

4. Weather Experienced

Ruhr and Netherlands:- Cloudless, thick ground haze.

Lorient and Route:- Cloudless, good visibility.

N. Sea:- 7/10 - 10/10 layer cloud, base 3,500 ft. tops 5000 ft. dispersing towards Dutch coast.

Moon:- 60% of full: above horizon throughout operations.

5. Photographic Evidence

Essen The photographic evidence obtained gives no indication that the attack on Essen achieved any success. Although 45 photographs were taken with bombing, none of them has been plotted within 5 miles of the target. 15 aircraft took photographs in the vicinity of Rheinberg and several of these show large fires burning in the open country to the north of this town. It is certain that a decoy not previously reported, was present in this area and attracted a large part of the attack. The other photographs show widely scattered areas and some of those which remain unplotted show features suggesting that they were taken over Holland. The nearest photograph taken with bombing was 6 miles from the target, though one taken independently is only 2 1/2 miles N.W. of Krupp's works. There is evidence that some part of the attack fell on built-up areas at Oberhausen, Duisberg and Hanborn.

St. Nazaire 8 of the 10 photographs taken are of the target and show that this was a successful attack. Bomb bursts can be seen all over the dock area, straddling the harbour, and on the naval buildings on the west side of the Bassin de Penhouet.

6. Abortive Sorties

of 43 abortive sorties 35 were due to technical defects including 18 cases of engine trouble. One aircraft abandoned owing to flak damage and another after an attack by enemy aircraft. The remainder were due to inability to locate the target.

7. Casualties

Aircraft Missing:-

1 Wellington IV:	1 Group:	142 Squadron
1 Wellington II:	1 Group:	12 Squadron
1 Wellington III:	3 Group:	75 Squadron
1 Manchester:	5 Group:	83 Squadron
2 Manchester:	5 Group:	61 Squadron
1 Manchester:	5 Group:	106 Squadron
2 Hampden:	5 Group:	50 Squadron

Aircraft Damaged by Flak:-

2 Wellington Ic:	1 Group:	103 Squadron:	1 Cat. E
			1 minor
2 Wellington Ic:	1 Group:	150 Squadron:	2 minor
3 Wellington IV:	1 Group:	300 Squadron:	3 minor
1 Wellington Ic:	1 Group:	304 Squadron:	1 minor
3 Wellington IV:	1 Group:	460 Squadron:	3 minor
2 Wellington III:	3 Group:	9 Squadron:	2 minor
1 Stirling:	3 Group:	15 Squadron:	1 minor
3 Wellington III:	3 Group:	57 Squadron:	3 Cat A
1 Wellington III:	3 Group:	75 Squadron:	1 Cat AC
1 Wellington III:	3 Group:	115 Squadron:	1 Cat AC
3 Wellington Ic:	3 Group:	214 Squadron:	1 Cat AC
			2 minor
1 Stirling:	3 Group:	218 Squadron:	1 Cat AC
1 Wellington II:	4 Group:	158 Squadron:	1 minor
1 Wellington II:	4 Group:	405 Squadron:	1 minor
2 Manchester:	5 Group:	61 Squadron:	2 minor
1 Manchester:	5 Group:	83 Squadron:	1 minor

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Aircraft Damaged by Flak (Contd.):-

1 Lancaster:	5 Group:	97 Squadron:	1 Minor
1 Manchester:	5 Group:	106 Squadron:	1 Minor
1 Hampden:	5 Group:	420 Squadron:	1 Minor
2 Hampdens:	5 Group:	455 Squadron:	2 Minor

Aircraft Damaged by Enemy Fighter:-

1 Wellington Ic:	1 Group:	103 Squadron:	Cat AC
1 Wellington III:	3 Group:	156 Squadron:	Cat AC

Aircraft Damaged Not Due to Enemy Action:-

1 Wellington II:	1 Group:	12 Squadron:	1 Minor
1 Wellington IV:	1 Group:	142 Squadron:	1 Cat AC
1 Wellington II:	1 Group:	305 Squadron:	1 Cat E
1 Stirling:	3 Group:	7 Squadron:	1 Cat E
1 Stirling:	3 Group:	15 Squadron:	1 Cat A
1 Wellington III:	3 Group:	419 Squadron:	1 Cat AC
1 Manchester:	5 Group:	83 Squadron:	1 Cat E

Enemy Defences

Heavy flak at Essen was moderate to intense, some with searchlight cooperation and some in predicted concentrations, but was less than has been experienced previously. There was comparative inactivity in the main searchlight belt, the searchlights being used mainly in stationary vertical lines and for track indicating. As on a previous occasion they were also laid horizontally in the ground haze.

Night fighters were very active between the Dutch coast and the Ruhr, any single-engined enemy aircraft having been sighted. Although many controlled fighters were heard operating only three attacks were reported. In two of these our aircraft sustained damage.

Summary

Essen Essen was cloudless with good visibility, but there was a thick ground haze, which may have been assisted by a smoke screen.

254 aircraft were detailed to attack the town and 192 claim to have done so, some report having definitely identified the Krupp's works or the town, and others having bombed indefinite built up areas seen by the light of flares and resumed to have been Essen, or having bombed existing fires.

The photographic evidence does not support these claims but tends to show that the attack was largely diverted to a decoy in the Rheinberg district, whose existence was hitherto unknown. However, damage was certainly done to built up areas at Oberhausen, Duisburg and Hanborn and, since the aircraft returning photographs present only 20% of the attacking force, it is possible that the results achieved may have been better than the photographs indicate.

It is clear that the flares were released over a wide area instead of being concentrated over the target as intended. It was also reported that some of the flares were dropped too high and their reflection on the haze obscured ground detail and made pinpointing impossible. In consequence the incendiary force was unable to identify the target and set it on fire. Whilst the flares were of some use in guiding the non - P.R. aircraft from considerable distances, their scatter caused confusion and hindered identification of the target.

Seven aircraft failed to return from Essen. From the independent observations of other crews it is estimated that all losses were due to enemy action. Three were shot down by flak over the target, and three by enemy fighters. A further aircraft were damaged by flak.

The raid lasted approximately 2 hours: 100 aircraft bombed during the first hour and 87 during the second.

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