

the one thought to be present penetrated further than the northern Route Y. It may well be that this U-Boat laid moored mines, which are thought to have caused the loss of two A/S trawlers.

#### 8. AIR CO-OPERATION\*

It is unnecessary to stress the vital necessity for effective air co-operation in an operation of this nature. Not only did German air effort interrupt and reduce seaborne traffic, but it also prevented embarkation by suspending troop movement. To both Naval and Military observers on the coast, the situation at times was extremely disheartening. Rightly or wrongly, full air protection was expected, but instead, for hours on end the ships off shore

were subjected to a murderous hail of bombs and machine gun bullets.

Required by their duty to remain offshore waiting for the troops, who themselves were unable to move down to the water for the same reason, it required the greatest determination and sense of duty, amounting in fact to heroism, on the part of the ships' and boats' crews, to enable them to complete their mission.

In their reports, the Commanding Officers of many ships, while giving credit to the R.A.F. personnel for gallantry in such combats as were observed from the ships, at the same time express their sense of disappointment and surprise at the seemingly puny efforts made to provide air protection during the height of this operation, though the gallantry of our outnumbered airmen was the admiration of all.

#### 9. NO. II GROUP FIGHTER PATROLS—DUNKIRK AREA HISTORY.

Date	Patrols	Total flying hours daily	Enemy aircraft assessed as destroyed
26th May ... ..	22	480	20
27th May ... ..	23	536	38
28th May ... ..	11	576	23
29th May ... ..	9	674	65
30th May ... ..	9	704	—
31st May ... ..	8	490	38
1st June ... ..	8	558	43
2nd June ... ..	4	231	35
3rd June ... ..	4	339	—
4th June ... ..	3	234	—
Totals ... ..	101	4,822	262

#### Notes:

(1) It will be observed that the number of patrols decreased from 27th May onwards, whilst there was an increase in the daily flying hours. This is due to the fact that the fighters were employed in increasingly bigger patrols as the enemy air opposition increased.

(2) Operation "Dynamo" suffered most from enemy air effort on 29th May and on 1st June, after which latter date the combination of enemy air attack and shore artillery fire led to the suspension of the operation by day.

#### \* Air Ministry footnote:

It was not to be expected that all air action would be visible from points on the coast; many enemy raids were in fact intercepted and enemy aircraft destroyed. Moreover, fighter patrols formed only one part of the air operations in connection with Dunkirk, as a considerable reconnaissance and bombing effort directly connected with the operation was also being made.

2. Air protection could not be complete for the following reasons:—

(a) the enemy air force had the initiative and could choose the times of their attacks.

(b) the operations were outside the range of controlled interception provided by radar stations in the United Kingdom. In consequence, all that could be done was to put up patrols and to trust that these would intercept or generally discourage enemy air attacks.

(c) the demand for continuous fighter cover, with the limited size of our fighter force, meant that patrols were necessarily weak in numbers of aircraft, and our fighters were thus placed on disadvantageous terms with the enemy. When evacuation was eventually limited to the dusk and dawn hours it was possible to concentrate our fighters in much greater strength for these periods, with a corresponding improvement in the cover provided.

3. Only in conditions of complete air supremacy could the Dunkirk evacuation have been completed without interference from the enemy. Such air supremacy could only have been attained by prolonged previous air operations or by the local concentration of a far greater force of fighters than the R.A.F. then had.

10. The position of enemy batteries had been located by air reconnaissance by nightfall on 31st May, and additional batteries in the Gravelines area on the 1st June. Air bombardment of these batteries during the 1st and 2nd June undoubtedly reduced their fire during dusk and dawn on each of the nights 2nd/3rd June and 3rd/4th June, when seaborne traffic was passing within range of the enemy batteries commanding the south end of X Route, the Dunkirk Roads and Dunkirk Harbour. This was a valuable contribution by the R.A.F. to the successful outcome of the operation. A similar beneficial result was obtained by the bombing of the batteries which had Dunkirk Pier and roadstead under fire.

#### 11. CONTROL OF ALLIED TROOPS.

In the earlier stages the large number of British troops located in the dunes off the beach were of rear formations with few officers. There was little control over these mixed units, aggravated no doubt by the fact that Army Officers' uniform is indistinguishable from that of other ranks which makes the presence of an Army Officer difficult to recognise by troops other than those under their own Commands. The appearance of Naval Officers, in their unmistakable uniforms, helped to restore order and the troops responded to commands in a disciplined manner. In the early stages, in the absence of any Army