

SECRET.

Attention is called to the Penalties attaching to any infraction of
the Official Secrets Act.

C.B. 0938.

NAVAL STAFF APPRECIATION OF JUTLAND.

WITH APPENDICES AND DIAGRAMS.

NAVAL STAFF,

TRAINING AND STAFF DUTIES DIVISION.

January, 1922.

CONTENTS.

<i>Chapter.</i>	<i>Page.</i>
Introduction	5
I. The Situation in 1916	12
II. The Grand Fleet Battle Orders of May, 1916	18
III. Preliminary Movements. May 28-30	36
IV. The Battle Cruiser Action from 3.40 p.m. to 4.40 p.m.	49
V. German Battle Fleet in sight. The Action from 4.49 p.m. to 5.40 p.m.	56
VI. Commander-in-Chief's view of the situation, 2 p.m. to 5 p.m.	65
VII. Commander-in-Chief in touch with Battle Cruiser Force, 5.35 p.m. to 6.15 p.m.	69
VIII. Remarks on the deployment at 6.15 p.m.	81
IX. The first half hour, 6.15 p.m. to 6.40 p.m.	85
X. The second engagement and Scheer's turn away. The turn to South-East and South	95
XI. Proceedings during the night	116
XII. Destroyer actions during the night	133
<i>Appendix</i>	
A. Preliminary distribution of British Ships, with names of Commanding Officers	145
B. Organisations of the British Fleet	150
C. British and German casualties	153
D. Damage sustained by British and German Ships	155
E. List of Ships sunk	161
F. Summary of Reports of enemy received in <i>Iron Duke</i>	162
G. German signals	165
Index	171

ABBREVIATIONS, Etc.

All times are Greenwich Mean Time.

Courses and bearings are magnetic except when they are reckoned from 0 to 360 degrees.

F.J.—The Fighting at Jutland, 1921, edited by H. D. Fawcett and G. Hooper.

G.F.—The Grand Fleet, 1914–16, by Admiral Viscount Jellicoe of Scapa, G.C.B., O.M., G.C.V.O.

G.F.B.O.—Grand Fleet Battle Orders.

J.P.—Battle of Jutland, May 30 to June 1. Official Despatches with Appendices (Command Papers, 1920).

German I, etc., refers to the numbered charts of German movements from Scheer's report issued with the official Jutland Papers.

Harper I, etc., refers to the numbered charts accompanying Captain Harper's record of the Battle of Jutland.

(r)—reports from individual ships or Admirals to be found in the Command Papers.

(s)—signal log.

(s¹)—*Iron Duke's* compiled signal log (*see* Introduction, para. 3).

(s²)—*Iron Duke's* contemporary signal log.

(w)—wireless log.

(w'e)—wireless entry log.

LIST OF DIAGRAMS.

Number.	Page.
1. Disposition of Battle Cruiser Force (<i>Lion</i>) at noon, May 31, and redispotion ordered at 1.30 p.m.	44
2. Battle Cruiser Force. Position at 2.20 p.m. " Enemy in sight "	45
3. Disposition of 1st and 2nd Scouting Groups, 2 p.m.	47
4. Position of Forces, 2.30 p.m.	47
5. <i>Galatea</i> and 1st Light Cruiser Squadron closing enemy, 2.30 p.m.	47
6. Closing enemy, 3 p.m.	48
7. Battle Cruiser Squadron engaging 1st Scouting Group, position 3.50 p.m.	50
8. Battle Cruiser Action. Position, 4.02 p.m.	51
9. Battle Cruiser Action. Position at 4.30 p.m.	52
10. Enemy Battle Fleet in sight, 4.40 p.m.	57
11. Approximate positions of Main Squadrons at 5 p.m.	61
12. The run to the North. Approximate positions at 5.15 p.m.	64
13. Hood proceeding to support Beatty. Position at 4.06 p.m.	67
14. Position of enemy Battle Fleet at 5 p.m. Reconstruction of reports	68
15. Cruiser formation L.S.I.	70
16. Discrepancy between reckonings of <i>Iron Duke</i> and <i>Lion</i>	70
17. Approximate relative positions at 5.42 p.m.	72
18. <i>Falmouth</i> in touch with <i>Black Prince</i> . Position at 5.30 p.m.	78
19. Reports of enemy, 5.40 p.m. to 6.12 p.m.	79
20. Last reports, 6.14 p.m.	80
21. Showing effect of new estimate of enemy's position on bearing of guides	82

<i>Number.</i>	<i>Facing Page.</i>
22. Probable effect of deployment on right wing	83
23. Probable effect of deployment on <i>Iron Duke</i>	85
24. The deployment. Approximate position at 6.19 p.m.	86
25. 1st and 2nd Battle Cruiser Squadrons at 6.15 p.m.	87
26. 3rd Battle Cruiser Squadron and 1st Scouting Group at 6.20 p.m.	87
27. 5th Battle Squadron. <i>Warspite</i> and <i>Warrior</i> at 6.18 p.m.	88
28. Deployment Diagram	89
29. Light Cruiser Squadrons at 6.15 p.m.	89
30. Destroyer Flotillas at 6.15 p.m.	90
31. Approximate position at 6.29 p.m.	93
32. Scheer's first turn away. Position at 6.35 p.m.	94
33. British Fleet turned by Divisions to South-East at 6.44 p.m. Approximate positions at 6.45 p.m.	95
34. Approximate positions at 6.56 p.m.	96
35. Approximate positions at 7.12 p.m. and tracks to 7.20 p.m.	100
36. Approximate positions at 7.22 p.m.	103
37. Approximate positions at 7.25 p.m.	104
38. Approximate positions at 7.35 p.m.	107
39. Approximate positions at 7.42 p.m.	107
40. Approximate positions at 8.00 p.m.	108
41. Approximate positions at 8.10 p.m.	110
42. Approximate positions at 8.15 p.m.	111
43. Approximate positions at 8.17 p.m. and tracks to 8.36 p.m.	111
44. Redispotion of German Forces, 8.40 to 9 p.m.	114
45. Approximate positions at 9 p.m.	116
46. Errors in plotting due to the difference in reckoning of the <i>Iron Duke</i> and <i>Lion</i>	117
47. British and German minefields up to June 1, 1916, and the German swept channels in the Heligoland Bight	119

*Number.**Facing
Page.*

48. Position of the fleets at 9 p.m. and their approximate tracks until 2.30 a.m. (daylight)	120
49. Approximate positions at 10.41 p.m. and interpretation of the Admiralty signal	125
50. Approximate positions at 2.45 a.m., June 1	129
51. Approximate movements of the 4th Flotilla from 10 p.m. to 12.30 a.m.	135
52. Approximate movements of the 9th and 10th, and the 13th Flotillas between 11 p.m. and 3.30 a.m.	139
53. Approximate movements of the 12th Flotilla from 11 p.m. to 3.30 a.m.	141

INTRODUCTION.

1. The Battle of Jutland must appear to many as a grey mass of ships manœuvring in and out of the battle smoke with no possibility of ascertaining their movements with clear and definite precision. To attempt to do so is certainly no light task. The official reports of individual captains represent only a effort, often necessarily hasty, to reduce the observations of a number of observers into one story; and similarly the despatches of the Admirals can be regarded only as a provisional attempt to reduce the reports of individual captains to a single focus.

From a historical point of view both must be regarded merely as rapid preliminary surveys. By their very nature they could be no more, for a complete survey requires the careful and critical examination of every source of information—every log, every signal log, every individual report.

But in a battle where 154 British flags and pendants were flying this in itself is a heavy and laborious task, and when in addition it is remembered that in the case of most ships the signal volumes alone number at least three or four¹ and the total number of volumes runs into hundreds, the mere physical labour of arrangement and custody is a considerable item of work.

2. The Ships' Logs and Signal Logs in conjunction with the official reports may be regarded as the principal sources available. But in a large number of ships the logs unfortunately are of little assistance. Many navigators merely say, "Courses as requisite." Very few, as in the case of the *Marlborough*, insert a complete and detailed account of every alteration of course and speed. The details are presumably to be found in the navigator's notebook, but these are not available,² though an unimpeachable source from an historical point of view.

The deficiencies of the logs are, however, in this case largely supplemented by information appended to the captains' reports.

But even where there is sufficiency of information, visual discrepancies in time and place arise. Times differ in different ships and in the same ship the times of different observers may differ, and different observers see the same incident from different points of view. One sees the destruction of the *Indefatigable*

¹ Signal and Wireless, Odd Day and Even Day, Auxiliary Wireless and Wireless Entry. In the case of the *Hon India* there were some seven or eight volumes kept, of which a number were wireless entry registers.

² The navigator is bound to produce it at a court-martial touching the safe navigation of his ship, but on his safe return to harbour he can drop it overboard with the anchor.

in the explosion of the bursting salvos, another in the disappearance of her hull beneath the waves.

On the whole, however, the discrepancies in time are not very serious. The wireless logs rarely differ by more than two or three minutes and in many cases are synchronous.

The discrepancies in reckoning are more serious and practically render latitude and longitude reports valueless for establishing relative positions when the ships are close to one another. The *Southampton's* reports between 5 p.m. and 6 p.m. and the *Falmouth's* between 8.15 p.m. and 8.45 p.m. are instances of this deficiency. In all probability its cause is partly to be found in the cumbersome latitude and longitude code in force at the time.

In addition to the difficulty of establishing relative positions, these discrepancies introduce an element of complexity, for three positions have to be considered. For instance, in the case of the bearing of the *Iron Duke* and *Lion* when they were approaching one another at 5.30, there are the *Iron Duke's* reckoning position, the *Iron Duke's* actual position, and the *Iron Duke's* bearing according to the *Lion's* reckoning all to be considered in arriving at an estimate of the situation.

3. The Signal and Wireless Logs constitute another valuable source. All the signals made have been collated by the Signal Division in a record of messages.¹ This has been carefully done, but one or two signals of minor importance are not to be found in it, and in some cases the time of receipt has become merged in the time of origin. Amongst the signal logs is the signal log of the *Iron Duke* handed in to M. Branch. This is written in ink, and from a historical point of view bears all the signs of having been compiled subsequently² to the battle from other signal logs. Only two contemporary signal logs proper³ of the *Iron Duke* have been seen, both written in pencil, one rather more carefully than the other, both omitting a number of important signals probably because the pressure of work of a fleet flagship led to the systematic use of files and the logs were not carefully written up.

It is difficult otherwise to account for the fact that the contemporary signal log of the *Iron Duke* is one of the most incomplete logs in the fleet for the actual battle. In the case of the *Lion*, a fire apparently destroyed a number of the original forms. A word of thanks is due to the *New Zealand's* wireless log which was evidently kept by an officer who noted all the "check and repeats" and repetitions, which are very helpful. All these

¹ Record of Messages, Battle of Jutland, S.P.02085. Signal Division 21.12.18 (printed folio). This is the source of the signals in Harper, Appendix VIII, and in Jutland Official Despatches (1920), Appendix II.

² Includes May 31 to June 1 only; the handwriting is the same throughout.

³ There are several volumes of various logs, including auxiliary logs, wireless entry logs, cypher registry logs, etc.

signal logs are kept at Deptford Yard. A careful compilation¹ of material from the ship's logs, signal logs and reports of all ships which embodies all the relevant information they contain was made by Captain J. E. T. Harper's Committee, and a complete compilation of all the material in ships' logs has also been made by Lieutenant-Commander J. F. H. Pollen (Historical Section, C.I.D.).

It might be thought that Wireless Entry Logs which merely register the time of receipt or despatch and the sender were of little use, but this is far from being the case. They are useful in checking times and actual receipt. Mention has already been made of one or two signals omitted from the Record of Messages and consequently from the Command Papers. One is a signal made by the Admiralty to Commander-in-Chief, May 31, 1235, stating that the enemy's flagship was in the Jade at 11.10 a.m. The original is to be found in the War Registry files. As it is one of the Special Intelligence telegrams its text would not be in the wireless log, but in the *Iron Duke's* "In" telegrams.² It is not there and has evidently gone astray. Here the wireless entry logs come in useful. The *Iron Duke's* wireless entry has an entry, "Cleethorpes, received 12.48, Cypher 1235, Admiralty to Commander-in-Chief," and *Lion's* wireless entry has a similar entry, clearly proving that it was received. The signal had no direct incidence on the battle but is of interest as introducing another very important collection of records, namely, those of Room 40,³ where German messages were decyphered.

On May 30, at 5.41 p.m., the German Flagship made a signal to the *Ostfriesland* to say that the direction of wireless would be carried out by Wilhelmshaven third entrance, which would have the wireless call of the Commander-in-Chief, High Sea Fleet. This was in a new key and was not decyphered till the 31st at 6 p.m. Meanwhile, in the forenoon of the 31st, directionals placed the Commander-in-Chief's wireless call in the Jade and the above signal went out to this effect. This and infinitely more is to be found in this unique collection which stands as a monumental product of British genius in a field practically untouched before the war.

¹ Extracts from reports, logs and signal logs of the ships present at the Battle of Jutland (typescript folio).

² These are in Historical Section C.I.D., classified as in *Iron Duke*, under six headings, Admiralty to all ships, ditto W and X cyphers, Private and Personal, B and other Secret (this includes Special Intelligence), Intercepted and General.

³ These were arranged by Lieutenant-Commander Frank Birch, R.N.V.R., and Lieutenant W. F. Clarke, R.N.V.R., in 1919-20, in the Historical Section I.D. The records comprise over 2,300 volumes and include the valuable collection of the German Section of the Intelligence Division (Room 14, Commander Brandon) which contains the material taken from captured and sunken ships.

The I.D. History,¹ compiled by Lieutenants F. Birch and W. F. Clarke, R.N.V.R., from these materials must be regarded as a most valuable and indispensable contribution to the study of the war and has been very helpful in presenting the German view of the battle.

4. The next large collection consists of the Admirals' despatches and the reports of individual ships.²

These were photostated for Captain Harper's use in 1920 but have become more readily accessible in the Jutland Papers.³

It should be noted that the Commander-in-Chief's first despatch and plan is dated June 18, 1916 (M.05697/16); on June 24 a second version of his despatch was forwarded (M.06495/16). This omitted the introductory remarks and the details of our ships being sunk and gave a short list of enemy vessels put out of action, in place of the long list of *Certains* and *Probables* in the first version. The despatch in the printed Command Papers is the fuller and earlier despatch of June 18, 1916. Three tracings were also sent at different times by the Commander-in-Chief, the first dated June 18, 1916, with the report of June 18, 1916; a second, dated June 19, 1916, sent on July 8, 1916; and a third, sent on August 29, 1916. These tracks differ in the adjustment of the track of the battle cruisers to that of the Battle Fleet. The Jutland Papers give the Plan of June 18, 1916 (Plan 1A) and of August 29, 1916 (Plan 4A).⁴

5. In addition to these sources, Captain J. E. T. Harper's record and diagrams of the battle⁵ have been of very great assistance and really represent the first stage of this work. But as there

¹ Contribution to the Study of German Movements, Volumes I and II, four volumes, typescript folio, by Lieutenants Birch and Clarke, Intelligence Division, 1919-20.

² M. Branch dossier, four volumes, folio, cardboard bound—Commander-in-Chief's Despatch, Battle Fleet, Battle Cruisers and Light Cruisers, Destroyers.

³ (Command Papers, 1920) Battle of Jutland, May 30 to June 1, 1916, Official Despatches, with Appendices (603 pp., 8vo). This is based on the M. Branch dossier, but omits lists of recommendations. The Appendices are very valuable. Appendix I—Information from Gunnery Records. Appendix II—Record of Messages (from Signal Division compilation). Appendix III—Admiral Scheer's Report of July 4, 1916 (but *not* his supplementary Report of July 16, 1916). Appendix IV—Letter, Commander-in-Chief (Admiral Sir John Jellicoe) to Admiralty, of October 30, 1914, which throws valuable light on the tactical views held by the Commander-in-Chief. There are 31 diagrams in the book and in a separate case 12 British and 7 German, the latter being reproductions of the diagrams attached to Scheer's report. The work unfortunately lacks an index.

⁴ Lord Jellicoe expressed the opinion that the later plan of August 29, 1916, is the more correct, and has pointed out that the note on page 51 of the Jutland Papers is not correct.

⁵ Official Record of the Battle of Jutland, with Appendices and Plans (proof print 8vo, 349 pp.), with 18 diagrams. The "German" diagrams have been reproduced in the Command paper.

is no such thing as finality in historical work, so there are certain points where the record is considered open to revision, more particularly in its representation of the movements and courses of the German Fleet which differ widely from those of Scheer. Until the German Staff account of the battle is issued a certain element of uncertainty must surround the German movements, but Scheer's report and diagrams provide a large amount of reliable material, and pending further information must be accepted as the nearest approach to accuracy.

It is certain, for instance, that at 7.15 p.m. when the German Fleet turned away the second time, the First Squadron was practically in line with the Third Squadron, otherwise the turn of the *Friedrich der Grosse* to port, specifically stated and clearly explained in Scheer's book,¹ would be meaningless. These courses have been carefully revised with the assistance of Lieutenant-Commander J. F. H. Pollen, and the diagrams attached to the appreciation are based on this revision.

6. It has not been considered necessary to attach a complete plan showing the continuous track of each ship: nor is it altogether desirable. A plan of this sort is necessary in the historical reconstruction of the battle as a norm or standard to test the reliability of particular statements, but it must not be regarded as more than the adjustment of a number of varying observations to a general mean. In some cases the course of a ship or squadron is certain, in others less certain, in others again it is largely supposititious. A continuous track of a battle tends by its very nature to convey an impression of absolute accuracy which may be very misleading unless accompanied by a critical commentary assessing the relative degree of credence to be given to particular portions of it, and it is considered that a commentary of this sort would overload the appreciation. Also a complete and continuous track of the movements of all vessels in a battle, however desirable, may not always be possible. If the incident is on a small scale, and the facts were accurately recorded, it is easy to construct such a track. But when the incident is on a very large scale or the facts are not recorded² or are insufficiently or inaccurately recorded, then it is better to confine oneself to the main outlines of the battle. For instance, in the case of destroyer actions at night, the information is generally so scanty that only an approximate plan of their movements can be reproduced.³

¹ English translation, p. 158.

² To carry the argument to its extreme limit, it is useless to attempt to draw an accurate track of each ship in the Battle of Salamis. The information is not there.

³ The movements of some of the 12th Flotilla during the attack on the German 2nd Squadron must remain uncertain, and the individual reports of the boats of the 11th Flotilla were not sent in by the Captain (D).

Where discrepancies occur in time, courses, ranges and bearings, these all have to be adjusted so as to harmonise with one another and with criteria of possibility and probability. The final adjustment which gives a generally correct view of the battle is not based on any one record, but is more of the nature of a complicated mosaic or puzzle picture whose composition requires a great deal of knowledge, skill and patience—how much can only be known to those who have tried it. When the general variations in time have been ascertained by a study of the logs and records there remain three elements of place to be adjusted—the geographical position in latitude and longitude, the relative position of the enemy, and the relative position of one's own squadron and ships. In Captain Harper's diagrams the latitude and longitude of the *Invincible*, subsequently ascertained by careful survey, have been used as a datum point, and the position of the *Iron Duke* adjusted to it. For the relative position of the enemy there are numerous bearings and ranges, but the bearings were usually in terms of red or green, and the ranges were rapid rangefinder observations on a misty day and not carefully surveyed distances.

In the case of the relative positions of our own ships and squadrons, the number of recorded observations is small.¹

For these reasons it has been thought better to confine the appreciation to diagrams of the more important phases of the battle, which are also simpler and clearer than a continuous track.

The chapter on the Grand Fleet Battle Orders is based on the collection made by the Training and Staff Duties Division.²

Lord Jellicoe's "Grand Fleet" has been used to supplement the despatches, and mention should be made of "The Fighting at Jutland," a valuable collection of personal narratives largely based on notes made during the action, compiled by Lieutenants H. W. Fawcett and G. W. W. Hooper.

7. Finally there are some sources which have not been used because they do not exist, but whose non-existence it is just as well to emphasise; for instance, "instructions of the Cabinet" to the Commander-in-Chief.³ The War Council did a number of things which may be open to criticism, but it never

¹ For the relative position of the Battle Fleet and Battle Cruiser Fleet between 7 p.m. and 8 p.m., there are only four recorded observations, viz., *Minotaur* at 7.10 p.m. (J.P.272) and at 8 p.m. (*Minotaur's* track, Plate 24), *Shannon* at 6.58 (J.P.280) and *Calliope* at 7.28 (J.P.385). Again there was considerable bunching in the Battle Fleet during deployment, but the observations are too few to enable one to plot it.

² Grand Fleet Battle Orders (photostated), 3 volumes, folio, Training and Staff Duties Division, 1919. Volume 3 gives the orders in force at Jutland.

³ It would be hardly necessary to mention this point had it not been seriously discussed in certain quarters.

got the length of issuing instructions to the Commander-in-Chief of the Grand Fleet as to the tactics he was to adopt on meeting the enemy. Nor does the appreciation venture to deal with any personal factors. It may be said, of course, that no one can criticise the battle, for no one can place himself in the position of a Naval Commander-in-Chief surrounded by mist, battle-smoke and uncertainties with the safety of a huge fleet on his shoulders and measureless and untold responsibilities looming before and behind him. Such an argument merely leaves the battle where it was and fails to distinguish between the subjective personality of the Commander-in-Chief (which is not in question here) and the objective events of the battle. Its acceptance would mean the negation of history whose task it is to dispel the mist and uncertainties arising both in the battle and out of it and to tell us whether, and how far, they were inevitable. The appreciation is written more particularly for the use and instruction of staff officers and is an endeavour in the light of fuller knowledge and careful analysis to deduce lessons for their future guidance and investigation. Let no one think that there are no lessons to be gleaned from it or that a battle can be "ancient history" before its history has been written. To those who study it carefully and intensively there still remains a rich, ungarnered harvest. Out of the sea where so many of our sailors lie sleeping there arise two subjects of absorbing and perennial naval interest which were certainly not solved at the Battle of Jutland and may not have been completely solved since—an adequate system of naval tactics and an adequate system of staff work and command.

CHAPTER I.

THE SITUATION IN 1916.

Function of the Battle in Naval Strategy.

1. The Battle of Jutland will rank as one of the great battles of naval history, but it cannot be understood without a clear grasp of the influence of a decisive naval battle on the general situation at the time.

With the exception of occasional sorties, the German Fleet had been confined to its harbours from the beginning of the war, and it is maintained by some that this form of blockade dispensed with the necessity of a battle, and that the defeat of the enemy fleet in battle would not have influenced the course of events.

This argument demands careful scrutiny. Was the Battle of Jutland merely an incident of the blockade? Was its object merely to maintain the blockade? Was it won when the Germans were driven back to harbour? Such a theory, which would make the battle merely an aspect of the blockade, is inadmissible. Naval warfare has only four principal aspects, viz :—

Invasion, and counter-invasion ;
Attack of trade, and defence of trade.

These ends, which loom behind every naval operation, can only be completely achieved by the destruction of the enemy's forces. The struggle may be spread over long years of suffering and uncertainty, or it may be greatly abbreviated by battle.

There has been a tendency in recent years to depreciate the function of the battle in naval strategy, but it must always play an essential part in the economy of war, for it embodies two great principles of war—concentration, and the economy of the decisive blow.

The High Sea Fleet and the Baltic.

2. Besides, the German High Sea Fleet stood for two things outside the blockade—the control of the Baltic, and the control

of the Heligoland Bight. Germany's practically undisputed control in the Baltic was a grave obstacle to the blockade, and acted as a powerful impetus to neutral trade.¹ In addition to supplies from the West, it covered the important Swedish iron ore traffic² which, in the opinion of the French General Staff, was as vital to Germany as the supplies from the Lorraine and Luxembourg districts. But it had a still more important aspect. It closed direct sea communication with Russia. The stream of munitions, food, and raw material that flowed by sea to Great Britain, France and Italy from all over the world was the life blood of the Allies' armies, and it was the failure of this stream which led to the collapse of Russia and Roumania.

The situation would have been greatly influenced in our favour by the presence of British naval forces in the Baltic co-operating with the Russians,³ but so long as the High Sea Fleet was "in being," they could not be spared from the more important area of the North Sea.⁴ The High Sea Fleet held the gate of the Baltic in its hand: if it had been decisively defeated, a British squadron could have entered the Baltic. Operating from Russian bases such a squadron would have tightened the commercial blockade, and opened a road of moral and material support to the Russian armies.

The High Sea Fleet and the Heligoland Bight.

3. But it was in the Heligoland Bight that the control exercised by the High Sea Fleet exerted its vital influence on the war. Shut off from the high seas and not daring to risk a battle, the Germans had recourse to the *guerre-de-course* with the submarine as its principal weapon, and by June, 1916, the

¹ The traffic was gradually reduced by direct interception and economic pressure in various forms, but these measures did not become fully effective until the U.S.A. entered the war in 1917.

² Amounting in 1916 to 4.35 million tons. Swedish iron ore contains roughly double the quantity of iron in German and Belgian ore. It was of the greatest importance to Germany, and an officer on Ludendorff's staff is reported to have said that without it Germany could not have continued the war after January, 1918.

³ In the first two years of the war, the Russian Baltic Fleet showed itself an effective force in several conflicts with the enemy, and with the help of a few British submarines it succeeded in temporarily interrupting the German-Swedish trade on more than one occasion.

⁴ At a conference held on September 17, 1914, in the *Iron Duke*, attended by the First Lord, Chief of War Staff, D.I.D., and several flag officers, including Commodores (T) and (S), when the question of operations in the Baltic was discussed, it was decided that forces could not be spared for the purpose. M.0078/1914.

destruction wrought by it was already reaching alarming proportions.¹ Even at that stage, the menace to our mercantile marine dominated every other naval consideration, and the possibility that lack of shipping might end the war before the Allied armies won it, was already assuming a very insistent and definite form.

The most favourable area for intercepting the submarine was, of course, the vicinity of the German rivers and the narrow channels of the Kattegat. Was it not possible to close these passages completely by mines and other measures? This was the first question² considered by the Planning Section of the Navy Staff on its constitution in July, 1917, and after exhaustive investigation it was decided that the High Sea Fleet rendered the performance of this task impracticable.

Less ambitious schemes for intercepting the submarines were, however, tried, and not without a considerable measure of success. Early in 1917 a large area in the Bight was notified as a mined area, and measures set on foot which resulted in the laying of nearly 37,000 mines in the Bight in 1917 and 1918.³

The High Sea Fleet the Power behind the Submarine Campaign.

4. This attempt to block in the enemy submarines developed into a protracted struggle between British minelayers and German minesweepers, in which the former had the immeasurable advantage of knowing the position of the German swept channels. The enemy was thus forced to accompany the submarines on both their inward and outward journeys by minesweepers, barrier breakers, and torpedo boats. These escorts had to be supported, and from 1917 onwards the main task of the High

¹ Gross tonnage of British, Allied and Neutral ships sunk up to June, 1916 :—

	<i>By surface craft.</i>	<i>By submarine.</i>	<i>By mines.</i>	<i>Total.</i>	<i>Percentage by submarines.</i>
1914 ..	222,432	2,950	78,152	303,534	·9
1915 ..	59,076	1,048,293	170,380	1,277,749	82
1916 ..	52,160	576,725	191,629	821,484	70
(six months)		(Statistical Review of the War against Merchant Shipping, Admiralty, November 23, 1918.)			

² The plan included a complete blocking of the Elbe, Kattegat and Jade.

³ Mines laid in the Bight were : 1914, nil ; 1915, 4,538 in 9 minefields ; 1916, 1,782 in 17 minefields ; 1917, 15,636 in 76 minefields ; 1918, 21,105 in 129 minefields.

Sea Fleet was the support of the sweeping forces working far afield on the submarine routes.¹

This is clearly described in the History of German Movements.² "Gradually, as British mining activities increased, the operations of the minesweeping units had been extended, and the provision of an adequate force to protect the vessels engaged, from raids, had become imperative. This force had steadily been reinforced. At first merely a half flotilla of destroyers, strengthened by a light cruiser or two; by June, 1917, it was thought necessary to have battleships in support." All German Commanders-in-Chief recognised "that if the Battle Squadrons were destroyed it would be impossible to use the Bight. It was only the support of the battleships which enabled the German minesweepers to carry out their tasks undisturbed. If that support perished, or was seriously weakened in a fleet action, then one of two things were bound to happen. Either British mining would render all approach to the bases impassable, or the defensive minefields, left without adequate support, would be forced, and the Bight overrun by British craft. Not one of them, not even Scheer, dared to risk a fleet action which might have had such disastrous results."

As time went on the difficulties of egress and ingress increased. The "ways" in the Bight were frequently closed, and from April, 1917, homeward bound submarines began to be deflected through the Kattegat, whilst by the end of the year that channel was also frequently used by outgoing submarines. Early in 1918 about 1,400 deep mines were laid in the northern part of the Kattegat,³ but as the minefield was not patrolled by surface craft, it did not exercise any real influence on the German submarines. The intensive mining of the Bight just failed to achieve complete success because of the difficulties of attacking the German sweeping craft and the inability to provide destroyers, etc., for the control of the Kattegat. These difficulties would have been greatly reduced if the High Sea Fleet had been decisively defeated, but so long as it remained intact it was the bulwark behind which the submarines were able to continue their campaign.

¹ History of German Movements (typescript), I.D., Section 25, by Birch and Clarke, pp. 81, 84, 85. Scheer, 291. By the end of the war some of the swept channels extended more than 150 miles from the Jade, and from November, 1917, there was generally a whole Battle Squadron a considerable distance out in support of the sweepers.

² *Ibid.*

³ The question of laying mines in the Kattegat was of course complicated by neutral interests.

Other Influences of the High Sea Fleet.

This latent power of the High Sea Fleet to hold our forces immobilised from other spheres of work adversely affected anti-submarine measures of every sort. In October, 1917, a combined operation with mines, mine nets, and Grand Fleet torpedo craft and submarines, resulted in the destruction of three submarines.¹ The operation was a decided success, but was never repeated owing to the demands for convoy reducing the Grand Fleet destroyer force to the lowest possible limits of battle requirements.

5. Dover Straits can be cited as a contrast to the Heligoland Bight. There the surface control was in British hands. As soon as the mines were properly laid and the minefields were patrolled, the route became exceedingly dangerous and the enemy could only hope to reopen it by direct attack on the patrols. Similarly, the gigantic task of mining the Norway-Shetland area² was forced upon us by the High Sea Fleet, in order to bring the minefield under the direct control of the Grand Fleet and beyond the reach of the enemy's sweepers.

Measures to prevent the submarines coming out went hand in hand with measures to protect the trade by means of convoy. But convoys suffered in the same way. It was not possible to supply enough destroyers for convoy and at the same time keep the Grand Fleet ready for battle, and it was only the delivery of British and the arrival of American destroyers in the end of 1917 and in 1918 which relieved the situation.³

In dealing with the possibility of raids and invasion, the same malignant influence was at work. So long as the High Sea Fleet was "in being," intact, and undefeated and able to come out in force, defensive measures had to be adopted against a raid. Thus at the commencement of hostilities only four out of six divisions of the expeditionary army were despatched to France, and throughout the war a large force was retained in the Kingdom for home defence.

¹ U.50, U.66, and U.106. H.S. Operations, October 11, 1917. The submarines were sunk in the mine nets and minefields. The destroyers drove the submarines down but saw nothing themselves and were inclined to depreciate the value of the operation.

² This minefield was designed to close an area 220 miles broad and 50 to 160 fathoms deep. It was not in existence long enough to judge of its success, but it probably destroyed six submarines.

³ See Naval Staff Memorandum on "British Naval Policy" circulated to War Cabinet on July 4, 1917, which stated, "the Grand Fleet, Harwich, and Dover flotillas must be kept up to strength, and the task of finding additional numbers for convoy work is the only obstacle to its general adoption."

Effect of a Decisive Naval Victory.

6. The influence of the High Sea Fleet can be traced in every phase and aspect of the war. If it had been decisively defeated, the complete blocking of the Kattegat and Heligoland Bight would have become practicable. This measure would have meant the end of the submarine campaign and a consequent shortening of the war. Its defeat would also probably have opened up communication with the Baltic and have had the two-fold effect of increasing the economic pressure of the blockade and encouraging the Russians. In every other aspect of the war, a naval victory would have simplified operations and reduced the strain on the British Navy. Shipbuilding could have been stopped, and men, munitions, and machinery diverted to the services of the war on land.

7. But vitally important as a fleet action may be, it may not be possible to bring it about. The weaker fleet may avoid battle. Meantime the trade must be protected, and one of the great problems of naval strategy is to combine the demands of commerce defence with the requirements of a prospective battle. In the intervening period, the attacks on trade may be so serious, or the necessities of troop transport so urgent, that the Main Fleet may have to be called upon to assist them, which may entail limitations on its instant readiness for battle.¹

Under ordinary circumstances, and in default of special intelligence, the only way to bring about a fleet action would have been for the Grand Fleet to oppose the German submarines so effectively as to force the High Sea Fleet to come out and support them.

The ascending degree of offensive action which might have followed such a policy is illustrated in the case of the Scandinavian trade. The Germans attacked with submarines; we answered with destroyers and escorts; the enemy replied with light cruisers,² which were in turn countered by a battleship or battle cruiser force from the Grand Fleet covering the convoys whenever they were at sea. Finally, the whole High Sea Fleet sallied out on April 23, 1918, with the intention of attacking the convoy off the Norwegian coast. The German attack miscarried owing to faulty information and an accident to the *Moltke*; but had it been accomplished the Grand Fleet would have had a good chance of intercepting the High Sea Fleet.

¹ For example, if Grand Fleet destroyers were carrying out anti-submarine operations in the northern area, the Grand Fleet could probably be ready for battle at short notice in that particular area, but these destroyers would have to be recalled and fuelled before accompanying the Grand Fleet to, say, the southern area.

² *Brummer* and *Bremse*.

These are the normal methods by which a battle is brought about.

8. In practice, little or no attempt was made during the first two years or so of the war to amalgamate the policy of trade protection with that of battle. The Grand Fleet and all its attendant light craft stood aside as if it had no concern with the submarine campaign. The brunt of the enemy's main line of attack was therefore borne by the mercantile marine, whilst the bulk of the anti-submarine work was left to slow trawlers and drifters manned by untrained ratings lacking proper equipment and without skilled direction or control. The trade had in fact to look after itself whilst the fleet was waiting for a decisive battle.

Here a new element had entered naval war. Special intelligence greatly increased the chance of battle, for the movements of the enemy could be closely followed. This gave rise to what may be called a policy of immediacy. The Grand Fleet was kept ready to move at any hour of the night or day on information of enemy movements, and under these circumstances any systematic co-operation of Grand Fleet destroyers in anti-submarine operations became impracticable. The normal methods of bringing about an action had been superseded.

But as this policy of immediacy, based on the hope of a fleet action, meant the sacrifice of very important interests, it was essential that every effort should be made to make the action decisive. The fleet stood apart from the protection of trade only in order that it might deal one crushing and final blow at the High Sea Fleet. The whole policy of immediacy was indissolubly linked with the idea of a decisive battle and a vigorous tactical offensive. Divorced from these conceptions, British strategy in the North Sea becomes futile and meaningless.

CHAPTER II.

THE GRAND FLEET BATTLE ORDERS OF MAY, 1916.

Tactics before the War.

9. The key to a battle is to be found in the Battle Orders which may be presumed to embody the tactical conceptions prevailing in the mind of the commander. These conceptions will partly depend on the general level of tactical thought at the time, and a few remarks on this point will not be out of place.

When war broke out there was no comprehensive or authoritative tactical doctrine, and conflicting views were held on fundamental questions of principle.

In the long period of peace after 1815, the real art of tactics seems to have died with Nelson. Formal movements took their place, and a system of manœuvring was built up which bore no relationship to the realities of war. Biddlecomb's *Book of Tactics*, published in 1850, marks a step towards the quadrille-like movements which characterised the latter part of the nineteenth and the beginning of the twentieth century. Not only did these so-called tactics neglect the aspects of gun and torpedo fire, but quite apart from the movements involved, they tended to produce a faulty system of command which, even in peace time, was responsible for at least one serious disaster.¹ Centralised and mechanical command became the vogue, and officers were moulded to a system which had been responsible for most of the errors and failures of the eighteenth century. Exactitude of station-keeping and rigidity of formation were practised to the detriment of self-confidence and initiative. The stress laid on accurate station-keeping as an end in itself, the sextants, speed cones, and signalling which accompanied the most simple movements, were all representative of a system out of touch with the well-proved principles of command.

There had been a renaissance in tactical thought during the decade prior to the war, and the parade movements which passed for tactics at the end of the nineteenth century had been left behind; but there was still no systematic study of the subject either afloat or ashore, and there was no staff competent to deal with tactical questions. A great deal of work was done at sea, but there was no continuous plan² running through it. Piles of P.Z. diagrams were accumulated, but, starting without any clear principles or line of investigation, they frequently ended where they started. At the War College³ the geometrical and mechanical side of the subject received more attention than the vital principles of command, and historical research—a necessary branch of tactical study—was neglected.

¹ Loss of the *Victoria*, June 22, 1893.

² The tactical exercises carried out in the Home Fleet during Sir William May's period of command (1909-1911), showed a marked advance on contemporary thought and methods, and his investigation into divisional tactics was peculiarly applicable to a large fleet. Under the prevailing system, however, there was no continuity, and they came to an abrupt end when he hauled down his flag.

³ The principal instrument of instruction was the competitive tactical game; but the Tactical Board has very definite limitations, and what the games really amounted to was a comparison between the gunnery and torpedo *matériel* of the opposing fleets. Scoring rulers took no cognisance of such factors as initiative, decentralisation of command, co-operation of different arms, etc., and these were neglected, if not actually discouraged, by the system.

10. At the outbreak of war, the only orders bearing on the battle tactics of the Home Fleet are to be found in a short memorandum¹ which defined the functions of the various types of vessels, and laid great stress on the necessity for initiative on the part of officers in command of squadrons and flotillas.² They avoided the pitfall of laying down any hard and fast plan, and thus left the Commander-in-Chief free to conduct the battle according to circumstances, but they lacked the clear definition of principle required to ensure convergence of effort.

This memorandum does not appear in the Grand Fleet Orders,³ which were compiled after the outbreak of war when a vast amount of business had to be transacted with great urgency. There was probably little time to go into side issues of investigation or to study the evolution of tactical thought discernible during Sir William May's and Sir George Callaghan's command of the Home Fleet. The lack of a staff must, however, be held responsible for any deficiencies in this respect, for tactical research is a function of the Staff and not of the Executive Command. If tactical principles, standing orders for manoeuvring, etc., were embodied in a suitable manual, and continually revised in the light of current experience, an Admiral on taking command should only have to prepare a short memorandum explaining his particular methods of attack.

Grand Fleet Battle Orders.

11. The orders actually in force at Jutland consist of some 75 sheets containing detailed instructions on battle tactics and various other subjects.⁴ They should be read in conjunction

¹ Remarks on the conduct of a fleet in action, based on the experience gained in the manoeuvres and exercises of the Home Fleets during the year 1913. Sir George Callaghan, M. 02124/1.

² *Ibid.*, paras. 1 and 6. "Officers commanding squadrons and flotillas in the first place, and all officers in command in the second place, must at all times be ready to act if circumstances require it on their own initiative and judgment in assisting the Admiral to defeat the enemy . . . vessels outside the line of battle must not rely on receiving orders; none should remain inactive if they are able to make effective use of their force. . . . It must be borne in mind that preconceived ideas in action may be upset by unlooked-for tactics by the enemy; it is for this reason as much as for any other that Officers must be trained to act on their own initiative when it is clear that by doing so they can . . . materially assist in the enemy's defeat."

³ Lord Jellicoe says his battle orders were based on a Battle Memorandum prepared by him when in command of the Atlantic Fleet (G.F. 49).

⁴ These will be found in T. and S.D.D. collection, Vol. III. They are divided into 30 sections, together with a Destroyer Addendum and Diagrams. They are grouped under six headings: Battle Orders (for Battle Fleet), Sections I to XXII; Gunnery Instructions (XIV to XIX); Cruiser Instructions (XX to XXV); Submarine Instructions (XXVI); Destroyer Instructions (XXVII to XXX); Destroyer Addendum with Deployment Diagram and Memorandum H.F. 0034/39 of May 1, 1916, on Destroyer Attack, with six plans. It appears that the plans accompanying this Memorandum, although dated 1st May, were not issued to the Fleet until 12th June, 1916.

with an important letter¹ from the Commander-in-Chief to the Admiralty, written in October, 1914 (30/10/1914, in M. 03177/1914), which throws light on much which they contain.

Three main conceptions dominate the orders :—

- (a) The single line and the parallel course.
- (b) Long range.
- (c) Defensive action against the torpedo.

The principles of tactics tend to be lost sight of in long detailed instructions, and the orders never seem to get much beyond the idea of a battle in a long single line against an enemy steering a parallel course. But if the enemy refused to engage and turned away, the superior fleet would then have to adopt what may be termed tactics of pursuit. Here one is faced with the fact that the letter of October, 1914, practically rules out the possibility of immediate pursuit, and nothing definite on the subject is to be found in the Battle Orders.

Two sections deal more particularly with the tactics of the Battle Fleet.² One deals exclusively with the tactics of the Main Battle Fleet, and confines itself to the idea of an action on parallel courses in one long line which may be regarded as the Commander-in-Chief's ruling tactical conception.³ Attacks by divisions or squadrons are forbidden, and a definite intention to fight at long range and avoid close action is expressed.⁴ The 5th Battle Squadron is certainly detached from the Main Fleet, but the general idea is to use it for a prolongation of the battle line to the van or rear, according to the direction of deployment.⁵

The 3rd Battle Squadron (pre-Dreadnoughts of the *King Edward* class) is given the right of independent manœuvre evidently on account of its inferior speed and separate command.

Menace of Torpedoes and Submarines.

12. Running right through the Orders is a cautionary note as to the use which the Germans may make of submarines and

¹ J.P., Appendix IV.

² Sections VII, VIII.

³ Battle Tactics, Section VII, para. 3, says : " In all cases the ruling principle is that the Dreadnought Fleet as a whole keeps together . . . and so long as the fleets are engaged on approximately similar courses, the squadrons should form one line of battle." Again, in para. 13 : " Action on approximately similar courses will be one of the underlying objects of my tactics—(1) Because it is the form of action likely to give the most decisive results ; (2) Because it is probable that the Germans will make use of mines if they can do so."

⁴ In paras. 5 and 7 : " I shall probably deploy or move to a flank with Aares bearing at a range of about 18,000 to 20,000 yards." . . . " In weather of good visibility the range should be between 15,000 and 10,000 yards, the latter being reached as the enemy's fire is overcome ; in the early stages of action I do not desire to close the range much inside 14,000 yards."

⁵ *Vide* Section V.

mines in a fleet action. Great stress is also laid on the menace of torpedo attack by the opposing battleships and torpedo craft, and the intention is expressed of keeping outside torpedo range until the enemy is beaten by gun-fire.¹ An attack by the enemy's torpedo craft will be met by turning the fleet away two or more points.²

The warning that the enemy will endeavour to draw the fleet over an area previously prepared with mines or occupied by submarines frequently appears in the Orders, which state that the Commander-in-Chief will not follow if the enemy turns away shortly after deployment, as the movement would probably be intended to draw the fleet over submarines.³

The Flag Officer leading the line is consequently warned to exercise great judgment in leading in to close the range,⁴ and in the event of the fleet deploying on opposite courses, the Vice-Admiral leading the van is definitely forbidden to circle the rear in case the enemy may have dropped mines. These precautions, arising from the threat of the minelayer and submarine, tended to limit the action of divisional leaders and possibly contributed to a state of mind which saw submarines where they did not exist.⁵

A careful study of the Battle Orders leaves the distinct impression of a centralised system of command. It is true that decentralisation is mentioned. For instance, the difficulty of the Commander-in-Chief exercising control over the battle line after the action commences is pointed out,⁶ and Vice-Admirals are given discretionary power to manœuvre their squadrons independently whilst conforming generally to the movements of the Commander-in-Chief.⁷ But this delegation is practically overridden in the next paragraph, where it is laid down that the Dreadnought Fleet as a whole is to keep together, and that attacks by divisions or squadrons are to be avoided. Finally, various conditions are enumerated which might call for separate action on the part of divisional or squadron commanders,⁸ and from these it can be seen that the discretion given to them refers merely to protective measures against destroyers, submarines, and mine-layers, or to alterations of course to avoid an attack on the van

¹ Section VII.

² Section IX.

³ Compare letter of October 30, 1914.

⁴ Section VII, para. 9.

⁵ There were numerous reports of submarines during the battle, though Scheer states definitely that there were none in the vicinity, which is confirmed by Admiralty special intelligence.

⁶ Section VII, para. 1.

⁷ *Ibid*, para. 2. G.F. 49 also says that the necessity for wide decentralisation of command after the deployment of the fleet for action was emphasised. A careful study of the G.F.B.O. shows that it amounted to little, and, in the actual battle, practically to nothing so far as the Battle Fleet was concerned.

⁸ *Ibid*, para. 12.

or rear. There is no mention of delegating authority to attack or close the enemy. Independent action was confined to defensive measures.

Some of the instructions dealing with the "Conduct of a Fleet in Action"¹ seem to clash with those mentioned above. For example, the instructions for the guidance of leading ships of columns imply the possibility of the van, centre and rear divisions acting independently, and actually state the exact bearing on which the leading ship should alter course if it is decided to circle the enemy's rear,² though circling of the rear was forbidden in the previous section. The necessity of closing the range to obtain decisive results is also laid down as an abstract principle, but is at variance with some of the previous instructions.

Deployment.

13. The deployment of the fleet receives considerable attention in the Orders. The conventional methods of deployment from cruising formation are dealt with,³ and an important diagram is included giving the position which each squadron and flotilla is expected to occupy after deployment. The Battle Fleet is shown in one long line 18,000 yards from the enemy line with the 5th Battle Squadron and Battle Cruiser Force two points on the engaged bow of their own Battle Fleet, one and five miles distant respectively. All the cruisers, light cruisers and destroyers, except one squadron of each and one flotilla, are disposed ahead of the battle line and Battle Cruiser Force. The remainder are stationed at the rear of the line on the engaged quarter. In the event of the enemy deploying away from Heligoland, the 5th Battle Squadron is allotted a position at the rear of the line instead of the van. These Orders are representative of the level of tactical thought existing at the time. They are carefully thought out, but are confined to the idea of a battle in a long single line. They never reached tactics of pursuit, and when the fleet turned into divisions at 6.55 p.m., they broke down.

Cruisers and Destroyers.

A general explanation of the duties of cruisers is to be found in the instructions to cruisers employed on screening and looking out for the Battle Fleet.⁴ Stress is laid on the urgent necessity of the Commander-in-Chief getting reliable bearings and distances of the enemy relatively to himself or one of the

¹ Section VIII. It is stated at the head of Section VIII that it is supplementary to the instructions issued by the Admiralty in M. 0426 13/A of October, 1913, and perhaps this accounts for the difference between it and Section VII.

² Section VIII, para. 2.

³ Section XXIII.

⁴ Section XXII.

Battle Fleet,¹ and it is pointed out that when the visibility is less than 12 miles references to the enemy's latitudes and longitudes are quite useless, and that visual touch must then be maintained between the reporting ship and the Commander-in-Chief by means of linking cruisers.

The duties of battle cruisers, cruisers and light cruisers in a fleet action are explained at great length.² The gist of these instructions is, that the primary duty of all classes of cruisers is to attack vessels of a similar class so as to prevent any interference with the Battle Fleet, which must be left free to engage the enemy Battle Fleet.

Stress is also laid on the necessity of keeping a look-out for submarines and driving off all ships which might be employed in concealing their position. Armoured cruiser squadrons are detailed to prevent mines being laid in the path of the Battle Fleet, and are ordered to act widely from the Battle Fleet for this purpose and without regard to any other consideration. Particular stress is laid on the necessity of the light cruisers attacking the enemy torpedo flotillas and supporting their own flotillas in the performance of this duty. They are only to attack the enemy battle line with torpedoes if they can do so without prejudice to this duty.

Instructions for destroyers are contained in an Addendum to the Grand Fleet Orders. They are in great detail, but their primary duty is stated to be that of stopping enemy destroyers by engaging them at close range before they can fire their torpedoes. Attack on the enemy's Battle Fleet is definitely relegated to a secondary position.

The detailed plans for destroyer attacks given in the Memo. of May 1 form a striking commentary on the actual events of the night of May 31.

15. The letter of October 14, 1914,³ deals mainly with the question of submarines co-operating with the German Battle Fleet, and also with that of attack from German torpedo craft. It conforms with the principles embodied in the Battle Orders of 1916. Their Lordships are informed that if "the enemy's Battle Fleet should turn away from an advancing fleet, I should assume that the intention was to lead us over mines and submarines, and *should decline to be so drawn.*" It is then stated that "the safeguard against submarines will consist in moving the Battle Fleet at very high speed to a flank before deployment takes place or the gun action commences." It is recognised that the enemy may refuse to follow, and that this action might be deemed a refusal of battle, and might possibly result in failure to bring the enemy to action as soon as was expected and

¹ Section XXII, paras. 6, 19 and 20.

² Section XXIV.

³ M. 03177/1914. Jutland Papers (Cd. 1068), Appendix IV, p. 601.

hoped: but the Commander-in-Chief states that so long as he had the confidence of Their Lordships he intended to pursue this policy, which in his considered opinion was the proper course to defeat and annihilate the enemy's Battle Fleet.

This letter, which received the general approval of Their Lordships, also emphasises the desirability of despatching the Harwich Force to join the fleet should an action be probable, and requested that this might be done.

Tactical Conceptions of the Battle Orders.

16. One of the main points arising out of a study of these Orders is whether the tactical conception of an action in one long line on parallel courses was sufficient to meet the situation. Was it capable of forcing an action on a reluctant fleet?

In the sailing ship period, the rigid formula of the long line always failed to bring about decisive results, and it was finally discredited after numerous failures¹ and endless courts-martial. Although steam ships can be manœuvred with greater freedom, the same faults tend to develop unless definite precautions are taken to avoid them. Divisional leaders must either be encouraged to attack on their own initiative in order to prevent the escape of a retreating fleet, or a strong detached force must be used for the purpose.

17. The decision of the Commander-in-Chief to keep outside the effective range of the torpedo, combined with the lack of any definite idea of concentration,² meant that under the most favourable circumstances the battle must develop into a ship to ship artillery duel at long range. But the whole art of tactics consists in massing superior forces against part of the opposing fleet, and battles are not won by applying equal pressure all along the line. In every case there is one part of the line the defeat of which will bring about the collapse of the whole.

Envelopment, or an overpowering attack on part of the German Fleet, was the only certain method of forcing a decision, and whether this attack were carried out against the van, centre or rear, the one essential factor was that it should be inspired with a determination to break up and intimidate the enemy, upset his plans, and cut off his line of retreat.

The Orders to the Battle Fleet do not express any such intention, but the 5th Battle Squadron and Battle Cruiser Force were detached from it, and at first sight this might seem to imply an

¹ Battles of Lowestoft, Toulon, Minorca, Rodney and De Guichen (April 17, 1780), Chesapeake Bay (September 5, 1781), etc.

² The word concentration is used here in its tactical and not in its gunnery sense. At the time of Jutland the technique of modern gun concentration was comparatively undeveloped, but tactical concentration is as old as fighting at sea. De Ruyter and Nelson brought it to a fine art despite the difficulties of movement inherent in the sailing ship.

intention for this fast and powerful force to co-operate with the Battle Fleet in an overwhelming attack on part of the High Sea Fleet. But this was apparently not the intention of the Orders, for these vessels were merely directed to engage the opposing battle cruisers and prolong the line of deployment,¹ whilst the primary function of the light cruisers and torpedo craft was definitely stated to be the protection of their own Battle Fleet from the German torpedo craft.² The use of these forces was therefore governed by the conception of like attacking like, which was at variance with the idea of uniting all available forces in an overwhelming attack on part of the opposing fleet.

Functions of Auxiliary Craft based on the idea of Defence.

