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## THE EVACUATION OF THE ALLIED ARMIES FROM DUNKIRK AND NEIGHBOURING BEACHES.

The following despatch was submitted to the Lords Commissioners of the Admiralty on the 18th June, 1940, by Vice-Admiral Sir Bertram H. Ramsay, K.C.B., M.V.O., Flag Officer Commanding, Dover.

*Office of  
The Flag Officer Commanding,  
Dover.*

18th June, 1940.

Be pleased to lay before Their Lordships the following report on Operation "Dynamo", namely the evacuation of the Allied Armies from Dunkirk and neighbouring beaches between 26th May and 4th June, 1940. The report takes the form of this covering letter, together with detailed narrative and appendices.

### 2. THE POLICY AND THE PROGRESS OF THE EVACUATION.

During the course of the operation some 330,000 troops\* reached safety in England after being evacuated from Dunkirk, and from the beach stretching 10 miles eastward from the entrance to Dunkirk Harbour. To those on the French coast, when in the early stages anything up to 50,000 troops were waiting to embark on a 10 mile sea front, the presence of perhaps 20 small warships off shore, and 200 small boats spread along the length of coast at any given moment, must have appeared as a feeble effort to tackle this great task. Furthermore, it was impossible to adjust the arrival of ships, either at Dunkirk or opposite the beaches,

to synchronise with the ebb and flow of the troop concentrations.

Broadly speaking, for the first 5 days of the movement, had more beaching craft been available to ferry from the beach to offshore vessels, it would have been possible to have evacuated a greater number. For the last 3 to 4 days, however, when the main bulk of the B.E.F. had already been evacuated, the rate of lifting was governed by the availability of the troops during the limited hours evacuation was possible.

3. Throughout the operation one of the greatest difficulties was the ever changing situation presented. Within 24 hours of the start, the operation took the shape of a forlorn hope to rescue the maximum number, say up to 45,000 before the whole force was to be overwhelmed by the enemy.

Next, the military situation became more stable, and it appeared that some three to four days would be available to complete evacuation of the B.E.F., estimated at some 175,000. During this stage evacuation by British resources of French troops was introduced, some 25,000 being mentioned.

During the course of the fifth day (30th May) a tentative decision to lift the rearguard of the B.E.F. off the beaches at a definite time, viz. 0130 on 1st June, was reached. Twenty-four hours later this plan was altered by military considerations, involving an extension of the period of evacuation. At the same time, the Naval authority was definitely committed to provide for the evacuation of French forces, then mentioned as about 40,000/50,000.

Later, the French number rose and 150,000 or more was quoted. Finally no agreement could be reached with the French as to an termination of the operation which threatened

\* Admiralty footnote: About one-quarter of these troops were carried in ships manned by the Merchant Navy

to drag on painfully, and finally to lose momentum and expire through the exhaustion of Naval personnel and the liquidation of shipping.

It will be seen, therefore, that the initial problem called for a maximum effort over a limited period regardless of the future, and accordingly all resources in the way of small boats were thrown on the beaches, before adequate provision had been made for their maintenance off the coast in such matters as relief of the personnel and the provision of large beach parties.

It was only due to the foresight of the Admiralty in making arrangements for a continued flow in ever increasing numbers of small power boats and beach craft, which became available on the fifth day onwards, that the continued evacuation from the beaches remained a reasonable proposition after the initial crisis had passed.

4. A perusal of the signals that passed between Dover and the French coast reveals the many occasions on which the responsible officers stationed on the coast considered so little had been achieved from the beaches that they advocated restriction of evacuation to Dunkirk Harbour. Many complaints of "no boats," "no ships," might lead a detached observer to the conclusion that the great effort that was being made was proving abortive.

At Dover, where the whole operation could be viewed in truer perspective, the number and origin of the troops being landed in England being always to hand, it was clear that the evacuation from the beaches required by the military situation, was, in fact, achieving a considerable success, as the following figures will show. Of the 248,000 troops landed in the United Kingdom, between May 28th and June 1st inclusive—the period during which both Dunkirk and the beaches eastward were available day and night except for enemy interference—no fewer than 100,000 were lifted from the beaches.

#### 5. WEATHER CONDITIONS.

The operation was favoured by extremely good weather. It was found, however, that any northerly wind caused a considerable surf, which greatly reduced the rate of lifting from the beaches. It must be fully realised that a wind of any strength in the northern sector between South West and North East would have made beach evacuation impossible. At no time did this happen.

#### 6. DISPOSAL OF TROOPS AFTER REACHING ENGLAND.

On arrival in England the despatch of troops from the points of disembarkation proceeded with great smoothness under the War Office movement control organisation.

#### 7. ENEMY EFFORTS TO FRUSTRATE OPERATION.

Attempts by the enemy to frustrate the operation consisted of the following:—

- (a) Minelaying by aircraft.
- (b) Intensive air attack.
- (c) Action by Motor Torpedo Boats.
- (d) Gunfire by coast artillery.
- (e) Submarine operations.

(a) *Minelaying by aircraft.* Minelaying during the dark hours probably commenced during the night 28th-29th and was maintained with great intensity during the following two

nights. Not only were the Dunkirk Roads mined, including the Zuydecoote Pass, but also Route X and the area round the Kwinte Buoy. Folkestone and Dover Harbour entrances were also mined. Considering the number of mines laid, it is interesting to note that only two British ships are known for certain to have been mined, the personnel vessel *MONA'S QUEEN* and the F.A.A. Yacht *GRIEVE*. One Hospital Carrier was damaged at anchor off Dover when a mine was blown up by a L.L. Trawler sweeping close at hand. Two A/S trawlers on patrol to the northward of the operational area were blown up by what was at first thought to be a M.T.B., but later evidence suggests they were victims of moored mines. The impunity with which degaussed ships were able to operate in this heavily mined area alone made the operation possible and one reaches the conclusion that if the enemy on this occasion had had at hand the means of laying moored contact mines by aircraft, instead of magnetic mines, the results would have been very different.

(b) *Air Attack.* On the evening of the 29th, the first occasion on which a massed target of ships was presented in Dunkirk Harbour, the enemy seized the opportunity for air attack in great strength, and it was only by good fortune that the vital Dunkirk Harbour channel was not blocked by sinking ships at this early date. From then onwards the scale and vigour of the air attack increased, and during the 1st June all ships in Dunkirk, off the beaches, or in the approach channels, were subjected every two hours to an unprecedented scale of air attack by aircraft in such numbers, that the R.A.F. were unable to deal with the situation. The scale of enemy air attack on June 1st, and the fact that the Germans could by now command the newly-swept central route at its exits into the Dunkirk Roads with gunfire from the shore, were responsible for the suspension of daylight evacuation on June 2nd.

(c) *Attack by M.T.B.s.* These caused 4 casualties, namely two destroyers and two trawlers, while the north Route Y\* was in use. When the middle Route X\*, some 26 miles further to the South Westward, was brought into use the enemy M.T.B. units failed to follow up, though the continuous stream of unescorted traffic during the dark hours and the ships lying in Dunkirk Roads provided a tempting target to any enterprising Commander.

(d) *Shore Artillery.* At the commencement of the operation, the southern Route Z\* was found to be under gunfire from batteries near Calais, and consequently could only be used by night. The northern Route Y was usable only by night when later the batteries near Nieuport brought fire to bear on the Zuydecoote Pass, which was too narrow to permit a reasonable chance of ships running the gauntlet of fire. By this time, however, Route X was available, and was free of gunfire until German batteries near Gravelines brought its exit into the Dunkirk Roads under gunfire. This occurred in the afternoon on Saturday, 1st June, and in conjunction with the result of enemy air attack, led to the suspension of daylight traffic altogether.

(e) *Submarines.* U-Boats do not appear to have caused any casualties. It is unlikely that

\* Admiralty footnote: For Routes X, Y and Z see Diagram.

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. 11 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

embarkation staff or organisation a strong naval party was required to form up and embark the troops. Later, no difficulty was experienced when troops of fighting formations were encountered. Difficulty was experienced in controlling some French troops, whilst others were so rigidly bound by discipline and tradition that they would not embark except by complete formation under their own unit officers. In either case the rate of embarkation was much slower than with British troops.

#### 12. INITIATIVE SHOWN BY COMMANDING OFFICERS AND SUBORDINATE PERSONNEL.

A most satisfactory feature of the operation was the high degree of initiative shown by Commanding and Subordinate Officers of units operating off the coast, ranging from H.M. Destroyers to commandeered motor boats. The majority of officers and ratings in command were in situations requiring independent action in extremely difficult conditions. Often the easiest course was to be satisfied with work already achieved and to return to the United Kingdom with a final load of troops. The reverse action was invariably executed, namely, continued operation off the coast as long as there were both troops ashore to be evacuated and vessels offshore to receive them. If the craft in use was damaged or sunk the crew invariably seized some other boat to continue their efforts.

Unaware of the military situation ashore and often forced to move westward by bombardment from German artillery or even by rifle fire from advancing German forces, the majority of these boats, commanded often by stokers or "hostility only" seamen, had only one object in view, to lift from the beach any, and all troops, British or Allied, within sight of the water's edge.

On their return to the United Kingdom when asked to report their proceedings it was only in answer to direct enquiry that it would transpire that these young men had been subjected in many cases, to an unparalleled bombardment from the air. They appeared to consider that this was part of the day's work requiring no comment.

#### 13. LOSSES OF TROOPS AFTER EMBARKATION.

It is a distressing fact that many ships were sunk or damaged on the return voyage when laden with troops. But it is fortunate that in most of such cases the majority of troops were saved owing to the large volume of traffic that was coming and going between Dunkirk and the United Kingdom. Exceptions to this were due to the rapidity with which certain ships sank after having been bombed or torpedoed. Such cases are as follows:—

**WAKEFUL.** Torpedoed. Ship broke in half and only those on the upper deck were saved. About 600 troops were below.

**CRESTED EAGLE.** Was bombed and then beached in a burning condition. Only about 300 saved out of 600 on board.

**SKIPJACK.** 250-300 troops on board, most of whom, unfortunately, went down with the ship when she sank.

**WAVERLEY.** 600 troops were on board before ship was abandoned in sinking condition, but only 200-300 were picked up.

In all it is regretted that about 2,000 troops must have been lost through these and similar disasters on the return voyages to England.

#### 14. CO-OPERATION OF THE FRENCH NAVY.

French warships and other vessels were employed evacuating French troops from Dunkirk Harbour, and on the last three nights from the beach  $1\frac{1}{2}$  miles eastward from Dunkirk. Details are given in Appendix IV.

#### 15. BASE ORGANISATION.

An operation of this magnitude involving the maintenance and movements of close on 900 vessels and boats could not have been conducted without the wholehearted and unceasing efforts of the base establishments at Dover and Ramsgate, as well as those at Sheerness and Harwich in the Nore Command. At all these places officers and men, Naval and civilian, laboured unceasingly throughout the Operation.

In particular I wish to acknowledge the great assistance received from the Commander-in-Chief, Nore, Admiral the Hon. Sir Reginald A. R. Plunkett-Erle-Drax, K.C.B., D.S.O., who in many cases anticipated my requests for assistance through his constant watch on the progress of the Operation.

The prompt and unfailing assistance afforded by the Chatham Depot in providing personnel for the numerous small craft, working parties and beach parties, was a feature essential to the successful outcome of the Operation.

The Naval Officer-in-Charge, Ramsgate, Captain W. R. Phillimore, R.N., by taking over the servicing and control of the great majority of the small craft of the inshore flotillas relieved Dover of an immense volume of work which it would otherwise have been impossible to handle.

It was also brought to my notice that at Harwich an exceptional Naval and Military system was in being for assisting those ships which called there to make a quick turn round, relieving the tired ships' companies of the work of cleaning and clearing their vessels.

#### 16. SERVICES OF STAFF, INCLUDING OFFICERS TEMPORARILY APPOINTED.

I was fortunate in having the services of Rear Admiral W. F. Wake-Walker, C.B., O.B.E., as Flag Officer afloat off Dunkirk, and Captain W. G. Tennant, C.B., M.V.O., as Senior Naval Officer, Dunkirk on shore. Admiral Wake-Walker was responsible for supervising the embarkation afloat and Captain Tennant for organising embarkation from the shore, keeping touch with the French Naval Authorities and the staff of the British Commander-in-Chief.

I cannot conclude this despatch without reference to the splendid work of my staff under the guidance of my Chief Staff Officer, Captain L. V. Morgan, C.B.E., M.V.O., D.S.C.

Augmented by additional officers, including both Army and Royal Air Force, especially appointed for the occasion, their task of organising and operating the large and varied collection of H.M. Ships continued without a pause day and night throughout the 10 days that the Operation lasted, and I can never testify adequately to the excellence of their work, upon the efficiency of which successful results depended.

Finally I would like to pay tribute to the valuable support and assistance which I received throughout the whole course of the evacuation from Vice Admiral Sir James Somerville, K.C.B., D.S.O., who was appointed to H.M.S. LYNX for special service in connection with

the evacuation. The attributes of this officer for initiative and resource are well known throughout the Service, but I venture to express the opinion that never in the course of his long and distinguished career have they been put to better use than during the operations for the evacuation of the Allied Armies from Dunkirk.

