately N. of the Alps. Low layer cloud in F., base lifting above 1,000' early in the night. Modane: clear sky. Linger of valley fog.

ROUTEPLAN OF ATTACK

6. Route Selsey Bill - Caubourg  $47^{\circ}35'N.$   $00^{\circ}45'E$  -  $45^{\circ}12'N.$   $05^{\circ}42'E$  - MODANE -  $47^{\circ}35'N.$   $01^{\circ}20'E$  - Caubourg - Selsey Bill.
7. Route-marking Red spot fires were to be dropped at  $45^{\circ}41'N.$   $04^{\circ}45'E.$  by all finder-illuminators, supported by all backscatters.
8. Target-marking 6 moonlight visual markers were to precede the finder-illuminators. If successful in visually identifying the aiming-point, they were to mark it with red T.I.; otherwise they were to use the flares laid by the finder-illuminators. These flares were to be released at 10-second intervals either  
...../on timed runs or after

on timed runs or after visual identification; but if the aiming-point was marked with reds, finders were to retain their flares and drop only bombs, flarelight visual markers were to drop reds visually on the aiming-point, and releasing identification flares; and backers-up were to aim greens at reds centre of all greens already dropped. Supporters were to identify visually, if possible, otherwise to bomb on reds. Main force aircraft were to aim at reds early in the attack, bombing on an exact heading of 090°T; later they were to aim at the centre of greens.

9. Timing      Zero hour: 0100 hours.      Duration of Attack: 0053-0112

Moonlight visual markers.	6 Lancs. at zero - 7
Finder illuminators.	21 Lancs. at zero - 5
Flarelight visual markers.	6 Lancs. at zero - 3
Backers-up.	{ 2 Lancs. at zero - 2 12 Lancs. from zero - 1 to zero + 10 (1 p)
Supporters.	28 Lancs. at zero - 3
Main force.	120 Lancs. from zero to zero + 6 122 Lancs. from zero + 6 to zero + 12.

10. Marker loads

Moonlight visual markers:	8 red T.I. (4 LB)
Finder-illuminators.	624 white flares + one red fire.
Flarelight visual-markers	: 124 white flares + 10 red T.I. (5 LB)
Backers-up	: 4 green T.I. (2 LB) + 1 red fire.

11. Tactics      WEEOW was to be dropped from the enemy coast to 47°00'N. (20 miles 255° Bourges) on the outward journey, and over the same area on the way home, at the rate of one bundle every 2 minutes.

SORTIES

12. (a) No. of aircraft despatched.....	313
(b) " " " reporting attack on primary area.....	300(95)
(c) " " " " " alternative area.....	1(3)
(d) " " abortive sorties (tech. defect or manipulative error.....12) ..	12(3)
(e) " " aircraft missing.....	0

WEATHER EXPERIENCED

13. Bases:- At 2100, a cold front, accompanied by a belt of rain and low cloud, (base 1,500' and locally below) 50 miles wide, affected S. Yorks. The front moved rapidly S.E., troubling 5 Group from 22-2300, and the whole of E. Anglia by 0100, but clearing operational bases by 0300. Ahead of the front, there was broken layer cloud at 3,000', with moderate visibility; behind, low cloud and good visibility.

Route:- 10/10ths. layer cloud to South Coast, thence variable amount (tops 5,000') to 46°10'N; thence clear to target. Visibility moderate to good with extensive fog in Alpine valleys. Similar conditions for return, but frontal cloud was met N. of Paris, with tops at 12,000', gradually rising to 18-19,000' over Channel, and 10/10ths. cirrus above at 25,000'.

Moane:- No cloud. Good visibility. Slight ground haze. Full moon.

Wind at 15-20,000': 030°/30 m.p.h.

...../NIGHT PHOTOGRAPHIC STATISTICS



probably contributed to the ineffectiveness of the fighter defences. No damage was sustained from this cause.

#### CASUALTIES

22.	No. of aircraft missing.....	0
	" " " damaged (flak..... 1 )	
	(fighter..... 0).....	5
	(British incendiaries.. 1)	
	(other causes..... 3)	

No aircraft was lost and only one slight instance of damage from enemy action was reported. One Lancaster crashed while taking-off and was destroyed, another was badly damaged on landing.

#### DORTMUND

23. 2 G-H Mosquitoes carried out a precision test against Dortmund. One was bombed successfully by means of its special equipment; the other experienced technical failure and attacked on D.R. One was hit by flak; but both returned safely.

#### MINELAYING

24. 7 Stirlings completed minelaying sorties off the French Atlantic coast. One encountered a Ju.88 near the Ile de Re, but escaped damage. All returned safely. 19 mines were laid.

#### LEAFLETS

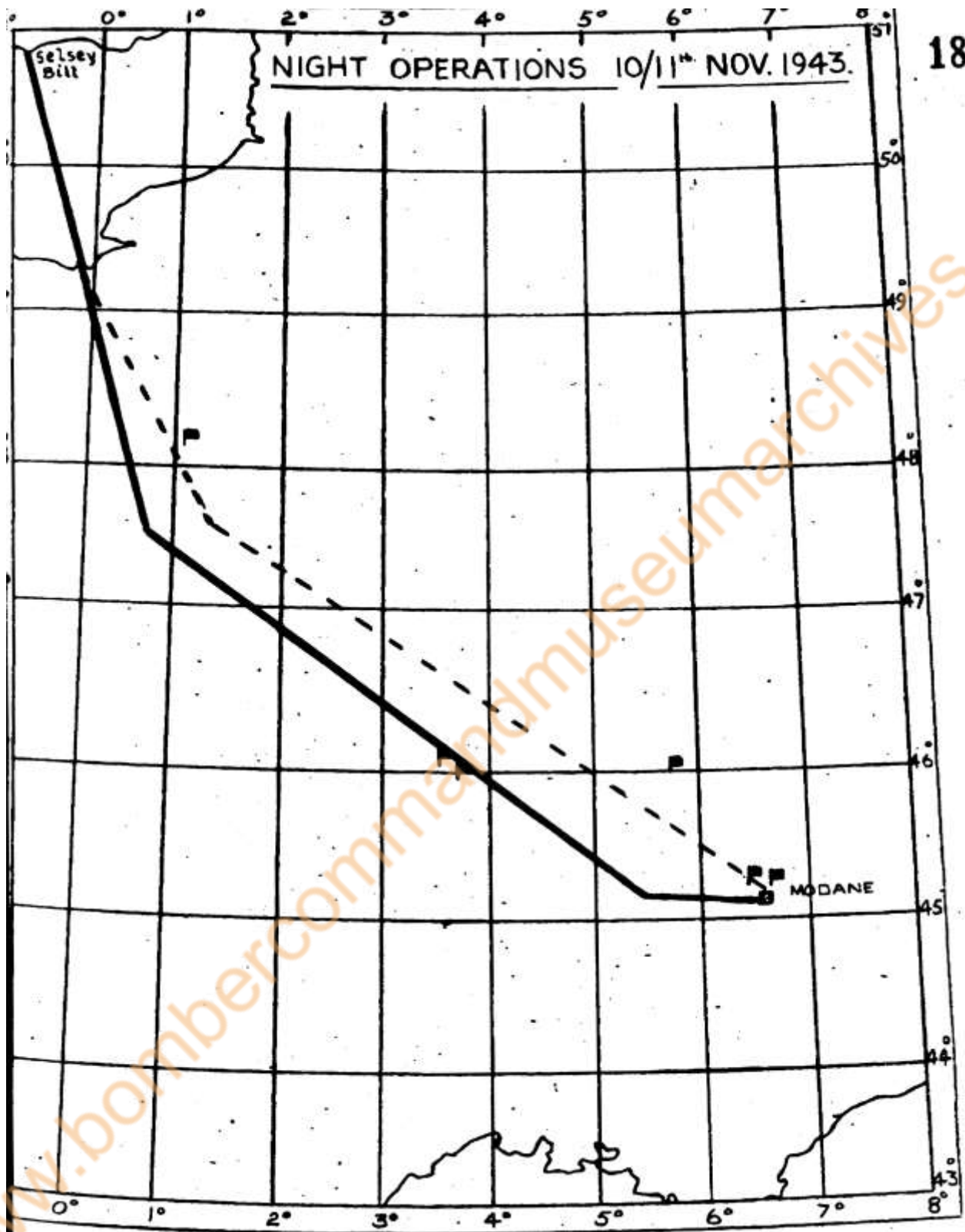
25. 20 Wellingtons, manned by training crews, dispersed leaflets over towns in N. and Central France. One was slightly damaged by flak; no losses were sustained.

MLM/JT.  
BC/S. 26342/1/ORS4,  
24th. December, 1943.

SQUADRON	GROUP	AIRCRAFT TYPE	SORTING	W/C REPORTING ATTACK ON				MISSED	DAMAGE				INTERCEPTIONS		BOOM TONNAGE		
				PRIM. AREA	ALT. AREA	OVER E. T.	NOT OVER E. T.		FLAK	FIGHTER	MISC. IN FLIGHT	OTHER CLASSES	ATTACKED	NOT ATTACKED	H. B.	INC.	
ADD. 2	8 FF.	Lane. III	47	47	-	-	-	-	-	-	100	-	-	-	-	P. 976.7	128.2
		Lane. III	28	27	-	-	1	-	-	-	-	-	-	-	-	1.8	1.6
		Lane. I	12	11	-	-	1	-	-	-	-	-	-	-	-	-	-
		Lane. III	90	86	-	-	2	-	-	-	-	1	-	-	-	-	-
		Lane. I	36	33	1	-	-	-	-	-	-	-	1B	-	-	-	-
		Lane. III	100	96	-	-	4	-	-	-	-	1B	-	6	-	-	
MEDIAN TOTAL			313	300	1	-	12	-	1	-	100+1	1B+1B	-	6	-	-	
DORWARD	B	Lane. IX	1	1	-	-	-	-	-	-	-	-	-	-	-	-	
	M.F.	Naug. IV	1	1	-	-	-	-	1	-	-	-	-	-	-	P. 2.2	
DORWARD TOTAL			2	2	-	-	-	-	1	-	-	-	-	-	-	-	
MINELAYING																	
	3	Star. III	3	3	-	-	-	-	-	-	-	-	-	-	-	9 mines	
	3	Star. III	4	4	-	-	-	-	2	-	-	-	-	1	-	10 mines	
MINELAYING TOTAL			7	7	-	-	-	-	-	-	-	-	-	1	-	19 mines	
LEAFLETS																	
FRANCE	91	Well. III	3	3	-	-	-	-	-	-	-	-	-	-	-	-	
		Well. X	2	2	-	-	-	-	-	-	-	-	-	-	-	-	
		Well. Io	6	6	-	-	-	-	1	-	-	-	-	-	-	-	
		Well. X	9	9	-	-	-	-	-	-	-	-	-	-	-	-	
LEAFLETS TOTAL			20	20	-	-	-	-	1	-	-	-	-	-	-	-	
TOTAL			342	329	1	-	12	-	3	-	100+1	1B+1B	-	7	-	-	

LEAFLETS AT: ORLEANS - CHATEAU - AMBERT - ALBION - DREUX - LE Mans -  
BOUEN - ANGERS - GRANVILLE



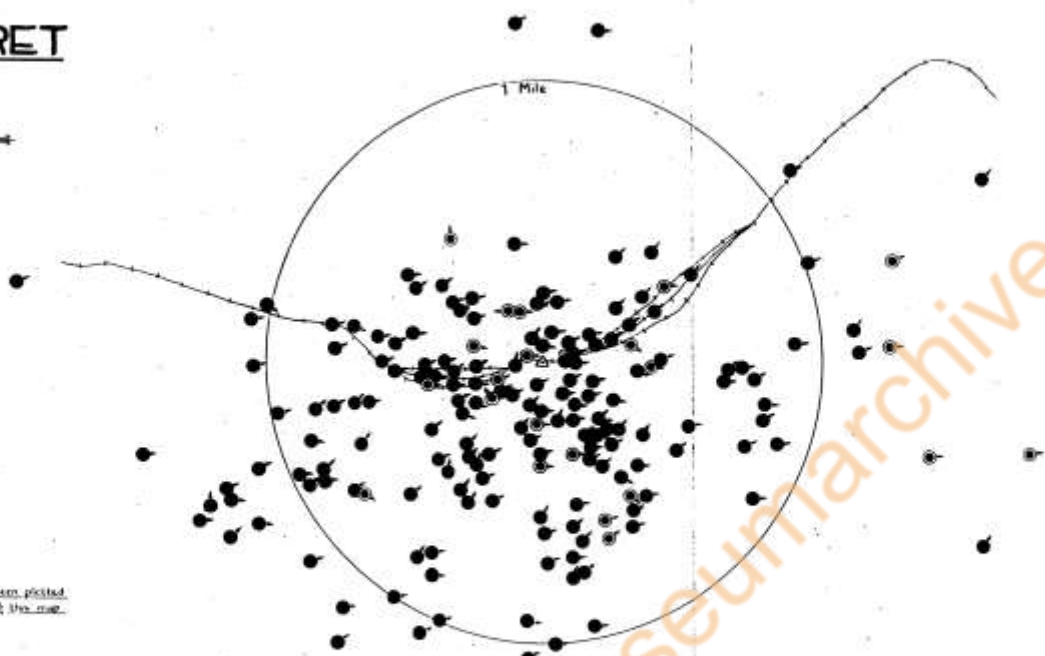


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FINAL PLOT OF NIGHT PHOTOGRAPHS  
 TAKEN 10/11 NOVEMBER 1943. TARGET: MODANE

188

**SECRET**



Aircraft have been plotted outside the area of the map.

Photographs taken with bombing		
Plotted by ground detail	PFF marker aircraft	Map from aerial
Plotted	By ground detail	By PFF
Within 1 mile	154	-
Outside 1 mile	38	-
Unplotted	36	44
Number of prints (with bombing) examined: 874		

Scale: 1:10000 1 Mile

CRS/BC 315B  
 10 12 43 Pwr. JJ  
 201 58.4000 248

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BOMBER COMMAND REPORT ON FLIGHT OPERATIONS

11/12th. NOVEMBER, 1943.

CANNES: Antheor Viaduct: Dusseldorf: Bochum: Berlin: Hannover:

Minelaying: Leaflets

SUMMARY

Cannes 134 Halifaxes and Lancasters were sent to the marshalling yards and railway repair shops at Cannes. A most concentrated and accurate ground-marking attack was delivered by the light of a full moon and from a clear sky. Much useful damage was done within the small target area, although the marshalling yards escaped destruction. 4 aircraft were lost, 2 probably as the result of a collision.

Antheor Viaduct. 10 Lancasters of 617 Squadron left to attack the Antheor Viaduct, on the Franco-Italian border; but 6 mistook a nearby bridge for the primary and damaged it severely, while the main target was not seriously affected. All returned safely.

Dusseldorf; Bochum; Berlin; Hannover: Mosquitoes carried out precision attacks on targets at Dusseldorf and Bochum, and harassing raids against Berlin and Hannover. No aircraft was lost.

Minelaying 39 aircraft, out of a force of 45, laid 111 mines off the coasts of the British and the French Atlantic ports. 2 aircraft were lost.

Leaflets 6 Wellingtons dispersed leaflets uneventfully over N. France.

WEATHER FORECAST

Midnight frontal positions:- (1) warm from 60°N. 35°E. - S. Scotland - S.W. Ireland (2) cold from 55°N. 24°E - Nuremberg - Leningrad, then westwards.

Bases:- Rain and low cloud (below 1,500') will spread from the N.W., affecting northern bases by midnight; further S., cloud will be well broken, with moderate visibility. Light showers in East Anglia from 0400-0500.

Germany:- Convection cloud to nearly 20,000' over North Sea, decreasing inland to small amounts over Central Germany, N. of cold front. In frontal zone, solid cloud should not extend above 15,000', with medium layer cloud above. Friedrichshaven: probably 10/10ths. solid frontal cloud to greater heights by 2200.

France:- Cloud should not extend above 12,000' in frontal zone. Residual convection cloud with moderate visibility to E.: broken medium and little low cloud to S. Probably cloudless on Mediterranean coast, with good visibility; but patches of medium and high cloud may be found. Wind at 20,000'; 350/30m.p.h. increasing to 320°/60-65 m.p.h. on return, this side of 50°E.

CANNES

PLAN OF ATTACK

Route Selsey Bill-49°20'N. 00° - 47°25'N. 01°00'E - 43°13'N. 06°30'E - Cannes - 43°40'N. 07°12'E - 47°35'N. 01°20'E - 49°20'N. 00° - Selsey Bill.

...../8. Round-trip.



low cloud 10,000' (occasionally 15,000'), base of medium cloud 18,000'. These conditions prevailed for 50 miles, when medium cloud dispersed; and low cloud broke to nil 20 miles from Cannes. On return, broken layer cloud with broken medium cloud above was encountered beyond 49°E., increasing to 10/10ths. over bases. and at 20,000': 350/20 m.p.h., swinging to 320° over S.E. France.

Cannes:- No cloud. Good visibility. Full moon.

Wind at 15,000' 010°/5 m.p.h. Surface wind: light northerly.

#### WIGHT PHOTOGRAPHIC STATISTICS

15.	No. of photographs plotted within 1 mile	(by ground detail...74).....	101
		(by fire-tracks.....27)	
"	" " " " " outside " "	(by ground detail...10).....	10
		(by fire-tracks.....0)	
"	" aircraft estimated to have bombed within 1 mile of aiming-point.....		110
"	" " reporting attack.....		127

#### NARRATIVE OF ATTACK

16. 7 of the 8 visual markers identified the target by the light of the full moon, and marked it with red and green T.I. Bombing from 5,000', they achieved an excellent concentration, overlapping the tracks and centred less than 1/2 mile N.W. The back-up bombed accurately on the main, except one whose photograph was plotted 1/2 miles S.E.; this aircraft bombed visually instead of at the T.I. The main force bombed slightly N.W. of the original concentration, leaving the centre of attack about 1/2 mile from the aiming-point.

#### BY RECONNAISSANCE

17. The railway repair works of S.E. des Ateliers de St. Louis received several direct hits, which severely damaged one of the main buildings and destroyed one large adjacent shop. No damage was visible in the marshalling yards, but the wagon repair shop suffered from direct, and serious destruction was caused in the aircraft factory of Soc. Nationale de Constructions Aeronautiques du Sud-Ouest, including a direct hit on the main assembly hall. 30 craters were made in the landing area of the Cannes/Mandelieu L/C, where a hangar was partly demolished, and a small industrial plant immediately N. of the yards was virtually destroyed. Scattered damage was caused to residential and other buildings in this area.

#### UNEXPECTED RESULTS

18. One aircraft dropped its bombs on the docks at Le Havre.

#### SPECIAL EQUIPMENT

19. H2S 10 finder-illuminators were instructed to crop T.I. on H2S, only if the target were obscured by cloud. The sky was clear over Cannes, and only one aircraft used H2S while bombing, to confirm his position. Altogether, 14 Y-aircraft were despatched; 30 of these reported that their sets were in order throughout the trip. 2 Y-aircraft were lost.

#### NEW DEFENCES

20. Flick and Searchlights A little flick was encountered over the target from 2-3 heavy guns and about 4 light guns, with 3 searchlights. Ships lying off the coast fired some light flak. No opposition was reported en route, except at Havre, where aircraft were hotly engaged. No flick damage was sustained.

21. Fighters One Me.109 and one unidentified single-engined aircraft were engaged in combat in the Cannes area; elsewhere, a few fighters were observed ...../in the regions of Caen/Chartres

in the regions of Caen/Chartres and Bourges/Orléans. Intercepted wireless traffic suggested that most of these were C.I.F. controlled; the low WILLOW coverage made our bombers comparatively easy targets for controlled fighters the clear moonlight. One aircraft reported fighter damage.

CASUALTIES

22. No. of aircraft missing..... 4 (3)  
 " " " damaged {flak..... 0}  
 {fighter..... 1}..... 2  
 {other causes..... 1}

2 of the missing bombers were probably intercepted and shot down by controlled fighters on the return journey, at Chartres and Bourges respectively. The other 2 may have collided in the target area; but the observations relating to the accident disagree in certain details, and the exact fate of these aircraft is unknown.

ANTWERP VIADUCT

23. 10 Lincolnsters of 617 Squadron were detailed to carry out a precision attack on the Antwerp Viaduct, which had been unsuccessfully visited on 16/17 September, 1943. The attack was delivered from 6-8,000', using the 12,000lb H.C. bomb and the S.M.C. Mk.IIIa bombsight. Practice results had indicated that at least one hit would be obtained within 100ft. of the viaduct; but only 4 aircraft bombed the primary, the other 6 mistakenly attacking a nearby rail bridge and embankment. Reconnaissance showed the viaduct to be intact, although repairs had apparently been necessitated to the upper surface. The bridge viaduct, which had been mistaken for the primary, suffered considerable damage. No opposition was encountered, except from a flakship lying off the coast, and no casualties were sustained.

DUSSELDORF

24. 12 Mk.I OBOE Mosquitoes were despatched on a precision attack against the steel and armaments works of Rheinmetall-Borsig A.G. at Dusseldorf. 8 made successfully controlled runs, and 2 bombed the primary viaduct because their devices had failed. One attacked a chimney, and one returned early for technical reasons. 4 aircraft were hit by flak, but not seriously; and no casualties were sustained.

BOCHUM

25. 3 Mk.II OBOE Mosquitoes left for the blast furnaces and armaments works of Vereinigte Stahlwerke at Bochum. 2 bombed on GCM and the third on D.R., since it was unable to keep on track. All returned safely; one was hit by flak.

BERLIN

26. 8 Mosquitoes, not equipped with precision devices, carried out an uneventful harassing raid on Berlin. The city was covered with cloud and no results could be seen.

HANNOVER

27. 6 Mosquitoes, not equipped with special equipment, delivered a harassing attack against Hannover, 3 bombing by means of timed runs from GEE fixes, and from visual pinpoints on the Barrier Sec. All returned undamaged.

5.

MISSION

45 aircraft were detailed on a mining operation off the Prisons and the  
each Atlantic ports. 39 reached their targets, laying 111 mines. 2 aircraft  
e lost; one was seen downed by searchlights and shot down by flak at Lorient.  
re is no evidence of how the other came to grief.

RESULTS

6 Wellingtons, manned by pupil crews, dispersed leaflets uneventfully over  
ans and Le Flecho.

/ST.

E. 26342/1/0284, .

E. January, 1944.

www.bombercommandmuseumarchives.ca

11/12th. NOVEMBER, 1943.

TARGET	GROUP	DESCRPT TYPE	SOMES	%C REPORTING ATTACK ON				MIS-DC	D.L.S				INTERCEPTIONS		RESULTS		
				PRBL .RE.	ALL .RE.	OVER E.T.	NOT OVER E.T.		FLY	FIGHTER	INC. IN FLIGHT	OTHER CATCHES	W/LOCK-ED	NOT W/LOCK-ED	Pool Tonnage	H.E. Inc.	
GARDEN	B	Hall II	1	1	-	-	-	-	-	-	-	-	-	-	-	22.8	38.4
	FPF	Hall L.	17	14	-	-	-	-	-	-	-	-	-	-	-	1.8	0.1
		Long III	10	10	-	-	-	-	-	-	-	-	-	-	-	5.7	0.9
	B	Hall II	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
	W.	Hall L.	5	5	-	-	-	-	-	-	-	1.0	-	-	-	-	1.0
	A	Hall II & V	10	17	1	-	-	-	-	1.0	-	-	1	-	-	-	-
			62	59	-	-	1	2	-	-	-	-	-	5	-	-	
			12	12	-	-	-	-	-	-	-	-	-	-	-	-	
			8	9	-	-	-	-	-	-	-	-	-	-	-	-	
GARDEN TOTAL			136	127	1	1	1	4	-	1.0	-	1.0	2	7	-	-	-
ANYBOR VLADIV	5	Long I	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
		Long III	8	8	-	-	-	-	-	-	-	-	-	-	-	-	P. 53.5 (10 x 12,000)
ANYBOR VLADIV TOTAL			10	10	-	-	-	-	-	-	-	-	-	-	-	-	-
DUNSELOP	B	Long L.	6	4	1	1	-	-	-	-	-	-	-	-	-	-	P. 30.3
	FPF	Long IV	6	6	-	-	-	-	-	-	-	-	-	-	-	-	P. 1.5
DUNSELOP TOTAL			12	10	1	1	-	-	-	-	-	-	-	-	-	-	-
NOCHDI	8FPF	Long IX	3	3	-	-	-	-	1	-	-	-	-	-	-	-	P. 4.0
BERLIN	8FPF	Long IV	8	8	-	-	-	-	-	-	-	-	-	-	-	-	P. 7.1
HANOVER	8FPF	Long IV	5	6	-	-	-	-	-	-	-	-	-	-	-	-	P. 5.4
BOMBING TOTAL			173	164	2	2	1	4	5	1.0	-	1.0	2	7	-	-	-

...../over.

CANNES: ANYBOR VLADIV: DUNSELOP: NOCHDI: BERLIN: HANOVER:

11/12th. NOVEMBER, 1943. (CONT.)