18. In dealing with the functions of various craft the Battle Orders state: "The aim of our Battle Fleet is the destruction of the enemy's battleships, and to enable this to be done with the greatest certainty, and in the shortest time, it is of primary importance that the whole attention of ships in the line should be given to this object, and should not be diverted by the proceedings of other classes of enemy vessels such as battle cruisers, cruisers, light cruisers, torpedo craft or minelayers, all of which possess the power to inflict great damage if the opportunity is given to them. The duty of preventing interference with our Battle Fleet belongs to vessels of generally similar type to those of the enemy . . . and is not purely defensive but should be achieved by attack."³

But if the various craft mentioned "possessed the power (when used by the enemy) to inflict great damage," could they not be used by us to inflict reciprocal damage on the enemy's Battle Fleet, for when it was defeated, the battle would be won and other craft would not matter? The mere fact of attacking would force similar craft on the German side to protect their Battle Fleet, and thus prevent them interfering with the British Battle Fleet.⁴ This policy of cruiser fighting cruiser and destroyer destroyer is based on the doctrine that the battle is to be won by artillery fire⁵ alone and not by tactics.

The Orders practically renounced the use of the torpedo, although the greatest results can only be obtained by the co-operation and full use of all arms, and the gun by itself cannot achieve the effect of a skilfully combined attack.

¹ Deployment diagram and Section XXIV.

² Section XXIV (d) and destroyer addendum.

³ Section XXIV.

⁴ As in the attack of the 13th Flotilla at 4.15 p.m. and of the 4th Light Cruiser Squadron and 11th Flotilla at 7.35 and 8.15.

⁵ Grand Fleet Battle Orders. Destroyer addendum, para. 5: "It is undoubtedly to our advantage to endeavour to obtain the final decision in a fleet action by means of superior gun power. Our tactics must consequently be based on this plan."

It would be difficult to maintain that this policy was not a purely defensive one. What else could it be? It meant that the British light cruisers and destroyers had to wait for the enemy's moment of attack, for the latter, sheltering behind the guns of their Battle Fleet, were not likely to expose themselves until that moment arrived. The policy of awaiting attack must be regarded as a defensive one, for it surrenders the initiative and power of surprise to the enemy, and the result was seen in the attack delivered by the enemy at 7.25 p.m.

19. Destroyers first took a regular part in fleet tactical exercises during Sir W. May's command of the Home Fleet, and the instructions¹ which he suggested for their guidance make it clear that they were primarily intended to attack the enemy's battleships with torpedoes. Sir George Callaghan's memorandum favoured the same view.² It laid down the functions of attack and defence, but stated that the chances of performing the second are more uncertain owing to the difficulty of preventing the opposing torpedo craft from reaching a favourable position for torpedo attack.

The following extracts show that great stress was laid on the defensive rôle of destroyers in the Grand Fleet Battle Orders:³ "*Unless conditions are clearly very favourable for our light cruisers to be able to deal effectually with the German destroyers, it is impressed on all destroyer officers that their primary duty is to stop the German destroyers by engaging them in close action before they can fire their torpedoes. If, therefore, their duty is to act against the German flotillas, torpedo attack on the German Battle Fleet is secondary to gun attack on their destroyers. . . .*"

"The question (i.e., of attack) depends to a certain extent on relative strength in torpedo craft. Were the numbers in our favour or nearly equal, we could afford to give our destroyers greater freedom in taking the offensive. . . . *At the same time, it must be understood that our flotillas are not to miss a favourable opportunity for successful torpedo attack on the enemy's Battle Fleet.*"⁴

The general summary runs as follows: "Take up the best position you can for offensive action for operating against both the German Battle Fleet and its destroyers, *having always in view the relative number of destroyers present on the two sides. . . . If we have an approximately equal number of destroyers* (which is improbable), or if our light cruisers have the destroyer menace well in hand, one of the two van flotillas should attack the enemy Battle Fleet immediately the opportunity occurs after the fleets are engaged, assuming the range to be not

¹ Notes on Tactical Exercises, Home Fleet, 1909-1911, p. 424.

² Remarks on the Conduct of a Fleet in Action, M. 02124/1913.

³ Underlined in the original.

⁴ Destroyer addendum, paras. 4, 5 and 6.

greater than 13,000 yards. If you have to decide between his Battle Fleet and destroyers, the latter are to be given primary attention, so as to stop them before they can fire their torpedoes at our Fleet."¹

It would appear from the foregoing that the action of destroyer officers was partly to depend on the strength of the enemy flotillas, and that they would have to ascertain this before deciding on their course of action. But even on days of clear visibility it was more than probable that some of the enemy's torpedo craft would be out of sight from our flotillas,² and it is difficult to see how they were expected to obtain this information. Flotilla Commanders were instructed not to miss a favourable opportunity of attacking, but each succeeding set of instructions laid stress on the necessity of defending the Battle Fleet, and impressed on officers that this was their primary function.

With these Orders in front of them, and with only a very limited view of the battle, officers who wished to attack would be faced with the heavy responsibility of jeopardising their primary duty in sending vessels to attack the enemy's Battle Fleet, and in fact they made little attempt to do so.³

Further, the idea of attacking with one flotilla and holding back the other when a favourable opportunity of attack offered, had distinct disadvantages, for success in such an attack depends largely upon the force with which it is delivered, and to produce the fullest effect, the fullest use must be made of all available craft.

Conception of Defensive Tactics.

20. The spirit in which an action is commenced is, however, more important than the particular dispositions adopted. The self-confidence of a leader is the determining factor for or against victory, and so long as the command is inspired by the determination to destroy the opposing fleet, the initial handicap of a faulty tactical plan may sometimes be overcome.⁴

¹ Destroyer addendum, para. 24.

² The German plan of stationing their flotillas on the disengaged side and attacking through their line was well-known before the war.

³ Only two flotilla attacks were made during the day—by the 13th Flotilla at 4.15 on Hipper's squadron (by order of the S.O.B.C.F.) and by the *Shark* and its small division at 5.55 p.m. The attacks by the *Moresby* and *Onslow* were individual attacks.

⁴ Previous to the battle of Camperdown, Duncan intended to maintain the long line and repeat the inconclusive tactics of the battle of June 1. A tendency to retreat on the part of the enemy induced him to hurry on the action, and, signalling to *Onslow* to attack the rear, he steered for the centre of the Dutch line. The approach therefore developed into two more or less perpendicular attacks led by the flagships. With the exception of Nelson's victories, this was the most decisive and hard fought battle of the century, and it was fought in direct opposition to his own original and faulty plan.

The theory of the defensive is, however, so consistently implied in the Grand Fleet Orders, that a determination to run no risks must be regarded as part of its Commander-in-Chief's considered policy.

This conception displays itself in two very startling decisions, viz.: the refusal to follow the High Sea Fleet should it turn away during the opening phase, and the pre-determined movement to a flank before engaging. If these proposals were carried out, delay must inevitably occur in commencing the action, and, what is more serious, the German Fleet would be given a very good opportunity of escaping altogether.¹ It was as certain as anything is certain in war, that the German Fleet would not follow the Grand Fleet, and that the only hope of a decisive action lay in making the most of any opportune contact and denying the High Sea Fleet any opportunity of escape. When the Commander-in-Chief's letter was written, the system of special intelligence had not been developed, and the chances of a fleet action were very remote.² So far as could be foreseen at that time, the opportunity, if it arose, was not likely to recur, and in these circumstances the letter of October 30, 1914, must be regarded as embodying a conception of tactics which could not be reconciled with a decisive action.

The menace from mines and submarines will be considered in greater detail later, but if it were so serious as to justify these decisions, it was hardly sufficient to say: "Exercises at sea and exercises on the tactical board show that one of the most difficult movements to counter on the part of the enemy is a turn away of his line of battle."³ When such a vital issue was at stake, a solution had to be found, and this was not far to seek, for the difficulties referred to could have been sensibly diminished by a more flexible tactical system. If the enemy line turned away in succession, an attack on the rear by a strong detached force would be one method of checking the retreat without drawing the attacking force over the supposed submarine area; or, again, the Grand Fleet was sufficiently strong to detach the battle cruisers, and a strong squadron of fast battleships to operate on the German van or rear: but such methods entailed

¹ This was recognised by the Commander-in-Chief, for he says that the enemy may refuse to follow, and that his action (the Commander-in-Chief's) may be deemed a refusal of battle. Commander-in-Chief to Admiralty, October 30, 1914. M. 03177/1914.

² "There seems to be very little chance of bringing on a general engagement . . . the dream of most naval officers seems to be a great sea fight in which by some means or other we are to be enabled to collect all our forces together and crush the Germans at one blow. This, however, is only a dream. What we have to do is to dispose our forces so as to prevent the Germans from doing us more injury than we can possibly help and never to miss a good opportunity of injuring them." Sir A. K. Wilson's minute on M. 03177/1914.

³ *Vide* Section VII, para. 8.

a considerable degree of dispersion¹ and decentralisation of command, and they were not possible under the system outlined in the Orders.

Similarly, the danger of torpedo attack was a necessary corollary of the long single line, and it was frequently pointed out before the war that it could be greatly reduced by divisional tactics. There were, no doubt, strong objections to adopting a new system of tactics after hostilities commenced, but the system was not entirely new, for Admiral Sir William May had pointed out its advantages, and if the accepted and orthodox tactics of the single line were so vulnerable to torpedo attack, the difficulties of adoption should have been faced and overcome.

Also, if the risk from submarines and mines was so great as to prevent the British Fleet moving to attack across a certain area, was it not equally possible for British submarines and minelayers to prevent the German Fleet escaping over a similar area? If we could not use them, why should the Commander-in-Chief infer that the Germans could?

21. The true significance of the Commander-in-Chief's letter of October 30 does not appear to have been appreciated, and the sweeping nature of the tactical considerations involved seems to have been overlooked, for Their Lordships made no remarks or criticisms on the fundamental questions raised therein. The only minute of any importance is by Admiral of the Fleet Sir A. K. Wilson,² who points out that there are great practical difficulties in bringing submarines to the scene of action, and that even if they do accompany the fleet on the surface, they will almost certainly be left behind when the action commences.³ The fact that such a very important letter could pass through the Admiralty without thorough examination must be attributed to the lack of an adequate staff organisation. Read in the light of later events, it can be seen that the conception of battle tactics it contained, practically ruled out the idea of a decision by gun-fire and spelt the negation of the battleship. But the Battle Orders were based on obtaining a decision by gun-fire, and so the whole tactical system became infected with an element of inconsequence. It is also important to note that at the time of the Battle of Jutland the then First Sea Lord was unaware of the existence of this letter,⁴ although

¹ "Dividing the fleet at once gives freedom to subordinates, and in so doing, strikes at the root of the purely defensive formation of the single line, and leads to an offensive method of engaging." Notes on Tactical Exercises, Home Fleet, 1909-1911. Admiral Sir William May.

² Sir A. K. Wilson acted in an advisory capacity to the Board.

³ Remarks on Commander-in-Chief's letter of October 30, 1914, M. 03177/1914.

⁴ "This letter appears to have been stowed away, as I have never seen it till yesterday." Minute of Sir Henry Jackson, September 18, 1916.

it governed the tactics of the Grand Fleet, and should, if approved, have led to a very great modification in our North Sea strategy.¹

Centralisation of Command.

22. Before discussing the Battle Orders from the point of view of tactical command, it is desirable to recall the two conflicting conceptions which characterised it in the past. On the one hand was a stereotyped centralised system directed from the flagship which left as little as possible to chance. Opposed to this was a flexible system in which the admiral conveyed a general tactical idea of attack, set it going, and left it to subordinate leaders to execute as the particular circumstances of the moment might require. Risks were freely accepted and offensive action encouraged. The fighting instructions of the eighteenth century typify the former system, and Nelson's method of command the latter.²

The Grand Fleet Orders indicate a reversion to the formal system, for they were based on the conception of a ship to ship artillery duel developing on orderly and methodical lines in accordance with a stereotyped plan to which both sides would mutually adjust their movements. The battle plan of the Grand Fleet in fact depended neither on the will nor intention of its leader, nor on the information gained by his cruisers, but on the readiness of the enemy to conform to its movements. This was a very uncertain basis to build on, for the leader of a weaker fleet was hardly likely to conform to the idea³ of a parallel course unless he were forced to do so. The very first thing Scheer did immediately he appreciated that he was confronted by the whole British Fleet was to turn and run away.

Besides the conception of a formal battle on stereotyped lines, the Orders indicate a tendency to prescribe the actual methods of fighting, and to lay down in detail how subordinates are to act, though general experience of war has shown that it is better to leave officers to use their own judgment according to the particular circumstances of each case.

For example—in endeavouring to legislate for a divisional

¹ It was pointed out in Chapter I, para. 8, that British strategy in the North Sea was based on the idea that the one and only function of the Grand Fleet was to seek out and destroy the High Sea Fleet, and that the protection of trade and anti-submarine operations were subordinated to this idea.

² Somewhere between the two was the signal book system introduced by Howe and Kempenfelt, which led to the abolition of the Fighting Instructions and left an admiral free to adopt any tactical plan he desired. Signals alone have, however, always failed to obtain a high degree of co-operation, and it was left to Nelson to introduce the perfect system, based on offensive action, decentralisation of command, a common doctrine and co-operation as opposed to mechanical obedience.

³ Section VII, para. 13: "Action on approximately similar courses will be one of the underlying objects of my tactics."

destroyer attack by the Germans after the British deployment, the Orders, instead of giving general directions, endeavour to provide for three possible situations, and lay down the procedure to be followed in each, even to the number of vessels to be detached to meet the German attack.¹

But the consensus of experience in war, both on land and sea, tends to show that when attempts are made to provide for such cases by detailed instructions, some wholly unforeseen contingency arises, and subordinates are then inclined to await further instructions which are probably not forthcoming at the critical moment.

A battle in which the reciprocal action of the enemy must be a matter of conjecture cannot be embodied in a single formula. Mist and low visibility were probable conditions in the North Sea. Was the fleet, under these conditions, still to keep outside torpedo range, a course tantamount to refusing action? Similarly, was the principle of the single line to be adhered to and divisional attack forbidden, if half the fleet were engaged and the other half were out of sight of the enemy? Or, if the battle cruisers and 5th Battle Squadron found themselves in favourable positions for attacking in conjunction with the Battle Fleet whilst falling back after reconnaissance, were they to abandon them in order to take up the positions laid down in the Deployment Diagram? Or, if the conditions of meeting were such as to render the presence of submarines unlikely, was the leader of the van still to exercise great caution in "leading in"?—and so on through all the doubts and perplexities which must accompany this system of command, and which generally result in subordinate leaders, hampered by innumerable instructions, doing nothing or doing the wrong thing when some unforeseen contingency arises.

23. The direction of the battle should be centred in the Commander-in-Chief, but instead of trusting to signals to meet emergencies as they arise, or to cut-and-dried plans for meeting emergencies which may not arise, he should rely on the trained judgment and spontaneous action of subordinates to carry out his ideas. This relationship may be the product of a general body of doctrine, as in the case of the French or German armies, or of individual teaching as in the case of Nelson, who instinctively grasped all the essential principles of successful command. It appears that at Jutland the system of command was limited to the signal book, and a cut-and-dried plan suitable only to one particular set of circumstances.²

¹ Section VII, para. 14.

² See Deployment Diagram of April 7, 1916. It is very possible that the Commander-in-Chief endeavoured conscientiously to adopt a system of decentralisation, but it must have been difficult for him to do so. Centralisation had become an inherent part of naval command; it had crept into the bones of almost every naval officer of the eighties and nineties, and had become ingrained in the subsequent generation of fleet commanders.

Only the initiative of subordinate leaders can produce results in modern battle, but initiative can only produce convergent results when it is guided by some general tactical idea. Instructions for cruising dispositions, station keeping, deployment, etc., may be important, but they are subsidiary details. The main thing—very often the only thing—for the higher command is to define clearly, briefly, and broadly the idea of manœuvre or attack, so that everyone may act with the maximum degree of confidence and determination in destroying the opposing fleet.

This was lacking, and although in theory the orders seemed to recognise the necessity for initiative, in nine cases out of ten the adoption of a strictly defensive policy entails surrendering the initiative to the enemy. How, for example, could flotilla leaders exercise initiative if their primary function were defined as the protection of their own battleships? Under these circumstances, the initiative lay with the enemy torpedo craft which could generally fire their torpedoes long before the opposing destroyers could attack them. Instructions for maintaining definite formations, detailed procedure for avoiding torpedo attack, orders as to the number of ships to be detached in certain eventualities, etc., give no opportunity for the initiative of subordinates. They are the orders for the sentry not to leave his post, and belong to a highly centralised system out of touch with the well-proved principles of command.

Submarines, Mines and Torpedoes.

24. The menace of the submarine, mine and torpedo, will now be examined in greater detail. Firstly, with regard to submarine traps. At the time of Jutland, neither this country nor Germany possessed submarines capable of accompanying the Battle Fleet without greatly hampering its movements, and this reduced the chances of German submarines playing an important rôle in a fleet action. Considering the great British superiority in cruisers, it would have been extraordinarily difficult for the Germans to foretell the exact meeting place of the two fleets, much less to manœuvre submarines into a favourable position for attack. They could only hope to do so by reducing the speed of the Battle Fleet, and working their submarines on the surface after the two fleets had sighted each other; but this would preclude the idea of surprise and concealment.¹

The inherent qualities of the submarine were also unfavourable to its employment in a fleet action, for its vulnerability and comparative blindness place it at a disadvantage when working

¹ Special cases can be imagined when the danger of a submarine trap would be considerable, such as one fleet pursuing another through a deep water channel such as the Straits of Gibraltar, but these were not the conditions of the North Sea.

with surface craft, whilst its power of evasion makes it more or less independent of their support. Being the only type of vessel which suffers from close co-operation with other craft, the German submarines were likely to co-operate more effectually by taking up strategical positions in the vicinity of British harbours (as they actually did) than by entering an area in which hundreds of vessels including destroyers are moving about at high speed.¹

The possibility of enticing the Grand Fleet over a minefield during the opening phase of an action in the open sea, was also more remote than might appear at first sight. At the best of times a tactical minefield closes an area to friend and foe alike, and tends to limit mobility just when mobility may be all important. It was fair to assume that the movements of the British Fleet, with its immense superiority in cruisers, would be hidden from its opponent, and that the latter would not be in a position to foretell the exact direction and nature of the British attack until it actually developed. Part of the British Fleet, for instance, might cross the German line of retreat and drive them back over their own minefield if it were laid too early. The Germans might certainly endeavour to cover their retirement by dropping mines, but they probably would not dare to do so until the two fleets were close to each other, when the operation would probably be observed by the pursuing fleet. Action of this kind might effectually delay the attack, but the element of concealment would be lacking. Hipper, in the early part of the afternoon during his action with Beatty, ran through the very area traversed later by the German Battle Fleet. How is one to know where to lay one's mines in the open sea? To lay them as the *Abdiel* did on a definite return route is another matter.

25. Again, there was the danger of the torpedo fired from surface ships. It was stated in the Orders that the enemy might possibly have torpedoes with a range of 15,000 yards or more, and the diagram of deployment was apparently based on this assumption.² But in January, 1916, the latest Admiralty information³ gave the maximum range of the German 19·7 in. and 17·7 in. torpedoes as 10,000 and 6,500 yards respectively, and the extra 5,000 yards seems to have been of the nature of a margin of safety.

The torpedo by itself is an inferior weapon. Its aim is

¹ The Germans had never practised the co-operation of submarines and battleships. Scheer, p. 104. On the only known occasion before Jutland when a German submarine (U.19) got in amongst the Grand Fleet, it missed its mark and was rammed by the *Dreadnought*.

² Section VII, para. 7.

³ German Torpedoes, Mines, etc., Addenda to Foreign Naval Ordnance, Torpedo, Mines, etc., 1916, p. 4.

very uncertain, and although it may strike a very heavy blow,¹ it has no effect on the personnel except on the very rare occasions when it actually sinks a ship. The gun, on the other hand, by the frequency of its hitting, demoralises the personnel, destroys the gun and torpedo control, and interferes with the power of hitting back.

The chances of a torpedo hitting a line of ships being proportionate to the space between the ships, the British Fleet might, from a purely geometrical point of view, counter a torpedo attack by—

- (a) Keeping outside torpedo range or running outside when the attack takes place.
- (b) Presenting a narrower target by turning towards the attacking vessels.
- (c) Presenting a narrower target by turning away.
- (d) Dividing the long line into separated divisions or sub-divisions.

With regard to (b) and (c), a turn towards the enemy produces a narrower target than a turn away, as torpedoes are generally fired from well before the beam of the target.

Comparison in Torpedo Power.

26. In any case there was little justification for the theory that the British Fleet was inferior to the Germans in power or torpedo attack. Ship for ship the German capital ship and torpedo boat mounted more tubes than the British, but this was balanced by numbers, and the fact that the British carried a larger proportion of long-range torpedoes. In a fleet action, the German 17·7 in. and British 18 in. were of relatively little use.

The torpedo strength of the fleets present at Jutland is shown in the following table :—

TORPEDO TUBES AT BATTLE OF JUTLAND.²

Type of Vessel.	British.		German.	
	21 in.	18 in.	19·7 in.	17·7 in.
Battleships and Battle Cruisers ..	86	49	80	64
Cruisers	—	29	—	—
Light Cruisers	60	6	16	10
Destroyers	236	—	266	33
	382	75	362	107

¹ Prior to the Russo-Japanese War, so little attention was given to under-water protection that the ordinary merchant ship was probably less vulnerable to torpedoes than the pre-Dreadnought battleship. There can, however, be no comparison between that class of battleship and the Dreadnought battleship with its continuous transverse bulkheads.

² From information supplied by Torpedo Division, Naval Staff, in 1921.

In the event of a fleet action there was, however, good reason to expect reinforcements by the Harwich Force, and if the Admiralty had carried out what really amounted to a pledge, the Grand Fleet would have had 14 more 21 in. tubes in light cruisers, and 72 in destroyers.

This would have increased the British margin of superiority in long-range torpedo tubes from 20 to 106, and the British torpedo flotillas would also have had a greater number of tubes than the German. In preparing the Battle Orders there was, therefore, no reason to assume that the Grand Fleet would be relatively weak in power of torpedo attack. With regard to range, the maximum range of the British 21 in. was 10,750 yards at 29 knots. The Germans had three marks of 19·7 in. torpedo in their fleet at Jutland, and, failing information as to the proportion in which they were carried, their mean maximum range may be taken, which was 10,090 yards at 28½ knots.¹ The British 18 in. torpedo had also a greater maximum range than the German 17·7 in. The superiority of the Germans in torpedo attack was therefore based largely on assumption, and even if inferiority in torpedo power were admitted, it constituted only one arm of the fleet. The object of battle is the destruction of the enemy fleet, and to attain that end, the attack must be made with every available weapon. Gun-fire can cover and support torpedo attack by light craft, and the torpedo can drive home and complete the work of the gun. Weakness in one arm can be balanced by strength in another, and if the British Fleet were weak in torpedoes, it constituted all the more reason for vigorous attack with the gun. This was precluded by a turn away, which must increase the difficulty of hitting, if it did not actually run the fleet out of gun-range. If the doctrine of systematically turning away to keep out of a weapon's range (and not of a particular torpedo track) were applied to the gun, fleets would keep out of gun-range and naval warfare would come to an abrupt end.

CHAPTER III.

PRELIMINARY MOVEMENTS—MAY 28-30.

27. The appointment of Admiral Reinold Scheer to command the High Sea Fleet in place of Von Pohl was the first sign of a more offensive policy. As Admiral Commanding the Second Squadron he had chafed at the inactivity of the Fleet and had advocated a bolder strategy. His star was now in the ascendant. He received his formal appointment as Commander-in-Chief of the High Sea Fleet on January 18, 1916, and in February proceeded to Berlin to a conference with the Chief of the Naval

¹ From information supplied by Torpedo Division, Naval Staff.

Staff, Admiral Von Holtzendorff, where it was decided to adopt bolder measures.¹ Victory on land had not been achieved; the pressure of the blockade was being keenly felt; and it was hoped that the fleet by resolute and skilful sorties might do something to break the enemy's stranglehold by sea. The Emperor in person visited Scheer's flagship and publicly expressed approval of his policy.

Scheer was a strong advocate of ruthless submarine warfare, and he had hardly been in command a month when the attack on the *Sussex*² led to an outburst of neutral feeling and to a decisive Note from President Wilson threatening to break off relations with Germany. The German Government temporarily abandoned the idea of ruthless warfare, and issued orders on April 24 that the submarine campaign was to be conducted in accordance with Prize regulations involving visit, search and capture in due form. Tirpitz resigned. Scheer, then at sea on his way to bombard Lowestoft, recalled all submarines and announced that the campaign had ceased. This placed a number of submarines at his disposal, and plans were now drawn up for co-operation with them based primarily on the stratagem of enticing out the Grand Fleet and attacking it with submarines in the vicinity of the East Coast.

It was intended at first to despatch a Battle Cruiser Squadron to bombard Sunderland in order to draw out the British Fleet, which was then to be attacked by submarines stationed on the East Coast and, if a favourable opportunity presented itself, by the High Sea Fleet itself.³ Sixteen U boats and a half-dozen boats of the Flanders Flotilla were to be stationed in suitable positions with orders to remain at their posts from May 23 to June 1, reporting any movements of British ships, and seizing any favourable opportunity for attack. Clear weather was, however, an essential condition for an operation of this sort, for air reconnaissance would be necessary to give the High Sea Fleet ample warning of the approach and composition of any British force. Unfortunately, a spell of bad weather had set in: day after day the airship commander reported air reconnaissance impossible, and the Commander-in-Chief finally decided to try the less risky operation of enticing the British Fleet out by a sortie in the direction of the Skagerak and the coast of Norway.⁴

The submarines had been ordered to take up their position by May 23, and as they were only to remain out till June 1, this became the last day for any operation in conjunction with them. On May 30,⁵ therefore, the High Sea Fleet was ordered

¹ Scheer, 105.

² March 25, 1916.

³ Scheer, 134.

⁴ Scheer, 135.

⁵ At 0944, Birch and Clarke, 377.

to be in the outer roads of Wilhelmshaven by 7.0 p.m. Thirteen submarines were by this time lying off the British coast,¹ and U.75, after laying on May 29 off the West coast of Orkney the mines which were to sink the *Hampshire* and lead to Lord Kitchener's untimely end, was on her way home.

28. These precursory movements had not been made without attracting attention. The British Admiralty was already on the alert. On May 16 and 17 signals had been taken in reporting the departure of nine submarines,² an incident sufficiently unusual in itself to arouse attention, and as several days elapsed without any sinkings being reported, it became clear that some special movement was afoot. But its precise nature still remained obscure,³ and there was nothing tangible to indicate that it was part of a larger operation to be carried out in direct conjunction with the High Sea Fleet.

On May 28, however, it became apparent that a more extensive operation was on foot, for a signal⁴ from the Commander-in-Chief directed all forces in harbour to be ready in accordance with his orders for March 30. This was supposed in Room 40, at the time, to refer to the despatch of forces to Terschelling and Horns Reef to meet airships returning from a raid.⁵ But on May 30 it was followed by a signal⁶ ordering the High Sea Fleet to be assembled in the outer roads of Wilhelmshaven by 7 p.m., which was confirmed an hour or so later by a signal from Bruges to the submarines of the Flanders Flotilla, telling them to reckon on German forces being at sea on May 31 and June 1. It was clear that some considerable movement was on foot, and at noon on May 30 a message was sent to the Commander-in-Chief, Grand Fleet, that there were indications of the German Fleet proceeding out.⁷ The position still remained obscure, but steps were taken to meet the contingency. Harwich destroyers and minesweeping sloops on the East Coast were recalled, and Commodore (S) was ordered to have all submarines ready for sea. At 1536 a signal was made by the German Commander-in-Chief, of which only a brief portion was received,

¹ Off Scapa, U.43, 44; off Kinnaird Head, U.47; off the Forth, U.66, U.63, U.51, U.32, U.70, U.24, U.52; on the way to the Tyne, U.24; off the Humber, U.B.22, U.21; south of Dogger Bank, U.67. Harper Diagram, German II.

² Special Intelligence Records.

³ A clear distinction must be drawn between the inferences drawn in Room 40 and the final appraisal given to them by the D.O.D. and the Chief of the War Staff and First Sea Lord.

⁴ Reported to Operations Division, 9.40 a.m., May 28.

⁵ Birch and Clarke, 377.

⁶ 0944 reported to Operations Division, 11.30 a.m. See Appendix G.

⁷ "There are indications that German Fleet are to be in outer roads by 7 p.m. to-night, and may go to sea early to-morrow. Object may be to have them ready to support returning Zeppelins. Sixteen German submarines are now at sea, most of which are believed to be in North Sea; two are off Terschilling." Sent by land wire to Commander-in-Chief, noon, May 30.

namely, " May 31, most secret," but to the workers in Room 40 this was enough to indicate that on May 31 most secret orders of some previous date were to be executed, and at 5.16 p.m. a message went off to the Commander-in-Chief and Senior Officer, Battle Cruiser Fleet, to raise steam, followed by a further wire at 5.40 p.m. as follows : " Germans intend some operations commencing to-morrow and leaving *via* eastern route and Horns Reef. Operation appears to extend over May 31 and June 1. You should concentrate to eastward of Long Forties¹ ready for eventualities." The operations had begun.

Disposition of the Fleet.²

29. The Grand Fleet on this date was distributed between Scapa Flow, Invergordon, and Rosyth.

The major portion was with the Commander-in-Chief at Scapa Flow, including the 1st and 4th Battle Squadrons and 3rd Battle Cruiser Squadron, with the 2nd Cruiser Squadron (only organised that day from the 2nd and 7th Cruiser Squadrons), and the 4th Light Cruiser Squadron. With them were the 4th Flotilla, part of the 11th Flotilla (*Castor* and 4 boats) and 12th Flotilla.

At Invergordon were the 2nd Battle Squadron, the 1st Cruiser Squadron, and part of the 11th Flotilla (*Kempfenfelt* and 9 boats).

Vice-Admiral Sir David Beatty was at Rosyth with the *Lion* and 1st and 2nd Battle Cruiser Squadrons. The 5th Battle Squadron was there, too, with the 1st, 2nd and 3rd Light Cruiser Squadrons and the 1st Flotilla (*Fearless* and 9 boats); the 13th Flotilla (*Champion* and 10 boats); part of the 9th Flotilla (4 boats); and part of the 10th Flotilla (4 boats); also the seaplane carrier, *Engadine*.

The usual bustle of preparations for leaving harbour ensued, and at the various ports the fleet began to raise steam.³

Before sailing, a message from the Admiralty stated that the eight submarines which had sailed between May 16 and 20 were believed to be still in the North Sea.⁴

The Commander-in-Chief had now to arrange for the concentration of his forces. He decided to proceed to a rendezvous in Lat. 57° 45' N., Long. 4° 15' E., 240 miles from Scapa, and sent a telegram at 7.37 p.m. to Admiral Beatty informing him of this position and directing him to proceed with the 5th

¹ Long Forties lies about 60 miles east of Scottish Coast. Sent to Commander-in-Chief and Senior Officer, Battle Cruiser Fleet, at 5.40 p.m., May 30.

² For details see Appendix A.

³ At Rosyth, signal 5.45 p.m., steam for 22 knots; at Invergordon, signal 6.5 p.m., for 18 knots; at Scapa, signal 7.5 p.m., Battle Fleet raise steam for 19 knots; at 6.25 p.m., 3rd Battle Cruiser Squadron for 22 knots; at 7 p.m., cruisers and destroyers for 20 knots.

⁴ Admiralty to Commander-in-Chief and Senior Officer, Battle Cruiser Fleet, 1812.

Battle Squadron to a position in Lat. $56^{\circ} 40' N.$, Long. $5^{\circ} E.$ (260 miles from the Forth). If he had no news of the enemy by 2 p.m. he was to stand towards the Commander-in-Chief, who would steer for Horns Riff. Beatty was also informed that the 3rd Battle Cruiser Squadron, *Chester* and *Canterbury*, would leave with the Commander-in-Chief, but might be sent on to the battle cruiser rendezvous.¹ These two rendezvous were 64 miles² apart, a distance which in the light of later events must be regarded as excessive, and which meant in fact that the two portions of the Fleet were never actually in visual touch before the action.

It may be assumed that the Commander-in-Chief in selecting the battle cruisers' position, expected to get into touch with the enemy there, in which case no real advantage could accrue from the main body being over 60 miles away. The nearer the Grand Fleet was to the enemy, the more time would be available to bring the enemy to action, quite apart from the difficulties that might arise and did arise in reporting the enemy, due to the squadrons never having been in visual touch. / The Commander-in-Chief states³ that he felt no anxiety in regard to the advanced position of Sir David Beatty's force, and it is true that, supported by the 5th Battle Squadron, it could hold its own against the 1st Scouting Group, the only force able to compete with it in speed, but there still remained the likelihood of delay in bringing the enemy to action, and of possible errors in reporting his position.

There can be little doubt that the Commander-in-Chief should have been as close as possible to the Battle Cruiser Force, subject only to the condition of keeping out of sight of the enemy. These conditions would have been met by a rendezvous in $57^{\circ} N.$, $4^{\circ} 15' E.$, 255 miles from Scapa,⁴ and 28 miles 300° from the Battle Cruiser Force. Such a rendezvous would have ensured visual touch, and would probably have led to direct

¹ Commander-in-Chief to Senior Officer, Battle Cruiser Fleet, 1937, received 8.15 p.m.

² Admiral Beatty's rendezvous was 64 miles 157° from that of the Battle Fleet.

³ Despatch, June 18, 1916 (J.P. I.).

⁴ The Commander-in-Chief's rendezvous was 240 miles from Scapa, requiring an average speed of $15\frac{1}{2}$ knots for the $15\frac{1}{2}$ hours. The above rendezvous would have been 255 miles, requiring a speed of 16.2 knots. The separation of the Battle Cruiser Force had given rise to a dangerous situation at 7 a.m., December 16, 1914, when the 2nd Battle Squadron and the Battle Cruiser Force were in the proximity of the High Sea Fleet. Little was known of this at the time, however, and the separation had become customary. During 1915 the Fleet had been ordered to sea on Special Intelligence reports on about seven occasions; the rendezvous ordered were on January 24, 1915 (Dogger Bank), 110 miles apart; March 29 (by Admiralty), 60 miles apart; April 17 (by Admiralty), 80 miles apart; April 21, 60 miles apart; May 18, 40 miles apart. During 1916 up to May 31 the Fleet had been ready for sea or ordered to sea on six occasions. The rendezvous were on March 6, 1916, 35 miles apart; on April 22, 44 miles apart. See Summary of Operations of the Grand Fleet, Naval Staff Monograph 13.

contact between the Main Fleet and the enemy nearly an hour sooner, about 18 miles to the southward of where it actually took place.¹

The necessity of concentration was evidently felt by the Commander-in-Chief after the battle, for one of the questions which he noted for discussion at the Admiralty on June 22 was the importance of moving the Battle Fleet to Rosyth.

The Harwich Force.

30. Just before 6 p.m. the Commander-in-Chief was informed by the Admiralty that the Harwich Forces and 3rd Battle Squadron lying in the Swin would not be sent out till more was known.² This episode forms a little story in itself. Early in the war the Commander-in-Chief had written to the Admiralty an important letter³ emphasising the desirability of all available ship and torpedo craft being ordered to the position of a fleet action as soon as it was known to be imminent.

Though the letter had received the general approval of the Admiralty,⁴ Admiral of the Fleet Sir Arthur Wilson had not concurred in the proposal to despatch the Harwich flotillas. "First, because there would be no possible chance of their arriving on the scene till many hours after the action was over, and, secondly, because the enemy's intention would probably be to enable a landing to be effected on the coast." The letter then seems to have been laid aside, for Sir Henry Jackson, who succeeded Lord Fisher as First Sea Lord, never saw it till some months after the Battle of Jutland.⁵

Sir Arthur Wilson's minute gives a clear summary of the strategical principles involved, entirely applicable to the time, and points out that there was little chance of bringing about a general engagement. But conditions had changed since he wrote it, and in 1916 the work of Room 40 made it possible to determine the position of the enemy and to foretell an impending action with some degree of probability. One point seems fairly certain, that the question was settled in 1916 without any reference to the letter of November 7, 1914, which remained snugly reposing in its safe till unearthed for the First Sea Lord's perusal three months after the action. The precise reasons for retaining the Harwich force remain obscure and were perhaps so at the time. Three possible contingencies were probably in the minds of those who made the decision. First: the German

¹ Assuming that the Commander-in-Chief followed the Battle Cruiser Fleet the former would have been about 13 miles 282° from the enemy's battle squadron at 5.15 p.m.

² Admiralty to Commander-in-Chief, 5.55 p.m., May 30.

³ Commander-in-Chief to Admiralty, October 30, 1914, M. 03177/1914, printed in J.P. 601, para. 17. See para. 11, *supra*.

⁴ November 7, 1914, J.P. 603; also Sir Arthur Wilson's Minute of November 22, 1914.

⁵ See *supra*, para. 21.

High Sea Fleet might come south. But if it did, how could Commodore Tyrwhitt with five light cruisers and 20 destroyers oppose it? The situation would merely have been a repetition of Heligoland Bight, with the positions reversed. Again, the Admiralty may have expected a repetition of the Lowestoft raid of April 25, 1916. But what could Commodore Tyrwhitt do in that case? No more than he did on April 25—namely, retire. If the Harwich forces were kept back to prevent a raid by the High Sea Fleet, it was being used wrongly for a task it could not perform. Was it retained for purposes of reconnaissance near the coast? Surely not, for this could be better done by seaplanes. The only other possible contingency was an invasionary raid: this had been Admiral Wilson's objection to moving the Harwich force north, but the possibility of this did not come into the picture in 1916; and if it did, decisions should for preference be based on intelligence which embodies something clear and precise. In this case Room 40 supplied sufficient information to ensure the probability of an impending battle. Why, then, sit waiting for information about something else? Manœuvre based on conjecture fails against manœuvre based on a clear and definite plan. But it was not merely bad policy to wait for further information. It was bad strategy to retain the Harwich force even in the event of an invasionary raid. What could such a raid have achieved, tied down to a definite landing spot, with the whole British Fleet at sea between it and its base? It seems probable that the matter never received the consideration it deserved. One of the previously recognised duties of the Harwich flotilla was to support and assist the Commander-in-Chief in a fleet action, and this important function was to a large extent forgotten or overlooked. All that was done was to order Commodore (T) to have his light cruisers and destroyers ready to sail at daylight if required: he reported his probable strength¹ as five light cruisers, two flotilla leaders and 21 destroyers, including eight detached for screening the 3rd Battle Squadron then lying in the Swin. For a time there seems to have been some intention of sending both the Harwich force and the 3rd Battle Squadron to sea, for at 10.35 p.m. Commodore (T) was ordered to hold his squadron at one hour's notice after daylight and to send eight destroyers to join the 3rd Battle Squadron in the Swin. At 4.50 a.m. he began to fear that he might not reach even the fringe of the impending action, and sent an urgent telegram to the Admiralty pointing out that no orders had been received. The reply that came back savours of routine. "Orders are to remain at one hour's notice." At daylight he was still at Harwich. His retention there must be regarded as a grave mistake. "No division on the eve of battle" is an axiom as true at sea as on land. From Harwich to Admiral Beatty's rendezvous was some 330 miles: at an economical

¹ Admiralty to Commodore (T), 6.20 p.m., May 30. Reply 7.40 p.m.

speed of 18 knots¹ it would have taken the Harwich flotilla 18 hours to reach this rendezvous. To join Beatty, they would have had to leave at 8 p.m. They remained at Harwich straining at their leash.

31. Meanwhile the various portions of the fleet had left harbour, and by 10.30 p.m. on May 30 the whole force was at sea. The Main Fleet under Sir John Jellicoe had cleared Hoxa by 10.15 p.m., leaving the harbour almost empty. Only the *Royal Sovereign*, recently commissioned, and a couple of destroyers were left behind.²

The *Iron Duke* shaped course S. 73 E. at 17 knots. At 1.47 a.m.³ the cruisers formed disposition No. 1⁴ with some modifications arising from the recent formation of the 2nd Cruiser Squadron. The 1st and 2nd Cruiser Squadrons were spread 10 miles ahead of the Battle Fleet and the 3rd Battle Cruiser Squadron 10 miles ahead of the cruisers.

One or two reports of submarines came in during the night. The *Trident* had been attacked by one off the Forth at 7.45 p.m., and another had been seen on May 30 at 11.15 a.m., 45 miles east of Aberdeen,⁵ both belonging to the German force sent out in conjunction with the coming sortie, but the Battle Fleet saw nothing and the night passed without any incident.

At dawn, the Battle Fleet formed divisions in line ahead disposed abeam to starboard, columns eight cables apart, the 3rd Division on the port hand, the 4th, 5th and 6th Divisions on its beam. At 9 a.m. speed was reduced from 17 to 16 knots,⁶ and shortly afterwards contact was effected with the cruisers of the 2nd Battle Squadron from Invergordon. At 11.15 a.m. this squadron joined⁷ and took station on the port beam of the Fleet. At noon the *Iron Duke* was in Lat. 58° 09' N., Long. 2° 59' E.⁸ (position obs.) and reduced to 15 knots with a speed of advance

¹ At 18 knots they would burn on an average 2.5 tons per hour—a total of 45 tons.

² There were left behind only the *Royal Sovereign* of the 1st Battle Squadron, which had arrived at Scapa on May 25 newly commissioned, the destroyer *Victor* of the 4th Flotilla, the *Phoenix* of the 1st Flotilla and the *Nepean* of the 13th.

³ Senior Officer Cruisers to Cruisers. 1.47 a.m.

⁴ Grand Fleet Battle Orders, p. 28, December 1915, Cruisers' Instructions. This disposition gives the 4th Light Cruiser Squadron spread four miles ahead of the Battle Fleet, the 5th Battle Squadron and *Blonde* six miles ahead of 4th Light Cruiser Squadron, the 1st, 2nd, 3rd and 7th Cruiser Squadrons 10 miles ahead of the 5th Battle Squadron, spread 10 miles apart over a front of 50 miles.

⁵ U.63 or U.66.

⁶ Courses and speeds. Courses S. 79 E. to 1.30 a.m., S. 73 E. to 5 a.m., S. 50 E. to 3 p.m. Speeds 17 knots to 9 a.m., 16 knots (speed of advance 15 knots) to noon; 17 knots 2.43 p.m., 18 knots 2.52 p.m.

⁷ In Lat. 58° 12' N., Long. 2° 42' E., 58 miles from the Battle Fleet's rendezvous.

⁸ J.P. Plate 6A. J.P. makes *Iron Duke's* longitude at noon 3° 0' E. but signal 12.40 p.m. and 1.5 p.m. give 2° 59' E. Her position deduced from mean of all ships' noon positions was 58° 7' N., 3° 1' 30", i.e., 2½ miles S.S.E. (mag.) from her reckoning.

of 14. The fleet had been steering S. 50 E. since 5 a.m., and by 2 p.m. the *Iron Duke* had reached a position according to her reckoning in Lat. 57° 57' N., Long. 3° 46' E.¹ The rendezvous for 2 p.m. was in Lat. 57° 45' N., Long. 4° 15' E. and she was still 19½ miles² from it, or over an hour late. The fleet had been zigzagging since 2.35 a.m. and the examination of neutral trawlers had given rise to further delay.³

The Battle Cruiser Force.

32. Meanwhile the Battle Cruiser Force,⁴ zigzagging on a course S. 81 E. was approaching the two o'clock rendezvous (56° 40' N. 5° E.). It had cleared the Forth by 11 p.m. and had gone at 18 knots through the night, increasing to 19½ knots at 2.45 a.m., and reducing to 19 at 4 a.m. The cruisers had taken up disposition No. 6 on passing May Island, and were disposed at noon on a line of direction 31° with the centre of the screen 87° from the *Lion*,⁵ and the *Galatea* and *Phaeton* at the north-east end of the line (Diagram 1).

Several reports of submarines in the North Sea had been received. The *Trident* had reported two submarines off the Forth⁶ in the evening and had been attacked by one to the north of it during the afternoon.⁷

There were actually no less than seven submarines lying off the Forth, but none of them appear to have attacked the Battle Cruiser Force on its way out.

The *Galatea* in the early morning reported a torpedo fired at her at 3.55 a.m.,⁸ and the *Yarmouth* and *Turbulent* made similar reports during the forenoon,⁹ the former involving the fleet in an eight-point turn to port for 20 minutes, but nothing in the shape of a submarine was seen by the larger ships. At

¹ J.P. Plate 6A, *Iron Duke's* track. (Harper places her at 2 p.m. in Lat. 57° 54½' N., Long. 3° 52' E., four miles S. 42 E. from her reckoning.)

² According to Harper, 15 miles.

³ "The Fleet had been slightly delayed to enable the usual and necessary practice of examining trawlers and other vessels met with *en route* to be carried out." G.F., p. 319.

⁴ Comprising 1st Battle Cruiser Squadron, 2nd Battle Cruiser Squadron, 1st Light Cruiser Squadron, 2nd Light Cruiser Squadron, 3rd Light Cruiser Squadron, 1st Flotilla, 13th Flotilla, 9th Flotilla (part), 10th Flotilla (part), 5th Battle Squadron and *Engadine*.

⁵ At 10.02 a.m. the line of direction had been altered to 31°, centre to bear 87° from *Lion*. The 5th Battle Squadron at the same time took station five miles 301° (N.W.) and 2nd Battle Cruiser Squadron three miles 31° (N.E.) from *Lion*.

⁶ U.32 or U.24.

⁷ U.63.

⁸ Possibly by U.32, which at 0650 G.M.T. reported two battleships and two cruisers in 56° 15' N., 0° 42' W. U.32 had been out since May 18 and her position may have been considerably out.

⁹ *Yarmouth* in about 56° 50' N., 2° 55' E.; *Turbulent* at 9.8 a.m. in about 56° 52' N., 3° 5' E. There is no trace of any German submarines in these vicinities in any enemy record hitherto available.

DISPOSITION OF BATTLE CRUISER FORCE (Lion).
AT NOON, MAY 31ST.

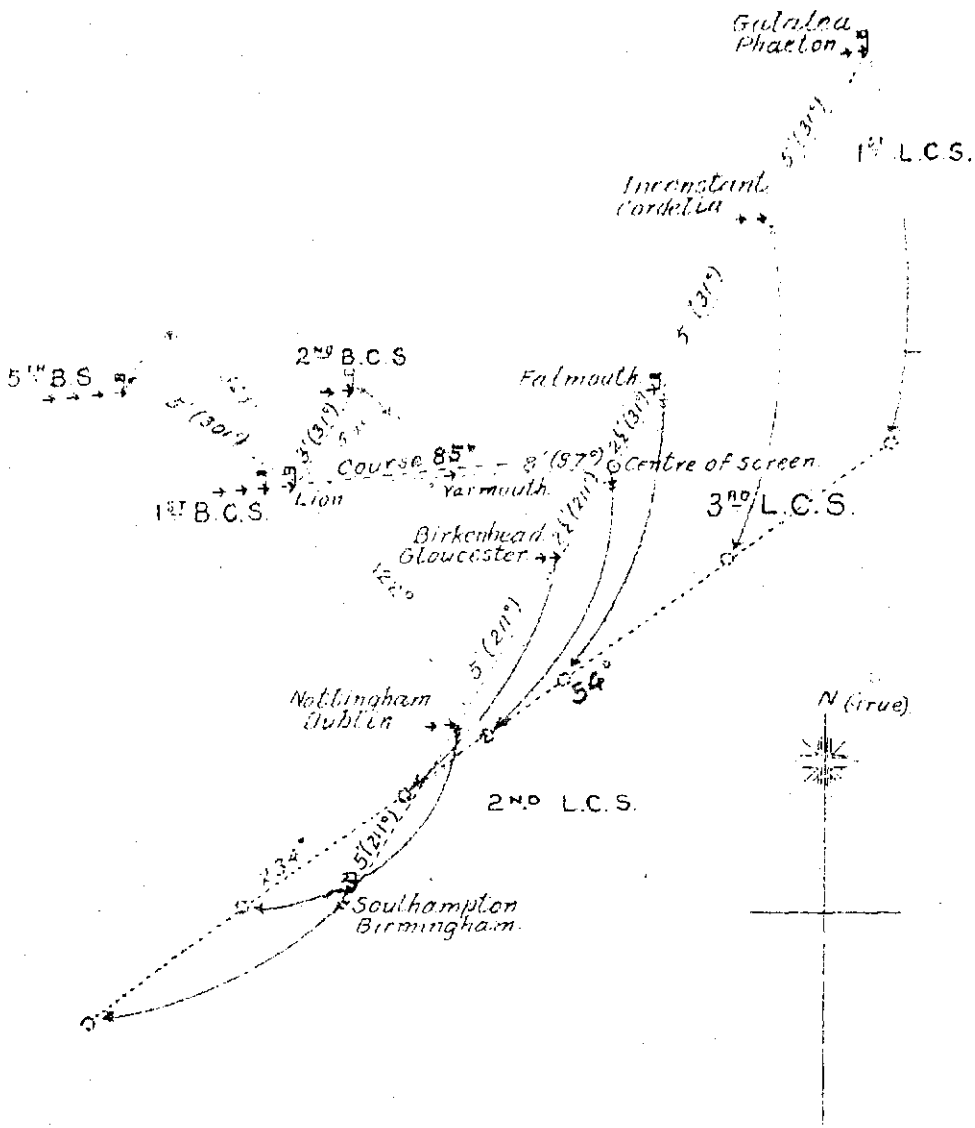
(By signal 10.05 a.m.)

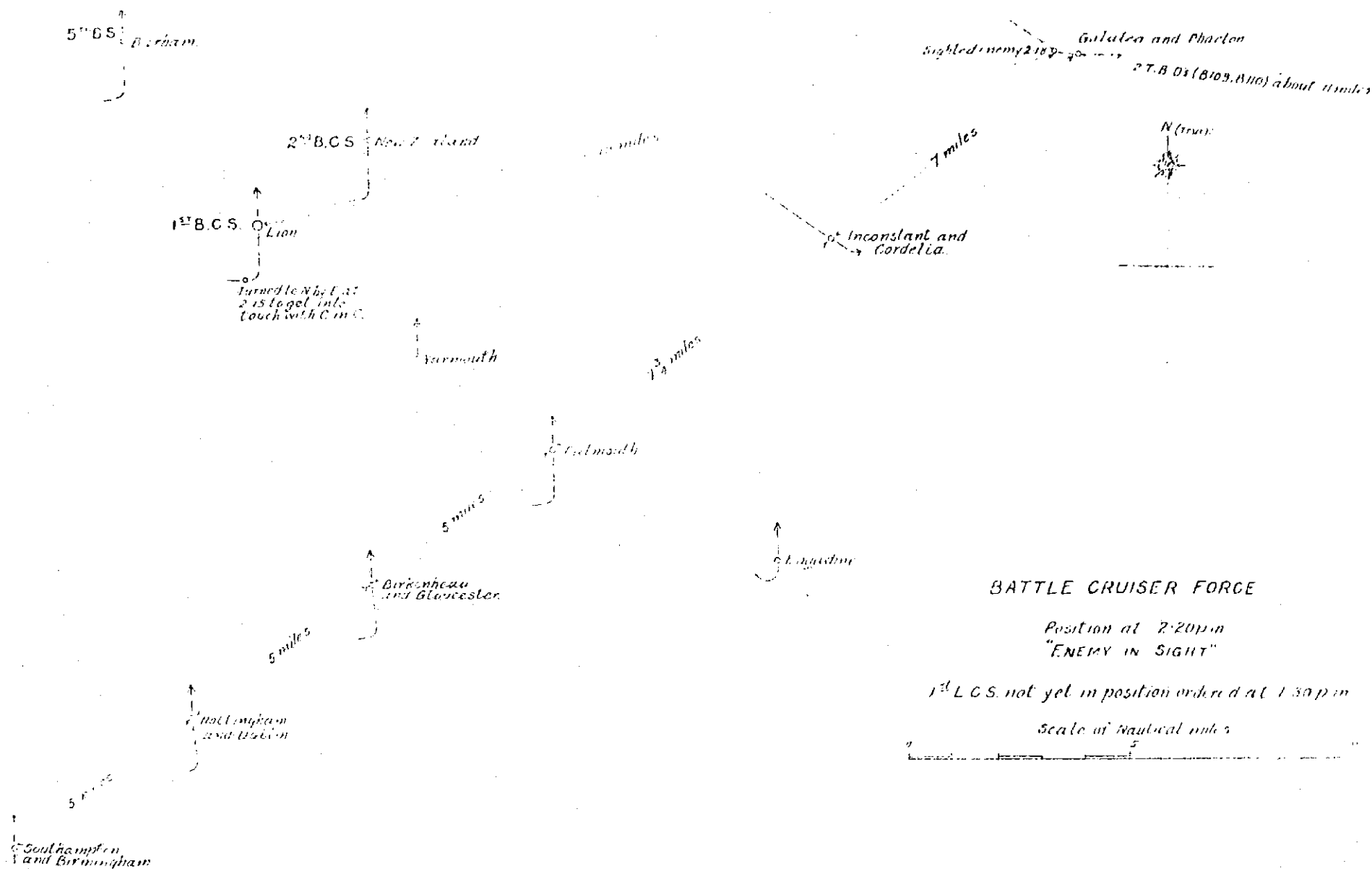
2nd B.C.S. NE (31°) 3 miles, 5th B.S. NW (301°) 5 miles from Lion.
Lion's Course S. 81° E (85°); centre of screen E by S (87°) from
Lion, 3 miles; line of direction of screen NE (31°) and S.W
(211°) 5 miles apart.