#### 17. RECOMMENDATIONS OF PERSONNEL.

I have already transmitted a brief list of those recommended for immediate award or decoration (which His Majesty has been pleased to accept) and I will forward a further list at a later date when time has permitted a full examination of all the reports.

(Sgd.) B. H. RAMSAY,  
*Vice Admiral.*

#### OPERATION "DYNAMO"—NARRATIVE OF EVENTS INTRODUCTION

As far as the Dover Command is concerned, the genesis of this operation took place at a War Office meeting on Sunday the 19th May, 1940, at which the Vice Admiral, Dover, was represented. This meeting discussed (1) Temporary maintenance of the B.E.F. through Dunkirk, Calais and Boulogne, and (2) Evacuation of personnel through Dunkirk, Calais and Boulogne. Under this last item was included, amongst other items, the problem of "the hazardous evacuation of very large Forces." This was considered "to be unlikely." (This problem ultimately became that of Operation "Dynamo").

2. The main decision of this meeting was that the control must be delegated to the Vice Admiral, Dover, and available shipping placed at his disposal.

3. Further meetings were held at Dover on the 20th May, and at the War Office on the 21st May, to consider the "emergency evacuation across the Channel of very large Forces." These meetings determined the number of personnel vessels and small craft available, and confirmed that the control of all sea movements rested with the Vice Admiral, Dover, a liaison officer from the War Office Movement Control and from the Ministry of Shipping being attached to the Vice Admiral.

4. The need for air protection of sailings, including the period of embarkation and disembarkation was recognised, and was to be arranged by the Vice Admiral, Dover, direct with the Fighter Command.

5. The reception arrangements at the points of disembarkation were provided for. At the Dover meeting it was pointed out that in the event of evacuation it would be necessary to make provision for lifting troops from beaches, and that owing to the very gradual shoaling of the beaches it would be necessary to have a large number of small boats to carry troops from the beaches to the off-shore ships. Further, it was thought extremely doubtful if the whole of the troops to be evacuated could be lifted from the beaches, and that, if at all possible, the ports must be used as well.

6. Subsequent to the Dover meeting of the 20th May, continual telephone conversations took place between Dover, the Admiralty,

Ministry of Shipping and the Commander-in-Chief, Nore, as to the provision of small craft for the final evacuation, and the provision of Naval personnel for manning the small boats required for ferrying and skoots and other small vessels taken up for transport purposes.

7. A meeting was held at the Admiralty on Sunday, the 26th May, to consider the same subject and to examine the number of craft available. The notes of this meeting were subsequently supplied to the Vice Admiral, Dover, who was not represented at the Admiralty.

8. Meantime, on the 23rd May, evacuation of Boulogne was started and completed on the 24th. The position was more complicated at Calais where evacuation was limited to non-fighting personnel; the fighting personnel having to hold on in order to assist the main B.E.F. Further, a supply ship with stores and transport had to be unloaded at Calais for this Force.

9. It was then apparent from all these events that if the B.E.F. was to be evacuated the only port available would be Dunkirk.

10. *P.M. Sunday, the 26th:* The military situation was thought to have deteriorated so rapidly that the Vice Admiral was informed by the Admiralty that it was imperative for "Dynamo" to be implemented with the greatest vigour, with a view to lifting up to 45,000 of the B.E.F. within two days, at the end of which it was probable that evacuation would be terminated by enemy action.

#### OPERATION "DYNAMO".

##### NARRATIVE OF EVENTS.

*Sunday, 26th May, 1940.*

Admiralty ordered Operation "Dynamo" to commence at 1857. Prior to the receipt of this order, the despatch of Personnel Vessels\* to Dunkirk had already commenced at 1500. At this time a flow of two vessels every four hours had been agreed to by the B.E.F., the first of these reached Dover on the return trip at 2230 and 1,312 personnel were landed.

2. On this day the only Inshore Craft available to Vice-Admiral, Dover, were four Belgian Passenger Launches and the Naval Small Craft of the Dover Command such as Drifters, and Motor Boats from the Contraband Control Base at Ramsgate. The only ones capable of lifting personnel direct from a beach being the boats from Ramsgate. The Admiralty had been asked for the supply of small boats, especially whalers and cutters,\* but there was always the difficulty of arranging for the personnel to man them. When matters became urgent, the Admiralty made a signal to the various Home Ports asking them to report how many cutters and whalers could be made available for immediate service under Vice-Admiral, Dover.

*Monday, 27th May.*

3. The Vice-Admiral, Dover, was informed by the Admiralty of the various steps taken to supply coasting vessels, skoots,\* motor boats and other small craft including rowing boats

\* Admiralty footnotes:

(i) The cutters and whalers are rowing boats carried by H.M. Ships.

(ii) A skoot is a Dutch type of coasting vessel.

(iii) The Personnel Vessels were manned almost wholly by members of the Merchant Navy and Fishing Fleets.

for inshore work off the beaches. Very few of such inshore craft could be available during the day and the main effort was concentrated on maintaining the flow of Personnel Vessels to Dunkirk at the rate of 2 every 3½ hours. After a good start during the night 26th/27th the effect of enemy action against these transports was felt. Between sailings timed 0300/27 and 1500/27, no less than 5 transports were shelled and returned to United Kingdom without making the trip. In addition MONA ISLE was damaged by shell fire and QUEEN OF THE CHANNEL was bombed and sank during the early hours of the 28th. As a result the Vice-Admiral, Dover, reported to the Admiralty that the normal channel, Dover to Dunkirk, was impracticable in daylight owing to fire from shore batteries extending from Les Hemmes to Gravelines. Zuydecoote Pass had to be used instead and consequently the distance run for the round trip increased from 80 miles to 172 resulting in a general slowing up of traffic. This route had to be used before it could be swept. Work was also commenced to sweep a channel from the North Goodwin to the Ruytingen Pass and thence into the Dunkirk Roads, thus shortening the round trip from 172 miles to 108.

4. The S.N.O. Dunkirk, with naval beach and pier party of 12 officers and 160 ratings, plus communication staff, left Dover in WOLF-HOUND at 1345, and were attacked by dive bombers at half-hour intervals between 1600 and 1800, on the voyage to Dunkirk.

5. During the day preparations were advanced for embarkation from beaches in the La Panne-Dunkirk area, as such matters as crews, fuel and general organisation were taken in hand. Five Personnel Vessels routed to start in daylight completed the round trip during the 27th and lifted a total of 3,952. In addition 17 drifters of the Dover Command sailed from Dover for the Malo Beach, and during the night lifted 2,000 troops from the beach by ships' dinghies. During the day destroyer patrols had been established to the Northward to cover the passage of merchant ships between Dunkirk and the Downs, and the Admiralty asked Western Approaches to reinforce the Dover destroyers.

6. Commander-in-Chief, Nore, sailed 6 small skoots for the South Downs to co-operate in Dunkirk, and sailed 4 skoots loaded with Army stores direct to Dunkirk. In the evening Naval Officer-in-Charge, Ramsgate, was asked to take over the fuelling and despatching of all small power boats with the attendant pulling boats forming the inshore flotilla. Some unnecessary delays occurred at this stage as the majority of Naval Authorities were directing the small craft for Dunkirk to be routed to Dover, although the Vice Admiral, Dover, had asked for the Downs to be their destination. Once despatched by the Authorities no communication with these vessels was possible until they arrived at their destination, and so the requirements of assembling these craft at the Downs or Ramsgate were in many cases delayed by as much as 24 hours or more since during the night misfortune befell many tows that came adrift due to moderate weather or collisions and the business of rounding them up could not be effected until daylight.

7. The Vice Admiral had intended to maintain a destroyer at Dunkirk as a W/T link, but

the S.N.O., on arrival, decided that conditions at Dunkirk made this impossible.

8. At 2025 the Vice Admiral, Dover, received a Most Immediate message from the S.N.O., Dunkirk, who had just reached his station, as follows: "Port consistently bombed all day, and on fire. Embarkation possible only from beaches East of harbour A.B.C.D. Send all ships and passenger ships there to anchor. Am ordering WOLF-HOUND to load there and sail. T.O.O.\* 2005/27." Meanwhile Vice Admiral, Dover, had asked the Commander-in-Chief, Nore, to send every available shallow draught power boat, capable of ferrying from beaches to ships lying off the beaches Eastward of Dunkirk, stocked with fuel and provisions for two days; this move being made with a view to saving time by cutting out the passage to, and subsequent reorganisation, at Ramsgate, prior to proceeding to the French Coast. It should be noted at this time (2000/27) there were no pulling boats, cutters or whalers immediately available for attendance on Power Boats. A further signal: "Please send every available craft to beaches East of Dunkirk immediately. Evacuation tomorrow night is problematical. T.O.O. 1958/27" was received from S.N.O. Dunkirk.

Later that evening a report was received from 2 Military Officers from G.H.Q. which suggested that the situation of the B.E.F. was precarious and it was possible that the enemy might succeed in cutting off this force from Dunkirk. This report appeared to confirm the results of air reconnaissance, which indicated that German armoured units were operating to the south of Dunkirk. Since it appeared that evacuation might well be strictly limited, both in regard to numbers and time available for the operation, it was decided to concentrate every effort in sending over as many craft as possible to the beaches without delay. Had the situation appeared to be less critical, an organised flow of large and small craft working in reliefs would have been arranged.

9. On receipt of these signals from S.N.O. Dunkirk, all available forces were diverted to the beaches, the Personnel Ships to the beach, code letters A.B.C. and D., the destroyers on patrol being diverted to La Panne. Destroyers that were working off Dunkirk were ordered to divert the Personnel Ships going into Dunkirk to lay off the beaches and the smaller craft such as drifters and motor boats were ordered to be used for ferrying troops from the beach to the larger ships. Two important strings of boats being towed by a tug were lost in the night through the tows being run down and cut in half, the boats being scattered.

10. As a result of the above action there were assembling off the beaches 2 transports, 9 destroyers, 4 minesweepers, CALCUTTA, 17 drifters and a few skoots, and all the ships were ordered to use their own boats for ferrying as none of the inshore flotilla had arrived. From signals received it appeared that the situation was desperate, that little could be lifted direct from the Port of Dunkirk and that the maximum effort must be made from the beaches. Commander-in-Chief, Nore, at this stage provided additional reinforcements of minesweepers and paddlers. During the

\* Admiralty footnote: T.O.O. = Time of origin.

night, Vice Admiral, Dover, was informed of continuous bombing and machine gunning of troops in the beach areas, and directed Senior Officers present on the beach to use their discretion in ordering withdrawal of the Naval forces, observing that a strong fighter protection should be expected after dawn; this having been arranged after a special visit by the Liaison Officer to Hawkinge to procure the maximum effort.

11. Limiting factors were thought most likely to be restrictions due to enemy action at Dunkirk and on the beaches, and the difficulties of concentrating the ships and troops at a common point or points. The general evacuation plan had been conveyed to the G.O.C. by the S.N.O. on his way to Dunkirk, and the Vice Admiral, Dover, hoped to receive in return some outline of the Military's operational plan upon which the rate of evacuation in the various areas under the scheme must depend. Subject to the development of beach evacuation and the continuation of fine weather, it appeared to the Vice Admiral that adequate shipping for his plans was either in, or on its way to the Dover area, except for a chronic shortage of beaching boats.

*Tuesday, 28th May.*

12. By 0100/28 a large number of craft was approaching the Belgian-French coast, while two Personnel Carriers were crossing to Dover with 1,400 troops. Two other carriers, whose entry into Dunkirk had been stopped as a result of S.N.O., Dunkirk's signals 2005/27 and 1958/27, were unable to make the beaches and one, the MAID OF ORLEANS was damaged by enemy bombing and another, the QUEEN OF THE CHANNEL was sunk. During the preceding afternoon the Hospital Carrier\* ISLE OF THANET was shelled and damaged by the Calais Battery. All available destroyers were working off the La Panne-Malo beaches using their own boats, since the supply of beaching boats from the United Kingdom had not yet reached across the Channel. A moderate surf on the beaches reduced the rate of embarkation, exhausted the boats' crews, the majority of whom were "hostility only" ratings, rendering the whole operation slow and difficult.

13. In view of the heavy casualties experienced during the last 24 hours to personnel carriers caused by the development of German air threat over Dunkirk and the increasing artillery fire on the sea approaches to Dunkirk, it was decided that until the situation was restored, these personnel vessels could not be used on the French Coast during full daylight, and consequently for the moment evacuation from Dunkirk by day must be confined to warships and other small vessels. Furthermore, since evacuation from the beaches by day with the troops exposed to bombing and machine gunning was likely to be ineffective with the small number of beaching craft at the Vice Admiral's disposal, the plan provided for evacuation from both Dunkirk and the whole length of beaches by night. (At that time—1100/28—information was being received of the loss of a great number of the small beaching craft during the preceding night and of the considerable amount of organisation still

required to bring the surviving boats effectively to bear on the beaches.)

