

BOMBER COMMAND REPORT ON NIGHT OPERATIONS JULY 1/2ND, 1942.

Meteorological Advice Submitted to the Command

1. 0920 hours. N. German Plain:- Some medium and broken low cloud.
Low Countries and Ruhr:- Local thunderstorms persisting.
France:- Well broken cloud, with local thunderstorms inland.
Home Bases:- Sea fog on east coast. Local fog developing and thunderstorms persisting south of the Humber. Variable cloud in Yorkshire.
- 1230 hours. Germany:- Good breaks in cloud now expected along North Sea coast. Tendency for thunderstorms still exists inland especially in Ruhr-Rhine area.
Home Bases:- Thunderstorms now improbable. Threat of fog eliminated except over east coast. Not expected to spread far inland.
- 1700 hours. Mining Area:- Considerable cloud east of 4th Group with possibility of scattered showers. Doubtful in Copenhagen area, may be thick cloud or may be considerable breaks.
Home Bases:- Few worries inland except in 2 Group who expect stratus cloud.

Executive Orders

2. Thundery and frontal conditions made bombing and mining in the areas within range during the hours of darkness very difficult undertakings. Many of the bases were threatened by fog and the night's effort was confined to a small mining task in an important area at a range to which the speed and endurance of the Lancasters was suited.

Sorties

3. 4 Lancasters of 5 Group was despatched to lay mines. 3 were detailed for the Great Belt and 1 for the Sound.

Moon

4. The moon, which was 83% of full, was above the horizon during these operations.

Weather

5. There was much low stratus cloud with patches of mist and fog over most bases, but not in the northern half of 4 Group, Norfolk and Suffolk. En route to the mining areas cloud increased to 8 - 10/10, but over Denmark the base lifted to 1500-2000 ft. Below the cloud visibility was good.

Minelaying

6. All the aircraft were able to identify their positions visually and lay their mines in the correct positions. 20 mines were laid altogether, but one was seen to explode on hitting the water. A certain amount of light flak was encountered, in one case from a convoy of about 20 small ships in the Great Belt, but none of our aircraft suffered any damage.

BC/S.26342/1/ORS.
24th July, 1942.

BOMBER COMMAND REPORT ON NIGHT OPERATIONS, JULY 2/3rd, 1942Meteorological Advice Submitted to the Command

1. 0920 hours. Germany:- North of 52°N and west of 10°E. fine with moderate visibility. South of 52°N local thunderstorms expected.
- France:- Thunderstorms and thundery raid with generally cloudy conditions.
- Home Bases:- Thunderstorms breaking out during day in S. England and N. France will drift northwards, but may not reach Lincolnshire and Yorkshire.
- 1245 hours. Bremen:- Small amounts of cloud; moderate to good visibility.
- Home Bases:- Thunderstorms expected to spread northwards from Channel in evening, but probably not north of the Wash. Threat of low stratus along coast north of this. Smoke haze in Vale of York.
- 1715 hours. Bremen:- No change.
- Home Bases:- Risks of thunderstorms less but they may occur in S.E. England and East Anglia. Widespread fog in 91 and 92 Groups by dawn. Local fog affecting about 58% of bases likely in other Groups.
- 2145 hours. Bremen:- Small amounts of cloud expected.
- Home Bases:- Thunderstorms very local. Threat of low stratus in 91 Group and southern half of 92 Group and at inland stations of 4 Group. Other Groups expect only local mist around dawn.

Executive Orders

2. Good conditions over Germany were not accompanied by very satisfactory forecasts for bases. In consequence a projected full scale attack by all the resources of the Command was abandoned in favour of an operation against Bremen by all the available aircraft of the operational Groups. A marked improvement in the prospects for bases and the evidence obtained by a late meteorological reconnaissance justified continuing with this operation.
3. Intruder operations on this night were designed to interfere with the enemy's night fighter effort against our bombers attacking Bremen.

Sorties

4. 349 sorties were despatched, 325 of them to Bremen. For details of the operations see attached table.
5. 46 (13.2%) sorties were abortive. The reasons were as follows:-

Technical Failures	36
Unable to locate target	1 (Intruder)
Sickness	6
Flak	1
Fighter	1

.... / Moon

Moon

6. The moon was above the horizon during these operations and 74% of full.

Weather at Home Bases

7. Small amounts of cloud with moderate visibility were the conditions over most of the Home Base area during the night but much low stratus spread over S. England.

BREMENPlan of Attack

8. This attack was timed to last for 30 minutes from 0140 - 0210 hours. The maximum economical incendiary loads consisting of 50% 30 lb. I.Bs and 50% 4 lb. I.Bs and made up, where necessary, with the largest types of H.E., were to be carried. T.R. 1335 aircraft were to approach the target from West to East along the "B" lattice line and to bomb visually when the target had been identified.

Weather

9. The only cloud present was some high cloud at about 20,000 ft. which tended to obscure the moon which was near the horizon. There was some haze over the surrounding country but Bremen itself was not seriously obscured.

Results

10. 265 (82%) of the 325 aircraft despatched claim to have bombed the target dropping 183 tons of H.E. and 326 tons of incendiaries. In most cases the target was recognised visually, although few crews report seeing the aiming point. A small number bombed blind on T.R. 1335, however, owing to inability adequately to distinguish ground detail. Many scattered fires were reported and were said by a number to lie to the west of the target.

11. 87 photographs showing ground detail were taken with bombing, 55 of which remain unplotted. 1 photograph shows the aiming point and 5 more have been plotted within 5 miles. The other plotted photographs indicate that the attack was scattered over a considerable area to the west and south-west of the target with evidence of a slight concentration in the neighbourhood of Delmenhorst during the first half of the attack.

12. No fresh damage of any importance to Bremen was shown by a subsequent reconnaissance, although the aircraft which took photographs of the town with bombing report fires in the dock area. In Delmenhorst, however, fresh damage has been done to the Nordd Wollkammerei und Kammgarn Spinnerei. A further 5,000 sq. yds. of the main workshop has been destroyed, another workshop or store 260 ft x 120 ft. has been completely destroyed and 2 long sheds severely damaged by fire. In this town also a residential area of nearly 2 1/2 acres has been devastated by fire, 13 or 14 houses being gutted, the Real Schule has been severely damaged, and 4 other houses gutted.

Other Targets Attacked

13. Attacks were made on Emden, Oldenburg, Wilhelmshaven, Ardorf aerodrome, Texel aerodrome and a concentration of flak and searchlights at Ameland by aircraft which were unable to continue to the target area.

Casualties

14. 12 (3.7%) of our aircraft are missing from this operation and 28 (8.6%) received damage to varying extents. Of those aircraft which were damaged 22 (6.8%) were hit by flak, 5 (1.5%) were hit by fighter and 1 Hampden was damaged by fire from a Wellington.

15. At Bremen moderate to intense heavy flak was experienced in predicted concentration, this was, however, mainly inaccurate: intense light flak was

directed mainly from the town and docks and was stated to be fairly accurate. The conditions of weather and visibility however favoured the successful use of night fighters.

16. An analysis of our observations of aircraft shot down shows that our losses probably occurred mostly 'en route' to the target and on the return journey. These observations are, however, not very explicit, but would appear to indicate two probable losses to flak. Interceptions were high at 12% of sorties and of these interceptions nearly 40% developed into attacks - the enemy claim furthermore that 9 British aircraft were shot down between 0109 and 0300. The evidence points, therefore, to two possible losses to flak and 9 to fighter attack.

17. The overall losses on this occasion are lower than the average missing rate under similar conditions of weather and visibility of 5.5%. The heavies sustained a missing rate at 4.4%, the rate for the medium aircraft was 2.4%.

INTRUDERS

18. Intruder operations were carried out against 6 aerodromes from which it was thought night fighters might operate against our bombers as follows:-

19. St. Trond 3 of the 4 Blenheims sent to this aerodrome attacked it and report that they dropped their bombs across the airfield. Bursts were seen and incendiaries burning but no other results were observed. The remaining aircraft is missing.

20. Venlo 4 Blenheims set out to attack this aerodrome and 2 claim to have done so. They state that their bombs fell across the airfield, bursts being seen and incendiaries were left burning. Another aircraft which was unable to locate the target bombed the town of Stadt-Stralen, seeing bomb bursts and fires from incendiaries. The fourth aircraft turned back early owing to a technical failure.

21. Twente All 4 Blenheims despatched to this aerodrome claim to have found and bombed it. In all cases the bombs are said to have fallen across the airfield and in one case a fire was started.

22. Leeuwarden 2 out of 4 Blenheims despatched to this aerodrome report attacking it. The bombs of one fell across the airfield but the other claims to have started a fire in a hangar. The remaining 2 had to return early owing to engine trouble.

23. Vechta 1 Blenheim of the 4 sent to Vechta aerodrome had to return owing to engine trouble, but the other 3 claim to have attacked the target, their bombs falling across the airfield. The aircraft which attacked last reports starting fires.

24. Ardorf 3 Blenheims claim to have bombed this target, their bombs falling on the airfield. 4 set out but one was unable to find the target and jettisoned his bombs during the return journey.

BC/S.26342/1/ORS.
6th August, 1942.

2/2nd July, 1942.

Target	Group	Type	No. of Sorties	Aircraft claiming to attack		Aircraft failing to bomb Primary				Casualties			Interceptions		
				Primary	Primary Area	Reached Target Area	Over Enemy Territory	Not over Enemy Territory	Missing	Down by Flak	Down by E.A.	Not due to Enemy Action	Attacked	Not attacked	
BRIDGE	1	Well.Ic	5 *	3						2	1 minor				
		Well.II	22 *	17			1	3	1	1	1 Cat B #		2	4	
		Well.III	16	12			2		2		1 minor			3	
		Well.IV	48 *	36			1	1	6	4	3 minor	1 Cat B	3	2	
	3	Well.III	64	74	1				9		1 Cat B 2 minor	2 minor	6	5	
		Stirling	30	28				1	3	2	1 minor	1 minor	2	2	
	4	Halifax	35	30			2		2	1	2 minor		1	2	
	5	Hampden	28 *	17	1			3	5	2	1 Cat AC		1 Cat AC+	4	
		Lancaster	53	48			1		4		1 Cat AC 3 minor			3	
	TOTAL			325	265	1	1	6	6	34	12	22	5	14	25
ST. FROND A/D	2	Blenheim	4 *	3						1					
VERNO A/D	2	Blenheim	4 *	2			1		1						
TUNWITE A/D	2	Blenheim	4 *	4											
LESTW. HORN A/D	2	Blenheim	4 *	2					2						
VERCHIA A/D	2	Blenheim	4 *	3					1						
ALROOP A/D	2	Blenheim	4 *	3					1						
			349	17	265	1	1	7	7	38	13	2 Cat B 2 Cat AC 18 minor	1 Cat B 4 Minor	1 Cat AC + Caused by fire from a Wellington	

* Not fitted T.R. 1335

Total abortive 46

Damage by Flak and Fighter

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BOMBER COMMAND REPORT ON NIGHT OPERATIONS - JULY 3/4TH 1942.

Meteorological Advice Submitted to the Command

1. 0925 hours. N. German Plain :- Much medium cloud with local thunderstorms.
 N.E. & Central France :- Much medium cloud.
 N.W. France :- Rain and low cloud.
 Home Bases :- Rain and low cloud practically throughout the night
- 1245 hours No change.
- 1650 hours Denmark :- Fine.
 Route :- Base to 5⁰⁰E much cloud. Thundery rain over North Sea and risk of fog patches 100 miles N.N.E. of Yarmouth.
 Home Bases :- 10/10 cloud, base 1000 ft. falling to 600 ft. locally, with intermittent light rain.

Executive Orders

2. Bad weather at bases and the heavy scale of effort on the previous night were responsible for the decision to rest the majority of crews. 6 Lancasters were given a mining task in the Sound and the Great Belt.

Sorties

3. 6 aircraft were despatched as follows :-

Target Mining	Group	Type	Sorties	Laid Mines in Primary area	Missing
The Sound	5	Lancaster	3	1	2
The Great Belt	5	Lancaster	3	3	

Moon

4. The moon, which was 64% of full, was above the horizon during these operations.

Weather

5. The weather at bases remained cloudy with base below 1000 ft. except in East Anglia. Rain, which was intermittent and light at first, became heavy in the latter part of the night. In the mining area the weather was fine and cloudless and visibility was good.

Success of Operations

6. 4 aircraft completed their tasks and returned safely. They had no difficulty in obtaining good visual pinpoints to identify their positions before laying mines. 12 mines were laid in The Great Belt and 4 in The Sound.

Cost

7. Two aircraft are missing from this operation, but no damage was sustained by the remainder. It seems probable that both the missing aircraft were shot down by flak.

BOMBER COMMAND REPORT ON NIGHT OPERATIONS 5/6TH JULY, 1942.Meteorological Advice Submitted to the Command

- 0915 hours Targets and Route :- A front over the North Sea with very thick cloud extending above 15000'. Large amounts of medium cloud extend to a line Eaden to Paris, decreasing to small amounts in Hanburg and Cologne areas. Channel Ports and Lorient subject to a front, W. coast north of Lorient should have only broken low and medium cloud above 1000 feet.
- Home Bases :- Threat of thundery outbreaks in the evening and a chance of persistent rain in the S.E.
- 1230 hours Target areas:- As before
- Home Bases :- Thunder now seems more probable, but uncertain whether rain will be widespread. Cloud base not expected below 1 - 2000 ft.
- 1710 hours West Coast of France:- Doubtful, but the worst conditions likely are 7-10/10 at 1500 - 2000 feet.
- Home Bases:- Serious threat of thunder now confined to the West.

Executive Orders

2. There was too much cloud cover over Germany to allow visual bombing and a small force of aircraft was detailed to continue laying the month's quota of mines.

Sorties

3. 15 sorties were despatched as follows :-

Minelaying Area	Group	Type	Sorties	Laid Mines in P. A.	Abortive Not over Enemy Territory	Casualty not due to Enemy Action
St. Nazaire	1	Well. IV	15	12	3	1 Cat. AC

4. 3 sorties were abortive, one on account of a navigational error and 2 due to technical defects.

Moon

5. The moon, which was 44% of full, rose during the course of these operations.

Weather Experienced

6. The weather at bases remained fit all night, and in the mining area only small amounts of cloud were experienced above 15000 feet.

Results

7. 12 aircraft completed their mission successfully, and all these claimed to have identified their position by landmarks in the vicinity of the mining area. Altogether 24 mines were laid.

Casualty

8. 1 aircraft sustained Cat. AC damage during the take-off.

RC/S.26342/3/ORS.
30th July, 1942.

BOMBER COMMAND REPORT ON NIGHT OPERATIONS 6/7TH JULY, 1942.

Meteorological Advice Submitted to the Command

1. 0920 hours. Route and Targets:- Belt of thunderstorms along a cold front of which estimated midnight position is 60°N 10°E Sweden - Cologne - W.Alps. Scattered thunderstorms over rest of N. Germany and N.France. West coast of France, convection cloud, base not below 1500 ft.
- Home Bases:- Local thunderstorms by day, dispersing at night. Estimated position of cold front now further East.
- 1240 hours.
- 1655 hours. Home Bases:- Thundershowers expected to die away after dark leaving bases mainly fit, but any area affected by heavy rain may have visibility troubles at dawn.
- Route to W.France:- Similar conditions to bases.
- Channel & French W.Coast:- A few showers with broken convection cloud base 1500 ft. S. of Lorient conditions will improve.

Executive Orders

2. Thunderstorms and heavy cloud again gave very poor conditions for night bombing and a small number of aircraft were ordered to lay mines.

Sorties

3. 42 sorties were despatched. For details see the attached table.
4. 14 (33%) sorties were abortive. In 8 cases this was due to inability to obtain a pinpoint in the prevailing weather conditions, in 5 cases to a technical defect and in 1 case to a late take-off.