AND RE-DISPOSITION
ordered

(by signal 1.30 p.m.)

2nd B.C.S. ENE (54°) 3 miles, 5th B.S. NNW (329°) 5 miles.
centre of screen S.S.E 3 miles from Lion. Line
direction of screen ENE (54°) and WSW (234°)





noon the *Lion's* estimated position was $56^{\circ} 44' \text{ N. } 3^{\circ} 45' \text{ E.}$,¹ though she was actually some $5\frac{1}{2}$ miles to the north-westward of it. At 1.30 p.m. the line of direction of the cruiser line was swung through 23° to 54° (E.N.E.) with its centre bearing 144° (S.S.E.) from the *Lion*. At the same time the bearing of the 5th Battle Squadron was altered to 324° (N.N.W.) five miles and that of the 2nd Battle Cruiser Squadron to 54° (E.N.E.) three miles. (Diagram 1.) The *Lion*, like the *Iron Duke*, was behind time, and at 2 p.m., according to her reckoning, was still some 10 miles to westward of her rendezvous.²

The Enemy in Sight.

The Vice-Admiral had orders if nothing was in sight to close the Battle Fleet, and at 1.58 p.m. the signal had already been made to alter to N. by E. at 2.15 p.m. Ten minutes later the *Galatea* at 2.10 p.m. sighted a steamer bearing 95° some eight miles away, blowing off steam and apparently stopped, and closed to examine her. The light cruisers were taking up their new line of direction and the Vice-Admiral at 2.15 p.m. had already turned to N. by E. to get in touch with the Commander-in-Chief, and had told the 5th Battle Squadron to look out for the latter's cruisers. Five minutes later the *Galatea* at 2.20 p.m. made the signal "Enemy in sight," at the same time sending the following signal by wireless: "Urgent. Two cruisers probably hostile in sight bearing E.S.E. course unknown. My position Lat. $56^{\circ} 48' \text{ N.}$, Long. $5^{\circ} 21' \text{ E.}$ "³ (Diagram 2.)

This report may have been received at first with some degree of doubt, for only an hour or two before a signal had been intercepted from the Admiralty to the Commander-in-Chief, which stated that the German flagship was still in the Jade at 11.10 a.m.⁴

¹ The signalled and other positions have been carefully reduced to positions observed and D.R., and a mean of positions observed places *Lion* at noon in Lat. $56^{\circ} 46' \text{ N.}$, Long. $3^{\circ} 36\frac{1}{2}' \text{ E.}$

² Her position according to Harper was $56^{\circ} 48\frac{1}{2}' \text{ N.}$, Long. $4^{\circ} 41' \text{ E.}$, or 13 miles N. 37 W. of the rendezvous in Lat. $56^{\circ} 40' \text{ N.}$, Long. $5^{\circ} 00' \text{ E.}$

³ *Galatea's* log says 2.07 p.m. sighted enemy T.B.D.s. *Engadine* remarks: "2.20 sighted two enemy cruisers bearing East." Harper puts *Galatea* at 2.20 in $56^{\circ} 52\frac{1}{2}' \text{ N. } 5^{\circ} 27' \text{ E.}$, i.e., $5\frac{1}{2}$ miles N. 50 E. of her signalled position.

⁴ Admiralty to Commander-in-Chief, 12.35 p.m.: "No definite news of enemy. They made all preparations for sailing early this morning. It was thought fleet had sailed, but directional signal places flagship Jade at 11.10 G.M.T. Apparently they have been unable to carry out air reconnaissance which has delayed them, 1235." This signal is in War Registry Out Telegrams and was received in *Iron Duke* 12.48 and in *Lion* 12.53 (*Lion's* wireless time was then four minutes fast on *Iron Duke*), but there is no copy of it in *Iron Duke's* In Telegrams, and it is not included in Harper's Appendix, nor in the Jutland Papers. There are grounds for the belief that it was sent without Room 40's cognisance or confirmation. Wilhelms-haven had taken over the Commander-in-Chief's wireless call and a signal (in a new cypher) made on May 30, 5.41 p.m., to this effect could not be decyphered till 6.40 p.m., May 31. Room 40, however, was not taken in by the ruse and remained positive that the High Sea Fleet was at sea.

But the *Galatca* was closing the suspicious craft and at 2.28 p.m. her guns opened fire. The whole situation was now assuming a new aspect. The Vice-Admiral turned at 2.32 p.m. and increased speed to 22 knots with the intention of cutting the enemy off from Horns Riff. His cruisers without further orders began to close the *Galatca*.

Movements of the German Fleet.

33. The vessels seen were the German destroyers B.109 and B.110, which were in company with the 2nd Scouting Group, and had stopped to examine a merchant ship. The German cruiser force¹ had left the Jade at 2 a.m., followed at 2.30 a.m. by the Main Fleet. The latter included the 2nd Battle Squadron with its six² ships of the *Preussen* class (four H in.). They were slow and ill-armed, and Admiral Scheer had not intended to take them with him, but when the time came sentiment prevailed over reason, and he gave way to the Admiral and officers of his old squadron when they begged him not to leave them behind. The battle cruisers were to proceed to the Naze and show themselves there on the evening of May 31, in the hope that the Grand Fleet would put to sea to intercept them and give the submarines lying in wait an opportunity to attack. The main body of the High Sea Fleet was to pick them up on the morning of June 1. The battle cruisers drew rapidly away on their separate quest and between 11.30 noon and 1 p.m. no fewer than five airships were despatched for reconnaissance, but owing to poor visibility they saw nothing of the British Fleet, nor did they hear or see anything of the engagement.³ The German Commander-in-Chief was not left, however, without intelligence of the British movements. At 5.29 a.m. U.32 reported two battleships, two cruisers and destroyers in a position 56° 15' N. 0° 43' W., approximately 60 miles East of May Island⁴. At 6 a.m. Neumünster⁵ reported that there were indications in an English message that two battleships or battle squadrons had just left Scapa Flow and at 6.47 a.m. U.66 sighted eight battleships⁶ in 57° 45' N. 0° 7' W. about 60 miles East of Kinnaird Head. In Scheer's opinion the information was too vague to affect his plan. The forces seemed too far apart and their courses too divergent to be associated with an advance into the Bight or to have any connection with his enterprise. He continued his course, and at 2.30 p.m. the main body of the High Sea Fleet was well past Horns Riff with the scouting groups some 50 miles ahead.

¹ For constitution see Appendix B. The 2nd Scouting Group consisted of *Frankfurt* (Rear-Admiral Boedicker), *Wiesbaden*, *Pillau*, *Elbing*. The *Regensburg*, Commodore *Heinrich*, Second Senior Officer (T), was with them.

² The *Preussen* was in the Baltic, *Lothringen* unfit for sea.

³ Scheer's Despatch, J.P. 589.

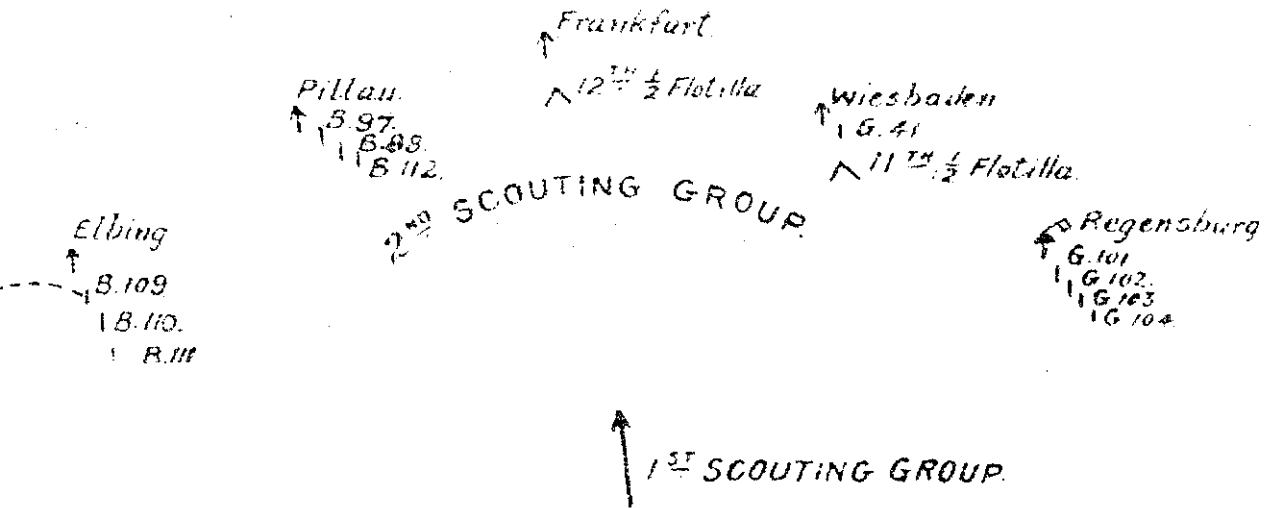
⁴ This was the Battle Cruiser Force.

⁵ The German intercept station.

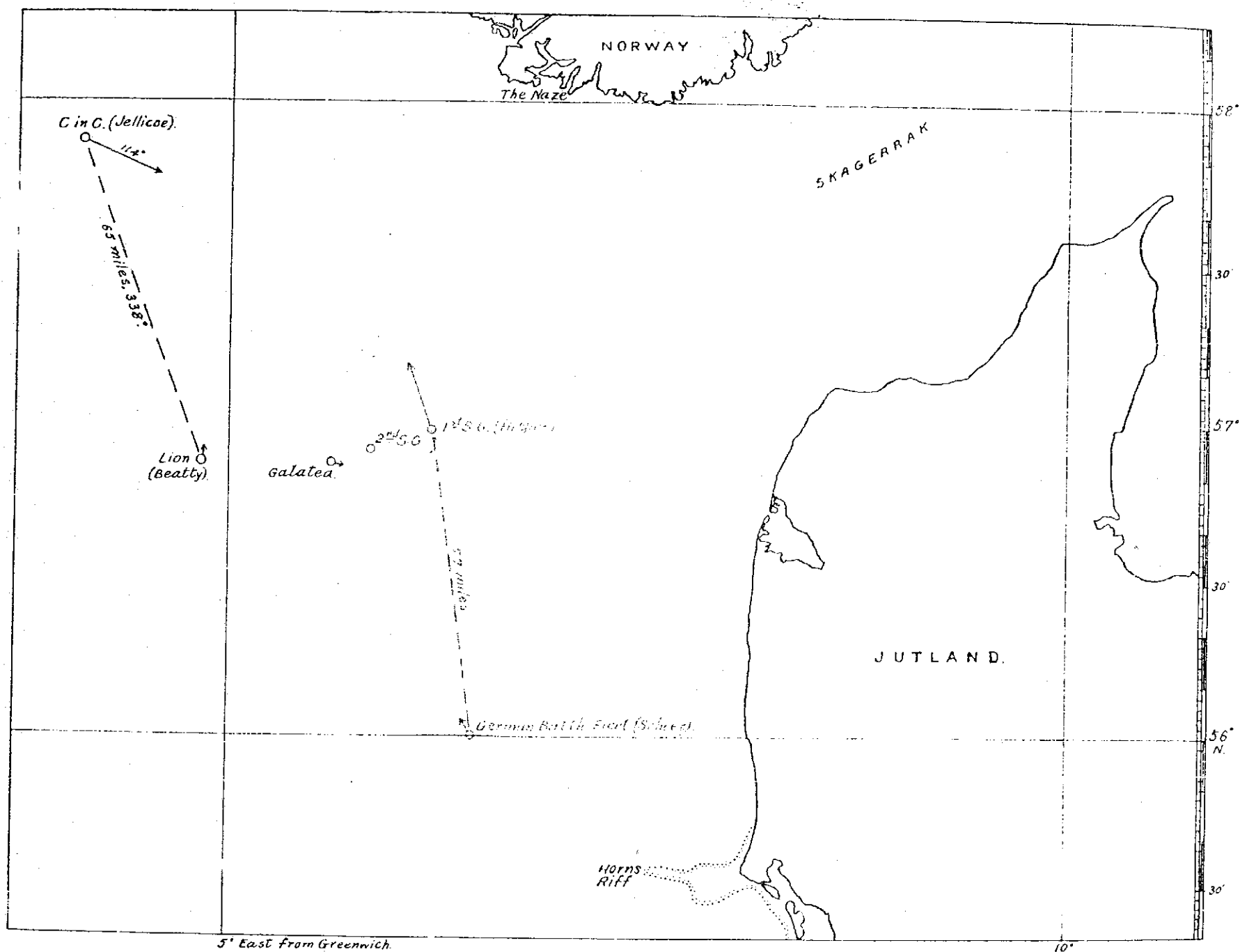
⁶ The 2nd Battle Squadron.

DISPOSITION OF 1ST AND 2ND SCOUTING GROUPS.

2 p.m.



POSITION OF FORCES, 2.30 p.m.

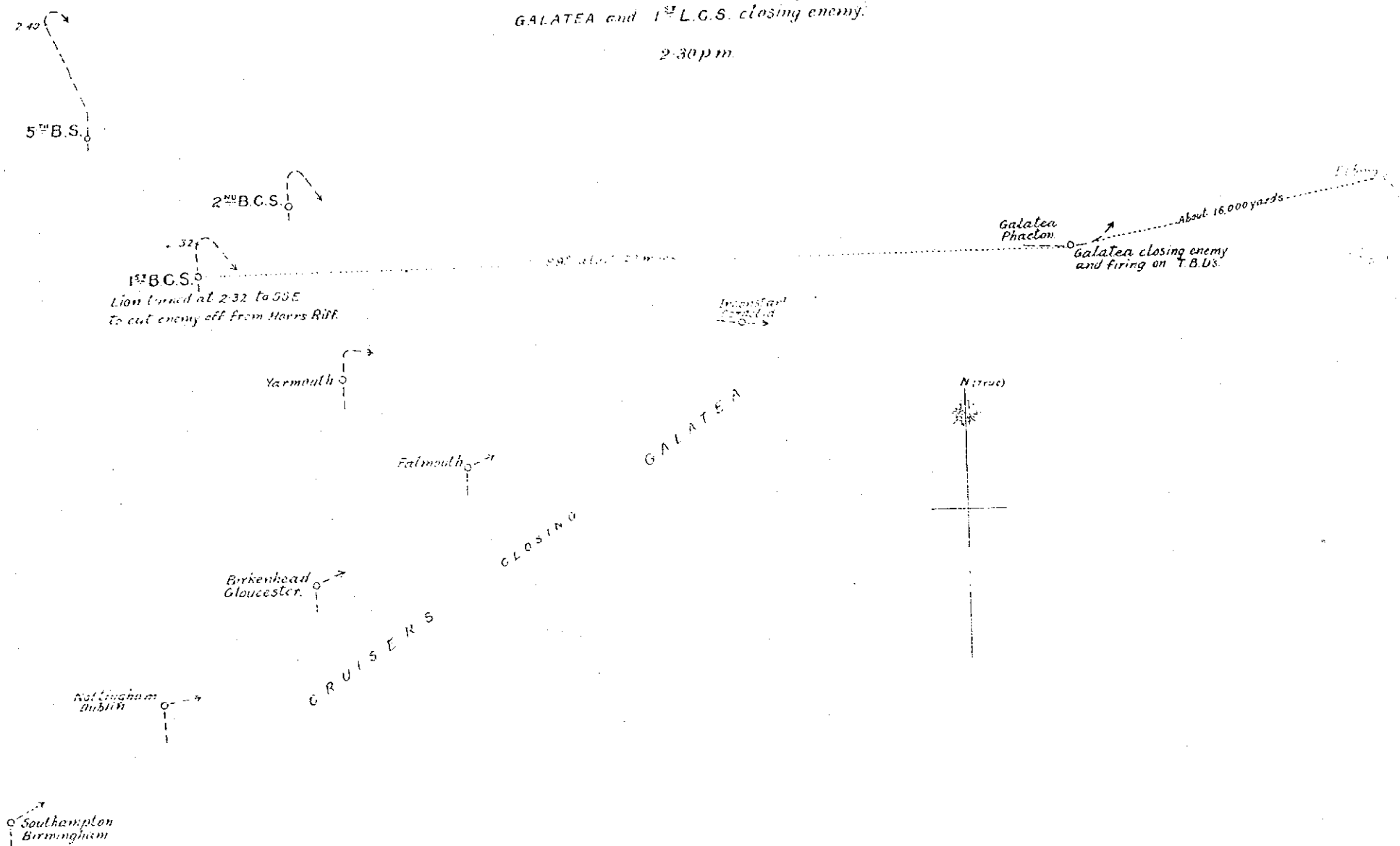


5° East from Greenwich.

10°

GALATEA and 1st L.G.S. closing enemy.

2:30 p.m.



Spread ahead of the 1st Scouting Group in a fan formation were the four light cruisers of the 2nd Scouting Group, accompanied by the *Regensburg*, Second Senior Officer (T), and the 11th and 12th Half Flotillas. The *Elbing* was to westward on the port hand. (Diagram 3.) About 2.15 p.m. the latter sighted a neutral steamer and detached a couple of destroyers, B.109 and B.110, to examine it. At 2.28¹, while busy with this task, they observed smoke to the westward, and shortly afterwards sighted enemy vessels steering East. The *Elbing* immediately closed to investigate, followed by the *Frankfurt*, *Pillau* and *Wiesbaden*. The squadrons were in touch, and their general position at 2.30 p.m. is shown in Diagram 4.

The "Galatea" in Touch. 2.30.-3.30. p.m.

34. At 2.28 the *Galatea* making to the eastward opened fire on the two destroyers which made off to the northward, and a few minutes later sighted the *Elbing* coming down on a S.S.E. course.² The German cruiser opened fire at 15,000 yards. (Diagram 5.) The *Galatea* and *Phaeton* altered course to the N.E., and then at 2.37 p.m. turned sharp round to the N.W., the 2nd Scouting Group following them in pursuit 7 miles astern.

Two more cruisers of the 2nd Scouting Group were now in sight, and a large amount of smoke was visible to the E.N.E.³ This was evidently a force some 15 miles to the eastward, and Beatty now felt confident that the enemy were to the north-eastward, and could be brought to action before reaching Horns Riff.

The *Inconstant* and *Cordelia*, the cruisers next to the *Galatea*, were hurrying up, and the whole light cruiser line without orders was closing to the north-eastward in support. The *Galatea* continued to run to North-West, keeping just out of range, with the intention of drawing the enemy on, while the Battle Cruiser Force altered course to S.S.E. at 2.32 p.m. in order to cut him off from Horns Riff. But by this time the 1st Scouting Group had heard the call of their light cruisers, and was making westward to support them. The two forces were thus rapidly closing the distance⁴ between them, and an action was now imminent.

The *Barham*, however, instead of turning with the *Lion* at 2.32 p.m., when the two were only 4½ miles apart, held on till 2.40,⁵ and opened her distance to over ten miles, a very

¹ Scheer 141.

² Signal 2.34: time of origin 1430. Note *Galatea's* 1430 position is 9 miles 254° (approximately West) from Harper's position.

³ *Galatea* to Senior Officer, Battle Cruiser Force, 1435. The smoke seen by the *Galatea* may have been that of destroyers ahead of the German battle cruisers.

⁴ At 2.32 about 40 miles when the *Lion* turned S.S.E.

⁵ *Valiant* (r) 2.40 p.m., *Malaya* (r) 2.40 p.m., *Warspite* (r), track chart (J.P., Pl. 17) 2.40 p.m., *Barham* (r) says 2.38 p.m.

considerable increase which delayed her getting into action later on. At 3.5 p.m. the *Galatea* reported the enemy had turned North, and the *Lion* altered course to S.E., and at 3.0 to East. (Diagram 6.)

The enemy was still some thirty miles away, though his light cruisers had come in sight of the *Falmouth* at 2.45 p.m., and between 3.0 p.m. and 3.30 p.m. the *Galatea* and *Phaeton* with the other light cruisers closing on them were drawing them to the North-West at a range which gradually increased from 17,000 to 20,000 yards.

At 3.07 the *Galatea* reported the enemy cruisers had altered course North-East, and at 3.13 p.m. the *Lion* altered course to North-East, going on to 23 knots. A few minutes later the *New Zealand*, three miles E.N.E., sighted five enemy ships on her starboard bow.²

The *Engadine* and her aircraft now joined in the reconnaissance. She had been told at 2.47 p.m. to send up her seaplane, and it got off the water by 3.8 p.m. and flew off northward. Though the visibility was poor (only some four miles at 1,000 feet), the observer sighted three enemy cruisers³ and several destroyers, and between that time and 3.45 sent three signals reporting their course and their alteration to the South at 3.35.⁴ Her signals, however, never got past the *Engadine*: engine trouble forced her to descend, and the *Engadine* picked her up while the battle cruisers passed swiftly on to the eastward.

At 3.29⁵ the *Lion* altered course to East, increasing to 25 knots, and at about 3.31 sighted the enemy, which was made out to be 2, 3, 4 and finally 5 battle cruisers. The *Galatea* was then some 16 miles to the northward with the six cruisers of the 1st and 3rd Light Cruiser Squadrons. The 2nd Light Cruiser Squadron was close at hand, the *Nottingham* and *Dublin* four miles on her starboard bow, the *Southampton* and *Birmingham* 3½ miles astern. The *New Zealand* and 2nd Battle Cruiser Squadron were three miles on the starboard bow bearing E.N.E.: rather more than five miles off on the port beam, the 5th Battle Squadron could be seen bearing N. 54 W.

The enemy was some fourteen miles off⁶: the visibility was

¹ *Falmouth* (r). But her log says 3.00 and her signal is timed 1500. *Falmouth's* signal position at 3 p.m. is eight miles 47° from Harper's position.

² *New Zealand* (s). Probably the battle cruisers 19 miles East by North of her on Harper's Diagram III. The light cruisers were 18½ N. 54° E., or almost ahead.

³ Evidently the 2nd Scouting Group.

⁴ *Engadine* observer's time 3.33.

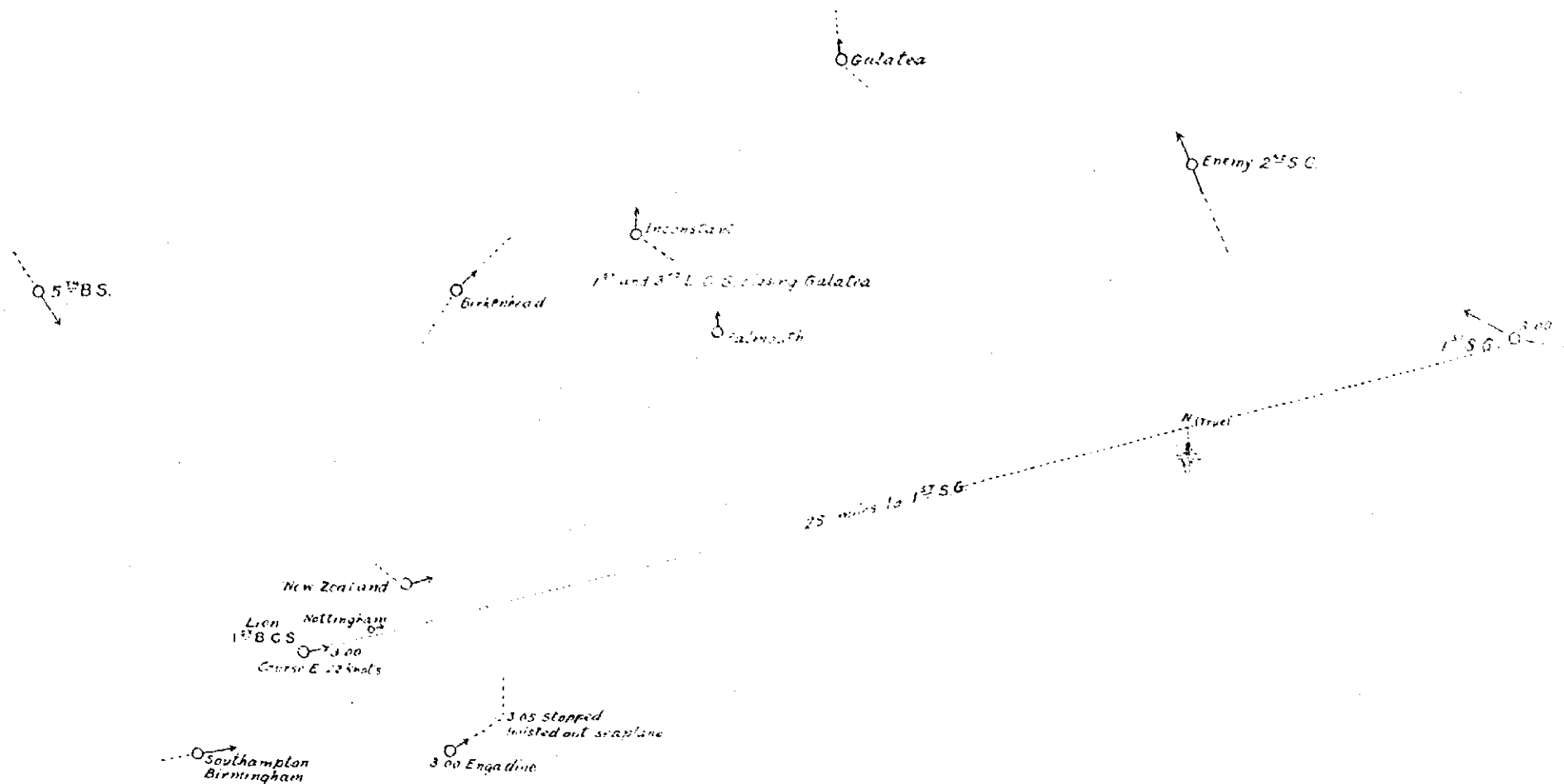
⁵ *Nottingham*, four miles ahead of *Lion*, had reported smoke E.N.E. at 1522; *Nottingham's* signalled position is 56° 46' N., Long. 5° 14' E. which is 7½ miles, 208° (S.41 W.) from Harper's position.

⁶ This is from Harper (Plate III). Chatfield (r) says 23,000 yards at 3.30 (J.P. 143); Harper's text says a range of 23,000 yards was obtained from *Lion* at 3.30 p.m., but Plate III gives 29,000 yards at this time.

CLOSING ENEMY

3 p.m.

"Galatea" has reported enemy turret North 2-45.
 "Lion" has altered course E at 3:00 and is 28 miles from enemy.
 "Falmouth", "Inconstant", "Birkenhead" closing "Galatea".
 "Nottingham" on "Lion's" port beam.
 "Engadine" stops at 3:05 to cast out scuplans.



good, the wind South-East with the sun behind, and everything seemed favourable for the approaching action. The 2nd Battle Cruiser Squadron was now ordered to form astern in line of battle,¹ and the two flotillas were ordered to take station— the 13th, two points before the starboard beam, and the 9th, right ahead.² The 1st Scouting Group, on receiving the report of the British cruisers, had turned to the westward, and were some ten miles behind their light cruisers which were chasing the *Galatea* to the north-westward. Hipper had received no word of the proximity of British battle cruisers, when at 3.20 he suddenly sighted Beatty's force to the westward³ approaching at full speed. Its appearance must have been disconcerting in the extreme. The whole original plan of operations now fell to the ground. Hipper recalled the 2nd Scouting Group at once, and after continuing a little way to the northward, turned at 3.33 to a Southerly course, with the evident intention of closing his Battle Fleet.⁴ The *Lutzow* was leading, carrying the Admiral's Flag, and behind her in single line, steering a S.S.E.⁵ course, and on a line of bearing N.W., came the *Derfflinger*, *Seydlitz*, *Moltke*, and *Von der Tann*, with the *Regensburg* (Commodore Heinrich, second senior officer of torpedo craft) and the 9th Flotilla on their port bow. The 2nd Battle Cruiser Squadron had turned, and was taking up its position astern of the 1st, when Admiral Beatty gave orders to form on a line of bearing N.W.⁶ to clear the smoke, and the signal went up almost simultaneously with a signal to alter course together to E.S.E.

The enemy was now plainly visible on the port bow, and the two forces were closing rapidly. At 3.49,⁷ the *Lutzow* fired the first gun, and shortly afterwards the *Lion* opened fire in reply. The action had begun.

CHAPTER IV.

THE BATTLE CRUISER ACTION

FROM 3.40 P.M. TO 4.40 P.M.

35. When the action began the British Battle Cruiser Force was on a course E.S.E., going 25 to 26 knots in the process of

¹ Signal 3.34.

² Signal 3.42.

³ Harper makes them 19 miles apart at 3.20 p.m.

⁴ Scheer's report says the enemy deployed to South, and Hipper followed the movement, but it seems clear that the Germans turned first. Von Hase, 87; also Austrian Naval Attaché's report of June 17, 1916 (translated I.D.).

⁵ Harper, Plate V.

⁶ Signal 3.45 p.m.

⁷ Chatfield gives 3.47 for enemy, 3.47½ for *Lion*; *Lion* (s) 3.47; *Tiger* 3.49 (enemy), 3.50 *Lion*; Brock 3.50 (enemy), 3.51 (British); Hase 3.48 (*Lutzow*); Scheer 3.49.

forming a line of bearing N.W.¹; the 9th Flotilla were taking up position ahead, and the 13th just before the starboard beam. The 2nd Light Cruiser Squadron were with the *Lion*, the *Nottingham* and *Dublin* some three miles off on her port bow making to the southward to get ahead, and the *Southampton* and *Birmingham* a couple of miles before the beam to starboard; the *Galatea* with the 1st and 3rd Light Cruiser Squadrons were away to the North-West almost out of sight² making to the eastward after the enemy; to the northward were the enemy light cruisers some 11 miles off, coming down at full speed on a South-Easterly course to rejoin their battle cruisers. (Diagram 7.)

The opening range has been variously estimated, and was probably about 14,300 yards.³

The firing was hot and effective. The *Lion* and *Princess Royal* concentrated at first on the *Lutzow*⁴ while the Germans fired at their opposite numbers. Great rippling sheets of flame came from the enemy's guns, and the ships were quickly surrounded with mountainous columns of water and huge fountains of spray.

Hitting soon became general: the *Lion* was hit twice about 3.51, one shot exploding forward on the inboard side of the 4 in. armour and the other forward on the upper deck, causing many casualties among the 4 in. guns' crews; the *Tiger* was hit on the forecastle and then on the port side of X turret, breaking the armour but leaving the gun mounting uninjured; then again on the roof of Q turret, knocking off the central sighting hood but leaving the turret in action.⁵ Information as to the hits obtained on the enemy is naturally less detailed, but the *Princess Royal*'s third salvo hit the *Lutzow*.

The *Lion* by 3.54 had altered course some four points to starboard parallel to the enemy, and the squadron was now running S.S.E.⁶ at a range of about 13,000 yards. The 9th

¹ The signal for the line of bearing was made at 3.45 and ships were probably on this line by 3.48 or 3.49.

² N.N.W. 15 to 16 miles.

³ There are wide differences between the gun ranges of the various ships until 3.55 p.m., when they agree fairly well. The opening range of 14,300 is obtained by laying back the known runs of both squadrons to 3.50 p.m.

⁴ *Lion* opened on *Lutzow*; *Princess Royal* first on *Lutzow*, later on *Derfflinger*; *Queen Mary* on *Seydlitz* at first, then on *Derfflinger*; *Tiger* and *New Zealand* on *Moltke*; *New Zealand* at 3.57 on *Von der Tann*. *Derfflinger* was unengaged for a time till the *Princess Royal* shifted to her. On the German side, *Lutzow* on *Lion*, and stuck to her through the action; *Derfflinger* on *Princess Royal* at first, then *Queen Mary* (and blew her up); *Seydlitz* on *Queen Mary*; *Von der Tann* possibly on *Tiger* up to 3.56, then on *Indefatigable* (sank her).

⁵ It jammed the wires of the gun cages, reducing the right gun to secondary loading, and "wooded" the telescopes, reducing the turret to percussion firing by elevation and bearing from director. Two men were killed and the midshipman mortally wounded. F.J. 83.

⁶ Scheer makes the German course S.S.E. (German IV).

BATTLE CRUISER SQUADRON ENGAGING 1st SCOUTING GROUP

DIAGRAM 7.

1st L.C.S. →

Position 3.50 p.m.

3RD L.C.S.

235.G

 $N(\text{true})$

5th B.S.

Indefatigable
New Zealand
Tiger
Queen Mary
Princess Royal
Leon

3rd Flat 11/a

x Dublin.
x Nottingham.

13th Fictella → Champion

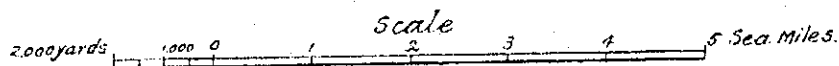
→ → Southampton
Birmingham.

von der Tunn
Mollke
Gedächtnis
der Offiziere
Juli 1900
Regensburg
9. Flotilla

About 14300 yard

BATTLE CRUISER ACTION

Position 4.02 p.m.



5th B.S.

1st S.G.

Indefatigable
B.C.F.

About 19,750 yards

About 17,600 yards

N. (true)

Flotilla was making strenuous efforts to get ahead to a position favourable for attack, and its smoke was interfering with the fire of the *Tiger* and *Princess Royal*.

The *Lion* shortly afterwards received her heaviest blow. A shell struck O turret, entered the gun-house and burst over the left gun. Nearly all the guns' crews were killed and all the men in the working chamber killed or severely wounded. Major Hervey, R.M.A., the officer of the turret, was severely wounded but was able to pass the word down to close the magazine doors and flood magazines, a precaution which saved the ship and won him a Victoria Cross in death.

A fire started in the wreckage of the turret and about 20 minutes later a charge slid back from the gun and fell into the well. The fire caught it and spread to the charges in the gun-cages, then down the main trunk to the charges there. It gathered into a great flash of flame which passed right up and down and through the turret, penetrating up the escape trunk into the switchboard compartment and killing instantly all there. Their bodies and clothes were not burnt and where they had screened their faces with their hands, their skin was not even singed. It reached the doors of the magazines but they were closed.

It was now close on four o'clock. A large barque with all sail set was lying becalmed between the two fleets. The *Princess Royal* had shifted her fire to the *Derfflinger*, and the two were hotly engaged. The *Derfflinger* received a hit in one of her casemates which did a great deal of damage,¹ and shortly afterwards hit² the *Princess Royal*, putting her Argo tower and main control out of action till 4.16 p.m.

The squadrons were gradually coming round to the southward and the range was beginning to increase. (Diagram 8.)

The *Von der Tann* was maintaining a steady fire on the *Indefatigable*. Shortly after four o'clock a salvo of three shots fell on the latter's upper deck in line with the after turrets and evidently penetrated the interior; an explosion followed and she fell out of line, sinking by the stern. Another salvo struck her near the fore turret; a second explosion followed, and she turned over and disappeared. In the roar and crash of the battle her loss passed almost unobserved by some of the ships ahead. Meanwhile, the 5th Battle Squadron had been coming up astern at full speed. They were still some seven or eight miles astern of the Battle Cruiser Squadron, but shortly after four o'clock³ their guns were beginning to range on the rear of the enemy's

¹ Von Hase (I.D. 1220), 25; Austrian Naval Mission Report, August 4, 1916.

² At 3.56 *Derfflinger* was firing at 11,500 m. (12,600 yards).

³ *Warspite* (s) 4.00; *Warspite* (r) 4.02; *Valiant* (r) 4.01; R.A., 5th Battle Squadron (r), 4.06; *Barham* (r) 4.11.

line. The *Barham* opened fire at 19,000 yards, and made a signal to concentrate in pairs on the rear ships. It was some time, however, before their fire became effective, for the light was difficult, the targets constantly obscured, and often only the flashes of the enemy's guns could be seen; but the *New Zealand* could see the splashes of other guns falling round the enemy, and knew that the *Barham's* squadron was coming into action. Torpedo tracks were stated to have been seen about this time, one passing under the *Princess Royal* and another missing the *Lion*, but these reports must be regarded as supposititious.¹

By 4.05 the range had increased to nearly 20,000 yards, and at 4.12 the Battle Cruiser Squadron altered course to the S.E. to close the enemy: the *Lion* now came under a heavy fire, and was hit several times, but no important damage was done, though several fires were started and a number of men were killed and wounded by a shell bursting on the mess deck.

The 13th Flotilla had been ordered to attack and was beginning to draw ahead, though the attack did not exercise any influence on the battle till 4.30 p.m. Before it had begun to develop the squadron was to suffer another heavy loss. The *Queen Mary* was now firing steadily at the *Derfflinger*² and had twice straddled her, obtaining a hit each time on her opponent, who was firing in reply with a slowly decreasing range.³ But at 4.26 p.m. a plunging salvo pitched on the *Queen Mary* abreast of Q turret: a dazzling red flame leapt up in the forward part of the ship, accompanied by an explosion and a mass of black smoke. The *Tiger* passed her to port, the *New Zealand* to starboard. Her stern was high in the air with the propellers revolving. Men were crawling out of the after turret and great masses of paper were blowing out of the after hatch. Suddenly the entire ship was rent by a terrific upheaval and disappeared in a gigantic pall of smoke which rose 1,000 ft. in the air.⁴ A rain of debris fell on the deck of the *Tiger* as she passed through the dreadful cloud, but hardly a fragment of the ship remained afloat. She had gone down leaving only 17 survivors to be picked up later by the *Laurel* and *Petard*. (Diagram 9.)

This was the second blow which had befallen the squadron

¹ See J.P. 132, 148, 257, 451. These are stated in two reports to have passed from starboard to port, i.e., from West to East, and were attributed to submarines, but Scheer definitely states that none took part in the action. Harper (p. 20) thinks it possible that the torpedoes were fired by the *Moltke*, which fired four torpedoes at this time; but the *Moltke's* torpedoes were 19.7 in., and the latest Mark carried in 1916 was G**, 28½ knots, with a maximum range of 11,250 yards. To reach the British line would have required a range of something like 18,500 yards and a speed of well over 30 knots.

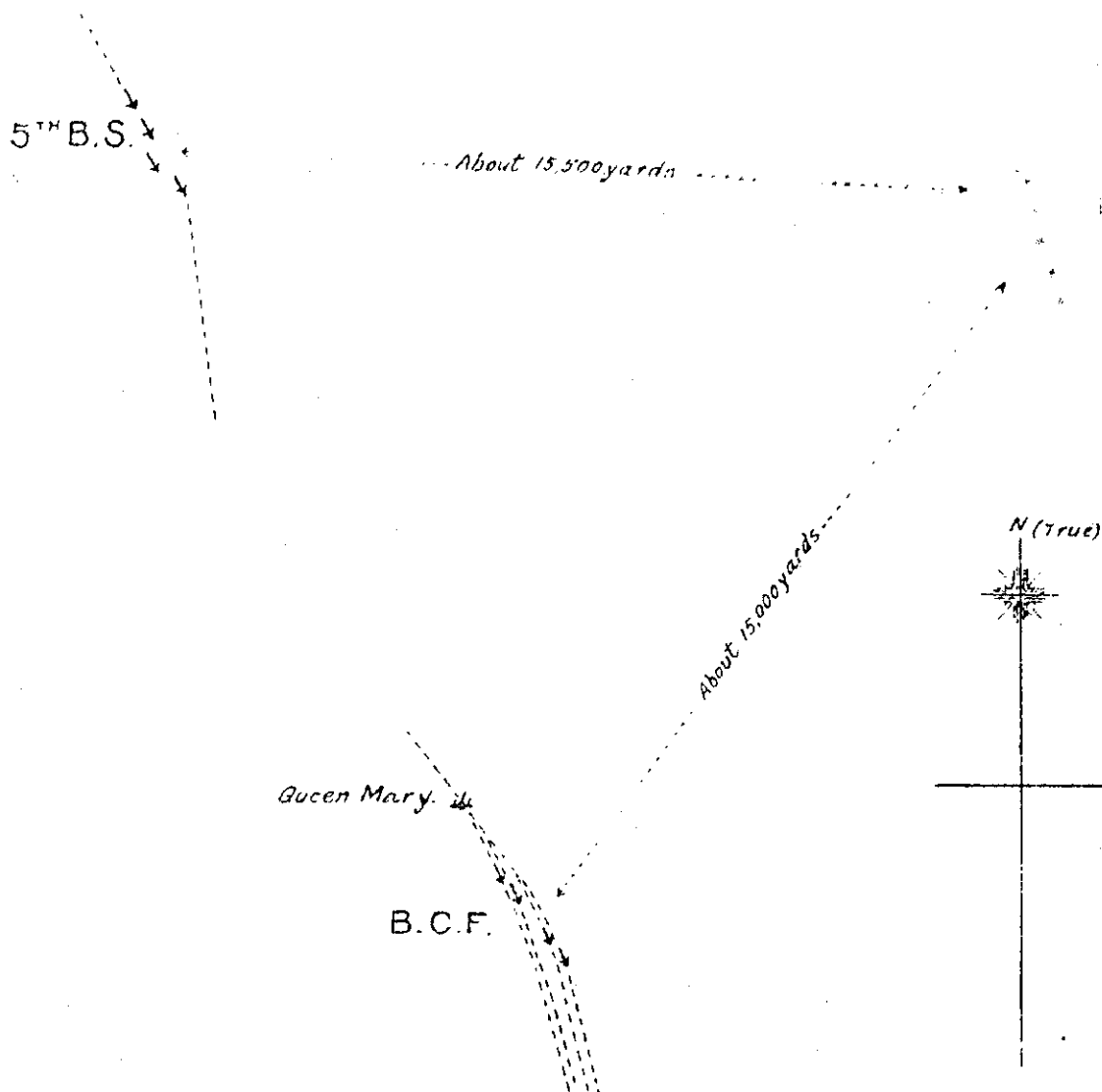
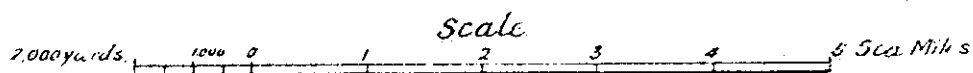
² Von Hase (I.D. 1220), 27.

³ At 4.25, 200 yards a minute, Von Hase. Von Hase gives time of salvo as 4 hrs. 26 min. 10 secs. and range as 13,200 m. (14,400 yards). Harper V gives 15,500 yards.

⁴ Von Hase, 101 (I.D. 1220), 28, and "Fighting at Jutland," 30.

BATTLE CRUISER ACTION

Position at 4-30 p.m.



within half an hour, but the squadron continued its course undismayed till 4.30 p.m., when a destroyer action began to develop and to occupy the water between the lines.

The Destroyer Attack.

36. Shortly after 4 o'clock Admiral Beatty had ordered Captain Farie in the *Champion* (13th Flotilla) to attack the enemy.¹ The Flotilla,² with the exception of the *Obdurate*, was then almost a mile on the starboard and disengaged beam of the *Lion*; on her engaged side were six destroyers of the 9th Flotilla,³ which had been ahead when the squadron turned to South-East, and since the beginning of the action had been making strenuous efforts to recover that position, steaming hard about half a mile on the port beam, receiving the splash and splinter of some of the "shorts," and causing considerable interference with their smoke.⁴ The *Obdurate*, too, which had become detached from the 13th Flotilla, was with them on the engaged side. They had gradually drawn level with the *Tiger*, when they were ordered about 4.10⁵ to clear the range, and, turning to port, took station astern, with the exception of the *Morris* and *Moorson*, which went further ahead, and continued their course on the engaged side.

At 4.15,⁶ the *Champion* gave the order to attack, and the flotilla, increasing to full speed and led by the *Nestor* (Commander E. S. Bingham), drew ahead of the *Lion*. But before they crossed her track, they met a momentary check; the *Nottingham*, hitherto on the *Lion*'s engaged side, crossed her bows about 4.21 and ran through the line of destroyers ahead of the *Petard*, forcing its rear to turn astern of her and parting them from the van. The foremost portion, consisting of the *Nestor*, *Nicator*, *Nomad*, *Narborough* and *Pelican*, went on at full speed, crossing the *Lion*'s track about a mile ahead of her, and steered for a favourable position to attack the enemy, who could be seen some eight miles off to the North-East with his destroyers coming across to meet the attack. Precisely how and when the *Narborough* and *Pelican* became detached is doubtful, but they evidently did not follow the *Nestor*, and being unable to open fire on the advancing destroyers, and not finding an opportunity to attack, turned back to join the *Champion*. The *Petard*, with

¹ Signal is timed 4.09, and was evidently made by wireless and visual. It was passed by *Princess Royal* as *Lion*'s main W/T was out of action. *Champion* (r) 4.15; *Nicator* (r) 4.15; *Nestor* shortly after 4 p.m.

² *Champion*, Captain (D), *Nestor*, *Nomad*, *Nicator*, *Pelican*, *Narborough*, *Petard*, *Nerissa*; also *Turbulent* and *Termagant*, detached from 10th Flotilla.

³ *Lydiard*, *Liberty*, *Landrail*, *Laurel*, *Morris*, *Moorson*.

⁴ J.P., 132 (*Lion*); 148 (*Princess Royal* at 3.59), 155 (*Tiger* at 3.51).

⁵ *Lion* (s), 4.9, also 4.20; *Lydiard*, (r) 4.30.

⁶ 4.15, *Champion* (r); 4.20, *Pelican* (r); 4.15, *Von Hase*; 4.15, *Nicator* (r); 4.30, *Nerissa* (r).

her three destroyers, after clearing the *Nottingham* and supported by the *Moorson* and *Morris* from the engaged side, was making approximately East-South-East to attack.

Hipper saw the attack developing and launched his 9th Flotilla against it, supported later by the *Regensburg* and a portion of the 2nd Flotilla.

The destroyers rapidly covered the distance between the lines, and by 4.30 the two forces were well within range¹ engaging each other with an energetic fire.

By 4.40² the *Nestor* found herself on the starboard bow of the enemy and turned some 14 points to attack on a North-Westerly course. They now came under a heavy fire from the destroyers and the battle cruisers, and the *Nomad* was hit by a shell which burst in the engine-room, killing the Engineer-Lieutenant-Commander, and brought her to a dead stop.

The *Nestor* and *Nicator* each fired two torpedoes at about 6,000 yards, but the *Lutzow*³ had turned away and the torpedoes probably ran harmlessly past. The *Petard* had turned to attack immediately after the *Nestor*, and had fired her first torpedo at V. 27, the leading German destroyer, which she probably hit, and three others at the second or third cruiser (*Derfflinger* and *Seydlitz*), at a range of about 7,000 yards.

By this time two of the German destroyers, V. 29 and V. 27, which had been badly hit, were sinking.⁴ The remainder had fired twelve torpedoes⁵ without a hit, and after rescuing the crews of their sinking vessels were now racing back to the shelter of their squadron.

The *Nerissa*, astern of the *Petard*, saw the enemy turn sixteen points to a Northerly course, and turning with the *Turbulent* and *Termagant* to a Southerly course to attack, fired two torpedoes at 7,000 yards,⁶ and then shaped course to rejoin the *Champion*.

The turn away of the enemy at 4.45 p.m. had frustrated the *Nestor's* attack, but Commander Bingham was determined to press it home. Turning with the *Nicator* to an Easterly course, he followed him up under a heavy fire. Reaching a position abeam of the *Lutzow* at a distance which, according to

¹ 6,000 yards at 4.32 p.m., according to Harper V.

² Harper V; *Nestor* says 4.30 p.m.

³ At 4.28, 4.33 and 4.36 probably to open the range.

⁴ The *Petard* probably hit one with a torpedo. Scheer (p. 144) states they were hit by heavy calibre shell, but the *Tiger* is the only ship that reports firing on them. (J.P., 155.) V.27 was the leader of the 17th Half-Flotilla.

⁵ Scheer, 144. None of them seems to have reached the British line except a couple mentioned by the *Barham* and even in their case the time seems uncertain. (J.P., 193).

⁶ J.P., 235. This implies the enemy on an approaching course, but Harper V makes the enemy on an opening course on a N.E. bearing.

Von Hase,¹ was "devilishly close," she fired her third torpedo at 3,000 to 4,000 yards, then turned to make back. By this time the enemy Battle Squadron could be seen to the southward, and the *Nicator* fired her third torpedo at the second ship. The destroyer recall was flying,² but the gallant *Nestor* was not to reach home. The *Regensburg*, appearing from behind the squadron, opened a heavy fire on her, and succeeded in getting two shots into her boilers, reducing her speed to 17 knots with the enemy Battle Fleet drawing nearer and nearer. The Captain of the *Petard* (Lieutenant-Commander E. C. O. Thompson), seeing his leader disabled, closed, and offered him a tow. But minutes were precious. Every moment brought the enemy nearer, and Commander Bingham, loath to involve another in his impending fate, refused the offer, and watched him turn westward and make off. The *Nestor* soon came to a full stop. The *Nomad* was lying equally helpless a mile or so away. The latter was visibly sinking. Both Commanders could see that a storm of fire must break on them in a few minutes, and both made shift to strike a last blow by firing their remaining torpedoes at the approaching Battle Fleet. The *Nestor's* crew gave three cheers for the *Nestor*, and sang a verse of "God Save the King." The Carley rafts were launched, and the wounded got on to them.

As the High Sea Fleet approached, an overwhelming fire was opened, which sank both boats in a few minutes; the crews were picked up by enemy destroyers as they passed.

The destroyer attack was over. Boldly led by Commander Bingham, it had exercised a temporary influence on the battle. Eleven destroyers had attacked; two had been lost on each side;³ ten torpedoes had been fired at the battle cruisers, and ten at the approaching Battle Fleet,⁴ and one at a destroyer. No hits were made on the enemy's big ships,⁵ but the attack had thrown out the fire of his heavy guns.

All this time while the destroyers were firing at one another in between the lines, the thunder of the heavy guns had continued over their heads. At 4.33 the fire of the *Lion* and *Princess Royal* forced the *Lutzow* to turn away. She

¹ Von Hase, 144.

² *Lion*, 4.43 p.m.

³ *Nomad* and *Nestor* (British). V.27 and V.29 (German).

⁴ A = at battle cruisers; B = at Battle Fleet; C = at destroyers. *Nestor* 3 A, 1 B; *Nomad* (when stopped) 4 B; *Nicator* 2 A, 1 B; *Petard* 1 C, 3 A; *Nerissa* 2 A; *Turbulent* unknown; *Termagant* 0; *Narborough* and *Pelican* did not attack; *Morris* 0; *Obdurate* 0; *Moorsem* 4 B. Total 10 A, 10 B, 1 C=21. Hits 1 (V.27). Torpedoes fired by Germans=12. Hits, nil.

⁵ Scheer, 145 and note *infra*.

was badly hit and on fire, and she did not resume her Southerly course till 4.49 p.m.¹

The increasing range threw out the German fire, and for ten minutes² the *Derfflinger* did not fire a single round from her big guns, mainly owing to the smoke of the destroyer action raging between the lines, partly also to the fire of the 6 in. guns throwing out the control. As the British destroyers approached, the German ships could also see the 5th Battle Squadron coming up,³ and began zigzagging to throw out their fire. At 4.49 the destroyer attack was spent, and the *Lutzw* turned to a Southerly course. The van of the High Sea Fleet was in sight, and at 4.53 Admiral Hipper turned to starboard and took station some 7 miles ahead of it. His ships were all in a condition to renew the action.⁴

CHAPTER V.

GERMAN BATTLE FLEET IN SIGHT.

THE ACTION FROM 4.40 P.M. TO 5.40 P.M.