14. During the forenoon it became more evident that the greatest effort must be made the following night and the Admiralty instructed Commander-in-Chief, Western Approaches, and Commander-in-Chief, Portsmouth, to sail every available destroyer to Dover. In addition the 7th and 8th M/S Flotillas were ordered to Harwich under the orders of the Vice Admiral, Commander-in-Chief, Nore, arranged a patrol of all available M.T.B.s and A/S Trawlers to cover the North-east flank of the evacuation area against attack by enemy surface craft from the North between 2030/28 and 0600/29.

15. At this time great concern was felt over the lack of water which had been reported on the beaches and joint Naval and Military measures were set on foot to provide for the supply of water in receptacles and in tanks to the beaches apart from the arrangements for evacuation. Ships off the beaches were also instructed to do what they could with their own resources to help in this matter.

16. Evacuation plan for the night was communicated to S.N.O. Dunkirk by signal—timed 1555/28—and provided for the use of 3 Hospital Carriers, 7 personnel steamers and 2 destroyers at the East Pier, Dunkirk, while some 20 destroyers, 19 paddle and fleet sweepers, 17 drifters, 20 to 40 skoots, 5 coasters, 12 motor boats, 2 tugs, 28 pulling cutters and life-boats were to be distributed between La Panne and point 1½ miles East of Dunkirk, on the beaches; the destroyers running continuous round trips.

It was estimated that the personnel vessels and hospital carriers would be clear of the danger area by 0630. As regards the beaching and other small craft which had not yet reached the Dover Straits, arrangements were made with other authorities to route all small craft, which had not already been despatched, direct to the beaches East of Dunkirk, provided they had charts, food, fuel, etc.

At this time some difficulty was experienced in having at hand the large number of charts required for these additional vessels.

17. Owing to the suspension of daylight work by personnel vessels it was necessary to increase the number handled in Dunkirk during the dark hours as the attempt to use the surplus personnel vessels off the beaches by night seemed unlikely to bear fruit. Accordingly, S.N.O. Dunkirk, was asked whether personnel vessels could be berthed inside Dunkirk Harbour, the only information in Vice Admiral's possession having indicated that the East Pier of the harbour entrance was the only suitable berth for such ships to which British troops could have access. To increase the off-shore forces, Commander-in-Chief, Nore, was asked to sail CALCUTTA to be opposite La Panne at 2200 to embark troops using own boats.

Orders were issued that all ships preceeding to Dunkirk from Dover were to use the Southern Route Z provided that the passage from No. 6 Calais Buoy to Dunkirk could be made in darkness.

18. At 1830 GRAFTON reported that several thousand troops remained on beaches at Bray and that more were arriving. At that time there were off Bray, one tow of pulling boats, number

\* Admiralty footnote: Hospital Carriers were manned almost wholly by members of the Merchant Navy and Fishing Fleets.



uncertain, 2 power boats, at least 2 skoots, CALCUTTA, GALLANT, WAKEFUL, VERITY, and GRAFTON, using what survived of their own whalers and motor boats. This force was reinforced by 2 minesweepers at 2115. Later reports of concentrations of troops on the beaches were received, particularly at La Panne and Bray. Craft approaching the coast were directed accordingly. Naval Officer-in-Charge, Ramsgate, was requested to maintain a continuous evacuation service by skoots between Margate and Ramsgate and the beach, and take over responsibility for servicing those vessels. Meantime CALCUTTA, who was off La Panne, reported that conditions for embarkation there were very bad owing to heavy surf, but that they might improve with the rising tide.

Shortly after midnight CALCUTTA was informed that the Third Corps of the B.E.F. and the Commander-in-Chief were all now at La Panne. She was directed to make every endeavour to concentrate all destroyers and light craft at that end of the beach with the object of embarking that force as soon as possible.

19. As regards enemy activity, this day the Germans contented themselves with bombing the town and port of Dunkirk, but on a small scale compared with that to be experienced later, probably because of increasing R.A.F. air cover and also due to the fact that a heavy pall of smoke from the burning town covered the operation most of the day.

#### *Wednesday 29th May.*

20. The Northern Route Y having been swept, it was arranged to sail personnel ships to Dunkirk at daylight and to continue to sail throughout the day; this route would take ships clear of the artillery fire on shore. Personnel ships accordingly started at 0230.

21. Much consideration had been given to the practicability of building piers on the beaches using lines of barges. Reports from ships that worked off the beaches showed, however, that owing to the very gradual shoaling of the water at all states of the tide such a barge pier to be effective, would have to be of very great length, beyond the resources available.

22. Information was received that the personnel vessels with their Mercantile Marine crews were having difficulty in making the entrance to Dunkirk Harbour in the face of the navigational difficulties caused by a heavy smoke pall over the entrance and in face of bombing and shelling encountered en route and whilst alongside. Nevertheless it subsequently transpired that at Dunkirk there had been a good number of ships throughout the night, at times exceeding the influx of troops.

23. S.N.O. Dunkirk, and other Senior Officers on the Coast reported during the early hours that surf on the beaches was retarding boat work. S.N.O. Dunkirk, at 0709, asked for all ships to go to Dunkirk. The Vice-Admiral could not accept this as it was essential to maintain lifts off the beaches as well as from Dunkirk Harbour, both from the aspect of the military situation and from the fact that Dunkirk was limited by a bottle-neck, formed by the narrow gangway along the East Pier to the points of embarkation. Furthermore, there was

every prospect of the weather improving and the surf reducing as the tide rose. Nevertheless, an increased number of H.M. Ships was ordered to Dunkirk to augment the personnel vessels, though it was feared that an accumulation of ships alongside the East Pier at Dunkirk by day might well invite intensive air attacks. Subsequently, this fear was fully to be justified.

24. Meantime, considerable anxiety was felt as to the fate of the personnel vessels which had been despatched in a steady stream to Dunkirk commencing the previous evening. The first of these was due back at Dover about 0300, but by 0900 nothing had been sighted or reported. But at 0700, S.N.O. Dunkirk had reported that the embarkation there was going on at the rate of 2,000 an hour, so it was presumed that the transports had failed to enter the harbour during darkness, had waited outside, and had commenced to enter in succession at dawn. The necessity for continuous fighter protection in view of the exposure of these unarmed ships while at Dunkirk and during the daylight passage through coastal waters, was obvious. Constant touch was maintained with the R.A.F. Commands to obtain continuous fighter protection during the hours when the Vice-Admiral, Dover, estimated the largest concentration of vessels would be present, it being realised that the R.A.F. resources were not sufficient to provide continuous air cover, and to dispense with full cover at less important periods.

25. At 0930 the belated return of the personnel vessels from Dunkirk commenced, and proceeded steadily through the day. In addition to the personnel vessels using Dunkirk the Admiralty were informed of the necessity for X-lighters and other self-propelled lighters to increase the facilities for beach evacuation. A Medical Party was shipped in VERITY for use on the beaches, and a Naval Medical Party was sent to Dunkirk.

26. The considerable alarm as to the immediate safety of the B.E.F. felt during the evening and early night of the 28th, which caused all available resources to be immediately concentrated on the French Coast, eased during the 29th. But emergency measures taken late on the 28th had an adverse effect on the orderly organisation for evacuation so necessary if effective measures were to be devised and put in force.

27. Meantime, in the early hours of the 29th, an unfortunate disaster occurred involving the loss of H.M. Destroyers WAKEFUL and GRAFTON, and the danlayer COMFORT. WAKEFUL, after embarking troops at Bray, sailed for Dover at 2300/28 by the Zuydecoote Pass and North Channel. Approaching the Kwinte Whistle Buoy the speed of the ships was 20 knots, and a zigzag of 40 degrees every four minutes was started. At 0045 two torpedo tracks were observed, one torpedo missed, the other hit amidships. WAKEFUL broke in half and the two portions sank in 15 seconds, each remaining standing with the midship end on the bottom. All the troops on board went down with the ship; certain of the crew floated clear. After about half-an-hour motor drifters NAUTILUS and COMFORT arrived and started to pick up survivors, later joined by GOSSAMER. Captain of WAKEFUL was in the COMFORT. GRAFTON and LYDD were close and Captain of WAKEFUL warned



GRAFTON she was in danger of being torpedoed. At that moment, 0250, GRAFTON was torpedoed, COMFORT was lifted in the air, and Captain of WAKEFUL washed overboard. COMFORT was going full speed and as she came round in a circle LYDD and GRAFTON opened fire on her, evidently thinking she was an enemy ship. It is believed that COMFORT crew, except one, and WAKEFUL survivors, except four, were killed. LYDD then bore down on COMFORT, rammed and sank her.

Previously GRAFTON, who was proceeding to Dover with troops, had observed a ship torpedoed, and lowered her boats to pick up survivors, subsequently ascertained by signal to LYDD to be WAKEFUL. A small darkened vessel, thought to be a drifter, was signalled and told to pick up survivors. Within a few seconds of this, GRAFTON was torpedoed. The bridge was also hit, either by a shell or grenade, and the Captain killed instantly. LYDD then tried to come alongside but after hitting starboard side sheered off, and appeared to ram a vessel on port quarter. This was COMFORT. GRAFTON opened fire under the impression LYDD had rammed the M.T.B. Target was then shifted to another vessel further away on port quarter, and vessel was observed to blow up with a bright flash. This may well have been the enemy M.T.B.

28. During the forenoon JAGUAR, GALLANT and GRENADE were dispatched via the new Middle Route X to test the opposition by shore batteries prior to introducing this route as an alternative to the long Northern route. GRENADE arrived Dunkirk, reported no fire from shore batteries, but that she had experienced heavy bombing. These three destroyers were attacked by dive bombers when approaching Dunkirk at about noon, and GALLANT was damaged. At least six attacks were carried out, one enemy aircraft was brought down by gunfire and others by fighters. An hour later MALCOLM reported Dunkirk heavily bombed with a large number of aircraft and during the afternoon this bombing extended up the coast to ships off Bray. During the afternoon the Middle Route X was brought into use for destroyers, but small ships were still routed round the Northern route to Zuydecoote Pass. LOCUST and MOSQUITO joined Dover Command and were dispatched to work on the beaches during the afternoon. Shortly after noon enemy shore batteries near Nieuport began to bring Zuydecoote Pass under spasmodic gunfire and the state was being reached whereby the new Middle Route would become the only practicable daylight approach to Dunkirk and the beaches. At noon, CALCUTTA, who was able to get across to La Panne beach to receive troops by small boats, embarked 1,200 troops from the minesweepers and then sailed for Sheerness, the minesweepers remaining to load up again. At 1606, the New Route X having been fully swept, all ships were ordered by the Vice Admiral to use Route X, exercising navigational caution, and those from Dover were instructed to proceed by Route Z, the South route, provided the passage between Calais Bell Buoy and Dunkirk be made in darkness.

Route X passed some 26 miles to the South-Westward of the extreme N.E. point of the Northern Route Y, the locality in which enemy M.T.B. attack threatened, and was shielded by

the French minefields in the Ruytingen and Dyck channels. It appears that the enemy M.T.B. command failed to appreciate the withdrawal of traffic to the S.W. and did not follow up.

In the evening it was reported that there was no congestion anywhere on the coast, except at La Panne. The force at La Panne was accordingly reinforced as ships became available.

29. An additional beach party of seven officers and a number of ratings under Captain J. Howson was sailed in SABRE at 1600 for Dunkirk, and Captain E. Bush, who had already visited Dunkirk and was aware of the general conditions, was sent to HEBE as S.N.O. afloat off the beaches. An M.T.B. was placed at the disposal of the S.N.O. on the coast.

30. At about 1600 a heavy air attack commenced on the East Mole Pier, Dunkirk harbour, mainly by dive bombing, which lasted continuously for more than two hours. At the same time, other air attacks took place on ships lying off Bray. Attacks were renewed from time to time up till after 2000, not only on Dunkirk, but on ships off Bray, in the Zuydecoote Pass and those in the Southern end of X Route. These attacks were to have a disastrous result on the evacuation arrangements at Dunkirk. There were present alongside the inner side of the Eastern Arm two destroyers GRENADE and JAGUAR, three trawlers ahead of the GRENADE and JAGUAR, three more trawlers ahead of them with CANTERBURY in the next berth, and a French destroyer ahead of the CANTERBURY. Outside the harbour on the outside of the Eastern Arm the Transport FENELLA was berthed opposite the GRENADE and JAGUAR and the CRESTED EAGLE opposite the six trawlers. In addition, the MALCOLM and VERITY were also in the harbour but further inside. This presented a very good target and the ships were soon hit and embarkation of troops ceased for the time being. CANTERBURY, accompanied by JAGUAR, succeeded in leaving harbour, but both were hit by bombs and damaged. Both succeeded in reaching Dover, though JAGUAR had to be towed part of the way and was subjected to many attacks on passage. CANTERBURY reached harbour at 2115 and disembarked 1,950 troops but was sufficiently damaged to prevent her being used again in these operations. To return to Dunkirk, FENELLA was lying alongside on the outside of the pier, and was hit and sunk. GRENADE and one of the trawlers on the East side were hit and the trawler sank in the fairway. GRENADE sinking and on fire had to be abandoned and appeared to be about to sink in the fairway. A trawler was detailed to tow her clear. VERITY, who witnessed this occurrence, was continuously straddled by bombs for 35 minutes. Passage all along the pier having ceased, she cast off, and skirting the burning GRENADE and trawler, proceeded out of harbour, grounding slightly on a sunk drifter in the entrance. At about 1800 KING ORRY arrived to find the harbour occupied only by burning and sinking ships, with no sign of any one on the pier nor any boat moving in the harbour. She was immediately subjected to heavy bombing attacks, having previously had her steering gear put out of action by a dive bombing attack when about half mile

outside of the entrance. She remained in sole occupation of the harbour until shortly after midnight 29th/30th, when her Captain rightly decided to take the ship out of harbour before she also was sunk, thus freeing the berth and safeguarding the channel from being blocked.