Moon

5. The moon, which was $\frac{3}{4}$ of full, rose during the course of these operations.

Weather Experienced

6. Patches of layer cloud over the Channel, thickened to 8-10/10 over France with showers and local thunderstorms. In the Lorient area there was about 8/10 convection cloud down to about 1000 ft. which made pinpointing very difficult and electrical storms with violent up currents were experienced. At St. Nazaire the cloud was rather less thick and in the Gironde area it had cleared almost completely. At home bases visibility remained moderate to good, though patches of low stratus cloud affected some parts of Eastern England about dawn.

...../Results

Results

7. 26 (62%) aircraft carried out their mission successfully. All these aircraft claimed to have pinpointed their positions before dropping their mines, in spite of the difficult weather conditions experienced in but the most southerly mining area. Altogether 27 mines were laid off 16 off St. Nazaire, and 15 in the Gironde Estuary.

Casualties

8. 2(4.8%) of our aircraft are missing from these operations and 4(9.6%) received damage to varying extents. Of those damaged, 2 were hit by flak and 2 were due to non-enemy causes.

9. Heavy flak was experienced en route at Morlaix and Vannes and in the Lorient area light flak cooperated with searchlights. The two missing aircraft were Wellington IIIs from 3 Group and the evidence suggests that they were probably both lost to flak.

BC/S.26342/1 /ORS
15th August, 1942.

6/7 July, 1942.

Target	Group	Type	No. of Sorties	Aircraft claiming to attack		Aircraft failing to bomb Primary			Missing	Casualties			Interceptions	
				Primary	Area	Bombing other Target	Abortive	Bombing other Target		Abortive	Not over Enemy Territory	Dam. by Flak	Dam. by E.A.	Not due to E.A.
MINELAYING St. Nazaire	1	Well. IV	10 *	8				2		1 n				
Lorient	3	Well. III	20	14				2	2	2		1 E. 1 B.		
	5	Hampden	7 *	1		5		1						
Gironde River	5	Lancaster	5	3		1		1						
TOTAL			42	26		6		6	2	2	2 n		1 E. 1 B.	

* Not fitted T.R. 1335

Total abortive 14

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BOMBER COMMAND REPORT ON NIGHT OPERATIONS 7/8TH JULY, 1942.

Meteorological Advice Submitted to the Command

0925 hours North Germany :- A few scattered thunderstorms, mainly residual convection cloud with good breaks.

West France :- Much medium and low cloud.

N.E. France :- Scattered thunderstorms and residual convection cloud.

1230 hours Home Bases :- Risk of fog patches has largely gone, otherwise as before.

1700 hours Frisians & Heligoland Bight :- Much cloud above 1500 ft, with a tendency to break up during the night. Showers expected over the sea and some risk of scattered thunderstorms.

Home Bases :- Showers dying out after dusk, but low cloud, though not below 1500 ft, persisting locally and tending to disperse slowly.

Executive Orders

2. Conditions were bad for bombing because of the probability of very heavy thunderstorms over the continent. A fairly strong force was therefore put on to minkelaying.

Sorties

3. 102 sorties were despatched. For details see the attached table.

4. 11 (10.8%) sorties were abortive. 7 aircraft encountered weather conditions which prevented them from identifying the target area and 4 suffered technical defects.

Weather Experienced

5. At home bases there were occasional showers and local thunderstorms which died out gradually after dark. Subsequently there were variable small amounts of low cloud, but visibility remained moderate to good. Over the North Sea and in the mining area frequent showers and some local thunderstorms were experienced. The amount of cloud present was very variable, but appears to have been mainly about 4-7/10 above 2000-ft. Visibility mainly good except in rain.

Results

6. 91 (89%) sorties laid their mines in the areas ordered. Most of these crews reported that they had obtained a reliable pinpoint before making a D.R. run to their allotted positions, but 37 relied solely on a T.R. 1335 fix. 4 crews state that their pinpoints were confirmed by T.R. 1335 fixes. Altogether 226 mines were laid. 4 aircraft used their auxiliary bomb loads to attack ships encountered. Bursts were seen but no other results were observed.

Casualties

7. 1 aircraft suffered minor damage from flak and there was one attack by an enemy fighter in which our aircraft suffered no damage.

IQ/S. 26342/3/ORS.
1st August, 1942.

.... / Table Over

17/07/42

Target	Group	Type	No. of Sorties	Aircraft claiming to attack		Aircraft failing to bomb Primary				Result not known	Casualties					
				Primary	Primary Area	Reached Target Area		Over Enemy Territory			Not over Enemy Territory	Missing	Damaged by Flak	Damaged by Enemy Aircraft	Not due to attack	Intermittent attack
						Scorched other Target	Abortive	Scorched other Target	Abortive							
MINGELANDIC Prison Is.	1	Well. II	9 *	9												
		Well. III	13	13												
		Well. IV	15 *	15												
	3	Well. III	42	35		5			2 *							
		Stirling	23	19		1			3		1 m.				1	
TOTAL			102	91		6			5		1 m.			1		

* Not fitted with G.B. 1335

Total Abortive 11

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BOMBER CO. AND REPORT ON NIGHT OPERATIONS JULY 8/9th, 1942.Metecological Advice Submitted to the Command.

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0930 hours. Germany:- Convection cloud dispersing gradually at night, but more quickly over the Ruhr than farther north. Broken medium cloud. South of 50° N. generally fine weather is expected.

France:- Convection cloud expected to disperse over N. France, fine inland.

Home Bases:- Convection cloud dispersing. Some medium cloud.

1245 hours. No change. Thunderstorms not expected to persist into the night.

1700 hours. Wilhelmshaven:- Reasonable residual convection cloud, mainly 8-10,000 ft., probably half covered.

Route:- Showers on outward journey. Cloud dispersing on return.

Home Bases:- Showers at first, no worries for return except in 91 and 92 Groups towards dawn.

Executive Orders.

Base conditions were expected to be good and all available aircraft and crews were detailed for an attack on the submarine building yards at Wilhelmshaven. This target had not been attacked for some months and was reported to be active and to have recovered to a large extent from the damage inflicted in previous raids.

Sorties.

290 sorties were despatched of which 285 were ordered to attack Wilhelmshaven. For details see the attached table.

30 (10.4%) sorties were abortive, the reasons being as follows:-

Technical defects	21.	Attacked by fighter	1
Failure to locate target	3.	Coned by searchlights.	1
Illness	3	Illness	1

Moon.

The moon was below the horizon during these operations.

Weather at Base.

There were variable amounts of medium cloud over England but only small amounts of low cloud. Visibility remained moderate to good.

Wilhelmshaven.Plan of Attack.

In this operations a flare force of 18 Wellingtons was to illuminate the target for 30 mins. These aircraft were detailed to attack in pairs at three minute intervals from zero hour (0135) to zero + 21 mins. At zero + 24 and zero + 27 single aircraft were to release their flares. Incendiary carrying aircraft were to attack from zero + 2 to zero + 15. At zero + 10 the first aircraft of the main force was to attack with H.B. bombs, followed by others of this force up to zero + 35. All Gee aircraft were to approach the target from West to East along the B lattice line.

...../Weather Experienced.

Weather Experienced.

Crossing the North Sea variable amounts of convection cloud were encountered, increasing locally to 10/10. Some icing was reported in cloud tops which rose occasionally to 11-13000 ft. The cloud broke at the German coast and there was none in the target area. Pinpointing was, however, made difficult by the presence of haze, though reports as to its quantity varied widely. Some crews mentioned smoke as being a hindrance and a few thought that a smoke screen was in operation south of the town.

Results.

245 (86%) aircraft claimed to have attacked the primary target dropping 410 tons of H.E. and 170 of incendiaries. The whole raid lasted 75 minutes, but 226 aircraft attacked during the prescribed period of 35 minutes, giving a concentration of 387 aircraft per hour.

The first aircraft dropped its flares at zero hour and 4 further aircraft did so at zero + 3, after which illumination was apparently provided throughout the planned period except for one interval of seven minutes from zero + 10. Many crews reported that the flares were extremely useful in helping them to identify the target, but there were some reports that they were widely scattered. One aircraft did, in fact, take a photograph at the time of dropping its flares which showed it to be 20 miles West of Wilhelmshaven. 8 aircraft attacked before zero hour and an aircraft which arrived early but waited to bomb reported that some sticks of incendiaries were seen to fall outside the target area before the arrival of the flare force. As this aircraft took a photograph of the target with bombing, its report may be considered reliable.

Scatter of the flares and indiscriminate bombing before zero hour were probably largely responsible for the fact that a considerable part of the attack fell to the west of Wilhelmshaven in open country, as is shown by the evidence of night photographs. Altogether 69 photographs were taken with bombing. 25 (36%) of these show points within 5 miles of the aiming point, including 9 of the target.

The rest of those which are plotted are nearly all to the west of Wilhelmshaven. There are three in the region of a decoy, 3 miles North of the town which may have received some attention.

Nevertheless, observations by those crews which photographed the target area suggest that a fair weight of bombs fell on the target and substantial fires were seen in the neighbourhood of Bauhafen. Daylight reconnaissance has since confirmed that the raid inflicted a moderate amount of important damage. On the North side of Tirpitz Hafen two large sheds, the Engineering Workshop and Smithery of Deutsche Werke, have been severely damaged. In the naval deckyard, west of the Bauhafen, the Armour Plate Shop has been completely gutted, the Foundry half gutted, and a number of other sheds severely damaged, at least 4 being gutted. In an area east of Bauhafen which has been damaged by fire at least 10 small warehouses and ships' stores have been burnt out. Two barracks and the Marine Superintendents Offices have all suffered from direct hits and damage to business and residential property includes the complete destruction of at least 60 houses.

Russian sources report that the submarine shipbuilding yard has been damaged and that a bomb pierced the concrete protection of an underground depot used as a store for mines, torpedoes and bombs, causing considerable damage. The reliability of this report is doubtful.

Other Targets Attacked.

6 aircraft which were unable to reach Wilhelmshaven for various reasons attacked alternative targets. These included Emden (2 aircraft), Bremerhaven, Dornum, and Bremvorde, but identification was doubtful in several cases. One crew, whose bombs hung up over the target, believed that they fell on the Eckwarden peninsular.

...../Casualties.

Casualties.

4 (1.4%) of our aircraft are missing from this operation and 6 received damage to varying extents. Of those aircraft which were damaged 4 (1.4%) were damaged by flak, one by fighter and the other received damage not due to enemy action.

Reports indicate moderate to intense light flak working in cooperation with two cones of searchlights. The enemy's night fighter effort seems to have been small in view of the size of the attack, interceptions being only 5% of sorties and only two of the 14 interceptions developed into attacks. An analysis of our own observations indicates the probable distribution of losses as three to flak and one to fighter.

On previous occasions under somewhat similar weather conditions, the average missing rate has been about 2.1%; the concentration achieved on this raid, 387 per hour, for a period of 35 minutes, no doubt materially

Summary.

245 out of the 285 aircraft ordered to attack Wilhelmshaven claimed to have carried out their task successfully. Although the night photographic evidence suggests that not more than 100 aircraft did, in fact, reach the target area, this force succeeded in inflicting a useful amount of important damage, notably to naval buildings in the vicinity of Bauhafen. The operation was carried out at a cost which was well below the average for this target.

Leaflets.

4 out of 5 Freshmen crews of 4 Group detailed to drop leaflets successfully completed their task. Paris was visited by 2 aircraft and Amiens and Rouen by one each.

BC/S.26342/1/ORS.

10th August, 1942.

Target	Group	Type	No. of Sorties	Aircraft claiming to attack		Aircraft failing to bomb Primary				Result not known	Hina-ing	Casualties.			Interception		
				Primary	Primary Area	Scabed Target Area		Over Enemy Territory				Not over Enemy Territory	Damaged by Flak	Damaged by Enemy Aircraft	Not due to Enemy action	Att-acked	Not Att-acked.
						Bombed other Target	Abor-tive	Bombed other Target	Abor-tive								
Wilhelmshaven	1	Well.II	16+		15				1			1aC			1	2	
		Well.III	13		11				1	1				1B		2	
		Well.IV	29+		21			1	2	5			1B 1m		1	2	
	3	Well.III	79		69		1	1		6		2	1aC			2	
		Stirling	36		33					1			1B			2	
	4	Halifax	38		36	1				2		1				1	
	5	Lancaster	52		42	2	1	1		5		1					
		Herforden	26+		20	1	1		1	1							
	TOTAL	285		265	4	3	3	5	21		4	4	1	1		11	
Lefflets	4	Halifax	5*		4					1						1	
		TOTAL	290		269	4	3	3	5	22		4	1B 1B 1aC 1m	1aC	1B	2	12
				+ Not fitted with Geo		* Freshmen		Total Abortive		30							

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BOMBER COMMAND REPORT ON NIGHT OPERATIONS, 9/10TH JULY, 1942.Meteorological Advice Submitted to the Command

1. 0920 hours. Estimated midnight position of fronts (1) warm front, S.W. Wales - Cherbourg and then southwards (2) 50°N 8° W. - N.W. Spain - Hamburg.
- Germany:- Much medium cloud in north but only small amounts south of 53°N.
- France:- Much cloud and rain over all N. France.
- 1230 hours. Cold front has now developed with estimated midnight position S. Norway - N.W. Denmark - Frisian Islands. Thunderstorms likely in southern North Sea and along North Sea Coast of Germany.
- Germany:- Much medium cloud inland.
- Home Bases:- Much medium cloud - local showers.
- 1715 hours.. Heligoland Bight:- 7-10/10 cloud, base generally not below 1,500 ft. Scattered thunderstorms en route.
- Home Bases:- Rain or low cloud likely in S. England extending to 91 Group but other Groups fit.

Executive Orders

2. Since the weather forecast for the night was not suitable for a bombing operation the night's effort was confined to laying mines along the Frisian Islands and in the Heligoland Bight.

Sorties

3. 59 sorties were despatched. For details of operations see attached table.
4. 16 (27%) sorties were abortive. 11 were due to inability to pinpoint and 5 to technical failures.

Moon

5. The moon was not above the horizon during these operations.

Weather

6. In the Home Base area there were small amounts of low cloud and in the south much medium cloud; visibility was moderate to good.
7. On the route over the North Sea there was variable strato-cumulus and over the Frisian Islands this was 10/10ths, base 2,000 ft. in the west breaking to nil in the east. In the Heligoland Bight area there was 2-3/10. There were some large patches of thick haze in the minelaying area.

Results

8. A number of aircraft were unable to pinpoint owing to haze out 37 laid mines in their allotted positions and 5 more in alternatives. In most cases visual pinpoints were obtained but a few aircraft had to rely only on T.R. 133 fixes. In all 64 mines were laid in the Frisian Islands area and 18 in the Heligoland Bight. In addition 1 Hampden dropped 2 x 250 lb. bombs against an unidentified ship but no results were observed. This was the only aircraft to make any use of its auxiliary bomb load.

Casualties

9. 1 aircraft is missing from these operations. Flak was encountered from the Frisian Islands and Heligoland and also from ships and 3 aircraft received minor damage. An attack was made on a Stirling by an enemy fighter but no damage was sustained.

BC/S. 2632/1/ORS.
15th August, 1942.

9/10th July, 1942.

Target	Group	Type	No. of sorties	Aircraft claiming to attack		Aircraft failing to bomb Primary				Missing	Casualties			Interceptions			
				Primary	Primary Area	Reached Target Area		Over Enemy Territory			Not over Enemy Territory	Dem. by Flak	Dam. by E.A.	Not due to E.A.	Attacked	Not Attacked	
						Bombed other Target	Abortive	Bombed other Target	Abortive								
MINGLAYING Frisian Islands	1	Well. II	8 *	4	4												
		Well. IV	10 *	5	2	1		1	1								
	3	Well. III	7	6	1												
		Stirling	3	3													1
5	Hampden	24 *	14		7			3			3 minor						
Heligoland Bight	3	Well. III	7	5	2												
			50	37	5	12		4	1	3 minor					1		

* Not fitted T.R. 1335

Total Abortive 16

MOST SECRET

NIGHT RAID REPORT NO. 108

COPY NO. 15

BOMBER COMMAND REPORT ON NIGHT OPERATIONS 11/12TH JULY, 1942.

