35 enemy torpedo craft and about 30 submarines. By reason of its position and comparative security it has constituted a continual and ever-increasing menace to the sea communications of our Army and the seabornetrade and food supplies of the United Kingdom.

6. When the operations of the 22nd-23rd April were undertaken it was believed that, although the blocking of the Zeebrugge entrance to the Bruges ship-canal was the most important of all objects, it would be necessary also to block the entrance to the Ostend harbour in order to seal up the Bruges ship-canal and docks; for unless this were done the lighter-craft would still be able to pass to and fro more or less freely through the smaller canals.

- 7. The attack upon the Zeebrugge Mole, as well as the bombardment of Zeebrugge by monitors and from the air, were designed to distract the attention of the enemy from the main operations. Without this diversion the attempt of the blocking ships to pass round the end of the Mole, to enter the harbour, and to reach the ship-canal entrance at the inner end must almost certainly have been discovered, with the result that the vessels would have been sunk by the shore batteries long before they reached their goal.
- 8. An important, though subordinate, object of the attack upon the Zeebrugge Mole was to inflict as much damage as was possible in the time upon the harbour works and defences. In order to prevent enemy reinforcements being brought from shore while this work was in progress arrangements were made for blowing up the viaduct which connected the Mole with the land.
- 9. Similarly the bombardment of the Ostend defences by our shore batteries in Flanders, by the monitors and also from the air was designed to cover the attempt to block the entrance to that harbour.
- 10. It was anticipated that, in addition to the fire from the land batteries and harbour works, the attacking forces would have to face a counterattack from the powerful destroyer flotilla which was known to be inside. One destroyer emerged from Zeebrugge harbour, and is reported to have been struck by a torpedo fired from C.M.B. No. 5. Other torpedo craft, which apparently had not steam up, remained alongside the Mole, and their crews assisted in its defence. The greater part of the flotilla had for some reason been previously withdrawn to the Bruges docks.
- 11. As will be seen from the subsequent narrative, our operations were completely successful in attaining their first and most important The entrance to the Bruges ship-canal was blocked. The second object—the blocking of the entrance to Ostend harbour-was not achieved, for reasons which will be explained The attack on the Zeebrugge subsequently. Mole was completely successful as a diversion to enable the blocking ships to enter the harbour, to proceed to their allotted stations, and, with the exception of the "Thetis," to be sunk The blowing up in accordance with the plan. of the viaduct was carried out without any and produced the desired results. Owing, however, to various reasons which will be more particularly dealt with later, the less important objective, the destruction of the defences on the Mole, was not so thorough as had been hoped.

- 12. The main results achieved have, however, proved greater than I expected when the fleet returned to port on the morning of the 23rd April. Aerial observation and photographs show clearly that even the lighter \mathbf{the}^{\prime} Bruges ship-canal craft docks have so far been unable to find an exit through the smaller waterways to Ostend harbour. At least 23 torpedo craft have remained sealed up at Bruges ever since the operations on St. George's Day, and so far as can be seen not less than 12 submarines would likewise appear to be still imprisoned. As yet no effective steps seem to have been taken to clear the Zeebrugge entrance to the Bruges ship-canal, where the silt is shown to be collecting; and although doubt-less in time the enemy will succeed in opening a way out, it seems likely that this important section of his raiding and commerce-destroying forces must inevitably be seriously hampered for a considerable period. In addition to suffering this substantial injury, the enemy has been obliged to bring down reinforcements from the Bight of Heligoland to Zeebrugge and
- 13. The preparations and training for the attack extended over a long period, during the latter portion of which (i.e., from the 22nd March) the Dover Patrol was subjected to an exceptional strain owing to the unprecedented transport of reinforcements to France.
- 14. Success would have been impossible without the eager and generous co-operation of the Grand Fleet, the neighbouring commands and dockyards, and the Harwich Force.
- 15. The concentration of the attacking fleet had to take place about 63 miles distant from Zeebrugge and Ostend. As the length of time needed for reaching these objectives after the forces had been assembled was seven hours, it was inevitable that there should be a period of not less than four hours of daylight during which enemy observation by air and submarine might discover our movements. In order to guard against this, which would have meant the certain failure of the expedition, it was necessary for the patrols and air forces to show the utmost degree of vigilance and energy. There is every reason for believing that, as a result of their efforts, the enemy remained up to the last entirely unaware of our intentions.
- 16. In order not only that the attack might have a reasonable prospect of success, but that it might not end in disaster, various conditions were essential—(a) a certain state of the tide; (b) calm weather; (c) a more or less favourable direction of the wind; and (d) absence of fog, with, if possible, a moderate amount of haze. The first of these conditions (the state of the tide) fixed the dates between which it was practicable to make the attempt. The others . it was not possible to reckon with in advance, owing to the uncertainty of the weather, more especially at that time of year, and also to the fact that all these conditions might be different on the Flanders coast from what they were off the Goodwins, or that they might change for the worse between the starting of the expedition from the point of concentration and its arrival at its destination seven hours later.
- 17. It was anticipated that minefields, which would endanger the heavier draught vessels, might be encountered in the enemy's waters, but this risk had to be faced, and special arrangements were made to save the