37. The *Southampton* was the first to see the enemy Battle Fleet. She was two or three miles ahead of the *Lion* and sighted an enemy cruiser at half-past four. Following it to the South-East she sighted the head of the enemy Battle Fleet three minutes afterwards, and immediately flashed the signal, " Battleships South-East " to the *Lion*. This was followed by a more detailed report five minutes later,⁵ and the *Champion*, who had also

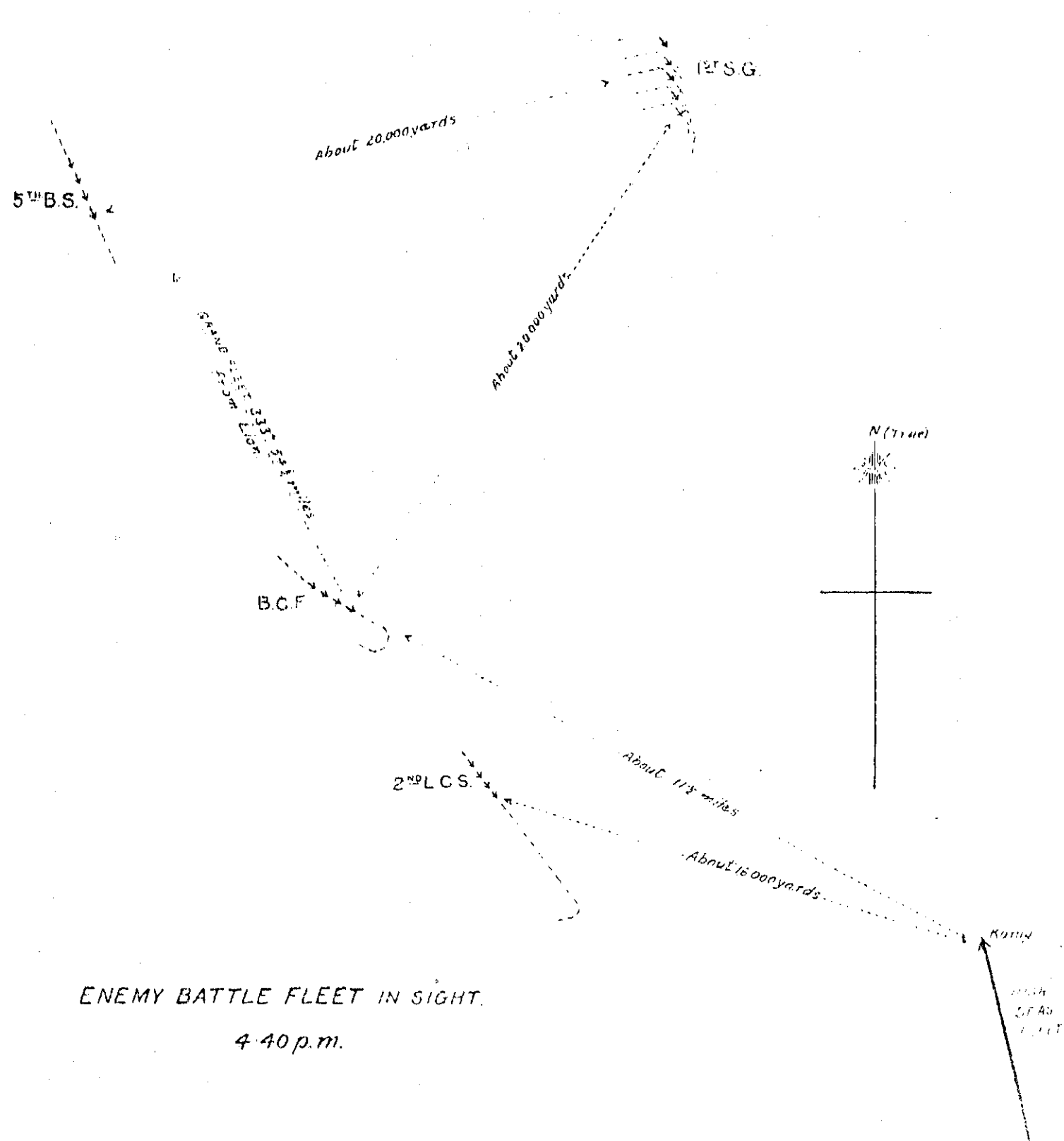
¹ Course at 4.20, S. ; 4.28, S.E. by S. ; 4.33, E.S.E. ; 4.36, E.

² From 4.36 to 4.45, Von Hase, 103.

³ Von Hase (I.D. 1120) 28.

⁴ The damage done to the German battle cruisers in this phase of the action was considerable, but German information on the point is not conclusive. The *Lutzw* was badly hit and on fire about 4.30 p.m. Von Hase distinctly mentions three hits on the *Derfflinger* and says that the enemy (the *Queen Mary*) shot splendidly (I.D. 1220, pp. 25, 27). The *Moltke* had only four hits, and all of these were on the starboard side. At least two out of the *Von der Tann*'s four hits were also on the starboard side. Five or six of the hits on the *Seydlitz* were on the starboard side, one of which was a hit on No. 4 turret by a 13.5 shell at about 15,310 yards which necessitated the turret being abandoned, and which was possibly *Queen Mary*'s about 4 p.m.

⁵ Senior Officer, 2nd Light Cruiser Squadron, to Commander-in-Chief, Senior Officer Battle Cruiser Forces. Have sighted enemy Battle Fleet bearing approximately S.E. Course of enemy North. My position Lat. 56° 34' N., Long. 6° 20' E. 1638. Received *Lion* (w), 4.40 ; *Iron Duke*, 4.35 ; *New Zealand*, 4.38 ; *Barham*, 4.40.



sighted them, sent in a signal at the same time.¹ The signalled positions of both the *Southampton* and *Champion* were considerably² out, which must be attributed partly to the awkward and ponderous method then in vogue for translating latitude and longitude into a code form. These errors³ did not affect Admiral Beatty, for both ships were only a few miles off, and before the *Champion's* signal got through, and probably before he himself had seen the *Southampton's* second report,⁴ the enemy Battle Fleet was in sight from his own flagship. It was the first time it had been seen since that momentous hour when the war began, and with Jellicoe's Battle Fleet hurrying down only 50 miles away, the door of a great opportunity seemed at last to be on the point of opening.

Two of Admiral Beatty's ships⁵ had been lost, but if Scheer could be brought within range of the thunderbolt coming down on him from the North-West, their loss would be amply avenged and would bulk small in the disaster menacing him.

Scheer's appearance probably came as something of a surprise, for only a few hours before, Admiral Beatty had seen an intercepted signal from the Admiralty to the Commander-in-Chief stating that directionals placed the enemy flagship in the Jade at 11.10 a.m. and they were sighted some 180 miles from it at half-past four. They were now plainly visible. The head of their line was some 11½ miles off to the South-East, and the signal went up to turn 16 points to starboard, followed almost immediately by the destroyer recall.⁶ (Diagram 10.) Hipper's battle cruisers were some ten miles off to the north-eastward when the *Lion* turned.

¹ Course of enemy Battle Fleet is E.N.E. single line ahead. Van, Dreadnoughts. Bearing of centre S.E. My position 56° 51' N., 5° 46' E. 1630. *Champion's* time of origin 1630 is evidently a mistake for 1638. The *Southampton* was ahead of the *Champion* and her brief signal at 4.33 bears all the stamp of a first report.

² *Champion's* about 12 miles to northward of actual position, *Southampton's* about 13½ miles 98° from actual position, according to Harper V.

³ The effect of these errors in the Commander-in-Chief's view of the situation will be dealt with in the next Chapter.

⁴ *Lion* received *Champion's* signal at 4.47; *Southampton's* at 4.40 p.m.

⁵ There appears to be little doubt that the destruction of the *Queen Mary* was caused by shell-fire igniting charges in the turret or working chamber, the flash from which was conveyed down the trunk to the handling room and magazine. If the danger from this cause had been more fully appreciated, the risk could have been decreased and the ship would probably have come through the battle in safety. It is uncertain whether the loss of the *Indefatigable* was due to the same cause or whether a shell pierced her armour and burst in the vicinity of the magazine.

⁶ Signal to alter course 4.40 p.m.; 4.43 destroyer's recall.

Scheer Sights Beatty's Squadron.

38. Scheer's fleet,¹ which had just appeared, consisted of the 3rd, 1st and 2nd Squadrons, numbering 16 modern battleships and 6 pre-Dreadnoughts. In the van was the 5th Division comprising the newest and strongest ships of the *König* class. With the Battle Fleet was the 4th Scouting Group of 5 light cruisers, the *Rostock* with the 3rd, 5th and 7th Flotillas, and the 11th Half Flotilla, 38 destroyers in all. He had received the news of the British battle cruisers at 3.25 p.m. and at 4.05 had altered course to North-West and increased to 15 knots. At 4.20 he shaped course West, hoping to pass to southward of the British and catch them between two fires, but news arrived shortly afterwards of the presence of British battleships, and, fearing the position of the 1st Scouting Group might become critical, he altered course again to North.

At 4.32 he sighted the ships in action some 15 miles off² to the N.W. His fleet was at this time in line ahead steering North at 15 knots with ships $2\frac{1}{2}$ cables and squadrons 3,500 metres (1.9 miles) apart, screened by light cruisers and torpedo craft.

At 4.45 p.m. he increased to 17 knots and altered course by divisions, leaders together to N.N.W., going on to full speed about 4.55 p.m. The *Regensburg* with the 3rd Flotilla and 1st Half Flotilla were a couple of miles on the starboard beam of the leading squadron, while the 7th and 5th Flotillas were on the starboard beam³ of the 1st Squadron. Hipper had seen the *König* coming up, and he now turned 16 points and took station about 7 miles ahead of her.⁴ It was 4.50 when Von Hase in the *Derfflinger* told his guns that the 3rd Squadron was coming up. The *König* and her proud sisters seemed to them the harbingers of victory and they were burning to win fresh laurels. But the day was not over yet.

39. When the *Lion* turned at 4.41 p.m. the *Southampton*, a couple of miles ahead of her, gallantly held on for a time to get a better view of the enemy fleet, but at 4.45 came under a heavy fire at about 13,000 yards, which forced her to turn and follow the Battle Cruiser Squadrons now some five miles off to the North-

¹ 1st Squadron, 1st Division—*Friedrich der Grosse* (flag), *Ostfriesland*, *Thuringen*, *Helgoland*, *Oldenburg*. 2nd Division—*Posen*, *Rheinland*, *Nassau*, *Westfalen*. 2nd Squadron, 3rd Division—*Deutschland*, *Hessen*, *Pommern*. 4th Division—*Hannover*, *Schlesien*, *Schleswig-Holstein*. 3rd Squadron, 5th Division—*König*, *Grosser Kurfürst*, *Kronprinz*, *Markgraf*. 6th Division—*Kaiser*, *Kaiserin*, *Prinzregent Luitpold*.

² Scheer's report, J.P. 592. *Lion* was then N. 39 W. $15\frac{1}{2}$ miles from *König*; the 2nd Light Cruiser Squadron was then 12 miles from *König*, and was probably the ship first sighted. Cf. 4.33, when *Southampton* sighted the enemy.

³ J.P., German VI. Diagram 1.

⁴ Harper V makes Hipper's 16 point turn at 4.46 p.m. and puts them seven miles apart at 4.51; Scheer's diagram, German V, makes them turn at 4.48 p.m. Von Hase's track and the revised track makes the turn at 4.53 p.m.

West. Salvos were falling around her for some time sending torrents of spray over the bridge and the navigator, whose time was wholly taken up with zigzagging to avoid them. She kept the enemy Battle Fleet in sight, however, and between 4.38 and 5 p.m. sent to the Commander-in-Chief three reports whose value was unfortunately diminished by errors and discrepancies of position.

The 5th Battle Squadron still on a Southerly course was now rapidly closing Beatty's battle cruisers. When the action commenced it found itself seven miles on the *Lion's* port quarter,¹ and though the *Barham* and *Warspite* opened fire on the 2nd Scouting Group about 4 p.m.² and drove them to the eastward, it was not till ten minutes later that they were able to range on the German battle cruisers.³ The enemy replied at 4.21 and straddled the *Barham*, hitting her a few minutes later, but doing no serious damage. The fire had then slackened and tended to become intermittent owing to decreasing visibility. To the South-East the light was growing steadily worse and the enemy battle cruisers were gradually becoming merged in a grey background, illuminated fitfully by the flashes of their guns, while to the South-West our own destroyers silhouetted against a clear horizon showed that the squadron presented a good target to the enemy.⁴ The range, however, was too great for him and his fire was intermittent and desultory. At 4.40 p.m. when the enemy destroyers attacked, Rear-Admiral Evan Thomas had made a signal to turn two points away, which was apparently carried out about 4.46.⁵ By this time the *Lion* was returning at full speed on a Northerly course. She was soon on the port bow of the *Barham* with a signal flying to the 5th Battle Squadron to turn 16 points⁶ in succession. She passed about two miles off on the port hand about 4.53 and the 5th Battle Squadron turned to starboard shortly afterwards.⁷ They had hitherto seen nothing of the German Battle Fleet, but as the *Warspite*, the rear ship of the line, turned, she sighted it, and the *Barham* saw it, too, to the S.S.E. as she steadied on a Northerly course. Her turn had been delayed, and the *Lion* was now some three or four miles off on the starboard bow.

Course at 1645 to Join the Commander-in-Chief.

40. When the *Lion* turned at 1645 she had to draw the enemy back to the Main Fleet, and the relative position of the two

¹ Harper V.

² *Barham* (r), 3.58 at 17,000 yards; *Warspite*, 4.2; *Valiant*, 4.1.

³ *Barham* on *Von der Tann* at 19,500, 4.11; *Warspite*, 4.14; *Malaya* on *Von der Tann* at 18,500, 4.15.

⁴ *Barham* (r), J.P., p. 193-199. *Malaya* (r), *ibid.*, p. 217.

⁵ *Valiant* (r).

⁶ *Lion* (s), 4.48.

⁷ Harper V makes them turn at 4.56; *Barham* (r), 4.53; *Warspite* (r), 4.56; *Valiant* (r), 4.57; *Malaya* (r), 4.57.

flagships was therefore a question of primary importance. At 4.45 Admiral Beatty sent a signal to the Commander-in-Chief reporting the enemy Battle Fleet bearing S.E. and giving his own position in Lat. $56^{\circ} 36' N.$, Long. $6^{\circ} 04' E.$ ¹ This signal was made correctly by the *Princess Royal*, and taken in correctly by some of the ships of the Grand Fleet, but in the form in which the flagship received it at 5.5 p.m. it made the enemy steering S.E. This error did not affect the *Lion's* position, which got through correctly, so that by 5.5 p.m. the Commander-in-Chief knew where the *Lion* was, or thought she was.² The next question is the position of the Commander-in-Chief as known to the *Lion*. The last position made by the Commander-in-Chief placed him at 3.15 in $57^{\circ} 50' N.$, $4^{\circ} 15' E.$, proceeding S.E. by S. at 19 knots. This signal, sent at 3.26 and received about 3.38 p.m.,³ was what the *Lion's* navigator had to work with at 4.45 p.m., and it made the Commander-in-Chief at 1645 in $57^{\circ} 30' N.$, $4^{\circ} 56\frac{1}{2}' E.$, that is, 66 miles 325° (N. 22 W.) from the *Lion*.

On the basis of these figures the course to join him would have been N.14 W. : the course steered was Northerly,⁴ governed probably by the necessity of keeping in touch with the enemy battle cruisers and covering the destroyers of the 13th Flotilla returning from their attack.

¹ (a) "Have sighted enemy's Battle Fleet bearing S.E. My position Lat. $56^{\circ} 36' N.$, Long. $6^{\circ} 04' E.$ 1645."—J.P. 453. (b) *Lion* (s): "Flag to *Princess Royal*. Report enemy's Battle Fleet to Commander-in-Chief bearing S.E. 1645." (c) *Barham* (w). *Princess Royal* to Commander-in-Chief, urgent, 1645. To Commander-in-Chief from Senior Officer, Battle Cruiser Force: "Have sighted enemy Battle Fleet bearing S.E. 96 F.V. 63, received 5.10 p.m." (d) *Benbow* (s): "W/T 1645, urgent. Battleship? Number of enemy ships 26-30, bearing S.S.E. Course S.E. 96 F.V. 63, received 5.8." (e) *Iron Duke* (s) has "1645, 26-30 battleships, probably hostile, bearing S.S.E., steering S.E. 96 F.V. 63, received 5.5 p.m." (f) *Marlborough* (w) and (s) *Princess Royal* to Commander-in-Chief, Senior Officer, Battle Cruiser Force to Commander-in-Chief: "Have sighted enemy's Battle Fleet, bearing approximately S.E. My position 96 F.V. 63, 1645, received 5.8 p.m." (g) *Minotaur* (s). Senior Officer, Battle Cruiser Force, to Commander-in-Chief: "Have sighted the enemy's Battle Fleet bearing S.E. 96 F.V. 63." The errors apparently originated in the *Benbow*, which was acting as "stand by" ship on "S" wave. The signal does not appear to have been received on main W/T in the *Iron Duke*. NOTE.—J.P. 453, in giving the Commander-in-Chief's version, omits the *Lion's* position, which he undoubtedly received.

² The *Lion's* signalled position is six miles 277° (or approximately W.N.W.) from Harper's.

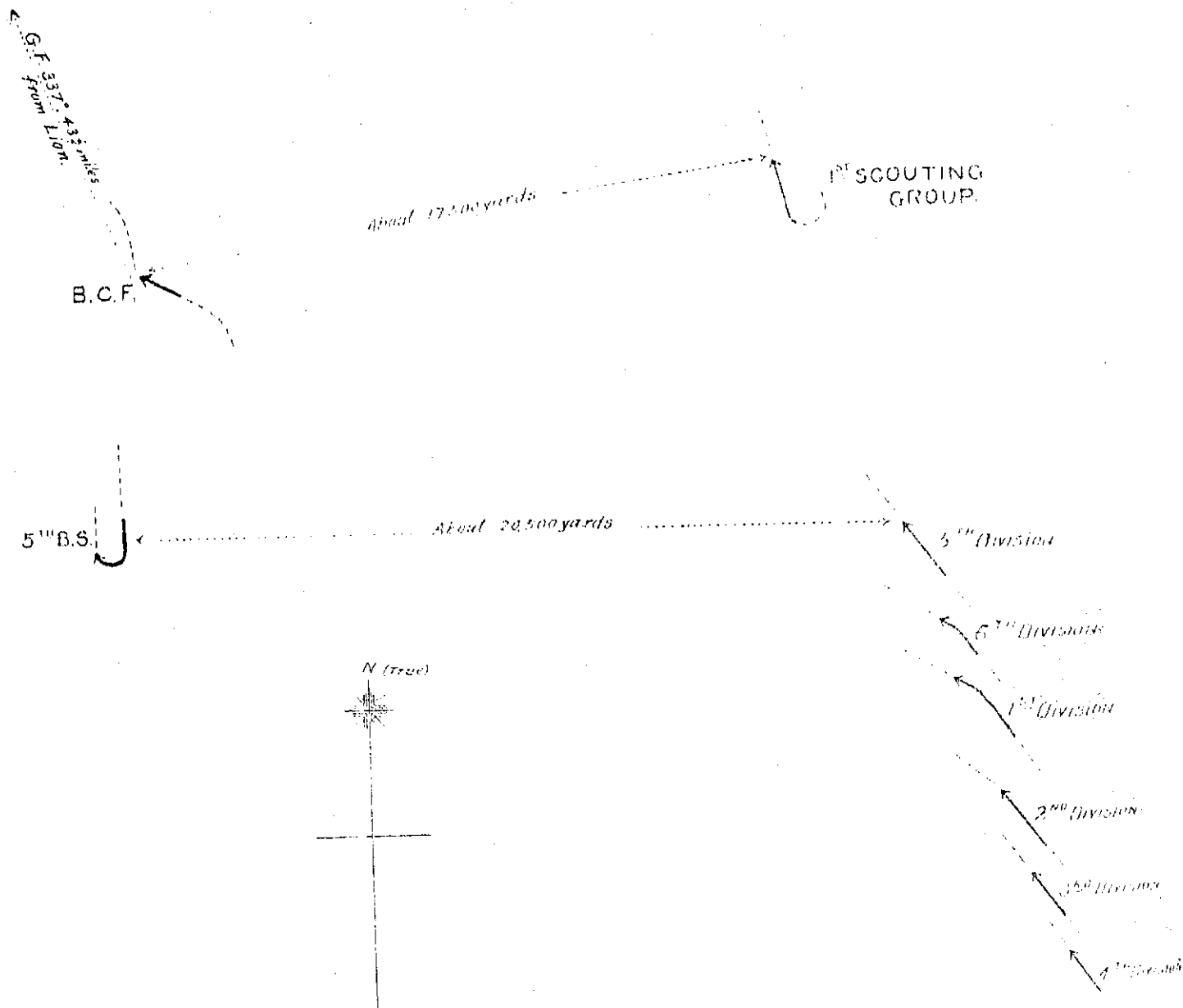
³ *Iron Duke* (s), 3.34; *Minotaur* (s), 3.38; *Lion* (w/c), 3.38; *Barham* (s), 3.39; *New Zealand*, 3.35; *Falmouth* (s), 3.37.

⁴ In Harper V, North; *Lion* (r), North; Harper (text), p. 23, merely says a "Northerly course"; *New Zealand* (log), 4.50 p.m., N. by W.

APPROXIMATE POSITIONS OF MAIN SQUADRONS

at 5 p.m.

Scale. 2,000 yards 0 1 2 3 4 5 Sea Miles.



The Run to the North, 4.45 p.m. to 5.35 p.m.

At 4.45 p.m. the enemy battle cruisers bore from the *Lion* some nine miles North-East, and their Battle Fleet about ten miles South-East.¹

Three or four minutes later fire was re-opened by the *Lion* for a few minutes, and by 4.50 all the battle cruisers except the *New Zealand*, which could not get the requisite elevation of her guns, were in action again at a range of over 18,000 yards.² The enemy replied with a heavy fire, and succeeded in obtaining a few more hits.

The *Lion* was hit by two shells, one of which went through the upper deck and exploded on the inboard side of the 4 in. armour, the port side, and another wrecked the galley and caused many casualties amongst the gun crews. A fire, too, which had been smouldering in Q turret ignited the charges still in the trunks and killed all the magazine and shell room parties below, but the magazine doors were closed, and the squadron was saved from another disastrous explosion.

The increased range and decreased visibility rendered the fire much less effective, and the rear ships of the German battle cruisers may have been firing at the 5th Battle Squadron, for neither the *Tiger* nor the *New Zealand* received a single hit.

At 5 p.m. the *Lion* altered course to N.N.W., to establish her junction with the Commander-in-Chief. (Diagram II.) The visibility was becoming worse and worse. Earlier in the day light mists had been driving down, but the enemy battle cruisers now became obscured in mist and could barely be seen. The conditions were peculiarly unfavourable to the British, for the mist only extended to the eastward; to the westward all was clear, and they themselves were silhouetted against a sharp yellow horizon.

By this time all the light cruisers had joined up, and were in visual touch. The 1st Light Cruiser Squadron and *Galatea* had been sighted at 5 p.m. on the starboard bow. They had lost sight of the *Lion*'s squadron at 3.45 p.m., and followed the 2nd Scouting Group to the eastward for a time; then turning to the S.E. had come down practically along the track of the

¹ The revised track makes them 9½ miles N.E. and 10½ miles S.E. by E.

² Salvos were fired by the *Lion* at 4.48, 4.49, 4.50½, 4.52½ at the (?) *Von der Tann*. Then no more till 4.57½, 4.58½, 5.00½, then five between 5.01½ and 5.04 (*Lion* T.S. record). It would appear that fire was re-opened about 4.50 on the battle cruisers still steering a Southerly course till about 4.53. The enemy's turn with the resulting smoke and confusion threw out the British fire. Then about 4.58 they were again visible and fire was re-opened till about 5.08 p.m., when the enemy was lost sight of in mist and smoke.

1st Scouting Group, and at 5 p.m. had sighted the battle cruisers on the starboard bow coming North. As Admiral Beatty turned to the N.N.W., they shaped a converging course to the north-westward to take station ahead of him.

The 3rd Light Cruiser Squadron (*Falmouth*), a couple of miles to the northward of the *Galatea*, followed suit. The 2nd Light Cruiser Squadron (*Southampton*), which held on for a time when the *Lion* turned at 4.45, was gradually coming up on her port quarter, but was still some five miles off.

The *Onslow* and *Moresby* (13th Flotilla), who had been helping the *Engadine*, came down from the northward about this time, and, finding themselves between the lines on the enemy's bow, closed to make an attack. The *Onslow* was driven off by the 2nd Scouting Group, but the *Moresby*, at 5.10, managed to fire a torpedo at the *Kronprinz*¹ at about 8,000 yards without effect.

The *Lion* could now see all her cruisers, and some 3½ miles astern of her was the 5th Battle Squadron. Its two leading ships, the *Barham* and *Valiant*, were engaging the battle cruisers; its rear ships, the *Warspite* and *Malaya*, the enemy Battle Fleet. It will be remembered that the 5th Battle Squadron had held on for a mile or two at 4.50, when the Vice-Admiral signalled to it to turn. This brought it under a heavy fire from the *König*, and the leading division of the Battle Fleet. The *Barham* had hardly turned when she was hit by a heavy shell which went through the glacis the starboard side forward, and burst on the main deck, wrecking the auxiliary wireless, putting her wireless set out of action, and causing heavy casualties among the W.T. staff and medical parties. The flash passed up to the battery deck, starting a serious cordite fire in S. 2 casemate, which put the guns' crew out of action. Three other hits were received, but the damage done by them was less serious.²

The *Valiant* was engaged intermittently with the *Derfflinger* on the Northern course, and not only escaped injury but seems to have obtained two or three hits.³

The *Warspite* was heavily hit, and most of the hits she received seem to have been in this phase of the action.⁴ One of the first hits went through the side armour on the boys' mess deck, bursting in a "terrific sheet of golden flame, stink and impenetrable dust,"⁵ and starting all the fire brigade souvenir hunting. Another blew in the side aft and began to flood the

¹ The third ship of the *Dreadnought* line. *Moresby* (r), J.P. 238.

² The main wireless feeder and action feeder were both severed.

³ Von Hase, 109.

⁴ Probably eight or nine out of the 13. The *Warspite*'s dramatic turn at "Windy Corner" seems to have led to an exaggerated estimate of the damage received there.

⁵ Fighting at Jutland, 139.

steering compartment. Another burst in the captain's lobby reducing it to a state of indescribable wreckage. Further forward, X turret was hit and water was flooding through a hole in the side and going down the engine room supply trunk. Another took away the engineer's office.

The *Malaya*, too, suffered severely. She herself was firing at the *König*,¹ but the leading German Division concentrated on her with the evident intention of disabling her and making her fall behind, and at one time salvos were falling round her at the rate of six a minute. At 5.5 the enemy had her range and forced her to haul out to port, and for the next 20 minutes she was constantly straddled. At 5.20 two shells struck her below the water line, one of which burst on impact and made a rent in both inner and outer bottoms, flooding the wing compartments² and giving her a list. At 5.30 p.m. another shell penetrated the fore-castle deck the starboard side, and bursting inside the starboard battery, wrecked it, starting a fire, and causing 102 casualties. The 5th Battle Squadron in this phase of the action suffered severely, and its apparent inability with a speed of 25 knots to escape from the *König* class, which were credited by the Intelligence Division with only 20.5, gave rise to an exaggerated idea of the *König*'s speed and led the Commander-in-Chief not only to think that the information supplied by the Intelligence Division was wrong, but to the more general conclusion that all German ships possessed a speed much in excess of their nominal design.³ The explanation, however, is simple. The 5th Battle Squadron was going at least 24 knots up to 5 p.m., and the *König* just over 20; the superior speed of the former was never really in doubt. The maintenance of the range was due not to the latter's speed, but to the fact that the *Barham* and *König* were steering on converging courses.⁴ Had the *Barham* turned away, she would quickly have opened the range, but her course had to be governed by considerations of covering the Battle Cruiser Force and of joining the Grand Fleet. Only for a short time⁵ did she turn to a parallel course and she never turned right away, for this would have delayed her junction with the Grand Fleet. The *Lion* had turned in ample time, but the three or four minutes that the *Barham*

¹ *Malaya* (r), J.P. 218.

² At Station 98. Projectile Committee Report, 1917, p. 72.

³ Commander-in-Chief's despatch, June 18, 1918, para. 4, J.P. 2, also in G.F., p. 330: "The fact that the 5th Battle Squadron was unable to increase its distance . . . comes as an unpleasant surprise. It is quite evident that all German ships possess a speed much in excess of that for which they are nominally designed."

⁴ From 5.00 to 5.08 *Barham*'s course N. 16 E., *König*'s N.N.W.; between 5 p.m. and 5.42 the *Barham*'s mean course was N. by W., *König*'s N.W. by N.

⁵ Between 5.12 p.m. and 5.20 when range opened 1,400 yards; Harper VIII.

held on to the southward after passing the *Lion* meant an appreciable difference of bearing between the *König* and *Barham*.¹ At 5 p.m. the *Barham* increased to 25 knots and at 5.13 turned to N.W. for seven or eight minutes. By 5.26 the shots were becoming fewer and fewer and the action was gradually broken off. The whole force was speeding to the northward to join the Commander-in-Chief. (Diagram 12.)

To the German battle-cruisers this phase of the action was as disappointing as the first has been full of promise.²

Their guns were outranged, and Von Hase in the *Derfflinger* confined himself to firing single rounds from one turret. The British battle-cruisers were disappearing in mist and smoke, and it was to little purpose that at 5.21 Admiral Scheer ordered Hipper to "pursue," for his ships could do no more than 25 knots while the British appeared to be "romping"³ away at 28 knots. They turned their guns on the 5th Battle Squadron, but found that the British were able to keep them under fire at ranges too great for the 12 in. guns to reply—conditions which evoked a sense of depression and anxiety and kept their nerves constantly on the stretch.⁴

Von Hase states that the salvos pitched well together with a maximum spread of 400 or 500 yards, but they fell at very irregular distances. Due perhaps to the depressing conditions emphasised by Von Hase or to a reduction of their speed by damage, the "pursuit" ordered by the German Commander-in-Chief does not seem to have been very ardently performed, for their own diagram credits them with a speed of only about 22 knots.⁵

The State of the Battle Cruiser Force.

In the lull between 5.10 p.m. and 5.40 p.m. Admiral Beatty may have found time to review the state of his force. Their speed had not been reduced. Of the ships that were left, the *Lion* had suffered most heavily and Q turret was out of action; the *Tiger* was making water in a wing compartment aft, which had been penetrated by a shell, but the damage was not serious.⁶ The *New Zealand* had not been hit.

The state of the 5th Battle Squadron was equally satisfactory. Both the *Barham* and the *Malaya* had suffered severe casualties in their 6 in. batteries, and the *Warspite* had been heavily hit

¹ About seven degrees. About 1,200 yards, too, in distance—little enough at 22,000, but still something.

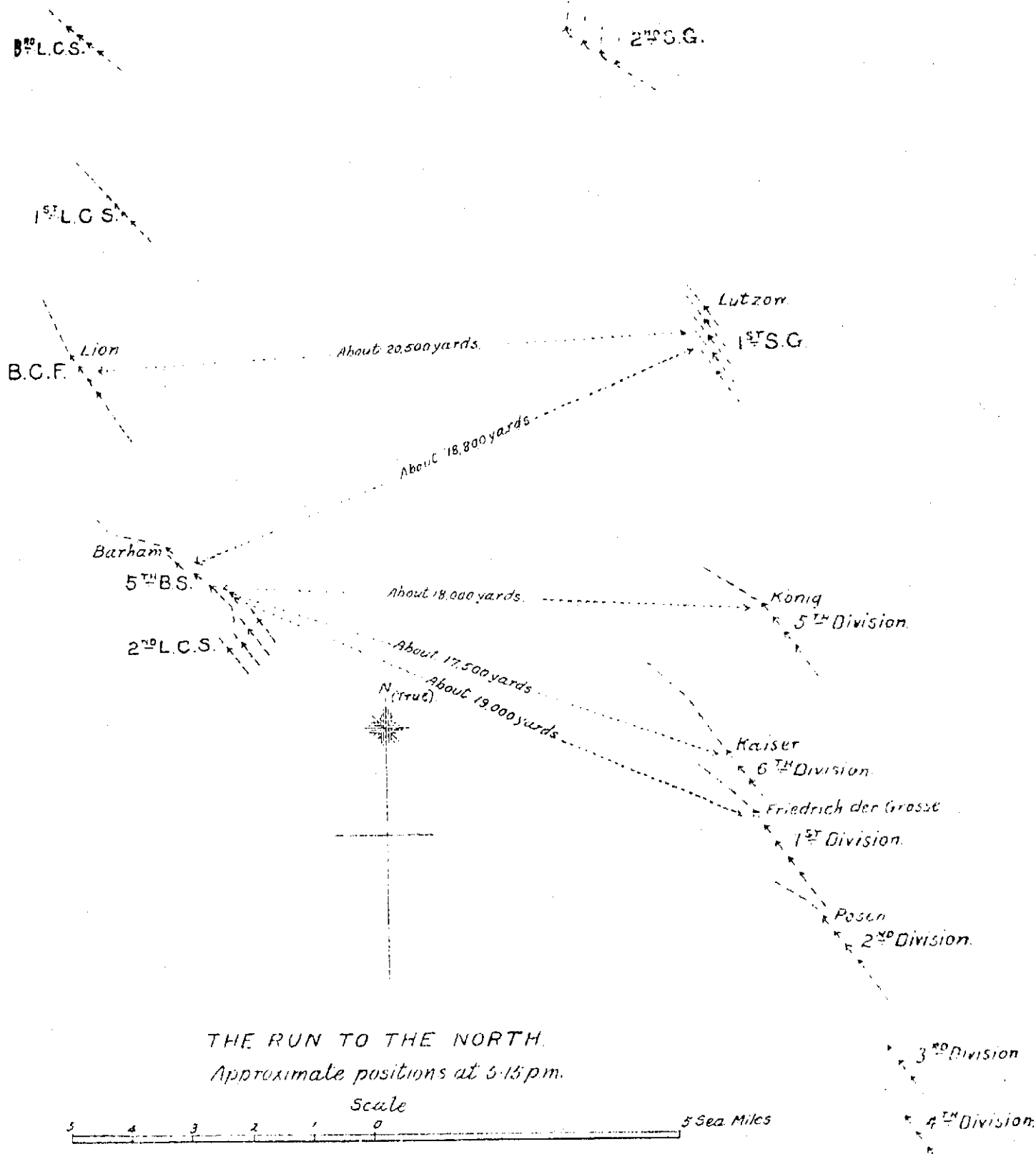
² Von Hase, I.D. 1220, 30.

³ "Lief uns spielend," Von Hase, 109.

⁴ Von Hase, 110.

⁵ Harper VIII gives them 20 to 21 knots.

⁶ *Tiger* had flooded Q magazine. These details were not known to the Senior Officer, Battle Cruiser Force, till later.



but none of them were seriously damaged, their turrets were all in action, their engines were intact, and the *Valiant* had not been hit.¹

Every minute, too, was bringing them nearer and nearer to the Main Fleet, and the Vice-Admiral could look forward with confidence to a renewal of the action.

CHAPTER VI.

COMMANDER-IN-CHIEF'S VIEW OF THE SITUATION. 2.0 P.M. TO 5.0 P.M.

41. Leaving the Battle Cruiser Force hastening northward, we must turn to the doings of the Battle Fleet and look at the situation from the point of view of the Commander-in-Chief. At 2 p.m. he was, according to the *Iron Duke's* reckoning, still some 20 miles from his rendezvous,² proceeding quietly at 15 knots, and, in view of the Admiralty signal³ which located Scheer's flagship in the Jade, probably not in any immediate expectation of an encounter. The first sign of the enemy came from the *Galatca* at 2.20 p.m., and the two other signals made by her in the next quarter of an hour confirmed the first report. It was clear that enemy light forces of some sort were at sea, and at 2.35 the Commander-in-Chief ordered the Fleet to raise steam for full speed.⁴

From this time up to 5.35 p.m. reports fall into three series :

Series I.—(1 hour 15 minutes) From 2.20 p.m. to 3.35 p.m., ten reports of enemy light cruisers.

Series II.—(19 minutes) 3.40 p.m. to 3.59 p.m., six reports of enemy battle cruisers.

This is followed by an interval of 45 minutes.

Series III.—(15 minutes) 4.45 p.m. to 5.0 p.m., six reports of enemy battleships.

This is followed by an interval of 30 minutes.

¹ Hits received up to 5.40 p.m. on Southerly and Northerly courses (from report of Projectile Committee, 1917) :—

	Southerly. Northerly.			Southerly. Northerly.	
<i>Lion</i>	10	2	<i>Barham</i> ..	2	4
<i>Princess Royal</i> ..	2	0	<i>Valiant</i> ..	0	0
<i>Tiger</i>	4	0	<i>Warspite</i> ..	3 (a)?	5 (a)
<i>New Zealand</i> ..	0	0	<i>Malaya</i> ..	3	4

(a) Approximate estimate only.

² N. 40 W., 20 miles from the rendezvous. The *Iron Duke* was actually in Lat. 57° 54½' N., Long. 3° 52' E., or 4½ miles ahead of her reckoning.

³ Admiralty to Commander-in-Chief, 1235, *see supra*.

⁴ J.P. 443 gives a signal at 2.15 p.m., Commander-in-Chief to cruisers: "My course S.E. by S. at 3 p.m. Raise steam for full speed with all despatch." This appears only in *Iron Duke's* (s¹) and (s²), and in the latter it has evidently been inserted by a different hand. It seems very doubtful whether it was ever actually made.

Each of these series falls naturally into a group by itself, and as it is justifiable to assume that each group gave rise to a fresh view of the situation, each will be considered separately.¹

The reports up to 3 p.m. indicated clearly the presence of light cruiser forces in the vicinity of 57° N., 6° E., and at 3.10² the cruisers were ordered to take station 16 miles ahead of the Battle Fleet, but owing to their insufficient speed they never attained anything like that distance, and were actually only some four or five miles ahead when the *Black Prince* sighted the *Falmouth* coming North at 5.35 p.m.

On receipt of these reports the Commander-in-Chief made a signal to prepare for action, opened his columns³ to manœuvring distance of a mile, increased speed to 19 knots,⁴ and shortly after 3.30 p.m. made his 3.15 position to the Senior Officer, Battle Cruiser Force.⁵ His view of the situation at this time is reflected in a signal made at 3.30 to the 3rd Sub-Division and Commodore (F), stating that enemy cruisers were being chased to the North and should be in touch with our cruisers⁶ by 4 p.m.

Up to 3.30, then, the encounter appeared as an affair of light cruisers, and in view of the Admiralty signal of 1235 the Commander-in-Chief possibly did not expect it to develop into anything more.⁷

42. In the course of the next half hour, however, the situation began to harden. At 1540 an important signal came in from Beatty reporting five battle cruisers North-East of him, and between that time and four o'clock six signals were received.⁸

By the *Iron Duke's* reckoning, the *Lion* at 3.35 p.m., when she sighted the enemy, bore S. 16° E., 60 miles from the Commander-in-Chief.

¹ For Summary of Reports of Enemy received, see Appendix F. For full text of signals, reporting enemy light cruisers, from 2.20 to 3.35 p.m., from *Galatea*, *Falmouth*, *Lion*, *Nottingham* and Admiralty, see J.P. 444-6.

² *Marlborough* (s), 3.07 p.m.

³ J.P. 446, 3.16; *Iron Duke* (s^b), 3.20; *Benbow* (s), 3.16; *Marlborough* (s), 3.15.

⁴ J.P. 446, 3.18; *Benbow* (s), 3.20; *Iron Duke* (s^b), 3.25 p.m.

⁵ Position 3.15 p.m., Lat. 57° 50' N., Long. 4° 15' E. Course S.E. by S., 19 knots, 1526; J.P. 447, 3.27; *Iron Duke* (s^b), 3.27; *Iron Duke* (s^c), 3.34; *Iron Duke* (w.e.), 3.34; *Minotaur* (s), 3.38; *Benbow* (s), 3.36; *Marlborough* (s), 3.36; *Lion* (s), 3.38.

⁶ J.P. 449. By "our cruisers" the Commander-in-Chief evidently meant the 3rd Battle Cruiser Squadron, 20 to 25 miles ahead.

⁷ Compare the signal to destroyers at 3 p.m. to bank fires in boilers not required for 21 knots, followed at 3.22 by orders to raise steam for full speed (J.P. 445, 447).

⁸ See Appendix F. For text of signals reporting enemy battle cruisers and light cruisers from *Lion*, *Galatea* and *Falmouth*, see J.P. 449, 450.

CINC 3300
(Reference
Position)

CINC 406
(From 330)

37°39' N
5°35' E

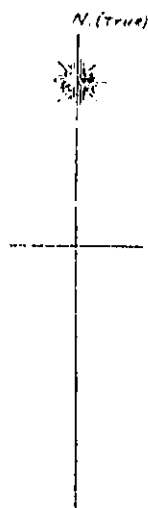
3RD B.C.S

(From 5 C 3 B.C.S 1600)

85° (S 82° E mag) 25½ miles

5 E D.S. mag
20 miles

5 S E mag
20 miles



HOOD PROCEEDING TO SUPPORT BEATTY.
(HOOD's reckoning).
Position at 406pm.

Scale
0 5 10 15 Sea Miles

Probable
position
of Enemy

Lion 350
(From CINC 1604)

LION 406
(From 350)
assuming speed
25 knots

5 S S E (mag)

175° (S 8 N mag) 48½ miles

The positions given in the *Lion's* signals were not reconcilable with her speed on a straight course, but the mean of these positions showed that somewhere about Lat. $56^{\circ} 52' N.$, Long. $5^{\circ} 31' E.$,¹ she was engaging the enemy battle cruisers on an E.S.E. course.

At 3.55 p.m. an important signal arrived: Beatty was engaged. Speed was increased at 4.0 p.m. to 20 knots, and a few minutes² later the *Invincible* and the 3rd Battle Cruiser Squadron were sent off at full speed to support him. (Diagram 13.)

The *Invincible* was then some 25 miles from the *Iron Duke*, four and a half points on her port bow.³ Her normal position was 20 miles ahead of the Battle Fleet, but at 3 p.m. she had been rather ahead of her station,⁴ and when the *Galatca* signal came in at 3.8 p.m. stating the enemy light cruisers had altered course N.W. she had shaped course E.S.E. at 22 knots to intercept them. Then came the *Galatca's* signal at 3.44 p.m. saying the enemy had turned South and Rear-Admiral Hood had altered at 3.45 p.m. to S. 26 E. Quarter of an hour later he received the order to support Admiral Beatty. Beatty's latest position was that made at 1550,⁵ which made him at 4 p.m. about 48 miles S. by W., steering in a South-Easterly direction, from the *Invincible*, and as the latter had no margin of speed, she could not hope to overtake or intercept him. Rear-Admiral Hood accordingly steered S.S.E. in the hope of getting in touch—a happy course which was to disconcert the enemy and give Scheer an entirely false impression of the tactical situation.

After 4 o'clock the reports shut down, and for three-quarters of an hour the Commander-in-Chief received no news of the situation. He was evidently somewhat anxious about it, for at 4.15⁶ he asked Rear-Admiral Evan Thomas if the 5th Battle Squadron was in company with Beatty's force, and received a reply in the affirmative.

Commander-in-Chief Hears of Enemy Battle Fleet.

43. It was now 4.30, and there was no indication of the enemy Battle Fleet appearing on the scene, but in the next quarter of an hour the whole situation underwent a dramatic change. For the first time in the war, the enemy's Battle Fleet was reported in sight. The first token of it was a signal from the

¹ Harper V makes *Lion* at the mean of these times (3.45 p.m.) in Lat. $56^{\circ} 53\frac{1}{2}' N.$, Long. $5^{\circ} 27\frac{1}{2}' E.$, only two miles from the above position.

² J.P. 451; *Iron Duke* (s), 1604; *Marlborough* (s), 4.12; *Benbow* (s), 4.14.

³ Rear-Admiral Hood signalled his position shortly after 4 p.m. in Lat. $57^{\circ} 39' N.$, Long. $5^{\circ} 35' E.$

⁴ S. 64 E. (i.e., on port bow), 25 miles from *Iron Duke* at 3 p.m.

⁵ $56^{\circ} 53' N.$, $5^{\circ} 31' E.$

⁶ *Barham* (s), 4.24, reply 1630.

Southampton reporting a cruiser to the South-East, followed by a definite report of the enemy Battle Fleet made at 4.33 p.m., and a more detailed report at 4.38 p.m. with one from the *Champion* at the same time, and then five more reports¹ between 4.40 and 5.0 p.m.

These seven signals contained very considerable discrepancies. The *Champion's* position made her a long way off the *Southampton*,² and the *Southampton's* 1638 position was 8 miles from her 1630 position, giving her a speed of 60 miles an hour. Her next signal was very little better, and made her go 6 miles in eight minutes, a speed of 45 knots.

Shortly afterwards a signal came in from the *Lion*, made at 4.45 p.m., which would have cleared up the confusion had it been correctly taken in. Unfortunately it became mutilated, probably in the *Benbow*,³ and as received by the Commander-in-Chief, reported the enemy to be steering South-East. Then at 5 p.m. came a signal from the Admiralty giving the enemy's position accurately at 4.9 p.m., and then a final signal from the *Southampton*, concluding an admirable series unfortunately marred by faulty positions.

It is possible to reconstruct the work of an Intelligence Officer in the *Iron Duke*. A glance at the *Lion's* signal as received in the *Iron Duke* would show that it had been mutilated, for it spoke of "26 to 30 battleships." The course, therefore, could be rejected,⁴ for all the other signals agreed on a Northerly or North-Westerly course. Then again the *Southampton's* last signal at 5.0 p.m. was probably the most correct of her series, and as she had been asked to check her first signal she would make an effort to get her position right. Working the positions up to 5.0 p.m. (the *Lion's* with a Northerly course), the Admiralty's 5.0 p.m. position places the enemy 8½ miles 272° from the *Southampton's* at 5.0 p.m., and the *Lion's* position falls between them about 5 miles to the southward.

The mean of these three positions at the centre of the triangle would place the enemy Battle Fleet at 5.0 p.m. in 56° 34' N., 6° 11½' E., which is actually only a few miles from the actual position of the *Friederich der Grosse*.⁵ (Diagram 14.)

It was clear, at any rate from these signals, that the enemy Battle Fleet was coming North, and at 4.50 p.m. the Commander-in-Chief informed the Admiralty that a fleet action was imminent.

¹ See J.P. 452-4.

² *Champion's* signal position was 17½ miles N. 30 W. of *Southampton's*.

³ See para. 40 (footnote) *supra*, p. 60.

⁴ It was rejected, for at 4.47 p.m. the *Iron Duke* signalled "Enemy's Battle Fleet coming North."

⁵ Revise of track places the *Friederich der Grosse* in 56° 36' N., 6° 08' E., or 3 miles 324° from above.

The opportunity, which Sir Arthur Wilson had in the early days of the war rightly regarded as a dream,¹ had come.

A minute later the message charged with such tremendous issues was received at Whitehall. From the War Registry the pink sheets passed rapidly on their way—to the First Lord, the First Sea Lord, and the Chief of the War Staff, to the Directors of the two great Divisions of Operations and Intelligence, to Sir A. K. Wilson too. The whisper passed down the corridors. In Room 40 the enemy's battle signals were already coming in. A bustle began to run through the dockyards and up the East Coast. At all the ports, tugs and docks were ordered to be held in readiness, and Commodore Tyrwhitt was ordered to complete with fuel in readiness to relieve light cruisers and destroyers. The signal crossed a message from him stating that he was proceeding to sea,² and he was recalled.

At 5.13 the Commander-in-Chief made his position to the Senior Officer, Battle Cruiser Force.³ This was evidently his 5.0 p.m. position,⁴ but as no time was mentioned in the body of the signal, the *Lion* probably gave it the time of origin, in which case the *Iron Duke* would appear to be 13 minutes (or 4 miles) behind the Commander-in-Chief's reckoning. This in itself would not be serious, but in conjunction with other cumulative errors of reckoning, would throw out the *Lion's* bearing of the *Iron Duke*.

From 5.0 p.m. to 5.30 there was silence for half an hour. No reports came in. The Battle Fleet was ready to deploy; its guns were manned, and every man was at his station. The mists had come down, and the columns were becoming grey and ghostly.

CHAPTER VII.

COMMANDER-IN-CHIEF IN TOUCH WITH BATTLE CRUISER FORCE, 5.35 P.M. TO 6.15 P.M.

44. The phase which follows between 5.35 and 6.15 p.m. is one of great importance, but of some complexity. All the forces were converging, and four encounters, all more or less

¹ "The dream of most Naval Officers seems to be a great sea fight in which . . . we are to . . . crush the Germans at one blow. This, however, is only a dream." M. 03177, Sir A. Wilson's Minute 722/11/14, Commander-in-Chief's letter of October 30, 1914.

² J.P. 454.

³ J.P. 454. "My position Lat. 57° 25' N., 5° 12' E., steering S.E. by S., 20 knots 1713."

⁴ Position at 5 p.m. 57° 24' N., 5° 12' E., Commander-in-Chief's despatch. J.P. 12.

coincident, require to be borne in mind. First, touch is made between Beatty's cruisers and those of the Main Fleet; secondly, Beatty renews the engagement with Hipper; thirdly, the *Chester* comes into action from the North-East with the 2nd Scouting Group, and is supported by the 3rd Battle Cruiser Squadron; fourthly, an engagement develops between the *Defence* and *Warrior* ahead of the British Battle Fleet and the light cruisers of the 2nd Scouting Group.

In the *Lion* as she sped northward, the last news of the *Iron Duke's* position was received about 5.20 p.m.¹ This signal was timed 1713 and gave the Commander-in-Chief's position as Lat. 57° 25' N., Long. 5° 12' E. This was actually his position at 5 p.m., but as no particular time was given, the time of origin (namely 5.13) was probably attached to it, which would make the *Iron Duke* about 333² 30½ miles off² at 5.35 p.m.

The *Lion* altered course at this time³ to N.N.E. apparently with the two-fold intention of renewing the engagement with Hipper and of striking the cruiser screen⁴ which had been spread ahead of the Battle Fleet in accordance with the instructions contained in the Grand Fleet Battle Orders. (Diagram 15.)

The Commander-in-Chief in his despatch⁵ says that "it was apparent on meeting that the reckoning of the Battle Cruiser Fleet was about 12 miles to the eastward of the *Iron Duke's* reckoning." This was the cumulative effect of a series of three errors (Diagram 16) :—

- (a) Firstly, the *Iron Duke's* position by reckoning at 5.13 p.m. was 4.3 miles (13 minutes at 20 knots) ahead of the position given to the *Lion*. This was due to the omission of a specific time in the *Iron Duke's* signal of 1713.
- (b) Secondly, the *Iron Duke's* real position was 4½ miles ahead (that is, to south-eastward) of her reckoning.
- (c) Thirdly, the *Lion* was actually some 6¾ miles to westward of her reckoning.

Contact with the enemy, however, did not depend entirely on the *Lion's* reckoning, but on the position assigned to the enemy at 5 p.m. from the series of reports culminating at that time, in which the *Lion's* reckoning was only a single factor. It would be interesting to know what was the assumed position

¹ J.P. 454 gives 5.16, but signal logs of Battle Cruiser Force are all later; *Iron Duke* (s¹), 5.16; *New Zealand* (w), 5.19; *Falmouth* (w), 5.20; *Princess Royal* (w/e), 5.21.

² Beatty's despatch, J.P. 135, gives the estimated position of G.F. as N. 16 W. or 331°.

³ Harper, 5.55; Beatty's track, 5.30; Brock (r), 5.35.

⁴ The course to strike the cruiser screen 10 miles ahead would have been about 6° (N. 18 E.).

⁵ J.P. 16.

CRUISER FORMATION.

L.S.1.

(G.F.B.O. Cruiser Instructions p.28.)

Note:- In the absence of 5TH B.S., "Hampshire" was supposed to be at "J" as linking ship, but as Cruisers never got more than 7 miles ahead, she remained not far off "Minotaur."