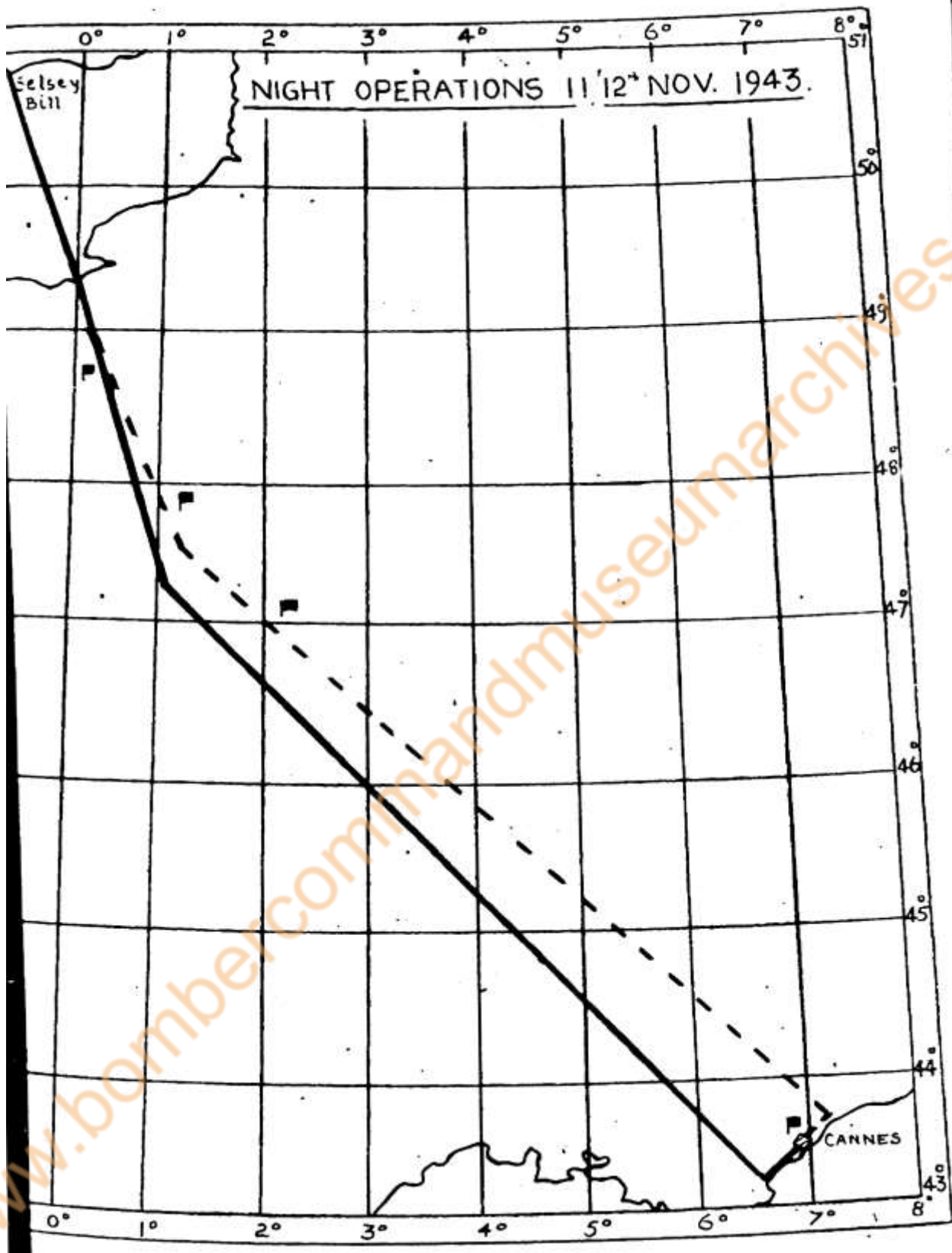
TARGET	GROUP	DESCRPT TYPE	SOMES	%C REPORTING ATTACK ON				MIS-DC	D.L.S				INTERCEPTIONS		RESULTS	
				PRBL .RE.	ALL .RE.	OVER E.T.	NOT OVER E.T.		FLY	FIGHTER	INC. IN FLIGHT	OTHER CATCHES	W/LOCK-ED	NOT W/LOCK-ED		
BOMBING TOTAL			173	164	2	2	1	4	5	1.0	-	1.0	2	7	-	-
MINE VLAZ BRIST	1	Hall II	5	6	-	-	-	-	-	-	-	1.0	-	-	-	12 mins
		Hall L.	2	4	-	-	-	-	-	-	-	-	-	-	-	8 mins
		Hall X	5	5	-	-	-	-	-	-	-	-	-	-	-	10 mins
		Long I	9	8	-	-	-	-	-	-	-	-	-	-	-	24 mins
		Long II	10	9	-	-	-	-	-	-	-	-	-	-	-	36 mins
FRISLIS	4	Hall L.	10	7	-	-	2	1	-	-	-	-	-	-	22 mins	
MINE VLAZ BRIST TOTAL			45	39	-	-	4	2	1	-	-	1.0	-	-	-	111 mins
LONDON	91	Hall III	5	5	-	-	-	-	-	-	-	-	-	-	-	-
		Hall X	1	1	-	-	-	-	-	-	-	-	-	-	-	-
LONDON TOTAL			6	6	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL			224	209	2	2	5	6	9	1.0	-	2.0	2	7	-	-

DCG/ST.  
229. 3.

91 Group to: GLENS: L. V. 2293:

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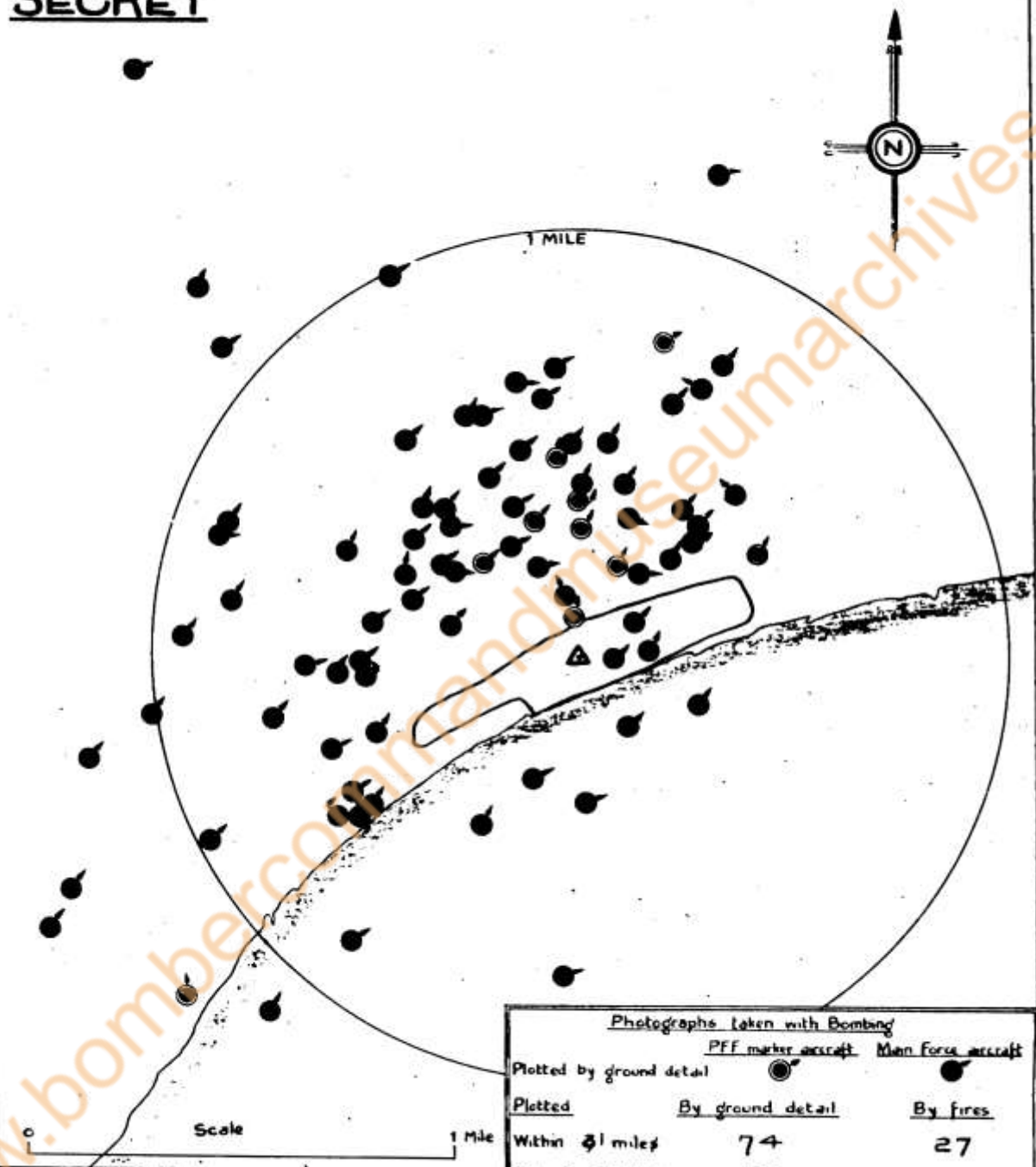


# FINAL PLOT OF NIGHT PHOTOGRAPHS

194

TAKEN 11/12 NOVEMBER 1943. TARGET: CANNES.

**SECRET**



ORS/BC 311B  
 13 12 43 Tracer: fJ  
 Ref. MR415 chd NCC.

Photographs taken with Bombing		
	PFF marker aircraft	Main Force aircraft
Plotted by ground detail	●	●
Plotted	By ground detail	By fires
Within 3/4 miles	74	27
Outside 3/4 miles	10	-
Unplotted	-	-
Number of prints (with bombing) examined: 111		

BOEMER COMMAND REPORT ON NIGHT OPERATIONS.

12/13th NOVEMBER, 1943.

Dusseldorf : Krefeld : Essen.

SUMMARY

Dusseldorf. 2 Mk.II OBOE Mosquitoes, one equipped with "Fountain-pen" and the other with "Penwiper", were despatched against the Rheinmetall Borsig G. at Dusseldorf. The latter aircraft received poor "mouse" signals, and the accuracy of its bombing is doubtful; the former's transmitter was unserviceable, and it bombed on D.R. from a GEE fix. Both returned undamaged.

Krefeld. 3 Mk.II OBOE Mosquitoes (2 "Penwiper" and one "Fountain-pen") were sent to bomb the Deutsche Edelstahlwerke at Krefeld. The "Fountain-pen" aircraft returned early, because the navigator was suffering from "bends"; one "Penwiper" attacked according to plan and the other on D.R., because of cutting signals. All returned undamaged.

Essen. 2 G-H Mosquitoes attacked Krupps works at Essen by means of their special equipment without incident.

WEATHER FORECAST

A centre of low pressure moving south-eastwards from the Shetlands will be centred over S. Denmark tonight. Midnight frontal positions: (1) cold from N.W. Scotland to Linas to Ruhr to centre of low pressure. (2) warm from centre to Stettin to Breslau to Nurnberg, becoming (3) cold to Brest. (4) cold from 48 N. 20 E. to N. Italy.

Bases:- Broken convection and strato-cumulus cloud, with good visibility. Squall showers of hail and sleet near cold front.

Germany:- N. of 50°N., much cloud at all levels and extending to great heights. Cloud to 10,000', with thin layers above, along frontal belt S. of 50 N. Much layer cloud S. of 48°N., with a few breaks in S. Much strato-cumulus in Vienna area.

France:- Similar to conditions in corresponding areas in Germany, because of the fronts covering both countries. Good clearances in S.; base of strato-cumulus: 1,500-2,000'.

North Sea:- Convection cloud to above 20,000', with heavy squally showers of hail or sleet.

SORTIES

6.	(a) No. of aircraft despatched.....	7
	(b) No. of aircraft reporting attack on primary area.....	6
	(c) No. of abortive sorties (navigator sick.....1).....	1
	(d) No. of aircraft missing.....	0

WEATHER EXPERIENCED.

6. Bases (8 Group):- Fit durin operational period.

Ruhr:- 10/10ths to 10,000', with large clear gaps. Excellent visibility. No moon.

/ENEMY DEFENCES.....



BOMBER COMMAND REPORT ON NIGHT OPERATIONS.

13/14th NOVEMBER, 1943.

Berlin : Bochum.

SUMMARY

Berlin. 9 Mosquitoes were despatched on a harassing raid against the German capital. 5 bombed the primary on D.R. from pinpoints or GEE fixes; 2 attacked Bremen and Baden, and 2 returned early. No casualties were sustained.

Bochum. 8 Mosquitoes equipped with OBOE II. I left to attack the Bochum branch of Vereinigte Stahlwerke. 5 bombed by means of their precision devices, and 2 on D.R. because their equipment had failed. The eighth returned early. No casualties were sustained.

WEATHER FORECAST

Unsettled conditions over the whole Continent for 24 hours, with strong upper winds and cloudy conditions.

Bases:- Outbreaks of rain, moderate at times, but never affecting more than half the country. Cloud everywhere above 1,000'. Moderate visibility. 5 Group will have bases available all night, with cloud at 1,500' and good visibility.

Continent:- Much medium and convection cloud to great heights S. of 51°N., with rain. Much heavy convection cloud on W. coasts. Area E. of Bordeaux: 2-10/10ths layer cloud, base 1,500', tops 7-8000'. Visibility moderate to good. Area S. of Brussels:- much thick low and medium cloud.

SORTIES

4.	(a)No. of aircraft despatched.....	17
	(b)No. of aircraft reporting attack on primary area.....	12
	(c)No. of aircraft reporting attack on alternative area.....	2
	(sickness of crew..... 1 - technical defect..... 1)	
	(d)No. of abortive sorties (technical defect..... 3).....	3
	(e)No. of aircraft missing.....	0

WEATHER EXPERIENCED.

Berlin:- 5-6/10ths tops 15,000', occasionally towering to 20,000'. Patches of cirrus at 30,000'. Clear above cloud. No moon.

Bochum. 10/10ths cumulo-nimbus, tops varying between 10,000' and 20,000'. Good visibility. No moon.

KEY REFERENCES.

6. No fighter activity was overheard, although one Ju.88 was sighted W. of Baden. Heavy flak was encountered at Hannover, Stendal, Baden and Bochum, particularly the last named town, where 2 aircraft received minor damage. No guns or searchlights opened up at Berlin.

CASUALTIES

7. All our aircraft returned safely. 2 slight instances of flak damage were reported.

HM/FVD.  
EC/S. 36342/2/ORS4.  
16th JANUARY, 1944.

BERLIN: BOCHUM:

13/14th. NOVEMBER, 1943.

TARGET	GROUP	TYPE	SORTIES	A/C REPORTING ATTACK ON		AGGRESSIVE SORTIES		MISS-ING	DAMAGE				INTERCEPTIONS		TONS OF BOMBS H.E.	
				PRDL AREA	ALT. AREA	OVER E.T.	NOT OVER E.T.		FLAK	FIGHTER	MISC. IN FLIGHT	OTHER CAUSES	ATTACK-ED	NOT ATTACK-ED		
BERLIN	B PFF	Msg. IV	9	5	2	-	2	-	-	-	-	-	-	-	-	P. 4.5 A. 1.7
BOCHUM	B PFF	Msg. IV Msg. IX	1 7	1 6	- -	- 1	- -	- -	- 2	- -	- -	- -	- -	- -	- -	-
BOCHUM TOTAL			8	7	-	1	-	-	2	-	-	-	-	-	-	P. 8.9
BOMBING TOTAL			17	12	2	1	2	-	2	-	-	-	-	-	-	-

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BOMBER COMMAND REPORT ON NIGHT OPERATIONS

15/16th. NOVEMBER, 1944.

Bonn: Dusseldorf:

SUMMARY

1. Bonn 2 G-H Mosquitoes were despatched to attack the city centre at Bonn; but one returned early with engine failure, and one was lost without trace.
2. Dusseldorf 10 OBOE Mosquitoes (4 Mk.I, 4 Mk.II Penwiper and 2 Mk.II Fountain-pen) were detailed on a precision attack against the Rheinmetall Borsig W.G. at Dusseldorf. 2 Mk.I aircraft attacked the primary, one on OBOE and the other, whose signals faded just before the time of release, on D.R. One Mk.I aircraft attacked Duisburg on the failure of its device, and one returned early. None of the Mk.II aircraft bombed according to plan; 3 experienced complete OBOE failure and attacked Dusseldorf, Krefeld and Duisburg respectively on D.R., one failed to hear the release signal and bombed 1½ minutes late, one was hit by flak while running in and had to switch off just before releasing; and the sixth, which is believed to have attacked the primary, was lost without trace.

WEATHER FORECAST

3. Conditions over Europe are slightly improved, but still very unsettled.  
 Bases:- Backing of wind should result in better conditions, with well broken convection cloud at 1,500-2,000', and good visibility. Wintry showers in East Anglia, with cloud base lowering to 1,000-1,500'. Warm front moving S. from N. of Scotland.  
 Germany:- Much heavy medium and convection cloud, general tops 20,000', locally towering to 25,000' or above. A few local breaks.  
 France:- Convection cloud over N. coastal areas and high ground in S., with tops 15-20,000' and a few breaks. Good clearances in centre. Little cloud over S. coast.

SORTIES

L.	(a)	No. of aircraft despatched.....	12
	(b)	" " " reporting attack on primary area.....	4
	(c)	" " " " " alternative area.....	3
	(d)	" " abortive sorties (technical defect.....3).....	3
	(e)	" " aircraft missing.....	2
			(16.75)

WEATHER EXPERIENCED

4. Bases:- Broken cloud above 2,000', with good visibility. Persistent showers over East Anglia coast.  
 Ruhr:- 10/10ths. cloud, tops 10,000'. Good visibility.

ENEMY DEFENCES

5. Intense and accurate heavy flak was fired through a gap in the cloud over Dusseldorf at illuminated targets. 3 aircraft received minor damage.

..../Some activity by

Some activity by controlled fighters was overheard, but only one was directed against our bombers, and none was observed.

### CASUALTIES

6. One G-H Mosquito and one OBOE Mosquito, detailed for Bonn and Dusseldorf respectively, were lost without trace.

MLM/JT.  
BC/S. 26342/2/ORS4,  
16th, January, 1944.

15/16th, JANUARY, 1944.

TARGET	GROUP	AIRCRAFT TYPE	SIGHTS	A/C RECORDED				MISS-ING	EFFECT				DAMAGE DONE		RESULTS TONS OF BOMBS H.W.	
				ATTACK ON		SIGHTS			FLAK	FIGHTER	MISC. IN FLIGHT	OTHER C.JETS	STUCK- ED	NOT RECORDED		
				PRIM. ATT.	SEC. ATT.	OVER E.T.	POT OTHER R.C.									
BONN	817P	Mosq. IX	2	-	-	-	-	1	-	-	-	-	-	-	-	P. - H. 0.7
DUSSELDORF	8 177	Mosq. IX	8	3	3	-	1	1	3	-	-	-	-	-	-	P. 4.9 M. 4.0
		Mosq. IV	2	1	-	1	-	-	-	-	-	-	-	-	-	H. 1.3
DUSSELDORF TOTAL			10	4	3	1	1	1	3	-	-	-	-	-	-	
TOTAL			12	4	3	2	1	2	3	-	-	-	-	-	-	



BOMBER COMMAND REPORT ON NIGHT OPERATIONS

16/17th. NOVEMBER, 1943.

Krefeld: Cologne: Gelsenkirchen: Leaflets:ACTIVITY

Krefeld 9 Mk.I OBOE Mosquitoes were despatched against the steel-forging rolling mills at Krefeld. 5 made satisfactorily controlled runs; 2 experienced partial failure of their equipment, and bombed on D.R. One raided Bern and one returned early. No casualties were sustained.

Cologne 5 Mosquitoes, not equipped with precision devices, carried out ineffectual harassing raid on Cologne; a sixth returned early.

Gelsenkirchen 6 Mosquitoes, not equipped with precision devices, made a harassing raid on Gelsenkirchen. All returned undamaged.

Leaflets 8 Wellingtons, manned by pupil crews, dispersed leaflets plentifully over Northern France.

WEATHER FORECAST

Midnight frontal positions:- (1) occlusion from 60°N. 00° - 55°N. 030W. Aberporth, thence (2) warm to 48½°N. 10°W. 93) warm from Aberporth to 53°N.

Bases:- Generally fine, with increasing medium cloud and broken low cloud. precipitation until after midnight. Wintry showers in coastal areas.

Germany:- A trough will lie at midnight from Hamburg to 50°N. 11°W., bringing a belt of heavy convection and medium cloud to 20,000'. Ruhr: 4-8/10ths. 15,000' or above. Mannheim: better chance of breaks, but risk of 10/10ths. Conditions en route near French coast.

N. France:- Low cloud and rain or sleet over Brest peninsula. Well broken convection cloud further S.

STATISTICS

	<u>Bombing</u>	<u>Leaflets</u>
(a) No. of aircraft despatched.....	21	8
(b) " " " reaching primary area.....	18	8
(c) " " " " alternative area.....	1	0
(d) " " abortive sorties (icing.....1) (GEE failure.....1)	2	0
(e) " " aircraft missing.....	0	0

WEATHER EXPERIENCED

Bases:- Cloudy, base occasionally below 1,000'. Showers in Norfolk.

Ruhr:- 8-10/10ths., tops 15,000'. Contrails from 26-32,000'. Good visibility. No moon.

ENEMY DEFENCES

There was no evidence of controlled fighter activity on this night, and no enemy aircraft were observed. Moderate but accurate flak was encountered from

..../Ruhr targets;

Ruhr targets; searchlights were unable to penetrate the cloud. A Wellington which flew over Rouen was heavily engaged and hit.

C.S.U.L.TIES

9. All aircraft returned safely. One Wellington received minor flak damage.

MEM/JT.  
BC/S. 26342/2/ORS4,  
17th. January, 1944.

16/17th. NOVEMBER, 1943.

TARGET	GROUP	AIRCRAFT TYPE	SOMETHING	A/C REPORTING ATTACK ON				MISS-ING	LOSS				DAMAGE		TONS OF BOMBS	
				PRIM. AIRM.	SECT. AIRM.	OVER R.T.	NOT OVER E.T.		PLX	FIGHTER	MISC. ID. FLIGHT	OTHER CAUSES	ATTACK-ED	NOT ATTACK-ED		
KREFELD	8	Mosq. IX Mosq. IV	7	6	1	-	-	-	-	-	-	-	-	-	-	P. 6.3
			2	1	-	-	1	-	-	-	-	-	-	-	-	-
KREFELD TOTAL			9	7	1	-	1	-	-	-	-	-	-	-	-	
COLOGNE	8PP	Mosq. IV	6	5	-	-	1	-	-	-	-	-	-	-	-	P. 4.5
GEISENKIRCHEN	8PP	Mosq. IV	6	6	-	-	-	-	-	-	-	-	-	-	-	P. 5.4
BOMBING TOLL			21	18	1	-	2	-	-	-	-	-	-	-	-	
LE FLERS N. FL. STS	92	Well. III Well. X	5	5	-	-	-	-	1	-	-	-	-	-	-	
			3	3	-	-	-	-	-	-	-	-	-	-	-	
LE FLERS TOLL			8	8	-	-	-	-	-	-	-	-	-	-	-	
TOTAL			29	26	1	-	2	-	1	-	-	-	-	-	-	

92 GROUP TO:- CRESSIL - LISSEVILLE - DORRE - EDWARDS  
TOURS - ROIS - JONES - L. PIERRE

FORMER COMBINED REPORT OF WEAPONS OPERATIONS

17/18th. NOVEMBER, 1943.

LUDWIGSHAVEN: Bonn: Berlin: Bochum: Hamberg: Le Flats:

SUMMARY

1. Ludwigshaven For the first time, an operation of considerable size was carried out entirely by W-aircraft, 83 Lancasters and Halifaxes delivering an accurate blind-bombing attack against the I.G. Farbenindustrie at Ludwigshaven. More than 20 buildings in the factory were hit. One aircraft was lost.
2. Bonn: Berlin: Bochum: Hamberg: W-aircraft made a diversionary attack on Bonn, dropping T.I. and puzzling the fighter controllers; and others bombed Berlin, Bochum and Hamberg. All returned safely.
3. Leaflets 3 Wellingtons dispersed leaflets over N. France; a fourth returned early. No casualties were sustained.

FORMER FORECAST

Midnight frontal positions: (1) cold occlusion from 54°N. 04E. - Kent - S.W. England (2) warm from 50°N. 17E., eastwards (3) cold from 51°N. 19E., southwards.

Bases:- No difficulties apart from showers in N. and local smoke in Holland. Broken layer and convection cloud; frontal tops in S. should not extend above 10,000'.

Germany:- Convection cloud to 20,000' and above over North Sea, decreasing southwards over W.Germany. Well broken strato-cumulus over Middle Rhine and S. Germany. Much medium cloud, low cloud and snow showers E. of 13°E. Ruhr: 7-10/10ths. Berlin: chance of good breaks. Mannheim: 7-10/10ths. layer cloud, probably strato-cumulus; moderate visibility, deteriorating steadily. Convection tops to 15,000' over Channel; lowering inland.

France:- Broken strato-cumulus in N., variable amounts in centre and little in S.

Denmark:- Slightly broken convection and layer cloud.

UNWEATHER

PLAN OF ATTACK

1. Route:- Beachy Head - 50°48'N. 01°02'E. - 50°04'N. 07°30'E. -  
LUDWIGSHAVEN - 49°23'N. 04°00'E. - 50°10'N. 01°32'E.

2. Method of attack 83 bombers of B Group, all equipped with H2S, were to bomb the target blindly by means of this special equipment. If their sets were unserviceable, they were to bomb visually, or to aim at concentrations of bombs on the ground.

3. Timing 62 Lancs. at 21.15. 1st wave hour (2000 hours)

8. Bomb Loads 21 Hubs: 6 x 1,000 G.D. (LD)  
22 Loads: 5 x 2,000 H.C.  
40 Loads: " or 1 x 4,000 H.C. + 6 x 1,000 H.C.

9. Tactics 4 Mosquitoes were to make a diversionary attack on Bonn at zero - 25, dropping red and green T.I. WEDCV was to be used at the rate 2 bundles per minute from 50°05N. 06°20E. (26 miles/326°/Trier) until the supply was exhausted.

#### SORTIES

10. (a) No. of aircraft despatched..... 83  
(b) " " " reporting attack on primary area..... 74(85)  
(c) " " " " " alternative area..... 4(1)  
(d) " " abortive sorties(technical defect or manipulative error.....4)..... 4(1)  
(e) " " aircraft missing..... 1(1)

#### WEATHER EXPERIENCED

11. Bases:- Much cloud in E., well broken in W. of 8 Group; base 2,000 ft. with a few patches of low stratus and moderate to good visibility. Showers.

Route:- Light icing; in climb through cloud over England. 7-8/10 cumulus at enemy coast, tops 10,000', occasionally 15,000', but lowering to 03°E. to 6-10,000'. Thence, large breaks in cloud, which dispersed to nil 07°E.

Luftwaffen:- Small patches of low cloud only. Hazy. Poor visibility.

Half completed on return route at zero + 60.

#### NIGHT PHOTOGRAPHIC STATISTICS

12. No. of photographs plotted within 3 miles (by ground detail...15)....  
(by fire tracks.....16)  
" " " " " outside " " (by ground detail... 4)....  
'by fire tracks.....0)  
" " " unplotted.....  
" " aircraft estimated to have bombed within 3 miles of aiming-point.....  
" " aircraft reporting attack.....

#### NARRATIVE OF ATTACK

13. 75 of the 83 Y-aircraft composing the total force reached the target but one was unable to release its bombs owing to a failure in its electrical circuit. 43 bombed on H25. Photographic evidence showed that they were very accurate, with probable errors along track (range) of 1½ miles and across track (line) of only ½ mile. 60% of the bombs dropped on H25 are estimated to have fallen in the built-up area of Murbach/Luftwaffen. 34 aircraft reached target with their sets out of order, and bombed on either the centre of the town, E.T.A., or the fires burning in the works of I.G. Farbenindustrie. Nearly half the force reported seeing T.I. although none were dropped by our aircraft.

#### DAY RECONNAISSANCE

14. This attack damaged 20 buildings or other structures of I.G. Farbenindustrie seriously, and caused scattered destruction in the town.

...../ALTERNATIVE TARGETS.

ALTERNATIVE TARGETS

4 aircraft attacked alternative targets, in the areas of Saarlautern, Alsbu, Schifferstadt and Pirmasens.

ANTI DEFENCES

Flak and Searchlights The heavy guns of Mannheim fired a moderate barrage to 16-18,000ft. Many searchlights were active, but haze obscured their beams, and their main use was to provide a background for the fighters. 5 aircraft received minor damage. 3 balloons were seen at 32,000'.

Fighters The running commentator plotted our bombers accurately along the route to the Trier area, but then became greatly confused, and failed to identify the main target until the brief attack had been completed. Haze and low cloud, with a threat of fog, reduced the enemy's effort; 61 sorties were overheard, but no interceptions were reported, although many fighter flares were laid across the approach to the target.

RESULTS

No. of aircraft missing.....	1 (1.2%)
" " " damaged (flak.....)	5
" " " " (fighter.....)	0
" " " " (other causes.....)	0
	5

The missing Lancaster is believed to have been shot down by a fighter in the Mannheim area. No serious damage was sustained by any other aircraft.

BOEN

4 Mosquitoes, not equipped with precision devices, carried out a diversionary attack against Bonn, dropping red and green G.I. on D.R. 25 minutes before the main effort began at Ludwigshafen. All returned undamaged.