Little information of these disasters filtered through to Dover, except that it was known that Dunkirk was under heavy air bombardment and that the destroyers there were being hit soon after 1600.

31. At 1906 the Vice Admiral promulgated the plan for the night by signal as follows: "Evacuation of British troops to continue at maximum speed during the night. If adequate supply of personnel vessels cannot be maintained to Dunkirk East Pier, destroyers will be sent there as well. All other craft except hospital carriers to embark from beach which is extended from one mile East of Dunkirk to one mile East of La Panne. Whole length is divided into three equal parts referred to as La Panne, Bray, Malo, from East to West with a mile gap between each part. La Panne and Bray have troop concentration points each end and in middle, Malo at each end. These points should be tended by inshore craft. Pass the message by V/S to ships not equipped W/T as opportunity offers."

32. About 1900 a telephone message was received from La Panne Military Headquarters through the War Office and the Admiralty to the effect that Dunkirk Harbour was blocked by damaged ships, and that all evacuation must therefore be effected from the beaches.

About the same time a corrupt message from S.N.O. Dunkirk, was received stating continuous bombing, one destroyer sinking, one transport with troops on board damaged and impossible at present to embark more troops, though pier undamaged.

33. In this confused situation the Vice Admiral, Dover, at 2128, ordered all ships approaching Dunkirk not to close the harbour, but instead to remain off the Eastern beach to collect troops from the shore, and the drifters and minesweepers which were about to be despatched to Dunkirk Harbour were also diverted to the beaches.

It appeared, therefore, at this time that the use of Dunkirk Harbour would be denied to us except possibly to the small ships.

Signals addressed to S.N.O. Dunkirk, HEBE, VERITY, who were known to be in the vicinity of Dunkirk, were sent requiring information as to the accessibility of the Eastern pier for personnel vessels. Admiral Nord was also informed that Dover was out of touch with Captain Tennant, and asked whether it was still possible for transports to enter the harbour and berth alongside.

No reply to these enquiries could be expected until after midnight.

34. In the event only four trawlers and a yacht entered Dunkirk during the hours of darkness, and as enemy activity was much reduced only two bombing attacks being made, it subsequently transpired that a good opportunity had been missed. It is probable that ships to lift some 8,000 to 10,000 troops could have been made available for Dunkirk during the night at little loss to embarkation from the beaches.

35. Rear Admiral Wake-Walker proceeded from Dover in ESK at about 1900 for passage to HEBE off the coast where he was to carry out the duties of S.N.O. Dunkirk in charge of all embarkation arrangements, taking over from Captain Bush who had been working in HEBE under the orders of S.N.O., Dunkirk. He expected to arrive at Dunkirk at 2330.

36. As a result of the heavy casualties and losses amongst the destroyer force, particularly the misfortunes which befell those of the larger and more modern types, a consultation was held between the Admiralty and the Vice Admiral which led to a decision to withdraw destroyers of the "H", "I" and "J" Classes from "Dynamo". All destroyers of the "G" Class were already out of action.

There remained available for "Dynamo" 15 destroyers:—

ESK	WORCESTER
EXPRESS	WINDSOR
ANTHONY	VERITY
KEITH	VANQUISHER
CODRINGTON	SABRE
MALCOLM	SCIMITAR
WHITEHALL	SHIKARI
WINCHELSEA	

Excluding any casualties, this number of destroyers might be expected to maintain a flow of one destroyer per hour to the coast and would lift 17,000 troops in 24 hours.

37. The day closed with a formidable list of ships lost or damaged, a marked reduction in the number of destroyers available and with failure to achieve the high rate of evacuation hoped for. Some 38,000 were landed in England during the 24 hours, but the effect of the day's occurrences was to be more marked next day when instead of some 50,000 to 60,000 which had been calculated as the probable achievement only 48,000 odd were in fact transported.

*Thursday, 30th May.*

38. As an example of the difficulty of any one man appreciating the situation at Dunkirk and the beaches during the night, at 0300/30 the S.N.O. on the French Coast reported that he had no destroyers. In fact, at that time, all available destroyers, namely 10, in the Dover Command, were either on, or on passage to or from, the coast, and the remaining five were at Dover discharging troops, embarking ammunition, fuelling, etc. and were to sail within the next four hours.

Simultaneously the V.C.I.G.S. reported that the beaches were well organised, the troops in good heart, and there had been no bombing since dark, but that there was still a great shortage of small craft, urgently required. This last fact was well known to the Vice Admiral, Dover.

39. Commander-in-Chief, Nore, was requested to send as much towing hawser as possible to Ramsgate, as quickly as possible, for supplying the skoots, to haul boats off the beaches, thus speeding up the boat work to compensate for the shortage of boats, which would continue for at least another 24 hours.

40. At 0500 the seven modern destroyers remaining with Vice Admiral, Dover—ICARUS, IMPULSIVE, INTREPID, IVANHOE, HARVESTER, HAVANT and JAVELIN—sailed to Sheerness in accordance with Admiralty instructions. The MONTROSE and MACKAY sailed for repairs.

41. Meantime the Vice Admiral, Dover, had been much exercised regarding the possibility of the continued use of Dunkirk Harbour for personnel vessels and was anxiously awaiting the report from VANQUISHER, who had been sent to investigate the reported obstruction. VANQUISHER'S report was received at 0610 stating entrance was practicable but that obstruction exists towards outer inside end of the Eastern Arqn. Pending amplifying reports, the sailing of personnel vessels to Dunkirk was resumed, although at this time there were still 4 personnel vessels presumed to be in the vicinity of Dunkirk Harbour, whose movements and whereabouts throughout the night still remained obscure.

The Vice Admiral asked R.A. Dover, who was in HEBE, whether personnel ships could, in fact, still use Dunkirk. In the meantime a series of signals from Rear Admiral, Dover, and destroyers off the coast, were received, stating that the beaches were filling up rapidly and more ships and boats were urgently required there. Although it was known that the destroyers could use Dunkirk, it appeared at this time that the best division of transport was to send the great majority of destroyers to the beaches, where urgent demands could not be ignored, and the personnel vessels to Dunkirk Harbour, only an occasional destroyer being sent to Dunkirk from the reduced number now available for the operation.

42. At Dunkirk there were no air attacks in the early morning and all was quiet. Later, when ships began to arrive in quantity, in view of the massive target presented by a number of ships alongside the East Pier at a time, the S.N.O. Dunkirk ordered destroyers alongside only one at a time. At about 0800 a store ship arrived at Dunkirk with provisions but no water. This caused so much congestion on the pier that unloading was abandoned when half complete, and the store ship filled with troops. A certain amount of water was obtained from destroyers.

43. During the forenoon the Military constructed a long pier of lorries with deck planking, into the sea off Bray. This was an excellent piece of work, but was insufficiently stable for use by such craft as paddle steamers, nor even smaller power craft in a loup. It was invaluable later for embarking troops into small boats. As regards general embarkation off the beaches, it was later learnt that it was a common occurrence for processions of small boats loaded with troops to be cast adrift when empty and allowed to float away to seaward, owing to the lack of sufficient naval ratings as boat-keepers. For the same reason many of the smaller pulling boats were swamped and sunk due to overloading by uncontrolled "rush" of soldiers. Both these faults were remedied later.

44. Matters proceeded smoothly throughout the day owing to the mist and there being a big smoke cloud over Dunkirk which prevented the enemy bombers attacking the ships in large numbers.

In order to increase the rate of embarkation through the bottleneck of the East Pier gangway, the troops were urged to quicken their pace and eventually thousands of troops, tired and without food and water for days, broke into the double and kept it up the whole length of the pier for more than two hours.

45. The attempt to maintain an adequate rate of lift using only the older destroyers was by now shown to be impracticable. The destroyers were lifting about 17,000, personnel vessels about 9,500 in the 24 hours. Remaining vessels were estimated to be worth about 15,000 per day. This gave a total lift of about 43,000 per day. The situation called for a lift of at least 55,000 per day. Verbal representations being made to the 1st Sea Lord, authority was received for the return to the Dover Command of the modern destroyers released the night before.

Accordingly Commander-in-Chief, Nore, at 1531 gave orders to HARVESTER, HAVANT, IVANHOE, IMPULSIVE, ICARUS and INTREPID to proceed at once to Dunkirk. Subsequently some of these destroyers were diverted to the beaches.

46. *Arrangements for the final evacuation of the Rearguard of the B.E.F.* During the forenoon representatives of the Commander-in-Chief of the B.E.F. and staff attended a conference with the Vice Admiral.

The Military officers explained the Commander-in-Chief's plan and gave daylight on Saturday, 1st June, as the latest reasonable date up to which the B.E.F. might be expected to hold the eastern perimeter, the size of the corresponding force being about 4,000.

By that date and time the Vice Admiral knew that he should be in possession of ocean-going tugs, ships' lifeboats and ships' power lifeboats which he could specially reserve for the climax of this critical operation. Accordingly, agreement was reached on the following:—

(a) That evacuation should proceed with the utmost vigour to ensure that by 0130 on 1st June, the British Forces ashore should have been reduced to the rear guard of 4,000.

(b) That special boats and tugs should be accumulated and held aside to ensure them being available in the early hours of 1st June.

(c) That the plan should provide for lifting a rear guard of 4,000, plus R.N. beach parties, in one or more flights between 0130 and 0300 on the 1st June.

(d) Final decision based on the progress of the evacuation of the main body to be made by the Vice Admiral at 1400 on Friday, 31st May, as to the possibility of adhering to the plan.

Other technical details were settled at the meeting and the Military staff were given the assurance that the ever increasing rate of lifting showed every promise of enabling an affirmative decision to be given at the critical hour of 1400/31st May. After the conference the Military officers communicated the plan both to the War Office and the Commander-in-Chief, B.E.F.

47. *Remarks.* The organisation of traffic to and from the beaches was recovering from the setback it had received when all resources had to be thrown upon the beaches and Dunkirk Harbour when the outflanking and forcing back of the B.E.F. was thought to be imminent consequent upon the surrender of the Belgian forces. Furthermore, a number of organised, and freelance groups of small power boats, were commencing to arrive off the coast, who, by seizing the abandoned and drifting pulling boats, were able to do much to increase the rate of lifting from the beaches.

*Friday, 31st May.*

48. The Admiralty informed the Vice Admiral that the policy of H.M. Government was that both British and French troops be given an equal opportunity of being evacuated in British ships and boats.

49. Personnel ships had been sailed the previous evening and throughout the night of the 30th/31st to provide for a continuous flow into Dunkirk harbour. But at 0320 the S.N.O. reported that once again the majority of these personnel ships had failed to enter the harbour during the dark hours. MALCOLM, however, left Dunkirk with 1,200 troops at 0300, during heavy shelling, on relief by IVANHOE. S.N.O. Dunkirk, however, continued to call for more ships. No more destroyers were available and there were no means of accelerating the arrival of the vessels despatched there. By 0700 the Vice Admiral had no news of the fate of the personnel ships that had sailed the previous evening and during the night. None of these ships had reached the U.K. to unload, and it appeared probable that these ships may have concentrated in the narrow waters close to Dunkirk, inviting a repetition of the heavy air attacks with consequent damage and loss to transports which had occurred on the two previous occasions when personnel vessels, together with other ships, had been concentrated in large numbers in the approaches to Dunkirk.

At this time there were no less than nine personnel vessels and three hospital carriers known to be on the round trip U.K.—Dunkirk and back and one other personnel vessel had been ordered to sail during the night, but her whereabouts was unknown. In addition, three other personnel vessels were under orders to sail between 0900 and 1030. Pending the return of the ships en passage, and while the coal-burners were being rebunkered, the further sailing of personnel vessels was in suspense.

*Note* :—Owing to the casualties to personnel vessels at this stage, coal burning cross channel steamers had to be used for some of the trips and short endurance necessitated coaling between trips which could not be done in the vicinity of Dover, thus preventing a quick turn round.

50. During the night a considerable amount of enemy minelaying activity by air was reported. Shelling was heavy during the evening and night, and operations were greatly hampered. Nevertheless, with the cessation of shelling at about 0300, very good progress was made and by full dawn the beaches were very nearly clear of troops. At 0530 attacks on Dunkirk Harbour and the beach from Dunkirk to Bray developed more strength and the bombardment of Dunkirk continued. Nevertheless, the S.N.O. reported that the embarkation there was proceeding satisfactorily but stressed the need for more ships and constant fighter protection. At this time French troops began to appear at Dunkirk Pier and on the beaches, and were embarked with the British troops.