A	B	C	D	F	G
↑	↑	↑	↑	↑	↑
Cochrane.	Shannon.	Minotaur.	Defence Warrior.	Duke of Edinburgh.	Black Prince.
		10 miles.			

Hampshire J (5TH B.S.)

6 miles

↑↑↑↑ 4TH L.C.S.

4 miles

Y Battlefleet.

DISCREPANCY BETWEEN RECKONINGS OF BATTLE FLEET (Iron Duke)
AND BATTLE CRUISER FLEET (Lion).

Not to scale.

A \circ C in C's position at 6:00
as it would appear to Lion, working
from C in C's 1713 signal which gave
his 5 p.m. position but omitted to
give the time.

8 miles
C
6:00 posⁿ Iron Duke
by her U.R.

4 1/2 miles

B \circ C in C (actual).
6:00.

B' \circ Position of C in C as
it would appear to
Lion on sighting her
at 6:00 p.m.

X \circ Lion 6:00
(actual)

6 3/4 miles

Z
Lion 6:00
(by her reckoning)

ZA is N 35 W (mag.) 15 1/2 miles.
XB is N 32 E (mag.) 5 1/2 miles.
ZB' is parallel and equal to XB.
AB' which is 14 miles is the apparent
difference between the reckoning
of the Battle Fleet and Battle
Cruisers or if the error arising
from the omission of a time in
the 1713 signal is neglected the
difference is CB' or 11 miles, 100°.

5:35

5:35

of the enemy at 5 p.m., but there is no mention of this in the Commander-in-Chief's despatch.¹

Renewal of Engagement with Hipper at 5.40 p.m.

45. At 5.25 p.m. Admiral Beatty ordered his force to prepare to renew the action; quarter of an hour later the ships of the 1st Scouting Group were seen again dimly through the mist, and fire was reopened at 14,000 yards. The *Lion* and the *Princess Royal* opened on the *Lützow*, the *Tiger* on the *Seydlitz*, and the *New Zealand* on the *Derfflinger*. Hipper came under a heavy fire and things went badly with him; the setting sun was in his eyes and it was becoming more and more difficult to range and spot. The *Lützow* was heavily hit about 5.50 and her main and auxiliary wireless were put out of action. Hipper could stand it no longer, and at 5.53 turned to the eastward and withdrew.² He had entered what really amounted to a trap. To the North-West was the Battle Fleet; to the West, Beatty and the 5th Battle Squadron; to the eastward, Rear-Admiral Hood and the 3rd Battle Cruiser Squadron were rushing down ahead of him. He had not gone far before he heard Hood's guns ahead of him engaging the 2nd Scouting Group and turned accordingly to S.E. at 6.04. But he had barely gone a mile when he saw the *Shark's* little flotilla coming out to attack. Like Von Ingenohl on December 16 he thought the British Main Fleet must be behind her and that a big torpedo attack was menacing him. He decided to retire on the Battle Fleet and at 6.07 turned to S.W.

The 3rd Battle Cruiser Squadron comes into Action.

46. In the meantime, while Beatty was hammering the *Lützow*, the *Chester*, *Canterbury* and 3rd Battle Cruiser Squadron away to the eastward³ had come into contact with the enemy. Since 4 p.m. the *Invincible* with the 3rd Battle Cruiser Squadron, had been hurrying down to Beatty's support, with the *Chester* about six miles off a point or two abaft her starboard beam, and the *Canterbury* about 5 miles ahead. At 5.30 the sound of gun-fire was heard to the south-westward; flashes of guns could be seen through the mist, and the *Chester* ran down to investigate.

¹ If the enemy were assumed to maintain a Northerly course from the *Lion's* report at 1645, he would have been approximately ahead at 6.30 p.m. On the other hand, the Admiralty 1700 position would make him on the starboard bow at 6.15 p.m.

² Beatty (r), "hauling gradually to the north-eastward." Von Hase indicates that Beatty's reappearance greatly disconcerted them "by completely outflanking us in spite of our utmost speed. Admiral Beatty executed a brilliant manoeuvre . . . compelling us to alter course, bringing us at length into a position where we were completely encircled by the British Battle Fleet." I.D. 1220, p. 30. For the effect of the sun and the hit on the *Lützow*, see Scheer's Report, J.P. 593.

³ Harper VIII, 21 miles East.

This was the roar and flash of Hipper's guns engaging the 5th Battle Squadron, and as the *Chester* came down she sighted at 5.36 p.m. a three-funnelled cruiser with one or two destroyers¹ showing dimly on the starboard bow. This was one of the 2nd Scouting Group under Rear-Admiral Boedicker, probably in a quarterly formation,² two or three miles to north-eastward of Hipper on a North-Westerly course.³ The *Chester* turned West to bring her guns to bear, but this course laid her open to attack by the destroyers now on her port bow, and she turned North bringing the enemy well abaft the port beam. As she turned she saw two more cruisers. They opened fire about 5.40, and the *Chester* replied at a range of about 6,000 yards.⁴ (Diagram 17.)

She was almost immediately smothered in a hail of fire. Within five minutes three guns were disabled, a number of her men were killed and wounded, and the after gun only was left in action. But Rear-Admiral Hood had heard the firing, and at 5.37 p.m. had turned the 3rd Battle Cruiser Squadron round to the North-West. He was now on the *Chester*'s starboard bow coming up at full speed, and at 5.55 his 12 in. guns crashed out a reply to Boedicker and checked his relentless pursuit.

The *Chester*, badly damaged, crossed the *Invincible*'s bows and was safe. She had been under fire for 19 minutes; her guns and fire control system were badly damaged,⁵ and she had suffered severe casualties, but the engines and boilers were intact, and she was able to steam. She remained to north-eastward of the 3rd Battle Cruiser Squadron, and afterwards took station astern of the *Minotaur* and 2nd Cruiser Squadron.

The alteration of the 3rd Battle Cruiser Squadron to the north-westward at 5.37 brought the *Canterbury* astern and was followed by her. About 6.0 p.m. she sighted two light cruisers on her port bow coming down on a Southerly course ahead of the enemy battle cruisers. She thereupon altered course about 14 points to port and engaged the light cruisers, which were then firing at the *Shark* and *Acasta*. The enemy turned away at 6.20, and the *Canterbury* then proceeded to the northward and joined the 3rd Light Cruiser Squadron.

This sudden appearance of heavy ships to the north-eastward fell on Boedicker like a thunderbolt. A mist was hanging over

¹ 12th Half-Flotilla accompanying 2nd Scouting Group.

² Scheer's diagram, J.P., German IV.

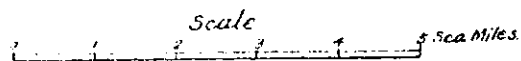
³ Scheer, N. 26 W.

⁴ Harper VII, 7,500 yards.

⁵ Three guns disabled, after control destroyed, electrical circuits damaged, holes in armour, two holes above armour, slight damage to two boilers from splinters, number of small steam pipes shot away. The casualties were 76 (30 killed, 2 died of wounds, 32 seriously and 12 slightly wounded), among them, the Commander, Charles Stuart Forbes, and Jack Travers Cornwell, Boy 1st Class, who gained the V.C. (Captain Robert Lawson's report of June 5, 1916, in M. 05150/1916.)

APPROXIMATE RELATIVE POSITIONS OF BATTLE CRUISER FLEET,
5TH BATTLE SQUADRON, 3RD BATTLE CRUISER SQUADRON, CHESTER,
1ST AND 2ND SCOUTING GROUPS & VAN OF ENEMY BATTLE FLEET.

5:42 P.M.



chester.

3rd B.C.S.

256

1950

B.C.F.

Lion.

Barham.

5TH B.S.

Head of
Enemy
Battle
Fleet.

MAGNET

the sea, and it was impossible to make out the full extent of the British strength. He turned sharply to the South-East,¹ fired three torpedoes at the enemy, and reported them by wireless to Admiral Scheer,² leading the latter to think that the British Main Force had appeared to the North-East.

In spite of the fog and poor visibility, the *Wiesbaden* and *Pillau* were badly hit, the former was put out of action, and Boedicker found himself in a nasty predicament. Heavy ships were ahead and Beatty's Squadron astern, but the German 12th Half Flotilla and the 9th Flotilla were close at hand, and recognizing the gravity of the situation, pushed boldly to the front and attacked. By this time the *Wiesbaden* had set smoke boxes alight and was enveloped in a dirty white screen. The 3rd Battle Cruiser Squadron left her and passed on to the north-westward. Nine or ten German destroyers were forging ahead of the 2nd Scouting Group, and the *Shark* and *Acasta* could be seen pushing boldly out to make an attack.

It was 6.04³ when the *Invincible* turned to the westward, steering for the sound of the guns or possibly to keep the light cruisers under fire. As she drove on, heading now towards Jellicoe and the Main Fleet, Beatty's Squadron came in sight on the port bow making to the eastward, and almost simultaneously the tracks of torpedoes could be seen coming from the direction of the enemy's light cruisers. The *Invincible* stopped and turned sharply to starboard.⁴ The *Indomitable* and *Inflexible* turned too, and the torpedoes ran harmlessly past. The *Lion* was rapidly approaching from the westward, and Rear-Admiral Hood shaped a course S. 50 E. to take station ahead of him. Five miles to the westward the Battle Fleet had begun to deploy. To the south-eastward the guns of the German destroyers could be heard engaging the *Shark*.

The Shark's Attack, 5.50 p.m.

The *Shark* was leader of four destroyers,⁵ acting as a screen to the 3rd Battle Cruiser Squadron, and when the *Invincible* turned to the north-westward to help the *Chester* she left the *Shark* on her port quarter. Lieutenant-Commander Loftus Jones in the *Shark* saw the 3rd Battle Cruiser Squadron open

¹ Scheer's diagram, J.P., German V, S. 23 E. *Indomitable* (r) "turned 16 points."

² Scheer (Eng.), 151.

³ This turn is not mentioned in the *Indomitable* or *Inflexible* reports, but appears in the *Indomitable's* track. (J.P., Plate 13.)

⁴ Large quantities of steam were issuing from her exhaust, and she hoisted the Disregard, then hauled it down and went on at full speed. *Indomitable* (r). The cause of this action remains obscure. She certainly was not hit. The torpedoes were probably fired by the 12th Half-Flotilla and the 9th Flotilla.

⁵ *Shark*, *Acasta*, *Ophelia* and *Christopher*, of the 4th Flotilla.

fire, and saw the enemy light cruisers turn to the south-eastward on his port bow, and at once pushed out to attack.

This was not the first time he had shown himself a bold and resolute leader. On the morning of the Scarborough raid (December 16, 1914) with only four destroyers¹ (one of them badly damaged), he had followed an enemy cruiser so stoutly to the eastward as to create the impression that a great force was behind him, inducing the Commander-in-Chief, Admiral Von Ingenohl, to turn back with the whole High Sea Fleet from a position² where he was advancing on Beatty and the 2nd Battle Squadron. He was now to repeat his exploit in a larger arena on a greater day.

On the port bow two or three light cruisers could be seen with the *Regensburg* and nine or ten destroyers, and the *Shark*, followed by the *Acasta*, *Ophelia* and *Christopher*, altered course to West to engage them supported by the fire of the 3rd Battle Cruiser Squadron. She fired a torpedo at the *Regensburg*, then as she turned to go back, came under a heavy fire.

The pipes to her oil suction were damaged; she was forced to ease down, and finally brought to a stop. Her fore steering gear was shot away. Another shot blew away the foremost gun and she lay helpless in the water. The *Acasta* (Lieutenant-Commander John O. Barron), which had been with her on the morning of the Scarborough raid, stood stoutly by her now and offered to help, but was told by the Captain "not to get sunk for him," and withdrew badly damaged and holed fore and aft. At this moment the *Canterbury* appeared, and drew the light cruisers off to the southward, giving the *Shark* a short respite. But soon afterwards several destroyers, probably of the 9th and 6th German Flotillas, came up and opened a heavy fire on her. The after gun was hit and all its crew killed, but the midship gun remained in action. The Captain's leg was shot off at the knee, but he continued to encourage his men, and even gave orders for a new ensign to be hoisted to replace one that was shot away. Right up to the end her single gun was firing;³ then a destroyer came up and fired two torpedoes at her, one of which hit her near the after funnel. She took a heavy list and sank.⁴

The *Acasta*, trying to help her, had been holed fore and aft, but was still in action, and at 6.12 p.m. could see the battle

¹ *Shark*, *Acasta*, *Spitfire* and *Hardy* (damaged).

² This was not known at the time, but is now evident from German reports. (Naval Staff Monograph No. 8, C.B. 1552, p. 11.) This was the "lost opportunity" which Von Tirpitz lamented so bitterly.

³ It possibly accounted for V.48, which belonged to the 3rd Flotilla, and was a total loss before 6.35 p.m. ♦

⁴ A stoker Petty Officer had tied a lifebelt round Commander Jones, and as the ship sank got him on to a Carley raft. There a few hours later he succumbed from exhaustion, and the remaining survivors were picked up by the Danish s.s. *Vidar*. Commander Loftus Jones was awarded a posthumous V.C. (M. 011160/1916.)

cruisers of the 1st Scouting Group coming up again on a North-Easterly course.¹ She fired her foremost tube at them at about 4,500 yards, and hit the *Seydlitz*, then crawled off badly hit in the engine-room, with her steering gear shot away.²

The *Ophelia*, which had been driven off for a time, saw the battle cruisers alter course to the southward to engage the 3rd Battle Cruiser Squadron, and attacking at full speed fired a torpedo at them as they came north.

The attack had borne good results. In its first stages it gave Hipper the impression that the Main Fleet was ahead of him, which induced him to turn to the South, and when he came North again the *Seydlitz* fell a victim to the *Acasta*'s torpedo.³

The "Defence" in Action, 5.47 p.m. to 6.16 p.m.

47. The period between 5.40 and 6.15 p.m., when two great Battle Fleets were about to enter the arena, appears at first as a confused picture of mist and battle smoke, but out of it the various cruiser forces begin to emerge clearly enough. Beatty's guns begin to speak first, renewing the engagement with Hipper, and a little earlier⁴ the *Chester*, 10 miles or so to the eastward, comes into action with Boedicker and the 2nd Scouting Group, then a mile to the eastward of Hipper. The *Lützow*, heavily hit by the *Lion* and *Princess Royal*, turns to the eastward, a bold push by the *Onslow* at this juncture perhaps contributing something to this result.⁵

The 2nd Scouting Group engaging the *Chester* suddenly finds itself under fire from the *Defence* and *Warrior* in the

¹ See para. 45, Hipper had turned to N.E. again at 6.12 p.m.

² The torpedo hit on the *Seydlitz* was on the starboard side, and was received in the day action. The only attack on this side was that of the 13th Flotilla at 4.30 p.m. and of the *Acasta* (4th Flotilla) between 6.12 and 6.18. In the former, torpedoes were fired by the *Petard* (3), the *Nicator* (2) and *Nestor* (2), but in view of Scheer's statement that none of the torpedoes hit (Scheer, 145) they must be ruled out. The attacks by the *Moresby* and *Onslow* later are not admissible, for both fired at the port side and the former at the Battle Fleet. There remains only the *Acasta*, which fired a torpedo at the leading enemy battle cruiser at about 4500 when she attacked with the *Shark* and saw an explosion (J.P. 307). The *Ophelia* attacked too, but fired at the port side.

³ "At 5.55 we turned East, and at 6 p.m., as the enemy destroyers launched their attack, the entire Battle Cruiser Squadron turned together on a Southerly course." Von Hase (I.D. 229, p. 31). Harper X has S.E. by S. at 6.04 and S.W. at 6.07. Scheer, J.P. (German Plan V), has S. 24 E. then S.W.

⁴ Beatty's renewal of engagement may be taken as at 5.41. The *Chester* came into action about 5.38.

⁵ Scheer and Von Hase both mention a destroyer attack at 5.40 p.m. (Scheer (r), J.P. 593; Von Hase (I.D.), 31; Scheer, 140.) This appears to be a magnified account of the *Onslow*'s attack. (Beatty's despatch, J.P. 135; Tovey (r) J.P. 227.) The 1st Light Cruiser Squadron were ordered to make a torpedo attack, and increased speed to do so, but it did not materialise.

North-West. The *Chester* almost simultaneously turns to the north-eastward, and the 2nd Scouting Group, glad to escape from the *Defence's* fire, follows her in hot pursuit.

A few minutes later Boedicker finds the *Invincible* and 3rd Battle Cruiser Squadron barring his path, and is forced to the south-eastward, leaving the *Wiesbaden* disabled and out of action—the *Shark's* attack, with what he fancied might lie behind it, contributing to this result.

Hipper hears the crash of the *Invincible's* guns, sees the *Shark's* attack, thinks he is facing the Main British Fleet, and at 6.07 p.m. turns to the S.W. to close the German Battle Fleet. As soon as he sights it three or four miles to the westward of him, he turns¹ and resumes his course to the North-East, giving the *Acasta* a chance to get her torpedo home. This represents the general trend of events up to the moment when the 1st Cruiser Squadron comes prominently on the scene.

As early as 5.47,² the *Defence* and *Warrior*, then about five miles ahead of the *Iron Duke*, sharp on her starboard bow,³ had caught a glimpse of the 2nd Scouting Group, and turning three points to port opened fire at long range. As it disappeared in the mist Sir Robert Arbuthnot evidently decided to chase, and at 6.0 p.m. turned south-eastward to do so. By this time the *Wiesbaden*, crippled by the 3rd Battle Cruiser Squadron, was crawling slowly back to the westward, hoping perhaps to find cover behind the advancing Battle Fleet. Scheer had heard from Boedicker of her plight and had altered course two points to port to help her.⁴ But it was too late. The *Defence* saw her at 6.5 and opened fire.⁵ She was hit by the second salvo and brought to a stop.

Rear-Admiral Sir Robert Arbuthnot, evidently determined to put her out of action and prevent her using torpedoes, altered course to starboard⁶ across the head of the advancing Battle Fleet and came rushing down on her at full speed. Impatient to get into action he pressed across the bows of the *Lion*; he

¹ At 6.12 p.m.

² *Duke of Edinburgh* (r) 5.50, *Hampshire* (r) 5.47, *Warrior* (r) 5.47. "observed 4 points on starboard bow, three and possibly four enemy light cruisers" (J.P. 291). The range was then 9½ miles. The *Defence* and *Warrior* each fired three salvos, but the initial damage to the *Wiesbaden* seems to have been done by the 3rd Battle Cruiser Squadron at a range of about 5 miles.

³ Harper VII, 17° on *Iron Duke's* starboard bow. Since 4.40 p.m. the *Defence* and 1st Cruiser Squadron had been steering S.E. (in towards *Iron Duke*) in order to close *Minotaur* on account of decreasing visibility. *Duke of Edinburgh* (r), J.P. 286.

⁴ Scheer (Eng. Ed.), 151.

⁵ *Warrior* (r), J.P. 291.

⁶ Harper X, 6.10; *Warrior* mentions this turn at 6.1 (possibly for 6.10), J.P. 291. *Duke of Edinburgh's* track chart, J.P. Plate XI (a), also gives 6.10 p.m.

was only 5,500 yards from his target, and had turned to starboard to bring his whole broadside to bear, when he found himself facing a more terrible foe. Hipper's squadron, after turning to the South-West away from the 3rd Battle Cruiser Squadron, was coming up again on a North-East course. Von Hase saw the *Wiesbaden* terribly disabled and hidden in smoke, on fire fore and aft with shell after shell crashing into her.¹ Seized with fury, and evidently regarding the plucky little *Onslow* as her tormentor, he fired a salvo at her and she turned away in a cloud of escaping steam, managing, however, to fire a torpedo at the battle cruiser line, another at the *Wiesbaden*² and two more at the advancing Battle Fleet. Then through the mist and smoke Von Hase saw the *Defence*, but in the very act of training his guns on her, she was struck by two salvos from the *Friederich der Grosse* or *Lützow*³ in quick succession. One hit her aft and a big red flame flashed up and died away; another hit her forward. A huge furnace flared into flame under her fore turret and she blew up with a terrific explosion, leaving only a huge pillar of smoke to mark the place of Arbuthnot's proud flagship. The *Warrior* too, behind her, came under a heavy fire⁴ from Hipper's ships and the head of the approaching Battle Fleet. Another five minutes and she would almost certainly have suffered the same fate. But just at the critical moment the *Warspite* with her helm jammed turned between her and the enemy, drawing off their fire, and she managed to get away safely to the westward.

The movements of the *Black Prince* are obscure during this phase of the action. She reported battle cruisers bearing South at 5.42 p.m.⁵ and the *Duke of Edinburgh* saw her turn about 12 points to port at that time.⁶ She was probably the armoured cruiser sighted later by the *Warrior* about 4 miles astern of the Battle Fleet.⁷

The *Duke of Edinburgh*, endeavouring to follow the *Defence*, found herself unable to cross the head of Beatty's squadron and withdrew to the eastward.

¹ Von Hase saw a light cruiser (evidently the *Onslow*) firing on her and apparently did not at first see the *Defence*. The *Onslow* engaged the *Wiesbaden* at 6.5 and fired 58 rounds at 2,000 to 4,000 yards. "I was struck by a big shell amidships." (J.P. 227).

² This may have hit.

³ Harper, 6.19; *Warrior* (r), 6.19; *Colossus*, 6.19; *Malaya*, 6.20 p.m. Scheer says the *Friederich der Grosse*. Von Hase thought it was the *Lützow*. Von Hase, 31; Scheer, 153; *Warrior* (r), J.P. 291.

⁴ Hit 15 times by 11 in. shell (evidently from the *Von der Tann*). Very severe damage was done by a heavy shell which struck the waterline on the port side and entered the engine room, bursting as it passed through the middle line bulkhead.

⁵ J.P. 456 gives this signal as "enemy battle cruisers," but *Iron Duke* (s!), also *Marlborough* (s), has "battle cruisers," and the Commander-in-Chief assumed them rightly to be Beatty's squadron (G.F. 344).

⁶ J.P. 286.

⁷ J.P. 292.

The *Defence's* attack was no doubt inspired by a keen and praiseworthy impatience to get to close quarters, but in the circumstances must be regarded as unnecessary and unsound. Though the *Lion's* target may not have been visible, she was evidently in action with heavy ships. The attack forced the *Lion* off her course, threw out the fire of her squadron, and made them lose sight of their target in the cruiser's smoke.

Contact between Battle Fleet and Battle Cruiser Force.

48. It was 6.19 p.m. when the *Defence* disappeared in a cloud of flame and spray and smoke, and the fleet had already begun to deploy at 6.15. But here it is necessary to retrace our steps and review the information on which the Commander-in-Chief's action was based.

As the enemy's Battle Fleet approached, it was of the utmost importance for the Commander-in-Chief to get a reliable bearing of it as soon as possible—a point emphasised in the Grand Fleet Battle Orders,¹ which also laid special stress on the importance of visual contact in view of the possibility of errors in reckonings arising in wireless reports.

The best position to keep in touch with the enemy Battle Fleet was astern of the 5th Battle Squadron, and this position was taken up by the *Southampton*. She hung doggedly on to the enemy under fire, and though her reports were somewhat marred by mistakes and discrepancies in reckonings, they show that she had a clear conception of her task and did her best to fulfil it. But wireless reports alone were not sufficient. A visual chain had to be established as rapidly as possible. But though the importance of visual touch had found recognition in print, it is clear that it had not received sufficient attention in practice, and it is legitimate to assume that the enormous development and extension of wireless had induced a neglect of the tactical importance of this aspect of visual signalling. The *Falmouth* and the *Black Prince* were in touch at 5.33 p.m. (Diagram 18); but the former was some 9 miles ahead of the *Southampton*, and probably not in visual touch with her, and the latter was some 13 miles from the *Iron Duke* and not in visual touch.

The 5th Battle Squadron had been in sight of the enemy's Battle Fleet, and might well have made a report, when it was lost to sight at about 5.25 p.m.²

The *Barham's* wireless was out of action, and the *Malaya*, silhouetted against a clear horizon, had received heavy punishment, but the *Valiant* certainly was in a position to make a

¹ Section XXII, paras. 6 and 20, Vol. III, folio 320, 322 in T. and S.D.D. collection.

² *Barham*, 5.25; *Valiant*, 5.24 (very indistinct); *Malaya*, 5.30 (nearly obscured).

FALMOUTH IN TOUCH WITH BLACK PRINCE AT 5.33 P.M.

POSITION AT
5.30 P.M.

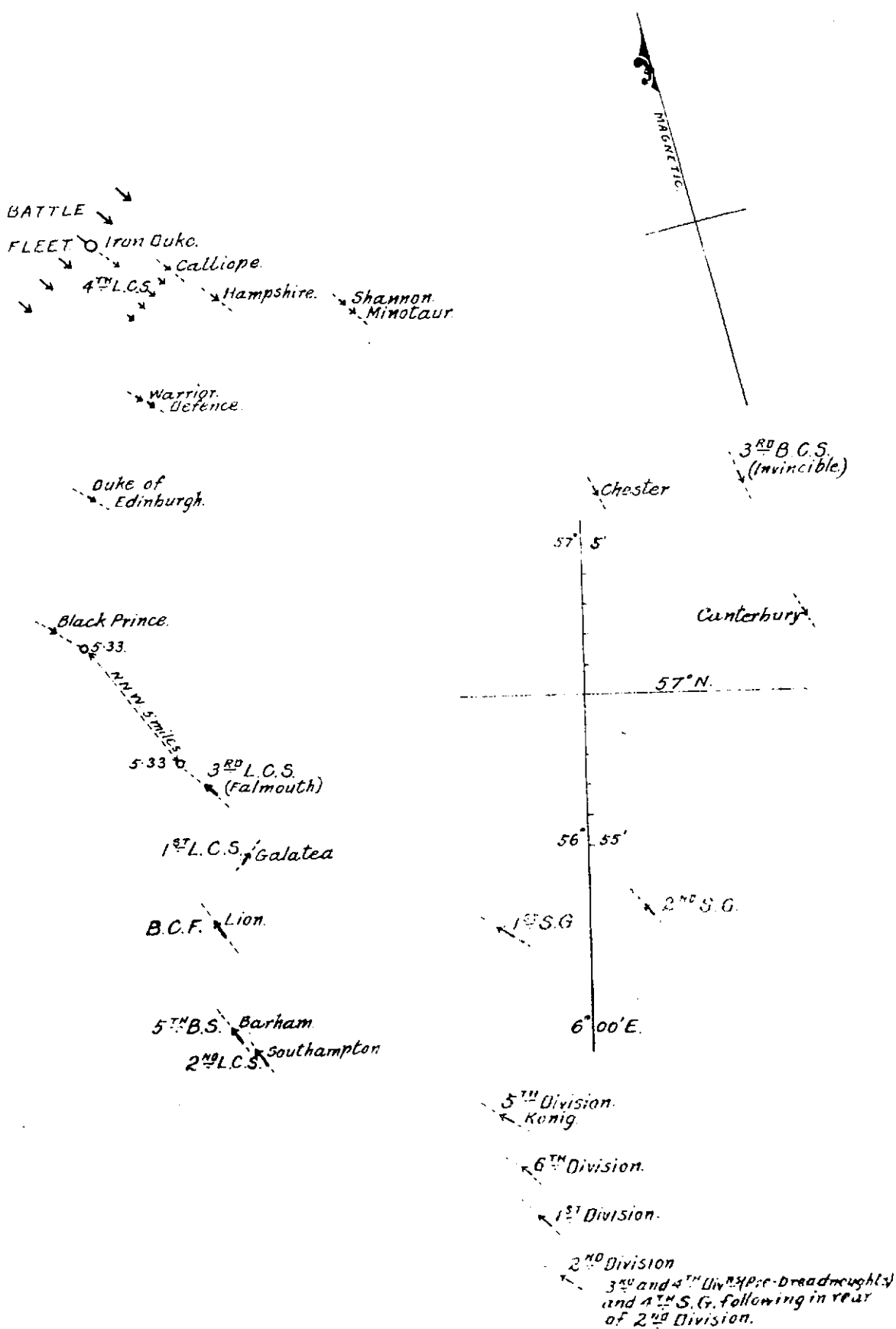
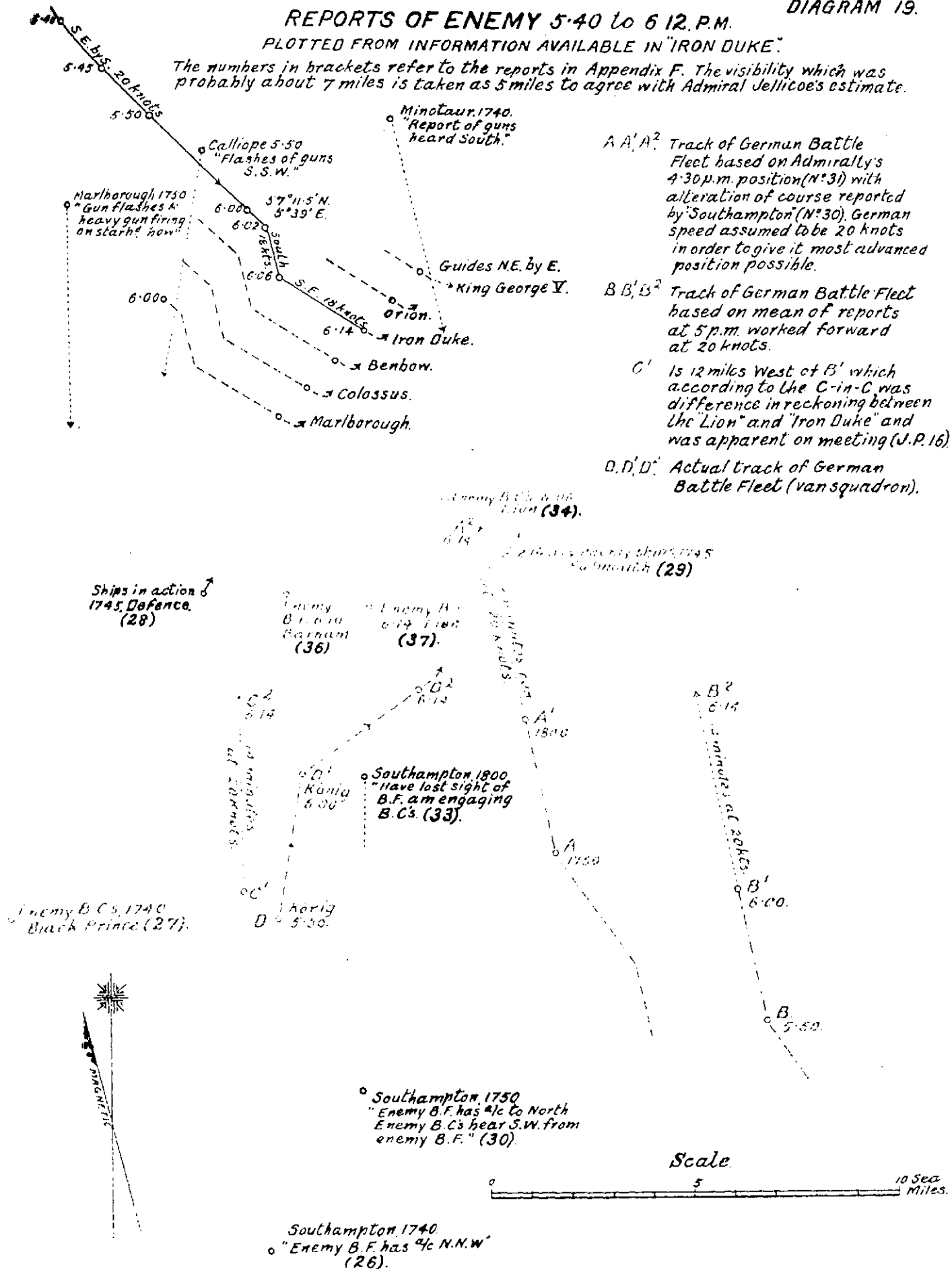


DIAGRAM 19.

The numbers in brackets refer to the reports in Appendix F. The visibility which was probably about 7 miles is taken as 5 miles to agree with Admiral Jellicoe's estimate.



report, and the fact that not a single report was sent in by the 5th Battle Squadron, which was the squadron nearest to the enemy, clearly shows that its importance to the Commander-in-Chief had not been sufficiently appreciated.

Contact Signals 5.35 p.m. to 6.14 p.m.

49. The series of signals made at this time must be viewed in a very different light from those made between 4.45 and 5.0 p.m. The conditions were much more difficult. Two great fleets were approaching one another wrapped in mist and with only a limited time to make the most momentous decisions.

Positions had to be rapidly plotted, and there was no time available to check or confirm them, but a considerable amount of information did come in which is contained in a series of 12 signals received between 5.35 and 6.14 p.m., beginning with one from the *Southampton* and ending with one from the *Lion*.¹ (Diagrams 18 and 19.)

The first seven of these signals were what the Commander-in-Chief probably had to work with at 5.50, and though in the pressure then prevailing, there must have been little time to check and compare them, their general effect in conjunction with the previous series ought to have been to place the enemy sharp on the *Marlborough's* bow about 14 miles off at 6.0 p.m. Evidently they were getting very near, and at 5.55 p.m.² the Commander-in-Chief asked the *Marlborough* what she could see, and received a reply about 6.0 p.m. that Beatty's battle cruisers bore S.S.W. three to four miles, and were steering East. The thunder of heavy guns could be heard from ahead right round to the starboard beam, and it must have been a matter of great difficulty to form a clear picture of the situation.

At 6.0 p.m. the *Lion* could be seen from the *Iron Duke* S.W., about five miles off, steering East, and the Commander-in-Chief decided to take ground to the southward. His intention as given later³ was "to clear up the situation," but the movement, slight in itself, had a distinct tactical significance which merits examination. Here a short digression is necessary. A clear distinction can be drawn between what may be called a direct deployment by a single turn of divisions to N.E. by E. at right angles to the line of advance, and a deployment on the wing in the direction of the line of advance. The time occupied by the former would have been four minutes, by the latter twenty-two. Now the Commander-in-Chief had evidently expected to meet the enemy right ahead, which would have required only a turn of divisions to N.E. by E., and the fleet would have been

¹ See Appendix F.

² *Iron Duke* (s¹), 5.55; *Marlborough* (s), 6.0 p.m. The *Lion* had been in sight from *Marlborough* since 5.45 p.m.

³ G.F. 346.

LAST REPORTS.

6.14 P.M.

Scale.

2000 yards 1200 0 1 2 Sea Miles.

King George V

Orion.

Iron Duke

Benbow

Colossus

6.05, Marlborough.

6.06

6.10

6.12

6.14, Marlborough.

Barham 6.10

(Note - It is not known whether Barham was visible from Iron Duke.)

5 miles

4 minutes run at 20 knots

Enemy Battle Fleet (Barham)

5 miles S.S.W. (mag.)

6.14 Enemy Battle Fleet (Lion)

This diagram shows position of enemy's Battle Fleet by last reports, viz:- Barham's 6.10 and Lion's 6.14, visibility distance taken as 5 miles (Jellicoe's G.F. 348).

J is the position given to enemy by Admiral Jellicoe at the time and red pecked line (---) shows the probable actual position of the van of enemy Battle Fleet.

Enemy Battle Fleet, Actual position, Co: E.N.E. 13 knots

deployed. But if the enemy were found on the starboard bow, a turn to N.E. by E. would not be enough. For a direct deployment the line of bearing of the guides would have to be thrown forward to an angle at right angles to the enemy's bearing, that is to E by N.¹ But the same object could be obtained without altering the bearing of the guides by altering the bearing of the enemy, and bringing him right ahead by moving the fleet to the southward. Herein lies the tactical significance of the alteration of course to South at 6.02 p.m., and it is not without interest to consider the probable effect of continuing the movement. Had the fleet continued for ten minutes on a South course, and then turned back for five minutes to S.E. by S.—the converse of what it actually did— it would have found itself in a suitable position for direct deployment on a N.E. by E. course, which would have brought all its guns into action in four minutes. On the other hand, it would have run the risk of superior fire on the heads of its columns and of an inferior horizon. Whether this actually was the Commander-in-Chief's intention must remain doubtful, but hardly had the column turned to South than the sound of heavy firing indicated the close proximity of the enemy's heavy ships, and the *Lion* signalled² that the enemy's battle cruisers bore South-East. The *Southampton's* 5.50 p.m. signal, according to Lord Jellicoe,³ added now to the perplexities of the situation. The *Lion's* signal made the enemy battle cruisers bear about S. by E. from the *Iron Duke*, but the *Southampton's* report placed them S.W. from his Battle Fleet, which tended to make the German Battle Fleet some seven miles or so to the south-eastward.⁴ In the Commander-in-Chief's mind, however, the conviction was gradually shaping itself that he would strike the enemy's Battle Fleet on a bearing sharp on the starboard bow,⁵ and in these circumstances he turned back to a S.E. course and ordered all destroyers to take up position No. 1 for battle.⁶

Meanwhile, the *Barham* had sighted Scheer's battleships S.S.E. at 6.10 and ordered the *Valiant* to pass the news by wireless. The Commander-in-Chief received it at 6.14 p.m.⁷ and almost simultaneously a signal came in from the *Lion* reporting them in sight S.S.W. (Diagram 20.) These two reports tended to place the enemy thirty to forty degrees on the *Marlborough's*

¹ The Commander-in-Chief evidently had this in mind (cf. G.F. 345). To alter the bearing of the guides to E.N.E. would have taken 15 minutes and to E. by N. 20 minutes.

² At 6.6 p.m.

³ G.F. 347.

⁴ The discrepancies in the *Southampton's* previous series of signals would lead, however, to the rejection of any statement which seemed improbable.

⁵ G.F. 346.

⁶ See p. 90, *infra*, footnote 2.

⁷ *Iron Duke* (s¹), 6.14 p.m. Lord Jellicoe says 6.15 in G.F. 347.

bow,¹ and there appeared to be danger of deployment on the starboard wing column involving it in action with the German Battle Fleet before the movement could be completed, and exposing the Battle Fleet to destroyer attack.

These were the considerations which passed through the Commander-in-Chief's mind. He decided to deploy to port on a S.E. by E. course, and the signal for deployment went up—Equal Speed Pendant C.L.² It was made by flags and wireless at fifteen minutes past six.³

CHAPTER VIII.

REMARKS ON THE DEPLOYMENT AT 6.15 P.M.

50. While the *Defence* was pressing forward impatiently to attack the *Wiesbaden*, the Battle Fleet had begun to deploy. Beatty's squadron had passed its right wing, and was now steering E.S.E. some two miles ahead of its centre. There can be little doubt that Beatty in steering an Easterly course had the German Battle Fleet in view, and expected the Battle Fleet to deploy more or less behind him. The signal flying, however, was for deployment on the left wing, and the whole line began to move away. If the object of deployment is to bring all guns to bear at an effective range, that object does not appear to have been fulfilled, for the fleet when deployed, under the prevailing conditions of visibility, was not at effective range. What were the circumstances, then, which militated against its full and complete fulfilment?

The key to the question seems to lie in a consideration of the course on which the Commander-in-Chief expected to deploy.⁴ This is more or less implied in the statement that he expected to meet the enemy fleet approximately ahead.⁵

¹ G.F., p. 348. Diagram I, 30° on *Marlborough's* bow, seven miles; Harper X places enemy seven miles 25° on *Marlborough's* bow at 6.15, on a course N. 40 E. (mag.). Scheer's diagram makes the course of the German Battle Fleet N. 68 E. (mag.) from 6 p.m. to 6.16 p.m., then N. 45 E. (J.P., German Plan V).

² General Signal Book 1915, p. 17, 32.

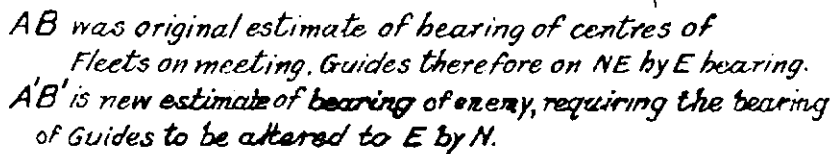
³ J.P., 6.15; *Iron Duke* (s¹), 6.16; *Iron Duke* (s²), 6.14; *Marlborough* (w), 6.13; *Marlborough* (s), 6.15; *Benbow* (s), 6.16; *Falmouth* (s), 6.15 p.m.

⁴ It is hardly necessary to say that if the order of battle is to be single line, deployment should be at right angles to the line joining the centre or prospective centre of the two fleets, when in line of battle within effective range. See Notes on Tactical Exercises, Home Fleet, 1909-1911, Admiral Sir William May. This is in book form, issued September 19, 1911.

⁵ G.F. 343. On the basis of reports from *Southampton* between 5 and 6 p.m. and Beatty's signal of 1645.

(Roughly to Scale)

A horizontal scale bar with markings from 0 to 8. The word "Scale" is written above the bar, and "8 Sea Miles" is written to the right of the bar.



Bearing of enemy's centre can be maintained by a Southerly course.

Bearing of enemy will then be A^2B^2

This may have been the reason for the alteration of course to South at 6:02.

This means that as soon as the divisions turned at right angles to the course, the fleet would have found itself in four minutes in line of battle. But if the enemy were located on a bow or beam bearing, the line joining the centres would shift in that direction and alter the initial direction of deployment. The fact that Beatty was to westward of his expected position probably gave rise to the assumption that the enemy were to the westward too. At about 6.0 there was great uncertainty as to the position of the enemy's fleet, and the idea was gaining ground that they would be sighted on the bow. This meant that the line of bearing of the centres had shifted to the southward (clock-wise), and called for the line of bearing of the guides to be thrown forward to about E. by N.¹

But there appeared to be no time for this. To throw forward the line of bearing of the guides would have taken nearly a quarter of an hour.² On the other hand, it was possible to bring the enemy once more ahead on his expected bearing by moving the fleet to the southward. This was possibly the intention of the Commander-in-Chief's alteration of course to South at 6.02. The enemy's new position was to southward of the expected line of bearing, but by taking ground to the southward he would again be brought ahead and the bearing of the guides would still hold good. (Diagram 21.)

The fleet had barely been four minutes on this course when an impression arose that the enemy was close at hand, and, as the disposition was an unsuitable one for deployment,³ the Commander-in-Chief reverted to a S.E. course. Then the *Barham's* and *Lion's* signals came in, and by giving them a visibility of only five miles, it looked as if the enemy was only some five miles⁴ off, and might emerge at any moment out of the mist just before the *Marlborough's* beam. There appeared to be no time to lose. The fleet must deploy at once. In these circumstances the Grand Fleet Battle Orders had announced an intention of deploying on the wing nearest the enemy,⁵ which was probably what Admiral Beatty expected. But the fire of the 1st Scouting Group and the general uncertainty gave rise to the idea of the High Sea Fleet being close at hand, and of the *Marlborough* being "severely handled" before the battle line could be formed. The risk of German

¹ The idea of throwing forward the guides naturally occurred to the Commander-in-Chief, and he says: "The information (received up to 6 p.m.) had not even been sufficient to justify me in altering the bearing of the guides." (G.F. 345, also J.P., p. 16.)

² With a difference of speed of ten knots between wing columns.

³ It would involve a clumsy turn unless the Commander-in-Chief decided to deploy to the southward and engage on opposite courses.

⁴ The actual distance was about seven miles.

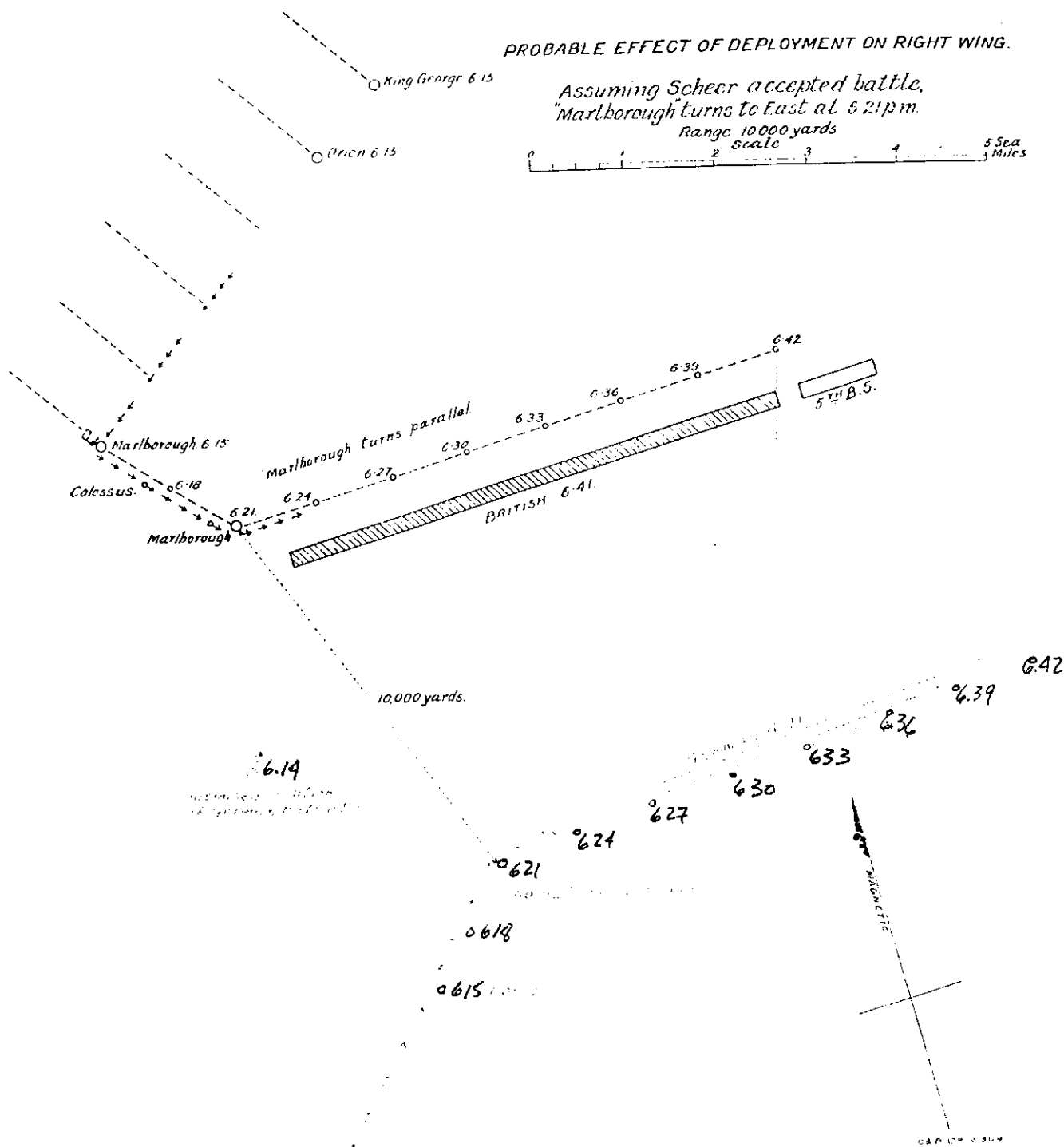
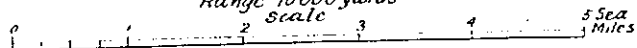
⁵ "In low visibility, if the enemy is sighted near the beam and bearing and time do not permit of re-disposing the guides, line of battle will usually be formed on the wing column nearest the enemy." (G.F.B.O., Section VI, para. 4.)

PROBABLE EFFECT OF DEPLOYMENT ON RIGHT WING.

Assuming Scheer accepted battle,
"Marlborough" turns to East at 6.21 p.m.

Range 10000 yards

Scale



destroyers, too, attacking the line during deployment made it appear "suicidal," and the supposed position of Scheer's Battle Fleet appeared to give him the advantage of a considerable overlap over the starboard wing column. This would necessitate the *Marlborough* altering course to port, and would introduce a bend in the line of deployment.¹ For these reasons the Commander-in-Chief decided to deploy on his port wing on a S.E. by E. course, though it is difficult to see why the fleet should not have deployed on the course it was steering, namely, S.E., which would have reduced the range by at least 1,200 yards,² when its reduction was an important tactical consideration.

51. So far as a deployment on the starboard wing was concerned, the risks of torpedo attack were in reality not very great. The enemy's destroyers were considerably to leeward of their line, and made no attempt to attack at this time. The German 9th Flotilla and 12th Half-Flotilla were already busily engaged with the *Shack* and the 3rd Battle Cruiser Squadron, and on the British side the 3rd and 4th Light Cruiser Squadrons and the 12th Flotilla were available for counter-attack. If the Germans could launch an attack, there was no reason why we should not do the same.

The risk to the *Marlborough* and wing column from the enemy's gun fire was less conjectural, but in the light of later events cannot be regarded as excessive. It is true that she could not have continued very long on her course at the time. She would either have had to turn at once to E.S.E. or, failing this, to alter course about four points to port not later than 6.21,³ at a range of about 10,000 yards. The former would have resulted in a nasty 12 point turn at the point of deployment. This would have been inconvenient but not impracticable. The latter course would have given the enemy a certain amount of overlap, but on the other hand he would be bound himself to turn and introduce a similar bend in his own line. Assuming, also, that he turned away (as he actually did) immediately he found himself in action with the whole British Battle Fleet, he would have had to do so under a heavy fire, and it would have been a much easier matter to see and follow him. (Diagram 22.) The 5th Battle Squadron, too, was between the *Marlborough* and the enemy, in a position to take its place at the head of the line and to afford her valuable support.

From the Commander-in-Chief's point of view, however, a deployment on the starboard wing column appeared to involve some degree of risk to the *Marlborough* and 1st Division, and it

¹ G.F. 350.

² At 6.33. The bearing would have been brought before the beam, but the bearing was not so important as the range.

³ Lord Jellicoe in his diagram in the "Grand Fleet" allows another minute.

was on the grounds of overlap that the Commander-in-Chief rejected it. But the disadvantages of deploying on the port wing were almost equally evident. It diminished the risk, but it also diminished the chance of a decisive action. It inevitably increased the range of deployment by at least two or three miles, a very serious increase when the visibility was not much more than five.¹

In fact it might be regarded as almost a last resource in the face of imminent danger.

Was there no alternative method? The supposed bearing of Scheer's Battle Fleet was about 30° before the *Iron Duke's* beam, or roughly S. 15 W. The correct course for deployment was therefore about E. by S. Now, in the mist of uncertainties, one thing was certain and could be clearly seen. Beatty's flag was there, ahead of the fleet, steering almost the identical course required, pointing out to the Battle Fleet the direction in which to deploy. The *Iron Duke* had only to steer eastward towards the *Lion* and order the fleet to deploy on the Commander-in-Chief. This would have at once withdrawn the right wing from danger, and at the same time deployed the fleet at effective range. But the Equal Speed Pendant was designed for deployment on a wing column only,² a limitation which precluded the Commander-in-Chief from using it for any deployment between the five-mile front of the columns. The requirements of the case could, however, have been fully met by an older and simpler signal, namely a Forming and Disposing Signal, which would have enabled line ahead to be formed on the *Iron Duke* in the order of divisions in which distinguishing signals were shown.³ This was an entirely practicable movement; the fleet was not under fire; the signal was an old signal, well known to all the leaders of divisions, and there can be little doubt that it would have brought the fleet into action without undue risk at effective range. It is not possible, however, to say whether the idea of

¹ Five miles, G.F. 348.

² General Signal Book, 1915, page 18: "Hoisted superior to alphabetical flags directs the column nearest the bearing shown to alter course in succession to the point of compass indicated, and the remaining columns to alter course, leading ship together, the rest in succession, so as to form astern of the leading column, maintaining the speed of the fleet."

³ Forming and Disposing Signal. General Signal Book, 1915, page 70. "The ship and columns are to form in the sequence of their numbers, or in the order in which their Distinguishing Signals may be shown on the side the formation is directed by the signal." To avoid reducing speed, which might be thought risky in view of the contemporary fear of the submarine, the 1st and 2nd Divisions could each have made two 45-point turns to port in succession (see diagram), with a short interval in between. A Forming and Disposing Signal would have taken the form of 1 Pendant A with flags 3, 4, 5, 6, 2, 1 inferior. The rest would have been left to the initiative of leaders of divisions. An apparent disadvantage would have been interference with fire while getting into position, but the only ships which actually fired on a N.E. by E. course were those of the 6th Division, whose fire would not have been affected.

forming single line ahead in this way actually occurred to the Commander-in-Chief, and in default of any reference to it,¹ it may be inferred that it did not. All that can be said is that the movement was possible and did not entail undue risk. Deployment on the port wing no doubt carried with it lesser risk, but it increased the range of the enemy by at least 4,000 yards at a time when every 1,000 yards of range was of value, and every ten minutes of daylight was beginning to weigh in the scale of victory. (Diagram 23.)