BERLIN

7 Mosquitoes, not equipped with precision devices, were detailed on a diversionary attack against Berlin. 4 bombed the capital on D.R., the other 3 returning early for technical reasons. 10/10ths. cloud prevented any observation of results. All returned undamaged.

BOCHUM

2 Mk.II OBOE Mosquitoes, equipped with FOURTEEN-1EG, were detailed to attack the blast furnaces and armaments works at Bochum, but because of unserviceable transmitters neither could make a controlled run. One bombed the primary and the other Essen, on D.R. from GEE fixes. Both returned safely.

HAMBURG

5 Mk.I and 3 Mk.II (PENWATER) OBOE Mosquitoes were sent on a precision raid against the blast furnaces and rolling mills at Hamburg. 4 Mk.I and 1 Mk.II aircraft made satisfactorily controlled runs; the other 3 bombed the primary on D.R., 2 because of complete OBOE failure and the third on account of inadequate signals. All returned safely.

WELLINGTONS

4 Wellingtons were sent to disperse leaflets over N. France. 3 completed their task, the fourth failing through bad navigation. All returned undamaged.

W/JC.  
 W/S. 26342/5/ORS4,  
 14th. January, 1944.

17/18th. NOVEMBER, 1963.

TARGET	GROUP	AIRCRAFT TYPE	SORTIES	A/C REPORTING ATTACK ON		ABORTIVE SORTIES		MISC-ING	LOSS				DIVERGENCE		RESULTS	
				PRIM. ARMA	ALT. ARMA	OVER R. T.	NOT OVER R. T.		PILOT	FIGHTER	MISC. IN FLIGHT	OTHER CAUSES	ATTACKED	NOT ATTACKED	Bomb Tonnage	H. E. Inc
LUDWIGSHAFEN	B	Hail-La Lanc. III	17 66	13 61	2 2	- -	2 1	- 1	1 4	-	-	-	-	-	-	P. 303.1 M. 14.4 M. 4-5 Heavy Bombs P. 5m, 200lb.
LUDWIGSHAFEN TOTAL			83	74	4	1	3	1	5	-	-	-	-	-	-	
BONN	B	Moag-IV	4	4	-	-	-	-	-	-	-	-	-	-	-	P. 12 x 250 T. I.
BERLIN	B	Moag-IV	7	4	-	-	3	-	-	-	-	-	-	-	-	P. 3.6
N. DRESDEN	B	Moag-IX Moag-IV	5 3	5 3	-	-	-	-	- 1	-	-	-	-	-	-	P. 7.1
N. DRESDEN TOTAL			8	8	-	-	-	-	1	-	-	-	-	-	-	
ROCHLITZ	B	Moag-IX	2	1	1	-	-	-	-	-	-	-	-	-	-	P. 0.9 M. 0.7
ROCHLITZ TOTAL			104	91	5	1	6	1	6	-	-	-	-	-	-	
LEIPZIG N. WITTLICHA	B2	Well-X	4	3	-	-	1	-	-	-	-	-	-	-	-	
TOTAL			108	94	5	1	7	1	6	-	-	-	-	-	-	

BCE/JT.  
O. P. S. J.

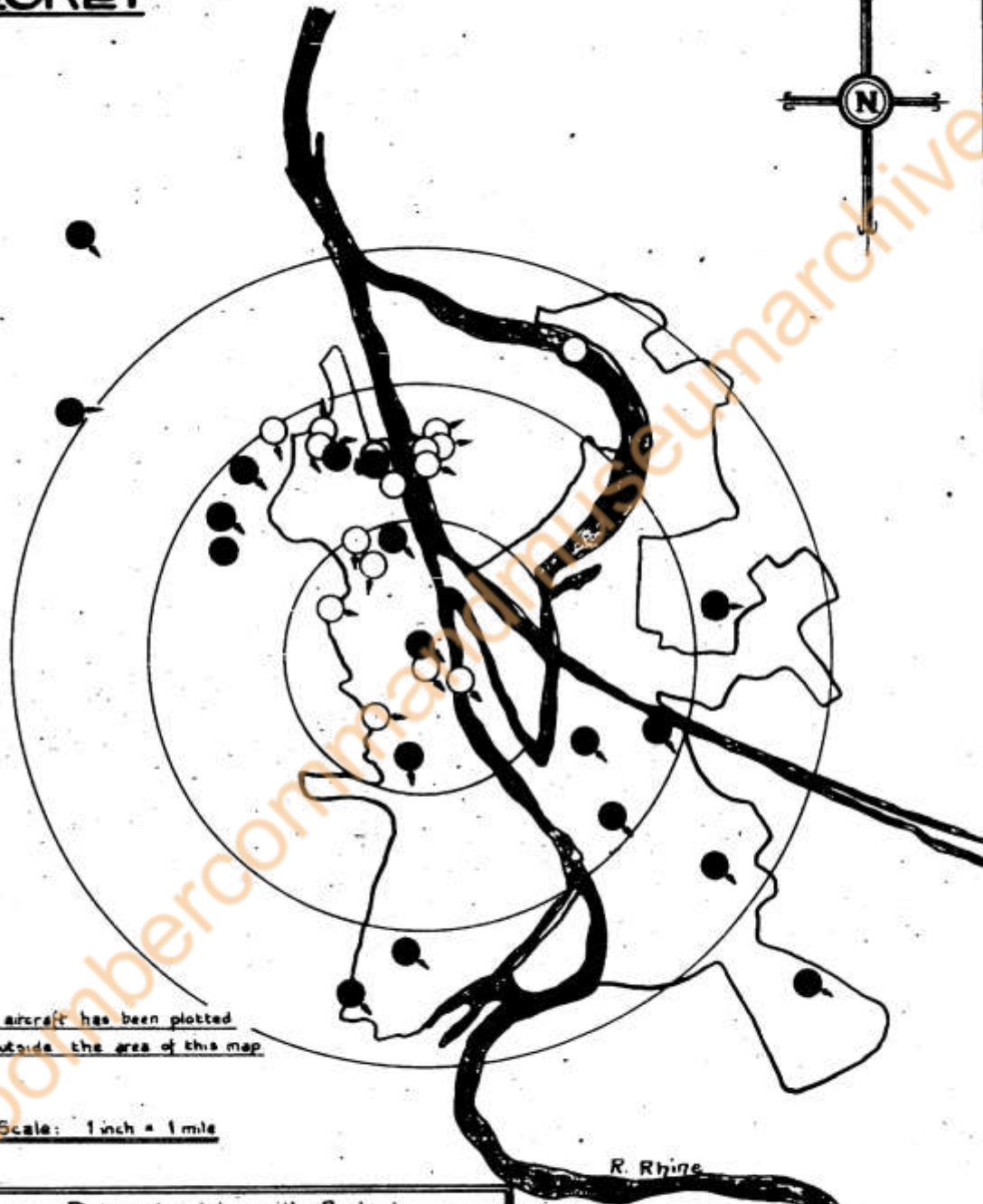
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RAID TRACK NOT AVAILABLE

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# FINAL PLOT OF NIGHT PHOTOGRAPHS TAKEN 17/18<sup>th</sup> NOVEMBER 1943 TARGET: LUDWIGSHAFEN

**SECRET**



1 aircraft has been plotted  
outside the area of this map

Scale: 1 inch = 1 mile

Photographs taken with Bombing		
Main force aircraft plotted by ground detail	●	
Main force aircraft plotted by fires	○	
<u>Plotted</u>	<u>By ground detail</u>	<u>By fires</u>
Within 3 miles	15	16
Outside 3 miles	4	-
Unplotted	9	13
No of prints (with bombing) examined:		57

ORSBC 3198  
Date 3-1-44 Tracer: JJ  
Ref W/R 469 Lt Col A.C.C.

BOMBER COMMAND REPORT ON NIGHT OPERATIONS18/19th. NOVEMBER, 1943.BERLIN: LUDWIGSHAVEN: Essen: Frankfurt: Aachen: Minelaying: Leaflets:SUMMARY

1. Berlin The first of the four great November attacks on Berlin was delivered by a force of 440 Lancasters and 4 Mosquitoes. As on most subsequent occasions during this winter, the German capital was covered with a blanket of 10,000ths. cloud, but the T.I. could be seen cascading to the ground, and much of the effort undoubtedly fell on the city. Fighters were not very active, and there is no evidence that they achieved any successes; only 9 Lancasters (2.0%) were lost.
2. Ludwigshaven: 395 heavies, mostly Halifaxes and Stirlings, dealt a simultaneous blow against Ludwigshaven; their bombing was concentrated, but centred 3 miles from the aiming-point, so that much of it was wasted in open country. However, considerable industrial damage was caused, especially to Daimler-Benz engineering works. More fighters were encountered than on the Berlin route, and 23 aircraft (5.8%) were lost. 3 fighters were destroyed.
3. Essen: Frankfurt: Aachen: Mosquitoes made harassing attacks on Essen (where OBOE aircraft bombed Krupps'), Frankfurt and Aachen without loss. Those detailed for the last-named target also dropped route-markers for the two main bomber streams flying to Berlin and Ludwigshaven.
4. Minelaying 16 Wellingtons laid 30 mines off the Dutch coast and the French Atlantic ports without loss.
5. Leaflets 7 Wellingtons together with a small force of U.S. Fortresses, dispersed leaflets uneventfully over H. France.

WEATHER FORECAST

6. Midnight frontal positions:- (1) warm front 52 N. 07 E - Aberdeen - N.W. Ireland.

Bases:- Variable strato-cumulus inland. Convection cloud, tops below 15,000', near East Coast. Moderate visibility. A few stations in 3, 5, and 8 Groups may be affected by patches of low stratus.

Germany:- Broken convection clouds, tops below 10,000', over E. North Sea. Much strato-cumulus over North Sea coast, decreasing inland to variable amounts between 51 N. and 53 N., and small patches over Middle Rhine. Berlin and Ludwigshaven: both have a very good chance of small amounts of strato-cumulus, but will have thick haze. Winds at 20,000' should nowhere en route exceed 70 m.p.h. and will be less than 50 m.p.h. over Continent; strato-cumulus tops should not extend above 6,000', although isolated cumulo-nimbus tops will reach 15,000' over W. North Sea and Channel.

France:- Variable amounts of strato-cumulus.

...../BERLIN.



PLANPLAN OF ATTACK

7. Route: Haisterbrough - 53°40'N. 03°00'E - 52°40'N. 09°00'E - 52°25'N. 12°35'E - BERLIN - 52°33'N. 13°50'E - 52°12'N. 13°50'E - 51°00'N. 09°30'E - 50°50'N. 07°20'E - Goryeux.

8. Route Marking On the way out, red spot flares were to be dropped 52°39'N. 10°03'E (55 miles - 320° - Brunswick) by blind-markers of 156 Squadron and backers-up of 97 and 106 Squadrons. On the homeward route, the same aircraft were each to drop one yellow T.I. at 51°01'N. 12°01'E (5 miles - 148° - Dessau) on track and red T.I. at 50°35'N. 06°01'E (14 miles - 150° - Lachen), 8 miles starboard of track.

9. Target marking Blind-markers were to drop T.I. red on the aiming-point using H2S., after a carefully timed run from Emsdorf. Special blind-markers were to mark the exact aiming-point with T.I. greens in salvo, by means of their special equipment; but if this was unserviceable, they were to retard their T.I. and bomb on the centre of reds. Packers-up were to aim greens in salvoes of reds and yellows early in the attack, and later at the centre of visible greens, with an overshoot of 3 seconds. If no salvoes of reds and yellows were visible at their appointed time, backers-up were to aim at the centre of reds with a 3 second overshoot. Supporters were to bomb on H2S., or visually at the centre of reds. Main Force aircraft were to aim at the centre of greens on an exact heading of 079°T. Each qualified Y-aircraft was to carry a Wagonai flare.

10. Timing Zero hour: 2100 Duration of attack: 2056-2112

Blind markers	27 Lancs. at zero - 4
Packers-up	13 Lancs. from zero - 2 to zero + 10 (1 per minute)
Supporters	24 Lancs. at zero - 4
Main Force	122 Lancs. from zero to zero + 4
	124 Lancs. from zero + 4 to zero + 8
	117 Lancs. from zero + 8 to zero + 12
Illuminators	3 Mosq. at zero - 2
(see para. 12b)	3 Mosq. at zero + 2.

13. Marker Loads

Blind-markers	13 a/c: 4 T.I. red (2 LB)
	12 a/c: 4 T.I. red (2 LB) + 1 T.I. yellow (1B) + 1 red spot
Special "	2 a/c: 6 T.I. red (3LB) + 6 T.I. yellow (3LB)
Backers-up	4 a/c: 4 T.I. green (2LB)
	9 a/c: 4 T.I. green (2LB) + 1 T.I. yellow (1B) + 1 red spot
Illuminators	6 a/c: 4 x 3 flares white drip.

12. Tactics (a) WILLOW was to be dropped at the rate of one bundle every minute on the way out to a point 20 miles from the target, one bundle every half-minute within 20 miles of the target in both directions, and one bundle every minute on the way home.

(b) 6 Mosquitoes of 159 Squadron were to proceed to the centre of the target, turn on to a track of 360°T., fly for 3 minutes on this track, and to release spoof white drip flares at 10-second intervals.

(c) 6 Mosquitoes of 105 and 109 Squadrons were to drop red T.I. at 50°35'N. 06°00'E., 8 miles off track, and then to bomb Lachen.

...../302112.

RESULTS

(a)	No. of aircraft dispatched.....	444
(b)	" " " reporting attack on primary area.....	391 (88.1%)
(c)	" " " " " alternative area.....	18 (4.0%)
(d)	" " abortive sorties (tech. defect or navigational error.....23).....	26 (5.9%)
	(sickness of crew..... 3)	
(e)	" " aircraft missing.....	9 (2.0%)

WEATHER EXPERIENCED

Bases:- Mainly fog during operational period. Widespread fog and mist affected the Midlands area and localities in East Anglia and Lincoln during the night. Showers over coastal districts of East Anglia, Lincoln and Yorkshire. Small patches of thin stratus below 1,000' after midnight in E.

Route:- Little cloud over England, increasing rapidly to 9-10/10ths., tops 10-12,000' (locally 15,000') over North Sea. Over the Continent, mainly 10/10ths., tops 10-12,000', with local breaks to 4-6/10ths. Visibility moderate above cloud, very poor below.

Berlin:- 10/10ths. cloud, tops 10-12,000', probably with another layer below, tops 5,000'. Poor visibility. No moon.

Wind at target:- 8,000': 090°/10 m.p.h.  
 18,000': 130°/10 m.p.h.  
 28,000': 030°/15 m.p.h.

PHOTOGRAPHIC STATISTICS

No useful photographs of the target area were returned on this night. One showed 10/10ths. cloud. One aircraft which claimed to have bombed a searchlight concentration S. of Stendal was plotted on the Hermann Goering works at Hallendorf, 75 miles S.W. of the former town.

RELATIVE OF ATTACK

No night photographs were obtained and reconnaissance attempts were unsuccessful, so that few details can be given of the course of the attack. 18 of the 26 blind-barkers found their special equipment unserviceable when they reached the target, or were unable to make the timed run, and dropped H.E. only. Aircraft released red T.I., 2 accompanying them with sky-markers. 8 of the back-up dropped greens, 5 riding at reds, 1 on greens and 2 on clusters of red and greens. One accidentally released a yellow neutemarker with his bombs at zero + 6. Roughly two-thirds of the main force aimed at greens and one-quarter at reds. 10 aircraft bombed sky-markers. The attack appears to have been scattered, because of the difficulty of estimating the centre of T.I. concentrations obscured by the cloud.

RECONNAISSANCE

Various attempts were made to photograph the damage caused in Berlin in intervals between the 4 attacks delivered in the last fortnight of November, but for a long period the capital was covered with a blanket of cloud. Successful photographs were not obtained until after the attack of 16/17th. December, when extremely serious and widespread devastation was revealed, resulting from 4 air raids in November and 2 in the first half of December, as well as various passing attacks by Mesquites. It is impossible to specify how much damage was caused by any particular operation during this period; full details will be incorporated in Night Raid Report No. 439.

BLIND EQUIPMENT

H2S. The serviceability of H2S was very low and of the 26 blind-barkers dispatched, only 5 reached the target with their sets in order. One of these

..... was unable to check its

was unable to check its position on I.C. from Brandenburg, and held its T.I., so that only 4 salvoes of reds were released. One special blind-marker equipped with H2S Mk.III set out to mark the exact aiming-point with yellow and reds in salvo, but found its device unserviceable over Holland and attacked Texel. 98 main force aircraft carried H2S for navigational purposes; 45 found their equipment working over the target. 3 H-aircraft were lost.

#### ALTERNATIVE TARGETS

19. 18 aircraft attacked alternative targets, in the areas of: Texel (7), Groningen (2), Nienburg, Celle, Hannover, Dessau, Preinwalde, Vlieland, Kassel, Stendel, and Salingen.

#### ENEMY DEFENCES

20. Flak and Searchlights Aircraft encountered predictor-control "unseen" heavy flak on the run in from Brandenburg to the target, very accurate for height but poor for line. The heavy guns of Berlin fired a moderate barrage over the city itself, bursting at 15-23,000'; light flak was spasmodic, self-destroying at 18,000'. Numerous searchlights illuminated the cloud-base, without penetrating it. The most notable opposition en route came from Bremen, Dessau and Hannover. As many as 90 returning aircraft were damaged by flak, although no serious instances were reported.

21. Fighters The enemy fighter reaction was surprisingly small; only 2 attacks and 14 approaches and followings were reported. All but 2 of the interceptions occurred over the target, or immediately after our bombers had left it. Many fighters were ordered to limit before the attack began, because of fuel and some twin-engined units had been moved from this area to Norway during the day in connection with the American attack on Oslo. The simultaneous raid on Ludwigshaven certainly helped to puzzle the controllers, who may have reacted cautiously after their violent efforts during the previous night to break up what turned out to be a minor attack on Ludwigshaven. The running commentators identified both main targets well before the attack commenced, and split their fighters into two forces. Berlin was named at 20:50 minutes, after Leipzig and Hannover had been mentioned as possible. No fighter damage was reported.

22. Rocket projectiles Rocket projectiles were observed at heights between 12,000' and 30,000' over Berlin, and over Texel and Zoulogne en route.

#### CASUALTIES

23.	No. of aircraft missing.....	9 (2.0%)
	" " " damaged {flak..... 90	}.....102
	{fighter..... 0	
	{other causes..... 12	

Only 3 losses were observed by our crews, all to flak over Berlin. There is no evidence that fighters achieved any success. The loss rate of 2.0% is exceptionally low for Berlin. The rate of flak damage, however (20.3% of sort despatched) is extraordinarily high, especially since no great intensity was reported by our crews over the target; but consistent opposition was experienced over the whole of the run in from Brandenburg.

One Lancaster was abandoned by its crew over the South Coast because of fuel shortage, and crashed near H-rsham. None of the crew was killed.

#### LUDWIGSHAVEN

##### PLAN OF ATTACK

24. Route Beachy Head - 0300' - 49°48'N. 00°25'E - LUDWIGSHAVEN - 49°12'08"08'E - 48°50'N. 05°00'E - 50°00'N. 01°15'E - Beachy Head.

25. Route-marking Blind-markers of 7 Squadron and back-up of 7 and 4 Squadrons were to drop yellow T.I. at 49°48'N. 00°25'E (22 miles/3530/Mannheim

...../on the way out, and

in the way out, and red spot fires at 49°05'N. 07°00'E (10 miles/175°/Saarbrücken) on the return route.

26. Target marking Blind-markers, using H2S, were to drop yellow T.I. on the aiming-point, each at the same time releasing a string of flares: the first bundle 20 seconds before the T.I., and the rest at 10-second intervals. Visual markers, guided by the yellows, were to mark the exact aiming-point with reds, provided that they were certain of their position; they might also drop white flares if necessary. If unable to identify visually, they were to retain their reds and aim greens at the centre of all visible yellows, with a 1 second overshoot. Backers-up were to aim greens at reds early in the attack; later, at the centre of greens with a 1 second overshoot. (If no reds were visible in the early stages, they were to aim at the centre of yellows with a 1 second overshoot). Supporters were to bomb on H2S if possible; otherwise at the centre of yellows or at visually identified ground detail. All qualified Y-crews were to carry Wanganui flares. Main force aircraft were to bomb reds or the centre of greens.

27. Timing      Zero hour: 2030      Duration of attack: 2024-2042

Blind-markers. 8 Hal. and 10 Lane. at zero - 5  
 Visual markers. 4 Hal. and 2 Lane. at zero - 4  
 Backers-up. 4 Hal. and 11 Lane. from zero - 1 to zero + 10  
                   (4 at zero - 1, zero. (2 per min.)  
                   (4 at zero +1, +2, +3, +4, (1 per min)  
                   (2 at zero + 5  
                   (5 at zero +6, +7, +8, +9, +10 (1 per min.)  
 Supporters. 5 Hal. at zero - 6  
                   (+ 20 Hal. of 4 Group)  
 Main Force 126 Stir. from zero to zero + 1.  
                   105 Hal.) from zero + 4 to zero + 8  
                   7 Lane)  
                   105 Hal.) from zero + 6 to zero + 12  
                   6 Lane)

28. Marker Loads

Blind markers. 600 white flares + 2 yellow T.I. (4LB)  
 Visual markers. 100 white flares + 10 red T.I. (5LB) + 1 green T.I.  
 Backers-up. 4 green T.I. (2LB)

29. Tactics (a) WINDOW was to be dropped at the rate of one bundle every 2 minutes to a point 20 miles from the target; one bundle every half-minute within 20 miles of the target in both directions; and one bundle every minute for the rest of the homeward route.

(b) 6 Mosquitoes of 139 Squadron were to carry out a diversionary raid on Frankfurt, dropping red T.I. and H.E. One aircraft was to attack every minute from zero - 10 to zero - 5. WINDOW was to be dropped at the rate of 4 bundles per minute from 49°48'N. 08°25'E (22 miles/353°/Kannheim) until the supply was exhausted.

STATISTICS

30. (a) No. of aircraft despatched..... 395  
 (b) " " " reporting attack on primary area..... 303 (76.7%)  
 (c) " " " " " alternative area..... 30 (7.6%)  
 (d) " " abortive sorties (tech. defect or manipulative error.. 32)  
                   • (crew failure..... 5) 39 (9.9%)  
                   (late..... 1)  
                   (flak..... 1)  
 (e) " " aircraft missing..... 23 (5.8%)

...../ALL OTHER EXPERIENCED



ALTERNATIVE TARGETS

36. 30 aircraft attacked alternative targets, in the areas of: Frankfurt (6), Darmstadt (5), Mainz (4), Furtth (3), Wiesbaden, Amorbach, Aschaffenburg, Saarbrücken, Bad Kreuznach, Obernburg, Landau, Abbeville, Amiens, Etaples, Chimay, and one unidentified town.

SPECIAL EQUIPMENT

37. H2S 18 blind-markers were despatched; 9 reached the target with their sets in order, 6 releasing flares and T.I., 2 flares only and one T.I. only. 5 aircraft reported their sets to be wholly unserviceable, and 2 that their's were partly so; 14 Y-aircraft were included in the 4 Group wave of supporters; 8 reached Mannheim with their sets working, but only one used it for bombing. 16 main force aircraft carried H2S for navigational purposes, but only 16 were able to use it throughout the trip. 4 Y-aircraft were lost.

ENEMY DEFENCES

38. Flak and Searchlights As usual, a continuous belt of searchlights was in action from Frankfurt to Mannheim. Heavy flak was fired in barrage form, with a ceiling of 17,000', decreasing as the attack progressed. 32 aircraft were hit.

39. Fighters Fighters reacted more vigorously to this attack than to the main effort. 36 interceptions were reported, compared with 16 on the Berlin operation. A number of combats occurred between Coblenz and Trier on the way out, as well as over the target and the early part of the return route. All types of fighters were observed. 6 aircraft reported fighter damage. 3 enemy aircraft were destroyed; a Stirling claimed a Fw.190 over Mainz, and 2 Halifaxes each shot down a Ju.88, near Mannheim and Bingen respectively.

CASUALTIES

40.	No. of aircraft missing.....	23 (5.8%)
	" " " damaged (flak.....)	32
	(fighter.....)	6)
	(British incendiaries.....)	5)
	(other causes.....)	2)

Fighters were responsible for most of the losses; 3 bombers were seen to go down in combat over the target, 6 on the way out and one on the way home. 3 were destroyed by the target guns, and 2 were at Châlons-sur-Marne and N.W. of Trier. Reports suggest that 2 bombers may have collided over Mannheim. The other 6 losses cannot be identified. One Stirling swung while taking-off, crashed and was burnt out.

ESSEN

41. 10 Mk.I OBOE Mosquitoes were detailed on a precision attack against Krupp's at Essen. 2 aircraft bombed according to plan, and a third attacked on OBOE but was  $\frac{1}{2}$  mile off track at the time of release. 5 experienced OBOE failure, and attacked the primary on D.P., as did one more which arrived 17 minutes early and found itself short of fuel. The tenth aircraft abandoned its bombing run because its bomb doors were frozen. All returned safely; one received minor flak damage.

FRANKFURT

42. 6 Mosquitoes, not equipped with precision devices, were despatched on a harassing raid against Frankfurt. 4 bombed the primary and 2 returned early. No casualties were sustained.

...../LACHEN.

OPERATIONS

43. 6 Mk.I OBOE Mosquitoes set out to attack Lachen and then each to drop 2 red T.I. at 50°35'N. 06°01'E (14 miles S. of Lachen) as routemarkers for forces flying to Berlin and Mannheim. 4 Mosquitoes completed both tasks; other 2 had OBOE failures and retained their T.I., after dropping their bombs on D.R. in the Lachen area. No aircraft was lost, but one overshot while landing and was badly damaged.

MINELAYING

44. 16 Wellingtons laid 16 mines uneventfully off the Dutch coast and the French Atlantic ports.

LEISURES

45. 7 Wellingtons dispersed leaflets without incident over N. France. 6 U.S. Fortresses accompanied them, 5 completed their task, and the sixth returned early. No losses were sustained.

MLM/JT.  
BC/S. 2632/5/OFS4,  
17th. January, 1944.

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BERLIN: LUDWIGSHAFEN: BOMBING: PARTIAL: (CONT): Miscellaneous: Leaflets:  
18/19th. NOVEMBER, 1943.