51. At 0600 VIMY sighted submarine off the N.W. Goodwins and commenced to hunt.

52. The arrivals at the home ports indicated that in spite of the frequent requests for more ships and more boats received from the various authorities on the French coast, the rate of evacuation was steadily increasing and would permit, all being well, of implementing the

final evacuation plan during the night of 31/5-1/6. Accordingly, instructions were issued for the special tows to leave Ramsgate at 1300/31 for Dunkirk via Route X, and the Commander-in-Chief, Nore and Flag Officer in Charge, Harwich, were requested to provide all available M.T.B.s to escort this convoy for as much of the outward passage as possible, which was timed to commence from Ramsgate at 1300/31. Speed of advance—5 knots. A party of Naval officers had been assembled at Dover to embark in these tows and had been given detailed instructions on the plan. Two M.A/S. boats and two M.T.B.s in the Dover Command were ordered to accompany the boat convoy and subsequently embark the Commander-in-Chief, B.E.F. and Staff off the beaches.

53. Shortly after sunrise an on-shore wind arose and boat work became difficult, many whalers capsizing and the prospects of completing the evacuation to plan began to be less favourable. The following extract from the report of Captain Howson, S.N.O. on the beaches illustrates conditions at Bray at this time:

“ At 0400 there was a very considerable number of destroyers, paddlers, trawlers, skoots, etc., off Bray, and embarkation was proceeding satisfactorily, but a lop had already started. There were about 10 motor yachts which had arrived from England. These craft drew 6-7 feet and were unable to get close in to any of the beaches. During the forenoon, considerable towing of empty craft towards the beach was carried out, and only about two boats were allowed to get adrift and ultimately ground. With the falling tide, however, a number of boats were seen to ground and remain ashore until the tide rose in the afternoon. These included an A.L.C.\* motor boat and a lifeboat. Other power boats broke down. Nevertheless, the embarkation, much hindered by the lop, proceeded satisfactorily. As further destroyers and sloops arrived, they were directed to lower their motor boats and whalers as this had not already been done; these boats were quite invaluable. About noon, the lop began to subside and with the rising tide conditions for embarkation very greatly improved, more boats were sent in and more boats floated off and matters were proceeding very well, when the gun at La Panne started to shell the beaches and foreshore with great accuracy. A certain number of light craft were sunk. The A.L.C. broke down and was towed away by a steamer. MOSQUITO, destroyers and sloops proceeded westward clear of the firing.”

54. Rear-Admiral Wake-Walker was able to make a survey of the general conditions of the beaches, and at 1130 the Vice-Admiral received a signal from him stating that the majority of the pulling boats were broached to and without crews, conditions on the beaches being very bad owing to a freshening shore wind, only small numbers being embarked. Under present conditions any large-scale embarkation from beach impracticable. Motor boats could not get close in. He considered only hope of embarking any number was at Dunkirk, and further stated he

\* Admiralty footnote: A.L.C. = Assault Landing Craft.

would attempt to beach ship to form a lee to try to improve conditions.

Simultaneously with this bad news the Vice-Admiral received a signal from S.N.O. Dunkirk to the effect that Dunkirk was being continuously and heavily bombarded and that the enemy artillery were gradually finding the range of the loading berth. He stated he wished only to enter ships which were necessary for the flow of troops.

This latter signal fortified the Vice-Admiral in his decision to suspend the sailing of personnel vessels to Dunkirk until the accumulation of those en route had been evened out.

55. One group of minesweepers who, up to this time had been working continuous round trips between Sheerness and La Panne, were diverted to round trips between Dunkirk beach and Margate to compensate for the gradual drift of troops westward along the Coast, and to compensate for the reduced flow of troops off Dunkirk Pier consequent on the artillery bombardment. At the same time, by using Margate the duration of the round trip was reduced. The Rear-Admiral, Dover, from off the coast was instructed to run a paddle minesweeper bows ashore on rising tide to be used as a bridge, deeper draught ships coming to her stern, if conditions were suitable. It was not thought, however, that this would be an effective measure of bridging the gap between water-line and off shore ships, as the length of a paddle minesweeper was so small compared with the length of the shallow water to be traversed.

56. During the forenoon beaches at La Panne were subjected to heavy artillery fire. Action was taken with the R.A.F. Commands to locate batteries shelling the beaches and Dunkirk pier and include air bombardment of these positions in the R.A.F. protective measures undertaken during the operation.

57. During the afternoon additional beach parties were sent out, and barges with provisions, ammunition and water arrived at the beaches during the day, and were grounded. Two further drifters were despatched with petrol, diesel oil and lubricants to the beach area to refuel the inshore craft.

58. Arrangements were made to be ready to embark Lord Gort and Staff from La Panne 1800 or later, by M.T.B. After 1700 weather conditions off the beaches improved, particularly as the tide rose and it appeared once more possible to take effective quantities direct from the beaches, and to use the special tows, ships lifeboats, power lifeboats and tugs, which were on passage from Ramsgate and which had been earmarked for lifting the final covering force.

In the afternoon, however, it was learned that the Military plan had been changed, and that it was no longer possible for the original covering position, as planned, to be held by 4,000 troops who were then to withdraw to the beaches for embarkation by boat. Instead, it was learned that the Eastern-most Division was to be withdrawn Westward from the La Panne area, and that the special flight of boats was to be used to lift this force from the beaches. At the same time, the troops in the Bray and Malo sectors were being thinned out by movements Westward towards Dunkirk itself. This change of plan involved concentrating the special tows and the minesweepers—to which they were to transfer the troops—into the stretch opposite

the beach between Bray and one mile East of La Panne and also advancing the commencement of the operation by one hour. The risk of this change of plan was obvious as the boat tows were not in communication with the Vice-Admiral, and reliance had to be placed on the Minesweepers to inform and see that the escorting M.A.S.B.s would shepherd the tows to the new positions. The minesweepers had anchored so as to serve as guiding marks, as had been explained to the Naval Officers in each tow.

Apart from the special tow, a very large number of small power boats despatched, in most cases direct, from the South East ports, Newhaven to Sheerness, were arriving off the beaches, and compensated in a large measure for the heavy losses that had occurred amongst the original towing boats, whalers, cutters, lifeboats and ships' boats, which had occurred on the beaches during the preceding three days.

On the La Panne beaches after 1600 very good progress was made. The piers of pontoons built by the Military the previous day were extremely useful, and were largely responsible for the rapid evacuation of troops. All the troops that could be found were embarked by midnight and ferried off to the ships. The local Beachmaster (Captain R. Pim, R.N.V.R.) searched the adjacent beaches for stragglers at midnight, and was informed by a Staff Officer that no more troops would embark from the La Panne beaches, but would march to Dunkirk, as it was anticipated that these beaches would be shelled and probably be in German hands the following day. This, as it turned out, was a correct forecast. The Beachmaster estimates that 5,000 men were lifted from the La Panne beaches during the evening and up to midnight.

59. At 1920 all ships in the fleets were informed by the Vice Admiral that the final evacuation of the B.E.F. was expected on the night 1st/2nd June, and that the evacuation of the French from Dunkirk and Malo beach would continue from 1st June by both British and French ships.

60. General Lloyd informed the D.M.O. of the new plan, stating that General Alexander had been placed in command of the final phase of the evacuation. Composition of force not known. Further, that it was impossible now to say how long the French evacuation would take but that the Alexander force would remain till the last. No firm information could be obtained from the French as regards:—

(i) The number of French troops to be evacuated.

(ii) The nature and extent of French sea-borne transport.

(iii) The French military plan for the defence of the perimeter and the final withdrawal of French troops.

61. *General Remarks:* The main features of the day were:—

(a) The increased enemy artillery activity on Dunkirk and La Panne beach, and on the approach channels.

(b) The set-back to evacuation from the beaches that occurred during the choppy weather of the forenoon, followed by an excellent recovery in the afternoon and evening when large numbers were lifted from the beaches.

(c) The change in the military plan as regards the locality and time of lifting the final contingents of the B.E.F.

It should be noted that in spite of (b) the rate of embarkation had, in fact, come up to expectations, and if other circumstances had permitted it would have been possible to adhere to the original plan of lifting the final 4,000 B.E.F. off the beaches between 0130 and 0300 1st June.

*Saturday, 1st June.*

62. Two Hospital Carriers which had sailed the previous evening returned shortly after dawn. Only one had succeeded in entering Dunkirk Harbour, the other had laid off four hours under heavy fire and returned to Dover. Four personnel vessels failed to enter Dunkirk during the night, but succeeded in the early hours of the morning. One of these, the PRAGUE, was bombed and severely damaged half-way across on the return journey, but succeeded in making the Downs with the assistance of tugs, where troops transferred to other ships particularly A/S trawlers LADY PHILOMENA and OLVINA. The supply of personnel vessels was maintained throughout the day, not without a series of setbacks caused by 3 ships failing to sail and by 2 being turned back when on passage by French Destroyers owing to heavy bombing and shelling of the approaches to Dunkirk. Of those that operated during the 24 hours, 1 was sunk, 2 damaged by bombs and shell-fire and 1 by collision.

63. During the middle watch it transpired that no further troops were attempting to evacuate from La Panne off which were stationed one paddle minesweeper, a fleet sweeper and two destroyers, probably due to the heavy shelling from German guns eastward, and later information was received that the troops were marching from La Panne through Bray towards Dunkirk. Accordingly, during the night the Rear Admiral, Dover, instructed all small craft to move west, with boats in tow, towards Dunkirk, and the Vice Admiral directed all ships under orders for La Panne to other positions further west, concentrating the main effort on the beach immediately east of Dunkirk.

To a request from Dunkirk for Hospital Ships, the Vice Admiral replied at 0715 that the large ship berths alongside at Dunkirk must be occupied by personnel ships and the wounded that could conveniently be embarked should go with personnel. This direction was in accordance with the Government policy previously communicated to the Vice Admiral.

64. Soon after dawn enemy aircraft were active and heavy bombing and machine gun attacks developed at 0500 over the whole area from Dunkirk to La Panne. A second series of attacks commenced at 0830 and lasted until 0900, during which time nearly every ship off the coast was subjected to intensive bombing and machine gunning, formations of 30 and 40 machines being noted. During this attack BASILISK was put out of action off La Panne and later sank while struggling home. KEITH, SALAMANDER and SKIPJACK, who were moving westward along the coast as the Bray and La Panne beaches had been emptied, were heavily bombed, the former was hit and set on fire and the latter sank. KEITH was abandoned and finally sank. Nearly all troops on board KEITH and the crews of both vessels were rescued by other ships. A third attack started over Dunkirk, extending well out along

Route X, and occurred between 1000 and 1040, to be again resumed at noon. After that there was a lull until 1550, when another attack was delivered on Dunkirk Harbour and all shipping therein for over half an hour. At 1800 the Vice Admiral received the following signal from Dunkirk: "Things are getting very hot for ships; over 100 bombers on ships here since 0530, many casualties. Have directed that no ships sail during daylight. Evacuation by transports therefore ceases at 0300. If perimeter holds will complete evacuation to-morrow, Sunday night, including most French. General concurs." The sense of this message was passed on to Rear Admiral, Dover, off the coast.

65. In addition to the heavy scale of air attack during the afternoon the sea traffic was very seriously interrupted by artillery fire brought to bear on Route X near No. 5 buoy. The fire appeared to be accurate and it is believed some French ships were sunk. Two French destroyers in the vicinity stopped British ships approaching from England on X Route short of this point, and it became evident that a very serious threat to daylight evacuation was in being. Meantime, the toll of casualties of ships during the day was mounting, particularly amongst the destroyers and shortly after midday the Commander-in-Chief, Nore, called the attention of the Admiralty to this, suggesting the discontinuation of the use of destroyers by day off the French coast. The summarisation of all these incidents led to the Admiralty directing the Vice Admiral, Dover, to suspend evacuation from Dunkirk at 0700, Sunday 2nd June, and for it to be resumed the following night or from 1730/2, depending upon the circumstances. From the above it will be seen that there were to be no ships proceeding to Dunkirk between 0700/2 and 1730/2. The above Admiralty directions crossed a message from the Vice Admiral stating that all ships had been ordered to withdraw from Dunkirk before daylight the following day, owing to the heavy casualties to shipping.

66. In spite of enemy action more than 60,000 troops were landed in the United Kingdom during the 24 hours, thanks to the unremitting determination of Naval vessels who all executed a succession of round trips, interrupted only by necessary refuelling and who accounted for 70 per cent. of this total. The majority of the surviving vessels had been operating ceaselessly for at least five days, and officers and men were approaching a condition of complete exhaustion.

67. As for personnel ships, steps were taken to place on board each a Naval Lieutenant Commander or Commander to advise the Master, and ten seamen to assist in handling the wires in going alongside under fire. By this means it was hoped not only to ensure the timely sailing of these essential ships, but also to eliminate the occasions when these vessels had remained outside Dunkirk Harbour to await a quiet opportunity to enter.