Meteorological Advice Submitted to the Command

1. 0920 hours. N.W. Germany:- Coastal area, mainly 10/10 layer cloud with scattered showers, further inland a few breaks and local thunderstorms.
- N.W. & W. France:- Layer cloud with good breaks.
- Home Bases:- Broken layer cloud, moderate visibility.
- 12,45 hours. Target areas:- Much cloud in many layers with low base expected to persist over Denmark and Heligoland with persistent rain locally. Towards Danzig weather becoming definitely thundery. Target area can well be in a trough of low pressure. Breaks in cloud are possible especially in N. Denmark. W. coast of France cloud not below 1000 ft.
- Home bases:- Reasonably fit all night.
- 1630 hours. Target Areas:- Weather over Denmark and Heligoland will probably be better in the West than the East. Centre of low pressure expected to be about 13°E. at midnight. Cloud cover, base below 1000 ft. will be maintained over Denmark, with possible breaks in the west.
- Home Bases:- Fit apart from local slight mist towards dawn.

Executive Orders

2. A minelaying operation was planned and efforts were made to time it so that it would be of use as a diversion to bombers returning from a long range daylight operation. A number of the minelayers were given instructions to lay mines in the Langelands Belt because it was thought that the movement of a major enemy naval unit through this area was projected.

Sorties

3. 49 sorties were despatched. For details see the attached table.
4. 19 (38.8%) sorties were abortive. In one case this was due to a technical defect and in the remainder to inability to locate the target areas in the very poor weather conditions encountered.

Moon

5. The moon was below the horizon during these operations.

Weather

6. Home bases remained fit for use all night, but over the North Sea and in the mining areas very thick weather persisted. Almost all crews reported

...../10/10 cloud

10/10 cloud, the base of which was often as low as 500 ft. and heavy showers with occasional thunder were also encountered. Visibility was generally very poor.

Results

7. The weather conditions effectively prevented all crews except those which had the assistance of T.R. 1335 from identifying the mining areas. 4 crews claimed to have made visual identifications in the Langelands Belt area, but the remainder dropped their mines on a T.R. fix or after a D.R. run from their last fix. 9 crews detailed for Langelands Belt decided to lay mines off Esbjerg which had been offered them as an alternative. Altogether 27(55%) aircraft laid mines in either a primary or this alternative area. 37 mines were laid in Heligoland Bight, 14 off Esbjerg 8 each in the Langelands Belt and Frisian Islands areas.

Casualties

8. 2(4.1%) of our aircraft are missing from these operations and 3 received damage to varying extents. Of those aircraft which were damaged one aircraft was hit by flak and the other two received damage which was not due to enemy action.

BC/S.26342/2/ORS.
16th August, 1942.

Target	Group	Type	No. of Sorties	Aircraft claiming to attack		Aircraft failing to bomb Primary				Casualties				Interceptions		
				Primary	Primary Area	Reached Target Area	Over Enemy Territory	Bombed other Target	Abortive	Bombed other Target	Abortive	Not over Enemy Territory	Missing	Dam. by Flak	Dam. by E.A.	Not due to Enemy Action
MINELAYING Frisian Islands	1	Well.II	10*			10						1 m.				223
	3	Well.III	5	4			1									
Langelands Belt	3	Well.III	15	4			9	2				1 AC				
Heligoland Bight	3	Well.III Stirling	11	4		3	1	1			2			1 AC		
			8	6			1		1					1 AC		
TOTAL			49	18		13	10	5		1	2	1 AC 1 m.		2 AC		

* Not fitted with T.R. 1335

Total Abortive 19

MOST SECRET

NIGHT RAID REPORT NO. 109

COPY NO. 15

BOMBER COMMAND REPORT ON NIGHT OPERATIONS, 12/17TH JULY, 1942.

Meteorological Advice Submitted to the Command

1. 0915 hours. Germany:- Much strato-cumulus along North Coast but good chance of breaks inland. Visibility good.
- France:- Broken medium cloud; little or no low cloud except along west coast where much is expected; moderate visibility.
- Home Bases:- Broken medium cloud; little or no low cloud; moderate visibility.
- 1250 hours. N.W. Germany:- Breaks down to 5/10 cloud likely but risk of much medium cloud above 15,000 ft.
- Home Bases:- Visibility troubles in smoke areas.
- 1700 hours. Frisian Islands:- 8-10/10 cloud, base 1000 ft. or above.
- Lorient:- Broken cloud, base 1000 ft - 2000 ft.
- Bordeaux:- Cloud below 1,000 ft. and possibility of rain.
- Home Bases:- Local visibility troubles but some bases in all Groups remaining fit.

Executive Orders

2. Weather conditions were such that the choice of possible operations was small. The greater part of the effort detailed was ordered to undertake a minelaying operation off the Frisian Islands. The remainder were despatched to strengthen a minefield on the west coast of France.

Sorties

3. 56 sorties were despatched on this night. For details see attached table.
4. 9 (16%) sorties were abortive. 4 of these were due to technical defects and 4 to inability to pinpoint, whilst the reason for one is not known.

Moon

5. The moon was not above the horizon during these operations.

Weather

6. There were small amounts of cloud and moderate visibility with local mist patches towards dawn in the Home Base Area. There were small amounts of cloud also in the Western North Sea which thickened to 9-10/10 strato-cumulus, base 1000 ft. - 2000 ft., tops 3000 ft. - 3500 ft. in the east and over the Frisian Islands where visibility was moderate to good apart from local patches of thick haze. In the region of Lorient and St. Nazaire there was little or no cloud and good visibility.

Results

7. 43 aircraft laid mines in their allotted positions and another in an alternative. The Wellingtons and Hampdens fixed their positions by pinpoints on nearby land, but the Stirlings and Lancasters relied entirely on T.R. 1335 fixes. 135 mines were laid in the Frisian Islands area, 5 off St. Nazaire and 3 off Lorient.

8. One of the aircraft which went to the Frisian Islands dropped a bomb on a flak site on Ameland. A ship, a flak position and 3 aerodromes were bombed by the aircraft which laid mines off the French Atlantic Coast.

Casualties

9. 2 aircraft, a Wellington and a Hampden are missing from these operations. Nothing is known of the cause of the Wellington's loss but the Hampden was probably shot down by light flak near Lorient. Light flak was in evidence over both the Frisian Islands and at Vannes, and one aircraft sustained minor damage over the Frisians.

Leaflets

10. These were dropped successfully over Angers by the single Lancaster which set out on this task.

BC/S.26342/2/ORS.
15th August, 1942.

12/13th July, 1942.

Target	Group	Type	No. of Sorties	Aircraft claiming to attack		Aircraft failing to bomb Primary				Casualties				Interceptions	
				Primary	Area	Reached Target Area	Bombed other Target	Over Enemy Territory	Bombed abortive other Target	Not over Enemy Territory	Missing	Dem. by Flak	Dem. by E.A.	Not due to Enemy Action	Attacked
INDETERMINATE Frisian Islands	1	Well. IV	21 *		15	1	2			2	1				
	3	Stirling	7		6				1						
	5	Lancaster	15		14				1						
St. Nazaire	5	Hampden	6 *		5				1						
	5	Hampden	6 *		3		3			1					
Lorient RAFLES and SS	5	Lancaster	1 *		1										
			56	4	134	1	4	2	3	2	1 m.				
			Not fitted T.R. 1335			+ Freshman			Total Abortive 9						

BOMBER COMMAND REPORT ON NIGHT OPERATIONS 13/14TH JULY, 1942.

Meteorological Advice Submitted to the Command

1. 0920 hours. Home Bases:- Warm front at midnight from S.W. Norway to E. England, but feeble over England. Cloudy conditions at all bases.
- N. Sea:- Wide belt of rain and low cloud.
- Cologne Area:- Small amounts of medium cloud, little or no low cloud. Drift from west.
- N. German Coast Probably large amounts of medium and low cloud.
- 1215 hours. Target Areas:- No change.
- Home Bases:- The expected warm front now appears to be a cold front. Trouble likely on the return journey and locally at home bases.
- 1700 hours. Target Area:- Probably up to 5/10 thin medium cloud in drifting banks at 12 - 15,000 ft. Little or no low cloud.
- Home Bases:- Cold front at 0300 hours from Mildenhall to Southampton. Main cloud base at 1500 - 2000 ft. Visibility 2 - 4 miles. 1 & 4 Groups may also have local visibility troubles.
- Route:- Cloud front 800 ft. to great heights and 60 miles wide, with icing above 6-8000 ft. is probable on the direct routes from 1 & 4 Groups. A more southerly route is recommended.
- 2130 hours. Home Bases:- 2 and 3 Groups expect low cloud, but not below 1000 ft. 1, 4 & 5 Groups expect fog if cloud should lift.

Executive Orders

2. Duisburg was chosen as the target for the night because the general drift in the Ruhr indicated that it would be the most likely to be in an area of good visibility.
3. 6 aircraft were given the task of dropping pamphlets over France drafted especially to suit the occasion which was the anniversary of the storming of the Bastille.

Sorties

4. Altogether 210 sorties were despatched; 194 of these were ordered to attack Duisburg.

5. Only 18 (8.6%) of sorties were abortive, the reasons being:-

Severe icing	8	Unable to locate target (T.R. u/s)	1
Technical Failures	7	Illness	1
Electrical Storms	1		

Moon

6. There was no moon during these operations it being the night of new moon.
Weather at Home Bases

7. There was much low cloud with rain and local thunderstorms south of the Humber, but only variable cloud in 4 Group's area. Visibility deteriorated locally in all Groups.

DUISBURGPlan of Attack

8. The force attacking Duisburg was divided into three phases. A flare force consisting of 18 Wellington IIIs of 3 Group was to illuminate the target from zero hour (0200 hours) until zero + 25 minutes when the whole attack was timed to finish. Pairs of aircraft were to attack at three-minute intervals from zero hour to zero + 21 minutes and at zero + 22 minutes a further two aircraft were to release their flares. Each aircraft carried 12 bundles of flares which were to be released on Gee fix at 8 second intervals, commencing 30 seconds after the Gee pulses were first in line on the coordinates B 6.91, C 37.13. The bomb loads of these aircraft were made up with 500 lb or 250 lb G.P. bombs. No other aircraft was to carry flares.

9. At zero + 2 minutes the incendiary force, consisting of Gee Wellingtons, Halifaxes and Lancasters carrying 4lb. or 30 lb. incendiaries, was to attack until zero + 15 minutes. The best crews, carrying 4 lb. incendiaries, were to lead the force.

10. At zero + 10 minutes the main force, consisting of both Gee and non Gee aircraft, was to attack with H.E. bombs.

11. All Gee aircraft were instructed to approach the target from N.W. to S.E. along the B lattice; and incendiary and H.E. bombs were to be released on the coordinates B 6.91; C 37.12, 30 seconds after the pulses lines up, visually if the target could be positively identified, but otherwise blindly.

Weather

12. Much cloud, in several layers up to 15 - 19,000 ft, with severe icing was encountered over the N. Sea.

13. Duisburg was found to be covered by 8-10/10 medium cloud, base 8 - 10,000 ft. with tops to 19,000 ft. This broke at times to 5/10 giving good visibility over the gaps.

14. Rain and thunderstorms were met near the E. Coast on the return journey.

Results

15. 165 (85%) of the 194 aircraft detailed claim to have reached the target area and flares were released fairly uniformly over a period of 25 minutes. One aircraft dropped its flares at zero + 35 minutes.

16. Conflicting views were expressed regarding the value of the flares. Some crews found them of great assistance, stating that they were well placed over the target area and that by their aid it was possible to see the Rhine and the docks through gaps in the cloud. Other aortics found the flares dropping to the N.W. and S.E. of the city over open country.

17. The incendiary attack commenced simultaneously with the release of the first flares and was spread over 33 minutes instead of over 13 as intended.

18. The attack by the main striking force seems to have commenced early, since 16 aircraft bombed before the appointed time. 39 x 4000 lb. bombs were dropped.

19. Although some aircraft saw the town and docks by the light of flares, many of the main force found heavy cloud and bombed blindly on Gee, E.T.A. flares.

20. Results were mainly unobserved, although a glow on the cloud and scattered fires were seen. Dummy fires in the target area were also observed.

21. 31 photographs taken with bombing showed ground detail. Only 1 of these shows the target, while a further 4 were within 5 miles of it. The only photograph of the target shows no evidence of fires burning. The remaining photographs are scattered and most show country west of the Rhine. A German broadcast stated that Mors was attacked and several photographs are within a few miles of this small town.

22. Reconnaissance of Duisburg was not undertaken until July 31st, by which time three more attacks had been made on the town. For the damage revealed by this reconnaissance see Night Raid Report No. 116.

Other Targets Attacked

23. One aircraft which had to return early dropped its bombs on a flak and searchlight position near Rotterdam.

Casualties

24. 5 (2.6%) of our aircraft are missing from this operation and 20 (10.3%) sustained damage to varying extents. Of the aircraft damaged 12 (6.2%) were hit by flak. 4 received damage which was not due to enemy action and 4 others crashed on landing though it is not known whether enemy action caused these crashes to occur.

25. Moderate heavy and light flak with attempted searchlight cooperation is reported, but the searchlights were adversely affected by cloud and the flak was mostly inaccurate. There were 12 (6.4%) reported interceptions but only one of these developed into an attack; furthermore, wireless intelligence states that no claims were made by the enemy that British aircraft had been shot down by their night fighters. From an analysis of our own observations, it is probable that three of our aircraft were shot down by flak, but no indication can be given as to the cause of the loss of the other two aircraft.

Summary

26. There was more cloud than had been expected over Duisburg and probably as a result of this the attack was scattered and fell mainly to the west of the target. Losses on this occasion were not high, and presumably as a result of the weather conditions there was little night fighter activity by the enemy.

INTRUDERS

27. Intruder operations were carried out against the following aerodromes:-

Deelen

28. 3 Blenheims set out to attack this aerodrome and 2 claim to have found and bombed it. In both cases the bomb bursts were seen across the landing ground but no other results were observed. One of these aircraft crashed on landing owing to engine failure. The remaining aircraft is missing.

Venlo

29. All 3 Blenheims despatched to this aerodrome claim to have attacked it. The bombs of 2 aircraft are believed to have fallen on the runways and those of the third on the dispersal area. Bursts were seen but no other results observed.

Twente

30. This aerodrome was attacked by all of the 4 Blenheims despatched to it. 3 claim that their bombs fell across the air field and the fourth states that he hit a barrack block in a corner of the aerodrome. No results other than bursts were seen./Leaflets.

LEAFLETS

31. Special leaflets to mark the "Quatorze Juillet" were distributed over Paris, Vichy, Lille and Lyons by the 6 aircraft detailed for this task.

BC/S. 26342/3/ORG.
19th August, 1942.

Target	Group	Type	No. of sorties	Aircraft claiming to attack		Aircraft failing to bomb Primary				Result not known	Casualties				Interceptions	
				Primary Area	Primary Area	Reached Target Area	Abortive	Over Enemy Territory Bombed other Target	Over Enemy Territory Abortive		Not over Enemy Territory	Missing	Down by Flak	Down by E.A.	Not due to Enemy Action	Attacked
LISBURN	1	Well. III	25*	21					2	1	1			1 E		2
		Well. III	13	9					3	1		1 n.		1 E		1
		Well. IV	37*	30			1		6			1 n.		1 E		2
	3	Well. III	64	59		1		1	1	2		1 AC		1 B		2
		Stirling	5	9								1 n.		1 B		-
	4	Halifax	31	25					5	1	2	2 n.		1 E		1
5	Lancaster	13	12						1		1 A		1 E			
		TOTAL	194	165		1	1	1	17	4	5	12		8	1	11
LYON A/D	2	Blenheim	3*	2							1			1 B		
LYON A/D	2	Blenheim	3*	3								1 n.				
LYON A/D	2	Blenheim	4*	4												
LYONS	3	Stirling	3	3												
LYONS	4	Halifax	3	3												
			210	9	171		1	1	1	17	4	6	1 AC	3 E	1	11
													1 A	3 E		
													11 n.	1 B		
														1 B		

* Not fitted T.R. 1335

† total abortive 19

‡ Cause unknown, possibly enemy action.