TARGET	GROUP	AIRCRAFT TYPE	COURTES	L/C REPORTING TRACK ON		AGGRESSIVE SORTIES		MISS- ING	DAMAGE				INTERDICTION		RESULTS		
				PND. ARE.	INT. ARE.	OVER E.T.	NOT OVER E.T.		PLN.	FIGHTER	MISC. IN FLIGHT	OTHER CLUSTERS	ST. CR- ED	NOT AT- TACK- ED	Tons of Bombs	H.K.	Inj.
BERLIN	B	Hseq. IV	4	4	-	-	-	-	-	-	-	-	-	-	-	2,732.8	774.7
	FPF	Lanc. III	37	32	1	-	2	2	1.0+10	-	-	-	-	-	-	26.7	19.4
	B.L.V.	Lanc. III	27	25	-	-	-	-	3.0+5	-	2.0	-	-	-	-	16.4	17.2
	1	Lanc. I	31	29	-	-	1	-	1.0+2	-	-	-	-	-	-	-	-
	1	Lanc. III	122	101	7	-	11	-	5.0+17	-	2.0+1	1X	2	1	-	Heavy Bombs	-
	5	Lanc. VI	12	10	1	-	-	-	1	-	-	-	-	-	-	4000	4000
5	Lanc. I	53	43	1	1	3	-	1.0+7	-	1.0	1B	-	2	1	3,376	-	
	Lanc. III	129	119	4	-	3	3	1.0+29	-	1.0+1	1B	-	4	4	14	-	
6	Lanc. II	29	23	2	-	1	-	6	-	1.0	-	-	1	1	11	9	
BERLIN TOTAL			444	391	16	3	23	2	13.0+77	-	7.0+2	12+2B	2	15	-	-	-
LUDWIGSHAFEN	0	Hal. II	1	1	-	-	-	-	-	-	-	-	-	-	-	Tons of Bombs	-
	FPF	Hal. L.	15	12	3	-	-	-	-	-	1	-	-	2	-	H.K.	Inj.
		Lanc. III	23	19	3	-	-	-	1	-	-	-	-	-	-	2,75.8	476.6
	0	Hal. II	1	-	-	-	-	-	-	-	-	-	-	-	-	41.5	35.1
	0	H.L.L.	4	4	-	-	-	-	-	-	-	-	-	-	-	26.6	-
	5	Str. III	114	88	3	4	10	3	1.0+9	2.0	2.0	1B	4	5	-	Heavy Bombs	-
5	Lanc. II	10	7	-	-	2	-	-	-	-	-	-	-	-	3,000	4,000	
4	Hal. IIIV	33	22	1	-	2	1	3	-	1	1.0	-	-	-	27	1	
4	Hal. L.	100	91	2	-	5	2	10	-	1	-	5	10	-	4	-	
6	Hal. IIIV	37	22	10	1	3	1	1	1B	-	-	2	6	-	1	-	
6	Hal. L.	57	37	5	3	5	7	1.0+6	1.0	-	-	2	2	1	-	-	
LUDWIGSHAFEN TOTAL			395	303	30	8	31	23	2.0+30	12+3.0+2	2.0+3	12+1.0	13	23	-	-	-
BERLIN & LUDWIGSHAFEN TOTAL			839	694	48	11	54	32	15.0+107	12+3.0+2	3.0+5	22+2B+1.0	15	37	-	-	-

BERLIN: LUDWIGSHAFEN: BOMBING: PARTIAL: (CONT): Miscellaneous: Leaflets:  
18/19th. NOVEMBER, 1943. (CONT)

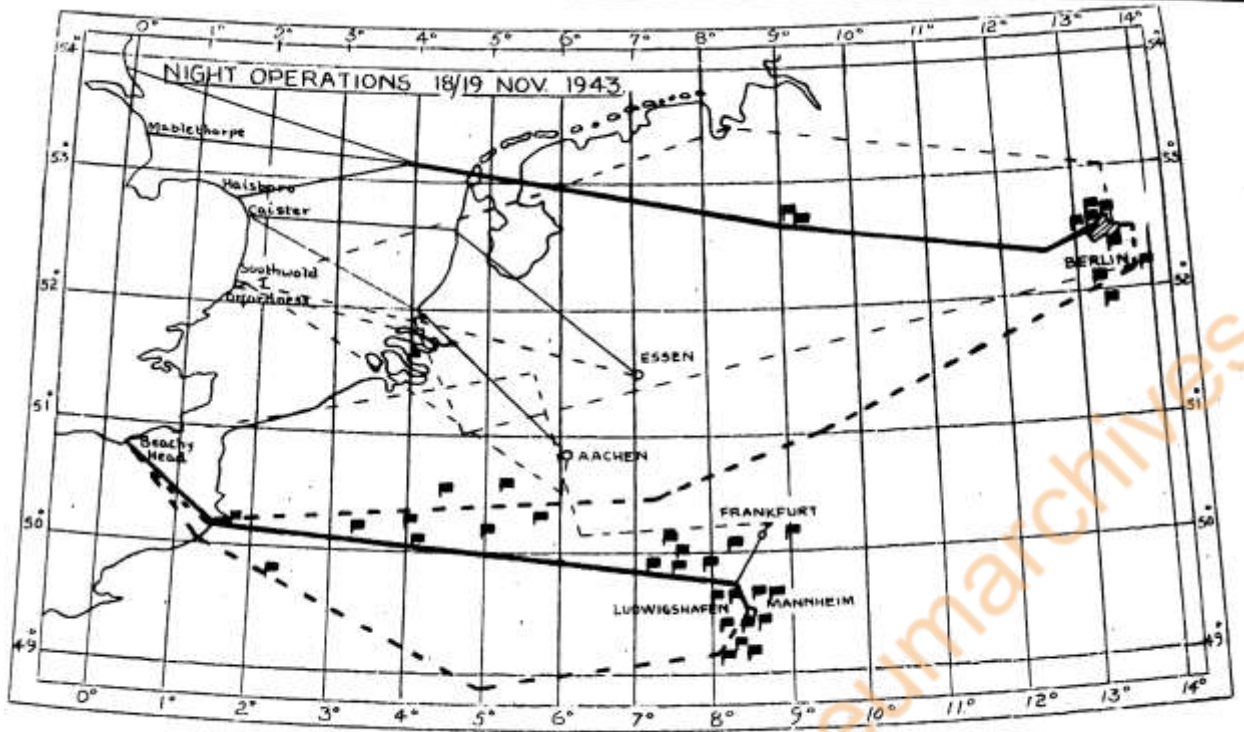
TARGET	GROUP	AIRCRAFT TYPE	COURTES	L/C REPORTING TRACK ON		AGGRESSIVE SORTIES		MISS- ING	DAMAGE				INTERDICTION		RESULTS		
				PND. ARE.	INT. ARE.	OVER E.T.	NOT OVER E.T.		PLN.	FIGHTER	MISC. IN FLIGHT	OTHER CLUSTERS	ST. CR- ED	NOT AT- TACK- ED	Tons of Bombs	H.K.	Inj.
BERLIN & LUDWIGSHAFEN TOTAL			839	694	48	11	54	32	15.0+107	12+3.0+2	3.0+5	22+2B+1.0	15	37	-	-	-
W. ROUTE - W. MARCHEN	B	Hseq. IV	6	4	-	2	-	-	-	-	-	-	-	-	-	-	-
ALSDON	FPF	Hseq. IV	6	5	-	-	-	-	1	-	-	1B	-	-	-	P. 2.7	-
ALSDON	FPF	Hseq. IV	7	6	1	-	-	-	-	-	-	-	-	-	-	-	-
ALSDON	FPF	Hseq. IV	4	3	-	-	-	-	1	-	-	-	-	-	-	-	-
ALSDON TOTAL			10	9	-	-	-	-	1	-	-	-	-	-	-	-	-
FRANKFURT	FPF	Hseq. IV	6	4	-	2	-	-	-	-	-	-	-	-	-	-	P. 5.4 8.2
BOMBING TOTAL			861	713	49	11	56	32	15.0+109	12+3.0+2	3.0+5	22+2B+1.0	15	37	-	-	-
MIDDELHUIS	1	Well. X	5	5	-	-	-	-	-	-	-	-	-	-	-	10 mines	-
LOWEST	1	Well. X	6	4	-	-	-	-	-	-	-	-	-	-	-	8 mines	-
ST. N. Y. I.D.	1	Well. X	6	4	-	-	-	-	-	-	-	-	-	-	-	8 mines	-
S. of TRICE	1	Well. X	3	3	-	-	-	-	-	-	-	-	-	-	-	6 mines	-
MIDDELHUIS TOTAL			16	16	-	-	-	-	-	-	-	-	-	-	-	32 mines	-
LEAPLES	91	Well. III	7	7	-	-	-	-	-	-	-	-	-	-	-	-	-
N. FLEET	USAC	Fortress	6	5	-	-	1	-	-	-	-	-	-	-	-	-	-
LEAPLES TOTAL			13	12	-	-	1	-	-	-	-	-	-	-	-	-	-
TOTAL			884	736	49	11	56	32	15.0+109	12+3.0+2	3.0+5	22+2B+1.0	15	37	-	-	-

SOB/ST.  
S.R.S.S.

\* NOT INCLUDED IN TOTAL.  
91 Group to: LUDWIGSHAFEN: BOMBING: PARTIAL: (CONT): Miscellaneous: Leaflets:  
18/19th. NOVEMBER, 1943.

15° 13' 14'



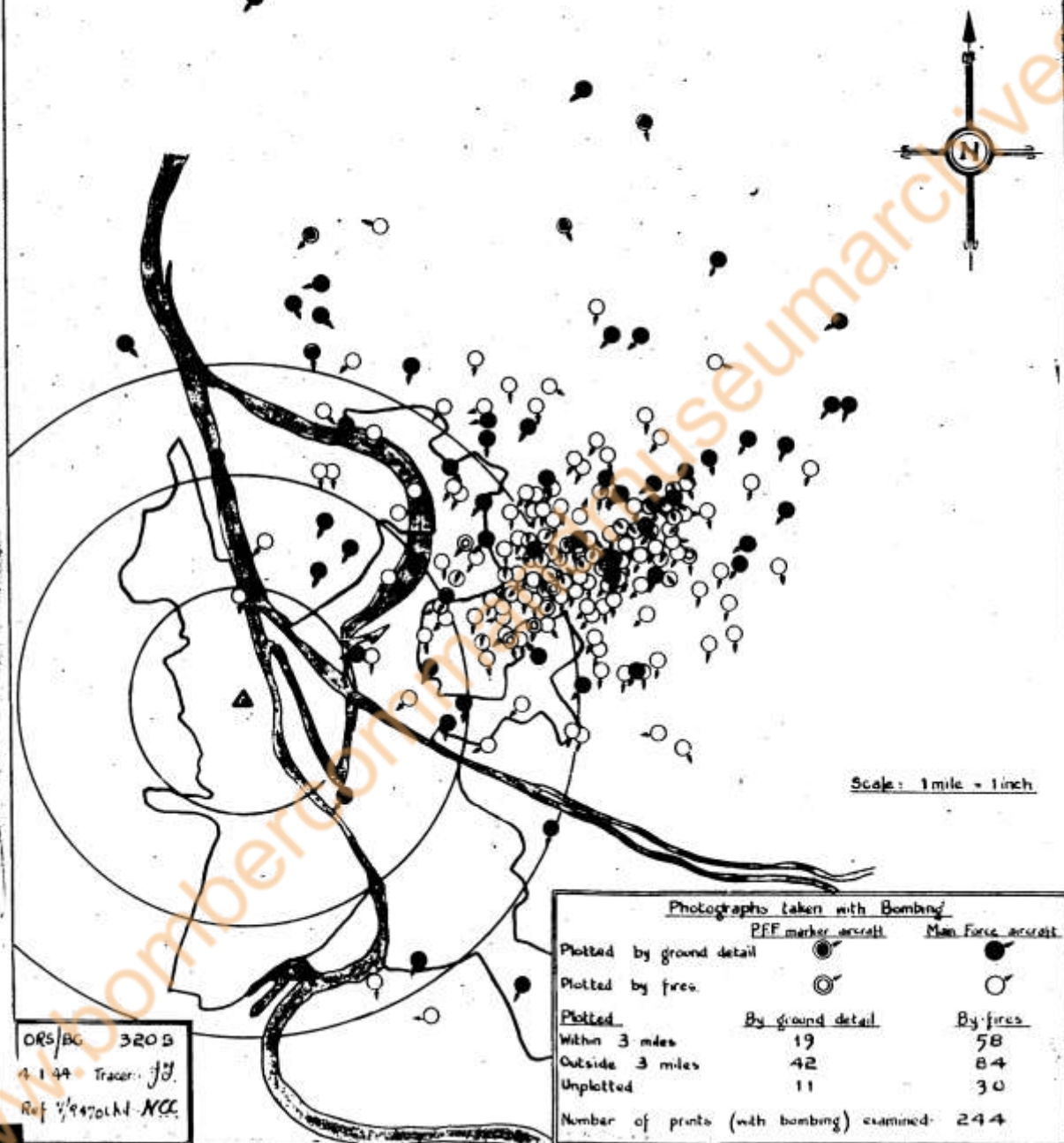


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**FINAL PLOT OF NIGHT PHOTOGRAPHS**  
**TAKEN 18/19 NOVEMBER 1943. TARGET: LUDWIGSHAFEN**

212

**SECRET**



ORS/BC 3205

4.1.44 Tracer: JG

Ref 1/447044 NCC

BOMBER COMMAND REPORT ON NIGHT OPERATIONS

19/20th. NOVEMBER, 1943.

LEVERKUSEN: Duisburg: Rheinhausen: Minelaying: Leaflets:

OPERATION

1. Leverkusen 256 Stirlings and Halifaxes left on a blind-marking attack against the chemical works at Leverkusen; but all the 10 Mosquitoes detailed as markers experienced OBOE failure, and the target was obscured by 10/10ths. cloud, so that the bombing was scattered widely over the Ruhr. 11 buildings of the I.G. Farbenindustrie were damaged. 5 aircraft (1.9.5) were lost.
2. Duisburg: Rheinhausen: 6 Mosquitoes carried out a diversionary raid on Duisburg, dropping red and green T.I. shortly before and after zero hour at Leverkusen; and 2 others made a harassing raid on Rheinhausen. All returned undamaged.
3. Minelaying 25 aircraft laid 92 mines uneventfully off the Frisians, the Dutch coast and the French Atlantic ports.
4. Leaflets 11 aircraft, accompanied by 6 U.S. Fortresses, dispersed leaflets over N. France without incident.

WEATHER FORECAST

1. Midnight frontal positions: - (1) Warm from 60° N. 11° E. - N. Yorkshire - 50° N. 11° W. (2) Warm from 53° N. 20° E. - Trieste.

Bases: - Pit for early take-off, with visibility 3-4 miles, falling to 1 mile in smoky localities. For return from 1st, 3, 5, and 7 Groups will have visibility troubles, but had their airfields should hold 1,500-2,000 yards until 2200, when conditions will rapidly deteriorate. 4 and 6 Groups will hold 2,000 yards until 2300, and high level stations in 1 Group until midnight. Diversion areas: narrow strip on east coast N. of 52° N. and S. coast until 2300-2400; S.W. until later.

Germany: - Much strato-cumulus with medium cloud E. of 11° E.  
 Leverkusen: 10/10ths. strato-cumulus to 4-6,000', with perhaps a second thin layer at 10,000'; poor visibility beneath cloud. Cumulus tops below 12,000' over North Sea.

France: - Variable strato-cumulus. Moderate visibility.

Average winds to Leverkusen: -  
 at 750 mbs. 060-050°/25-30 m.p.h.  
 at 500 mbs. 040-060°/35-55 m.p.h.  
 at 300 mbs. 030-040°/110 m.p.h.

LEVERKUSEN

PLAN OF ATTACK

6. Route 52°10'N. 03°00'E - 51°50'N. 04°00'E - 51°00'N. 06°00'E -  
 LEVERKUSEN - 51°00'N. 07°25'E. - 50°30'N. 07°20'E - 50°10'N. 01°30'E - Beachy Head.

7. Method of Attack: OBOE Mosquitoes were to mark the exact aiming-point with red T.I. Packers-up were to aim greens at red: 1" visible, otherwise at the estimated centre of earlier greens, overshooting in either case by 3 seconds. Main force aircraft were to aim their bombs on the same principle.

...../C. Timing



large, 1 medium and 1 small building, received minor damage.

#### ALTERNATIVE TARGETS

6. 9 aircraft attacked alternative targets, in the areas of Cologne (3), Duisburg, Düsseldorf, Solingen, Fläckerhein, Lüttich and Noord Beveland.

#### EXCELLENT EQUIPMENT

7. CEBS 5 Mk. I and 2 Mk. II (1 PERIMPER and 1 FOUR TWIN PER) Mosquitoes were despatched as primary bombers, with 5 B-1 aircraft in reserve. All received intermittent or otherwise unsatisfactory signals, and none succeeded in making controlled runs. 3 channels were working, and mutual interference between these probably caused the failures.

8. H2S 35 aircraft carried H2S for navigational purposes. 15 reported that their sets were working over the target, and 9 used them to bomb blindly.

#### ANTI DEFENSE

9. Flak and Searchlights Heavy guns fired an intense and accurate barrage in a circle around the target, to heights between 16,000' and 21,000'. Some crews also reported predicted "unseen" fire. Searchlights could not penetrate the cloud. Balloons were seen at 12-14,000'.

10. Fighters No running commentary was heard, and fighters were not active in strength. 12 interceptions were reported, including 5 attacks.

#### CASUALTIES

11. No. of aircraft missing..... 5 (1.9%)  
 " " " damaged (flak.....30)  
 (fighter.....3)  
 (other causes.....3)

2 bombers were lost over the target, one to flak and one in combat with a fighter. One fell to a controlled fighter near Dieppe, and one to the guns of Calais, both on the way home. The fifth missing bomber was seen to explode and dive into the sea on the outward journey, but the cause is unknown. 6 other aircraft were wrecked beyond repair, 4 as the result of flak damage and 2 because of landing accidents. Nearly one-quarter of the aircraft reporting attack were hit by flak.

#### DUISBURG

22. 6 Mosquitoes successfully completed a diversionary attack against Duisburg, dropping red and green T.I. shortly before and after zero hour. All returned undamaged.

#### RHEINHAGEN

23. 2 Mk. II CBOE Mosquitoes (PERIMPER) were detailed on a precision attack against Krupp's works at Rheinhagen; but neither received clear signals, and both bombed the primary area on D.E. from GEE fixes. Both returned undamaged.

#### MINELAYING

24. 25 aircraft laid 92 mines off the Frisians, the Dutch coast and the French Atlantic ports without incident. 2 used H2S to determine their position at the moment of release.

#### DISPERSED

25. 11 Wellingtons and Whitleys, accompanied by 6 U.S. Fortresses, dispersed leaflets uneventfully over allotted areas in N. France.

KLN/JT.  
 EC/S. 26342/5/ORSI  
 20th. January, 1944.

19/20th NOVEMBER, 1943.

TARGET	GROUP	AIRCRAFT TYPE	BOUNDS	A/C REPORTING ATTACK ON				MISSED	DAMAGE				INTERCEPTORS		RESULTS Bomb Tonnage
				PRIM. AREA	ALT. AREA	OVER R.T.	NOT OVER R.T.		FLYING	FLAME	DISC. IN FLIGHT	OTHER CATCHES	ATTACKED	NOT ATTACKED	
LEVERKUSEN	8 PFF	Moag.IX	9	-	-	9	-	-	-	-	-	-	-	-	P. 215.7 420.7 ... 8.5 17. M. 4.9 9.5
		Moag.IV	1	-	-	1	-	-	-	-	-	-	-	-	
		Hal.II	1	1	-	-	-	-	-	-	-	-	-	-	
		Hal.I	5	4	-	1	-	-	-	-	-	-	-	-	
		Stir.III	86	75	-	11	7	1	2A+2B	-	-	2B+1B	-	4	
		Stir.IV	25	25	-	-	-	-	-	-	-	-	-	-	
4	P.L.L.	75	66	4	2	1	1	2A+2B	1A+1	-	1B	3	2	No bombs of over 2,000lb. were dropped.	
		27	27	2	1	1	1	-	-	-	-	1	1		
6	Moag.IV	24	26	1	-	5	2	3	1A	-	-	1	1		
		24	26	1	-	5	2	3	1A	-	-	1	1		
LEVERKUSEN TOTAL			266	222	9	15	15	5	4B+2B+6C+4B	2C+1	-	2B+1B	5	7	
DUISBURG	8 PFF	Moag.IV	6	6	-	-	-	-	-	-	-	-	-	P. 3.6 3.2	
BRUNNEN	8 PFF	Moag.IX	2	2	-	-	-	-	-	-	-	-	-	P. 1.8 -	
BOUNDS TOTAL			274	230	9	15	15	5	4B+2B+6C+4B	2C+1	-	2B+1B	5	7	
LEAPLES	URAC	Fortress	6	6	-	-	-	-	-	-	-	-	-	-	

\* NOT INCLUDED IN TOTAL

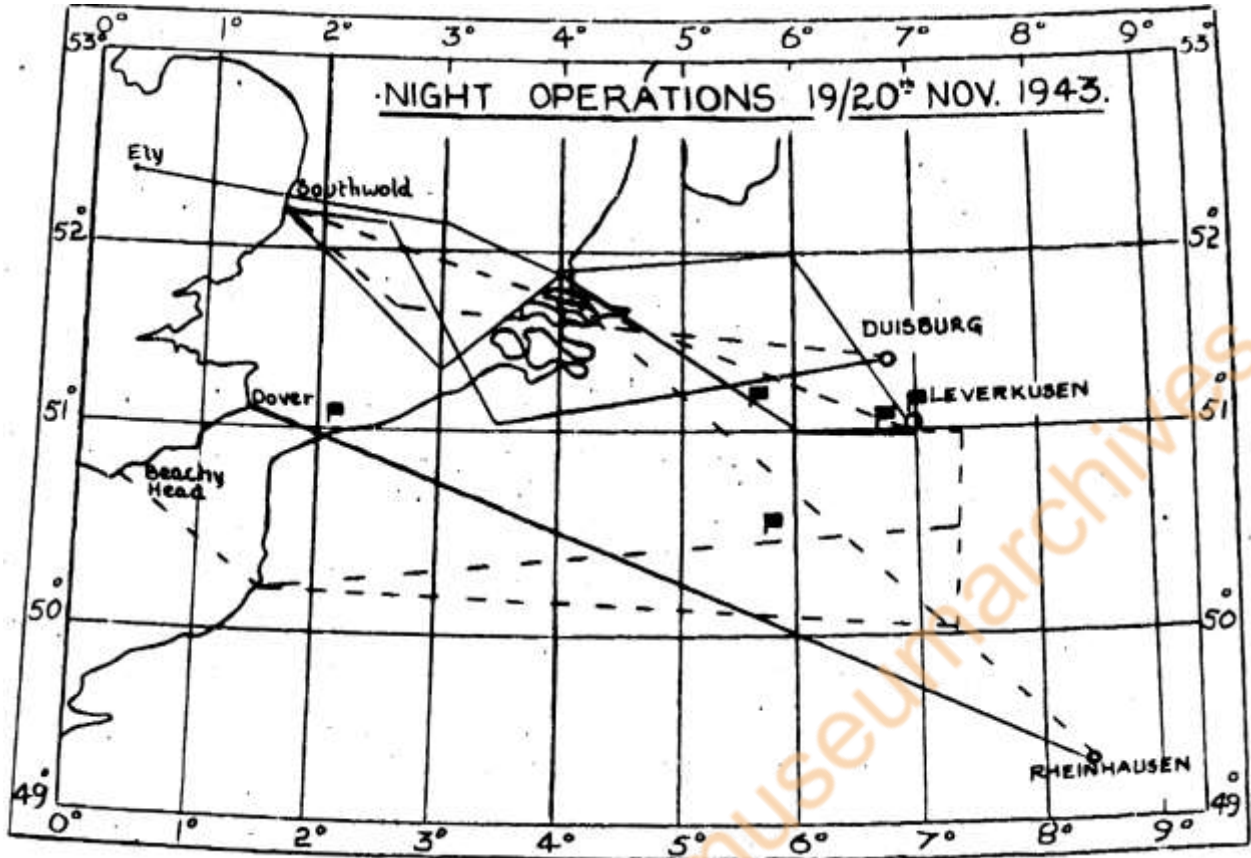
19/20th NOVEMBER, 1943. (CONTD.)

TARGET	GROUP	AIRCRAFT TYPE	BOUNDS	A/C REPORTING ATTACK ON				MISSED	DAMAGE				INTERCEPTORS		RESULTS
				PRIM. AREA	ALT. AREA	OVER R.T.	NOT OVER R.T.		FLYING	FLAME	DISC. IN FLIGHT	OTHER CATCHES	ATTACKED	NOT ATTACKED	
BOUNDS TOTAL			274	230	9	15	15	5	4B+2B+6C+4B	2C+1	-	2B+1B	5	7	
MIDELAYING															
LORING	1	Well.X	3	3	-	-	-	-	-	-	-	-	-	6 mins	
ST. H. ELISE	1	Well.X	1	1	-	-	-	-	-	-	-	-	-	8 mins	
BOREY	1	Well.X	2	2	-	-	-	-	-	-	-	-	-	4 mins	
S. of LEF.	1	Well.V	4	4	-	-	-	-	-	-	-	-	-	8 mins	
FRANCOIS II	3	Stir.III	3	3	-	-	-	-	-	-	-	-	-	16 mins	
FRANCOIS I	3	Stir.III	3	3	-	-	-	-	-	-	-	-	-	16 mins	
LE BLIVE	3	Stir.III	1	1	-	-	-	-	-	-	-	-	-	6 mins	
LA BRUYERE	3	Stir.III	2	2	-	-	-	-	-	-	-	-	-	12 mins	
LA BRUYERE	3	Stir.III	3	3	-	-	-	-	-	-	-	-	-	12 mins	
MIDELAYING TOTAL			25	25	-	-	-	-	-	-	-	-	-	32 mins	
LEAPLES	91	Well.III	3	3	-	-	-	-	-	-	-	-	-		
W. FRANCE		Well.X	2	2	-	-	-	-	-	-	-	-	-		
		Whit.	6	6	-	-	-	-	-	-	-	-	-		
LEAPLES TOTAL			11	11	-	-	-	-	-	-	-	-	-		
TOTAL			310	266	9	15	15	5	4B+2B+6C+4B	2C+1	-	2B+1B	5	7	

91 Group to:- PARIS; BOURG; BRUNNEN; LORING; LEL; BRUX; VIERZELLE;

BOB/JT.  
C.B.P.

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BOMB PLOT NOT AVAILABLE

BOMBER COMBINED REPORT ON NIGHT OPERATIONS

22/23rd. NOVEMBER, 1943.

BERLIN: Leverkusen: Minelaying: Leaflets:DETAILS

Berlin The largest force of bombers yet despatched to Berlin, comprising 24 aircraft, all heavies except 11 Mosquitoes, delivered a concentrated attack through 10/10ths. cloud. The timing of the blind markers was excellent, and they are believed to have been accurate, although no photographic evidence could be obtained to confirm this. The German wireless complained of a "heavy terror raid". German fighters were grounded by bad weather, and only 25 aircraft (1.3%) were lost.

Leverkusen 12 OBOE Mosquitoes carried out a precision attack on the chemical works of I.G. Farbenindustrie at Leverkusen. All returned safely.

Minelaying 14 Wellingtons laid 27 mines off the Irish coast and the Dutch coast without incident.

Leaflets 11 Whitleys and Wellingtons dispersed leaflets over N. France; 12 Whitleys returned early. No casualties were sustained.

WEATHER FORECAST

6. Midnight frontal positions: (1) cold from 55°N. 15'E - 50°N. 02'E - West.

Bases:- All fit for early take-off, with well broken cloud, base above 2,000', and moderate visibility. For return until midnight, 6 and 4 Groups and the E. of 5 Group will be fit, with well broken cumulus or strato-cumulus and moderate to good visibility. 3 and 8 Groups should also be available. 1 Group and W. of 5 Group may have smoke troubles. Diversions to Training Groups.

Germany:- S. of the cold front, there will be much very low cloud, with local fog; tops of cloud should not rise above 5,000'. Berlin: well broken medium cloud. Route: cold front will be crossed near the continental coast, with 10/10ths. from surface to 8,000' and well broken layer cloud extending to 12-15,000'. Light winds.