68. Early in the forenoon a number of Senior Officers were despatched from Dover in fast motor boats to round up all stray motor boats in the Downs and along the routes, and direct them back in the evening to the beach stretching 1½ miles eastward of Dunkirk, and a second large flight of tugs with lifeboats was prepared at Ramsgate to send over for what was hoped to be a final effort off the beach. In addition



a number of flotillas under Commodore A. H. Taylor and Captain the Hon. G. Frazer were reorganised for the night's effort.

69. General Alexander was informed at 0951 that on the likely assumption that complete evacuation would be ordered that night, the problem of transport made it essential to use the beach adjacent to Dunkirk as well as the harbour facilities and that the Vice Admiral was planning evacuation to start at 2200.

70. At 1841 the following signal was received from C.I.G.S. for the Senior Military Commander: "We do not order any fixed moment for evacuation. You are to hold on as long as possible in order that the maximum number of French and British may be evacuated. Impossible from here to judge local situation. In close co-operation with Admiral Abrial. You must act in this matter on your own judgment."

71. S.N.O. Dunkirk, was informed that drifters and other small craft would be sent into the inner harbour at Dunkirk to take troops from the Felix Faure Quay, North Quay, in the shipyard, and the quay in the new outer harbour.

72. The plan for the night provided for all minesweepers including paddlers, skoots and all small craft, except certain special flotillas especially organised, to go to the beach stretching eastward  $1\frac{1}{2}$  miles from Dunkirk. Dunkirk Harbour was to be served by up to seven personnel ships, eight destroyers, and the inner harbour nine drifters and special power boats organised from Ramsgate. The French vessels were to serve the Quay in the new outer harbour and private small boats, the Quay Felix Faure, and in addition about 100 French small beach fishing craft and drifters for the beach immediately east of Dunkirk. It was estimated that the British vessels could lift about 17,000 between 2100/1 and 0300/2, probably in the proportion 50 per cent. British and 50 per cent. French. The plan was set in motion without incident until 2200, when it was reported that a number of towing craft and small boats were returning empty from the coast. All ships were warned to look out for these and to send them back to their duty on the coast.

Subsequent investigation gives reason to believe that this defection was due to false information being passed between ships on the coast and believed to originate from a non-identified skoot.

73. Commander G. O. Maund proceeded to the mouth of the harbour in a motor boat commanded by a Dutch Naval Officer with a Dutch naval crew and led all ships into harbour to their berths. The Rear Admiral, Dover, was also afloat in a M.T.B. supervising traffic control.

By 2300 the night was very dark, sometimes as many as 6 or 7 vessels were entering the port of Dunkirk at once whilst yet others were leaving. All were without lights and displayed the highest degree of seamanship in these difficult and fateful circumstances.

74. At 2315 the S.N.O. Dunkirk signalled "Withdrawal now proceeding according to plan. Shall have certain reserves here tomorrow to assist French. Intend to complete evacuation tomorrow by midnight."

#### Remarks.

75. The outstanding feature of the day was the series of events leading to the abandonment of daylight evacuation. Increasing enemy air attack, which the R.A.F. were unable to smother with the means at their disposal, caused serious loss of ships, and continual interruption of embarkation on the beaches and in Dunkirk. Further, the sole remaining cross channel route was now under fairly heavy and accurate shore artillery fire.

In these circumstances, it was apparent that continuation of the operation by day must cause losses of ships and personnel out of all proportion to the number of troops evacuated, and if persisted in, the momentum of evacuation would automatically and rapidly decrease.

#### Sunday, 2nd June.

76. The arrangements to set in motion the night's evacuation had proceeded smoothly as far as could be ascertained at Dover. During the early hours, reports of sailings from Dunkirk indicated that destroyers at least were doing well.

At about 0200, however, a signal was received from LYDD, who was off the Dunkirk beach, as follows:

"Brigadier tells me that C.-in-C. says it is essential that rearguard B.E.F. embarks from the beaches east of Mole on account of French congestion on Mole. Considerable number British troops still on Mole. Military are expecting further arrivals there. Rear-guard expects to arrive at beach by 0230."

The Vice Admiral accordingly ordered all ships known to be outside Dunkirk Harbour to endeavour to embark the rearguard from the beach, remaining after 0300 if necessary. Owing to the time in transit and coding it was feared that this signal would reach few ships still on the coast, unless they had remained on their own initiative after 0300, the previously ordered time of withdrawal.

At 0200, authority was received from the Admiralty to continue evacuation by destroyers from Dunkirk Harbour until 0700, transports to leave Dunkirk at 0300.

77. During the early hours there was considerable haze and smoke off Dunkirk Harbour, Dunkirk East Beach, Dunkirk Roads and the entrance therefrom to X Route. For this reason some of the smaller vessels, including minesweepers, failed to make either Dunkirk Harbour or Dunkirk East Beach, but on the whole it appears that evacuation, both on the beach and from the harbour had proceeded satisfactorily with the resources available.

Between 0200 and 0900, 6 personnel vessels reached United Kingdom from Dunkirk Harbour with about 5,500 troops. Two others had been turned back before reaching Dunkirk by two unknown destroyers, and one had been in collision before reaching Dunkirk and had to return.

78. Considerable doubt existed during the forenoon as to the numbers remaining to be evacuated in Dunkirk. It was thought that 2,000, plus the 4,000 rearguard British troops, might well be found in Dunkirk. The number of French troops remaining was increasing from the 25,000 quoted the previous evening to figures in the region of 50,000 to 60,000.



79. The Rear Admiral, Dover, arrived back from the coast in a M.T.B. and during the forenoon a joint Naval and Military conference was held to devise a plan for the forthcoming night's evacuation. The fact that evacuation traffic was suspended in daylight hours enabled all transport resources to accumulate during the day and to be held available for a massed descent upon Dunkirk Harbour during the night. By making provision for increased pier and berthing parties and traffic controlled by motor boat in the harbour channels, it was hoped to berth all craft that were available between the hours of 2100/2 and 0300/3.

The times of sailing of all vessels were adjusted so as to space them out over the evacuation period at Dunkirk, and allowance was made for a proportion failing to make the passage.

The French agreed to make their own arrangements for embarkation from the Dunkirk East Beach and the West Pier on the new outer harbour.

At 1530 two R.A.F. Motor Boats, 243 and 270, left in company for Dunkirk carrying Commander J. C. Clouston and an augmented pier party. When off Gravelines attacks were made on the boats by eight Junkers 87 with machine guns and small bombs. No. 243 had a near miss which damaged her. For ten minutes No. 270 carried on trying to avoid attacks. She then returned to No. 243 but Commander Clouston who was in the water instructed 270 to proceed. Destroyers were instructed to look for survivors. Two were picked up only. One stated that he saw Commander Clouston dead in the water.

80. At 1030 an urgent request transmitted "en clair" was received from Dunkirk for Hospital Ships as follows:—

"Wounded situation acute and Hospital Ships should enter during day. Geneva Convention will be honourably observed it is felt and that the enemy will refrain from attacking."

As this appeared to be the only way of evacuating the wounded, observing that the whole facilities of the port during the night evacuation hours would be required for fighting troops, it was decided to send two Hospital Ships. The *WORTHING* sailed at 1300 and the *PARIS* at 1700. At 1440, the A/S patrol was overheard on R/T reporting that the *WORTHING* was being bombed at a point about two-thirds of the way across the Channel. She returned to United Kingdom reporting that she had been attacked by 12 Junkers. The attack caused no casualties, but plates were started and there was some superficial damage. She had to return to harbour to refuel before commencing another trip to Dunkirk.

At 1915 *PARIS* reported that she was bombed and badly damaged with engines useless, at the point where the *WORTHING* had been attacked, and at 1947 she sent out an S.O.S. Tugs were sent to her assistance.

Thus the last attempt to evacuate the wounded by Hospital Carrier from Dunkirk was brought to nought.

The *PARIS* subsequently sank shortly after midnight at W. Buoy 10 miles off the French coast.

81. At 1700 movement towards Dunkirk commenced. The Armada consisted of 13 personnel vessels, 2 large store carriers, 11 destroyers, 5 paddle minesweepers 9 fleet sweepers 1 special service vessel 9 drifters 6 skoots, 2 armed yachts, 1 gunboat, a large number of tugs, lifeboats, etc. formed either in organised tows or free lance. The composition of the French contingent was unknown, it was thought to consist of 6 small destroyers, 4 avisos and about 120 fishing craft.

82. At 1538 the S.N.O. Dunkirk made the following situation report:—

"French still maintain front line except for area east of Bergues where the Germans have penetrated two miles on a two-mile front. Counter attack being made at 1500. In port no movement. Present situation hopeful."

83. At 2145 it was learned that the *ROYAL DAFFODIL*, the first of the personnel vessels, had been bombed near the North Goodwin Light Vessel on the outward passage whence she returned to Ramsgate. At 2200 it was learned that loaded vessels were leaving Dunkirk.

84. At 2330 S.N.O. Dunkirk reported "B.E.F. evacuated."

*Monday, 3rd June.*

85. The hopes that a large number of French troops would be lifted following the completion of B.E.F. embarkation, was shaken when at 0030 Rear Admiral, Dover, reported from Dunkirk that four ships were now alongside, that there were no French troops. Reported again at 0115, "Plenty of ships cannot get troops."

At 0312, Dunkirk reported that all ships were leaving and that the block ships had entered.

When the ships returned to United Kingdom, it was learnt that the flow of French troops had dwindled away shortly after midnight. One ship waited 2½ hours to embark her load instead of the normal half hour. A possible explanation was thought to be that a French counter attack, which had been arranged for the afternoon of the 2nd, had had to be postponed to the evening, no doubt deranging despatch of troops to the rear for evacuation. The result was that between midnight and 0300/3 a lifting capacity of about 10,000 was left empty.

86. The night's embarkation at Dunkirk had been carried out without disturbance by enemy action. During the forenoon a conference was held at Dover to improve the arrangements for the night 3/6-4/6 as a result of experience gained. The general plan remained unaltered except that provision was made for the use by British ships of the west pier in the New Outer Port, since it appeared that the French had insufficient ships at their disposal to make full use of this valuable berth. Similarly a number of power boats which had been working off the Malo Beach were, on this occasion, to be sent in to Quay Felix Faure. No assurance could be obtained that this coming night would terminate the operation and considerable anxiety was felt regarding the effect of the gradual exhaustion of officers and men of the ships taking part in the "Dynamo." This exhaustion was particularly marked in the Destroyer force the remnants of which had been

executing a series of round trips without intermission for several days under navigation conditions of extreme difficulty and in the face of unparalleled air attack.

The Vice Admiral accordingly represented to the Admiralty that the continuance of the demands made by evacuation would subject a number of officers and men to a test which might be beyond the limit of human endurance, and requesting that fresh forces should be used if evacuation had to be continued after the coming night, with the acceptance of any consequent delay.

87. The evacuation plan was communicated to Units taking part at 1440 and was briefly as follows:—

Commence 2230/3, withdraw 0230/4. From East Pier evacuation by Personnel Vessels, Destroyers and Paddle Minesweepers. From West Pier, new outer port, by other Minesweepers, Corvettes, Skoots and French vessels. Drifters and smaller craft into the inner harbour, LOCUST remaining outside entrance receiving loads ferried out by small boats. Tugs available outside entrance to assist ships in berthing and in leaving.

88. In the evening the Vice Admiral was informed by the B.N.L.O. Marceau that it was estimated 30,000 French remained and that the French Admiralty agree that evacuation should be terminated that night if possible. Force used was to consist of nine Personnel Vessels with one in reserve, nine Destroyers (maximum number available), four Paddle Minesweepers, seven Fleet Minesweepers, nine Drifters, LOCUST, two Corvettes, four French Destroyers and a number of organised motor boat flotillas including lifeboats from Ramsgate and Dover, together with a large number of French and Belgian fishing vessels. The lifting capacity of this force, if used to the full, was more than 30,000 but it was certain that the facilities within Dunkirk could not permit more than about 25,000 to be embarked in the time available, and this number only if the French troops moved with the greatest rapidity at all points of embarkation. This point was impressed upon the French Liaison Officers and a number of French officers and ratings added to the augmented pier parties which were despatched to Dunkirk at 2200 in advance of the evacuation force.

89. The movements commenced according to plan. The weather conditions at Dunkirk, although favourable as regards tide were adverse with a north easterly wind tending to blow Personnel Vessels and Destroyers off the vital East Pier making berthing difficult. The MANXMAN, the seventh Personnel Ship due to sail failed to sail, and her place was taken by the ROYAL SOVEREIGN.

*Tuesday, 4th June.*

90. At midnight when the earlier vessels had commenced the return voyage fog was reported in mid-channel and off the Thanet coast and a number of ships had to anchor before entering harbour. The EXPRESS and SHIKARI were the last ships to leave Dunkirk at 0318 and 0340 and carried approximately 1,000 troops and the British pier parties. Except for an air attack on SHIKARI this final passage was made without interruption by the

enemy and though the fog made navigation extremely difficult it undoubtedly served to shield the Armada from enemy aircraft.