BOMBER COMMAND REPORT ON NIGHT OPERATIONS, 14/15TH JULY, 1942.Meteorological Advice Submitted to the Command

1. 0930 hours. Estimated midnight position of fronts (1) occluded 61°N, 10°E - Hamburg - 50°N 7°E. (2) cold, 60°N 2½°E - Plamborough Head - Pembroke - S.W. Ireland; not expected to be very active nor to give a wide belt of bad weather.
- Germany:- Variable amounts of both medium and low cloud west of occluded front; much cloud and rain in frontal belt.
- W. France:- Variable amounts of medium cloud and small amounts of low cloud.
- Home Bases: Narrow belt of cloud near cold front but otherwise cloud decreasing during night; patches of mist or fog probable.
- 1245 hours. N. Germany:- Breaks possible at Wilhelmshaven but not certain, more likely further inland. Conditions suitable for minelaying west of Elbe.
- Home Bases: Probably satisfactory.
- 1700 hours. Heligoland Bight and Route:- Variable strato-cumulus, base not below 1500 ft.
- W. France:- Variable cloud, base 1500 - 2000 ft, in Lorient - St. Nazaire region: 10/10 with base about 1,000 ft. likely at La Pallice.
- Home Bases: No difficulties expected.

Executive Orders

2. Conditions over Germany were unfit for bombing and a sea-mining operation in areas where conditions were suitable was undertaken.

Sorties

3. 56 sorties were despatched, 52 of them on minelaying. For details of the operations see table below:-

Target	Group	Type	No. of Sorties	No. claiming to lay mines		Abortive	
				In Primary Area	In alternative area	Over mining area	Not over Enemy Territory
MINELAYING Frisian Islands	1	Well.IV	7*	5	1	1	
	3	Well.III	19	19			
		Stirling	3	3			
	5	Hampden	1*	1			
Elbe Estuary		Lancaster	2	2			
	5	Hampden	4*	2		1	1
St. Nazaire	5	Hampden	5*	5			
Lorient	5	Hampden	4*	4			
Gironde Estuary	5	Lancaster	7	6		1	
LEAFLETS	4	Halifax	1+	1			
	5	Lancaster	3+	2	1		
			56	50	2	3	1

*Not fitted Gee

+ Freshmen

Total abortive 4

4. 3 of the 4 abortive sorties were due to inability to obtain a pinpoint owing to darkness and low cloud, and the fourth to a technical defect.

Moon

5. The moon was not above the horizon during these operations.

Weather

6. There was little cloud and good visibility in the Home Base area and over the western North Sea. Over the eastern North Sea and Frisian Islands the cloud increased to 8-10/10 with base at 600 - 1,500 ft. and tops at 3,000 - 4,000 ft. Visibility below the cloud was good. On the return journey a belt of cloud with local thunderstorms was encountered 30 - 50 miles off the east coast of England.

7. Along the west coast of France there was little cloud and good visibility.

Results

8. 47 (90%) of the 52 aircraft despatched were successful in laying their mines in the allotted positions and 1 more laid his in an alternative. Most of the aircraft fitted with Gee, except the Lancasters which went to the Gironde Estuary, determined their positions by fix alone. The others relied on visual pinpoints. Mines were laid as follows:-

Frisian Islands	79
Elbe Estuary	2
St. Nazaire	5
Lorient	4
Gironde Estuary	30
Total	<u>120</u>

9. One aircraft dropped its auxiliary bomb load on a concentration of searchlights and flak at Lannion aerodrome.

Casualties

10. None of our aircraft are missing from this night's operations and none report sustaining any damage.

Leaflets

11. Leaflets were successfully distributed over Vichy, Amiens and Tours by 3 of the 4 aircraft which set out on this task. Owing to a navigational error, the 4th was unable to reach Tours, its primary target, and accordingly dropped its leaflets over Chartres.

BO/S. 26342/3/ORS.
18th August, 1942.

MOST SECRET.

180254

NIGHT RAID REPORT NO. 112	
COPY NO. 16	13 SEP 1942
TIME	HOURS

BOMBER COMMAND REPORT ON NIGHT OPERATIONS 19/20 JULY 1942.

Meteorological Advice Submitted to the Command.

1. 0910 hours. Estimated positions of fronts at midnight (1) feeble warm front Isle of Man - Thornaby - S.W. Norway (2) occlusion S. Sweden - Kiel then southwestwards just inland from the coast of N. Germany and Holland. Occlusion is a wide rain area moving slowly S.E. There is much low cloud and drizzle behind it.
- Germany:- Much rain along the North Sea Coast and inland as far as the Ruhr. Broken medium and low cloud probable in Rhine valley. In Berlin area, and on the coast between Stettin and Danzig small amounts of residual convection and medium cloud.
- N.W. France: Much cloud above 1,000 feet.
- Home Bases:- 2 and 3 Groups may have low cloud. Others fit.
- 1230 hours. Breaks are likely at Stettin during the night.
- Home Bases satisfactory.
- 1630 hours. 10/10 cloud only extends as far as 4° - 5° E. there should be only 5/10 east of Bremen; with larger breaks more probable further east.
- Home Bases:- Expected to be fit but warm air from N.W. and N may bring fog.

Executive Orders.

2. Unsuitable weather conditions caused the cancellation of the two main operations by heavy aircraft which had been ordered for dusk and a night on the submarine yards at Vegesack was substituted. Minelaying operations in a suitable area were also ordered.

Sorties.

3. 118 sorties were despatched. For details of operations see attached table.
4. 14 (11.5%) of the sorties were abortive. 11 of these due to technical defects; 2 minelaying aircraft were unable to pinpoint; in 1 case the cause was not stated.

Moon.

5. The moon was not above the horizon during these operations.

Weather at Home Bases.

6. A belt of light rain or drizzle with low cloud below 1,000 feet moved S.E. over the Home Bases during the night, affecting 2 and 3 Groups and the eastern part of 1 Group. Fog formed locally during the latter part of the night.

...../Vegesack.

VEGESACK.Plan of Attack

7. The attack was to be carried out by heavy aircraft only, and was planned to last for 20 minutes beginning at 0200 hours. A force of 18 Stirlings 15 Lancasters carrying 4 lb incendiary bombs were to attack during the first 10 minutes and the rest of the force, carrying 1,000 lb RDX filled H.E. bombs were to attack between 0210 and 0220 hours. Aircraft were to approach the target from west to east along the "B" lattice line. Blind bombing on a Gee fix was to be resorted to if the target could not be identified visually.

Weather.

8. There were 8 - 10/10 cloud over the target area and the ground was only seen by a few aircraft. Visibility was moderate. Over the North Sea en route, there was broken medium cloud increasing in the east.

Results.

9. 81 (82%) of the 99 aircraft despatched claim to have bombed the target dropping 177 tons of H.E. and 65 tons of incendiaries. Almost all bombed blind on Gee fixes, but a few obtained visual confirmation of their fixes through gaps in the cloud. The glow of a few fairly large fires are reported by some aircraft, whilst others report seeing decoys in operation close to the target area.

10. Only 1 aircraft took a photograph with bombing which shows any ground detail, and this photograph remains unplotted. Subsequent daylight reconnaissance of Vegesack shows that no damage was done there by this raid.

Timing.

11. 2 aircraft were early, one bombing at 0149 hours and another at 0159 hours. 15 were late, their bombing times varying from 0223 hours to 0246 hours. 64 accordingly bombed in the prescribed period of 20 minutes.

Other Targets Attacked.

12. Bremen, Bremerhaven, a town believed to be Papenburg, and a flak concentration at Norden were bombed by aircraft which either failed to reach or failed to locate the primary target. In no case were results observed.

Casualties.

13. 3 (3.0%) of our aircraft are missing from this operation and 10 (10%) received damage to varying extents. Of those aircraft which were damaged, 3 received minor damage from flak, 1 received minor damage from fighter attack and 6 received damage not due to enemy action (Cats.E.B.A.C.)

14. Moderate accurate heavy flak and slight to moderate light flak was encountered; searchlight activity was of little value owing to cloud. Report interceptions were low at 4% but of the 4 reported 3 developed into attacks which were all made on the Stirlings of 3 Group.

15. All the missing aircraft were Halifaxes but the returning Halifaxes reported nothing which gives any clue to the cause of these losses.

16. From our own observations, however, there are two independent reports indicating that a Halifax was shot down by a fighter north of Schiermonnikoog; in addition a message was received from a Halifax at 0353 hours and a QDM of 264° was given but nothing further was heard of this aircraft and it is presumed to have come down in the sea. It is estimated that our losses on this raid were 1 to fighter, 1 probably down in the sea, cause unknown and a further loss to causes unknown.

...../Summary.

Summary.

17. The cloud over the target prevented visual identification by all except a very few aircraft. The target is a small one which requires precision bombing and it is not surprising that blind bombing by Gee failed to cause damage. Losses were not large.

MINELAYING.Weather.

18. There was no cloud and good visibility at La Rochelle and only small amounts of cloud at St. Nazaire. At Lorient there was 7 - 8/10 low cloud with base between 600 and 1,000 feet. Below this cloud visibility was good.

Results.

19. 15 of the 19 sorties despatched laid their mines in the position allotted to them. In all cases they obtained visual pinpoints in order to fix their positions. Mines were laid as follows:-

La Rochelle	18
St. Nazaire	6
Lorient	6

20. 2 aircraft used their auxiliary bomb load to attack flak positions. None of the others encountered suitable targets.

Casualties.

21. 1 of these aircraft is missing and 3 sustained Cat.AC. flak damage in the neighbourhood of La Rochelle. 2 more were damaged, not by enemy action.

EC/S. 26342/1/ORS.
11th. August. 1942.

Target	Group	Type	No. of Sorties	Aircraft claiming to attack		Aircraft failing to bomb Primary				Result not known	Casualties				Interceptions		
				Primary	Primary Area	Reached Target Area Bombed other Target	Target Over abortive	Over Enemy Territory Bombed other Target	Not over Enemy Territory		Missing	Damaged by flak	Damaged by Enemy aircraft	Not due to Enemy Action	Att-acked	Not Att-acked	
VEVESACK	3	Stirling	31		22		4	2		3			1m	1E 2AC	3		
	4	Halifax	40		33	1				3		3	1m	1E		1	
	5	Lancasters	28		26	1	1						2m	1AC 1B			
		TOTAL	99		81		5	2		6		3	3	1	6	3	1
MINELAYING La Rochelle	1	Well.II	10+		9						1	3AC		1AC			
St.Nazaire.	1	Well.II	5+		3		1			1				1B			
Lorient.	1	Well.II	4+		3		1										
			118		96	2	7	2		7		4	3AC 3m	2m	2E 2B 4AC	3	1
					+ Not fitted Geo.	Total	Abortive		14								

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MOST SECRET

- 232

NIGHT RAID REPORT NO.113

CCPI NO. 15

BOMBER COMMAND REPORT ON NIGHT OPERATIONS, 20/21ST JULY, 1942.

. On this night one Stirling of 3 Group took off to drop leaflets
over Belgium. This task was successfully accomplished without incident.

C/S.26342/2/ORS.
1st August, 1942.

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TOP SECRET

178577

3 SEP 342

NIGHTMAID REPORT NO. 114

COPY NO. 16

BO. BER COMMAND REPORT ON NIGHT OPERATIONS, JULY 21/22nd 1942

Meteorological Advice Submitted to the Command

1. 0925 hours. Germany:- Much strato-cumulus cloud over Schleswig and North Sea coastal area. Much layer cloud at several levels with few breaks inland.
- France:- Low cloud with base below 1,000 feet on west coast.
- Home Bases:- Variable amounts of cloud; moderate visibility.
- 1100 hours. Germany:- Much strato-cumulus over North Sea coastal strip still expected but good breaks probable over Ruhr.
- 1245 hours. Warm front approaching from the Atlantic now expected to be east of home bases by midnight.
- Home Bases:- Doubtful but probably not generally unfit.
- 1700 hours. Ruhr:- Residual strato-cumulus possible but may be nil.
- Home Bases:- 4 Group may have a number of their bases unfit towards dawn. In other Groups cloud base will only be below 1,000 ft. for short periods. Visibility not below 1-3 miles except for local smoke troubles.

Executive Orders

2. Early in the day bases were forecast free from trouble but weather conditions over targets promised to be generally unsatisfactory. Later reports, subsequently confirmed by a last minute meteorological reconnaissance, showed that good breaks could be expected in the Ruhr area. All available aircraft were despatched to attack Duisburg, a valuable centre of communication.
3. Freshmen were sent on minelaying and pamphlet dropping tasks.

Sorties

4. 316 sorties were despatched, 291 of them to Duisburg. For details see the attached table.
5. 25 (7.9%) sorties were abortive for the following reasons:-

Technical defects	21
Inability to locate target	1 (Intruder)
Sickness	1
Flak	1
Held in searchlights and had to jettison	1

Moon

6. The moon was not above the horizon during these operations.

Weather at Home Bases

7. There was slight rain in 1, 4, 5 and 91 Groups between 0300 hours and 0500 hours which spread into 92 and 3 Groups by 0600 hours. There was variable

.... / medium

medium cloud and the cloud base only fell below 1,000 feet in 91 and 92 Groups late in the night. Visibility was moderate to good.

DUISBURG

Plan of Attack

8. The zero hour for this attack was 0130 hours and it was planned to last 30 minutes. All GEE aircraft were to approach the target from west to east along the B lattice line. 18 Wellingtons were detailed to illuminate the target with flares from 0130 hours to 0151 hours. Three aircraft were to drop flares at zero hour and three more at 0133 hours, 0136 hours, and 0139 hours, followed by pairs at 0142 hours, 0145 hours and 0148 hours. Flares were to be released on GEE fix.

9. A force of incendiary carrying aircraft, all fitted GEE, were to attack from 0130 hours to 0145 hours, 50% carrying 4 lb. incendiaries first followed by the other 50% carrying 30 lb. incendiaries. The target was to be identified visually and the position confirmed by T.R. 1335 fix.

10. The remaining aircraft, carrying large G.P. and H.C. bombs were to attack between 0140 and 0200 hours.

Weather

11. There was no cloud but considerable haze over the target. Over the North Sea en route there was much strato-cumulus from 2,000 to 5,000 feet, which broke to small amounts from the Dutch coast.

Results

12. 253 (87%) of the 291 aircraft despatched claim to have bombed the target, dropping 404 tons of H.E., including 62 4,000 lb. bombs, and 150 tons of incendiaries. Most aircraft identified the target visually, reporting great assistance from the flares, the timing of which, however, did not adhere very closely to the plan. There was only one stick dropped at zero hour and there were only one or two sticks burning during the first six minutes of the attack. From 0136 hours to 0139 hours there were at least four sticks alight throughout. There was a gap from 0140 hours to 0142½ hours when one stick was released and flares continued to illuminate the target from then until the end of the period planned. One aircraft which was very late dropped a stick at 0156 hours. 3 of the flare carrying failed to carry out their task. The first stick was dropped well to the west of the target, as is shown by a photograph taken by the aircraft which dropped them, and these misled a number of aircraft which dropped incendiaries in their neighbourhood in open country. The later flares, however, appear to have been well placed.

13. The aircraft taking part in this attack report that large fires were started which were visible from the coast on the return journey. The reports of aircraft which took photographs of the target area with bombing show that these were in Duisburg itself. 88 photographs taken with bombing show ground detail. 13 of these show the target and a further 22 have been plotted within five miles. These photographs show that good fires were burning particularly in the area of Hochfeld. A considerable number of the photographs however show open country and many of these have been plotted to the west of Duisburg. It would therefore appear that the target was correctly identified by only a proportion of the attacking force.

14. Daylight reconnaissance of Duisburg was not undertaken until July 31st after two subsequent raids. Details of the damage done by the series of 4 attacks on this town in July will be found in Night Raid Report No. 116. It is probable that the greater part of this damage was done on the night under consideration. Ground sources report that the damage to the Thyssen steel-works revealed by this reconnaissance was done on this night, and that the Niederrheinische Hütte and the Krupps works were also hit and suffered considerable damage.