France:- Much layer cloud.

BERLINPLAN OF ATTACK

6. Route Crozier - 53°10'N. 04°00'E - 52°10'N. 09°00'E - 52°36'N. 12°21'E - BERLIN - 52°25'N. 13°50'E - 52°23'N. 12°00'E - 52°40'N. 09°00'E - 53°10'N. 04°00'E - Crozier.

7. Route-marking All opening blind-markers and blockers-up were to drop green T.I. (LB) at 52°40'N. 10°05'E (35 miles/320°/Brunswick) on the way out; and at 52°18'N. 12°26'E (35 miles/244°/Brunswick) and 52°35'N. 10°05'E (30 miles/320°/Brunswick) on the way home.

.....Method of attack.



8. Method of attack Opening blind-markers were to mark the aiming-point with red T.I., releasing also a bundle of release-point flares (red with green stars) blindly on H2S. Special blind-markers were to mark the exact aiming-point on H2S with reds and yellows in salvo, following them with 4 bundles release-point flares. Later blind-markers were to mark the aiming-point-greens on H2S, and drop one bundle of release-point flares; these aircraft were to attack at regular intervals throughout the raid. Early backers-up were to aim greens at salvees of reds and yellows, if visible, otherwise at the estimated centre of all visible reds, with a 3-second overshoot. Later backers-up were to aim greens at the centre of earlier greens with a 3-second overshoot. If cloud obscured the T.I., backers-up were to join the main force, retaining their greens and bombing on release-point flares with the supporters. The latter were to bomb on these flares only if their H2S was unserviceable, on exact heading of 104°, at a speed of 150 knots I.L.S., with bombsight set true height and air speed and zero wind. Main force aircraft were to bomb centre of all visible greens, with a 2 second overshoot; or, if cloud obscured the T.I., to aim at the release-point flares.

9. Timing      Zero hour: 2000      Duration of attack: 1958-2000

Opening blind-markers.	19 Lincs. at zero - 2
Special blind-markers.	1 Linc. at zero - 2 3 Lincs. from zero + 1 to zero + 3 (1 per 1000)
Later blind-markers.	18 Lincs. and Huls. at: zero +1, +2, +3, +5, +6(2), +7, +8(2), +9, +10(2), +11, +13, +14(2), +15, +16(2), +17, +18(2) and +19
Backers-up.	4 Lincs. at zero 13 Lincs. from zero + 1 to zero + 19 (one per 1000)
Supporters.	52 Lincs. at zero - 2 6 Huls. at zero + 2
Main force.	124 a/c: from zero to zero + 4 120 " : " zero + 4 to zero + 8 120 " : " zero + 8 to zero + 12 124 " : " zero + 12 to zero + 16 124 " : " zero + 16 to zero + 20

10. Marker loads

Opening blind markers.	4 red T.I.(ZLR) + 3 green T.I.(LB) + 1x4 flares (red + green stars)
Special blind-markers.	4 reds (ZLR) + 4 yellows (ZLF) + 4x4 flares (red + green stars)
Later blind-markers.	4 greens (ZLB) + 1x4 flares (red + green stars)
Backers-up.	11 a/c: 4 greens (ZLB) 12 a/c: 7 greens (5LB)

11. Tactics (a) WIPDON was to be dropped at the rate of 1 bundle per minute to a point 30 miles from the target; 2 bundles per minute within 30 miles of the target in both directions; and one bundle per minute for the remainder of the route home.

(b) 6 Mosquitoes of 139 Squadron were to drop white drip flares at a rate of 4 bundles per minute until their supply was exhausted, after flying the target T.I. and turning on to a track of 360°. 3 were to release at zero + 5 and 3 at zero + 10.

(c) 6 other Mosquitoes of 139 Squadron were to attack with bombs at intervals of 5 minutes between zero + 30 and zero + 55.

...../SORTIES

STATISTICS

2.	(a)	Hc. of aircraft despatched.....	764
	(b)	" " " reporting attack on primary area.....	651(85.2%)
	(c)	" " " " " alternative area.....	20( 2.6%)
	(d)	" " abortive sorties (took effect or manipulative error.....)	49
		(icing.....)	13
		(crew failure.....)	5
		(flak.....)	1
	(e)	" " aircraft missing.....	25( 3.3%)

WEATHER EXPERIENCED

3. Bases:- Variable - mainly small amounts of cloud. Local mist and fog patches S. of Humber.

Route and target:- 10/10ths. over whole area. Tops 6-10,000' over North Sea; thin upper layers over Continent to 15-17,000', with high cloud above 20,000'. Light icing in medium cloud; slight to moderate static from 04-09°E. No moon.

Winds:- Bases to 08°E. 160 - 230°/35 m.p.h.  
08°E - Berlin. 240 - 260°/ 30-35 m.p.h.

NIGHT PHOTOGRAPHIC STATISTICS

4. All night photographs showed 10/10ths. cloud.

AGGREGATIVE OF ATTACK

5. The attack opened on time with red T.I. and signal flare markers, which were maintained without a break until the close of the planned period. 6 blind markers had marked the target area and release point by zero-hour. The markers and flares were concentrated, although the absence of any photographic evidence makes it impossible to assess their accuracy. Crew reports suggested a highly successful attack, and this opinion was confirmed by the enemy's complaint of a "heavy terror raid". A Mosquito over the target at zero + 7 reported that 2 main fire concentrations 7-10 miles up it were reflected on the clouds. This reflection could be seen for 80 miles on the way home.

BY RECONNAISSANCE

6. Throughout the last week of November and the first 3 weeks of December, Berlin was covered with a thick blanket of cloud, and persistent attempts to photograph the city by day failed until the 20th. December. The enormous damage then revealed was the result of 6 major raids, of which that under review was the second to be delivered. The absence of night photographic evidence makes it impossible to assess how much devastation was caused by any particular attack; a complete statement of the damage will be included in Night Raid Report No.489.

ALTERNATIVE TARGETS

7. 20 aircraft attacked alternative targets, in the areas of: Tegel (4), Hannover(3), Vlieland(2), Enkhuisen(2), Vieringen, Bremen, Brunswick, Den Helder, Veltow, Juterbog, Lathen, Arnburg, and Brandenburg.

SPECIAL EQUIPMENT

8. H2S 9 opening blind-markers reached the target with their sets in order and dropped red T.I. and flares blindly, after checking their position on D.R. runs from Rathenow. 2 special blind-markers (equipped with H2S Mk.III) dropped reds and yellows in salvos according to plan, and 15 later blind-markers sent down release-point flares blindly; 14 of these also dropped greens. The timing of the blind-markers was excellent, and a good concentration of release-point flares was maintained from zero - 2 until zero + 27. 109 of the 176 main force aircraft carrying H2S for navigational purposes from their sets in order over the target. .... /8 Y-aircraft were lost,

8 V aircraft were lost, and one other crashed on return.

ENEMY DEFENCES

19. Ground Defences Searchlights were rendered useless by the cloudy heavy guns fired predicted "unseen" flak at selected targets, often with extra accuracy, and a barrage around the marker flares, at 17-23,000'. The light mostly fired up to 15,000', although some flak was seen self-destroying at heights up to 23,000' or above. All crews reported intense opposition from the ground defences.

20. Fighters No running commentary, and only 5 controlled fighter seen were overheard. Weather conditions kept most of the enemy's aircraft on the ground, although some were active in the target area and others operated under ground control from Holland and F. A. Germany. 2 claims by the latter were overheard, both in the Doelen/Amstelveen area against returning bombers.

CASUALTIES

21.	No. of aircraft missing.....	25 (3)
	" " " damaged (flak.....)	80
	(fighter.....)	1
	(British incendiaries.....)	5
	(collided with British A/c.....)	2
	(other causes.....)	7
		95

Only 10 losses can be accounted for. 5 aircraft were shot down by flak in the target area, 2 were lost to controlled fighters in the Doelen area on way home, and 3 were lost to controlled fighters around Berlin. The other 10 losses must be attributed to unknown causes. The total percentage is low for important target.

80 aircraft (over 10%) were damaged by flak, nearly half of these on return journey, as the result of straggling over well defended areas; some aircraft were probably lost in this way. One was damaged beyond repair. 2 Halifaxes collided over England on return; 2 bombers crashed while taking and one Halifax while landing, and one Stirling ditched in the North Sea. All these 6 aircraft were wrecked.

LEVERHAUSEN

22. 12 OBOE Mosquitoes were despatched on a precision attack against the chemical works of I.G. Farbenindustrie at Leverkusen. 9 were equipped with 3 aircraft working on each of channels of I, II and III. As on the previous raid of 19/20th. November, trouble was experienced with intermittent signals, only 4 aircraft made controlled runs. 4 bombed on D.L. and one returned early because its oxygen supply had failed. The 3 D.II aircraft worked on Channel but none received satisfactory signals and all released on E.S., 2 in the Leverkusen area and one near Cologne. All returned safely; 2 received minor flak damage.

WELLINGTONS

23. 14 Wellingtons laid 27 aims without incident off the Prisons and the Dutch coast.

WHITLEYS

24. 11 Whitleys and Wellingtons dispersed leaflets over towns in N. France; twelfth returned early. No casualties were sustained.

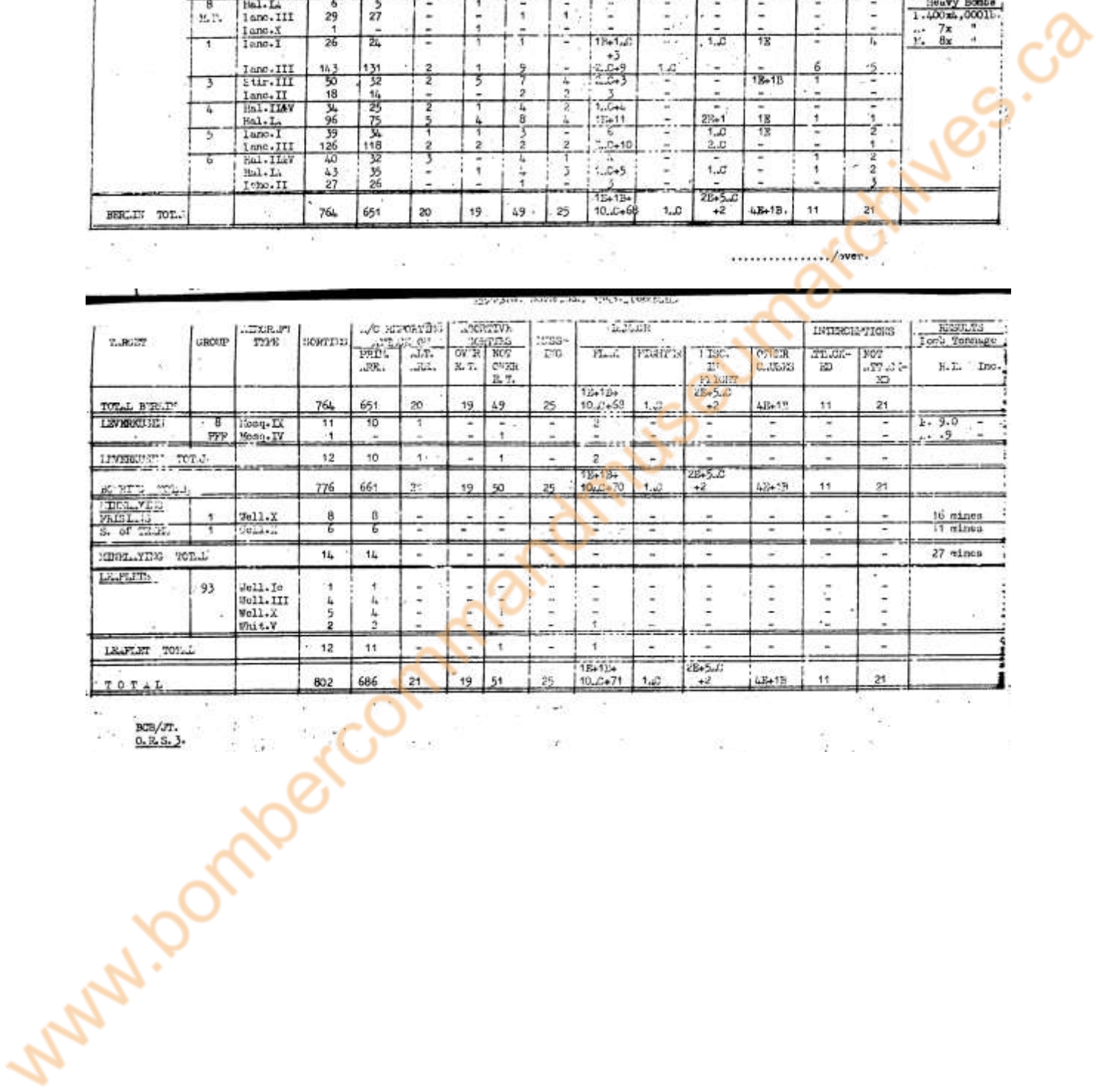
MM/JT.  
BC/S. 26342/5/ORS4,  
24th. January, 1944.

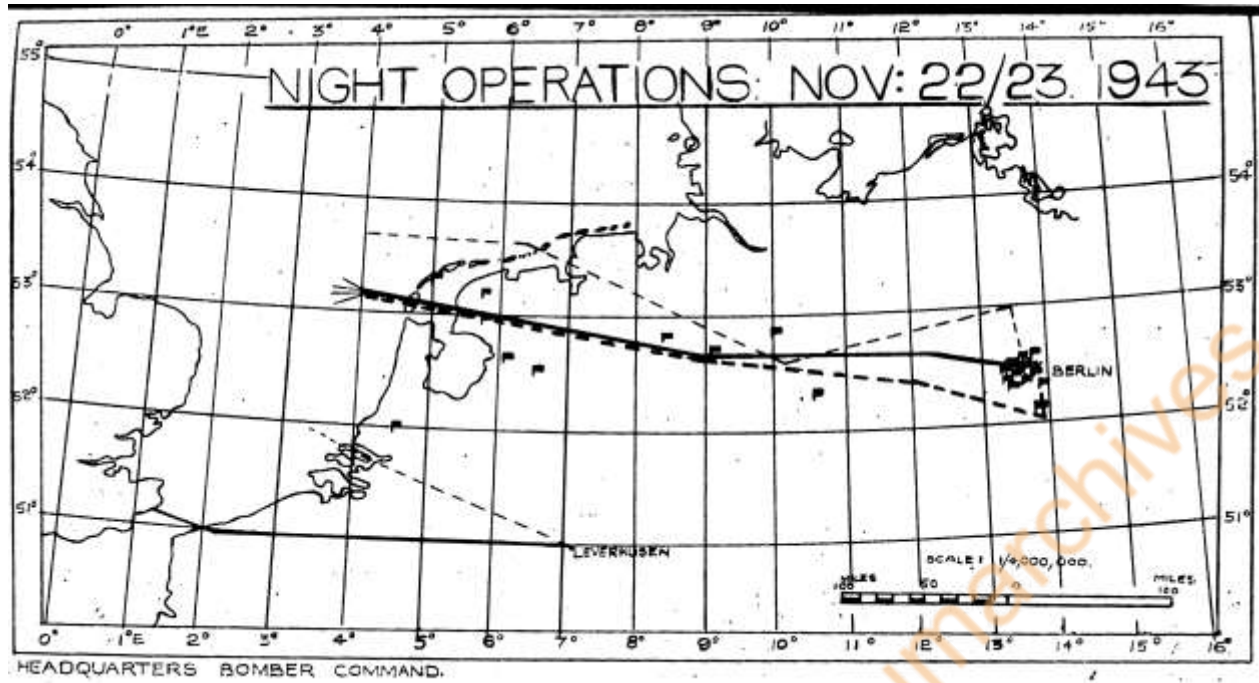
TARGET	GROUP	AIRCRAFT TYPE	BOMBERS	A/C REPORTING ATTACK ON		AGGRESSIVE SORTIES		MISSED	BULGER				INTERDICTIONS		RESULTS		
				PRIM. AREA	ALT. AREA	OVER R.T.	NO. OVER R.T.		FLAK	SEARCHES	MISC. IN FLIGHT	OTHER SEARCHES	ATLACK-ED	NOT ATLACK-ED	H. K.	Inc.	
BERLIN	B PFF	Hseq. IV	11	9	-	1	1	-	-	-	-	-	-	-	-	P. 1132.6	
		Hal. II	1	1	-	-	-	-	-	-	-	-	-	-	-	1331.9	
		Hal. LA	14	13	1	-	-	-	-	-	-	-	-	-	-	26.0	36.7
	B M.P.	Janc. III	60	50	2	-	2	6	7	-	1	-	1	1	-	M. 41.0	32.5
		Hal. LA	8	5	-	1	-	-	-	-	-	-	-	-	-	Heavy Bombs	
	1	Janc. III	29	27	-	-	1	1	-	-	-	-	-	-	-	1,400lb. 000lb.	
		Janc. I	1	-	-	1	-	-	-	-	-	-	-	-	-	7x "	
	3	Janc. I	26	24	-	-	1	1	-	1B+1B	-	1.0	1B	-	1	1. Bx "	
		Janc. III	16.2	131	2	1	2	-	2.0+9	1.0	-	-	6	5	-		
	4	Str. III	50	32	2	5	7	4	2.0+3	-	-	1B+1B	1	-	-		
		Janc. II	18	14	-	-	2	2	3	-	-	-	-	-	-		
	5	Hal. IIIV	34	25	2	1	4	2	1.0+4	-	-	-	-	-	-		
		Hal. LA	96	75	5	4	8	4	1B+11	-	2B+1	1B	1	1	-		
	6	Janc. I	39	34	1	1	3	-	6	-	1.0	1B	-	2	-		
Janc. III		126	118	2	2	2	2	1.0+10	-	2.0	-	-	-	-			
6	Hal. IIIV	40	32	3	-	4	1	1	-	-	-	1	2	-			
	Hal. LA	43	35	-	1	4	3	1.0+5	-	1.0	-	1	2	-			
	Janc. II	27	26	-	-	1	-	3	-	-	-	-	3	-			
BERLIN TOTAL			764	651	20	19	49	25	1B+1B+10.0+68	1.0	2B+5.0+2	4B+1B	11	21			

over.

TARGET	GROUP	AIRCRAFT TYPE	BOMBERS	A/C REPORTING ATTACK ON		AGGRESSIVE SORTIES		MISSED	BULGER				INTERDICTIONS		RESULTS	
				PRIM. AREA	ALT. AREA	OVER R.T.	NO. OVER R.T.		FLAK	SEARCHES	MISC. IN FLIGHT	OTHER SEARCHES	ATLACK-ED	NOT ATLACK-ED	H. K.	Inc.
TOTAL BERLIN			764	651	20	19	49	25	1B+1B+10.0+68	1.0	2B+5.0+2	4B+1B	11	21		
LIVERPOOL	B PFF	Hseq. IX	11	10	1	-	-	-	2	-	-	-	-	-	E. 9.0	-
		Hseq. IV	1	-	-	-	1	-	-	-	-	-	-	-	.9	-
LIVERPOOL TOTAL			12	10	1	-	1	-	2	-	-	-	-	-		
ROTHAM TOTAL			776	661	21	19	50	25	1B+1B+10.0+70	1.0	2B+5.0+2	4B+1B	11	21		
WINDYBUSH	1	Well. X	8	8	-	-	-	-	-	-	-	-	-	-	16 mines	
S. of WINDYBUSH	1	Well. X	6	6	-	-	-	-	-	-	-	-	-	-	11 mines	
WINDYBUSH TOTAL			14	14	-	-	-	-	-	-	-	-	-	-	27 mines	
RAF FLYING	93	Well. Ia	1	1	-	-	-	-	-	-	-	-	-	-		
		Well. III	4	4	-	-	-	-	-	-	-	-	-	-		
		Well. X	5	4	-	-	-	-	-	-	-	-	-	-		
		Whit. V	2	2	-	-	-	1	-	-	-	-	-	-		
RAF FLYING TOTAL			12	11	-	-	1	-	1	-	-	-	-	-		
TOTAL			802	686	21	19	51	25	1B+1B+10.0+71	1.0	2B+5.0+2	4B+1B	11	21		

BCS/JT.  
O.R.S.3.





BOMB PLOT NOT AVAILABLE

BOMBER COMBINED REPORT ON NIGHT OPERATIONS23/24th. NOVEMBER, 1943.BERLIN: Knapsack:SUMMARY

1. Berlin 383 aircraft, mostly Lancasters, left to stoke the fires raised in Berlin on the previous night. The city was still covered with cloud, but another concentrated ground and sky-marking attack was delivered. More fighters were encountered on this occasion, and 20 aircraft (5.2) were lost.
2. Knapsack 6 Mosquitoes were detailed on a precision attack against the power station at Knapsack; but only one made a controlled run, the rest bombing on D.R. One crashed on return.

WEATHER FORECAST

7. Bases:- Midnight frontal positions: (1) occlusion Shetlands - Pembroke (2) warm 50°N. 00° - Warrswell (3) cold 50°N. 00° - S. of Pembroke. Rain and cloud at 1,000-1,500' will affect bases soon after dusk, or earlier in N. Cold front will lie from Wash to Plymouth at 0200; S group and northwards will clear, but will be in frontal rain. Visibility not worse than 2,000 yards.

Germany:- Cold front will lie at midnight from 55°N. 18°E. to 50°N. 10°E. to S. of Bordenax. W. of the front there will be strato-cumulus and broken medium cloud with good clearances; E. of 05°E. conditions will be fine, with moderate visibility. Berlin has a good chance of clear skies; at worst, 10/10th strato-cumulus from surface to 10,000' with thin layers above.

REFUEL:PLAN OF ATTACK

4. Route Cromer - 53°10'N. 04°00'E - 52°10'N. 09°00'E - 52°36'N. 12°21'E - BERLIN - 52°25'N. 13°50'E - 52°00'N. 13°50'E - 52°23'N. 12°00'E - 52°10'N. 09°00'E - 53°10'N. 04°00'E - Cromer.

5. Route-marking All primary and secondary blind markers were to drop green T.I. at 52°40'N. 10°05'E (35 miles/327°/Brunswick) on the way out, either on H2S or visually; and green T.I. at 52°18'N. 12°20'E (9 miles/214°/Brandenburg) and at 52°35'N. 10°05'E (25 miles/320°/Brunswick) on the way home.

6. Method of Attack Primary blind markers were to mark the aiming-point with red T.I., and to release one bundle of flares each (red with green stars), blindly on H2S. Special blind markers were to mark the exact aiming-point blindly with reds and yellows in salvo, dropping 4 bundles of the above-mentioned flares. Secondary blind markers were to drop green T.I. and release one bundle of flares. Early backers-up were to aim greens at the salvos of reds and yellows, if visible; otherwise at the centre of reds with a 2-second overshoot. Later backers-up were to aim greens at the centre of earlier greens with a similar overshoot; but if cloud obscured the T.I., they were to hold their greens and bomb with the supporters. The latter were to bomb on H2S, unless their sets were out of order, in which case they were to aim at the centre of the release-point flares on an exact heading of 100°H. with bombsight set for true height and airspeed and zero wind at a speed of 150 I...S. Main force aircraft were to bomb on the centre of all visible greens with a 2-second overshoot; or, in difficult cloud conditions, to adopt the method prescribed for the supporters.

...../7. Timing.

7.	<u>Timing</u>	<u>Zero hour: 2300'</u>	<u>Duration of attack: 1958-Z</u>
	Primary blind markers	20 Lincs. at zero - 2	
	Special " "	4 Lincs. at zero - 2, +1, +2, and -	
	Secondary " "	10 Lincs. at zero +1, +2, +3, +4, (2) 10 Halls. } +3(2), +9, +10(2), +11, +13 +13 and +14.	
	Backers-up	4 Lincs. at zero 14 Lincs. from zero +1 to zero +14	
	Supporters	32 Lincs. at zero - 2	
	Main Force	106 a/c. from zero to zero + 5 103 a/c. from zero + 5 to zero + 10 107 a/c. from zero + 10 to zero + 15	

8. Marker loads

	Primary blind markers.	1x4 flares red with green stars: 4 red T.I. 3 green T.I. (LB)	
	Special " "	1x4 flares red with green stars: 4 red T.I. 4 yellow T.I. (2LB)	
	Secondary " "	(Halls) 1x4 flares red with green stars: 7 green (5LB) (Lincs) 1x4 flares red with green stars: 4 green (2LB)	
	Backers-up	4 green T.I. (2LB)	

9. Tactics (a) WEL07 was to be dropped at the rate of one bundle every 2 minutes to a point 30 miles from the target; one bundle every half-minute 30 miles of the target in both directions; and one bundle every minute for rest of the homeward route.

(b) 3 Mosquitoes were to proceed to the target T.I., turn on to a track of 360°T. for 3½ miles, then turn on to 290°T. and release spoof white drip flares at 20-second intervals.

(c) 5 Mosquitoes were to turn back after the main effort had finished at zero +10, +5 and +135 (3), aiming at the centre of fires burning on the ground.

SORTIES

10.	(a) No. of aircraft despatched.....	383
	(b) " " " reporting attack on primary area.....	302(79.3)
	(c) " " " " " alternative area.....	15(3.9)
	(d) " " abortive sorties (tech. defect or manipulative error.....)	27
		(icing.....17) 46(12.0)
		(crew failure..... 2)
	(e) " " aircraft missing.....	20(5.2)

WEATHER EXPERIENCED

11. Bases:- A belt of rain and low cloud (below 1,000') moved through bases during operational period, affecting East Angles at the time of return. S. of the rain belt, cloud was broken and visibility moderate to good.

Route:- 10/10ths. over east of route, in layers to 10-15,000', with more layers above aircraft. Some breaks over N. Germany. Thicker cloud

.../Low Countries and

Low Countries and North Sea on return, with light icing and static.

Berlin:- 10/10ths. thin layer clouds at 5-7,000', breaking up towards end of attack. Moderate visibility. No moon.

Winds at 18-20,000':-	Bases to 03°E	250°/40 m.p.h.
	03-10°E	280°/45-50 m.p.h.
	10°E - Berlin	270°/40 m.p.h.
	Berlin	230-250°/25-30 m.p.h.

#### NIGHT PHOTOGRAPHIC STATISTICS

12.	No. of photographs examined.....	145
"	" " " plotted in target area.....	0
"	" " " " off target area (ground detail.....8) (fire-tracks.....62)	70

There is insufficient photographic evidence to show how many aircraft are likely to have bombed in the target area.

#### RELATIVE OF ATTACK

13. A good concentration of both flares and T.I. was maintained from 1956 to 2017 hours. The glow of the T.I. could be seen through the clouds; a few breaks were reported, through which green T.I. were seen burning in built-up areas. Numerous night explosions were heard and seen, one of which caused a glare which is alleged to have lasted for 60 seconds. The bombing heading laid down was closely adhered to; but the timing of the supporters was poor, so that their primary purpose of helping to saturate the defences at the opening of the raid was not achieved. The accuracy of the blind-markers was probably better than on the previous night.

#### DAY RECONNAISSANCE

14. Photographs of the German capital were not obtained until 3 more major attacks had been delivered, and it is impossible to attribute any particular incidents or areas of devastation to this operation. Full details of the destruction caused during the first 6 raids of the Battle of Berlin will be included in Night Raid Report No. 439.

#### ALTERNATIVE TARGETS

15. 15 aircraft attacked alternative targets, in the areas of: Texel(8), Den Helder(2), Lathen(2), Lastrup, Zwolle and Eilen.