The lesson which remains seems to be that in mist and uncertainty we should cast aside preconceptions, leave much to initiative, and follow what can be seen. But time pressed. The signal to deploy on the port wing went up. The fleet turned, and began to move out of effective range.

CHAPTER IX.

THE FIRST HALF HOUR.

6.15 P.M. TO 6.40 P.M.

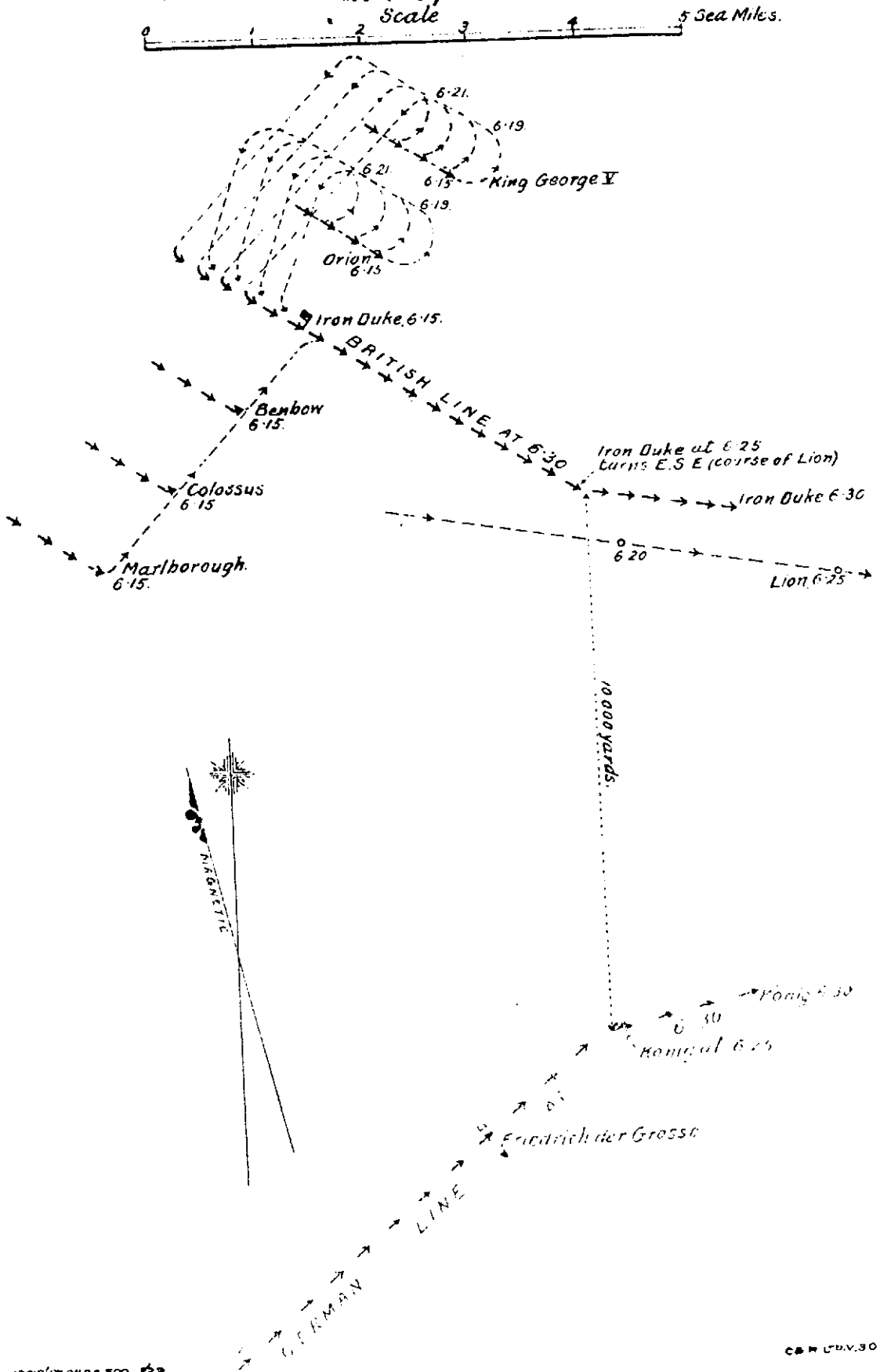
52. The two fleets about to engage constituted the most tremendous array of naval force in the history of the world, but the German Fleet, formidable as it was, could not compare with the British in numbers, speed, or gun power. Admiral Jellicoe as he deployed could count on 28 Dreadnoughts and 9 battle cruisers,² while Scheer could muster only 16 Dreadnoughts, 6 pre-Dreadnoughts, and 5 battle cruisers. In speed the British Fleet was markedly superior. Its slowest battleship could do 20 knots, and the 5th Battle Squadron formed a homogeneous squadron of four very powerful ships capable of steaming 24 to 25 knots. On the German side Scheer's fastest battleship could only go 21 knots, while his 6 pre-Dreadnought ships of the *Deutschland* class could only steam 16 knots, and their slow speed and poor armament made them a source of grave anxiety to the German Commander-in-Chief.

The British superiority in gun-fire was still more marked. Admiral Jellicoe's Battle Fleet mounted 272 heavy guns against Scheer's 200. This superiority in numbers was greatly enhanced by an overwhelming superiority in size, for the British Fleet mounted 48 15 in., 10 14 in., 110 13.5 in. and 104 12 in. against the German 128 12 in. and 72 11 in., representing a potential British broadside of 317,900 lb. against the German 157,672.

¹ Nothing is said on this point in the "Grand Fleet."

² Including *Queen Mary* and *Indefatigable*, of whose loss the Commander-in-Chief was unaware.

PROBABLE EFFECT OF DEPLOYMENT ON "IRON DUKE"
at 6.15 p.m.



The superior weight of the battle cruisers broadside was equally pronounced. The British mounted 32 13·5 and 40 12 in.¹ against the German 16 12 in. and 28 11 in., or a broadside of 78,800 lb. against 32,268.

In torpedoes the strength of the two fleets was more equal.² The British mounted 382 21 in. tubes to the German 362 19·7 in. On the other hand, the Germans mounted more short range torpedoes than their opponent, but in a day action these were not likely to be effective. Such were the comparative strengths in terms of gun and torpedo power of the two fleets.

Formation of German Fleet.

53. When the British Battle Fleet turned to deploy at 6.15, the *König*, which was leading the enemy's line, bore about S. 16 E., seven miles from the *Marlborough*. She was on an E.N.E. course,³ and behind her were the six ships of Rear-Admiral Behncke's 3rd Squadron. Then came the *Friedrich der Grosse*, Scheer's flagship, followed by the eight ships of the 1st Squadron. At 6.16 the *König* turned to N.E., and the position at 6.19 is shown in Diagram 24.

Preliminary Firing.

54. As the British Battle Fleet turned to deploy at 6.15, a few enemy salvos fell round the centre and rear divisions,⁴ and the ships of the *Marlborough*'s division could see vessels of the *Kaiser* or *Helgoland* class looming indistinctly and intermittently through the mist. The *Wiesbaden* could be seen through its smoke screen some five miles off, and became the first target for a number of ships.⁵ With the exception of the *Marlborough* and 5th Battle Squadron, few ships were firing as the fleet proceeded N.E. by E.⁶ Even after turning to S.E. by E., fire was impeded by mist and intervening smoke, and did not become general till about 6.25.

¹ Including *Queen Mary* and *Indefatigable*.

² For detailed figures see Chapter II.

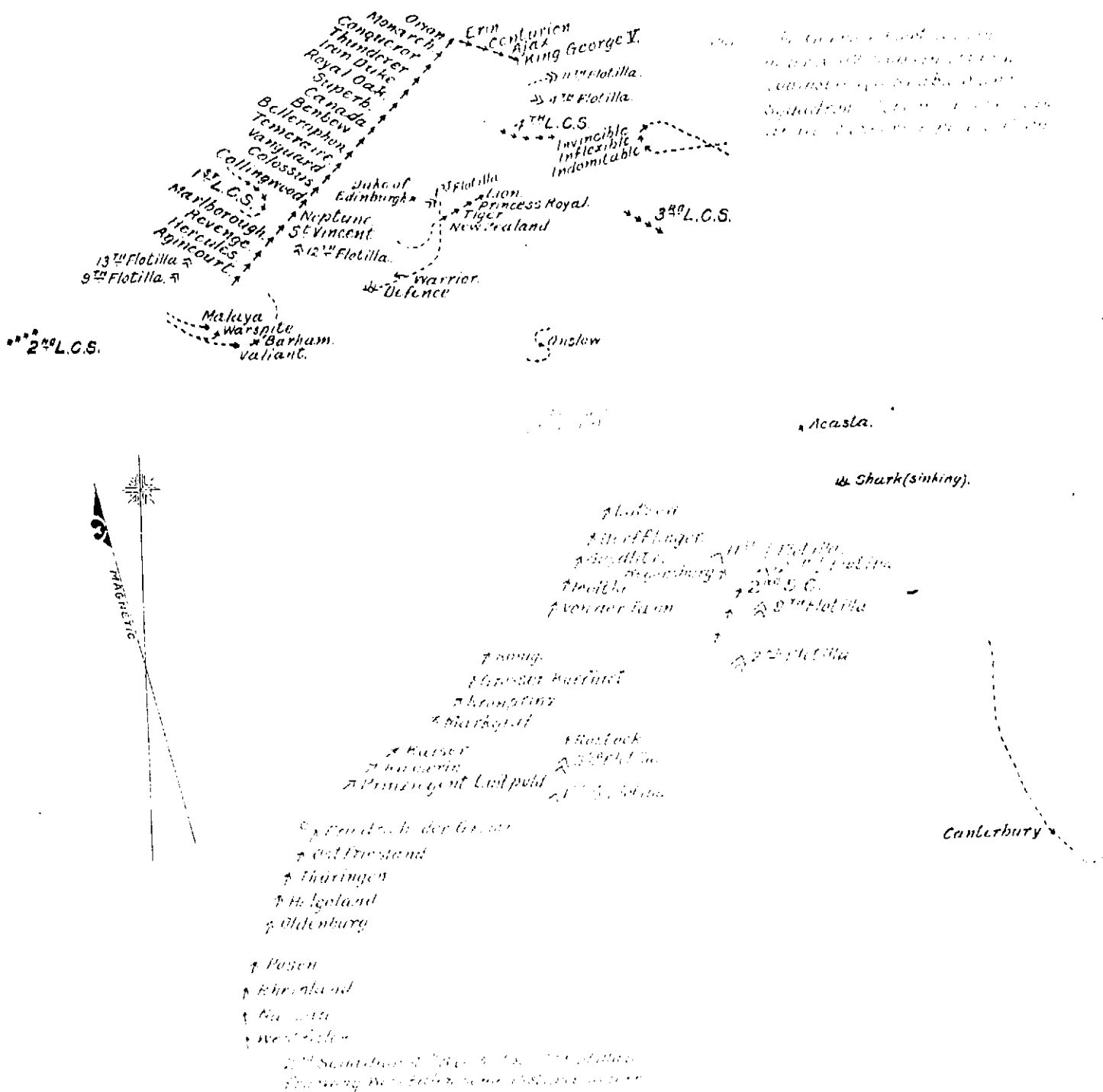
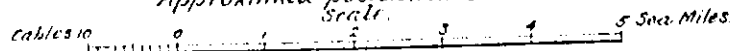
³ German VI, Scheer's diagram No. 4.

⁴ *Iron Duke*, *Hercules* and *Revenge*.

⁵ *Hercules*, *Collingwood*, *Vanguard*, *Iron Duke*, *Superb*, *Canada*, *Monarch*, *Conqueror*, *Thunderer* and *Barham*. The smoke screen was evidently effective, for she managed to survive till 7 p.m. Some 13 ships fired about 30 salvos at her, and the *Oustre* fired a torpedo, which very possibly hit.

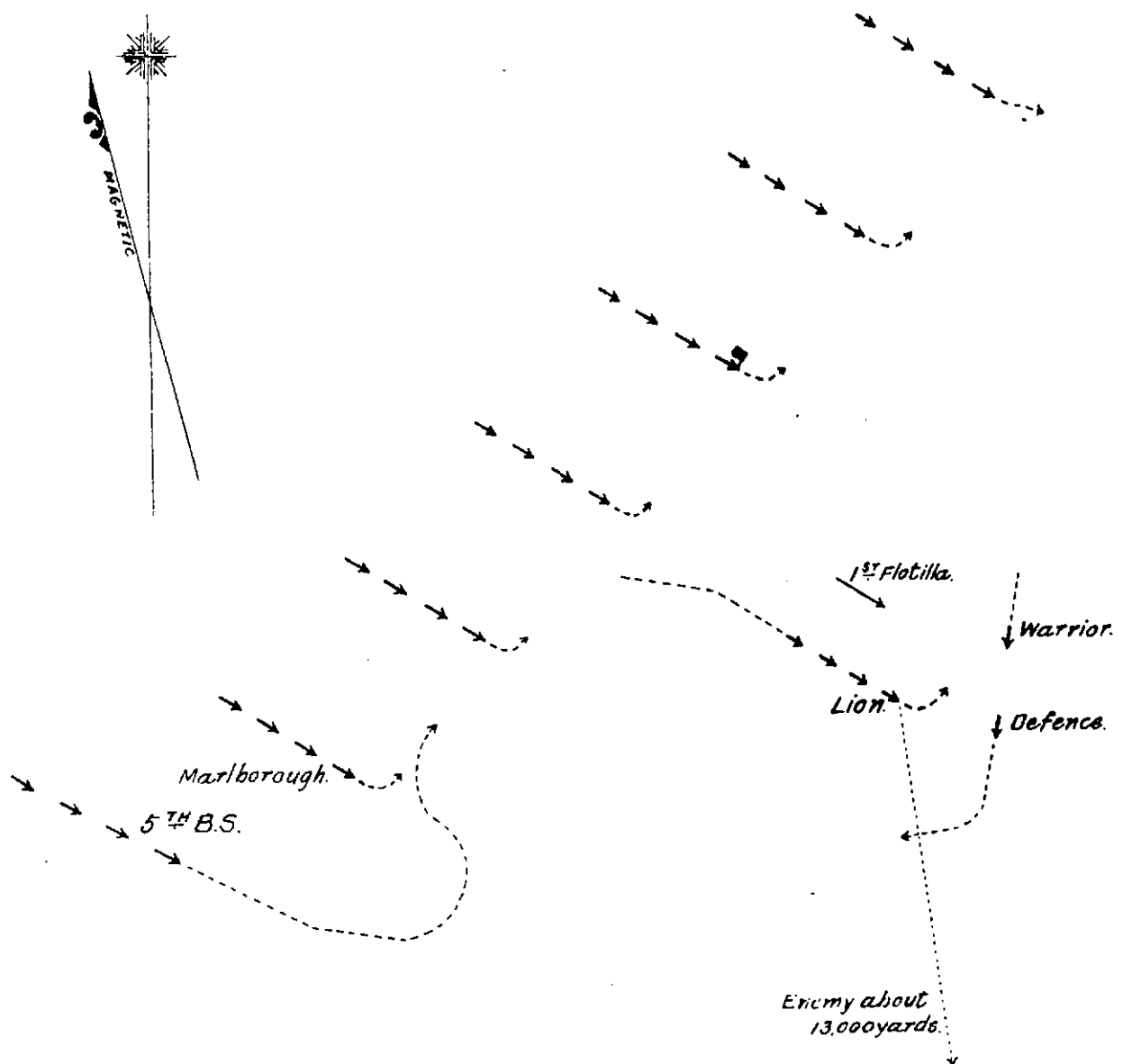
⁶ The *Marlborough* opened fire at 6.17 at a *Kaiser* class battleship at a range of 13,000 yards and fired seven salvos in four minutes. The *Barham* opened fire about 6.14 and the *Valiant* reports a range of 19,000 yards and very good visibility at 6.17. Her time is apparently two or three minutes fast. (J.P. 207.)

THE DEPLOYMENT.
Approximate position at 6:19 P.M.
Scale.



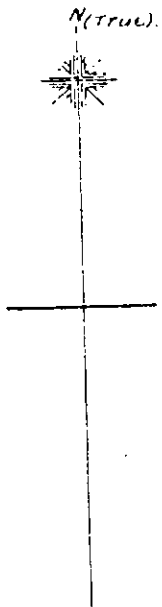
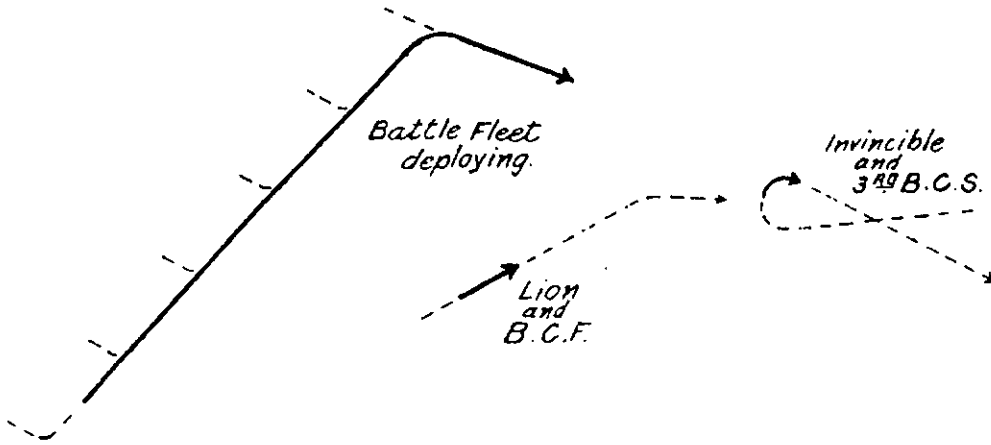
1ST & 2ND BATTLE CRUISER SQUADRONS.

at 6.15 p.m.



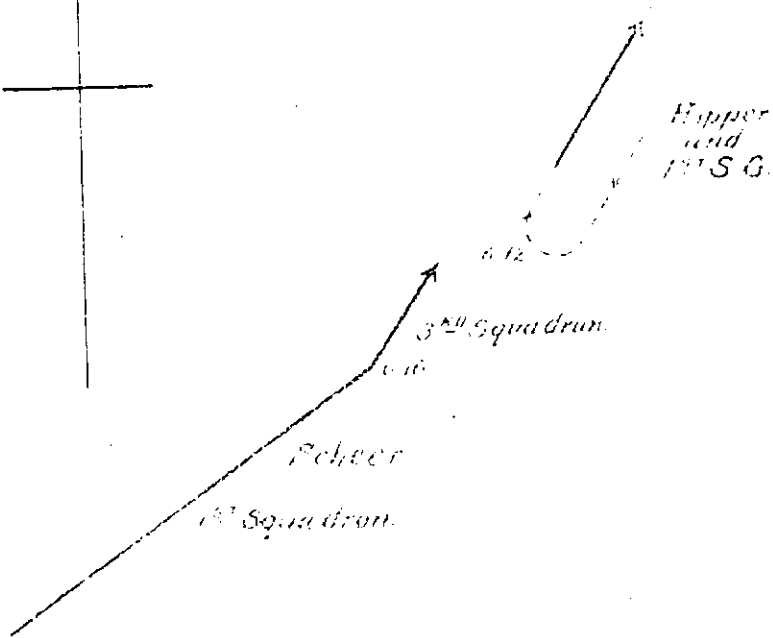
3RD BATTLE CRUISER SQUADRON AND 1ST SCOUTING GROUP

at 6.20 p.m.



↑ Acasta

↓ Shark (sinking)



The Battle Cruisers.

55. When the Battle Fleet started to deploy, the battle cruisers were already two or three miles ahead, steaming at full speed on an Easterly course. They presented a tremendous picture of speed and power, with the scars of battle plainly visible. The guns of one of the *Lion's* turrets were gazing blankly out on the disengaged side, and a long trail of smoke was pouring from a shell hole in her side. They were engaging the enemy to the southward,¹ when the *Defence* and *Warrior* crossed their bows, and coming down their engaged side fouled the range and shut out the target for a time. (Diagram 25.) A few miles off on the port bow the 3rd Battle Cruiser Squadron could be seen approaching on a Westerly course, and Admiral Beatty altered course to port² towards them, ordering Rear-Admiral Hood to take station ahead. Admiral Hood's ships had just been manœuvring to avoid torpedoes fired by the 12th Half Flotilla and 9th Flotilla about 6.0 p.m.³ He now turned in a masterly manner ahead of Beatty to a South-Easterly course. Away to the southward, Hipper was returning on a North-Easterly course, and a few minutes later the engagement commenced which was to prove so fateful to the *Invincible*. (Diagram 26.)

The 5th Battle Squadron.

56. Leaving the 3rd Battle Cruiser Squadron just before their guns open at 6.21 on Hipper's ships, we must look at the 5th Battle Squadron turning up in the rear of the battle line. When Admiral Evan-Thomas first sighted the *Marlborough* shortly after 6.0 p.m.,⁴ he decided to take station ahead of her, evidently regarding her as the head of the line till he saw the fleet beginning to deploy. When the deployment commenced, the *Barham* had reached a position a mile or so on the *Marlborough's* starboard beam, and as she could not follow Beatty's squadron, now some $3\frac{1}{2}$ miles ahead of her, without masking the fire of the battle line, Admiral Evan-Thomas decided to take station in rear. To do this he had to make a wide turn to port, reducing his range to about 10,000 yards, and the fact that this was done with very little damage to the squadron tends to show that a deployment on the right wing would not have involved excessive risk.

¹ Probably about 12,000 yards off, about 30° before the *Lion's* starboard beam. *Princess Royal* reports a range of 13,000 yards at 6 hrs. 16 mins. 40 secs. *Tiger* 15,000 yards at 6.17; *New Zealand* (battleship) 17,000 yards at 6.19.

² About 6.17.

³ These flotillas had gone out to cover the turn away of the 1st Scouting Group and 2nd Scouting Group at 5.55. The tracks of about five torpedoes were seen by the 3rd Battle Cruiser Squadron. The *Invincible* turned to starboard about 6.15, the *Indomitable* to starboard, the *Inflexible* to port to avoid them.

⁴ At 6.6 p.m., G.F. 351.

Three of his ships turned in safety, but the *Warspite* was not so fortunate. About 6.20, just as the *Barham* was turning to the northward, she was closing the *Malaya* and 20° port helm was given her.¹ The steering engine was working badly at the time, probably due to a heated thrust bearing and the helm being put over too quickly, for the speed of 25 knots, bent the telemotor gearing and the helm jammed. The ship swung round to starboard, just shaving the *Valiant*'s stern, and neither helm nor engines would bring her head back to port. She continued to swing round and was coming under a heavy fire² when Captain Philpotts, making a virtue of necessity, went full speed ahead, and continued the compulsory turn to starboard. A mile or so to the eastward, the *Defence* had just disappeared in a black pall of smoke, and the *Warrior*, badly damaged with her bridge wrecked, and the fate of the *Defence* menacing her every moment, was drawing close, making to the westward under heavy fire.

The *Warspite*'s turn carried her right round the *Warrior*, and drawing off the enemy's fire gave the latter a respite of five or six minutes, which probably saved her from immediate destruction.³ After making a complete turn to starboard under heavy fire,⁴ the *Warspite* regained control of her helm and followed the *Barham* to the northward. (Diagram 27.)

At 7.0 p.m. she was about half a mile off the *Malaya* when it was discovered that the helm was again out of order, and she withdrew out of action to the North-West.⁵ She did not return to the fleet. She had received 13 hits, one of which had opened the wings and appeared to threaten the engine-room bulkheads. The engines, however, were not damaged, and all the turrets were in action. On her way home she was able to increase to 19 knots and to 22 knots, and to full speed when attacked by a submarine. The 5th Battle Squadron remained in rear of the fleet for the rest of the day, proceeding at 15 to 17 knots, throwing

¹ The account of her movements is not clear. The R.A. 5th Battle Squadron (J.P. 194) says the turn was made without signal, but the signal logs contain the signal at 6.18, "Turn in succession 16 points to port." Her movements can be best accounted for on the assumption that she put her helm over with the *Barham*, and then gave hard-a-port helm to get back into line again. The helm jammed and she went right round shaving the stern of the *Valiant*.

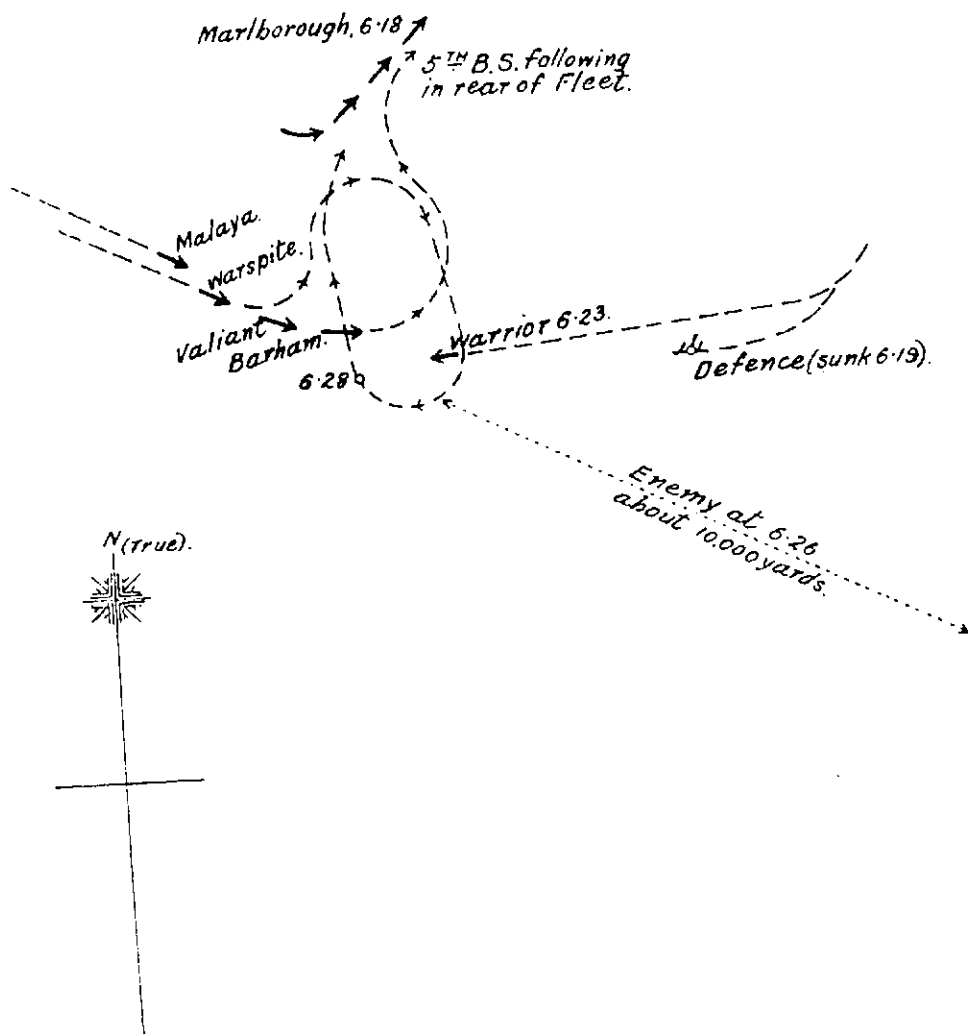
² *Warspite* (r) gives the closest range as 12,000 yards (J.P. 203).

³ Captain Molteno attributed the movement to chivalry, but the *Warspite*'s report mentions only the vagaries of a stubborn telemotor.

⁴ Between 6.18 and 6.28.

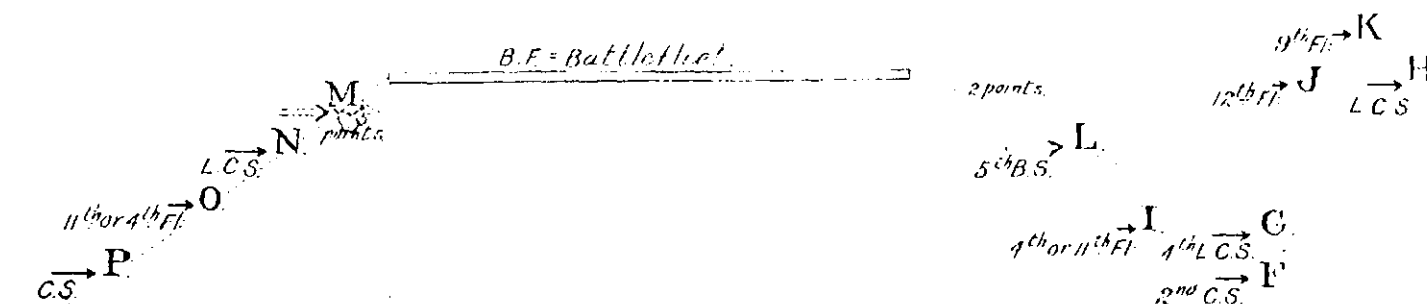
⁵ One report states that the second steering engine had been connected up with 15 degrees port helm (Fighting at Jutland, 147). At 8.30 she was some 30 miles to northward of the *Barham*, and at 8.50 asked for the position of the Battle Fleet and was ordered by the Rear-Admiral 5th Battle Squadron to proceed to Rosyth.

5TH BATTLE SQUADRON,
WARSPITE AND WARRIOR
at 6.18 p.m.



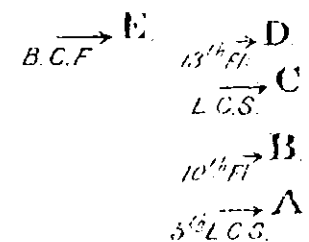
DEPLOYMENT DIAGRAM

From Grand Fleet Battle Order, December, 1915, page 41



A to L On bow = 2 points

M to P On quarter = 5 points abaft beam.



A 3/4' from B. 5th L.C.S. } *Harwich Force*

B 1/2' from C. 10th Flotilla

C 2' from B. L.C.S.

D Ahead of B. 13th Flotilla.

E 8' from B.F. } *Battle Cruiser Force*
6 1/2' from 5th B.S.

F 1/2' from G. 2nd C.S.

G 4 1/4' from B.F. 4th L.C.S.

H 5 1/2' from B.F. L.C.S.

I Astern of G. 4th or 11th Flotilla.

J 4 1/2' ahead of B.F. 12th Flotilla.

K On quarter of J. 9th Flotilla.

L 1 1/2' from B.F. 5th B.S.

M Position of 5th B.S. if the fleet deploys away from Heligoland.

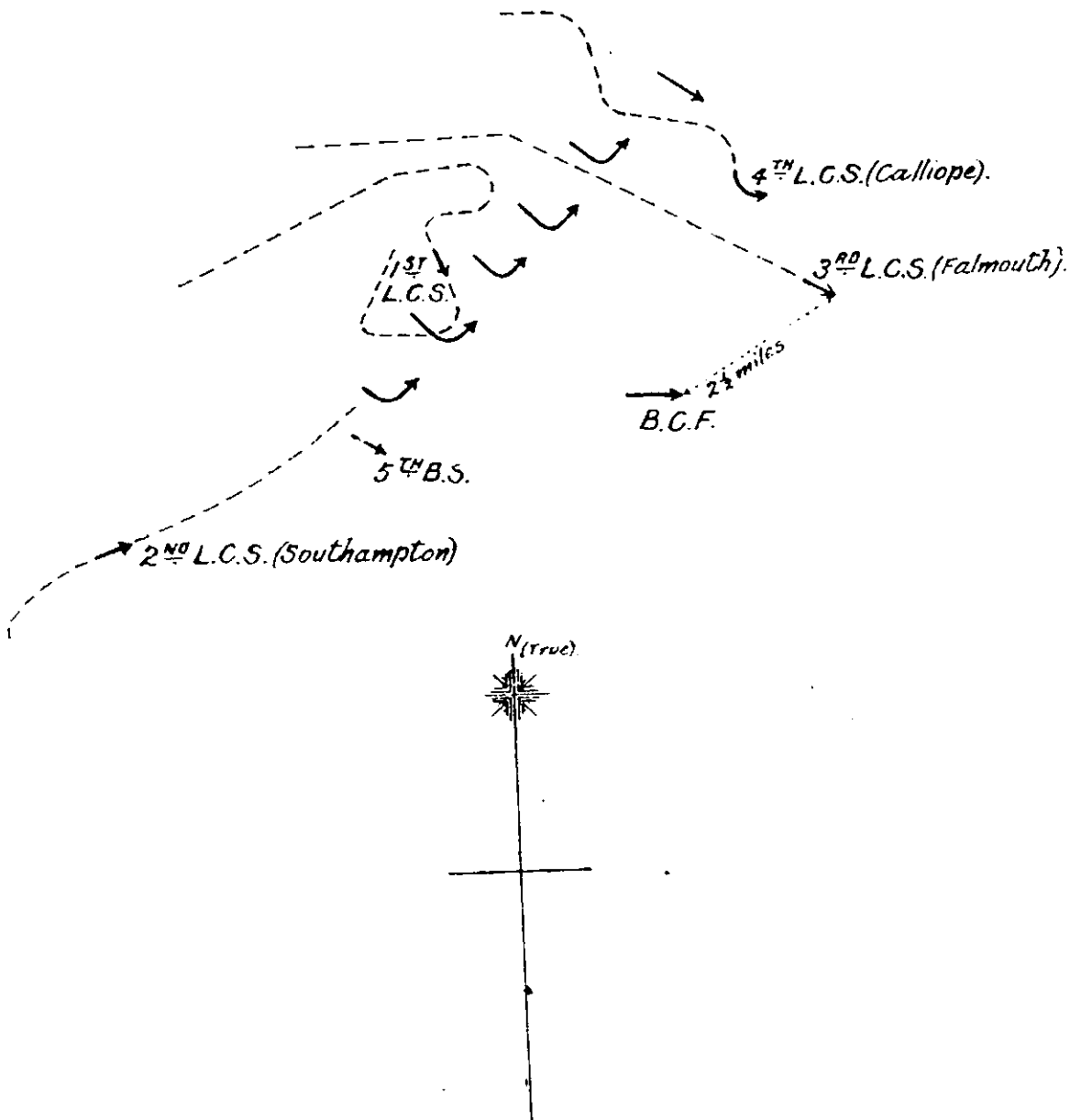
N 1 1/4' from B.F. L.C.S.

O 2 1/2' from B.F. 11th or 4th Flotilla.

P 3 1/2' from B.F. C.S.

LIGHT CRUISER SQUADRONS

at 6.15 p.m.



away all the money, foresight and ingenuity which had been spent in equipping it with a speed of 25 knots.¹

The Light Cruisers and Destroyers.

57. The movements of the light cruisers and destroyers were largely governed by the Deployment Diagram, though, in the case of the 2nd Light Cruiser Squadron and 3rd Light Cruiser Squadron, this consideration was rightly subordinated to the exigencies of keeping in touch with the enemy. This diagram (to be found in Grand Fleet Battle Orders)² was based on the conception of the fleet in single line engaging the enemy on a parallel course, and various lettered positions were allotted to the cruiser squadrons and flotillas. (Diagram 28.)

Its disposition provided for a total of four light cruiser squadrons³ and five flotillas ahead of the Battle Fleet or on its engaged bow. Its limitations are now fairly obvious. It stopped at 6.33 when the battle had scarcely begun; it was based on the battle beginning in a particular way, and on its continuing in a way which the enemy would do his utmost to avoid.

At about 6.15 p.m. the position of the Light Cruiser Squadrons was approximately as in Diagram 29.

The 1st Light Cruiser Squadron, which had been two miles ahead of the *Lion* at 6.0 p.m., got entangled for a time in the lines of the Battle Fleet,⁴ then, leaving the *Galathea* behind, went on at full speed round the disengaged side of the fleet. The *Falmouth* and 3rd Light Cruiser Squadron were well ahead⁵ of the Battle Fleet just before deployment, keeping in touch with the enemy. As the fleet deployed, they engaged the *Wiesbaden* to the southward,⁶ and the *Falmouth* fired a torpedo at her at 5,000 yards. The movements of the 4th Light Cruiser Squadron were simple enough. In a position immediately ahead of the Battle Fleet, it was more easily able to conform to its movements, and forming line ahead just before deployment,⁷ took station on

¹ According to G.F.B.O. the normal position of the 5th Battle Squadron was $1\frac{1}{2}$ miles on the engaged bow of the leading ship, but in the case of a deployment "away from Heligoland" it was to be in rear. The expression was indefinite. For instance, suppose the German Fleet bearing North of Heligoland to deploy to the East (more or less the conditions of Jutland), is the deployment towards or away from Heligoland?

² G.F.B.O., December, 1915, page 41.

³ Inclusive of the 5th Light Cruiser Squadron and 10th Flotilla from Harwich.

⁴ Between 6.07 and 6.21; it turned sharp round between the 4th and 5th Divisions at 6.07 and passed astern of the 4th. The *Galathea*'s speed was reduced to 16 knots by a breakdown in the port forced draught fan.

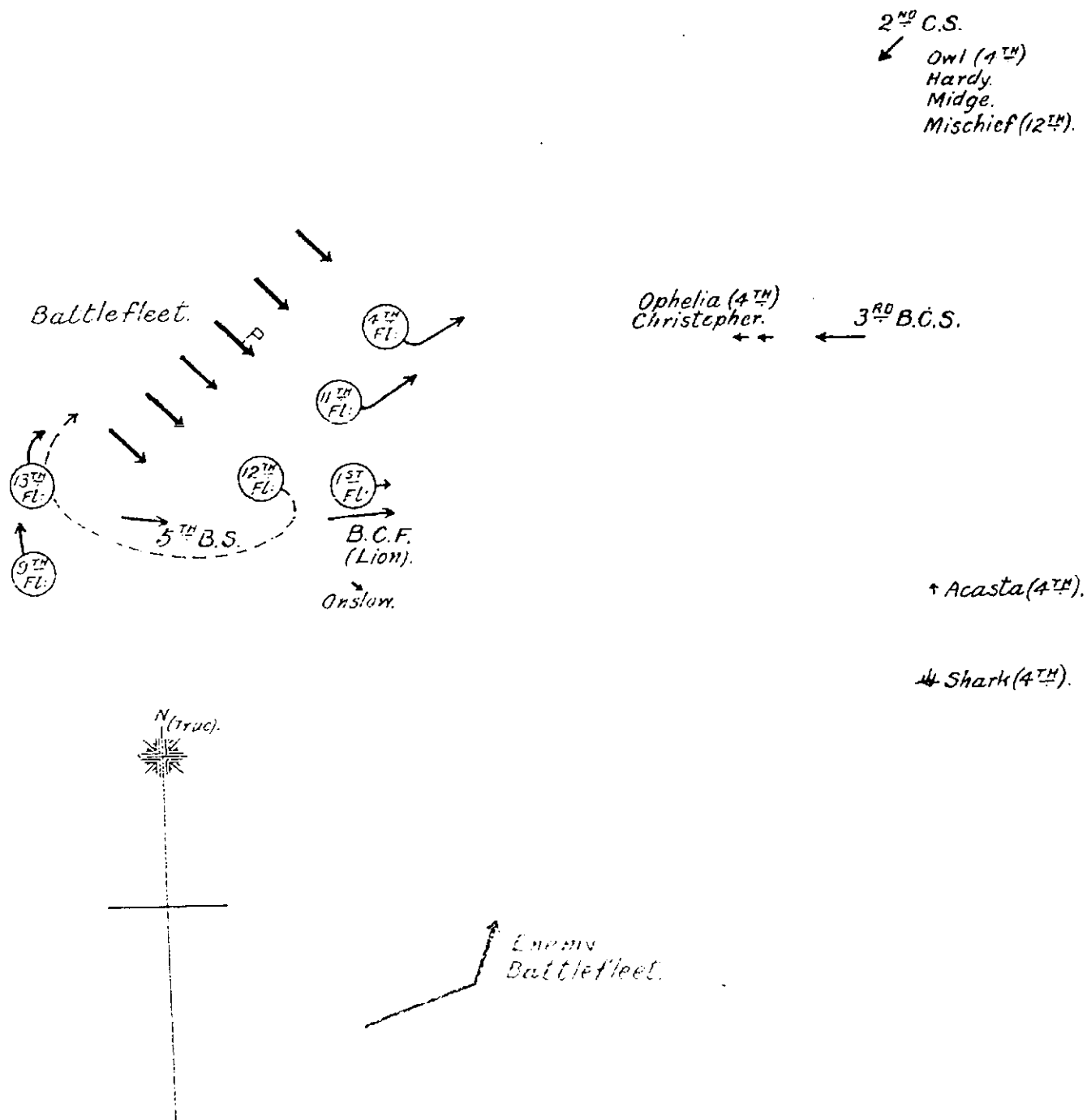
⁵ About three miles ahead of the *Orion*.

⁶ At 10,000 to 7,000 yards.

⁷ At 6.10 p.m.

DESTROYER FLOTILLAS

at 6:15 p.m.



the disengaged bow of *King George V*. The *Southampton* and 2nd Light Cruiser Squadron were some distance away at this time. When the deployment commenced they were some 7½ miles behind the *Lion*, and passing "Windy Corner"¹ at 6.25, went on towards the deployment point.

All this time the 3rd Light Cruiser Squadron, and behind it the 4th Light Cruiser Squadron, were ahead of the Battle Fleet, and up to 6.25 p.m. were in a favourable position to repel any torpedo attack which the enemy might make. In the movements of the 2nd and 3rd Light Cruiser Squadrons at this time can be discerned a definite intention to keep in touch with the enemy,² but the destroyers seem to have been governed only by the idea of taking station on the Battle Fleet. The position of the flotillas on deployment is shown in Diagram 30.

Shortly after 6.0 p.m.³ the Commander-in-Chief had ordered destroyers to take up No. 1 disposition. The 4th, 11th and 12th Flotillas⁴ were ahead of the Battle Fleet. On the port beam of the *Lion* was the 1st Flotilla, unable to get ahead because of the *Lion's* speed: the *Fearless*, their leader, had fallen behind; so, too, had the 13th Flotilla⁵; the 9th and 10th, led by the *Lydiard*, had dropped to the port beam of the 5th Battle Squadron at 6.0 p.m.⁶

When the fleet deployed, the 4th and 11th Flotillas turned to port and proceeded to take station ahead of the line: the 12th turned and took up its position in rear on the engaged side. The 13th and 9th did the same on the disengaged side and remained there during the action.

As the battle cruisers passed the head of the Battle Fleet, the destroyers of the 1st and 12th Flotillas began to run through one another's lines, and several had to stop and go astern to avoid collision.⁷ Salvos were falling round them, and the *Attack* was hit by the nose of an 11 in. projectile.

¹ A name given in the fleet to the point nearest the enemy where the *Marlborough* turned at 6.15.

² The 3rd Light Cruiser Squadron (*Falmouth*) from 6.24 to 6.32, and 2nd Light Cruiser Squadron (*Southampton*) from 6.40 to 7 p.m.

³ At 6.8 p.m. No. 1 disposition was divisions in line ahead disposed abeam with leaders ahead.

⁴ The 4th Flotilla, ahead of the 2nd Battle Squadron, was 12 in number. With the 3rd Battle Cruiser Squadron: *Shark* (sunk), *Acasta* (disabled), *Ophelia*, *Christopher*. With the 2nd Cruiser Squadron: *Owl*, *Hardy*, *Midge*. The 11th Flotilla, ahead of 4th Battle Squadron, 16 in number. The 12th Flotilla, ahead of the 1st Battle Squadron, 15 in number. (*Mischief* with 2nd Cruiser Squadron.)

⁵ Only five ships with the *Champion*, viz.:—*Narborough*, *Obdurate*, *Petard*, *Pelican*, *Nerissa*. The *Turbulent*, *Termagant* and *Nicator* were with the *Lydiard* and 9th. The *Onslow* and *Moresby* were on the engaged side of the *Lion*. The *Nestor* and *Nomad* had been sunk.

⁶ *Lydiard's* diagram, J.P., Plate 22.

⁷ *Faulknor*, *Obedient* and several others (Fighting at Jutland, 130, 131).

The lines were in some confusion at this juncture, and for a short time destroyers were so busy getting out of one another's way that they had little time to think of the enemy.

The disposition of the flotillas was too cramped, but this was a temporary drawback, and the confusion had certainly straightened out by 6.30 p.m. After deployment the policy adopted seems to have been one of passivity. The flotillas appear merely to have attached themselves to the Battle Fleet, and did not even conform to the Deployment Diagram. Between 6.35 and 7.10 p.m. the Germans were allowed to make three separate attacks¹ on the fleet: two of them were made by only two and three boats respectively, which were left to do what they liked between the lines.

The flotillas might have attacked the enemy Battle Fleet at this time, but this was more or less precluded by the Battle Orders, which made the defence of the Battle Fleet their primary duty. It remained for them to defend the Battle Fleet against destroyer attack. This could only be done by pushing out towards the enemy and keeping the line of approach under observation. That is why the Deployment Diagram placed them on the engaged side. Had half a flotilla pushed boldly out on the course followed in safety by the *Falmouth*,² they would almost certainly have encountered and driven back the German attacks, one of which possibly accounted for the *Marlborough*.

There was no lack of initiative in destroyers working independently,³ but the flotillas as a whole seemed to wait for orders. Only two attacks were made on the enemy fleet in the day action: one by the 13th, ordered by the Vice-Admiral, Battle Cruiser Fleet, at 4.15, when the *Neslor* and *Nomad*, *Nicator* and *Pctard* made their brave and resolute attack; and the other independently by the *Shark* and her gallant little flotilla, which sent a torpedo into the *Scydiltz*.

There was nothing to prevent the 13th and 9th Flotillas, which were in rear on the disengaged side, putting on speed and encircling the fleet to take up station ahead, but they did not attempt to do so. This lack of initiative must have been closely associated with their system of training and command, though it may partly be attributed to the defensive policy assigned to them.

¹ About 6.35: G.88, V.73, S.32. About 6.55: V.73, G.88. About 7.5: three boats of 3rd Flotilla and three others.

² The *Falmouth* followed a course about 4,000 yards on the engaged side and actually engaged the enemy's battle cruisers without being hit, but by 6.35 she was far past the point where the German flotillas attacked.

³ E.g., the *Moresby* and *Onslow*.

The Battle Fleet.

58. The Battle Fleet after deployment was only occasionally in action, and its actual firing was confined to two intervals of about quarter of an hour each: the first immediately after deployment when the fleet was in line ahead, commencing about 6.25 and lasting till about 6.40; the second on the Southerly course, commencing about 7.10 and lasting till about 7.25. The *Iron Duke* was one of the first to fire; she turned to S.E. by E. at 6.21,¹ and opened fire on the *Hiesbaden* two minutes later, but it was not till 6.30 that she found a suitable target in the form of a ship of the *König* class, and gave it nine salvos and saw six hits. For the first twenty minutes the firing was limited to about one-third of the fleet, the ships firing with any effect on the enemy's Battle Fleet at this time numbering less than a dozen;² but in spite of smoke and poor visibility considerable punishment was certainly inflicted between 6.25 and 6.35 on the leading ships of the German line.³ At 6.26 the Commander-in-Chief reduced speed to 14 knots in order to let the battle cruisers get ahead.⁴ The signal did not get through quickly, and bunching and overlapping began to occur,⁵ with the result that two or three ships found their fire masked.⁶ It was probably accentuated by the numerous small craft moving close to the lines, but gradually the line straightened out, and the deployment may be regarded as completed at 6.42.⁷

The German Fleet.

59. At 6.27 the *König* coming up on a N.E. course turned to East, probably induced to do so by the thunder of the guns on her starboard bow.⁸ The 1st Squadron had apparently turned together to the northward about 6.24.

Just at this time the poor visibility evidently led Admiral Jellicoe to think of closing the range, and he hoisted a signal to alter course by sub-divisions to S.S.E.⁹ This would have been a difficult movement to accomplish. Half the fleet only had deployed, and including the 5th Battle Squadron there

¹ Jellicoe's plan, J.P., Plate 7A.

² *Iron Duke* (9 salvos), *Hercules* (7 salvos), *Marlborough* (7), *Revenge*, *Colossus*, *Neptune*, *Barham* (3), *Orion* (4), *Monarch* (3), *Conqueror* (3), *Thunderer* (3).

³ Forty-two salvos are reported at the 3rd Squadron between 6.16 and 6.40. It received 25 hits altogether, and it is reasonable to attribute at least one half of them to this period.

⁴ G.F. 352; the battle cruisers were then on the starboard beam of the K.G.V., going 25 knots.

⁵ The *Marlborough* had to reduce to 8 knots and the *St. Vincent* had to stop. The 5th Division was still bunched at 6.32.

⁶ *Neptune* (6th Division) by *St. Vincent* (5th Division) 6.32; *Thunderer* and *Conqueror* (2nd Division) by *Iron Duke* (3rd Division).

⁷ G.F. 353 says 6.38, but the *Valiant* did not turn till 6.40.

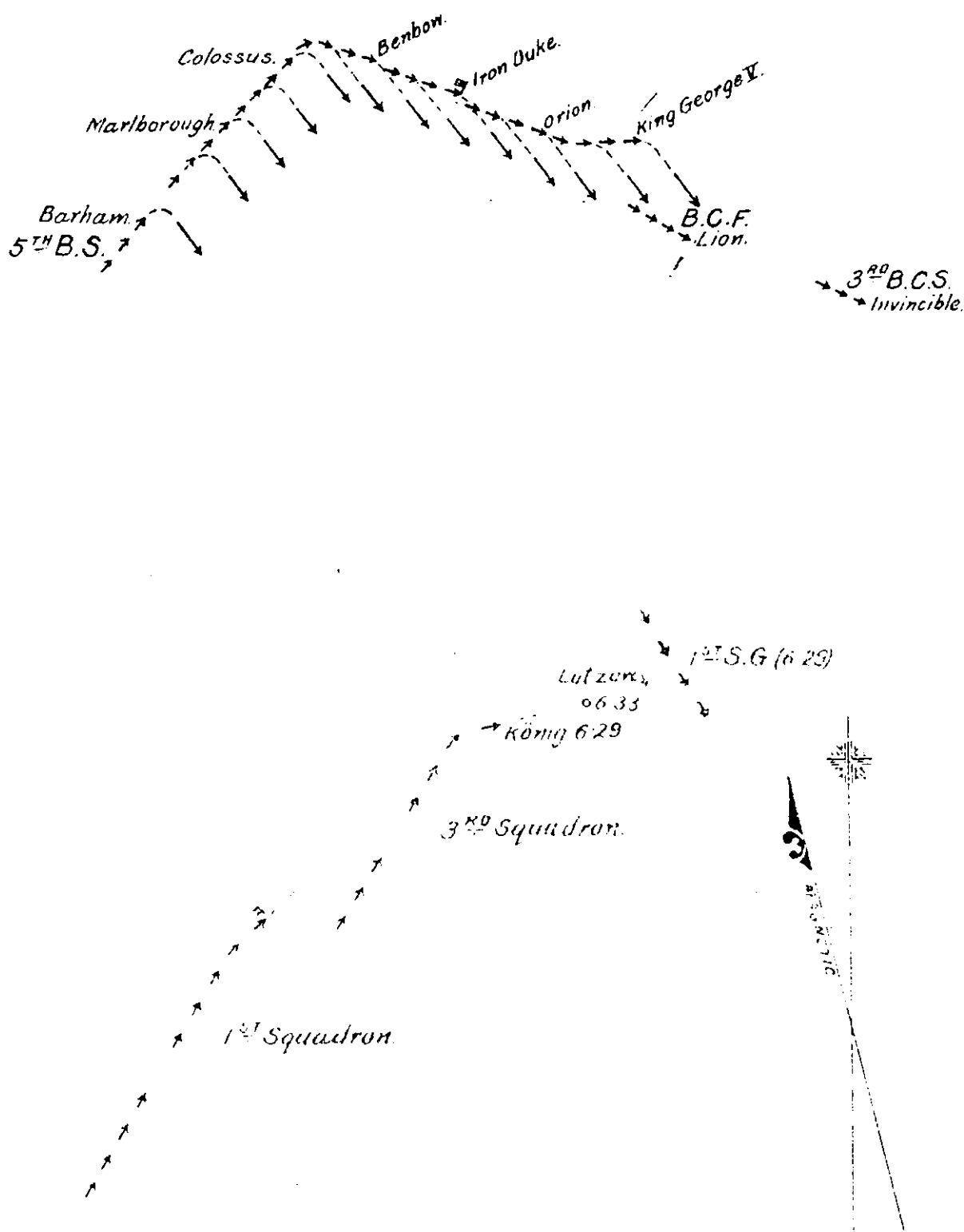
⁸ The 3rd Battle Cruiser Squadron engaging the 1st Scouting Group.