15. Two aircraft bombed early during this attack, one at 0105 hours and one at 0125 hours. 8 were late, 6 bombing between 0200 hours and 0210 hours and one each at 0216 and 0223 hours. 243 aircraft accordingly bombed in the allotted half hour.

Casualties

16. 12 (4.1%) of our aircraft are missing from this attack; 20 (6.8%) were hit by flak, 17 sustaining only minor damage and 3 more serious (Cat. AC) damage; 1 aircraft was damaged (Cat. A.) on landing. There were 5 attacks on our aircraft but in none of them was any damage sustained nor are there any claims that the enemy's fighters were damaged.

17. The flak defences of Duisburg are reported as being less intense than usual. They were working in co-operation with searchlights which were hampered by haze.

18. The observations made by our aircraft suggest that 3, possibly 4, aircraft were lost to flak over the target. Losses en route appear to have occurred mainly in the Dutch Coastal Area on the return journey and it seems that 2 were due to flak and 5 or 6 to fighters.

Summary

19. Although it would appear that only a proportion of the attacking aircraft identified the target correctly, this attack did an appreciable amount of useful damage in Duisburg. The bad placing of the first stick of flares dropped and the inaccurate timing of other sticks were probably contributory factors to the scatter of the bombing, but it is likely that the chief cause was the considerable haze experienced.

20. Losses on this night were not unduly large, although slightly above average for this part of Germany, as would be expected on a night when there was no cloud over Europe.

INTRUDERS

21. Four aerodromes were each attacked by 2 Blenheims. One of the pair which went to St. Trond had to return early and the other was unable to locate the target owing to 1/10 low cloud and bombed searchlight and flak emplacements on Schouwen Island. At Venlo one aircraft attacked dropping its bombs along the flare path, whilst the other was unable to locate the target owing to haze and darkness. Both aircraft which set out to attack Twente claim to have done so, and state that their bombs burst on the flarepath and the runway. Bursts across the airfield were seen by the crew of one of the two aircraft which was despatched to Vechta. The other is missing.

MINELAYING

22. 8 out of 9 aircraft despatched to lay mines south of Texel successfully carried out their task, laying 32 mines. 4 mines were also laid by the 2 Wellingtons despatched to the Frisian Islands area, both of which carried out their task.

LEAFLETS

23. 5 Halifaxes and 1 Lancaster set out to drop leaflets over occupied France. The Lancaster had to return early but all the Halifaxes were successful.

Target	Group	Type	No. of Sorties	Aircraft claiming to attack		Aircraft failing to bomb Primary			Casualties				Interceptions			
				Primary	Primary Area	Reached Target Area	Over Enemy Territory	Not over Enemy Territory	Missing	Damaged by Flak	Damaged by Enemy aircraft	Not due to Enemy Action	Attacked	Not Attacked		
ISBORG	1	Well.II	19 *		18						1	1 n.			1	
		Well.III	14		12			1			1					
		Well.IV	45 *		37		1	1		3	3	1 n.			1	
	3	Well.III	92		75	1	1	2	3	5	5	1 n.		1 A	2	5
		Bearling	26		25					1	1	1 n.			2	2
	4	Halifax	29		22				1	2	1	5 n.			1	1
	5	Hampden	17 *		12		1		1	2	1	1 n.				2
Lancaster		29		29							1 n.					
TOTAL			291		253	1	3	4	5	13	12	20		1 A	5	12
TRONE A/D	2	Blenheim	2 *			1				1						
WLO A/D	2	Blenheim	2 *	1			1									
WASTE A/D	2	Blenheim	2 *	2												
WHTS A/D	2	Blenheim	2 *	1							1					
UNRECORDED																
South of Texel	3	Well.III	4 *		4											
	5	Hampden	1 **							1						
Frisian Islands	3	Lancaster	4 *		4											
	3	Well.III	2 *		2											
PLATO	4	Halifax	5 *		5											1
	5	Lancaster	1 *													
			316	4	268	2	4	4	5	16	13	3 n.		1 A	5	13
												17 n.				

* Not fitted GEE

+ Presman

Total Abortive 25

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5 SEP 1942	
TIME	HOURS
2/24	5

REPORT NO. 115
COPY NO. 16

BOMBER COMMAND REPORT ON NIGHT OPERATIONS, 23/24 SEP, 1942

Duisburg, Intruders, Minelaying

Meteorological Advice Submitted to the Command

1. 0920 hours. Germany:- 7/10 cloud over North Sea coastal area, decreasing to 5-6/10 in the Ruhr.
Home Bases:- Expected to be fair.
- 1230 hours. Germany:- 7-8/10 cloud is probable in the Ruhr.
Home Bases:- Strong winds from W.N.W.
- 1700 hours. Germany:- 7-10/10 cloud in Ruhr, base about 1500 ft, tops to 8,000 ft.
Home Bases:- Expected to be satisfactory.

Executive Orders

2. Reconnaissance reports showed that the attack on Duisburg 2 nights previously had been successful and was well worth exploiting with the least possible interval. The weather promised to be fairly good and all available aircraft were detailed for the task. Later weather reports, however, indicated that 7/10 cloud was to be expected in the target area and accordingly all aircraft not fitted with GEE were withdrawn from the operation.

Sorties

3. 236 sorties were despatched on this night, 215 of them to attack Duisburg. For details of the operations see attached table.
4. 20 (8.5%) of the sorties were abortive. 16 of these were due to technical troubles, 1 to flak, 1 to an enemy fighter and 1 to illness, while 1 minelaying aircraft was unable to obtain a pinpoint.

Moon

5. The moon which was 80% of full set about ten minutes after the opening of the attack on Duisburg. The minelaying operations took place after moonset, and the attacks on aerodromes before moonset.

Weather at Home Bases

6. Towards dawn well broken, medium, cloud increased, with slight rain in 4 Group and a little low cloud in 91 and 92 Groups. Visibility was good.

DUISBURG

Plan of Attack

7. This operation was designed to last 30 minutes, zero hour being 0215 hours. For the first 24 minutes of the attack 18 Wellingtons were to illuminate the target by sticks of flares consisting of 12 bundles to be dropped at 8 second intervals, the first at the co-ordinates B 6.90 C 37.13 after approaching the target from West to East along the "B" lattice. 3 aircraft were to attack at zero hour followed by further three at three minute intervals thereafter, pairs of aircraft were to release their flares in the same way. The bomb loads of these aircraft were to be made up with 250 or 500 lb. G.P. bombs.

8. Between zero + 2 minutes and zero + 15 minutes a force loaded with 4 lb. and 30 lb. incendiary bombs was to attack; those carrying 30 lb. incendiaries attacking between zero + 10 and zero + 15 minutes. The Halifaxes which were to attack during this period each carried 3 x 1000 lb. H.E. bombs with their load made up with either 4 lb. or 30 lb. incendiaries.

9. The main force was to attack from zero + 10 to zero + 30 minutes with loads of H.E. bombs.

10. Bomb-carrying aircraft were to approach the target from West to East along the "B" lattice and release their loads at the coordinates B 6.90 C 37.11, confirming their position by visual identification of the target, if possible.

Weather

11. A considerable amount of cloud was encountered over the N. Sea.

12. 7-9/10 cloud was found over Duisburg with tops 6-8000 feet but there were occasional large breaks.

13. Cloud was breaking up over the N. Sea on the return journey.

Results

14. 187 (87%) of the 215 aircraft detailed claim to have reached the target area, dropping 319 tons of H.E. and 56 tons of incendiaries. The times at which the flares were dropped did not adhere very closely to the plan. There was only one period of three minutes during the first 14 minutes of the raid when there were more than two sticks burning. Five sticks were dropped between 0229 hours and 0231½ hours and the illumination continued for two minutes longer than was intended. Some aircraft stated that the flares were of assistance in identifying ground detail, but others only found them of use as guides to the target area owing to the cloud. A number of sticks of flares are reported to have fallen to the West of the target and one aircraft stated that flares and incendiaries were scattered for about 20 miles along the "B" lattice line beginning 15 miles west of the target. Most aircraft bombed on GEE fix but a number were able to obtain a visual confirmation of their position. Fires, some of them large, were started, but they are reported as being scattered.

15. 43 aircraft obtained photographs with bombing showing ground detail; 3 of these show the target and 3 more have been plotted within 5 miles of it. Many of the photographs have been plotted at distances up to 20 miles to the west of the target and the evidence from them confirms the scatter of flares and bombs in this direction reported by some aircraft. There was a concentration of several aircraft in the vicinity of Nieubeek, 16½ miles west of Duisburg. It is believed that there may be a decoy in this region.

16. Daylight reconnaissance of Duisburg was not undertaken until July 31st, after another raid on this target. The damage which this reconnaissance revealed as having done in Duisburg by the four attacks in July is set out in Night Raid Report No. 116.

17. 1 aircraft was 4 minutes early and 7 were late, 4 of them 6 minutes or less but 3 more than a quarter of an hour. The number bombing within the prescribed half hour was accordingly 179.

Casualties

18. 6 (2.8%) of our aircraft are missing from this operation and 25 (11.6%) received damage. In 18 cases (2 Cat.AC) this damage was due to flak. There were 2 cases of minor damage from enemy fighters and 5 aircraft received damage not due to enemy action (2 Cat.E, 1 Cat.B, 1 Cat.AC, and 1 minor).

19. Heavy flak was reported as being more intense than during the previous attack but light flak was slight. Searchlight activity was ineffective owing to cloud.

20. 15 (7.0%) interceptions were reported of which 3 (1.4%) developed into attacks. In two of these our aircraft claimed to have destroyed Ju. 88's and

.../ the third

the third to have damaged a Me. 110. A Halifax opened fire on a Ju. 88 and claimed its destruction.

21. From observations it would appear that two aircraft were lost, possibly to flak over the target, and two, possibly to fighters, off the Dutch coast on the return journey. One possible loss occurred to a fighter at Grinchen. The other loss must remain as "cause unknown".

22. Enemy night fighters, in spite of cloud conditions appear to have been more successful than enemy flak on this night. For a raid on the Ruhr the cost must be regarded as light.

Summary

23. This attack was carried out by GEE aircraft only in conditions of considerable cloud. Only a limited proportion of the aircraft were able to identify the target visually and the attack was spread over a considerable area to the west of the target.

24. Losses in this attack were not large and appear to have been due more to night fighters than to flak.

INTRUDERS

25. Intruder operations were carried out against the following aerodromes:-

St. Trond

26. Two Blenheims were sent to attack this aerodrome and one claims to have found it and dropped his bombs across the runways. The other could not locate the primary target but attacked an aerodrome, believed to be at Louvain.

Twente

27. Two Blenheims set out to attack this aerodrome but low cloud prevented them from locating the target. One of them bombed an active aerodrome in the Oldbroek area and suffered minor damage from flak whilst doing so. The other, as a last resort, dropped bombs on Gilze Rijec A/D. Both aircraft claim to have hit the runways of the aerodromes which they attacked.

Vechta

28. Two Blenheims were also sent to this aerodrome and one claims to have dropped its bombs in the hangar area and across the airfield. The other aircraft is missing.

venlo

29. Both the Blenheims despatched to this aerodrome claim to have found and bombed it. Bombs from the latter of these are believed to have damaged an aircraft which was landing. The other reports seeing what it believed was a burning aircraft on the airfield before it bombed.

MINELAYING

30. Thirteen aircraft were despatched to lay mines to the South of Texel and 12 were successful, 49 mines being laid. One aircraft was unable to obtain a pin-point and returned with its mines.

23/24th July, 1942

Target	Group	Type	No. of Sectors	Aircraft claiming to attack		Aircraft failing to bomb Primary				Result not known	Disposition			Interference			
				Primary	Primary Area	Reached Target Area		Over Enemy Territory			Not over Enemy Territory	Missing	Down by Flak	Down by Enemy Action	Not down to Enemy Action	Attacked	Not Attacked
						Bombed other Target	Abortive	Bombed other Target	Abortive								
DUISBURG	1	Well.III	13		11					2		1 B.	1 B.		1	1	
	3	Well.III	80		68	1	3			3	1	2 AD 4 B.	1 B.	1 B.		6	
		Stirling	39		32		1			4	2	3 B.			1	1	
	4	Wellfax	58		55					2	1	3 B.		1 B 1 B 1 AC		3	
	5	Lancaster	45		41					2	2	5 B.	1 B.		1	238	
		TOTAL	215		187	1	4		2	13	2	6	18	2	5	12	
TROND A/D	2	Blenheim IV	2 *	1		1											
LOPE A/D	2	"	2 *			1		1				1 B.					
WETA A/D	2	"	2 *	1							1						
WATO A/D	2	"	2 *	2													
WREAVING	1	Well.II	2 **		2			1									
South of Texel		Well.IV	1 **		1											1	
	3	Stirling	1 +		1												
	5	Hampton	2 **		2												
		Lancaster	6 +		6												
			236	4	199	3	5	1	2	13	2	7	19	2	5	15	

* Not fitted GEE

+ Producers

Total Abortive 20

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BOMBER COMMAND REPORT ON NIGHT OPERATIONS 21/26th JULY, 1942Duisburg, Intruders, Minelaying, LeafletsMeteorological Advice Submitted to the Command

1. 0920 hours. Estimated midnight position of fronts (1) occluded, 63°N. 5°E - 57°N. 20°E. becoming warm to 50°N. 20°E. (2) cold front Copenhagen - Hamburg - Cologne - Lorient.
- Germany:- Layer cloud with some breaks in north-west behind front. Ahead of front some medium and well broken low cloud.
- France:- Layer cloud with good breaks in north-west, in west fine south of front.
- Home Bases:- Variable amounts of cloud with local showers.
- 1230 hours. Germany:- Promising in the extreme N.W., 10/10 cloud being very unlikely. Conditions in the Ruhr area possibly very good.
- Route:- No difficulties expected.
- Home Bases:- Conditions expected to be favourable.
- 1720 hours. Bremen:- 8-10/10 medium cloud at 10,000 - 12,000 ft. with 4-7/10 strato-cumulus below.
- France:- Conditions fit for minelaying at Bordeaux but front with thunderstorms will be encountered en route.
- Home Bases:- Visibility troubles expected.
- 2120 hours. 10/10 cloud expected at Bremen; Emden not likely to be better; breaks expected in Ruhr.

Executive Orders

2. Early in the day it was considered that Bremen would be in the area in which weather would be suitable for bombing and it was chosen as the target owing to its importance as a submarine building centre. Later weather reports however indicated that there was little chance of finding breaks in the cloud and the target was changed to Duisburg to follow up the previous attacks on this town.
3. A large scale intruder effort against the enemy's night fighter aerodromes was undertaken and freshmen were given minelaying and leaflet dropping tasks.

Sorties

4. 349 sorties were despatched, 313 being ordered to attack Duisburg.
5. 48 (13.7%) of the sorties were abortive for the following reasons:-

Severe Icing	11	Inability to locate target	9
Technical Failures	23	Sickness	1
Attacks by Enemy Fighters	4		

Moon

6. The moon was 95% of full and was above the horizon during these operations.

Weather at Home Bases

7. There were small amounts of low cloud and moderate visibility in the home base area.

DUISBURGPlan of Attack

8. Zero hour for this attack was 0145 hours and it was timed to last 55 minutes. Incendiary carrying aircraft were to attack before those carrying H.E.

Weather

9. Over the N. Sea, small amounts of cloud were met in the west, but cloud increased to 10/10 near the Dutch coast.

10. Duisburg was found to be covered with 7-9/10 layer cloud increasing to 10/10 at times, with tops to 9,000 feet.

Results

11. 251 (80%) of the 313 aircraft detailed claim to have reached the target area. These aircraft dropped 142 tons of incendiaries and 407 tons of H.E. bombs including 54 x 4000 lb. bombs.

12. Some aircraft were able to see the town and docks, but many of the main force found thick cloud and bombed blindly on GEE, E.T.A. or the glow of already existing fires.

13. Many aircraft were unable to see any results but reported the glow of fires on the clouds. Several scattered fires are reported by other aircraft and special mention is made of one large fire, believed to be due to direct hit on oil tanks, which sent up a column of black smoke for many thousand feet. From the reports made by aircraft which obtained photographs of the target it appears that this fire was in Duisburg. It may well have been the tar extraction works which daylight reconnaissance shows to have been demolished.