91. When the count was taken later in the day it was ascertained that 27,000 troops had been evacuated as a result of the night's operation and Admiral Nord agreed that the operation should be considered as completed, observing that all ammunition at Dunkirk had been expended and that the numbers left behind were small consisting principally of non-combatant troops. This decision was agreed to by the French Admiralty at 1100, and the operation "Dynamo" terminated by Admiralty Message 1423/4.

92. It was realised that in all probability there might be a number of open boats, barges, etc., drifting about in the Channel with troops on board. It was accordingly decided to have an air reconnaissance over the Channel.

It was reported that a Transport was lying on its side between Dunkirk and Gravelines and also a barge east of the Goodwins with survivors on board.

C. in C. Nore despatched 2 M.T.B.s to find the transport with no avail. On the 5th the R.A.F. speedboat did a sweep south of a line Goodwin/Boulogne and recovered 33 French troops and two Naval ratings. In addition French troops were picked up by patrols and brought in to Dover, Margate and Ramsgate. Troops also arrived in French and Belgian Trawlers totalling in all some additional 1,100.

Air reconnaissance was also carried out on the morning of the 5th but nothing was reported.

#### REMARKS ON THE INSHORE FLOTILLAS AND NAVAL SHORE PARTIES.

93. About 400 small craft, ranging from Dutch Skoots to 30 ft. Motor boats, set out at various times to the Flanders Coast. In addition scores of pulling boats, merchant ship lifeboats, Naval cutters and whalers, were sent off in tow. Only a proportion—particularly of the pulling boats—succeeded in reaching the coast and taking active part in the evacuation. Fewer still were able to remain off the coast for more than one period. Nevertheless, these small craft, in conjunction with the pulling and power boats of H.M. Ships off the coast, were responsible for lifting more than 100,000 Allied troops direct off a stretch of open beach in shoal waters between 1600/27/5 and 0400/2/6. Further, a large number of the power boats operated within Dunkirk Harbour on the last three nights, working principally in the inner harbour, which was continually under artillery fire, ferrying a further large uncounted number out to the comparative safety of ships lying off.

94. Throughout the period all these craft of the inshore flotillas were subjected at one time or another to intense attack from the air, both by bombing and machine gun, and a large proportion also to sporadic bombardment by German artillery. Under this fire no case occurred of boats ceasing work as long as troops were in sight on shore, and movements of boats westward away from the fire zone only occurred as dictated by the military situation ashore.

95. The initial despatch of requisitioned and volunteer small craft was controlled from—

Naval Control Service, London,	
Westminster Pier,	Ramsgate,
Gravesend,	Dover,
Southend,	Newhaven,
Sheerness,	Portsmouth,

preliminary action in most cases having originated in the Admiralty Small Vessels Pool. As the operation proceeded, Ramsgate was used as the main base for such craft, as being nearest to Dunkirk, but a small number of motor boats and skoots continued to work from Dover.

96. The work of servicing this multitude of small craft entailed an enormous amount of work by the base organisation at Ramsgate, and to a lesser extent at Dover. Items typical of the work of the Ramsgate organisation are as follows:—

(a) Approximately 1,000 charts were issued by the Naval Control Service, Ramsgate, to the various vessels taking part, some 600 of which had the routes laid off on them for those Commanding Officers who had neither parallel rules nor dividers, together with approximately 500 sets of routing instructions.

(b) During the period 26th May to 4th June the number of vessels dealt with for defects of all kinds, included power, engine and electrical, at Ramsgate, was 170. Included in this number were Dutch Skoots, Tugs, Drifters, Trawlers, Motor Lighters, Ferry Floats and Motor Boats of every conceivable type.

(c) All the small craft were initially without armament. Seventy-five of the larger Motor Boats, Skoots and Tugs were armed with A.A. Lewis guns at Ramsgate, this armament being transferred from vessel to vessel as requisite during the operation. Twenty-three Lewis gunners arrived from London and 2 officers with 12 R.A.S.C. cadets were also accepted for this service at Ramsgate. When British fighting troops were being evacuated in the later stages, the soldiers invariably mounted and fought their Bren guns as A.A. armament for the ship they were in.

97. A large number of boats were quite unsuitable for work off an open beach. For example, a convoy of 6 Thames Bawley boats were shepherded over from Southend and arrived off Dunkirk beach at 1930/31 but owing to ground swell and the many offshore obstacles, such as semi-submerged lorries, it was considered impracticable to beach these craft. Bawley boats accordingly went along the outside of the East Pier of Dunkirk Harbour and started ferrying service to the Skoots lying empty outside the harbour entrance. The swell alongside made embarkation duties from outside the jetty too difficult, so Bawley boats proceeded inside Dunkirk Harbour working mainly from the inner harbour which was under heavy shell fire. All Bawley boats were loaded up and left harbour about 0300/1. On reaching Ramsgate at 0930/1 the boats were so much damaged as not to be fit for further service.

The conduct of the crews of these cookey boats was exemplary. They were all volunteers who were rushed over to Dunkirk in one

day, probably none of them had been under gun fire before and certainly none of them had ever been under Naval discipline. These boats were Thames Estuary fishing boats which never left the estuary and only one of their crews had been further afield than Ramsgate before. In spite of this fact perfect formation was maintained throughout the day and night under the control of a Sub-Lieutenant, R.N.V.R., in command of the Unit and all orders were carried out with great diligence even under actual shell fire and aircraft attack.

98. The difficulties of passage from the United Kingdom to the Flanders coast were great. With compasses of doubtful accuracy and no navigational instruments other than a lead pencil, once a boat lost contact with a main convoy the chances of making a correct landfall in the strong currents of the straits were slight. Many of the small craft had not even a compass, yet all who left the Flanders coast in safety managed to reach the English coast to refuel and the majority set off again to repeat the adventure. Cases occurred, however, of boats attempting to enter Calais instead of Dunkirk, where they received a rousing reception from the Boche, and yet another case where the landfall was made between Gravelines and Calais and the Sub-Lieutenant in command landed, finding it necessary to shoot two German soldiers before leaving for his proper destination of Dunkirk.

Open boats of all kinds, from the naval cutters and whalers to seaside dinghies, were towed over from England by the motor boats themselves or in special tows by tugs. Some of these pulling boats were manned by odd naval ratings as boat keepers, and others by soldiers off the beach. One of the principal difficulties was to avoid fouling the motor boats' screws with painters and lines attached to all these pulling boats. Carley floats and inflated motor inner tubes also played their part in carrying men from the beach to the motor boats.

99. Having reached the coast the business of ferrying from the water line to the offshore craft was by no means easy. Apart from the surf, which was usually experienced for some hours every day, derelict lorries, which had been abandoned below the high tide mark, proved a serious danger to boats. Another source of much trouble close inshore was the large amount of floating grass rope which various craft had used and lost in their rescue work, and numerous articles of military equipment such as great coats jettisoned during the evacuation. A great number of small power boats were put temporarily out of action by such ropes and garments fouling the screws, usually resulting in broaching to and being swamped while they were thus unmanageable.

The number of soldiers taken off the beaches by motor boats cannot be estimated. One 35 ft. motor launch, however, ferried off 600 men to transports and carried 420 direct to England.

100. Of the pulling boats used, the main difficulty was insufficient provision made for Naval boat keepers to take charge of the outgoing boats and bring them back to the disembarkation points. As a result the soldiers detailed to act as boat keepers for an outward trip, failed to return the boat on the inward trip and it was necessary for the Naval boat

keepers to swim or to wade out to the drifting boats which had been cast away by the soldiers on disembarkation.

101. By the night of the 30/31st a considerable number of collapsible boats and pontoons had been received from the Royal Engineers of the B.E.F. These were of great assistance and paddled off about 10 men in each trip, but again, in spite of all efforts, in the vast majority of cases the soldiers left these craft when they arrived at the offshore ship.

102. Much of the most meritorious work of lifting off the beaches was done by the offshore warships' own boats, who were tireless in their efforts. All small pulling boats and small power boats were lowered and were lent from ship to ship when their own parent ship left the coast to unload at a United Kingdom port. In addition, H.M. Ships seized drifting and abandoned boats as opportunity offered and manned them up with boat keepers. Owing to the physical exhaustion of these boats' crews after hours of work, relief crews of stokers were frequently provided from amongst the many volunteers that came forth.

103. A typical example of dogged work by a ship's boat was afforded by the action of JAVELIN'S and JAGUAR'S boats off Bray beach in the afternoon of 28/5. When their two motor cutters and two whalers first grounded offshore they were rushed and swamped by soldiers. Order being restored the boats had to be baled out and the wet engines restarted, following which 700 troops were embarked by these few boats in a short time during continuous bombing attacks.

104. Of the power boats available by far the most useful and suitable were the A.L.C.s, M.L.C.s\* and the small type of R.N.L.I. lifeboat. The high speed service motor boats such as DOLPHIN'S and EXCELLENT'S boats and the R.A.F. Seaplane tenders proved unsuitable for work in shallow waters on a lee shore owing to the vulnerability of their propellers and rudders and their poor manoeuvring powers at low speeds.

105. Of the civilian manned craft one of the best performances was that of the London Fire Brigade fire float MASSEY SHAW. All the volunteer crew were members of the London Fire Brigade or Auxiliary Fire Service and succeeded in doing 4 round trips to the beaches in their well-found craft. Reference should also be made to the Royal National Lifeboat Institution crews of the Ramsgate and Margate lifeboats who took their boats over to Dunkirk.

106. Locally, at both Ramsgate and Dover a number of civilian volunteers came forward to man the boats and to drive their engines. These men did good work.

107. At both Ramsgate and Dover when the business of manning these civilian power boats was set about the same difficulties were experienced:—

(i) of obtaining drivers with knowledge of the very varied types of internal combustion engines;

(ii) of making the engines of these boats run, most of them having been laid up since the previous summer.

Throughout the operation all engines continued to give trouble. Many engines were old and almost all were of different types. Several boats could not be used as they had diesel engines and no stokers or civilians trained in these were available. Each engine, especially the older ones, required careful nursing, and signs of distress from the engines were not understood. These difficulties were partly overcome by obtaining engine drivers from Chatham and by the provision of cadet ratings, and Sub-Lieutenants, R.N.V.R. from KING ALFRED who claimed knowledge of I.C. engines, but many engines were of types unknown even to these.

108. Fresh water for the motor boats was difficult to supply in sufficient quantity, owing to lack of water tanks in most boats, especially those of the open type. Large supplies were required as the troops were reported to be suffering severely from thirst. Both at Ramsgate and Dover the Base Staff provided as many galvanised iron cylinders and tanks as could be found and made serviceable, and these proved most satisfactory.

109. On two occasions skoots and small boats approaching the coast were turned back through false information. On the first occasion on the afternoon of 28th May, at least 6 skoots, who were without definite orders where to proceed, encountered a returning skoot when about 10 miles off the coast. This skoot stated that Dunkirk had already fallen into German hands and that the evacuation had ceased. As a result of this ill-judged comment, the arrival of at least 6 skoots was delayed at over 24 hours, until this situation had been cleared up.

The second occasion occurred during the night of 1st June, and has been referred to in paragraph 72 of the narrative. On this occasion although the services of a number of small craft were lost to the coast, it transpired that sufficient were already there to cope with the troops available.

110. An important flotilla was formed by 40 Dutch motor coasters, referred to in this report as skoots, 21 of whom were commissioned at Tilbury and Sheerness, and 19 at Poole. All these vessels ultimately made the Flanders coast and operated with a varying degree of success, usually governed by the reliability of their strange engines when handled by Naval stoker ratings. Too large to be used as beaching craft except under the best conditions, they were mainly used as intermediaries between the small boats and the offshore warships to reduce the distance the pulling boats had to traverse and periodically returned to U.K. themselves fully loaded when beach work ceased, or the supply of reception warships temporarily decreased.

Some of these skoots handled more than 1,000 troops during the course of the operation.

111. It is of interest to note that on the final night after the last two destroyers had left at 0340 a number of the larger power boats continued to work in Dunkirk Harbour and only left when they came under small arms fire from German troops who had penetrated into Dunkirk at certain points.

112. About 30 Naval Officers and 320 ratings were employed for varying periods in pier parties and at shore signal stations in Dunkirk and as beach parties. A great number worked

\* Admiralty footnote: M.L.C. = Mechanised Vehicle Landing Craft.

unceasingly without relief or rest, exposed to incessant air attacks, for seven days. The work of these officers and men was of the greatest value and contributed largely to the success of the undertaking.

113. As regards the bearing and behaviour of the troops, British and French, prior to and during the embarkation, it must be recorded that the earlier parties were embarked off the beaches in a condition of complete disorganisation. There appeared to be no Military officers in charge of the troops, and this impression was undoubtedly enhanced by the difficulty in

distinguishing between the uniforms of such officers as were present and those of other ranks. It was soon realised that it was vitally necessary to despatch Naval Officers in their unmistakable uniform with armed Naval beach parties to take charge of the soldiers on shore immediately prior to embarkation. Great credit is due to the Naval officers and Naval ratings for the restoration of some semblance of order. Later on when troops of fighting formations reached the beaches these difficulties disappeared.

Dover,  
18.6.40.