⁹ Not in *Iron Duke* (s¹); *Benbow* (s), 6.29.

APPROXIMATE POSITION AT 6.29 P.M.

AND

Probable position of Battle Fleet at 6.33 p.m.
had C-in-C's signal to turn by subdivisions to
S.S.E. (which was negated) been executed.



were still some fourteen ships to turn.¹ The British Fleet was therefore in the form of an L open to the S.S.E., and a turn by sub-divisions in that direction would have resulted in an L with twelve sub-divisions steering out of it. (Diagram 31.) The disadvantages of such a formation were quickly seen and the signal was negatived, but it indicated an appreciation of the necessity for closing the range. Admiral Jellicoe's choice of a southern horizon seems to have been fully justified, for the Germans do not seem to have seen the British line, and their fire at this time was apparently directed against Beatty's battle cruisers. Half of the British fleet was firing by now,² but the enemy's reply was ineffective,³ and no British battleship was hit.

The Loss of the "Invincible."

60. While the Battle Fleet was deploying a fierce engagement had developed to the south-eastward between Admirals Hipper and Hood. As the *Invincible* turned to south-eastward at 6.20, Hipper's battle cruisers could be seen approaching from the southward,⁴ and turning to a parallel course, they opened fire about 6.23.⁵ (Diagram 26.) The advantage at first lay with the 3rd Battle Cruiser Squadron and several heavy projectiles crashed into the *Derfflinger*. But at 6.31⁶ the veil of mist lifted for a few minutes. Von Hase in the *Derfflinger* saw a "Dreadnought" sharply silhouetted before him steaming at full speed on a parallel course. He trained rapidly on her and gave a range of 9,000 metres (9,876 yards). The salvo went over and he came down 100. The next salvo had two shorts and two hits. The third fell on Q turret and again was witnessed the tremendous tragedy of a great ship disappearing beneath the waves.

Several big explosions took place in rapid succession; masses of coal dust issued from the riven hull; great tongues of flames played over the ship; the masts collapsed; the ship broke in two, and an enormous pall of black smoke ascended to the sky. As it cleared away the bow and stern could be seen standing up out of the water as if to mark the place where an Admiral lay.⁷

¹ The turning point was probably occupied at 6.27 by the *Benbow* or one of her division.

² Mean time of opening fire was 6.27½.

³ "Our ships were not seriously under fire," Sturdee (r), J.P. 122.
 "The 3rd sub-division was never under fire," Duff (r), J.P. 124.

⁴ Bearing about S. 15 W.

⁵ Von Hase says they engaged "Dreadnoughts" to the N.E., but as he speaks of the *Invincible* as a "Dreadnought" it is clear that the 3rd Battle Cruiser Squadron is meant.

⁶ Von Hase says 6.29.

⁷ Von Hase, I.D. 1220, 32; picture of the explosion in Fighting at Jutland, 244. Six survivors (two officers and four men) were picked up by the *Badger* (1st Flotilla) at 6.40 p.m.

The action continued for a few minutes, but Hipper's squadron had evidently suffered severely, for at 6.35 it turned sharply away to the westward.

Scheer's Turn Away at 6.35 p.m.

61. The position at this time is shown in Diagram 32. The *König* and Behncke's 3rd Squadron after turning at 6.27 had continued for some six minutes on an Easterly course. Behncke, in the *König*, then turned to the South-East, mistaking the guns of the 3rd Battle Cruiser Squadron on his port bow for the British Main Fleet. The 1st Squadron seems to have turned together at the same time to E.N.E., bringing them once more in line with the 3rd. The *König* had only been a few minutes on her new course when Scheer, evidently falling into the same mistake as Behncke and influenced by Hipper's turn away at this time,¹ decided to withdraw, and made a signal for the whole fleet to turn 16 points together to the westward.

The manœuvre was not a simple one, for it involved a turn together of 16 ships with a kink of not less than two points at two places in the line.² But this swing round of the whole fleet on a curved line had been constantly practised by Scheer in manœuvres and it now stood him in good stead. The line turned,³ and, followed by the battle cruisers, drew off to the westward.

As Scheer turned, the 3rd Flotilla was sent out to attack to the North-East, but the slackening of the British fire led Commodore Nichelsen, the Senior Officer (T), to think that it was being launched "into a void," and he recalled it. It came back after raising a smoke screen to cover the turn of the fleet, but two of its boats, G. 88 and V. 73, went on in company with S. 32 of the 1st Flotilla, and fired six torpedoes, four of which passed close to the *Princess Royal* and *Tiger*.⁴ This was one of the critical moments of the action, and Scheer's manœuvre was almost precisely similar in its main features to that which he performed three-quarters of an hour later at 7.15. It bears all the marks of a preconcerted design. The prospect of meeting the British Fleet must often have presented itself to the German Commander-in-Chief. A fight on parallel courses with a fleet greatly superior in gun power was out of the question. There was only one course to pursue—to turn away—and in each case the same manœuvre is repeated. A flotilla attacks, a smoke screen is thrown up, and the fleet turns away altogether.

¹ Scheer says "that the battle cruisers were forced to turn away so sharply that at 6.35 I was obliged to make a battle turn of 16 points to starboard, altering course to West."

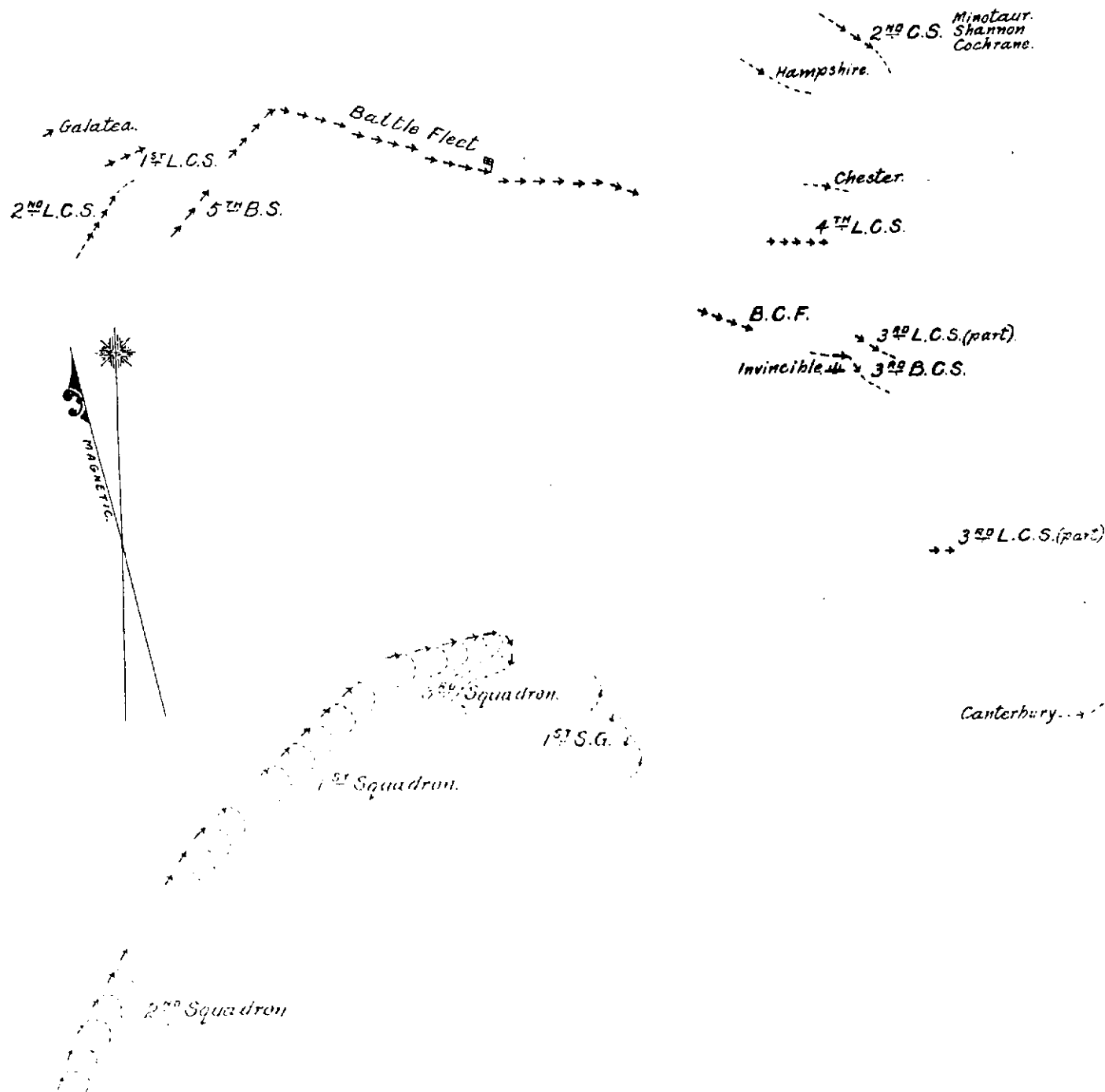
² A kink of about four points at the 3rd or 4th ship (*Kronprinz* or *Markgraf*) and of some two points at the last ship of the 3rd Squadron, the *Prinzregent Luitpold*. Scheer's diagram V, German Plan VI.

³ To about S. 60 W.

⁴ Scheer (r); Scheer, 154; *Tiger* (r) states that they "developed a very heavy smoke screen" at this time.

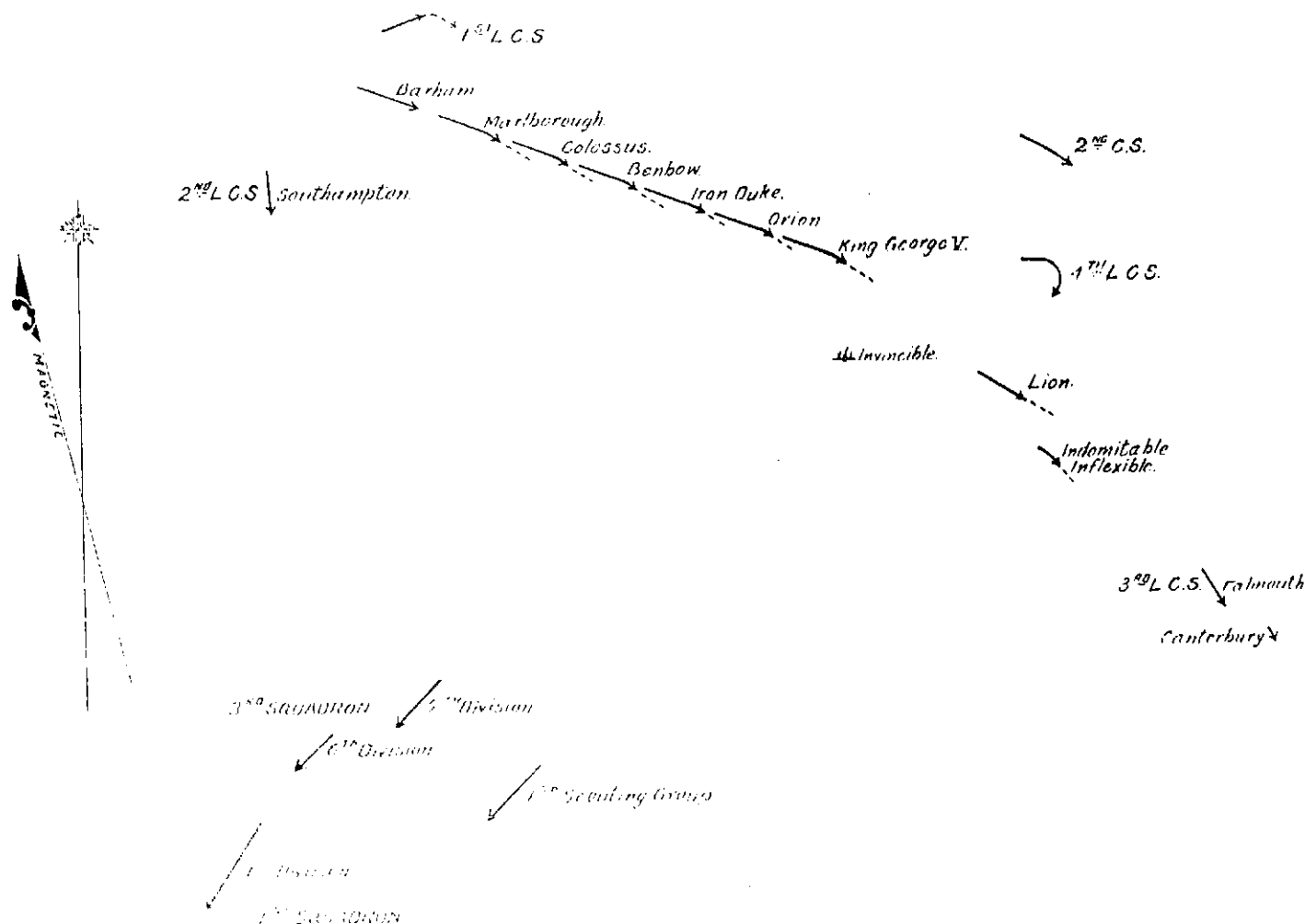
SCHEER'S FIRST TURN AWAY.

Position at 6.35 p.m.



BRITISH FLEET TURNED BY DIVISIONS TO SOUTH EAST AT 6.44.

Approximate positions at 6.45 p.m.



The withdrawal of the German Fleet from its precarious and difficult position must be ascribed to the British Fleet deploying outside the range of practical visibility, and to the lack of an immediate tactical answer to Scheer's move. To ensure a continuance of the action the British Fleet had to turn at once to a course between S.W. and S.S.W.¹ No reply was forthcoming, and in the thickening mist and smoke the enemy was lost to sight, and a lull ensued which gave Scheer a short and much needed respite.

CHAPTER X.

THE SECOND ENGAGEMENT AND SCHEER'S TURN AWAY.

THE TURN TO SOUTH-EAST AND SOUTH.

62. By 6.40 the deployment was almost complete and the line was straightening out. It was evident that the enemy had turned away, and at 6.42 the Commander-in-Chief made a signal to alter course by divisions to South-East² (Diagram 33). Course was altered at 6.44, but the turn of one point towards the enemy was not sufficient to meet the circumstances of the case. Had the fleet turned at once to South, which was done ten minutes later, the effect would have been more pronounced, and the 1st Scouting Group, when it returned at 7.15 p.m., would have come under a crushing fire from the 5th and 6th Divisions at a range of under 8,000 yards.

The only objection to a Southerly course was the risk of torpedo attack, which could have been greatly reduced by the flotillas moving out on the exposed flank, but in any case had to be accepted if the action was to be decisive. A lull ensued in the firing, and for eleven minutes the fleet moved to the South-East. The 4th Light Cruiser Squadron had crossed the track

¹ Reference to Diagram 33 will show that if the 5th Battle Squadron, followed by the 6th, 5th and 4th Divisions had led round to the south-westward and proceeded at full speed to the northward of the enemy fleet, whilst the battle cruisers, followed by the 1st, 2nd and 3rd Divisions, had carried out a similar movement to the southward, the rear of the High Sea Fleet would have been enveloped and exposed to an overwhelming concentration. Nor would the danger of torpedoes have been great, for the fleet could break up into divisions and thus reduce the target very considerably. But an attack of this kind was outside the scope of the Grand Fleet Battle Orders, which were based on the principle of the Battle Fleet working as one large unit in a single line.

² Lord Jellicoe in G.F. 356 says "without signal"; *Iron Duke* (s¹), 6.42; *New Zealand*, 6.42; *Marlborough* (w/c), 6.41; *Benbow* (s), 6.40.

of the fleet at 6.33, and now took station ahead of the *King George V*.¹

The *Lion* by this time had reached a position some $3\frac{1}{2}$ miles ahead² of the *King George V* and, was steering S.E. The 3rd Battle Cruiser Squadron was a mile off on her starboard bow. Far away to the westward, astern of the Battle Fleet, was the *Southampton*. She had just reached the point of deployment where the long file of ships had followed one another in succession to S.E. by E. There she saw the enemy turn away, and to keep them in view, ran boldly down to the southward and south-eastward. At 7.0 p.m. she signalled their bearing and course to Admiral Beatty,³ and though the importance of the signal was subsequently diminished by the re-appearance of the enemy, it deserves to be remembered as a fine example of light cruiser work. She then turned, and as the British Fleet was now coming down on a southerly course to the eastward of her, passed to the northward and astern of it.

The Commander-in-Chief did not receive the *Southampton*'s report till 7.0 p.m. and had already ordered the fleet to alter course to South.⁴ Whilst this signal was being made the only German torpedo to hit in the action got home on the *Marlborough*. The probability is that it was fired by the *Wiesbaden*. The explosion flooded the Diesel and hydraulic engine rooms: one of the boiler rooms began to flood and the ship listed seven degrees, but she was able to continue in the line and to maintain a speed of 17 knots. In "A" boiler room the rising water quickly put out the fires on the starboard side, but the stokers working in water up to their knees continued with the greatest coolness to keep the port boilers going.⁵

At about 6.55 Scheer had sent three or four destroyers to save the crew of the *Wiesbaden*. On their way V.73 and G.88 seized the opportunity of firing four torpedoes at the 5th Battle Squadron. It is just possible that one of these may have hit the *Marlborough*, but it would have had to be fired about 6.44, which does not agree with Scheer's time. The turn to South at 6.55, which brought the fleet into a quarter line formation of divisions in line ahead with guides bearing roughly S.E. by E. (Diagram 34), is one of the noteworthy movements of the

¹ It came too close, and the *King George V* had to alter course to starboard at 6.51 to avoid a collision.

² At 6.44, 10° on *King George V*'s engaged bow.

³ "Enemy Battle Fleet steering E.S.E. Enemy bears S.S.W., number unknown. My position Lat. 57° 02' N., Long. 6° 07' E." Received from Duke 7 p.m.

⁴ *Benbow* (s), 6.52; *Iron Duke* (s³), 6.50; *Marlborough* (s), 6.52, executive, 6.53; *New Zealand* (s), 6.55; *Iron Duke* (r) mentions altering course to S. S.E. at 6.51 (J.P. 53).

⁵ At 2 a.m. the ship had to reduce to 12 knots.

APPROXIMATE POSITIONS AT 6.56 P.M.

British Fleet turned to South at 6.55 P.M.

German Fleet turned to East at 6.57 P.M.

Scale
2000 Yards 0 1 2 3 4 5 Sea Miles.



action, for it brought the fleet back again into divisions. It had taken nearly half an hour to deploy, and had only been deployed about quarter of an hour when a divisional formation was resumed leaving the *Marlborough's* division more exposed to attack than it was at 6.15, when its position caused the Commander-in-Chief to deploy away from the enemy. This resumption of a divisional formation indicates that the fleet was too large to manœuvre as a single whole, and that a more flexible tactical system was required in which the Commander-in-Chief, after indicating the point of attack, would have left the squadron commanders free to support and assist each other in carrying out his wishes.

Scheer's Turn to the Eastward at 6.55.

63. The enemy meanwhile was retiring on a Westerly course. His formation was apparently a loose divisional formation.¹

The lines were reversed, and the *Westfalen* was leading with the *König* bringing up the rear. The 2nd Squadron was a mile or so to the south-westward on a North-Westerly course, conforming to the movements of the 1st Squadron. Some three or four miles to the south-eastward of the *König* was the 1st Scouting Group in a far from happy state.

The *Lützow* was badly down by the bows listing heavily with enormous volumes of smoke pouring out of her forecastle; she hauled out of the line and steamed slowly off on a Southerly course.² At 7.0 p.m. Admiral Hipper left her and headed in a destroyer for the *Seydlitz*, signalling to Captain Hartog of the *Derfflinger* to assume command till his flag was transferred.

The *Derfflinger* herself was in a bad way. The masts and rigging were badly cut up and the wireless sending apparatus out of action. Two armour plates had been torn off the bows, leaving a huge hole open to the sea. A danger of another sort now confronted her. The torpedo nets aft had been shot away and were trailing over the port propeller, threatening every moment to foul it and bring the engine to a stop. But the enemy were no longer in sight. The ship was stopped; the crews of the two turrets, all to perish within an hour, swarmed out, and, working like madmen, cut away the nets.

At 6.55,³ when about 13 miles S.W. of the *Iron Duke*, the German Battle Fleet was swung round 16 points together to an Easterly course. It was now heading straight into the centre of the arc formed by the British Fleet. In a few minutes the leading squadron and battle cruisers would be threatened with

¹ J.P. German Plan VI, diagram 6.

² German Plan V shows her out of the line at 6.30 p.m.

³ Harper X, 6.57; Scheer's despatch and book, 6.55.

envelopment and the concentrated fire of practically the whole Grand Fleet. The High Sea Fleet seemed to be rushing headlong to destruction. The motives for this manœuvre which are given in Scheer's book and despatches should be accepted with reserve. He explains that it was too early to take up night cruising order. The British could follow, and by compelling him to fight, force him to adopt a particular course of action under enemy pressure. The initiative would pass into their hands, and they would be able to cut off his retreat from the Bight. There was only one way to avoid this : by advancing regardless of consequences, and sending all destroyers to the attack. A bold offensive would upset Admiral Jellicoe's plans for the rest of the day, and, if the blow fell heavily, facilitate the German retreat during the night. It would give an opportunity, too, for a last effort to save the *Wiesbaden*, or at least rescue her crew.¹ His intention was more probably to slip past the rear of the British Fleet, but in any case his hazardous movement escaped the crushing counter-attack that it deserved.

British Movements from 6.55.

64. Meanwhile, the British Battle Fleet was pursuing its way to the South in divisions line ahead one mile apart, disposed approximately S.E. by E. At 7.5 the Commander-in-Chief had altered course three points to starboard (to S.W. by S.), in order to close the range,² but he had only been on this course a few minutes when a submarine was reported,³ and hostile destroyers were seen approaching from the S.W. The Commander-in-Chief thereupon turned back to South⁴ with the two-fold object of turning on the submarine, and being ready for any manœuvre that might be required.⁵ This alteration turned the fleet away

¹ The Austrian Naval Attaché's report (June 17, 1916) quotes Scheer as saying that "The fact is, I had no definite object. I made the first advance because I thought I ought to assist the *Wiesbaden* and because the situation was quite obscure to me, for I saw nothing of the *Lützow* and received no W/T reports. I soon saw that the leading ships were coming under an overwhelming fire and that I could not risk the fleet on the *Wiesbaden*'s account. When I noticed that the British pressure had quite ceased and that the fleet remained intact in my hands, I turned back under the impression that the action could not end in this way, and that I ought to seek contact with the enemy again." Von Trotha, the Admiral's Chief of Staff, is reported on the same authority to have said jocularly that if an Admiral had brought about such a position at manœuvres he would be relieved of his command.

² G.F. 360 ; not mentioned in Commander-in-Chief's despatch.

³ G.F. 360. The *King George V* at 7 p.m. reported a submarine ahead of the *Iron Duke*, and the *Duke of Edinburgh* (then about 3½ miles on the port bow of the *Iron Duke*), reported a submarine at 7.1 two points on her own port bow. The reports could not have referred to the same submarine, but as there was no submarine in the vicinity the point need not be laboured.

⁴ Harper, 7.9 ; *King George V*, 7.09 ; *Revenge*, 7.10 ; *Iron Duke*, 7.7 ; Commander-in-Chief's despatch, 7.10.

⁵ G.F. 361. The Commander-in-Chief's despatch mentions only the approach of a flotilla of destroyers.

from the enemy just when pursuit to the westward was vitally important. If the German Fleet had not returned on its own initiative at 6.55, this turn to the South might have meant the end of the battle. Neither the report of a submarine nor the sighting of a few destroyers appear to justify such a proceeding. No manœuvre was necessary except to close the enemy.

The disadvantages of a cut-and-dried plan of deployment were now painfully evident. When the fleet turned into divisions, the conditions of the Deployment Diagram fell away. The direction from which a torpedo attack might be expected was now the area ahead of the *Marlborough*. Her division was the most exposed, while that of the *King George V*, about five miles further away, was the safest and least exposed. If the function of the flotillas was to protect the Battle Fleet, it appears that the 12th, 13th and 9th should have pushed up on the *Marlborough's* engaged quarter, whilst the 4th Light Cruiser Squadron, the 11th and 4th Flotillas, should have taken up a position on her bow without orders at 6.55. The 4th Light Cruiser Squadron could easily have done so. It had crossed ahead of the *King George V* at 6.51, and it required a speed of only 24 knots to reach a position two miles ahead of the *Marlborough* by 7.6. It would probably not have been able to stay there long, for at 7.12 the enemy battle cruisers would have forced it away, but it would have continued in a better position to deal with the flotillas later on. Nor need it have gone far, for Hipper's ships almost immediately came under a terrific fire, and could have done nothing to the 4th Light Cruiser Squadron. This view is upheld by the cases of the *Falmouth* and *Yarmouth*, which engaged the same squadron between 6.24 and 6.32 with entire immunity at 8,000 yards when it was occupied only with the fire of the 3rd Battle Cruiser Squadron. But the Commodore was apparently still thinking of the Deployment Diagram, and was maintaining station on the *King George V*.¹

The tendency to turn away at 7.10, and later at 7.22, would probably have been diminished if the flotillas had moved out in this direction, but the defensive rôle assigned to them was an exceedingly difficult one to fulfil satisfactorily. They did not know how long the divisional formation was to be maintained, they were probably unacquainted with the general tactical situation, and may not even have known the direction in which the German Fleet had retired.

Admiral Beatty, however, appreciated the significance of the new formation, for he made a signal to the 3rd Battle Cruiser Squadron (then a mile or so ahead), to take station astern, and turned at 6.54 to allow him to do so, then shaped course S.W. by S. to cross the line of the advancing Battle Fleet.

¹ See signals, 4th Light Cruiser Squadron, between 7.8 and 7.22, J.P. 463 and 464.

The Engagement, 7.12 p.m. to 7.20 p.m. (Diagram 35.)

65. The Battle Fleet had hardly turned to South when the *Hercules*, the third ship in the *Marlborough's* division, sighted the *Seydlitz* to the south-westward, and at the same moment the *Colossus* in the next division saw the *Derfflinger* coming out of the mist. There were the German battle cruisers clearly visible on a South-Easterly course at a range of less than 10,000 yards. Two or three miles further off, Scheer's battleships could be seen. He was returning in line ahead, the *König* leading at the head of the 3rd Squadron, with the *Friedrich der Grosse* and the 1st Squadron following behind. The *Hercules* opened fire on the *Seydlitz* and the *Colossus* on the *Derfflinger*, and hits were obtained by both after a few salvos. The *Marlborough's* guns came into action at the same time,¹ followed at 7.15 by those of the battle cruisers, and the guns of practically the whole fleet joined in. The mist cleared for a few minutes and the *Derfflinger* and *Seydlitz* came under a tremendous fire.² In the former, a 15 in. shell went through the armour of C turret and burst. The flames passed to the working chamber and ignited four charges, and then to the landing room, setting four more on fire. But they burnt only, and did not explode. Of the 78 men in the turret, 73 perished. Another 15 in. shell struck the roof of D turret,³ went through it, and burst inside with terrible effect. The flash set fire to a number of cartridges, and great tongues of flames went roaring skyward from both the after turrets—like two ghastly funeral torches.⁴ Another shell struck the conning tower, tearing huge pieces out of the armour, and another burst under the bridge.⁵ The visibility was all in favour of the British. The British ships were barely visible; the red flashes of the guns were all that could be seen. In the *Derfflinger* only A turret remained in action, and got in two hits

¹ The *Marlborough* says she was firing at a *Markgraf* class at 10,200.

² The *Derfflinger* from the **Revenge*, **Colossus*, **Neptune*, **Benbow* and **Superb*; the *Seydlitz* from **Hercules*, **Revenge* and **Barham*, *Agincourt*, **Collingwood*, *Bellerophon*, *Royal Oak* and *Lion*. The **Valiant* and **Malaya* at the *Von der Tann* at 10,400. The *Orion* was firing at 19,000 yards, *Monarch* about 18,000, and *Centurion* probably at *Lützow*. (Asterisks denote probable hits.)

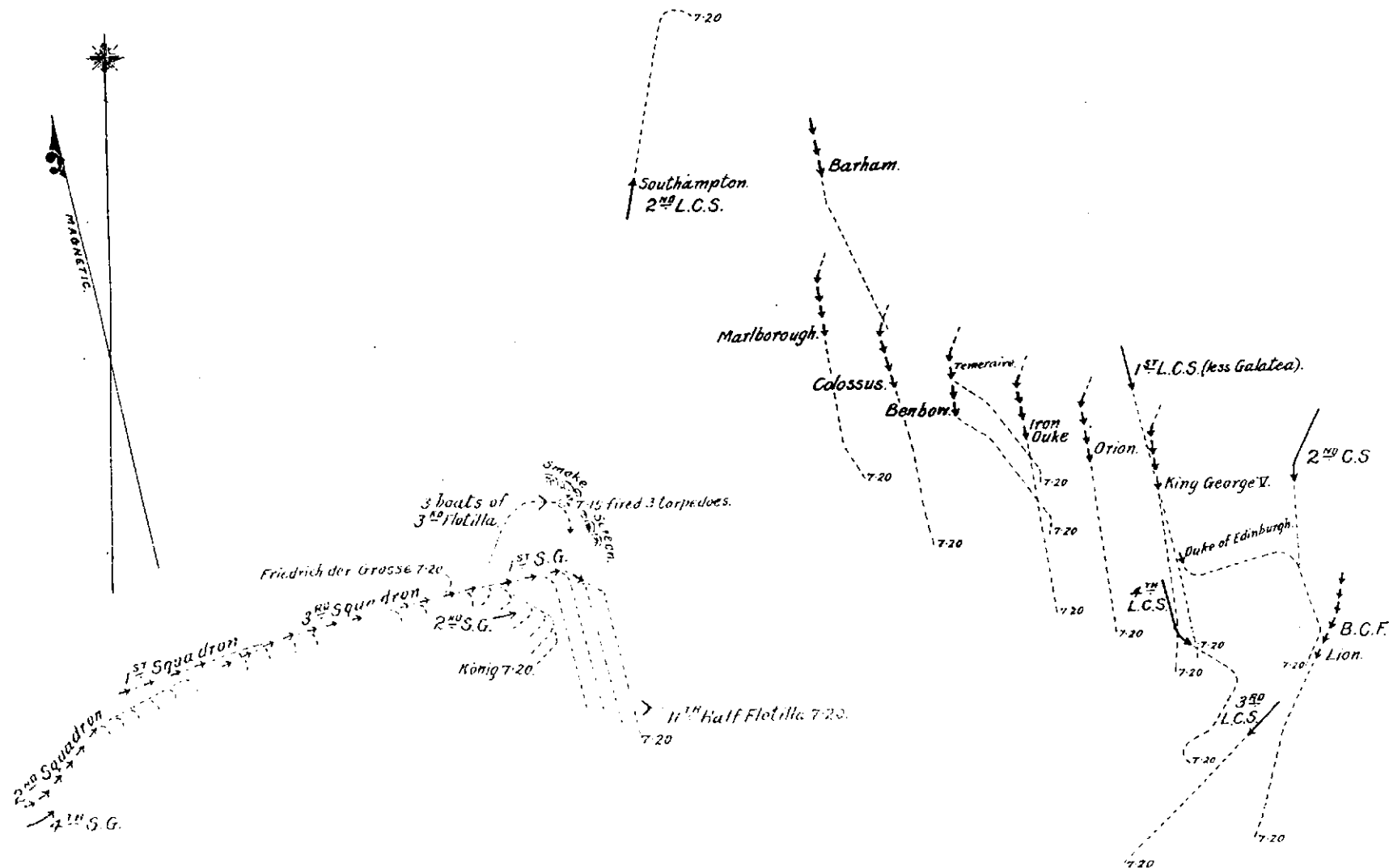
³ This corresponds with the *Benbow's* report. (J.P. 120.)

⁴ Von Hase (I.D. 1220), 35.

⁵ It is highly probable that the *Derfflinger* would have shared the fate of the *Queen Mary* if it had not been for experience gained during the Dogger Bank action, when a shell which ignited charges in the *Seydlitz's* after turret wiped out two complete turrets' crews. Double asbestos flaps were fitted subsequently, and alterations were made in the stowage of ammunition. Curiously enough a shell hit the *Seydlitz* in almost exactly the same place at Jutland, but only caused a few casualties.

APPROXIMATE POSITIONS AT 7.12.P.M.
AND TRACKS TO 7.20.P.M.

Scale.
2,000 Yards 0 1 2 3 4 5 Sea Miles.



on the *Colossus*¹: one entered the foremost superstructure and burst on the port side of the lower gun deck, firing ten boxes of ready use cordite but only slightly wounding two or three men; the other hit the port signal deck without bursting; a third burst short, abreast of the fore bridge, wrecked the starboard searchlight, damaged the chart and signal house, and severely wounded three men. The guns of the 5th Battle Squadron were also in action. The ships in the British port wing divisions were firing too, but at a considerably greater range.²

The *Iron Duke* had opened fire on the battleships³ as early as 7.13 at a range of 15,400 yards, shifting to the battle cruisers at 7.20. Some 2½ miles ahead⁴ of the British Battle Fleet, Admiral Beatty's battle cruisers were also firing.

This heavy burst of firing lasted for about six minutes,⁵ and was for the German battle cruisers the most critical part of the action. It had hardly begun when Hipper went alongside the *Seydlitz* to transfer his flag, but finding her wireless shot away, and a couple of thousand tons of water in her,⁶ he proceeded to the *Moltke*. As he got alongside, the intensity of the British fire redoubled, the captain dared not stop,⁷ and Hipper was left to wander about in his destroyer for a time.

As soon as Scheer realised that he was facing the Main British Fleet, he turned his Battle Fleet to the westward, and ordered the battle cruisers and flotillas to attack in order to cover his retreat. As no attempt was made to follow, the Battle Fleet was soon freed from a most dangerous situation.

A few minutes later he ordered the battle cruisers to manœuvre off the enemy's van, whereupon they also turned to the westward. It was now eighteen minutes past seven.

Scheer's and Von Hase's explanations of this phase differ. The former pictures the whole German Fleet advancing, with the battle cruisers and flotillas attacking as fiercely as possible in order to force the British into a second battle. The object is attained, and the fleet withdraws to the westward at 7.17 p.m. Von Hase, on the other hand, indicates that the High Sea Fleet suddenly found itself in a trap, practically surrounded, and that the advance of the battle cruisers and flotillas was intended to

¹ *Colossus* (r) states that they were hit by the second ship (i.e., *Seydlitz*). These were the only hits received in the Battle Fleet during the action.

² The *Vanguard* (4th ship in the 4th Division) and *Thunderer* (4th in 2nd) did not open fire.

³ The *Monarch* (2nd ship in 2nd Division) and *Marlborough* also state definitely that they were firing at battleships.

⁴ About a point on *Orion's* port bow.

⁵ From 7.14 to 7.20.

⁶ From the torpedo (probably the *Acasta's*).

⁷ Von Hase (I.D. 1220), 37. The time was probably about 7.15.

extricate the Battle Fleet.¹ Scheer's own signals² show that the order to the battle cruisers to attack was made after the British opened fire, and there is little doubt that Von Hase's account is the more correct of the two. What might have been a disastrous blunder was by a stroke of luck turned to Scheer's advantage, and he is naturally inclined to ascribe the agency to himself. The probable explanation of his end-on advance is that he had badly miscalculated the position of the Main British Fleet, and was endeavouring to pass astern of it in order to overcome the unfavourable light conditions which were so seriously handicapping the firing of his Battle Fleet, or to slip past and make for home. He may also have hoped to cut off the 5th Battle Squadron and some battle cruisers, which he thought were some distance astern of the Main Fleet.³ The impression that the British Fleet was far enough to the South to enable him to pass astern about 7.0 p.m., would arise from the fact that the 3rd Battle Cruiser Squadron and *Shark's* Flotilla had been mistaken for part of the Main Fleet when they attacked the 1st and 2nd Scouting Groups from the north-eastward about 5.55 p.m.⁴ If this were the case, it should be some consolation to know that these gallant attacks prepared a situation which, if it had been taken advantage of, should have led to the annihilation of the German Fleet.

The Torpedo Attacks.

66. Although the German flotillas did not succeed in hitting anything, they played a decisive part in this encounter. As early as 7.5, destroyers ahead of the battle cruisers had come under fire. This was a small attack made by half a dozen boats,⁵ including three of the 3rd Flotilla. The *Colossus* was the first to see them approaching on the starboard bow and opened fire with 12 in. and 4 in. By 7.10 they were about two points before

¹ "Meanwhile the Commander-in-Chief had realised the danger to which our fleet was exposed. The van of our fleet was shut in by the semicircle of the enemy. We were in a regular death trap. There was only one way to escape from the unfavourable tactical situation: to turn the line about and withdraw on the opposite course. Before everything we must get out of the dangerous enemy envelopment. But this manœuvre had to be carried out unnoticed and unhindered. The battle cruisers and destroyers had to cover the movements of the fleet. At about 7.12 p.m. the Commander-in-Chief gave the fleet the signal to turn about on the opposite course and almost at the same time sent by wireless to the battle cruisers and destroyers the historic order: 'Attack the enemy.' . . . At 7.18 p.m. we received a wireless signal from the Commander-in-Chief: 'Manœuvre off the enemy van.'"—HASE.

² German Plan VI.

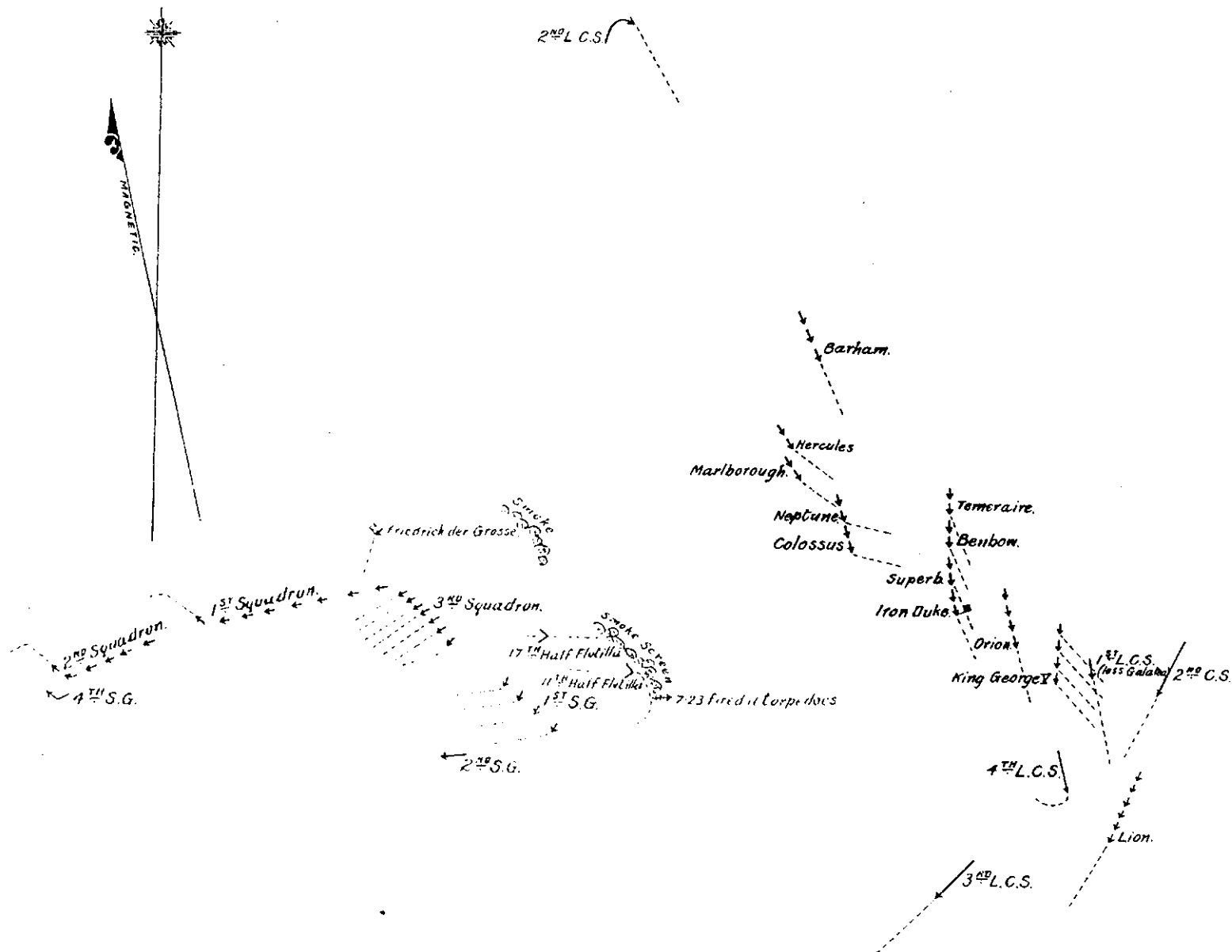
³ *Ibid.*

⁴ See page 73.

⁵ Three boats of the 3rd Flotilla, possibly supported by some of the 1st Half-Flotilla. Scheer (p. 154) shows six torpedoes fired, of which G.88 fired two and V.73 one. The *Neptune* reports six to eight boats, the *Hercules* six. Scheer, 153.

APPROXIMATE POSITIONS AT 7:22 P.M.

Scale
2,000 Yards 0 1 2 3 4 5 Sea Miles.



the beam of the 5th and 6th Divisions, and in the next minute or two fire was opened by several ships and Admiral Sturdee hoisted the "preparative" and turned the 4th Division two points away. Three or four torpedoes were seen approaching about this time and the *Neptune* had to alter course to avoid one.¹ By this time the enemy battle cruisers were in sight, and the thunder of their engagement had begun. The Commander-in-Chief now signalled to the 1st Battle Squadron² (*Marlborough* and *Colossus*) to form astern of the 4th Battle Squadron, probably with the intention of withdrawing them from their exposed position on the flank. The 5th Division (*Colossus*) appears to have turned to port about 7.15 and the 6th Division (*Marlborough*) about 7.12,³ which brought the 1st Battle Squadron into a ragged sort of line ahead steering about S.S.E. Admiral Sturdee, too, turned into line astern of the 3rd Division⁴ about this time, bringing the 4th Battle Squadron into line ahead behind the *Iron Duke's* division, steering approximately South. While the engagement with the battle cruisers was at its height, the Commander-in-Chief evidently decided to re-form single line ahead, for he signalled to the 2nd Battle Squadron to take station ahead,⁵ and a few minutes later ordered them to proceed at utmost speed, and he himself reduced to 15 knots to expedite the movement. But he had hardly done so when he ordered the 2nd Battle Squadron to alter course four points to port together, which had the effect of annulling, for a time at least, the signal to form ahead.

At 7.22 p.m., when the engagement with the battle cruisers was drawing to a close, the fleet was disposed as in Diagram 36.

A second torpedo attack was now developing, and as early as 7.16 the *Royal Oak* had opened a vigorous fire on destroyers on the starboard beam. This was made by the 6th and 9th Flotillas attached to Hipper's Squadron, and as Scheer turned away, a dense smoke screen rose from them, and drifted down towards the British Fleet, effectually obscuring the German battleships from view.

Some six destroyers pressed on to attack and came under a heavy fire at ranges of 11,000 to 8,000 yards from the ships of the 1st and 4th Battle Squadrons, particularly the *Royal Oak*.

¹ *Colossus* one at 7.8 (missed astern), *Agincourt* one at 7.8 (missed astern), *Neptune* three (two of which possibly identical with *Colossus* and *Agincourt* reports) at 7.10. These torpedoes were probably fired about 7 p.m.

² At 7.12 p.m.

³ *Marlborough's* Track Chart. There is no signal record of this turn in *Marlborough's* signal log.

⁴ Sturdee (r), J.P. 122, "The attack was soon repelled . . . and the division ordered to turn back to the course of the fleet, forming astern of the 3rd Division."

⁵ At 7.16 and 7.18 to proceed at utmost speed; Commander-in-Chief reduced to 15 knots at 7.20.

Iron Duke, *Benbow*, *Agincourt*, *Marlborough* and *Temeraire*.¹ It was now twenty-two minutes past seven. The destroyers could be seen approaching 10,000 yards off, and the Commander-in-Chief decided to turn away. The signal went up for the fleet to turn two points away to S.S.E., and the 4th Light Cruiser Squadron was at last ordered to attack. Some doubt arose as to whether a two-point turn was sufficient, and a few minutes later, at twenty-five minutes past seven, the signal was made to turn away another two points.² (Diagram 37.) The 4th Light Cruiser Squadron and a half flotilla of the 11th Flotilla were moving out to attack, but the enemy flotilla already seemed to be breaking up and two of its boats showed signs of being hit. It had fired some 21 torpedoes,³ of which at the most 11 reached the British line, about 7.35.⁴ The *Marlborough*, as leader of the flank division, was again the favourite target and had to alter course to avoid three torpedoes which passed ahead and close astern. The *Revenge* and *Agincourt* in the same division had to do the same.

By this time the 4th Light Cruiser Squadron had got away to the south-westward and was firing at a portion of the 3rd Flotilla. This proved an entirely effective counter, for as soon as the German destroyers sighted the light cruisers they turned hastily away, and the only one to see the Battle Fleet was S.32 of the 1st Half Flotilla, who apparently attacked independently and fired one or two torpedoes at the *Marlborough*'s division at 9,000 metres range.⁵

At 7.32, only ten minutes after it had moved out to attack, the Commander-in-Chief signalled to the 4th Light Cruiser Squadron not to go too near the enemy Battle Fleet. It thereupon retired and again took station on the *King George V*. The German 5th Flotilla advanced a little later, but sighted only some destroyers of the British 11th Flotilla and made no attack.

¹ 7.16, *Royal Oak* (6 in.), on starboard beam; 7.18, *Agincourt* (6 in.); 7.19, *Marlborough*, starboard bow, 11,000 yards; 7.20, *Vanguard* (12 in.); *Temeraire* (4 in.), before starboard beam, 9,000 yards; 7.24, *Iron Duke*, (6 in.), green 115°, 10,000 yards; *Benbow*; 7.27, *Tiger* (6 in.); 7.31, *Hercules* (12 in.).

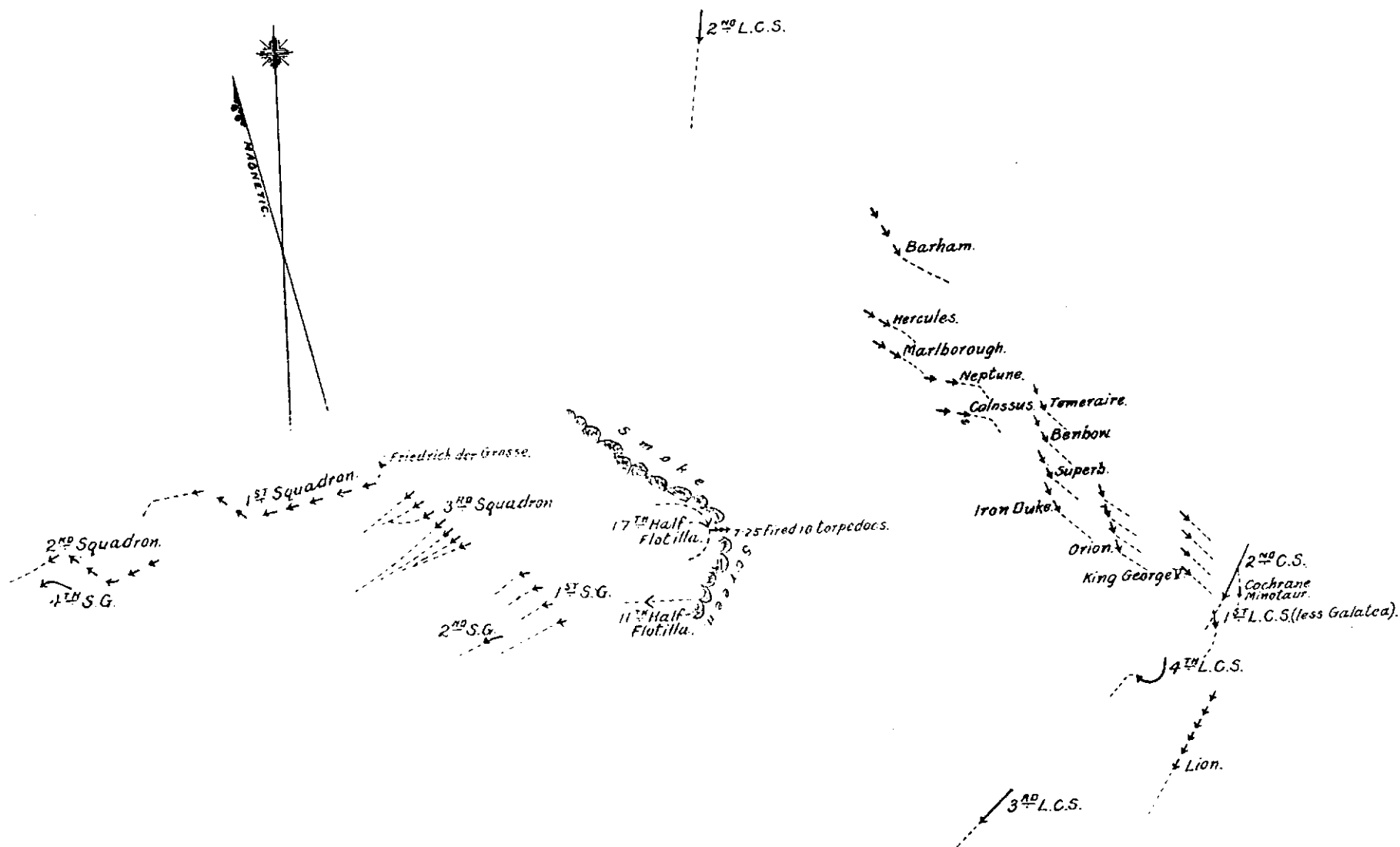
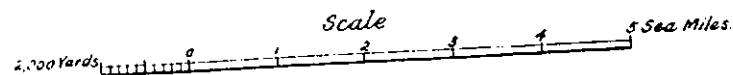
² J.P., 7.25; *Barham* (s), 7.25; *King George V* (s), 7.25; *New Zealand* (w), 7.25; *Benbow* (s), 7.26; *Iron Duke* (s¹), 7.27.

³ Scheer's Diagram 7, German Plan VI; 17th Half-Flotilla fired 10 torpedoes at 7.25; 11th Half-Flotilla 11 at 7.23.

⁴ *Marlborough*, three at 7.33; *Revenge*, one at 7.35 (and one probably identical with *Marlborough*); *Agincourt*, two at 7.35; *Colossus*, one at 7.35; *Collingwood*, one at 7.35 (and one probably identical with *Colossus*); *Inflexible*, one; also *Revenge*, at 7.45. Total reports, 13; torpedoes, 11. Lord Jellicoe (G.F. 361) mentions 20 torpedoes, but he is probably quoting Vice-Admiral Burney's figure of 21 (J.P. 67), which gives the total number of tracks seen by the 1st Battle Squadron since 6.45 (viz.: at 6.45—1; 6.55 to 7—3; 7.15—5; 7.35—10; 7.45—2; total 21). *Neptune*'s report (J.P. 90) of three tracks seems to refer to the 7.15 attack. The six tracks seen by *Calliope* (J.P. 296) when moving out to attack are evidently identical with those reported by the Battle Fleet.

⁵ Scheer says one, but *Revenge* reports two torpedoes at 7.45 p.m.

APPROXIMATE POSITIONS AT 7.25 P.M.