14. 57 photographs taken with bombing show ground detail; 8 of these show the target, while 6 more were within five miles of it. The photographs show that the raid was scattered but a higher proportion of aircraft photographed the target area than in the previous raid, and it is likely that a considerable part of the damage detailed below was done on this night.

15. Daylight reconnaissance cover of the target was obtained on July 31st which shows the damage done in the series of attacks on the 13/14th, 21/22nd, 23/24th July and this night. The night photographic evidence suggests that the major part of the observed damage detailed below occurred on the night of July 21/22nd.

16. There are no large areas of devastation but a considerable number of widely scattered small areas or points of damage are seen over the whole area of Duisburg, Hamborn and Henberg. A fair amount of the damage has been caused by fire, but the greater part is the result of high explosive, including at least twelve very heavy incidents. Probably the most important of these is a direct hit on the rolling mills of the August Thyssen Steel Works, causing severe structural damage and roof damage over 150,000 sq. ft. Ground sources report that this occurred on the 21/22nd July. Fresh damage has also been inflicted on other buildings in this works and it can be seen that repairs have not yet been completed to the damage done in previous raids. Damage has also been inflicted to varying extents on seventeen other industrial plants and small factories. These include five steel works, a zinc and sulphuric acid works, coking plant, engineering works, machine tool works, chemical factories and a colliery where nearly all the pit-head buildings and equipment have been destroyed, making the mine unserviceable. An extraction plant at a works for recovering products from tar has also been demolished.

17. In the docks a group of silos and storehouses measuring 200 x 400 yds. has been completely destroyed by fire and there are about eight other incidents of damage to warehouses, administrative buildings, dock and railway property. Nearly 450 houses or house blocks in urban and residential districts have been destroyed or seriously damaged, and many more damaged by blast.

Other Targets Attacked

18. A few aircraft which were unable to locate the target dropped their bombs on other targets in the Ruhr area, while others which were forced to return early bombed aerodromes and flak positions in the Low Countries.

Casualties

19. 11 (3.5%) of our aircraft are missing from this operation. 16 aircraft received damage from flak (4 Cat.AC and 12 Minor) and 5 were damaged by fighters (2 Cat.AC and 3 Minor). There were 6 (1 Cat.E, 1 Cat.B and 4 Cat.AC) further cases of damage not due to enemy action. Of these the Cat.E was a Lancaster which crashed in the Wash shortly after take-off. No reason is known for this loss.

20. Moderate heavy flak was reported firing in predicted concentrations and box barrage form. There was in addition some engagement of individual targets. Searchlights were operating in cones but their effectiveness was hampered by cloud and moonlight. There was little light flak.

21. Controlled night fighters operated in rather fewer numbers than usual, but there were many reports of S/E fighters both over the target and en route.

22. In spite of cloud conditions, but perhaps aided by moonlight, the enemy night fighters appear to have been successful, as our own observations indicate 6 aircraft as being lost to fighters. Our aircraft on the other hand made no claims to have damaged or destroyed fighters on this night.

23. The percentage missing on this night was about average for a target in the Ruhr.

Summary

24. In conditions of considerable cloud only a limited proportion of the attacking force was able to identify the target correctly but at least one large fire was started in the town. Photographic reconnaissance shows that a very considerable amount of useful damage was done during the series of 4 raids on Duisburg of which this was the last.

25. Casualties on this night were at an average level. Enemy fighters appear to have been responsible for the greater part of our losses.

Intruders

26. Intruder operations were carried out against the following aerodromes:-

St. Trond

27. 2 Blenheims set out to attack this aerodrome and one claims to have dropped bombs between runways. The other aircraft abandoned its task owing to poor visibility and returned with its bomb load.

Venlo

28. 2 of the 4 aircraft despatched to this aerodrome claim to have dropped their bombs on the runways. One aircraft is missing, whilst the fourth abandoned its task after being attacked by an enemy fighter.

Deelan

29. 3 aircraft were sent to this aerodrome. One claims to have dropped its

bombs on runways, and another to have dropped them across the double flarepath which was then doused. The third aircraft was unable to locate the target and bombed what is believed to be a dummy aerodrome near Westhoofd.

Twente

30. 3 aircraft were sent to this aerodrome. One claims hits on the runway and bombs from another were seen to burst on the flarepath. The third bombed railway lines at Alnlo since it could not locate the primary target.

Rheine

31. All 3 aircraft despatched to this aerodrome claim to have dropped their bombs on the runways and one especially large crater was seen.

Vechta

32. 2 aircraft were despatched to this aerodrome. One is missing and the other finding 10/10 cloud over the target, claims that its bombs dropped on the end of the flarepath at Quakenbruck aerodrome which was the alternative target.

Leeuwarden

33. 3 of the 4 Blenheims detailed were unable to locate the target owing to 10/10 low cloud and abandoned their task. The remaining aircraft is missing.

MINELAYING

34. 8 aircraft were despatched to lay mines off the West Coast of France, and 5 of these laid 25 mines off the Gironde estuary. 2 aircraft sent to St. Nazaire could not locate the target area and one Lancaster detailed for the Gironde Estuary is missing.

LEAFLETS

35. Leaflets were successfully distributed over Paris, Amiens and Chartres, by all the seven aircraft detailed for this task.

BC/S.26342/3/ORS.
20th August, 1942.

Target	Group	Type	No. of Sorties	Aircraft claiming to attack		Aircraft falling to bomb Primary Reached Target Area				Not Over Enemy Territory	Missing	Casualties		Interceptions		
				Primary	Area	Bombed other Target	Abortive	Bombed other Target	Abortive			By Flak	Damaged by Enemy Aircraft	Not due to Enemy Action	Att-acked	Not Att-acked
DUISBURG	1	Well. II	27		17	1		1	2	4	2	1 AC		1 B 1 AC		2
		Well. III	11		8					2	1					1
		Well. IV	48		37	5		1	1	1	3	1 AC 3 m.	2 AC 1 m.		3	3
	3	Well. III	91		83				2	5	1	3 m.		1 AC	2	13
		Stirling	48		37	1	3	1	5		1	1 AC 3 m.	1 m.		1	10
	4	Halifax	41		30				4	5	2		1 m.	1 AC	2	11
	5	Hampden	14		10				1	3		1 m.		1 AC		3
	Lancaster	33		29				1	1	1	1 AC 2 m.		1 B	2	2	
	TOTAL	313		251	7	4	3	16	21	11	16	5	5	10	45	
ST. TROND A/D	2	Blenheim	2	1			1									
VENLO A/D	2	"	4	2						1						
BERLIN A/D	2	"	3	2							1 m.					
TORONTO A/D	2	"	5	2			1									
BREMEN A/D	2	"	5	3												
VECHTEL A/D	2	"	2				1				1					
LEEUWARDEN A/D	2	"	4				3				1		1 m.			
REDELAYING																
St. Nazaire	5	Hampden	2				1		1							
Gironde Estuary	5	Lancaster	6		5					1						
LIVRETTES																
Paris	4	Halifax	4		4											
Amiens	4	"	2		2											
Chartres	4	"	1		1											
		TOTAL	349	10	263	8	9	5	18	21	15	4 AC 14 m.	2 AC 4 m.	1 B 1 AC	11	45

Total Abortive 48

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BOMBER COMBINED REPORT ON NIGHT OPERATIONS, JULY 26/27th, 1942Hamburg, IntrudersMeteorological Advice Submitted to the Command

1. 0920 hours. Estimated midnight position of front Danzig - Berlin - Cologne - East Anglia - Isle of Wight - off S.W. England - becoming warm to 50° N. 10° W then north-westwards.
- Germany:- Medium and low cloud with good breaks north of front, local thunderstorms near front, residual convection cloud and risk of local thunderstorms south of front.
- France:- Variable amounts of convection cloud and a risk of thunderstorms.
- Home Bases:- Rain and low cloud in Southern England, broken medium and low cloud further north.
- 1245 hours. No change but still considerable doubt about exact position of front during night.
- 1720 hours. Hamburg:- Small amounts of cloud at various levels. Broken cirulus cloud over North Sea en route.
- Home Bases:- All fit for take off. After 0300 hours 8-10/10 cloud at 1,000 - 1,500 feet and some rain particularly in 1, 4 and 5 Groups.

Executive Orders

2. Hamburg was in an area expected to have good bombing weather and it was for the first time for some weeks that this target, containing the largest number of submarines under construction, had been within range under cover of darkness. The operational groups, at their maximum strength, were ordered to attack it, but, although it was desired to use the O.T.U. Groups also, they were not ordered to take part in the operation because of a high wind and poor base conditions.
3. This operation was accompanied by an intruder effort aimed at fighter aerodromes likely to be used in countering it.

Sorties

4. 425 sorties were despatched on this night 403 of them to Hamburg. For details of the operations see attached table.
5. 47 (11%) sorties were abortive. The reasons were as follows:-

Technical defects	36
Sickness	3
Inability to locate target	2
Attacks by Enemy Fighters	5
Flak	1

Moon

6. The moon was above the horizon and 99% of full.

Weather at Home Bases

7. There was much medium and broken low cloud and slight rain over the .../ home base

home base area at the time of take-off. Rain became heavier and more continuous during the night and the low cloud increased and lowered from the south-west falling below 1,000 ft. in 3 Group area at about 0600 hours, in 5 Group area at about 0700 hours and in Norfolk at about 0800 hours. Visibility was moderate up to 0500 hours and deteriorated after this time.

HAMBURG

Plan of Attack

8. Zero hour was 0100 hours and the whole attack was timed to last 45 minutes. The attacking aircraft were divided into three forces; a force consisting of the best crews carrying maximum 4 lb. incendiary loads who were to attack from 0100 to 0120 hours; a second force also carrying 4 lb. incendiaries who were to attack from 0115 to 0135 hours; a third force who were to complete the attack between 0130 and 0145 hours with 2,000 lb. and 4,000 lb. H.C. bombs and heavy G.P. bombs.

9. Crews of GEE aircraft were instructed that reception would probably be good as far as $54^{\circ} 34' N. 07^{\circ} 08' E$ (the turning point) but that E.T.A. should be checked after this point if signal strength permitted.

Weather

10. No cloud and good visibility over the target were reported by most of the aircraft taking part in this attack but there are reports scattered throughout the raid of 2-4/10 cloud which apparently drifted over the target from time to time.

11. There was 5-8/10ths cloud with icing over the North Sea getting less when the German coast was approached. On the return journey over the North Sea the cloud increased to 10/10 near the English Coast with rain and slight icing.

Results

12. 315 (78%) of the 403 aircraft which set out to attack Hamburg claim to have done so. These aircraft dropped 322 tons of incendiaries and 362 tons of high explosives which included 61 x 4,000 lb. bombs. In the excellent weather conditions prevailing most aircraft had little difficulty in recognising the target visually although parts of the city were covered in smoke during the later part of the raid. Crews reported that many fires were started in the town which grew as the raid progressed and these aircraft which bombed towards the end of the attack stated that the town was well ablaze. A number of crews described the attack enthusiastically as a second Cologne.

13. 135 aircraft obtained photographs at the time of bombing which show ground detail. Of these 70 have been plotted within 5 miles of the centre of Hamburg, including 22 which show the target. All these 70 show built up areas of the town and suburbs and on many of them very heavy fire tracks appear, particularly in the St. Georg District and north east of the Aussen Alster. Only one of the 101 photographs which have been plotted shows a position more than 10 miles from the target and this one is only $10\frac{1}{2}$ miles away.

14. Daylight reconnaissance has revealed that substantial damage has been inflicted, mainly to residential property. Business premises and public buildings have also suffered, but the damage to industrial property and to the docks is not large. Some parts of the docks, however, were not well covered by the reconnaissance.

15. The most important incident is south west of the Binnen Alster where an area of about 12 acres, including 12-15 blocks of business premises or warehouses, has been severely damaged by fire. 15-20 warehouses, sheds or small factory buildings in various parts of the city have been destroyed or severely damaged.

16. The damage to residential property includes the destruction of between 300 and 400 buildings, the largest area of devastation being about 100 yards square.

...../ Casualties

Casualties

17. 29 (7.2%) of our aircraft are missing from this operation; 45 (11.2%) reported damage from flak (8 Cat.AC and 37 Minor); 5 (1.2%) were damaged by fighters (4 Cat.AC and 1 Minor) whilst 8 (2.0%) received damage not due to enemy action (2 Cat.E, 2 Cat. B, 3 Cat.AC and 1 Minor).

18. The defences of Hamburg were reported as being less intense than is usual but becoming stronger later in the attack. Searchlights operated in combs along both banks of the river, and co-operated with flak. Intense flak and searchlights were reported at Cuxhaven and between this point and the target.

19. Enemy night fighters were operating and 55 (12.1%) interceptions occurred, of which 20 developed into attacks. Claims made by our aircraft are as below:-

No. 109	claimed as destroyed by Wellington.
No. 110	" damaged by Stirling.
Ju. 88	" " " each of two Hampdens.

20. The number of attacks was considerably higher than usual and indicates success by the enemy night fighters. This was to some extent to be expected in view of the lack of cloud cover and the full moon and good visibility prevailing over N.W. Germany.

21. From our own observations it is not possible to assess the causes of all losses, but 12 were probably due to flak and 8 to fighter.

Summary

22. This attack was carried out in excellent weather conditions in which most aircraft were able to identify the target accurately and considerable useful damage was done. Losses were higher than usual as was to be expected on a clear night on which a high proportion of the force reached the actual target.

INTRUDERS

23. Intruder operations were undertaken at dusk by Boston aircraft against Leeuwarden, Borkum, Ardorf and Jever aerodromes. One of the 4 aircraft attacking Leeuwarden claims to have hit buildings on the airfield; 2 others are not certain that they identified the target correctly; the remaining one bombed some buildings a few miles away, mistaking them, when attacking, for the aerodrome which he later recognised. Both aircraft attacking Borkum and both aircraft attacking Ardorf claim to have been successful, bombing the airfield at Borkum and the aerodrome buildings at Ardorf. One of the aircraft attacking Jever claims to have bombed the aerodrome buildings. The other, which is missing, was seen to hit the ground whilst jinking on the way in to attack.

24. Blenheims were despatched later to attack Gilze-Rijen, Rhine, Vechta, Stade, Jagel and Sylt aerodromes, 2 aircraft setting out for each aerodrome. Successful attacks against the primary target, in which the runways, and at Vechta the aerodrome buildings also, were bombed, were made by all these aircraft except the two sent to Gilze-Rijen. One of these had to return early and the other, a freshman, had instructions to bomb any active aerodrome encountered on the way to the target. He accordingly bombed Haaustede aerodrome which he found active, his bombs falling on the runway.

25. One of the aircraft which bombed Vechta was attacked by an enemy fighter and received minor damage, but this did not affect the success of the sortie.