#### SPECIAL EQUIPMENT

16. H2S (a) Primary blind-markers. 13 Y-aircraft were despatched in this capacity, 14 of which dropped sky-markers and T.I. blindly after checking their position on D.R. from Rathenow. 2 sorties were abortive, for technical reasons; and 2 aircraft were lost.

(b) Special blind-markers. 11 Y-aircraft equipped with Mk.III H2S found their sets out of order over the Low Countries, and dropped their bombs on Texel.

(c) Secondary blind-markers. 19 of these aircraft were detailed to maintain the marking, but only 7 released sky-markers and green T.I. 8 aircraft held their markers, 5 because of unserviceable sets and 3 because the indications on the P.P.I. did not check with their track runs from Rathenow. One aircraft bombed Texel and another returned early, both for technical reasons. 2 were lost.

(d) 94 main force aircraft carried H2S for navigational purposes. 63 found their sets working over the target, and 3 used them to bomb blindly. 6 more Y-aircraft, making a total of 10, were lost.

...../Z ELY REFERENCES.



ENEMY DEFENCES

17. Ground defences The heavy guns of Berlin were less troublesome on the preceding night; they fired a barrage around the marker flares between 15,000' and 20,000'. Intense light flak was also aimed at flares generally above 15,000'. Little opposition was encountered en route, except at Texel, but off the route the defences of Bremen, Emden and Hannover were active.

18. Fighters The same route was followed as on the previous night, the experience of this smaller force, composed entirely of Lancasters, was quite different. The earlier operation had been remarkable for the absence of lance fighters and for the intensity and accuracy of flak in the target area. On this night, the flak defences were comparatively quiet, but a great effort was made by the fighters. (This is consistent with the theory that, given favourable weather conditions, the fighter force is employed as the primary weapon of defence, with priority in the use of the sky even over targets with such redoubtable flak defences as Berlin. Under all circumstances, ground controlled fighters apparently operate to the best of their ability). On this night, controlled fighters were heard along the route from the north of Holland as far east as Quackenbruck; but they made no claims. The running command directed friendly fighters from 1812, sending them towards Berlin at 1930, concentrating them on Brandenburg by 2000 (zero hour), whence they were directed to the target. The main body of fighters probably arrived over Berlin at 2008.

19. CORONA (first employed on 22/23rd. October) was again used, and caused considerable annoyance to the German commentators, who were forced to prefix many messages with code numbers. They tried using a woman as a mouth-piece, were immediately countered by a female CORONA, who passed warnings of fog at bases and told aircraft to land. Spoof fighter flares, dropped by Mosquito to the north of the bomber stream at the time when most of the fighters were arriving over the target, caused some diversion.

20. No returning claims claimed to have destroyed fighters, but observations suggest that 2 enemy aircraft were, in fact, brought down over Berlin.

CASUALTIES

21.	No. of aircraft missing.....	20 (5)
	" " " Damaged (flak.....)	14
	(fighter.....)	4
	(other causes.....)	9

On the way out, 4 aircraft were seen to crash between the Dutch coast and Leeuwarden. The cause of these losses is obscure, as no fighter claims were heard. 4 more were shot down by fighters between Groningen and Hannover, one fell to the guns of Texel. Over Berlin, 3 aircraft were destroyed by flak in the first 15 minutes of the attack, and 5 by fighters; one in the early stages, 2 towards the end and 2 shortly after turning for home. 4 losses therefore be attributed to flak, 9 to fighters, and the remaining 7 to unknown causes.

22. 6 returning aircraft were damaged beyond repair, one by flak and the rest as the result of landing accidents.

CLIPS, OK

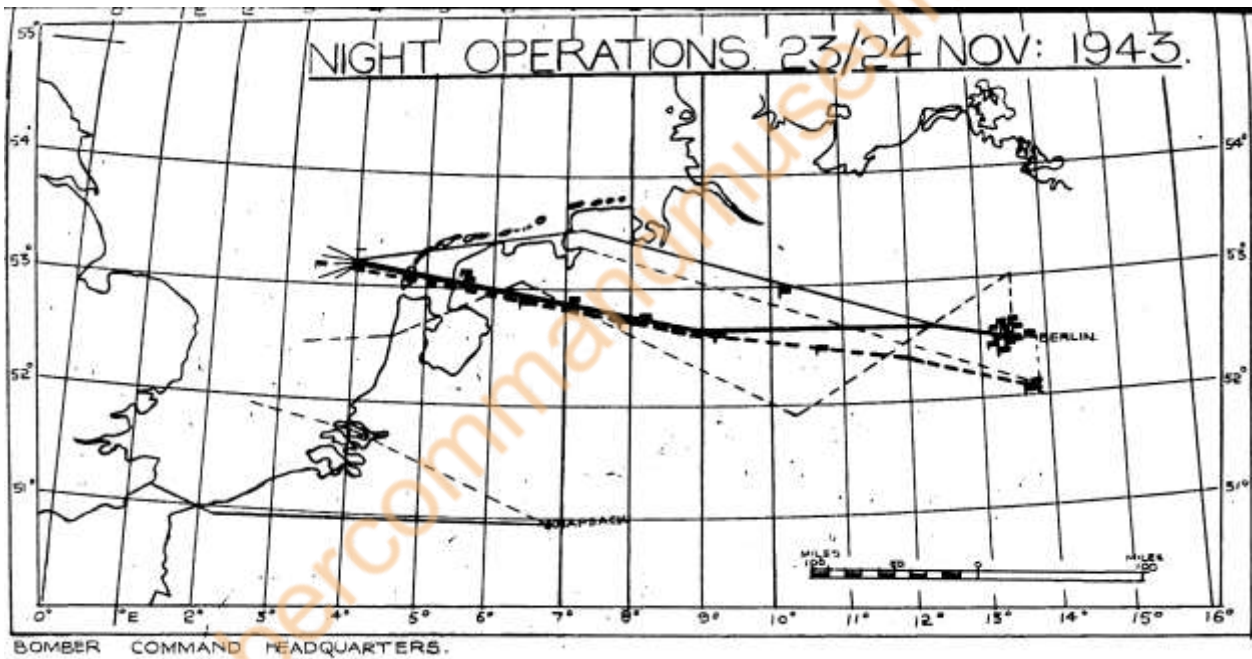
23. 6 Mk.I OBOE Mosquitoes, 3 operating on Channel II and 3 on Channel I were detailed to attack the Goldenbergwerke Power Station at Knapsack, but only one could make a controlled bombing run. 5 had OBOE failure and bombed the primary on D.R. None was lost, but one crashed on return with the loss of the crew.

MLJ/JT.  
BC/S. 26342/1/ORS4,  
31st. January, 1944.

23/24th. NOVEMBER, 1943.

TARGET	GROUP	AIRCRAFT TYPE	SQUADRON	A/C REPORTING		BOMBING		MISC.	DAMAGE				DIRECTION		RESULTS	
				PRIM. A/C.	A.T. A/C.	OVER E.T.	NOT OVER E.T.		FLAC.	WINDMILL	YESC. IN FLIGHT	OTHER OBJECTS	BLACK-OUT	HOT ATTACK-ED	H. K.	Loss.
BERLIN	8 PFF	Heav. IV	3	3	-	-	-	-	-	-	-	-	2	-	P. 740.2	52L.3
		Med. L.	10	9	-	1	-	-	-	-	-	-	-	-	31.7	13.6
	3 N.P.	Heav. III	48	36	5	-	2	5	10+2	-	-	10+2.0	1	2	M. 18.2	36.B
		Med. IV	5	3	1	-	1	-	-	-	-	-	-	-	Heavy Bombs	
	1	Heav. III	32	26	2	-	2	2	-	-	-	-	-	-	P. 3054.4	0001B.
		Med. I	19	16	-	-	2	1	1.0	1.0	-	-	1	1	13x	"
3	Heav. II	92	66	3	1	17	3	2	1.0	-	10	2	6	20x	"	
	Med. III	13	10	2	-	1	-	-	-	-	-	-	-			
5	Heav. I	44	38	-	1	3	2	1	1	1.0	18	2	4			
	Med. III	98	80	1	-	13	4	1.0+1	1	-	28	1	5			
6	Heav. II	19	15	1	1	1	1	2	-	-	18	-	2			
BERLIN TOTAL			385	302	15	3	43	20	10+2.0	+11	2.0+2	1.0	58+10	42.0	10	21
KRAKOW	8 PFF	Heav. IX	5	5	-	-	-	-	-	-	-	-	-	-	-	-
		Med. IV	1	1	-	-	-	-	-	-	-	-	-	-	-	-
KRAKOW TOTAL			6	6	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL			389	308	15	3	43	20	10+2.0	+11	2.0+2	1.0	58+10	42.0	10	21

DCR/ST.  
O.R.B. 3.



BOMB PLOT NOT AVAILABLE

BOMBER COMMAND REPORT ON NIGHT OPERATIONS

24/25th. NOVEMBER, 1943.

Berlin: Leaflets:

SUMMARY

1. Berlin 6 Mosquitoes, not equipped with precision devices, were despatched in a harassing raid against the German capital. 3 attacked the primary, bombing in D.R. or E.T.A. in clear conditions. 2 returned early and one was lost.
2. Leaflets 9 Wellingtons left to disperse leaflets over towns in northern France. 3 reached their targets, and 2 others dropped their bundles over other areas. 4 aircraft returned early. No casualties were sustained.

WEATHER FORECAST

3. Midnight frontal positions:- (1) cold from 51°W.06°E. - 57°N.15°E - 50°N.11°E. - N.E. Spain.

Bases:- Fit all night, with variable amounts of convection cloud, good clearances and good visibility. Showers on east coast.

Germany:- Convection cloud will extend above 20,000' over Central North Sea, decreasing eastwards towards Central Germany. Good clearances over Ruhr and Middle Rhine. Cloud to great heights along front, with rain. Much layer cloud E. of the front. High winds.

France:- Conv cloud over W. coast, with heavy showers. Broken convection cloud inland.

SORTIES

Berlin Leaflets

- |    |  |   |              |   |
|----|--|---|--------------|---|
| 4. | (a) No. of airc. : despatched.....             | 6 | .....        | 9 |
|    | (b) " " " starting attack on primary area..... | 3 | .....        | 3 |
|    | (c) " " " " alternative area.....              | 0 | .....        | 2 |
|    | (d) " " above sorties (tech.defect.....2)..    | 2 | (tech.def.2) | 4 |
|    |  |   | (weather..2) |   |
|    | (e) " " air not missing.....                   | 1 | .....        | 0 |

WEATHER EXPERIENCED

5. Berlin:- 10/10ths. cirrus at 24-27,000'. Layer cloud and haze below.

N. France:- 10/10ths. cumulus to 20,000' and above. Severe icing. Thick fog.

ENEMY DEFENCES

6. No fighter activity was overheard or reported. Little flak was encountered.

CASUALTIES

7. One Mosquito was lost on Berlin. It was seen being accurately engaged by the guns of the capital, by which it was probably destroyed. No other damage was sustained.

174/JT.  
EC/S. 26342/5/ORS4,  
22nd. January, 1944.

BREITEN: Leaflets:

24/25th. NOVEMBER, 1943.

TARGET	GROUP	AIRCRAFT TYPE	SORTIES	A/C REPORTING ATTACK ON		ADDITIONAL SORTIES		MISS-ING	DAMAGE				INTERCEPTIONS		BOMB TONNAGE	
				PRIN. AREA	ALT. AREA	OVER E.T.	NOT OVER E.T.		FLAK	FIGHTER	MISC. IN FLIGHT	OTHER CAUSES	ATTACK-ED	NOT ATTACK-ED		H. B. Inc.
BREITEN	8 HF	Monq-IV	6	3	-	-	2	1	-	-	-	-	-	-	-	P. 2.7 - M. 0.9 -
BOMBING TOTAL			6	3	-	-	2	1	-	-	-	-	-	-	-	
LEAPLES *	92	Well-III Well-X	1 8	- 3	- 2	- 1	1 2	-	-	-	-	-	-	-	-	
LEAPLES TOTAL			9	3	2	1	3	-	-	-	-	-	-	-	-	
TOTAL			15	6	2	1	5	1	-	-	-	-	-	-	-	

02 Group to:- ABRIS: COPERI: ST. QUENTIN: LON:

BERGUY: HOUN: LIENS: BRUNEL: COMPIEGNE:

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BOMBER COMMAND REPORT ON NIGHT OPERATIONS25/26th. NOVEMBER, 1943.FRANKFURT: Berlin: Minelaying: Leaflets:BRIEF SUMMARY

Frankfurt 262 heavies, mostly Halifaxes, left to make a ground marking attack on Frankfurt; but unexpected cloud was met over the target, and the T.I. was quickly lost to sight. The attack became scattered, and little damage was done, although a few factories were affected. 12 aircraft (4.6%) were lost.

Berlin 3 Mosquitoes carried out an uneventful harassing raid against Berlin.

Minelaying 37 aircraft, out of a force of 45, laid 122 mines off the North Atlantic ports and the Frisians. One aircraft was lost.

Leaflets 28 aircraft from Training Groups, accompanied by 7 U.S. bombers, dispersed leaflets over northern France without loss.

WEATHER FORECAST

Bases:- A warm front is approaching from the Atlantic, but is not expected to give rain and low cloud in operational areas before dawn. Bases should be fit for night, with visibility generally above 2,000 yards. Cloud will gradually disperse.

Germany:- Convection cloud, towering over the North Sea to above 20,000', will drift into N. Germany as far as the edge of high ground. Frankfurt; good amount of little cloud, and good visibility. Very variable cloud en route; generally 0-7/10ths., below 12,000', increasing to 8-10/10ths. (tops 15,000') in a narrow belt near 05°E. 7-9/10ths. cumulus and cumulo-nimbus from Frankfurt to Berlin, tops averaging 15,000' but increasing to 20-30,000' towards Berlin, with some anvil cirrus. High winds.

France:- Little cloud in central and E. France. Increasing medium cloud in W. with broken cloud and scattered showers.

FRANKFURTROUTE ATTACKS

Route Beachy Head - 50°20'N. 01°30'E - 50°15'N. 08°00'E - FRANKFURT - 50°15'N. 09°00'E - 49°45'N. 09°00'E - 50°20'N. 01°30'E - Beachy Head.

Route-marking All blind markers and backers-up were to drop red T.I. 3) at 9 miles/183°/Coblenz on the way out, and red spot fires at 6 miles/180°/Frankfurt on the return journey.

Method of attack Blind-markers were to drop yellow T.I. on the aiming-point, at the same time each releasing a string of white flares; first bundle 10 seconds before the T.I., and the others at 10 second intervals thereafter. Back markers, guided by the yellow, were to mark the exact aiming-point with reds for positive identification; if uncertain, they were to hold their reds and aim for positive identification; if uncertain, they were to hold their reds and aim for positive identification. They were to use white flares if necessary. Backers-up were to aim greens at reds during the early stages of the raid or, if none could be seen, at the centre of

...../yellows with a 1-second

Yellows with a 1-second overshoot. Later arrivals were to aim greens at the centre of greens with a similar overshoot. Supporters were to bomb on H2S, possible, otherwise at the centre of yellows or visually. The importance of accurate timing was stressed to these aircraft. Main force crews were to bomb on reds or the centre of greens.

8. <u>Timing</u>	<u>Zero hour: 0245</u>	<u>Duration of attack: 0240-0255</u>
Blind-markers	9 Hls. and 6 Lincs. at zero - 5	
Visual markers.	6 Hls. to arrive at zero - 3 and bomb as seen as certain of the aiming-point.	
Backers-up.	4 Hls. and 6 Lincs. from zero to zero+9 (1 per min)	
Supporters.	32 Hls.* and 9 Lincs. from zero - 5 to zero.	
Main Force.	70 a/c: from zero to zero + 3. 97 a/c: from zero + 3 to zero + 6 97 a/c: from zero + 6 to zero + 10	

\* Including some non-H2S a/c of 4 Group.

9. <u>Marker loads</u>	
Blind markers.	6x4 white flares + 2 yellow T.I. (1LB) + 1 red T.I. (1LB) + 1 red spot.
Visual markers.	1x4 white flares + 10 red T.I. (5LB) + 1 green T.I.
Backers-up.	4 green T.I. (5LB) + 1 red T.I. (1LB) + 1 red spot.

10. Tactics WINDO/W was to be dropped at the rate of one bundle per 2 min en route to 20 miles from target; 2 bundles per minute within 20 miles of the target in both directions; and one bundle per minute for the rest of the way home.

#### SORTIES

11. (a) No. of aircraft despatched.....	262
(b) " " " reporting attack on primary area.....	227
(c) " " " " " alternative area.....	4
(d) " " abortive sorties (tech. defect or manipulative error..15) (crew failure..... 3) (collided with British aircraft..... 1)	19
(e) " " aircraft missing.....	12

#### WEATHER EXPERIENCED

12. Bases:- Pit all night.

Route:- Cloudless across England; 4-6/10ths. layer and convection cloud over Channel; tops 8,000'. Cloud increased steadily to 9/10ths. at about 50°N. 07°E., with tops at 18,000'. These conditions persisted to the target.

Frankfurt:- Residual convection cloud in several thin layers, total 9/10ths., tops 18,000'. No moon.

Wind at 18-20,000':- 300°/55-60 m.p.h.

#### NIGHT PHOTOGRAPHIC STATISTICS

13. No useful photographs were returned. All showed cloud.

...../RELATIVE OF ATTACK

RESULTS OF ATTACK

The target was unexpectedly covered with cloud. 5 out of the 15 blind-markers dropped yellow T.I., but these were quickly obscured, and only 2 aircraft lit up with greens. The main force bombed what markers they could before they disappeared into the cloud, but later could only bomb the glow beneath. The timing of the Pathfinders was good, but the attack must be presumed to have been altered.

RECONNAISSANCE

The western and southern areas of the town were covered by cloud when reconnaissance photographs were taken. Elsewhere, little damage was visible, although 9 factories, including 4 of priority 2, and a few industrial buildings in the west harbour, were affected.

RELATIVE TARGETS

4 aircraft attacked alternative targets, in the areas of: Mainz, Couvin, Rok-sur-mer and Le Havre.

BOMB EQUIPMENT

H2S All the blind-markers reached the target, 10 with their sets in order; but 2 were uncertain of their position, and 2 returned their T.I. on account of the cloud. The other 6 released yellow T.I., and 4 of these also lit up sky-marker flares. There is no evidence of their accuracy. Of the 68 aircraft attacking with the main force, 61 reached the target, 40 with their equipment working satisfactorily. 3 were lost.

FLAK DEFENCES

Ground defences Slight to moderate heavy flak was encountered over Frankfurt in the form of a loose barrage up to 10,000'. Searchlights were active, but could not penetrate the cloud; a continuous belt was reported between Mannheim and Mainz. No trouble was experienced en route, apart from a few bursts of heavy flak at Cambrai.

Fighters A normal amount of fighter activity was heard, but combats and sightings were unexpectedly few. A running commentary began at 0220, plotting the aircraft to the west of Mannheim; the only doubt appeared to be whether that city or Frankfurt was the main objective. At 0244, all aircraft were ordered to Frankfurt where the flak ceiling was said to be 15,000'. Ghostly interruptions were provided by CORONA in the form of adverse weather reports and landing instructions.

SUMMARY

No. of aircraft missing.....	12 (4.6%)
" " " damaged (flak.....)	11
" " " " (fighter.....)	1
" " " " (collided with British a/c....)	2
" " " " (other causes.....)	6

The heavy cloud en route and over the target restricted observation, and only 7 losses were seen. 3 aircraft were lost to fighters, 2 en route at Arras and Pierrefonds respectively, and one over the target. 3 more were shot down by the guns of Frankfurt, and a seventh was seen to crash in the target area, although the cause could not be ascertained. The number of aircraft damaged by flak is still far so well defended a target; searchlights could not illuminate bombers through the cloud, and the guns probably achieved few successes apart from those already mentioned. Most of the other 5 losses were probably due to fighters. The Halifax crashed on return, and another sustained severe fighter damage. 2 collided in the air, but escaped serious injury.

...../A.B.P.

RESULTS

21. 3 Mosquitoes carried out an uneventful harassing attack on Berlin. returned undamaged, after bombing the primary on D.N. through 10/10ths. cloud

MINES

22. 48 Stirlings, Wellingtons and Lancasters were detailed to lay mines on the French Atlantic ports and the Prisons. 37 reached their targets, laying 122 mines. 10 returned early, and one was lost without trace. 5 aircraft were equipped with H23; none used it to determine their final position, but employed their sets for navigational purposes.

LEAFLETS

23. 28 Wellingtons and Whitleys and 7 U.S. Portresses dispersed leaflets successfully over allotted areas in northern France. All returned safely.

MLM/JT.  
BC/S. 26342/1/OPS4,  
2nd. February, 1944.

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UNIT	GROUP	SCHEDULE TYPE	SCHEDULE	NO. AIRCRAFT				MIS-ENG	DAMAGE				DISPOSITION		REMARKS
				PRD. JRS.	J.M. JRS.	OVER S.T.	OVER OVER S.T.		FLY	STRUCK	REPAIR IN FLIGHT	OTHER DAMAGE	REPAIR	NO. AIRCRAFT	
WILSON	B	Hell.I	18	16	-	1	-	1	-	-	-	-	-	-	P. 532.1
			12	12	-	-	-	-	1.0	-	-	-	-	-	8.1
			2	2	-	-	-	-	-	-	-	-	-	-	15.7
			14	12	1	-	-	1	-	-	-	-	-	-	10.1
			28	26	-	-	1	1	3	-	-	-	-	1	P. 172.1
			100	87	3	-	1	2	5	-	2.0-1	18	4	5	11. 10.1
6	5	-	1	0	1	2	-	1.0	-	1	6	8			
BOEING TOTAL			252	227	4	5	14	12	1.0-10	17	3.0-1	18+3.0	9	20	
BURDEN	B	PPF	Boeing-IV	3	3	-	-	-	-	-	-	-	-	-	P. 2.7
BOEING TOTAL			265	230	4	5	14	12	1.0-10	17	3.0-1	18+3.0	9	20	
MIDLAND															
1		Hell.I	5	5	-	-	-	-	-	-	-	-	-	10 mins	
1		Hell.I	5	5	-	-	-	-	-	-	-	-	-	10 mins	
1		Hell.I	5	5	-	-	-	-	-	-	-	-	-	10 mins	
1		Hell.I	12	12	-	-	2	1	-	-	-	-	-	24 mins	
3		Star-III	8	7	-	-	1	-	-	-	-	-	-	24 mins	
3		Star-III	4	2	-	-	2	-	-	-	-	-	-	5 mins	
3		Star-III	1	1	-	-	4	-	-	-	-	-	-	6 mins	
3		Star-III	2	2	-	-	-	-	-	-	-	-	-	12 mins	
3		Star-III	4	4	-	-	-	-	-	-	-	-	-	25 mins	
MIDLAND TOTAL			48	37	-	-	10	1	1	-	-	-	9	20	122 mins

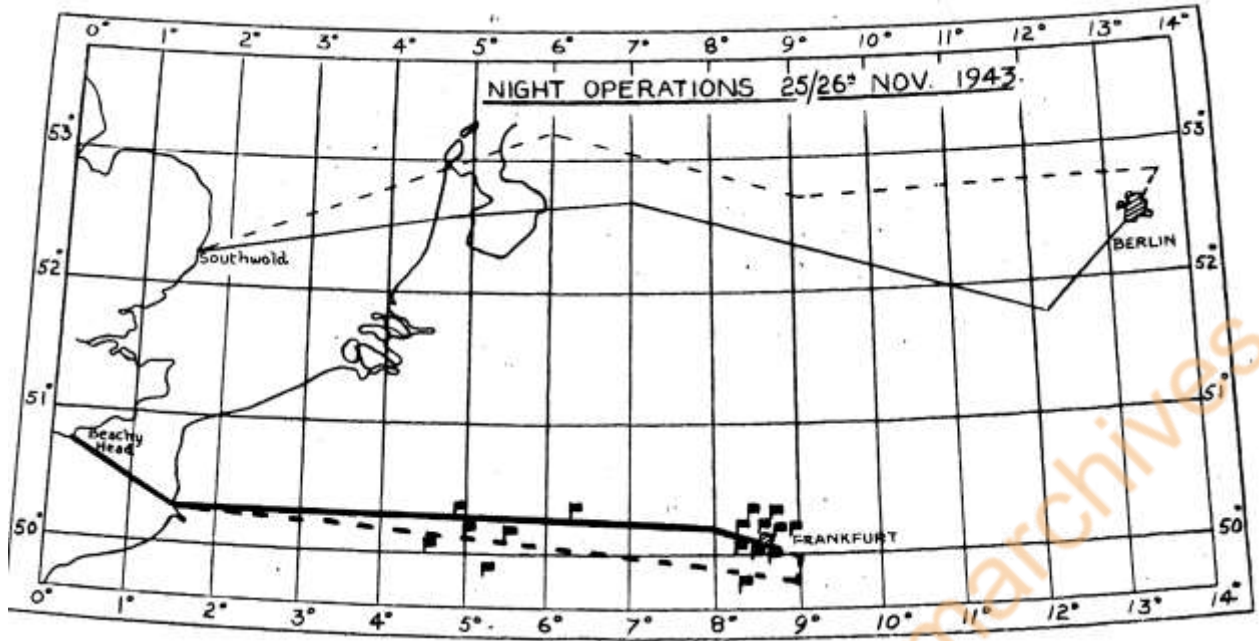
.....over.

UNIT	GROUP	SCHEDULE TYPE	SCHEDULE	NO. AIRCRAFT				MIS-ENG	DAMAGE				DISPOSITION		REMARKS	
				PRD. JRS.	J.M. JRS.	OVER S.T.	OVER OVER S.T.		FLY	STRUCK	REPAIR IN FLIGHT	OTHER DAMAGE	REPAIR	NO. AIRCRAFT		
BOEING & MIDLAND TOTAL			313	267	4	5	24	13	1.0-11	17	3.0-1	18+3.0	9	20		
WILSON	B	Hell.I	4	4	-	-	-	-	-	-	-	-	-	-		
			4	4	-	-	-	-	-	-	-	-	-	-		
			2	2	-	-	-	-	-	-	-	-	-	-	-	
			3	3	-	-	-	-	-	-	-	-	-	-	-	
			3	3	-	-	-	-	-	-	-	-	-	-	-	
			1	1	-	-	-	-	-	-	-	-	-	-	-	
2		Hell.I	2	2	-	-	-	-	-	-	-	-	-			
2		Hell.I	9	9	-	-	-	-	-	-	-	-	-			
WILSON TOTAL			28	28	-	-	-	-	1	-	-	-	-			
7	B	PPF	7	7	-	-	-	-	-	-	-	-	-			
TOTAL			341	295	4	5	24	13	1.0-12	17	3.0-1	18+3.0	9	20		

BOB/VT.  
O.E.S. 3.

REMARKS: ...  
ST. QUANTITY: ...

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ACCOMPANY NIGHT RAID REPORT NO. 176

REF. NO. 16

APPENDIXNOTE ON PHOTOGRAPHIC ESTIMATES

It has long been customary in this Command to assess bombing achievement in major area-target raids in terms of a circle of 3 miles radius centred on the aiming-point. The photographic evidence in the Night Raid Report has been given in this form and usually includes an estimate of the number of aircraft which bombed within this circle.