#### APPENDIX I TO F.O. DOVER'S DESPATCH

*List of H.M. Ships, Personnel Ships and Hospital Carriers taking part, showing those lost or damaged (by bomb, gunfire, mine or collision)*

##### A.A. Cruiser CALCUTTA

##### Destroyers

BASILISK ... .. (sunk 29th May)	HAVANT ... .. (sunk 1st June)
GRAFTON ... .. ( " " " )	KEITH ... .. ( " " " )
GRENADE ... .. ( " " " )	WAKEFUL ... .. ( " " " )
ANTHONY ... .. (damaged 30th May)	SABRE ... .. (damaged 30th May and 2nd June)
EXPRESS ... .. ( " 31st " )	
GALLANT ... .. ( " 29th " )	SALADIN ... .. ( " 29th May)
GREYHOUND ... .. ( " 29th " )	SCIMITAR ... .. ( " 31st " )
HARVESTER ... .. ( " 31st " )	VENOMOUS ... .. ( " 1st June)
ICARUS ... .. ( " 31st " )	VIMY ... .. ( " 1st " )
IMPULSIVE ... .. ( " 31st " )	VIVACIOUS ... .. ( " 1st " )
INTREPID ... .. ( " 29th " )	WHITEHALL ... .. ( " 1st " )
IVANHOE ... .. ( " 1st June)	WINDSOR ... .. ( " 28th May)
JAGUAR ... .. ( " 29th May)	WOLFHOUND ... .. ( " 29th " )
MALCOLM ... .. ( " 31st May and 2nd June)	WOLSEY ... .. ( " 31st " )
MONTROSE ... .. ( " 29th May)	WORCESTER ... .. ( " 30th " )

BLYSKAWICA (Polish)  
CODRINGTON  
ESK  
JAVELIN

MACKAY  
SHIKARI  
VANQUISHER  
VERITY

WHITSHED  
WILD SWAN  
WINCHELSEA

Total 41, of which 6 were sunk and 23 damaged.

##### Sloops and Gunboats

BIDEFORD ... .. (damaged 1st June) MOSQUITO ... .. (sunk 1st June)  
LOCUST

##### Corvettes

KINGFISHER ... .. (damaged 1st June) GUILLEMOT

##### Guardships and Armed Boarding Vessels

KING ORRY (damaged 27th May and sunk 30th May) LLANTHONY  
MONA ISLE ( " 27th May and 1st June) LORMONT

##### Minesweepers

BRIGHTON BELLE (sunk 28th May) SKIPJACK ... .. (sunk 1st June)  
DEVONIA ... .. ( " 31st " ) WAVERLEY ... .. ( " 29th May)  
GRACIE FIELDS ... .. ( " 28th " )

*Minesweepers—cont.*

HEBE... .. (damaged 31st May) PANGBOURNE ... (damaged 29th May)  
 KELLETT ... .. ( „ 29th „ ) WESTWARD HO ... ( „ 31st „ )

ALBURY	HALCYON	QUEEN OF THANET
BRIGHTON QUEEN	LEDA	ROSS
DUNDALK	LYDD	SALAMANDER
DUCHESS OF FIFE	MARMION	SALTASH
EMPEROR OF INDIA	MEDWAY QUEEN	SANDOWN
FITZROY	NIGER	SNAEFELL
GLEN AVON	ORIOLE	SPEEDWELL
GLEN GOWER	PLINLIMMON	SUTTON
GOSSAMER	PRINCESS ELIZABETH	SHARPSHOOTER

Total 36, of which 5 were sunk and 4 damaged.

*Trawlers (Minesweeping, Anti-Submarine and "LL" sweep)*

ARGYLLSHIRE ... (sunk 1st June)	POLLY JOHNSON... (sunk 29th May)
BLACKBURN	
ROVERS ( „ 2nd „ )	STELLA DORADO... ( „ 1st June)
CALIR ... .. ( „ 29th May)	THOMAS BARTLETT ( „ 28th May)
COMFORT ... .. ( „ 29th „ )	THURINGIA ... ( „ 29th „ )
NAUTILUS ... .. ( „ 29th „ )	WESTELLA ... .. ( „ 2nd June)

KINGSTON	
ALALITE (damaged 2nd June)	SPURS ... .. (damaged 2nd June)

ARLEY	GRIMSBY TOWN	LORD INCHCAPE
BOTANIC	GULZAR	MARETTA
BLOCK	INVERFORTH	OLVINA
CAYTON WYKE	JOHN CATLING	OUR BAIRNS
CHICO	KINGSTON ANDALUSITE	SAON
CORRIDAW	KINGSTON OLIVINE	SARGASSO
FLYDEA	LADY PHILOMENA	WOLVES

Total 33, of which 10 were sunk and 2 damaged.

*Special Service Vessels*

AMULREE ... .. (sunk 1st June)	CRESTED EAGLE... (sunk 29th May)
GRIEVE ... .. ( „ 1st „ )	

GOLDEN EAGLE

ROYAL EAGLE

Total 5, of which 3 were sunk.

*Drifters (Mine Recovery and Flare Burning).*

BOY ROY ... .. (sunk 28th May)	LORD CAVAN ... (sunk 1st June)
GIRL PAMELA ... ( „ 29th „ )	PATON ... .. ( „ 28th May)

EILEEN EMMA	GOLDEN SUNBEAM	SILVER DAWN
FIDGET	JACKETA	THE BOYS
FISHER BOY	LORD HOWARD	TORBAY II
FORECAST	LORD HOWE	UT PROSIM
GERVAIS RENTOUL	MIDAS	YORKSHIRE LASS
GIRL GLADYS	NETSUKIS	YOUNG MUN
GOLDEN GIFT	SHIPMATES	

Total 24, of which 4 were sunk.

M.T.Bs. 16, 67, 68, 100, 102 and 107.

M.A.S.Bs. 6, 7 and 10.

#### Personnel Ships

FERRELLA ...	(sunk 29th May)	NORMANIA ...	(sunk 29th May)
LORINA ...	( „ „ „ )	QUEEN OF THE CHANNEL	( „ 28th „ )
MONA'S QUEEN ...	( „ „ „ )	SCOTIA ...	( „ 1st June)

BEN MY CHREE ...	(damaged 2nd June)	PRAGUE ...	(damaged 1st June)
BIARRITZ ...	( „ 27th May)	PRINCESS MAUD ...	( „ 30th May)
CANTERBURY ...	( „ 29th „ )	ROYAL DAFFODIL	( „ 2nd June)
MAID OF ORLEANS	( „ 1st June)	ST. SEIROL ...	( „ 29th May)

ARCHANGEL	LADY OF MAN	NEWHAVEN
AUTOCARRIER	LOCH GARRY	ROUEN
COTE D'ARGENT	MALINES	ROYAL SOVEREIGN
KILLARNEY	MANX MAID	ST. HELIER
KING GEORGE V	MANX MAN	TYNWALD

Total 29, of which 6 were sunk and 8 damaged.

#### Hospital Carriers

PARIS ...	(sunk 2nd June)
-----------	-----------------

ISLE OF GUERNSEY	(damaged 29th May)	ST. JULIAN ...	(damaged 30th May)
ISLE OF THANET	( „ 27th „ )	WORTHING ...	( „ 2nd June)
ST. DAVID ...	( „ 1st June)		

DINARD

ST. ANDREW

Total 8, of which 1 was sunk and 5 damaged.

- Note.—1. In addition some 23 of H.M. Trawlers, Drifters and Yachts of the Nore Command assisted by taking one or more tows of boats to the French coast.  
2. A large number of skoots, launches, motor boats, ships' lifeboats, Naval cutters and whalers were wrecked or foundered during the operations.

#### APPENDIX II TO F.O. DOVER'S DESPATCH

*Daily List of Disembarkation in U.K. Ports, classified by types of ships*

Date	Destroyers	Personnel Ships	Minesweepers	Paddle Mine-sweepers	Trawlers	Skoots	Drifters	Hospital Carriers	Miscellaneous	French Destroyers	Other Vessels	Total
26th May	—	2,287	—	—	—	—	24	—	1,936	—	—	4,247
27th „	—	3,168	—	—	—	—	—	—	2,550	—	—	5,718
28th „	11,327	2,161	420	1,336	100	—	3,138	—	45	—	—	18,527
29th „	15,972	17,525	4,307	1,454	3,894	90	2,158	818	3,133	460	520	50,331
30th „	18,554	2,981	7,671	1,477	7,405	1,116	2,931	780	5,293	2,620	2,399	53,227
31st „	25,722	12,477	4,714	2,682	3,976	1,797	2,938	907	4,596	2,026	2,306	64,141
1st June	14,440	11,314	7,594	9,148	2,762	647	1,797	130	10,803	651	2,271	61,557
2nd „	5,649	4,977	1,842	2,075	900	1,975	2,632	—	2,649	—	905	23,604
3rd „	6,432	7,477	2,552	1,777	50	418	2,526	—	3,018	750	4,641	29,641
4th „	5,303	10,013	1,940	1,079	1,200	418	2,023	—	2,637	1,116	1,960	27,689
Total...	103,399	74,380	31,040	21,028	20,287	6,461	20,167	2,635	36,660	7,623	15,002	338,682

Notes.—1. This list is not complete as a number of vessels did not record their totals.

2. Evacuation after 1st June was by night only.



## APPENDIX III TO F.O. DOVER'S DESPATCH

*Summary of Aircraft Data concerning R.N.**Naval Aircraft Employed*

Squadron No. 801	} "Skuas"
" No. 806	
Squadron No. 815	} "Swordfish"
" No. 825	
Squadron No. 826	"Albacore"

These aircraft were the only available British "dive bombers," the R.A.F. possessing none at the time.

These squadrons operated under the orders of Coastal Command and carried out attacks on tanks, transport, batteries, gun emplacements and enemy positions in the Calais and Dunkirk areas as well as attacks on E-Boats.

In spite of their relative inadequacy for the purpose the "Skuas" were also detailed for fighter-escort of ships.

*Enemy Aircraft Destroyed by Ships' fire off Dunkirk*

(between 0300/27th May and 0000/1st June)

27th May	...	...	...	...	4
28th "	...	...	...	...	3
29th "	...	...	...	...	4
30th "	...	...	...	...	Nil*
31st "	...	...	...	...	11
1st June	...	...	...	...	13
TOTAL	...	...	...	...	35

In addition over the same period 21 others were heavily damaged by ships' fire and seen in distress but not seen to crash definitely.

Notes.—\* On 30th May flying conditions were bad and few enemy aircraft operated. After 1st June evacuation proceeded only between evening dusk and dawn.

## APPENDIX IV TO OPERATION "DYNAMO"—NARRATIVE OF EVENTS

*Co-operation of the French Navy*

(a) The following French warships and other vessels wearing the French flag were employed evacuating French troops from Dunkirk harbour, and on the last three nights, from the beach  $1\frac{1}{2}$  miles eastward from Dunkirk :—

<i>Destroyers</i> (9)	BRANLEBAS	INCOMPRISE	SIROCCO
	BOUCLIER	BOURRASQUE	CYCLONE
	FLORE	FOUDROYANT	MISTRAL

*Avisos* (4) AMIENS      BELFORT      ARRAS      AMIRAL MOUCHEZ

*Fast Motor Boats* ... 3

*Sub Chasers* ... 3

*Auxiliary Minesweepers* 6

*Small Cargo Vessels* ... 3 or 4 carrying munitions to Dunkirk returning with troops.

*Trawlers, Drifters and other small craft.* 167 concentrated from the French coast between Boulogne and Cherbourg, and employed mainly off the beach. In addition the French mail packets COTE D'ARGENT, COTE D'AZUR, NEWHAVEN and ROUEN were transferred to the orders of the Vice-Admiral, Dover, and were employed as required side by side with the British personnel vessels.

(b) The French losses included :—

*Destroyers* : BOURRASQUE and FOUDROYANT sunk by bomb, and SIROCCO by torpedo. CYCLONE badly damaged by torpedo, and MISTRAL by bomb.

*Trawlers, etc.* : EMILE DESCHAMPS and DUPERRÉ, the drifter PIERRE MARIE and 15 other small craft were sunk, including the Dutch yacht DEMOG I under French orders.

*French packet* : COTE D'AZUR sunk by bombs before her first trip.

(c) Covering patrols, mainly in the Dyck, were provided by the two small cruisers LEOPARD and EPERVIER, and when not employed evacuating troops, the four avisos acted as escorts along "X" Route.

(d) Of the troops landed in U.K. during "Dynamo," the following French troops were carried in the above French vessels.

Date of disembarkation in U.K.	French troops disembarked in U.K.	
	Carried by French Vessels	Total by French and British Vessels.
27th May ... ..	Nil	Nil
28th " ... ..	Nil	Nil
29th " ... ..	655	655
30th " ... ..	5,444	8,616
31st " ... ..	4,032	14,874
1st June ... ..	2,765	35,013
2nd " ... ..	905	16,049
3rd " ... ..	4,235	19,803
4th " ... ..	2,349	26,989
5th " ... ..	140	1,096
TOTALS ... ..	20,525	123,095

Besides the above 20,525 troops landed in U.K., an unknown number was transported direct to French ports in French vessels.

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