Target	Group	Type	No. of sorties	Aircraft claimed to attack		Aircraft's failure to reach target		Aircraft's failure to reach primary target			Idling	Aircraft's failure to reach secondary target		Not due to enemy action	Attacked	Not Attacked	
				Primary	Area	Bombed other Target	Abortive	Bombed other Target	Abortive	Over Territory		Over Enemy Territory	Not over Enemy Territory				Down by Flak
HAMBURG	1	Bell.II	24 *	17				1	1	3	1	1 AC		1 E	3	2	
		Bell.III	12	7					3	2					1	2	
		Bell.IV	48 *	37					2	1	2	6	1 AC 6 m.	1 AC		2	10
	3	Bell.III	58	78					3	1	8	8	1 AC 2 AC 6 m. 1 m. #	1 AC	1 AC	7	21
		Stirling	39	30							7	2	1 AC 7 m. #		1 E 1 B 1 AC	3	5
	4	Halifax	73	55		1	1	1	1	7	8	4 m.		1 AC	2	6	
	5	Sturpden	55 *	24	1				1	3	2	2	1 AC 1 m.	2 AC		3	3
		Lancaster	77	67		1	1			6	2	2	1 AC 9 m.		1 B. 1 m.	1	4
		TOTAL	403	315	1	2	12	7	37	29	29	5 AC 45	5		8	20	35
	GILSE-	2	Blenheim	2 *					1	1							
RIJEN A/D	2	Blenheim	2 *	2													
ROHNE A/D	2	Blenheim	2 *	2													
VECHT A/D	2	Blenheim	2 *	2													
LEMP. JESSE A/D	2	Blenheim	4 *	1	2	1											
BORNI A/D	2	Boston	2 *	2													
WICEP A/D	2	Boston	2 *	2													
NEVER A/D	2	Boston	2 *	1							1						
STAN A/D	2	Blenheim	2 *	2										1 AC			
JAGEL A/D	2	Blenheim	2 *	2													
SYLT A/D	2	Blenheim	2 *	2													
		TOTAL	425	15	318	2	2	13	7	38	30	5 AC 3 AC 36 m. 1 m. #	4 AC 1 m.	2 E 2 B. 4 AC 1 m.	21	35	

* Not fitted Gee Total Abortive 47 # Damaged by both flak and enemy aircraft

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COMBAND REPORT ON NIGHT OPERATIONS 28/29th JULY, 1942.(HAMBURG. INTRUDERS)Meteorological Advice Submitted to the Command

1. 0920 hours. Germany:- Well broken, thin layer cloud probable over N.W. Coastal area; fine in the Ruhr-Rhine area, with haze near industrial areas. East of approximately 10°E. residual convection cloud, and some layer cloud.
- France:- Fine, with industrial haze.
- Home Bases:- Fine, mist near industrial centres.
- 1245 hours. Germany:- Possibility of $\frac{1}{2}$, perhaps $\frac{2}{3}$, cover of medium alto-cumulus cloud over Hamburg, and almost clear sky over the Ruhr area.
- Home Bases:- Local mist or fog in 1,2,91 and 92 Groups, where visibility falling to one mile towards dawn.
- 1730 hours. Target areas:- Probability of amounts up to 7/10 of medium cloud over Hamburg and Essen.
- Home Bases:- 4 group may have occasional rain from 2000 hours and 2 group also may have a little rain after midnight; very low stratus cloud in 91 group.
- 2140 hours. Target area:- 6 - 9/10 cloud probably 9/10.
- Home Bases:- Conditions for take off rather bad in 4,1 and 5 groups, but reasonable in 2,3,91 and 92 groups. All other groups will have intermittent rain, with low cloud.

Executive Orders

2. An attack by the whole resources of the Command against Hamburg, designed to follow up the successful one undertaken 2 nights previously, was planned, but deterioration of base conditions caused the efforts of 1, 4 and 5 Groups to be cancelled, and those aircraft of 91 and 92 Groups which had taken off early to be recalled, when it became apparent that a concentration sufficient to give adequate support to the inexperienced crews in the slower aircraft would not be achieved.

Sorties

3. Altogether 299 sorties were despatched of which 256 were ordered to attack Hamburg.

166 (55.5%) of the sorties were abortive for the following reasons:-

Recall of Aircraft	36 (including 13 Intruders)
Severe icing	34
Unable to locate target	9
Technical defects	20
Attacks by Enemy Fighters	2
Searchlights	2
Collision	2
Sickness	1

...../Moon

Moon

4. The moon was 98 $\frac{3}{4}$ of full and was above the horizon throughout these operations.

Weather at Home Bases

5. Continuous rain, heavy at times, in Yorkshire and Lincolnshire, until midnight. Slight and intermittent rain in East Anglia. Conditions improved towards dawn.

HAMBURGPlan of Attack

6. This operation was an attack against Hamburg with 2 Group providing 43 aircraft on intruder activities to engage the enemy night fighters and prevent them from leaving the ground. Zero hour for the attack against Hamburg was 0100 hours, and the force was divided into three waves. During the first ten minutes the target finding force was to attack with maximum loads of 4 lb. incendiaries and bomb from below the cloud if it seriously interfered with observation. These aircraft were to be followed by a further wave of incendiary carrying aircraft, spreading their attack between 0105 - 0145 hours. The attack by the H.E. carrying aircraft was to start at 0140 hours, and all aircraft were to turn home at 0155 hours.

7. Crews of Gee aircraft were instructed that signal strength would probably be good to the turning point, 54° 34' N., 07° 08' E, and from this point fixes should be obtained, if possible, to check E.T.A.

Weather

8. Layers of cloud from 5,000 to 12,000 feet with occasional heavy rain were encountered off the English coast, but dispersed beyond 5 or 6°E. 10/10 was found over Hamburg with base at 14,000 feet. Visibility was good. Over the N. Sea conditions on return were almost the same as on the outward journey but layer cloud was breaking 50 miles from the English coast.

9. There was moderate icing in cloud from 10 - 12,000 feet and severe icing from about 12 - 15,000 feet.

Results

10. Only 68 (26.6%) of the 256 aircraft detailed claim to have reached the target area, dropping 88 tons of incendiary and 32 tons of H.E. bombs. The small proportion of aircraft reaching the target is partly due to the fact that 83 were recalled owing to very bad weather conditions.

11. The main incendiary attack commenced at the time scheduled but lasted for forty minutes instead of forty five as planned. One of these aircraft was 17 minutes early and one was late.

12. Very few of the H.E. carrying aircraft reached the target area and half of those which did succeed were between 5 and 30 minutes early. Four 4,000 lb. bombs were dropped.

13. Most of the aircraft were able to bomb visually, the town, river and docks often being clearly seen, but a few bombed on Gee or E.T.A.

14. Some aircraft were unable to observe results owing to blinding searchlight concentrations, but many are reported to have seen scattered fires, some of them being quite large.

15. 13 photographs which were taken with bombing showed ground detail. Only 1 of these shows the target, while 3 more were within five miles of it. The photographs suggest that some of the comparatively small force engaged succeeded in piercing the defences and dropping their bombs on the target. Subsequent reconnaissance revealed about twenty fresh points of damage in Hamburg, but as they were mostly in areas not covered on the previous reconnaissance, they may well have occurred in the attack on the 26/27th July. The most important damage was the destruction of an area containing about

...../twenty buildings

twenty buildings, either blocks of flats or business premises.

Other targets attacked

16. Bombs were dropped on Ouxhaven, Emden, Itzehof and Meldorf by aircraft which turned back before reaching the target owing to the very bad weather conditions. Another aircraft, which had to take evasive action to escape from searchlights bombed Quakenbruck aerodrome.

Casualties

17. 29 (11.3%) of our aircraft are missing from this operation, 26 (10.2%) were damaged by flak (2 Cat. E, 9 Cat. AC and 15 minor) 3 (1.2%) reported damage by fighters (1 Cat. B 1 Cat. AC 1 minor), and 3 (1.2%) were damaged by causes other than enemy action, (2 Cat. E and 1 Cat. B)

18. Intense heavy flak accurately fired into searchlight cones was experienced all round the target. Heavy flak and searchlights were also experienced along the route to Hamburg from Meldorf.

19. The target area was covered with thin cloud with bright moonlight above. Icing conditions were present above the cloud, and in consequence a number of crews came below the cloud to bomb, thus allowing of silhouetting against the light background.

20. Interceptions at 20 (7.8%) were higher than usual. Of these 13 developed into attacks. Our aircraft made no claims to have damaged or destroyed enemy fighters,

to Hamburg

21. Although a large force was despatched, 83 aircraft were recalled and only 68 reached the target area; with the result that concentration was very low and inevitably led to the choosing of individual targets by the German defences. Our own observations indicate losses of 7 - 9 aircraft to fighters and possibly 15 to flak. Others must remain as "causes unknown" but may well be associated with the severe icing conditions experienced. The high losses sustained on this operation were partly due to the very adverse weather which prevented our achieving a high concentration over this strongly defended area and partly to the ease with which our bombers could be sighted by fighters,

Summary

22. Weather conditions were such that very little success was achieved on this raid, only a small proportion of the force despatched reaching the target area, partly because a third of the force was recalled. The attack delivered by the remainder was scattered. The weather conditions and the low concentration favoured the enemy's defences and there was severe icing.

Intruders

23. 43 aircraft were detailed to carry out intruder operations against aerodromes. 13 of these aircraft, despatched to Venlo, Scoesterburg, Twente, Rhein-Salzbergen, Vechta, Ardorf and Jever, were recalled owing to the very bad weather conditions. Formations of Bostons attacked at dusk the aerodromes at Gilze-Rijen, Valkenburg, Schipol, Alkmaar, Dekeoy, Leeuwarden and Ardorf and about midnight Blenheim's attacked Vechta, Stado, Jagel and Sylt.

Results

24. The 3 Bostons sent to Valkenburg and the 3 sent to Leeuwarden all attacked their primary targets, bombing the runways and dispersal areas. At Gilze-Rijen 1 of the 3 aircraft was not certain that its bombs fell on the primary target, the runways and buildings of which were bombed by the other 2. 2 aircraft from each of the formations of 3 Bostons which were despatched to Schipol, Alkmaar, and Dekeoy bombed their primary target, claiming hits on runways, buildings or dispersal areas. 1 of 2 Bostons which set out to

..../ attack Ardorf

attack Lardorf also claims to have bombed its objective.

25. 5 of the 8 Blenheims dispatched to Vechta, Stade, Jagel and Sylt bombed runways, buildings and dispersal areas on these aerodromes.

Other Targets Attacked

26. Excessive fuel consumption forced one aircraft dispatched to Sylt aerodrome, to drop its bombs on what is believed to be Nordley aerodrome.

Casualties

27. 2 Bostons and 1 Blenheim are missing from these operations; one aircraft, recalled from Twente, suffered damage, (Cat. C), and three others suffered minor damage from flak.

EC/S.26342/1/ORS.
22nd August, 1942.

Target	Group	Type	No. of Sorties	Aircraft claiming to attack		Aircraft failing to bomb Primary				Result not shown	Casualties				Interceptions		
				Primary	Primary Area	Reached Target	Bombing other Target	Over Enemy Territory	Other		Over Enemy Territory	Missing	Down by Flak	Down by E.A.	Not Down to Enemy Action	Not Locked	Not Attacked
HAMBURG	J	Avul. II	52	45	2	2	2	8	19		16	7 AC	1 B	1 E	6	3	
		Stirling	59	50	2	4	2	4	29	1	9	1 E	1 AC	1 E	7	4	
	91	Holl. Ic	32*	1		1			28		2	1 B					
	92	Whitley	15*	1					14			1 E				247	
	TOTAL		256	68	4	6	6	12	130	1	29	26	3	3	13	7	
UNRECORDED																	
WILHELM	2	Boston	3*	2	1												
WILHELM	2	"	3*						3								
WILHELM	2	"	3*						3							1	
WILHELM	2	Blenheim	2*						2					1 AC			
WILHELM	2	"	3*						1								
WILHELM	2	"	3*						2								
WILHELM	2	"	3*						1								
WILHELM	2	Boston	3*	3								1 B					
WILHELM	2	"	3*	2								1 B					
WILHELM	2	"	3*	2							1	1 B					
WILHELM	2	"	3*	2			1										
WILHELM	2	"	3*	3													
WILHELM	2	"	2*	1					1								
WILHELM	2	"	2*						2								
WILHELM	2	Blenheim	2*	1							1						
WILHELM	2	Boston	2*						2								
WILHELM	2	Blenheim	1*	1													
WILHELM	2	"	2*	1													
TOTAL			299	20	69	4	7	7	13	110	1	32	2 E	1 B	2 E	14	7
													9 AC	1 AC	1 B		
													18	1 B	1 AC		

* Not fitted Gee

Total Abortive 166

NIGHT REPORT	NO. 179403
DATE	16 SEP 1942
TO	COMD
FROM	11/11/42
BY	2/24
8 SEP	

BOMBER COMMAND REPORT ON NIGHT OPERATIONS 29/08/42

(SAARBRUCKEN)

Meteorological Advice Submitted to the Command

1. 0930 hours. Estimated midnight position of fronts:- (1) occluded upper front at 15° E; (2) occluded front, Shetland - Spurn Head becoming warm to the Isle of Wight, N.W. France, and cold from Spurn Head to S. Wales, then going northwest as a warm front.
 - Germany:- Much medium cloud, probably with breaks north of 50° N; considerably less medium cloud south of 50° N.
 - N.E. France:- Much medium cloud
 - N.W. France:- Much low cloud with some rain or drizzle.
 - Home Bases:- Much low and medium cloud with rain and drizzle ahead of the warm front, and a large amount of very low cloud in the warm sector, but cloud will break and lift to the north of the frontal systems.
- 1255 hours. Home bases:- The front will leave home bases clear by midnight, but visibility may be bad.
 - Route:- The front will have to be crossed twice but this is not serious, although there may be some fairly solid cloud, and icing conditions will be met.
 - Saarbrücken:- 7 - 10/10 medium cloud probable but conditions are improving.
- 1730 hours. Home bases:- No serious difficulties expected.
 - Target area:- 7 - 10/10 medium cloud, 10-15,000 feet.
 - Route:- A fairly solid belt of cloud with tops to at least 12,000 feet is likely to be encountered over the N. Sea, and freezing level will be about 11-12,000 feet. There will certainly be rain over Heligoland.

Executive Orders

2. The weather forecast indicated that it was necessary to go as far south as possible to get good bombing conditions. Saarbrücken, an important industrial town hitherto almost untouched by bombing was chosen as the target for this Night's operation as there was sufficient need to find what was considered to be a difficult target for crews to locate.

Sorties

3. 291 sorties were sent out, all of which were ordered to attack Saarbrücken.
4. 33 (11.1) of the sorties were abortive, 15 being due to technical defects while 15 aircraft could not locate the target area. Two more were driven off by enemy night fighters and another crashed just after taking off.

Moon

5. The moon was 93% full on this night and was above the horizon throughout the operations.

Weather at Home Bases

6. Apart from very local mist patches, weather conditions were good all night.

SAARBRUCKENPlan of Attack

7. The attack was planned to start at 0145 hours and last for 30 minutes, an even concentration of aircraft being over the target area during this period. The majority of the aircraft were to carry maximum incendiary loads. Others were to carry H.E. bombs, the load being made up in some cases with incendiaries. The best crews carrying incendiary loads were to lead the attack.

8. Since this was the first operation planned against Saarbrücken the defences were not expected to be heavy and crews were warned of the minimum safety height for bombing. The target was to be attacked only if specifically identified. There was no alternative target.

9. It was expected that crews of Gee aircraft would be able to obtain fixes to within 50 miles of the target, and fixes were to be obtained frequently between 03⁰⁰ and 06⁰⁰ E to check wind velocity and E.T.A.

Weather

10. Small amounts of cloud were encountered over the Straits and North Sea, becoming 10/10 inland, tops being sometimes up to 10,000 feet, base 3,000 feet but cloud was breaking to 4-8/10 about 50 miles N.W. of the target. About 6/10 but sometimes more, layer cloud with base about 6,000 feet was reported over the target, heavy rain also being reported in the cloud. Visibility was good except for smoke later in the raid.

Results

11. 248 (85%) of the 291 aircraft detailed claim to have reached the target area, dropping altogether 213 tons of incendiaries and 336 tons of H.E. bombs, including 105 x 4000 lb. bombs.

12. The main attack began early, 13 aircraft bombing before the appointed time, and lasted for nearly an hour instead of 30 minutes as planned. About three quarters of the attacking force bombed from 10,000 feet or less.

13. Most aircraft bombed visually, some confirming their position by Gee. Many dropped their bombs among already existing fires. Aircraft which attacked after the first ten minutes of the operation report concentrated fires, many very large, in the target area, as well as fires scattered all round Saarbrücken.

14. 59 photographs taken with bombing showed ground detail. 8 of these show the target, while 10 more were within 3 miles of it. Of the aircraft taking these 18 photographs only one bombed from above 10,000 feet, and this did so from 11,000 feet.