2. As from the Berlin raid of the 26/27th November, 1943, this 3 miles circle is being replaced as a criterion of achievement by an outline bounding the "Target Area", where this is defined as the area officially zoned in the Zone Maps but omitting Zone 3, the suburban zone. Since with very few exceptions this target area is smaller than the area of a 3-mile circle, there will be correspondingly fewer aircraft achieving success (on the average) than formerly.

3. In addition to announcing this change of criterion, it is the purpose of this note to explain briefly how the photographic estimates have been calculated in the past, from the beginning of May 1943 until the last Night Raid Report, to present amended estimates for 21 of these raids which have been subjected to a specially detailed analysis and, on the basis of the latter, to state how the estimates will be calculated in future.

4. An absolute minimum estimate is given by expressing the number of aircraft plotted within 3 miles as a percentage of all aircraft reporting attack, thus assuming that none of the unplotted aircraft bombed within 3 miles. A second estimate (not, indeed, a maximum but also possibly an over-estimate) is obtained by expressing the number of aircraft plotted as a percentage of all aircraft plotted, thus assuming that the unplotted aircraft are distributed with respect to the 3-mile circle like the plotted. Evidence not being available on where the true value should lie within this range, the average of the two estimates has hitherto been used. Clearly, this average is more reliable when the range is small i.e., when the proportion of aircraft plotted is high.

5. Detailed analysis of 21 raids, involving an assessment of all unplotted photos as inside or outside the area of concentration, has yielded the amended estimates shown in the attached table (column 3), which also shows in column (1) the average values and maxima. The latter two, on the whole, slightly pessimistic: exact agreement with the average revised estimate would be achieved by assuming that the true value lay at three-quarters of the range between minimum and maximum, instead of at one-half. The previously published estimates, "No. of aircraft estimated, from the photographic evidence, to have bombed within three miles of the aiming-point" are obtained by multiplying the number of aircraft reporting attack by the percentage shown in the table. Column (2) shows what the "three-quarters of the range" value would have been for these raids.

6. The same 21 raids have been analysed with respect to the proportion bombing within the target area, and it has been found that the same three-quarters rule applies. In future, therefore, the photographic estimate published in the Night Raid Report will be the minimum value plus three-quarters of the difference between the minimum and maximum. In addition, as a guide to the accuracy of this value, the minimum and maximum values will also be quoted.

BCP/JT.

12th. January, 1944.

Table: Percentage of r/c bombing within 3 miles

<u>Target &amp; Date</u>	1. <u>Published Value</u> <u>Half the Range</u>	2. <u>"Three Quarters</u> <u>of Range" Value</u>	<u>Average</u> <u>Final</u>
Mannheim 16/17.4.43	59	64	61
Duisburg 26/27.4.43	31	37	34
" 12/13.5.43	65	75	70
Bochum 13/14.5.43	52	57	54
Pilsen 13/14.5.43	90	94	91
Dortmund 23/24.5.43	48	57	62
Barmen 29/30.5.43	76	85	82
Lusseldorf 11/12.6.43	80	85	83
Munster 11/12.6.43	72	81	82
Friedrichshafen 20/21.6.43	89	95	91
Krefeld 21/22.6.43	74	81	82
Cologne 3/4.7.43	77	82	80
Turin 12/13.7.43	71	77	75
Hamburg 24/25.7.43	42	43	44
" 27/28.7.43	45	49	47
Nurnberg 27/28.8.43	27	30	38
Mannheim 23/24.9.43	41	44	44
Hannover 27/28.9.43	16	18	16
Kassel 3/4.10.43	75	80	81
Hannover 8/9,10.43	79	86	87
Kassel 22/23.10.43	86	90	88
Average values:	61.4	67.0	67.0

BOMBER COMMAND REPORTS ON NIGHT OPERATIONS

26/27th. NOVEMBER, 1943.

BERLIN: STUTTGART: Minelaying: Leaflets:

SUMMARY

Berlin The fourth raid of the Battle of Berlin was delivered by 376 bombers, led by 7 Mosquitoes, from a cloudless sky. The primary blind-markers were scattered short of the target and N. of track, and all but one of the secondary markers had non-serviceable equipment, with the result that the bombing came centred some 6-7 miles N.E. of the city. This area fortunately includes the important industrial districts of Reinickendorf and Tegel, and numerous tertiary factories received crippling damage. Rheinmetall Borsig A.G. were 45% devastated, and Argus Motoren, Porgmann Elektrizitätswerke, Norddeutsche Dornier and Mauserwerke were very severely hit. Few fighters were seen over Berlin, the main controllers mistaking Frankfurt for the main objective, but flak opposition was intense. 28 bombers (6.2%) were lost. 14 others were wrecked beyond repair.

Stuttgart 173 Lancasters and Halifaxes accompanied the Berlin force as they passed Frankfurt, and then turned off to attack Stuttgart. This manoeuvre deceived the fighter controllers, who never identified Stuttgart as a major objective, and concentrated their fighters on Frankfurt. The raid was somewhat scattered but serious damage was caused to the Daimler-Benz works at Unterturkheim. Buildings of this factory, which had hitherto been only slightly damaged, were hit, several being destroyed. The Adolf Hitler stadium was partly demolished. 10 aircraft (2.8%) were lost, and 3 others were wrecked on return.

Minelaying 31 aircraft laid 125 mines off the Prisians and the Dutch coast; 2 others returned early. No aircraft was lost, but one flew into the ground on return.

Leaflets 5 Wellingtons dispersed leaflets uneventfully over N. France.

WEATHER FORECAST

Midnight frontal positions: (1) warm front 51°N. 12°W - Brest - Bayonne.

Bases:- Little cloud all night. Fog will become general after 0200, and visibility will deteriorate slowly.

Germany:- Convection cloud, tops above 20,000' over E. North Sea and N. coastal strip of Germany, will decrease and lower inland. Middle Rhine: good clearances in cumulus and strato-cumulus, giving 5/10ths. at Frankfurt and other more cloud further E. Strato-cumulus tops en route will not extend above 10,000'. Berlin: good chance of less than 5/10ths; occasional cumulo-cumulus tops to 20,000'.

N. France:- Increasing medium cloud.

BERLIN

PLAN OF ATTACK

Route Beachy Head - 50°20'N. 01°30'E - 50°20'N. 09°40'E - 52°15'N. 10°10'E. - BERLIN - 52°40'N. 13°50'E - 53°00'N. 13°40'E - 52°38'N. 10°00'E - 52°40'N. 04°40'E. - Southwold.

...../7. Route-marking.

7. Route marking All primary and secondary blind-markers were to drop T.I. (LB) 3 miles/180°/Coblenz and multi-flash reds at 20 miles/125°/Lügde on the outward journey; and red T.I. (LB) at 34 miles/325°/Brunswick on the way home.

8. Method of attack Primary blind-markers were each to drop a bundle release-point flares (red with green stars), and to mark the target with red using H2S. Special blind-markers were to mark the exact aiming-point with red and yellows in salvo, and drop 4 bundles of release point flares, also on H2S. Secondary blind-markers, bombing at regular intervals throughout the attack, to keep the aiming-point illuminated with greens and release point flares, dropped blindly. Early backers-up were to aim greens at the salvos of red and yellows, if visible, otherwise at the centre of reds with a 2-second overshoot. Later backers-up were to aim greens at the centre of all greens already dropped, with a similar overshoot. If cloud obscured T.I., they were to join the main force, retaining their T.I.s and bombing blindly on H2S. Supporters were also to attack blindly, if their sets were in order, otherwise bombing the centre of reds, or release-point flares, on a heading of 068°M, at a speed of 152 knots I.A.S. Main force aircraft were to bomb the centre of greens or release-point flares on the same heading.

9. Timing                      Zero hour: 2115                      Duration of attack: 2113-2127

Primary blind-markers:	12 a/c. at zero - 2
Special blind-markers:	5 a/c. from zero - 2 to zero + 2 (one per min.)
Secondary blind-markers:	11 a/c. from zero + 2 to zero + 12 (one per min.)
Backers-up:	3 a/c. at zero to zero + 9 (one per min.) (except at zero - 1)
Supporters:	35 a/c. at zero - 2 20 a/c. at zero + 2
Main force:	115 a/c. from zero to zero + 4 115 a/c. from zero + 4 to zero + 8 112 a/c. from zero + 8 to zero + 12

10. Marker loads

Primary blind-markers:	1x2 green-red stars flares + 6 red T.I. (4LB) + 2 multi-flash red.
Special blind-markers:	4x4 green-red stars flares + 4 red T.I. (2LB) + 4 yellow T.I. (2LB)
Secondary blind-markers:	1x2 green-red stars flares + 4 green (2LB) + 2 red T.I. (LB) + 1 multi-flash red.
Backers-up:	4 green T.I. (2LB)

11. Tactics (a) WINDOW was to be dropped at the rate of one bundle every 2 minutes to a point 20 miles from the target; at one bundle every half-minute within 20 miles of the target in both directions; and at one bundle every minute on the way home.

(b) 3 Mosquitoes of 139 Squadron were to attack the target before the main effort began at zero - 6, also dropping large quantities of WINDOW. 4 other Mosquitoes of the same squadron were to proceed to the target T.I., turn a track of 145°T., fly for 3½ minutes on this track, then release spoof fighter flares at 20-second intervals. 3 more Mosquitoes were to attack after main force at zero + 120.

...../SORTIES.

SORTIES

12.	(a)	No. of aircraft despatched.....	450
	(b)	" " " reporting attack on primary area.....	383(85.1%)
	(c)	" " " " " alternative area.....	11(2.5%)
	(d)	" " abortive sorties (tech.defect or manipulative error.....21)	28(6.2%)
		(crew failure.....7)	
	(e)	" " aircraft missing.....	28(6.2%)

WEATHER EXPERIENCED

13. Bases:- For take-off, visibility was no more than 1-2,000 yards, except in Yorkshire. Conditions gradually deteriorated until, by 0100-0200, fog and mist had become widespread S. of 54°N., except in W. Midlands, 91 Group and S. coast. N. of 54°N. visibility remained moderate.

Route:- 10/10ths. cloud to 10-16,000', breaking locally to 3-6/10ths. around 6-9°E., with occasional tops towering to 18-22,000'. Cloud dispersed to small amount 50 miles from the target.

Berlin: No cloud. Good visibility. No moon.

Mean wind at 16-22,000':- 310°/50-55 m.p.h.

NIGHT PHOTOGRAPHIC STATISTICS

14.	No. of photographs plotted within target area (ground detail...22)....	72
	(fire-tracks.....50)	
	" " " " " outside " " (ground-detail...27)....	168
	(fire-tracks....141)	
	" " unplotted photographs.....	39
	" " aircraft estimated to have bombed inside target area	
	(maximum.....)	115
	(minimum.....)	73
	(probable figure.....)	104
	" " " " " " " within 3 miles of aiming-point...38	
	(" " " reporting attack.....)	383

NARRATIVE OF ATTACK

15. Only 4 salvoes of T.I. were dropped before zero hour, including one of reds and yellows released by the only special marker to attack; these fell 8 miles N. of track. The other 3 consisted of reds dropped by primary markers which, together with the fourth salvo mentioned above, formed an equilateral triangle of side 7 miles and with base parallel to the line of approach. Backing-up began at zero + 2 and, although only 9 salvoes of greens were dropped, these were mostly well placed within the triangle of reds. It was around these that the main attack started and remained. One backer-up dropped T.I. in the woods 13 miles N.W. of the aiming-point, but these were too far from the main concentration to attract much attention. There was less tendency than usual to spread back, and little stray bombing.

LAY RECONNAISSANCE

16. Full photographic cover was not obtained until 2 core major raids had been delivered. The evidence of night photographs, however, suggests that most of the damage in the Reinickendorf-Tegel area may be attributed to the attack under review. Here there is a group of extremely important industries, including certain armament and engineering works of the highest priority. Rheinmetall Bersig, A.G. (priority 1+), engaged in the production of torpedoes, bombs, navy

..../types of guns,

types of guns, shells, tanks and fuses, were almost half devastated by fire. 45% of the buildings being affected. Argus Motoren and Porgmann Elektricitatswerke (both priority 1) were very seriously damaged, together with Norddeutsche Dornier and the large group of armaments factories including Mauserwerke A.G. (both priority 3). The Tegel gasworks and by-products plant (priority 2), as important as any gasworks in Berlin, was partly gutted. (As one priority target, the Prometheus G.M.B.H., escaped unscathed, many engineering works and miscellaneous factories were hit. Other incidents doubtless resulted from this attack in other parts of the city; a complete statement of all damage caused in the first 6 raids of the Battle of Berlin to be given in Night Raid Report No. 489.

#### ALTERNATIVE TARGETS

17. 11 aircraft bombed alternative targets, in the areas of: Brandenburg, Coblenz(2), Limburg(2), Stuttgart, Kassel, Cognac, Cambrai and Abbeville.

#### SPECIAL EQUIPMENT

18. H2S 11 of the 12 primary blind-bombers reported attack; 6 dropped T.I., 5 blindly and one on a salvo of reds and yellows. The other 5 held their T.I., 4 because their H2S sets were unserviceable and one because his indication did not agree with his timed run. The twelfth aircraft was lost. 3 photographs were plotted, which suggest that these aircraft were short of target and N. of the track.

19. 4 special blind-bombers, equipped with H2S Mk. III, were despatched. One dropped T.I. blindly after a timed run from Brandenburg, and obtained a photograph 8 miles N.E. of the aiming-point. One other reached the target, but was evaded and harassed by searchlights and held in the narrow. The other 2 returned empty.

20. The serviceability of the secondary blind-bombers was very low; 5 reached Berlin, but only one could use its set to drop markers. 4 supporters bombed blindly on H2S, and 4 main force aircraft used their equipment to check their positions before bombing. In total, 7 of the 118 Y-aircraft reporting attack experienced no H2S failure. 9 Y-aircraft were lost.

#### ANTI DEFENCES

21. Ground defences Numerous searchlights were active, coning aircraft for the heavy guns to fire intense and accurate "predicted" flak. A moderate barrage was maintained up to 18,000', with light flak rising to 16,000'. On the way home, the defences of Hildesheim, Hannover and Bremen were seen in action, especially at the last-named town, where searchlights succeeded in illuminating individual aircraft. Blacked out the flak was mostly predicted and on.

22. Fighters The Berlin and Stuttgart forces followed the same route far as Frankfurt, whence they diverged to their respective targets. As a result no large fighter force was encountered over either target. Berlin was not identified as an objective until it was too late for the fighters to reach it in time, and Stuttgart was never identified. The controllers thought that Frankfurt was the main target, and most of the combats on the outward journey occurred on the 50-mile stretch between Frankfurt and Coblenz, where one aircraft reported seeing 10 Me.210's in loose formation. 40 fighters were observed over Berlin, where 9 combats took place. Few aircraft were seen over Stuttgart. On the way home, many aircraft strayed from the track, and presented favourable opportunities to controlled fighters operating between Bremen and the Ruhr. Most of the fighters seen were Ju.52's, but several unusual types were reported, including a FV.200 near Frankfurt, 3 Fw.200's over Berlin, and an unidentified aircraft with 4 engines and a single fin over Stuttgart. Lancasters of 5 Group destroyed 2 fighters, a Do.217 in the Frankfurt area and an unidentified twin-engine aircraft near Cologne.



CASUALTIES

23.	No. of aircraft missing.....	28 (6.2)
	" " " damaged (flak.....)	40
	(fighter.....)	11
	(collided with British bomber)	3
	(other causes.....)	25
		79

9 aircraft were lost over Berlin, 7 to flak and 2 to fighters. 4 were lost to controlled fighters on the way home, in the area between Bremen and the Ruhr, and 2 were shot down by flak at Bremen and Hannover. 15 aircraft are thus accounted for. 9 bombers were seen to go down on the outward route, 3 to fighters between the French coast and Coblenz, and 5 to fighters and one to flak in the Frankfurt area; but some of these may have belonged to the Stuttgart force, which was following the same route. No losses were observed over Stuttgart. Of the 55 bombers missing from both attacks, therefore, 14 were definitely destroyed by fighters, and 10 by flak. The other 9 must be attributed to "unknown causes."

24. 14 other aircraft returning from Berlin were wrecked beyond repair. 11 crashed on landing, one was abandoned over England, one collided with a bomber returning from Stuttgart and one was the result of severe fighter damage. 4 others overshot and were badly damaged.

STUTTGARTPLAN OF ATTACK

25. Route Beachy Head - 50°21'N. 01°30'E - 50°20'N. 09°10'E - 49°44'N. 09°14'E - STUTTGART - 48°50'N. 09°00'E - 50°20'N. 01°30'E - Beachy Head.

26. Route-marking All blind markers and backers-up were to drop red T.I. (IR) at 3 miles/180°/Coblenz on the way out; all see spot fires at 15 miles/014°/Strasbourg on the way home.

27. Method of Attack. Blind-markers were to illuminate the aiming-point with yellow T.I., each also releasing one string of white flares; the first bundle 40 seconds before the T.I. and the rest at 10 second intervals thereafter. Visual markers, guided by the yellows, were to mark the exact aiming-point with reds only if positive. If unable to identify visually, they were to hold their reds and aim greens at the estimated centre of all visible yellows, with a 2 second overshoot. Early backers-up were to aim greens at reds; later arrivals were to aim at the centre of greens, with a 2-second overshoot. (If the early ones could see no reds, they were to aim at the centre of yellows, with a 2 second overshoot). Supporters were to bomb on H23 if possible; otherwise on visual identification or at the centre of yellows. Main force aircraft were to bomb on reds or the centre of greens.

28.	<u>Timing</u>	<u>Zero hour: 2030</u>	<u>Duration of attack 2024-2038</u>
	Blind-markers.	9 Hls. and 2 Lincs. zero - 6	
	Visual-markers.	4 Hls. and 2 Lincs. to arrive at zero-4 and bomb as soon as possible.	
	Backers-up.	2 Hls. and 9 Lincs. from zero-2 to zero+7 (one a/c per min.)	
	Supporters.	21 Hls. at zero - 6	
	Main Force.	63 Hls. from zero to zero + 4	
		62 Hls. from zero + 4 to zero + 8	

...../Marker loads.

29. Marker loads

Blind markers: 6x4 white flares + 2 yellow T.I. (4LB) + 1 red T.I. (1LB)  
1 red spot fin.

Visual markers: 1x4 white flares + 10 red T.I. (5LB) + 1 green T.I.

Backers-up: 4 green T.I. (2LB) + 1 red T.I. (1LB) + 1 red spot fin.

30. Tactics WINDOZ was to be dropped at the rate of one bundle every 30 seconds to a point 20 miles from the target; one bundle every half minute every 20 miles of the target in both directions; and one bundle every minute for the rest of the way home.

31. Alteration in method of attack An alteration in the weather forecast necessitated a change to emergency Wanganui technique 15 minutes before take-off. The blind-markers were to drop yellow T.I. and release-point flares between zero - 1 and zero + 3, holding their illuminating flares. Visual markers were to join the blind markers and drop release-point flares blindly on H2S; they were on no account to drop aids. Backers-up were to drop green T.I. between zero and zero + 7.

SORTIE 3.

32.	(a)	No. of aircraft despatched.....	178
	(b)	" " " reporting attack on primary area.....	156
	(c)	" " " " " alternative run.....	5
	(d)	" " abortive sorties (tech. defect or manipulative error).....	10
		(crew failure.....)	1
		(plate.....)	1
	(e)	" " aircraft missing.....	5

WATER EXPERIENCE

33. Route:- As for Berlin route; but cloud tops remained below 16,000'.

Stuttgart:- 7-10/10ths. thin cloud, tops 10,00'. Fair visibility. No moon.

Wind at 18-20,000': 320°/60 m.p.h.

NIGHT PHOTOGRAPHIC STATISTICS

34.	No. of aircraft plotted in target area (ground detail.....)	8
	(fin.-tracks.....)	18
	" " " " " " (ground detail.....)	32
	(fin.-tracks.....)	47
	" " " " " " estimated to have bombed in target area (maximum.....)	
	(minimum.....)	
	(probable figure.....)	
	" " " " " " " within 3 miles of aiming-point.....	
	( " " " " " " " reporting attack.....)	

NARRATIVE OF ATTACK

35. The attack opened at zero - 4 with a salvo of reds, greens and sky markers flares dropped blindly and aids at instructions by a visual marker; these fell 2 miles E.N.E. of the aiming-point. They were followed by a blind marker's yellows and flares; and at zero - 1 by a second salvo of reds which fell to the E. of the town. Both red salvos were well backed up with greens. The main force bombed mainly on the reds. Owing to the strong cross-wind in the target area, they approached on a marked curve of pursuit, coming in to the target

..... /from the 255

in the N.E., so that the attack developed chiefly around the second salvo of T.I. A third salvo of reds fell 4 miles E. of the aiming-point as the attack ending, but attracted little attention.

#### RECOGNIZABLE SALVO

A concentration of bombs fell on the heavily camouflaged Daimler-Benz A.G. (Priority 1) works at Unterturkheim, which produce aero-engines and components for bicycles. 11 large, 11 medium and 21 small buildings were destroyed or damaged. A group of small industrial premises E. of the main station was devastated. A number of buildings of the railway repair workshops were severely hit, and the Adolf Hitler stadium and the Villa Berg were partly demolished. Elsewhere, damage was confined to isolated incidents, nearly all S.E. of the town centre. The large and airfield at Boblingen, 14 miles S.W. of Stuttgart, were covered for the first time for some months. The village centre has been destroyed, and several small factories in the outskirts and a few minor buildings of the airfield have been destroyed or damaged.

#### RELATIVE TARGETS

5 aircraft bombed alternative targets, in the areas of: Coblenz, Mannheim, Merzen, Hanau and Abbeville.

#### ALL EQUIPMENT

H23 8 blind-markers (including 2 of these aircraft originally detailed as visual markers) dropped release-point flares, and 6 of these, together with others, dropped yellow T.I. Contrary to instructions, 3 salvos of greens and 1 red were also dropped. The reds were scattered, and were largely responsible for diverting the main force from the target. All 8 markers up used greens, 5 aiming at reds; and they were joined by one of the Berlin bombers-up, which had been damaged by flak at Frankfurt and visited Stuttgart last, dropping greens on reds and greens at zero + 1. 18 of the 27 supporters took the primary, 5 bombing blindly as ordered and 13 visually or on T.I. Air timing was poor, 7 of them bombing after zero hour. 5 supporters were lost, including 3 which bombed blindly; they were spread over a distance of miles, from N.W. to S.E. of the main concentration. Altogether, 40 of the 100 aircraft reporting attack found their sets in order over the target; none lost.

#### TYPE DEFENCES

Ground Defences Cloud hampered the ground defences. Few searchlights were seen, and the guns fired in order to barrage up to 30,000'. Some predicted "seen" fire was also encountered. The defences of the Mainz-Frankfurt area were very active, numerous searchlights illuminating targets for accurate "seen" fire. A large balloon was clearly seen at 24,000' over Frankfurt.

Fighters See paragraph 2.

#### LOSSES

No. of aircraft missing.....	5 (2.8%)
" " " Damaged (flak.....)	5
" " " " (fighter.....)	5
" " " " (collided with British base.....)	1
" " " " (other causes.....)	2
	13

No losses were observed over Stuttgart, and bombers seen to go down on way may have been bound for Berlin. Details of identified losses have been given in paragraph 22. One Halifax collided over England with a Lancaster returning from Berlin, and both were wrecked. 2 other aircraft were damaged and repair, one by flak and one as the result of a landing accident. The losses for flak and fighter damage represent an unusually small proportion of the force.

...../MDELAYEG.

MINE LAYING

41. 31 Wellingtons and Stirlings laid 125 mines off the Prisians and the Dutch coast; 2 other aircraft returned early. 2 aircraft carried H2S, but neither used it over the target area. No aircraft was lost, but one flew into the ground on return and another crash-landed. Both were heavily damaged, the former beyond repair. No other incidents were reported.

LEAFLETS

42. 5 Wellingtons, manned by pupil crews, dispersed leaflets over N. France. All returned safely, although one was hit by flak.

MLM/JT.

BC/S. 263.2/5/CRS4,  
25th. January, 1944.

www.bombercommandmuseumarchives.ca

TARGET	GROUP	INTERPT TYPE	COUNT	NO REPORTING		ABORTIVE		MISC	CLASS				INT DESCRIPTION		RESULTS	
				BLOCK ON		NOTES			FLK	HYPER	DESC	OTHER	INT	NOT	D.E.	Inc.
				PRIM	ALT	OVER	NOT									
BERLIN	B	Wdgq-IV	4	4	-	-	-	-	-	-	-	-	-	-	-	-
	FFF	Lanc-III	37	31	2	-	2	2	100+9	20	1	-	4	5	2,300.5	717.1
	B	Wdgq-IV	3	3	-	-	-	-	-	-	-	-	-	-	19.8	17.4
	M.P.	Lanc-III	32	28	-	-	2	2	-	-	-	-	-	-	60.1	36.9
		Lanc-X	1	1	-	-	-	-	-	-	-	-	-	-	1	heavy bombs
	1	Lanc-I	27	21	1	1	1	3	5	10	10	10	3	1	114,000lb.	
		Lanc-III	126	106	2	2	8	8	200+9	20	18+100	18+20	2	2	114,000lb.	
	3	Lanc-II	20	14	2	-	2	2	-	-	-	-	-	-	114,000lb.	
	5	Lanc-I	42	30	-	-	1	3	10	10	10	10	2	4		
	6	Lanc-III	119	104	4	-	5	6	200+8	20	200	60+10	5	12		
	Lanc-II	39	33	-	2	2	2	1	100+0	-	-	2	3			
BERLIN TOTAL			450	383	11	5	23	28	600+4	100+0	100+0	120+0	18	34		
STUTTGART	B	Wdgq-IV	11	11	-	-	-	-	-	-	-	-	-	-	2,229.1	217.2
	FFF	Lanc-III	15	14	-	1	-	-	-	10	-	-	1	2	0.1	5.6
	1	Lanc-I	1	1	-	-	-	-	-	-	-	-	-	-	5.4	2.6
		Lanc-III	5	4	-	-	-	1	-	-	-	-	-	-	1	heavy bombs
	4	Hal-III	16	10	-	1	2	3	-	-	-	10	-	-	114,000lb.	
	5	Hal-III	74	66	4	-	4	-	3	100+0	-	-	5	4	114,000lb.	
	Hal-L	27	24	1	-	2	-	10	1	10	10	1	2	114,000lb.		
	Hal-L	29	26	-	1	1	1	-	-	10	-	-	-			
STUTTGART TOTAL			178	156	5	3	9	5	100+0	100+0	10	100+0	7	8		
BOMBING TOTAL			628	539	16	8	32	33	100+0	100+0	200+0	130+0	25	42		

...../over..

BERLIN: STUTTGART: Landing: Leaflets:  
26/27th. NOVEMBER. 1943.