15. The night photographs of the target showed good fires burning and subsequent reconnaissance confirmed the success of the raid. Most of the damage is on the North side of the river in the central city area and the Western suburbs. The two chief factories, the Eich Dudelinger Ironworks and the Erhardt and Schiner Engineering Works, have been severely damaged. In the ironworks the laboratory and three sheds have been gutted and at least twenty other buildings have suffered roof damage; approximately a quarter of the engineering works have been destroyed. About half the buildings of the main goods station and several railway sheds have also been destroyed. Many small unidentified industrial buildings have also suffered in varying degrees. There is considerable damage to residential and business property, including three large areas in which about 140, 65 and 40 buildings respectively have been completely destroyed or gutted.

Other Targets Attacked

16. One aircraft which was unable to locate the primary target bombed Oberstein as a last resort, while another for the same reason dropped its bombs about 30 miles E. of Saarbrucken.

Casualties

17. 8 (2.7%) of our aircraft are missing from this operation, 12 (4.1%) reported damage by flak (1 Cat. AC, and 11 minor); whilst 3 (1.0%) sustained damage not due to enemy action (1 Cat. B and 2 Cat. AC).

18. Enemy flak defences at the target were very poor, consisting of approximately 4 heavy guns, 2 - 3 light guns and a few searchlights. Firing was inaccurate and not in conjunction with the searchlights. Moderate to intense heavy flak was encountered en route, this at times co-operating with searchlight cones.

19. The unusually high number of 58 (20) of our sorties reported interceptions by enemy night fighters, 15 of these developing into attacks. Enemy night fighters were apparently aided by bright moonlight in making contact, but our aircraft, taking advantage of the plentiful cloud cover, escaped with few losses and little damage.

20. The following claims to have damaged or destroyed fighters were made by our crews:-

Ju 88	claimed as damaged by a Wellington
Ju 88	" " " " " Lancaster
Unidentified T/E	" " " Stirling
Me. 110	destroyed " Stirling
Unidentified S/E	" " " Lancaster

21. Our own observations indicate 3 losses to flak, 4 to fighters and 1 as "cause unknown".

Summary

22. A successful attack from a relatively low level was carried out against Saarbrucken in moderate weather conditions. The target was correctly identified by a fair proportion of the attacking force and considerable damage was done, the town's two chief factories being severely damaged.

23. Casualties were light, the weather being such as to hamper the enemy's fighters from pressing home their attacks, and the flak defences in the target area being slight.

FC/S. 26342/1/ORS.
2nd September, 1942.

Target	Group	Type	No. of Sorties	Aircraft claiming to attack		Aircraft failing to bomb primary						Casualties			Interruptions	
				Primary	Primary Area	Reached Target Area		Over Enemy Territory		Not over Enemy Territory	Missing	Down by Flak	Down by E.A.	Not due to Enemy action	Attacked	Not Attacked
						Bombed other Target	Abortive	Bombed other Target	Abortive							
SARBRUCKEN	1	Well II	19	15	1	2			1			1 m.		1 E		2
		Well III	13	11					1	1	2 m.					5
		Well IV	40	33		4			2	1		1 AC		1		8
	3	Well III	19	15		1			2	1	2 m.	1 m.		1		8
		Stirling I	34	24		1	1	2	4	2	1 AC			4		9
	4	Halifax II	50	41		6			2	1		1 E		2		6
	5	Humden	17	15		1			1		1 m.		1 AC			1
		Lancaster	69	64					3	2	4 m.		1 AC		5	4
	TOTAL			291	248	1	15	1	2	16	8	1 AC	1 E	1 E	15	43
												11 m.	1 AC	2 AC		
											2 m.					

Total abortive 33

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BOMBER COMMAND REPORT ON NIGHT OPERATIONS, 30/31st JULY, 1942

INTRUDERS

Metecrological Advice Submitted to the Command

1. 0900 hours. Occluded front, estimated midnight position $56^{\circ}\text{N } 0^{\circ}\text{E} - 55^{\circ}\text{N } 5^{\circ}\text{E} - 51^{\circ}\text{N } 9^{\circ}\text{E}$, becoming cold front to Bordeaux. Narrow belt of medium and some low cloud will occur along the front, with well broken medium cloud on either side. Small amount of cloud in Low Countries and North France.
- Home Bases:- Small amount of cloud expected, with patches of mist in low lying areas towards dawn.
- 1310 hours. Some local fog troubles to be expected by all groups.
- Ruhr:- Small amounts of cloud; hazy.
- 1715 hours. Home Bases:- Deterioration in visibility expected to be locally serious after 0300 hours; probably not more than 25% of aerodromes in Command unfit by dawn, though the figure may rise to 50%.
- Ruhr:- Same as at 1310 hours.
- 2250 hours. Home Bases:- Visibility troubles in all Groups' areas. Troubles localised, but nevertheless serious. Likelihood of 50% of aerodromes being unfit and a danger of 75%.
2. Sorties by 6 Blenheims of 2 Group were made, 3 setting out to attack Twente aerodrome and 3 Rhine aerodrome. They were recalled before they reached enemy territory but 1 failed to receive the signal and went on to attack Rhine aerodrome. The bombs are believed to have fallen on the flarepath, and incendiaries were seen burning in its position, but no bomb bursts were seen.
3. No damage or casualties were sustained by our aircraft, but the aircraft which attacked Rhine aerodrome was intercepted by an unidentified twin-engine aircraft. No attack developed although our aircraft fired a short burst.

IC/S.26342/1/ORS.
22nd August, 1942.

BOMBER COMMAND REPORT ON NIGHT OPERATIONS, JULY 31ST/AUGUST 1ST, 1942.Dusseldorf, IntrudersMeteorological Advice submitted to the Command.

1. 0925 hours. - Estimated midnight positions of fronts (1) warm front, 59° N. 1°E - Newcastle then southwestwards (2) cold front 59° N. 1°E - Inverness - Tyne then west-southwestwards.
- Target areas:- Fine weather over Germany, Holland Belgium and N. France with industrial haze over Germany.
- Home Bases:- Medium cloud over north of England but fine elsewhere. Local mist or fog particularly near coast but extent uncertain.
- 1245 hours. Ruhr:- Cloudless, industrial haze, light easterly wind.
- Home Bases:- Visibility troubles expected by all Groups for return. 4 Group, eastern part of 1 and 5 Groups, 2 and 3 Groups and northern bases of 91 and 92 Groups most likely to be affected.
- 1715 hours. Ruhr:- No change.
- Home Bases:- 4 Group probably unfit for return. Eastern bases of 1 and 5 Groups expected to be unfit from 0300 hours. Half 2 Group bases unfit from 0200 hours. 3 Group fear widespread fog from 0200. 91 and 92 Groups should have most bases fit.
- 2130 hours. Home Bases:- Bad fog at dawn likely in whole of 2 Group, 3 Group east of 1/2°E. and all 4 Group except Middleton St. George. Local fog also likely in 1 Group and 3 Group between 0° and 1/2° E. 1 Station in 91 Group, 2 stations in 92 Group and 3 in 5 Group may also have fog.

Executive Orders

2. Dusseldorf was chosen as the target for an attack on a large scale because of its high priority as a large industrial town and because it was within convenient range for the O.T.U.'s whose crews had less experience than those in the operational Groups and were taking part in the operation.

Sorties

3. 636 sorties were despatched on this night, 630 of them to Dusseldorf. For details of the operations see attached table.

102 (16%) sorties were abortive. The reasons were as follows:-

...../Technical defects

Technical defects	95
Sickness	1
Late take off	1
Faulty Navigation	1
Attacks by Enemy Fighters	3
Flak Damage	1

Moon

4. The moon was above the horizon and 79% of full.

Weather at Home Bases

5. There was little cloud in the home base area during this night but mist and fog developed in East Anglia and locally in 1 and 4 Groups towards dawn.

DUSSELDORFPlan of Attack

6. Zero hour was at 0200 hours and the attack was to last 50 min. It was to be opened by 110 heavy aircraft attacking between 0200 and 0210 hours, carrying either H.E. or incendiary bombs, the best crews leading the wave with maximum loads of 4 lb. incendiary bombs. The medium bombers were to attack from 0205 and 0245 hours with incendiary loads or, in the case of Wellingtons Type 423 from 1 Group, with 4,000 lb. bombs. The remaining heavy aircraft, and the Wellingtons Type 423 of 3 Group, were to finish the attack with large H.E. bombs from 0235 hours - 0250 hours.

7. A correction was made to the Gee ground stations to eliminate 2nd. decimal place from the co-ordinates of the target. Gee aircraft were to approach the target from N.W. to S.E. along the B. lattice line from a point not less than 30 miles from the target. Bombs were to be released visually when the target was identified, Gee aircraft confirming their position by fix.

Weather

8. There was no cloud en route or over the target; slight haze was, however, encountered in the target area. Many aircraft attacking after 0225 hours report much smoke which hindered the identification of ground detail.

Results

9. 484 (76.8%) of the 630 aircraft despatched claim to have bombed the target. These aircraft dropped 339 tons of incendiaries and 582 tons of H.E. including 170 x 4,000 lb. bombs. An 8,000 lb. bomb was carried on this raid but the aircraft which was carrying it is missing. Fires were started in the town at the beginning of the attack and by 0230 hours they were numerous and large. Aircraft which attacked late report that by 0300 hours the town was a mass of flames and smoke.

10. 191 photographs taken with bombing show ground detail. 33 of these show one of the two aiming points in the town and a further 58 have been plotted within 5 miles of the town centre. It is noteworthy that nearly half of these 91 photographs were taken by Lancasters which obtained 23 of the 33 photographs showing one or the other of the aiming points and 20 more within 5 miles out of a total of 77 showing ground detail. In the photographs of the target fires are seen burning in the docks and in the area of the town between the docks and the main railway station.

11. A large number of photographs show open country which suggests that a proportion of the effort was scattered. The reports of crews whose photographs show that their target identification was accurate indicate that this scatter was all to the west of the target and that Krefeld and

.../Munichon Glad...

Munich Gladbach were both attacked by a number of aircraft. Those photographs which have been plotted more than 5 miles from the town centre confirm these reports and also indicate that a number of other aircraft, which presumably mistook the Maas for the Rhine, bombed Venlo.

12. Reconnaissance has revealed that Dusseldorf has suffered very severe damage and that a large part of this has been inflicted on factories, more than 20 of which have suffered damage to varying extents. Severe damage has been caused to a machine tool factory, a steel castings factory, two engineering works, a rolling mills, a chemical works, a paper factory, an alcohol factory, a worsted mills, a petroleum company's factory and a petroleum receiving depot. In addition three factories making steel tubes, a dycstuffs factory, a silica works, a cement works, and factories making roofing felt and cattle cake have also suffered damage although to a lesser extent. A number of warehouses and sheds in the docks and the customs house have suffered severely. In addition the municipal disinfecting station was wholly demolished and a sewage works damaged. Some of the above items are included in an area of 25 acres near the docks which has been completely devastated. There is substantial damage to public buildings and railway communications and 400 business and residential buildings have been destroyed. More than half of these are situated in the main business and shopping centre of the town where great havoc has been caused. 60-70 of the houses destroyed are in industrial districts and are probably workmen's dwellings.

13. Ground sources report that in addition to the above damage a machinery factory and an iron and steel works have been badly damaged. Several sections of the latter are stated to be out of action. The rolling mills damaged are reported to have been compelled to cancel a contract for 250 tons of gas and water pipes for delivery to Turkey.

Timing

10

14. Two of the attacking aircraft were early, one by minutes and the other by 3 minutes, 15 bombed after the time at which the attack was planned to end, 11 of them less than 10 minutes and 4 between 10 and 20 minutes late.

Casualties

15. 29 (4.6%) of our aircraft are missing from this operation, and 39 (6.2%) suffered damage to varying extents. Of those damaged 1 had to be written off, 12 were seriously damaged (Cat. B and Cat. AC) and 26 received minor damage. In 28 cases the damage was caused by flak and in 2 by enemy fighters. The damage to the remaining 9 was not due to enemy action. One aircraft received damage from a 4 lb. I.B. from another aircraft, whilst over the target.

16. There is little indication as to the cause of losses except that flak was responsible for a number of them. Heavy flak at the target was intense and accurately predicted in co-operation with searchlights, Light flak was also co-operating with searchlights.

17. Interceptions at 76 (12.1%) were high, but of these only 19 developed into attacks. The moonlight and lack of cloud cover doubtlessly aided the enemy's night fighters. Our claims to have destroyed enemy night fighters were 6 claimed as destroyed and 1 more as probably destroyed. 4 were Ju. 88's 1 a F. 190 and the remaining 2 were not identified though one was a single engined machine and the other twin engined.

18. Groups 1 - 5 (inclusive) lost 14 or 3.35% of the sorties. This is a normal figure for the Ruhr area. On the other hand losses by 91 and 92 Groups were 15 or 7.1% of the sorties despatched.

19. Types to show relatively heavy losses were Wellington III (3 Group) with 5 (6.8%) Halifax (4 Group) 4 (6.25%) Wellington Ic (92 Group) 6 (9.5%). Lancasters (5 Group) had only 2 (1.8%) missing out of 113 sorties.

Summary

20. Although a proportion of the attack fell in open country to the west of the target, sufficient concentration was achieved to inflict very severe damage

...../ on Dusseldorf

on Dusseldorf, and the operation was undoubtedly successful.

21. Weather conditions favoured the enemy defences in that there was little cloud cover against searchlights. The losses were mainly incurred by 91 and 92 Groups possibly influenced by the relative inexperience of the crews from these Groups.

INTRUDERS

22. Intruder operations against St. Trond, Venlo and Twente aerodromes were carried out by Blenheim aircraft of 2 Group, 2 being despatched to each of these three aerodromes.

23. Neither of the aircraft despatched to St. Trond was able to identify it. One bombed Brussels aerodrome and the other bombed an aerodrome believed to be Lille. Bursts were seen on the airfields, and at Brussels on aerodrome buildings, in which fires were started.

24. One of the two aircraft despatched to Venlo had engine trouble as it approached enemy territory and bombed Haamstede as an alternative. Bursts were seen on the airfield and two fires left. The other aircraft is missing.

25. Both aircraft which set out to attack Twente aerodrome were successful in accomplishing their task and both claim that their bombs fell on the aerodrome buildings starting fires.

BC/S. 26342/3/ORS.
15th August, 1942.

31st July/1st August, 1942.

Target	Group	Type	No. of Sorties	Aircraft claiming to attack		Aircraft failing to bomb Primary				Casualties				Interceptions		
				Primary	Area	Reached Target Area	Over Enemy Territory	Not over Enemy Territory	Missing	Down by Flak	Down by E...	Not Due to Enemy Action	Attacked	Not Attacked		
DUSSELDORF	1	Well. II	21	17			1	2	1	3 m.			1			
		Well. II	12	8		1	3							2		
		Well. IV	42	35			2	5		4 m.			2	5		
	3	Whitley	3				2	1								
		Holifox	6	5		1				1 m.				2		
	4	Well. III	73	62			2	4	5	2 m.		2 A	1	3		
		Stirling	53	43	3		4	11		2 m.		1 B.	2	7		
	5	Holifox	8									1 m.	1 A			
		Holifox	64	47		3	7	3	4	5 m.	1 AC	1 A	4	6		
	91	Hampden	24	18		1	1	2	2					1		
		Lancaster	113	101		1	2	3	4	2	1 B			9		
	92	Well. Ie	92	67		1	2		18	4	1 B			2		
		Well. III	5	5						2 AC				9		
		Whitley	9	6	1		1	2		1 m.		1 B	2			
	TOTAL	Well. Ie	63	43		1	1	2	10	6	1 m.			3		
Whitley		12	7				3	2				1	1			
Hampden		30	20		2	2	3	3	1 B		2 AC	1	3			
TOTAL			630	484	4	4	12	27	71	29	28	2	9	19	57	
ST. TROND A/D	2	Blenheim	2			2										
VENLO A/D	2	Blenheim	2			1				1						
TWENTE A/D	2	Blenheim	2	2												
TOTAL			636	2	484	6	4	13	27	71	30	3 B	1 E	2 B.	19	57
											4 AC	1 AC	2 AC			
											21 m.		1 n			

Not fitted Geo

Total abortive 102