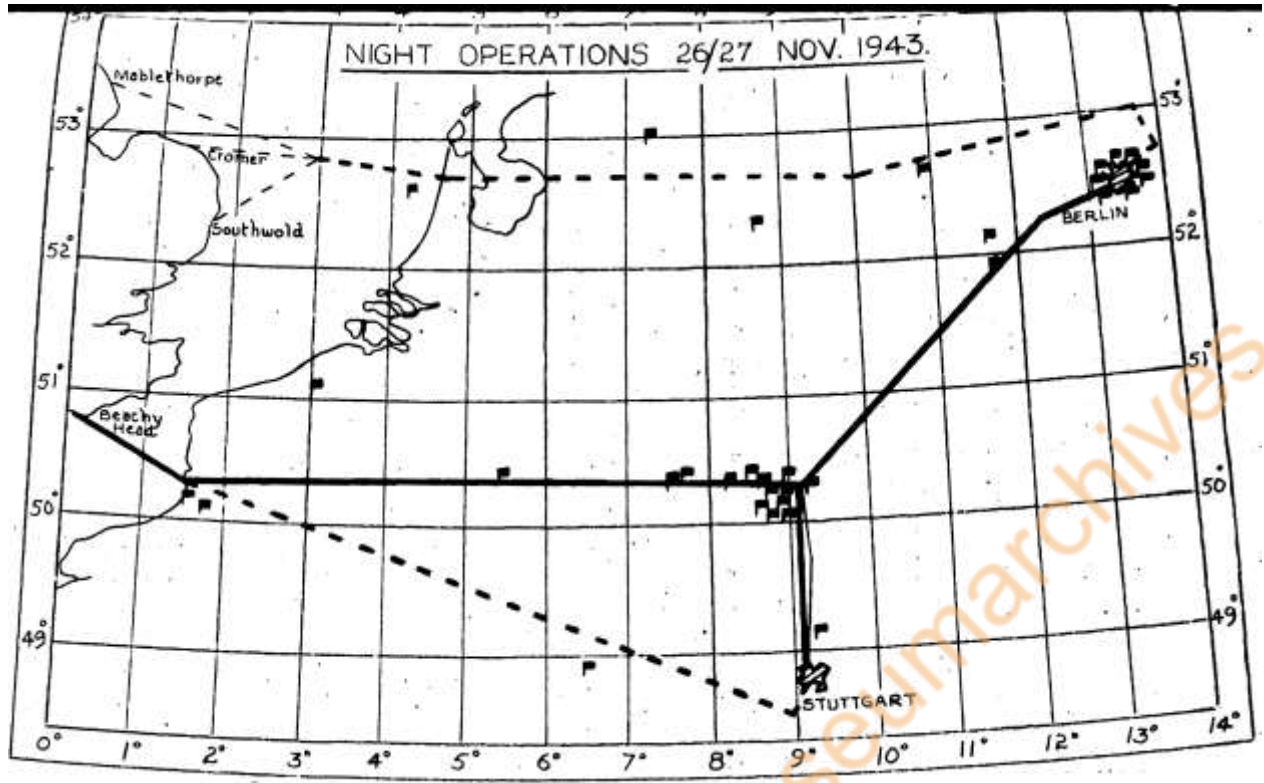
TARGET	GROUP	INTERPT TYPE	COUNT	NO REPORTING		ABORTIVE		MISC	CLASS				INT DESCRIPTION		RESULTS
				BLOCK ON		NOTES			FLK	HYPER	DESC	OTHER	INT	NOT	
				PRIM	ALT	OVER	NOT								
BOMBING TOTAL			628	539	16	8	32	33	100+0	100+0	200+0	130+0	25	42	
LAMPYRE	1	Well-X	1	1	-	-	-	-	-	-	-	-	-	-	2 mines
	1	Well-X	3	3	-	-	-	-	-	-	-	-	-	-	6 mines
	1	Well-X	10	9	-	-	-	-	-	-	-	-	-	-	18 mines
PARL. 5	1	Well-X	19	18	-	-	1	-	-	-	-	10+10	-	-	59 mines
	3	Star-III	19	18	-	-	1	-	-	-	-	-	-	-	
LAMPYRE TOTAL			33	31	-	-	2	-	-	-	-	10+10	-	-	125 mines
LAMPYRE	1	Well-10	3	3	-	-	-	-	100	-	-	-	-	-	
	1	Well-X	2	2	-	-	-	-	-	-	-	-	-	-	
LAMPYRE TOTAL			5	5	-	-	-	-	100	-	-	-	-	-	
TOTAL			666	575	16	8	34	33	100+0	100+0	200+0	140+0	25	42	

RCB/JT.  
O.R.S. 2.

LA.FLTS AT: ROOM: CLERK: COVERED: PLAS:

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NIGHT OPERATIONS 26/27 NOV. 1943.



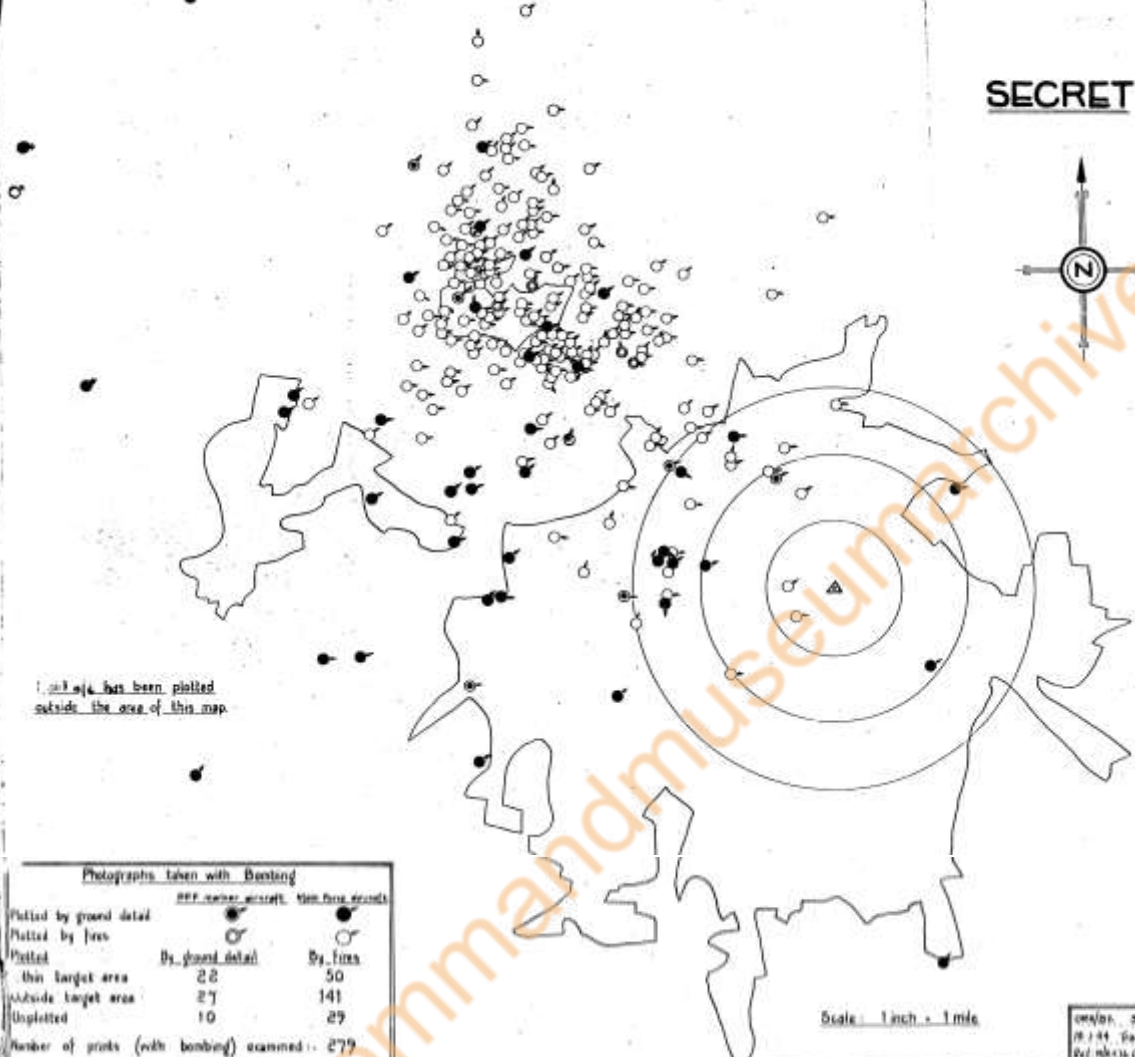
www.bombercommandmuseumarchives.ca

FINAL PLOT OF NIGHT PHOTOGRAPHS 237

TAKEN 26/27<sup>th</sup> NOVEMBER 1943

TARGET : BERLIN

**SECRET**



1. 23. 24 has been plotted outside the area of this map

Photographs taken with Banteng

	By ground detail	By fires
Plotted by ground detail	●	○
Plotted by fires	○	●
Plotted		
this target area	28	50
outside target area	27	141
Unplotted	10	29
Number of prints (with bombing) examined : 279		

Scale : 1 inch = 1 mile

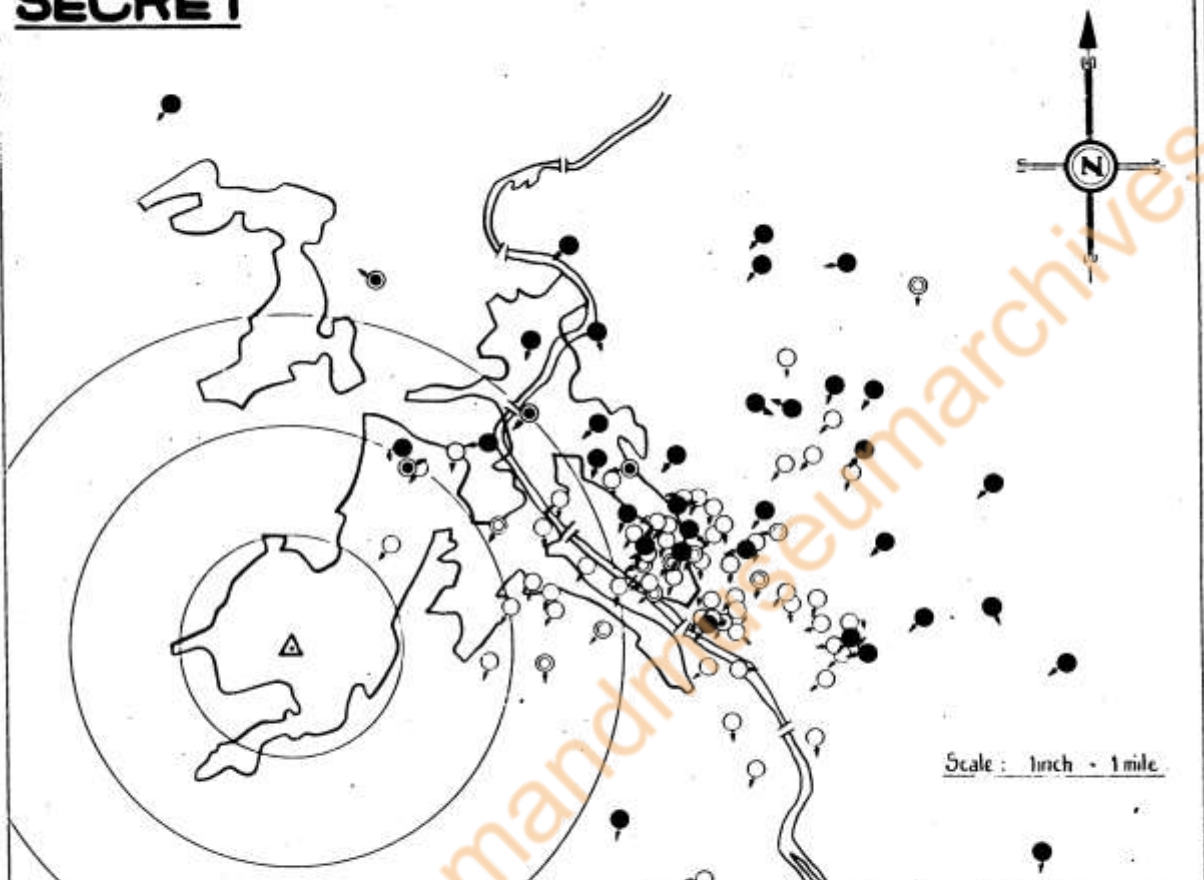
OW/DA. 2878  
 28.11.43. 2000-20  
 2000-2000

www.bombercommandmuseumarchives.ca

**FINAL PLOT OF NIGHT PHOTOGRAPHS**  
 TAKEN **26/27** NOVEMBER 1943. TARGET: **STUTTGART**

238

**SECRET**



Scale: 1 inch = 1 mile

ORS/BC 335 B  
 5-2-44 Tracer: Jv  
 Ref: N/R 476 (hd) (ss)

2 aircraft have been plotted outside the area of this map

Photographs taken with bombing		
	PFF marker aircraft	Man force aircraft
Plotted by ground detail	●	●
Plotted by fires	⊙	⊙
<u>Plotted</u>	<u>By ground detail</u>	<u>By fires</u>
Within target area	8	18
Outside target area	32	47
Unplotted	9	11
Number of prints (with bombing) examined: 125		

www.bombercommand.com/aircrewarchives.ca



BOMBER COMMAND REPORT ON NIGHT OPERATIONS

28/29th. NOVEMBER, 1943

Essen: Duisburg: Minelaying: Leaflets:

MARY

Essen 10 OBOE Mosquitoes (8 Mk.I and 2 Mk.II PENWIPER) were despatched on a precision attack against Krupp's works at Essen. 9 bombed the primary area, but only 3 after controlled runs. Both Mk.II aircraft received excellent tracking signals, but no release signals due to the failure of the releasing mechanism; 2 Mk.I aircraft received unsatisfactory signals, one had an unserviceable transmitter and a fourth, which was receiving good signals, was hit by flak and to release one minute early. The tenth aircraft returned early. None lost.

Duisburg One Mk.II PENWIPER Mosquito left to attack the Thyssen steel-works at Duisburg, but its precision device failed and it bombed on D.R.

Minelaying 9 Stirlings and Wellingtons laid 38 mines off Brest, Cherbourg and Le Havre; a tenth returned early. No casualties were sustained.

Leaflets 7 Wellingtons were sent to disperse leaflets over towns in northern France. 4 reached their targets, and one other dropped its bundles over a useful area. The other 2 aircraft returned early. 8 Fortresses of U.S.B.C. successfully operated over the Low Countries. All returned undamaged.

OTHER FORECAST

Bases:- A cold front, lying at 1600 from 53 $\frac{1}{2}$ N. 03E. - Felixstowe - 50N. will move south-eastwards at about 40 m.p.h., clearing operational areas by 08.00. Bases should generally be fit, with well-broken cloud, many clearances and good visibility.

Germany:- Much very low cloud, main tops below 10,000', with layered medium cloud above. Much strato-cumulus beyond 11E. Ruhr at 2230: 10/10ths. Lid from 25,000' to near surface, with more cloud above. Poor visibility.

France:- Cold front from England will reach north coast of France between 2100 and 2200; low cloud will lift and break, although rain will persist, and visibility will be good. Brest peninsula: broken convection cloud at 2,000' with showers. Cherbourg and Le Havre: well broken convection cloud.

RESULTS

		Bombing	Mine-laying	Leaf-lets.
(a)	No. of aircraft despatched.....	11	10	7
(b)	" " " reaching primary area.....	10	9	4
(c)	" " " " alternative area.....	0	0	1
(d)	" " abortive sorties (technical defect).....	1	1	2
(e)	" " aircraft missing.....	0	0	0
(f)	" " mines laid.....		38	

OTHER EXPERIENCED

Bases:- Fit all night.

Ruhr:- 9/10ths. alto-stratus, tops 20,000'. Traces of cirrus at 32,000'.

French ports:- Fair, with good visibility, and occasional showers. Strong winds.

...../EPENY DEFENCES.

ENEMY DEFENCES

8. 2 single-engined aircraft were fired on by a Stirling near Cherbourg, did not reply. No other fighters were seen or overheard. Mosquitoes met intense and accurately "predicted" unseen flak over Essen at 29-32,000'. Other incidents were reported.

CASUALTIES

9. All aircraft returned safely. 2 Mosquitoes received minor flak damage over Essen.

MLM/JT.  
BC/S. 26342/5/ORS4,  
22nd. January, 1944.

TARGET	GROUP	AIRCRAFT TYPE	SORTING	W/O REPORTING ATTACK ON		UNKNOWN SORTING		MIS- DIR	DAMAGE				INTERCOMMENTS		BOMB TONNAGE	
				PRDG. AREA	ALF. AREA	OVER E.T.	NOT OVER E.T.		FLAK	VEHICLE	MISC. IN FLIGHT	OTHER CLASSES	ATLACK- ED	NOT ATACK- ED		
ESSEN	8	Moag. IX	7	7	-	-	-	-	1	-	-	-	-	-	-	P. 8.1
		FFP	3	2	-	-	1	-	1	-	-	-	-	-	-	
ESSEN TOTAL			10	9	-	-	1	-	2	-	-	-	-	-	-	
DUISBURG	877	Moag. IX	1	1	-	-	-	-	-	-	-	-	-	-	-	P. 0.9
DUISBURG TOTAL			11	10	-	-	1	-	2	-	-	-	-	-	-	
MINEFIELD																
BRISTOL	1	Well. X	5	4	-	-	1	-	-	-	-	-	-	-	-	8 Mines
LE HAVRE	3	Stir. III	3	3	-	-	-	-	-	-	-	-	-	-	1	18 Mines
CHERBOURG	3	Stir. III	2	2	-	-	-	-	-	-	-	-	-	-	-	12 Mines
MINEFIELD TOTAL			10	9	-	-	1	-	-	-	-	-	-	1	-	38 Mines
LE FLERS		Well. Io	1	1	-	-	-	-	-	-	-	-	-	-	-	
N. FLERS	93	Well. III	3	2	-	-	1	-	-	-	-	-	-	-	-	
		Well. X	3	1	1	-	1	-	-	-	-	-	-	-	-	
LE FLERS TOTAL			7	4	1	-	2	-	-	-	-	-	-	-	-	
LE FLERS (U.S.A.B.C.)		Fortress	8	8	-	-	-	-	-	-	-	-	-	-	-	
TOTAL			28	23	1	-	4	-	2	-	-	-	-	1	-	

\* NOT INCLUDED IN TOTAL

93 Group to:- ROULIN; JPREVILLE; LILLY; TOURCOING;

Fortresses to: BRUNEL; GHEUT; LILLY; A. TROU; ROTTERDAM; GOSSELIS;

BOMBER COMMAND REPORT ON NIGHT OPERATIONS

29/30th. NOVEMBER, 1943.

Dusseldorf: Cologne: Bochum: Leaflets:

SUMMARY

Dusseldorf 3 Mk.II OBOE Mosquitoes (2 PENNIPER and one FOUNTAIN-PEN) were despatched on a precision raid against Rheinmetall Borsig A.G. in Dusseldorf, while 6 Mosquitoes not equipped with precision devices carried out a harassing raid on the town. One PENNIPER aircraft made an accurately controlled run; the other 2 OBOE aircraft received poor signals and bombed the primary on D.R. All the harassing Mosquitoes attacked successfully on D.R. All returned undamaged.

Cologne 4 Mosquitoes, not equipped with precision devices, bombed the built-up area of Cologne; a fifth returned early. No casualties were sustained.

Bochum 7 Mk.I OBOE Mosquitoes were detailed to attack the Vereinigte Stahlwerke at Bochum. 5 made controlled runs, and the other 2 released on D.R., one receiving intermittent signals and the other experiencing a complete failure on one frequency. All returned safely.

Leaflets 9 Wellingtons and Whitleys successfully dispersed leaflets over Northern France. None was lost, although one was wrecked beyond repair by flak and another was damaged in a taxiing accident. 3 U.S. Fortresses completed a similar operation.

WATHER FORECAST

Midnight frontal positions:- (1) minor cold front from N. to S. at 05°E.

Bases:- well broken convection cloud, with scattered showers and moderate visibility.

Germany:- heavy convection cloud over central and E. North Sea, towering above 25,000' and extending inland over N. Germany to the edge of high ground. Further inland, there will be good clearances in convection cloud, especially in the Middle Rhine; but near the Alps, cloud will again build up to great heights.

France:- heavy convection cloud, tops above 20,000', over W. coast. Well broken convection cloud in N.E. and E.

SORTIES

	<u>Incubing</u>	<u>Leaf-lets</u>
(a) No. of aircraft despatched.....	21	9
(b) " " " reporting attack on primary area.....	20	9
(c) " " abortive sorties (technical defect).....	1	0
(d) " " aircraft missing.....	0	0

WATHER EXPERIENCE

Bases:- Fit all night, apart from local showers.

Ruhr:- Variable amounts of drifting cloud; average 5/10ths., but clear at times.

ENEMY DEFENCES

8. Searchlights were active in the Ruhr, 200 being exposed at Düsseldorf. Moderate but accurate "seen" fire was encountered from the heavy guns. No fighters were seen. Leaflet aircraft met opposition from known defended

CASUALTIES

9. No aircraft was lost; but one Whitley was damaged beyond repair by heavy flak, and another met with a taxing accident. No casualties were sustained.

MLM/JT.  
BC/S. 26342/5/ORS4,  
22nd. January, 1944.

TARGET	GROUP	AIRCRAFT TYPE	BOMBERS	W/O BOMBING		LOSSIVE BOMBERS		MISS-ING	DOWN				INTERCEPTIONS		BOMB TONNAGE	
				FLAK	ANTI-AIR	OVER R.T.	NOT OVER R.T.		FLAK	FIGHTER	MISC. IN FLIGHT	OTHER CLASSES	STUCK-ED	NOT STUCK-ED		R.E. Inc.
DUSSÉLDORF	B	Moq. IX	3	3	-	-	-	-	-	-	-	-	-	-	-	-
	FPF	Moq. IV	6	6	-	-	-	-	-	-	-	-	-	-	-	-
DUSSÉLDORF TOTAL			9	9	-	-	-	-	-	-	-	-	-	-	-	P. 7.6
COLOGNE	8FPF	Moq. IV	5	4	-	-	1	-	-	-	-	-	-	-	-	P. 3.6
BOCHUM	B	Moq. IX	3	3	-	-	-	-	1	-	-	-	-	-	-	-
	FPF	Moq. IV	2	2	-	-	-	-	-	-	-	-	-	-	-	-
BOCHUM TOTAL			7	7	-	-	-	-	1	-	-	-	-	-	-	P. 6.3
BOMBING TOTAL			21	20	-	-	1	-	1	-	-	-	-	-	-	-
LE FLERS R.F.C. 93	93	Well. 1c	1	1	-	-	-	-	-	-	-	-	-	-	-	-
		Well. X	6	6	-	-	-	-	-	-	-	-	-	-	-	-
		Whit.	2	2	-	-	-	-	-	1X	-	-	1.C	-	-	-
LE FLERS TOTAL			9	9	-	-	-	-	1X	-	-	1.C	-	-	-	-
LE FLERS (U.S. B.C.)	Fortress	8	8	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL			30	29	-	-	1	-	1X-1	-	-	1.C	-	-	-	-

\* NOT INCLUDED IN TOTAL

93 Group to:- PARIS: MELUN: PONTAUBERTE: MONTAIGIS: VINCENNES:

Fortresses to:- BREDES: LE FLERS: OIGNIES: CHARNOY: PARIS: JUISES: ROUEN:

BOMBER COMMAND REPORT ON NIGHT OPERATIONS

30th. NOVEMBER/1st. DECEMBER, 1943.

Essen: Minelaying: Leaflets:

SUMMARY

Essen 4 Mk.I OBOL Mosquitoes were detailed on a precision test against Krupp's works at Essen. 2 made controlled runs, and 2 bombed on D.R. because of the failure of their devices. All returned safely.

Minelaying 42 Stirlings and Wellingtons laid 115 mines off the French Atlantic ports; 2 other aircraft returned early. None was lost.

Leaflets 7 Wellingtons, accompanied by 7 U.S. Fortresses, dispersed leaflets over France and N.W. Germany without loss.

WEATHER FORECAST

Bases:- Generally fit all night, with variable amounts of cumulus and strato-cumulus, scattered showers and moderate visibility.

Germany:- Heavy convection cloud to above 20,000' over North Sea and North German plain. Much cumulo-nimbus cloud in central and S. Germany, with a few clearances. Munich might have good breaks late in the night, but these are unlikely.

France:- Good clearances in convection cloud. Scattered showers over W. coast.

FIGURES

		<u>Bombing</u>	<u>Mine-laying</u>	<u>Leaf-lots.</u>
(a)	No. of aircraft despatched.....	4	44	7
(b)	" " " reaching primary area.....	4	42	7
(c)	" " abortive sorties (tech defect).....	0	2	0
(d)	" " aircraft missing.....	0	0	0
(e)	" " mines laid.....		115	

WEATHER EXPERIENCED

Bases:- Fit all night. Cloud dispersed quickly after dusk.

Essen:- 7-3/10ths. layer cloud, occasionally breaking to 5/10ths. Tops 2,000'.

W. France:- 9/10ths. strato-cumulus, base 2,000', tops 5,000' in extreme E. Little or no cloud elsewhere. Good visibility. No moon.

REPLY DEFENCES

Nothing of interest was reported.

CASUALTIES

All our aircraft returned safely. 2 Mosquitoes received minor damage from flak over Essen.

IM/JT.  
C/S. 26342/5/CRS4,  
2nd. January, 1944.

ESSEN: Minelaying Leaflets:  
30th NOVEMBER/1st DECEMBER, 1943.

T. UNIT	GROUP	AIRCRAFT TYPE	SERIES	W/C REPORTING		SCHEMATIC		HESS-ING	DAMAGE				INTERCEPTIONS		RESULTS
				1944 JAN.	1943 JAN.	OVER E.T.	NOT OVER E.T.		PLANE	FIGHTER	DESC. IN FLIGHT	OTHER CAUSES	TRACK- ED	NOT TRACK- ED	
ESSEN	8 STP	Moag. IX	4	4	-	-	-	-	2	-	-	-	-	-	1. 3.6
MINELAYING															
LORENZ	1	Well. X	7	6	-	-	1	-	-	-	-	-	-	-	12 mines
SP. 11	1	Well. X	5	5	-	-	-	-	-	-	-	-	-	-	10 mines
SP. 11	1	Well. X	3	3	-	-	1	-	-	-	-	-	-	-	4 mines
GLADSTONE	3	Star. III	11	11	-	-	-	-	-	-	-	-	-	-	33 mines
L. 11	3	Star. III	8	8	-	-	-	-	-	-	-	-	-	-	20 mines
S. 11	3	Star. III	6	6	-	-	-	-	-	-	-	-	-	-	14 mines
CHERBOURG	3	Star. III	2	2	-	-	-	-	-	-	-	-	-	-	18 mines
LA FLAHE	3	Star. III	2	2	-	-	-	-	-	-	-	-	-	-	10 mines
MINELAYING TOTAL			44	42	-	-	2	-	-	-	-	-	-	-	115 mines
LE FLAHE		Well. Ic	2	2	-	-	-	-	-	-	-	-	-	-	
N. 11	91	Well. X	1	1	-	-	-	-	-	-	-	-	-	-	
	92	Well. X	4	4	-	-	-	-	-	-	-	-	-	-	
LE FLAHE TOTAL			7	7	-	-	-	-	-	-	-	-	-	-	
CHERBOURG (U.S.A.B.C.)		Fortress	7	7	-	-	-	-	-	-	-	-	-	-	
TOTAL			55	53	-	-	2	-	2	-	-	-	-	-	

\* NOT INCLUDED IN TOTAL.

Leaflets: Wellingtons to - Rouen, Paris and Argentan.  
 Fortresses to - houses, Touss, Krefeld and Opoleen.

www.bombercommandmuseumarchive.ca