No exceptional dash was displayed by the enemy in these attacks, nor were they pressed home with any great persistency,¹ a result which must be attributed to the intensity of the fire of the 1st and 4th Battle Squadrons, especially of the *Iron Duke* and *Royal Oak*. The actual German losses were not excessive. One destroyer was sunk by a hit from a 12 in. shell,² and two were badly hit.³

67. This was the culminating attack of the German flotillas. Between six and half-past seven they had launched a series of six attacks at the British Battle Fleet,⁴ and the important part they played in the tactics of the German Fleet bears a striking contrast to the comparative inactivity of the British flotillas. It is not enough to say that the Grand Fleet Battle Orders had laid down defence as their primary task, for up to 7.35 not a single flotilla had taken up its station where defence was chiefly required. The fact is, the idea of a battle on the British side had never got beyond the conception of an action on parallel courses. It was only correct to tie the destroyers down to a defensive task, if their defence was the counterpart of a vigorous offensive by the Battle Fleet. The attacking power of the British destroyer flotilla had been sacrificed to the idea of defending the Battle Fleet, but at the supreme moment when the Battle Fleet required protection to enable it to return to the westward, the flotillas were on its disengaged side in a position where they were useless for attack and powerless to defend. When one considers the serious damage inflicted on the enemy in the brief half hour that firing lasted, there can be little doubt that another half an hour within effective range would have ensured the beginning of a decisive victory. Scheer's use of his flotillas is a striking confirmation of the principle that an offensive is the best defensive. In his attacks on the Battle Fleet he lost only one destroyer and entirely dislocated the British offensive.

Remarks on Scheer's Second Turn Away.

68. According to all accepted ideas, Scheer's advance at 6.55 p.m. should have led to the annihilation of the High Sea Fleet. His battle cruisers, already severely damaged, were practically unsupported, within 10,000 yards of a large portion of the British Battle Fleet; the 3rd Squadron was also in a very dangerous situation, and the 1st and 2nd were not in a position

¹ Rear-Admiral A. L. Duff (r), J.P. 125.

² S.35, of 18th Half-Flotilla, by *Iron Duke* or *Vanguard* (7.20) or *Bellerophon* or (less probable) *Collingwood* (7.35).

³ S.52 and S.36, of 17th Half-Flotilla, were hit by one heavy, one medium and two light shells.

⁴ At 6 p.m. 12th Half-Flotilla and 9th Flotilla at 3rd Battle Cruiser Squadron; at 6.35 3rd Flotilla go out and are recalled, but three boats attack; about 6.50 T.B.D.s are sent out to help *Hiesbaden*, and V.73 and G.88 fire four torpedoes at 5th Battle Squadron; 7.10, six boats attack the 1st Battle Squadron; 7.25, main attack by 9th and 6th Flotillas; 7.35, 3rd and 5th go out.

to offer much help. Even the light conditions which prevented the Germans from seeing anything but the flash of their opponent's guns were in favour of the British. To say that the Grand Fleet had to turn away from the German flotillas does not fully explain the uninterrupted retreat of the German Fleet, for their attacks only lasted a short time. From 7.15 to 8.0 p.m. the movements of the British Battle Fleet seem to have been mainly directed to getting back into single line as if nothing could be done until it were again ranged according to the Deployment Diagram. Thus the tendency to cling to a formal and preconceived system of tactics again recurs as a cause of failure in the history of sea warfare.¹

Was it necessary at this stage to preserve the unity of the Battle Fleet? Was it not preferable to break up that long inarticulate line and for each division or sub-division to press forward independently at utmost speed to the westward, supporting each other in the envelopment and destruction of the German Fleet? If the Battle Fleet had proceeded in this direction, one half to the northward and the other half to the southward of the German line, led by the 5th Battle Squadron and Battle Cruiser Fleet respectively, the fate of the High Sea Fleet would probably have been sealed. But the idea of attack was lacking, and the High Sea Fleet withdrew in safety whilst the British Battle Fleet was struggling to free itself from the rigidity of its own formation.

When one surveys the mass of signals made at this stage of the battle, a new light shines on the words of old Sir Charles Geary: "Now, my dear Kempy, do, for God's sake, my dear Kempy, oblige me by throwing your signals overboard and make that which we all understand, 'Bring the enemy to close action.'"² The mass of signals which was such a feature of British tactics at Jutland was bad in principle and practice. In war, the only real basis of action is the sympathy arising from the mutual grasp of a clear tactical idea. Instead of numberless signals to alter course so many points, to steer such and such a course, to go so many revolutions or to take up such and such a bearing, all that is necessary in most cases is some such signal as to cut off the van division, attack the rear, etc. Training and mutual co-operation should do the rest.

To make effective use of a large fleet attended by scores of light craft required a great deal of concentrated thought; this thought was not available; no provision had been made for it.

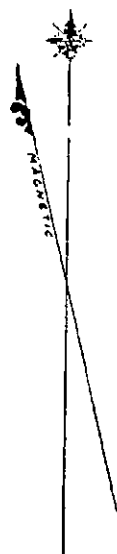
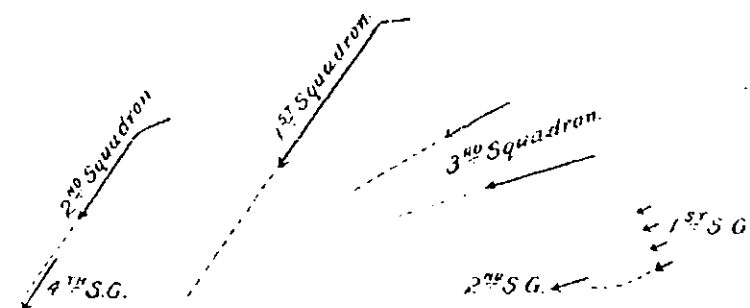
¹ For analogous examples see "Executive Command and Staff," *Naval Review*, 1913, p. 229. Also "A Fighting Instruction," *Naval Review*, 1915, p. 185.

² On the Channel Fleet meeting what was thought to be a hostile fleet in 1780. *Kempenfelt* was Geary's, the Commander-in-Chief's, Flag Captain. *Barrow's Life of Howe*, 141.

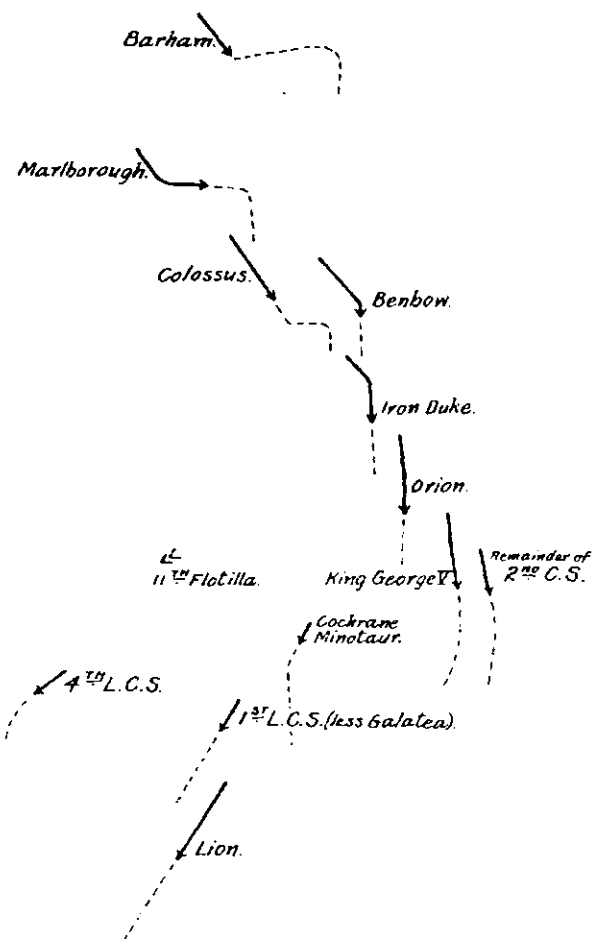
APPROXIMATE POSITIONS AT 7.35 P.M.

Scale
2000 Yards 0 1 2 3 4 5 Sea Miles.

2nd L.C.S. →



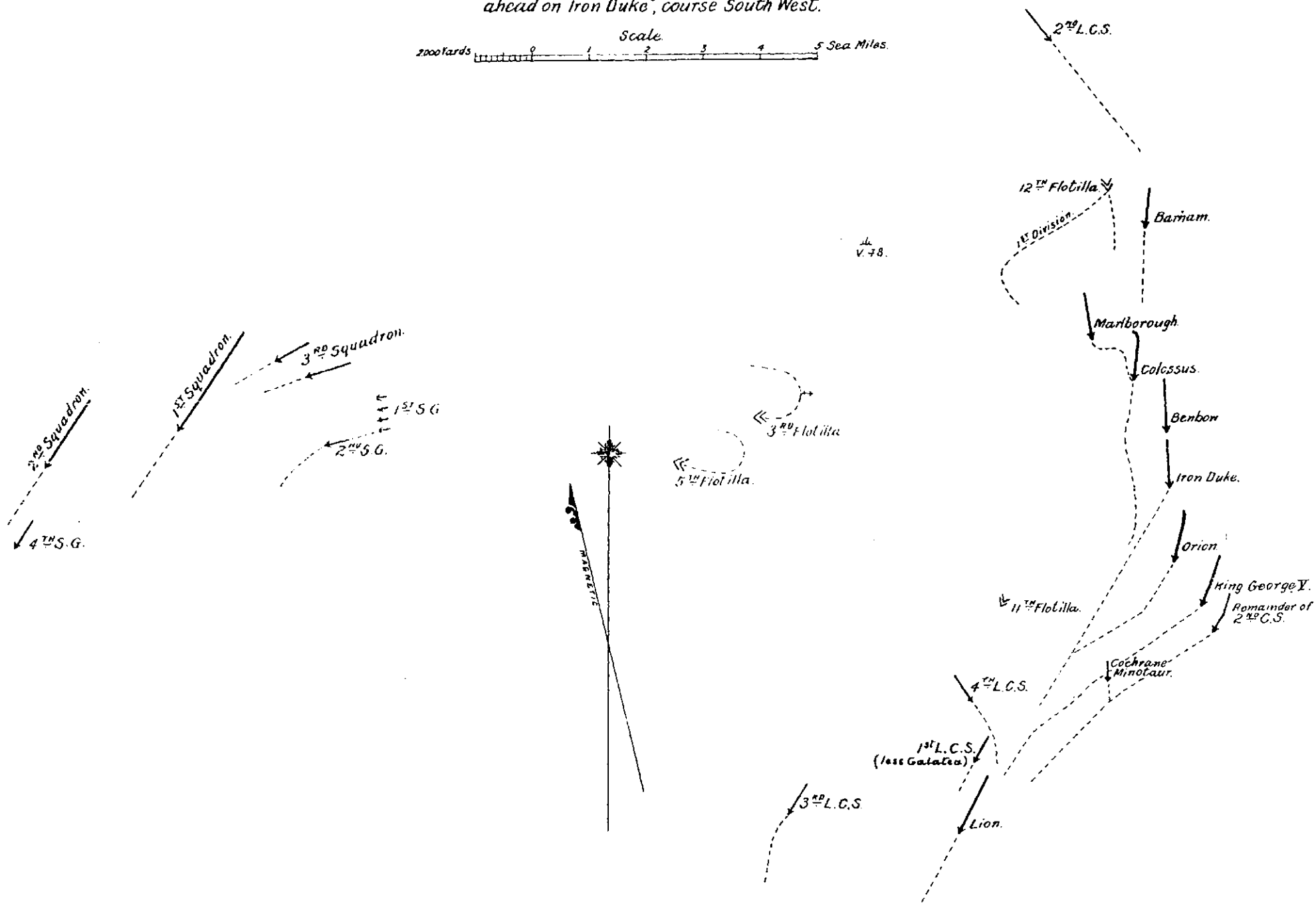
3rd L.C.S.



APPROXIMATE POSITIONS AT 7.42 P.M.

British Fleet ordered to form single line ahead on "Iron Duke", course South West.

Scale
2000 Yards 0 1 2 3 4 5 Sea Miles.



The result was that the tactics of the Battle Fleet entirely broke down. To attempt to gloss over its deficiencies or to justify its tactics between 6.35 and 8.0 p.m. means nothing less than the negation of the battleship and of Battle Fleet tactics. The turns made at 7.22 and 7.25 increased the range by about 3,500 yards,¹ and the small number of torpedoes that reached the British lines indicates that no very great risk would have been involved in maintaining the course of the fleet. But this alone would have been far from sufficient. Merely to continue a Southerly course was useless, for, to effect anything, the fleet had to turn to the westward or south-westward and adopt tactics of active pursuit. But this it could not do, for it had been accepted that there was no real counter, and that the difficulties were insuperable.² In turning, too, by divisions to South, the Battle Fleet had got itself into a radically bad formation, bad for attack and bad for defence. But at 7.20, as at 6.15, the Battle Cruiser Fleet indicated the course to take. It was making to the south-westward with the 3rd Light Cruiser Squadron.

Position at 7.35 p.m. (Diagram 38.)

69. The two turns away and the individual manœuvring to avoid torpedoes had brought the fleet into a ragged and irregular disposition. The German destroyers had retired, and at 7.35³ the Commander-in-Chief made a signal to alter course to S. by W. and form single line ahead.

By that time the absence of light cruisers and destroyers in the direction of the enemy had been partly remedied. The 4th Light Cruiser Squadron and 11th Flotilla had moved out to the westward and the fleet could have turned at once to S.W. There was still an hour and a half of daylight,⁴ and had the fleet altered course to the south-westward behind the battle cruisers and increased speed it would probably have come into action about 8.30 p.m. At 7.30 the *Lion*, which was about six miles to the south-westward, sent an important signal to the Commander-in-Chief stating that the enemy bore N.W. by W. 10 to 11 miles. This was received in the *Iron Duke* at 7.40, and at 7.42 the Battle Fleet altered course to S.W. (Diagram 39.)

The day was drawing to a close. Admiral Beatty could still see the enemy, but the Battle Fleet behind him was drawing no nearer. Doubts evidently began to rise in his mind as to the possibility of renewing the action that day; the only hope of doing so lay in pressing hotly to the westward, but alone and unsupported he could not engage the whole of Scheer's Battle Fleet.

¹ In the case of the *Marlborough* which altered only two points, the range of the torpedo was increased by less than 1,500 yards.

² Commander-in-Chief's Despatch (J.P. 3). G.F. 495.

³ Then on a S.E. course proceeding at 15 knots since 7.20.

⁴ Sunset at 8.07 G.M.T., but it was still light enough for firing at 9 p.m.

At 7.45 he made a signal by searchlight to the *Minotaur*¹ telling her to inform the leading British battleship that the enemy bore N.W. by W. course about S.W., evidently in the hope that the 2nd Battle Squadron would shape course at full speed to the S.W. by W. to support him. He followed this at 7.47 by a signal to the Commander-in-Chief: "Submit that the van of the battleships follow me: we can then cut off the whole of the enemy's fleet," and a few minutes later altered course W. by S. to close the enemy.

The signal was passed by wireless and searchlight, and reached the *Iron Duke* at 7.54. The *Calliope* and 4th Light Cruiser Squadron had been recalled by this time,² and were taking up their previous station on the starboard bow of the *King George V*. The 2nd Battle Squadron was gradually hauling round to South-West to get ahead of the *Iron Duke*. By 8 p.m. it was in position, and the Battle Fleet was once more in single line ahead on a South-West course.

Turn to West at 8.0 p.m. (Diagram 40.)

The Commander-in-Chief now decided to turn towards the enemy and the fleet altered course to West by divisions³ and increased to 17 knots. But it was now 8 o'clock: three-quarters of an hour had passed since Scheer turned away and he was already some 15½ miles off. The chance of dealing a serious blow at the German Fleet before dark was slipping rapidly away. The peculiar light conditions had been all in favour of the British, and would have resulted in the infliction of serious losses on the enemy with little or no risk⁴ from his guns had battle been joined.

The Battle Cruiser Fleet at this time was some 6 miles W.S.W. from the *King George V*, and was no longer in sight. The 3rd Light Cruiser Squadron and 1st Light Cruiser Squadron

¹ Between *Lion* and *King George V*; signal was passed to *King George V*, and on to Commander-in-Chief. Received in *Iron Duke* at 7.59.

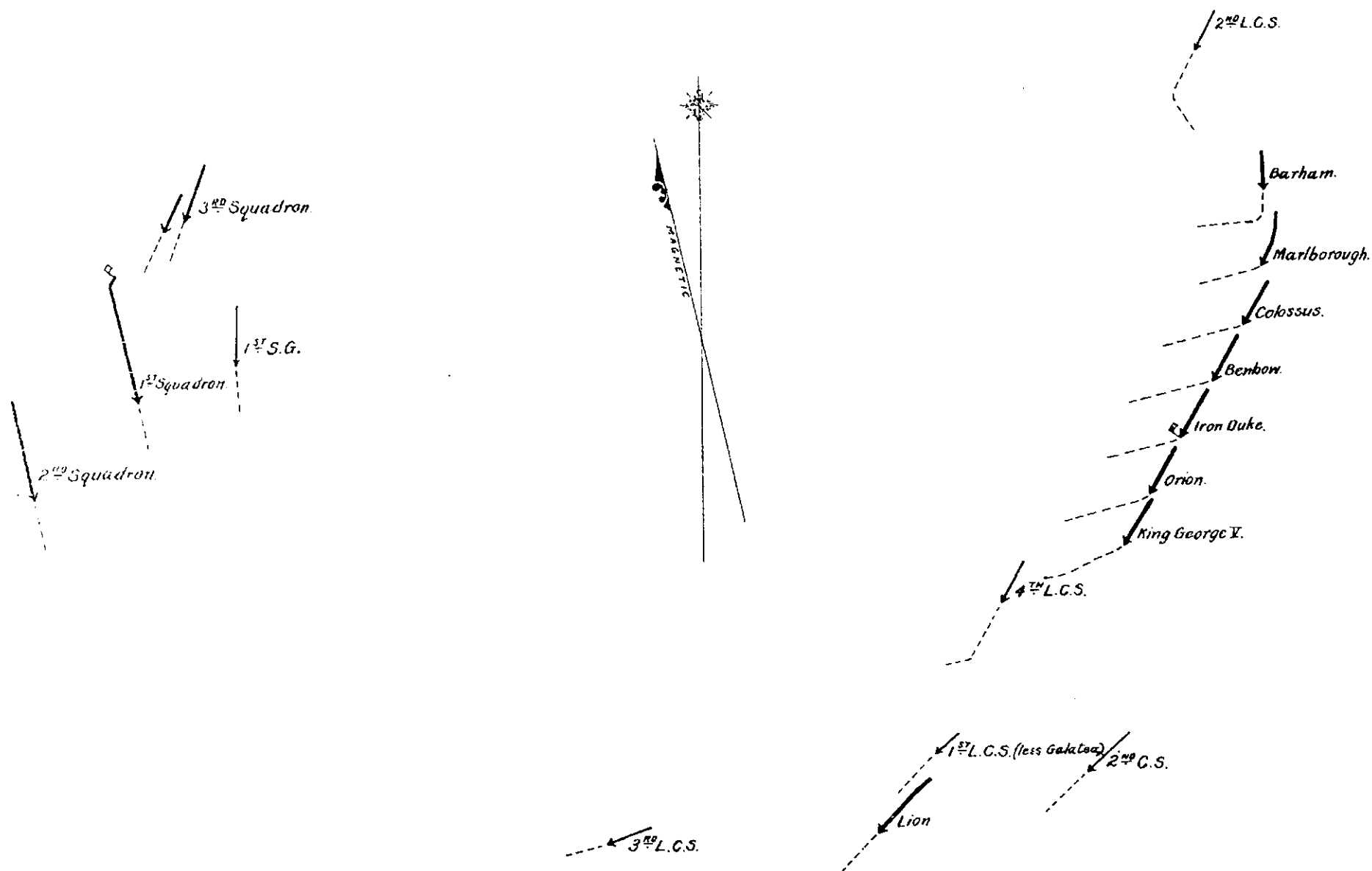
² At 7.40. Took station on *King George V* about 7.50 p.m.

³ At 7.59 Lord Jellicoe in G.F. 367 states that enemy battleships were observed to westward, that is on starboard bow of *Iron Duke* at this time, and implies that this was the cause of the turn. The only mention of the enemy at this time is in *Royal Oak's* report (J.P. 99), which states that at 7.44 enemy ships were faintly visible on the starboard quarter. These were probably the destroyers of the 3rd Flotilla.

⁴ As actually happened at 7.15. During the firing at 7.15, and later at 8.20, the Germans were only able to see the flashes of the British guns, and could not distinguish the ships. Scheer's report of the 7.15 action: "These ships suffered very severely, as they were able to distinguish little more of the enemy than the flash of his salvos." And of the action at 8.20 with Beatty's battle cruisers: "Only the flashes of the enemy could be seen. The ships which were already seriously damaged received further hits without being able to reply to the fire seriously."

APPROXIMATE POSITIONS AT 8:00 P.M.

Scale
1000 Yards 0 1 2 3 4 5 Sea Miles



were with the *Lion*,¹ and at 8.0 p.m. Admiral Beatty ordered them to sweep to the westward and locate the head of the enemy line before dark.

Scheer's Movements.

70. Meanwhile Scheer after steering to the westward for a short time had gradually brought his fleet round to South. All his ships were with him, and the *Lützow*, in spite of the hammering she had received, had rejoined her squadron, and reported that she could go 15 knots.² He now knew from the reports of his flotillas that he was confronted with the whole British Battle Fleet, and expected that every effort would be made to force him to the westward by attacks in force during the remaining hours of daylight, and by destroyer attacks at night so as to ensure bringing him to action at dawn the next day. The situation was one of extreme peril, for an action the next day might involve the practical annihilation of his fleet. His only hope lay in warding off the British encirclement. If he could reach Horns Riff by break of day he might still win through and escape the net closing around him. Every four miles he was forced to the westward meant half an hour further from Horns Riff. Scheer, it must be granted, was a man of quick appreciation and of bold and rapid decision. He decided to make straight for Horns Riff in close order during the night maintaining his course regardless of attack. The 2nd Flotilla and 12th Half Flotilla were sent to the eastward to give notice of the British approach, and all flotillas were ordered to be ready to attack during the night, though this might leave him bereft of destroyers in the battle impending the next day.

Shortly after 8 o'clock his whole fleet was proceeding South at 16 knots. The 1st Squadron was leading,³ with the 3rd Squadron a mile or so behind; a couple of miles on the starboard bow of the *Westfalen* was the 2nd Squadron⁴ trying to get ahead, with the 4th Scouting Group a mile or so ahead of it. On the port bow was the 1st Scouting Group, with the 2nd Flotilla and 12th Flotilla away to the eastward. The British Fleet he knew must be some 12 to 15 miles to the South-East.⁵

The fleets were now converging, and at 8.05 the *Calliope* sighted smoke to the W.N.W. Five minutes or so later the *Castor* sighted destroyers and ordered the 1st Division of the

¹ The 3rd Light Cruiser Squadron (*Falmouth*) was about five miles West of the *Lion*; the 1st Light Cruiser Squadron (*Inconstant*) a mile or so astern of the *Lion*.

² Scheer, 159.

³ In line ahead reversed, with the *Westfalen* leading.

⁴ Presumably *Schleswig-Holstein* leading, then *Schlesien*, *Hannover*, *Pommern*, *Hessen*, *Deutschland*.

⁵ The *King George V* bore from the *Westfalen* approximately E.S.E. about 15 miles.

11th Flotilla to attack.¹ This was the German 12th Half Flotilla or possibly the German 2nd Flotilla pushing down to the south-eastward. (Diagram 41.)

By 8.15 twelve of them could be seen, and Commodore (F) informed the Commodore, 4th Light Cruiser Squadron, who promptly proceeded with the *Calliope*, *Comus* and *Constance*² to his support.

Quarter of an hour had passed since Admiral Beatty's signal asking for the 2nd Battle Squadron had been received in the *Iron Duke*, and the Commander-in-Chief now ordered the 2nd Battle Squadron to follow him.³ This signal was presumably the answer to Admiral Beatty's signal of 7.47, but it struck no note of urgency. Did the Commander-in-Chief intend the 2nd Battle Squadron to proceed at utmost speed, or merely to follow in the direction of the Battle Cruiser Fleet? In any case, the Vice-Admiral, 2nd Battle Squadron, took no action in the matter. He did not detach himself from the fleet, nor did he even increase speed. He may have been uncertain of the position of the Battle Cruiser Fleet, or he may have regarded the Westerly course as equivalent to following the *Lion*.⁴ But he made no effort to get the *Lion's* position from the *Minotaur*, which was in sight of the *King George V* at 8.10, and could have passed the bearing and distance of the *Lion* just as she passed to the *Lion* the bearing and distance of the *King George V*.⁵ It is true that the actual effect of following the *Lion* at 8.10 would probably only have been to reduce its distance at 8.30 from 6½ to 5 miles, but this was not known to the Vice-Admiral, 2nd Battle Squadron, at the time. The *Lion's* signals were obviously urgent, and on receipt of the Commander-in-Chief's signal his course was plain. It was to proceed at full speed to support Admiral Beatty without a moment's delay.⁶ This he did not do.

71. At quarter past eight the 3rd Light Cruiser Squadron were on their way to the westward⁷ when they sighted five light cruisers W. by N. steering to the south-westward. This was the 4th Scouting Group ahead of the 2nd Squadron, and the 3rd Light Cruiser Squadron opened fire at 9,600 yards.

¹ *Ossory, Martial, Magic, Minion, Mystic, Mons, Mandate, Michael.*

² The 1st Division of the 4th Light Cruiser Squadron.

³ At 8.14, logged in *King George V* as received at 8.7 p.m.

⁴ Vice-Admiral 2nd Battle Squadron omits any reference to the incident in his report.

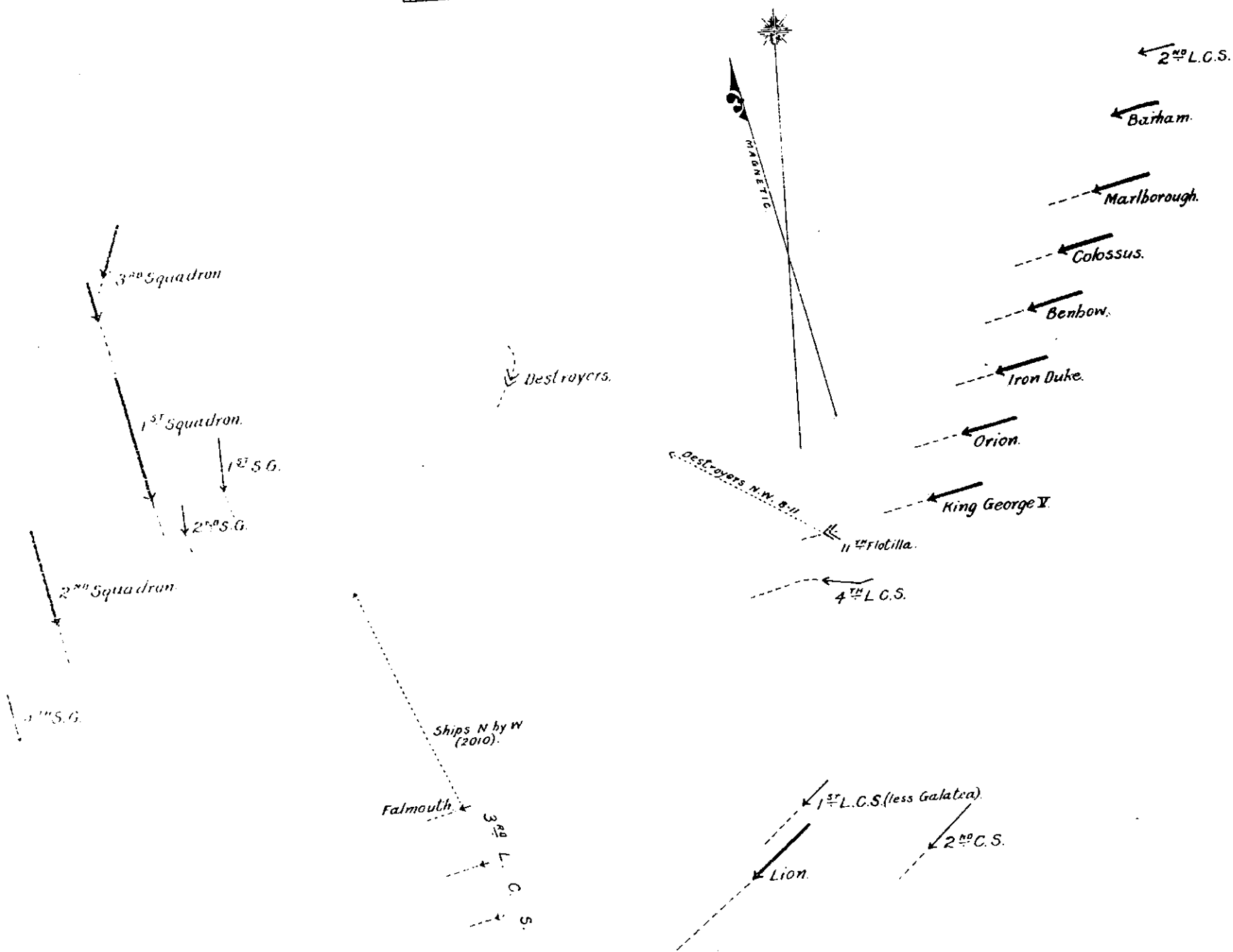
⁵ At 8.15.

⁶ Half an hour later—at 8.40 p.m., after the Battle Cruiser Force had been in action—the Vice-Admiral 2nd Battle Squadron asked Admiral Beatty for his position and course, and signalled that he was following him; but he remained with the fleet and informed the Commander-in-Chief a few minutes later that the battle cruisers were not in sight.

⁷ Spreading on a line of bearing South; Rear-Admiral 3rd Light Cruiser Squadron gives time of sighting as 8.18.

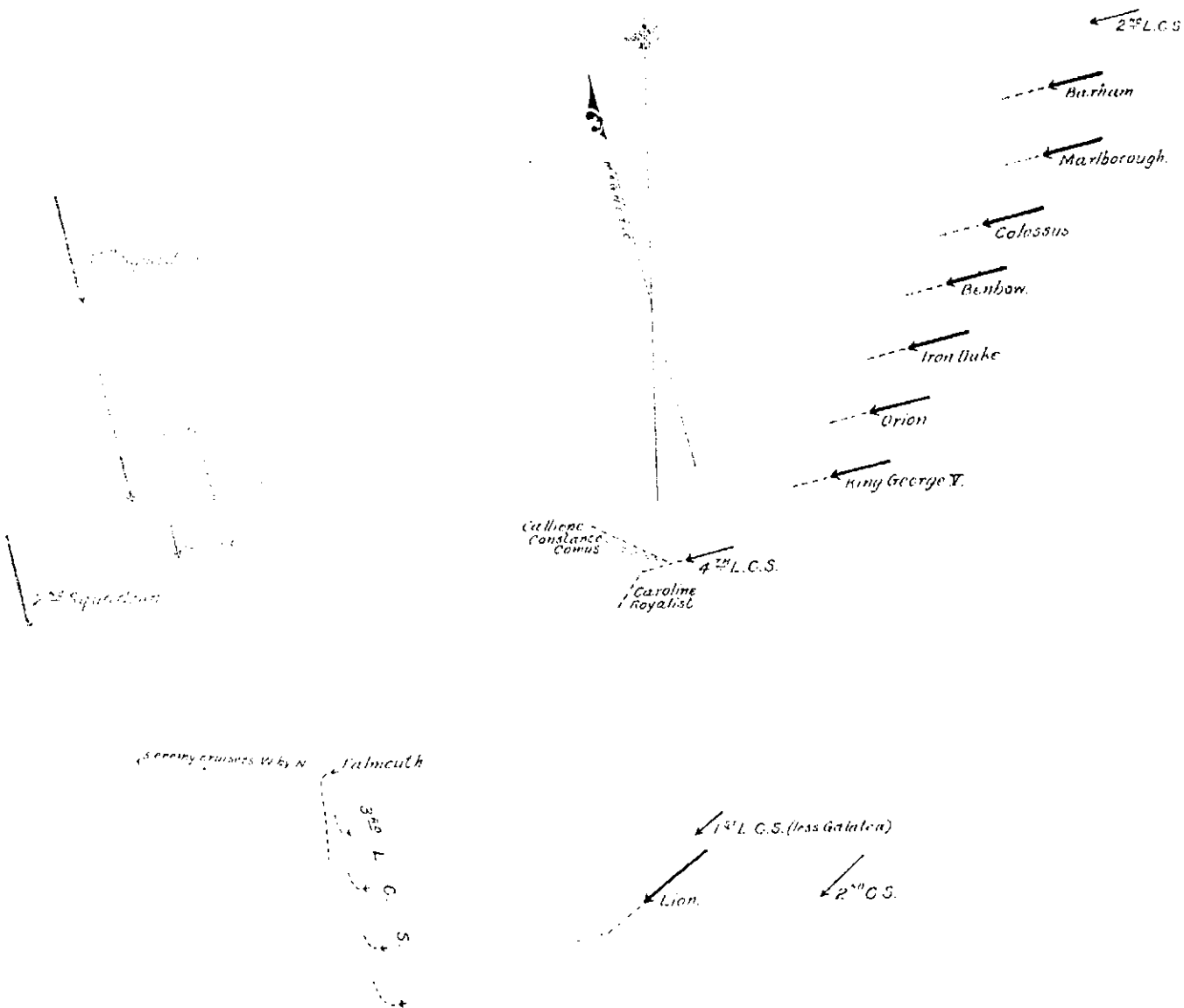
APPROXIMATE POSITIONS AT 8.10 P.M.

Scale.
2,000 Yards 0 1 2 3 4 5 Sea Miles.



APPROXIMATE POSITIONS AT 8-15 P.M.

Scale



APPROXIMATE POSITIONS AT 8:17 P.M.

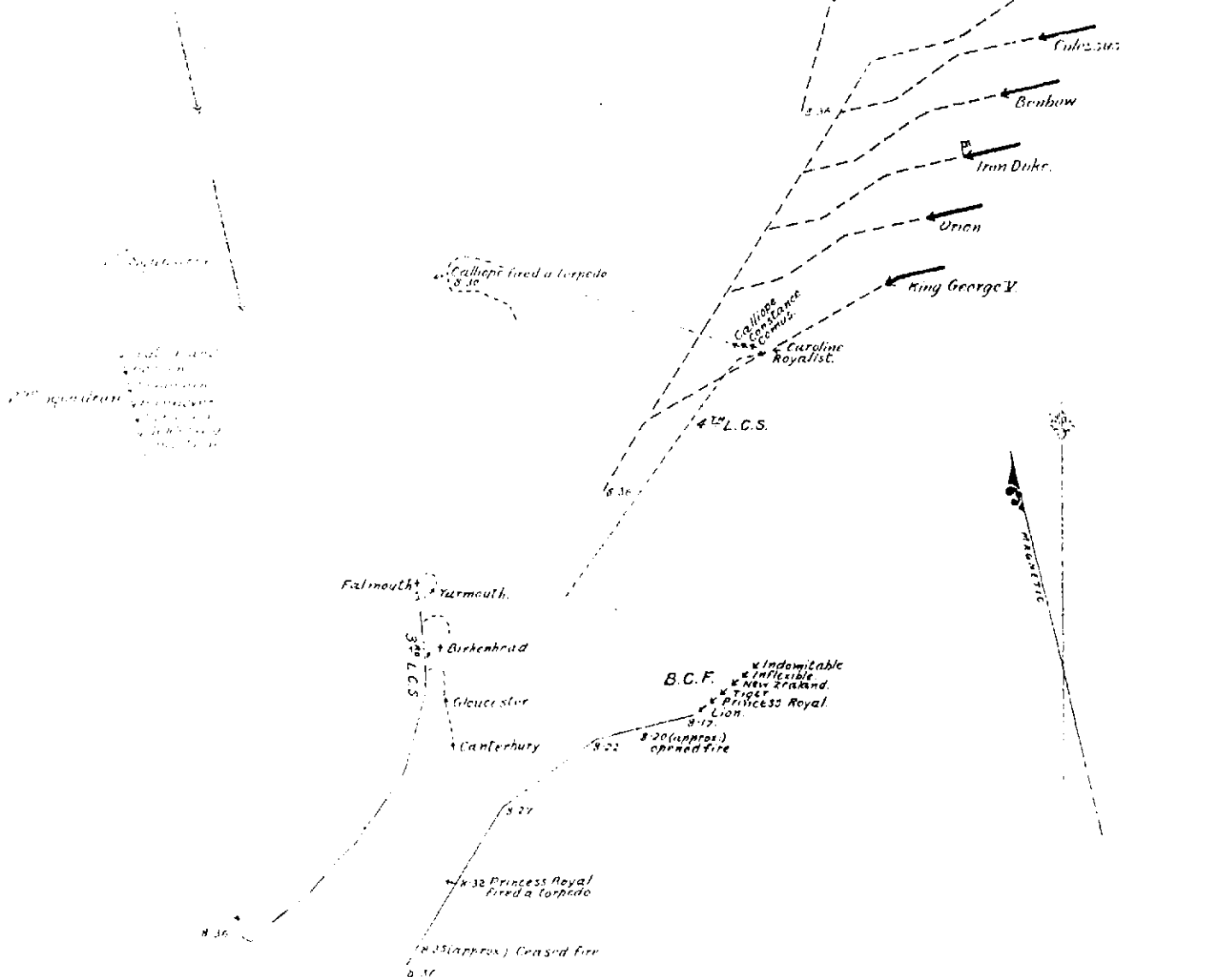
AND TRACKS TO 8:36 P.M.

Showing action between
B.C.F. and 1st S.G. & 2nd Squadron,
and between
3rd L.C.S. & 4th S.G.

DIAGRAM 43.

Scale
0 1 2 3 4 5 Sea Miles

2000 Yards



altered course to South, and increased to 25 knots.¹ (Diagram 42.)

Almost simultaneously the *Calliope*, three or four miles to the eastward of the *Falmouth*, opened fire on a half flotilla of enemy's destroyers which was steering S.S.W. towards the Battle Cruiser Fleet, and proceeded to chase them at full speed to the N.W.² Two engagements now began to develop—one five miles ahead of the Battle Fleet between the *Calliope*³ and the 12th Half Flotilla, the other six or seven miles to the south-westward of the Battle Fleet between Beatty's Battle Cruisers and the head of the enemy's fleet.

The destroyer attack never developed, and only two torpedoes reached the Battle Fleet.⁴ When the enemy destroyers saw the light cruisers, they turned and ran, and the *Calliope* and her cruisers followed at full speed. The chase lasted only five minutes. At 8.26 the enemy's Battle Fleet suddenly loomed out of the mist to the westward about 8,000 yards off. The enemy opened fire,⁵ but the *Calliope* held on for a minute or two and fired a torpedo at 6,500 yards range at the leading ship of the *Kaiser* class,⁶ then turned to fall back on the Battle Fleet. As she retired, she came under heavy fire from two *Kaisers* and a *Helgoland*. Shots were falling thick round her and she was hit five times,⁷ but got safely back with all her ships.

While the *Calliope* was driving off the enemy destroyers, the thunder of the battle cruisers' guns had broken out again to the southward. The *Falmouth* making to the westward had sighted the 4th Scouting Group ahead, and opened fire. Admiral Beatty had turned at once⁸ to the sound of the guns, and almost immediately sighted the enemy's battle cruisers to the north-westward.⁹

Beatty's squadron opened fire, and a short, sharp encounter followed which lasted ten or fifteen minutes (Diagram 43), the last time big ships were to engage during the war. The enemy were on a Southerly course with the *Derfflinger* leading,¹⁰ and the battleships of the *Deutschland* class were in sight as

¹ *Falmouth* (s), 8.14, course south; 8.17, opened fire; 8.19, speed 25 knots.

² *Commodore* (r), 8.18, opened fire on enemy's destroyers—Signal, 8.18, utmost speed.

³ *Calliope*, *Comus* and *Constance*.

⁴ *Agincourt* and *Benbow* saw tracks at 8.25 and 8.27.

⁵ At 8.28.

⁶ At 8.30. Probably the *Prinzregent Luitpold*.

⁷ One 4 in. gun was hit, and all the crew except the sight-setter were killed; a second shell disabled another 4 in. gun; a third burst in the after dressing station. Total casualties were 10 killed and 23 wounded.

⁸ 8.17. Course West.

⁹ *Princess Royal* reports sighting them at 8.18, green 60, 12,000 yards.

¹⁰ Von Hase, I.D. 1220, 38. The *Lützow* may have been with them, for *New Zealand* (r) mentions five ships.

well. The *Tiger* was apparently the first to open fire,¹ and the ranges varied from 9,000 to 13,000 yards at this time.²

The *Lion* led gradually round to the South-West,³ and the enemy altered to the westward.

The sudden outburst of firing from the South-East had taken them by surprise. Dusk was falling and they could see little more than the flashes of the British guns. It may be doubted whether the *Seydlitz* opened fire; the *Lützow* almost certainly was not in a position to do so; the *Derfflinger* had only her two foremost turrets in action, and this was quickly reduced to one by a shot⁴ which glanced off the armour, bent the rail of the turntable and jammed the turret. Help came from an unexpected quarter. Rear-Admiral Mauve's squadron of old *Deutschland*'s were ahead of the fleet, and now came into action. They turned to westward ahead of the 1st Scouting Group, and Hipper's sorely tried squadron took refuge behind them. As the three-funnelled ships came into view, the British battle cruisers shifted their fire to them.⁵ The *Princess Royal* was hit⁶ about this time but sustained no serious damage. The German battle cruisers undoubtedly received further injuries (one of them turned away on fire), and in the 2nd Squadron, the *Schlesien*, *Schleswig-Holstein* and the *Pommern* were hit.⁷

Torpedoes were used towards the end of the action, the *Princess Royal* firing one at 8.32, and a few minutes later the track of one was seen crossing the *Inflexible*'s bows—probably fired by the 2nd Scouting Group about 8.24.

About 8.29 the enemy turned to the westward and disappeared in the mist and deepening twilight.

¹ *Tiger*, 8.21, at three-funnelled battleship. *Princess Royal*, 8.22; *Lion*, 8.23.

² Ranges, 8.18, *Princess Royal*, green 60°, 12,000 yards; 8.19, *Princess Royal*, 10,000; 8.20, *New Zealand*, third ship, 13,000; 8.21, *Tiger*, 7,900; 8.22, *Princess Royal*, 9,400; 8.22½, *Tiger*, 8,400; 8.24, *New Zealand*, third ship, 11,500; 8.25, *New Zealand*, 10,400; 8.25½, *Princess Royal*, 9,625; 8.26, *New Zealand*, 9,200; 8.27, *Tiger*, 9,600; 8.26, *New Zealand*, 9,100; 8.31, *Tiger*, 10,300 (straddle); *Princess Royal*, 9,500 (three-funnelled ship); 8.32, *Tiger*, 11,100 (straddle). (J.P. 387 *et seq.*)

³ Courses, 8.17, West, 17 knots; 8.21, W.S.W.; 8.25, S.W. by W.; 8.28, S.W.

⁴ Probably from *Lion* or *Princess Royal*. The *Princess Royal* engaged leading ship (*Derfflinger*)—then the 2nd Squadron; the *New Zealand* and *Indomitable* the third ship (probably *Moltke*). The *Tiger* seems to have been in action with three-funnelled battleships all the time.

⁵ *Princess Royal*, at 8.31; *Tiger* had been firing at them the whole time.

⁶ *Princess Royal* (r), J.P. 149, about 8.32.

⁷ Each received one hit. The 2nd Squadron were in reversed order, viz., *Schleswig-Holstein*, *Schlesien*, *Hannover*, *Pommern*, *Hessen*, *Deutschland*.

While the battle cruisers were firing, the *Falmouth* and 3rd Light Cruiser Squadron had been following a Southerly course between the lines engaging the light cruisers of the 4th Scouting Group. At 8.30, when the enemy turned away, the *Falmouth* followed them to the North-West, losing sight of them in the mist about 8.40.¹

The Battle Fleet turns to South-West.

72. At 8.15, when the two fleets were again coming into contact, the British Battle Fleet was in divisions steering West, with the *King George V* on the port wing and guides of columns bearing S.W. The *Calliope* was two or three miles sharp on the bow of the *King George V*. The *Lion* was out of sight six miles to the S.W., and the *Falmouth* about nine miles to the westward.²

A few minutes later the guns of the *Calliope* and the 4th Light Cruiser Squadron opened on enemy destroyers,³ and firing could be heard away to the westward.⁴ Touch had evidently been regained, and at 8.21 the Commander-in-Chief altered course to W.S.W. two points away from the enemy. By this time the flash of Beatty's guns could be seen to the S.W., and course was altered again to West at 8.25. The *Calliope* could be seen under fire three or four miles ahead.⁵ No enemy ships were actually in sight,⁶ but the Commander-in-Chief decided to form single line ahead to the south-westward. At 8.28 the signal was made to alter course to S.W., bringing the fleet into line ahead. The enemy's Battle Fleet was then some seven miles to the westward right ahead of the *Iron Duke* before she turned. The battle cruisers could still be heard engaged to the South-West.

8.30 to 9.0 p.m.

The encounter with the Battle Cruiser Fleet was the last engagement between heavy ships, but for over an hour the two fleets were little more than six miles apart, and a constant succession of reports was coming in. The action with Beatty

¹ *Falmouth* (r), 8.38.

² From *King George V*.

³ Firing could be seen from *Royal Oak* at 8.17 p.m. *Calliope* opened fire at 8.18. Commodore (R) reported enemy destroyers N.W. to Vice-Admiral, 2nd Battle Squadron, at 8.14, but report did not reach Commander-in-Chief until 8.26.

⁴ The *Falmouth* opened fire at 8.17 p.m.

⁵ *Royal Oak*—"Hit observed on starboard quarter of *Calliope*" (J.P. 99); *Benbow*—"Heavy firing heard right ahead" (J.P. 354).

⁶ There is only one Battle Fleet report of sighting the enemy Battle Fleet at this time. *Iron Duke* (B. turret) reports "nine heavy ships ahead" at 8.25½ p.m. (J.P. 60).

had forced Hipper's battle cruisers and Mauve's pre-Dreadnoughts seven or eight miles to the westward—no inconsiderable matter in itself when every four miles in that direction meant half an hour further from Horns Riff—and Scheer now brought the 1st and 3rd Squadrons down between them and the British Battle Fleet. (Diagram 44.)

On the British side, there was ample evidence to place the enemy about seven or eight miles to the westward. The 4th Light Cruiser Squadron were two or three miles on the *Iron Duke's* starboard bow, returning to their station at the head of the fleet; and at 8.30 the *Comus* could be seen firing, and in answer to a signal from the *Iron Duke* reported that she was firing at the enemy's Battle Fleet to the westward.¹ Admiral Beatty's guns were now silent, but at 8.40 p.m. he reported the enemy ten or eleven miles to the north-westward.²

Half an hour had elapsed since the Commander-in-Chief ordered the 2nd Battle Squadron to follow the Battle Cruiser Fleet, and it was only now, at 8.40 p.m., that the Vice-Admiral, 2nd Battle Squadron, asked Admiral Beatty his position, and added that he was following him—a statement only correct in the sense that the Battle Fleet was following, for the 2nd Battle Squadron had remained with the Battle Fleet the whole time.

When the 1st Division of the 4th Light Cruiser Squadron³ had gone out to drive off the 13th Half Flotilla at 8.16, the 2nd Division, consisting of *Caroline* and *Royalist*, had remained behind keeping a couple of miles or so ahead of the *King George V* and they now got into touch with the enemy. At 8.45 the *Caroline* sighted three enemy battleships N.W.,⁴ and the *Falmouth* at the same time reported enemy battle cruisers North, going W.S.W., but as the latter was out of sight and her position uncertain, the report was probably discounted.⁵

Five minutes later the *Caroline* reported the battleships she had seen to the *King George V*⁶ and ordered the *Royalist* to attack with torpedoes.

¹ At 8.38 p.m.

² At 8.40 p.m. *Lion* to Commander-in-Chief. "Enemy battle cruisers and pre-Dreadnoughts N. 34° W., distant 10 to 11 miles steering S.W." Received in *Iron Duke* 8.59. The *Lion* gave her position as 56° 40' N., 5° 50' E. about six miles N.E. of her actual position, but her relative position was known.

³ *Calliope*, *Constance*, *Comus*.

⁴ *Calliope* (r) says N.N.W., but 4th Light Cruiser Squadron track chart (J.P. 12a) says 305°; the report also says they were pre-Dreadnoughts.

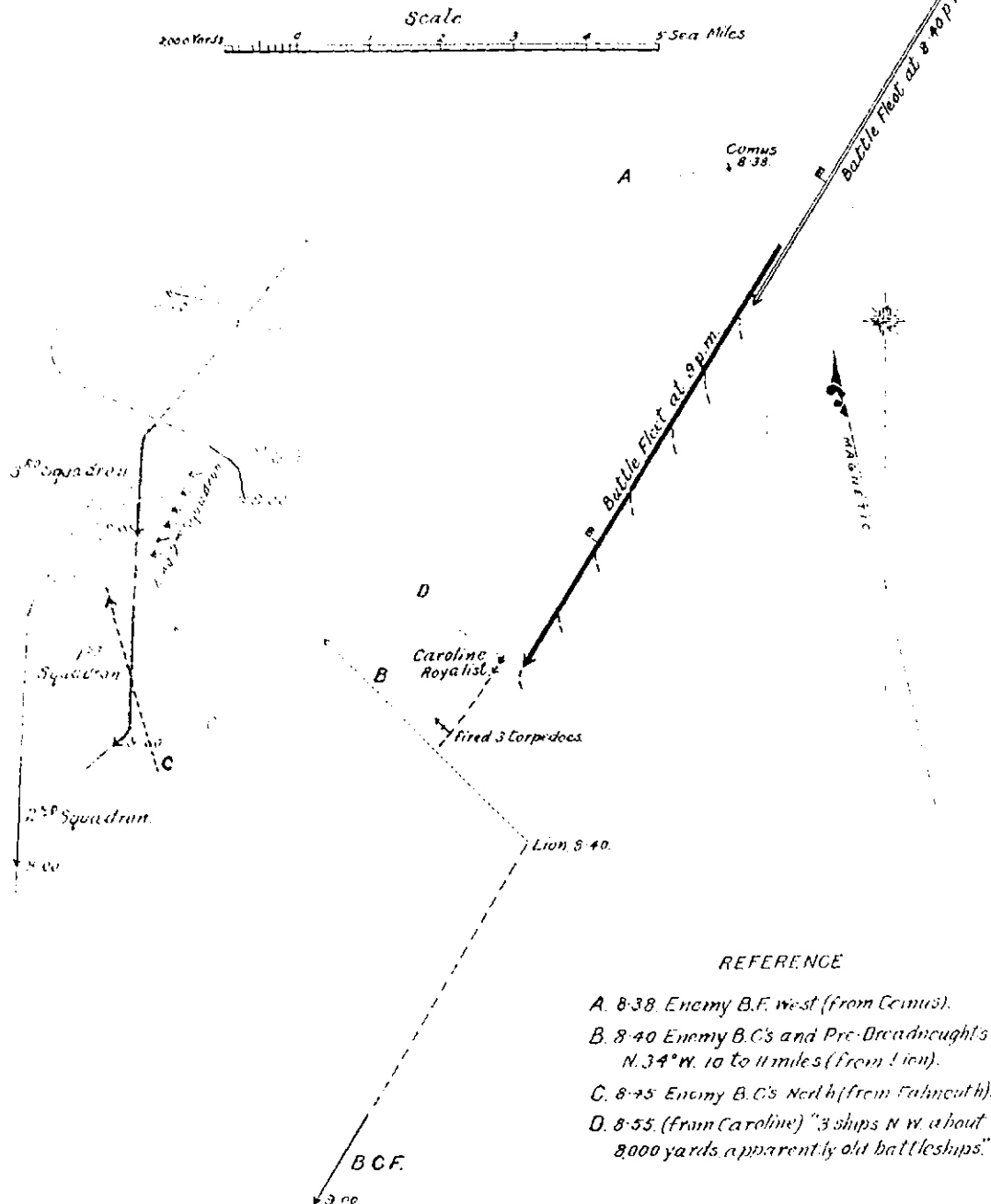
⁵ The *Falmouth* was then about 7½ miles W. of the *Royalist*. She reported her position as 56° 42' N., 5° 37' E., but as her reckoning was about five miles North-East of the *Iron Duke's*, her report would place the enemy battle cruisers about nine miles N.W. of *Iron Duke* instead of about eight miles West.

⁶ At 8.55 three ships N.W. about 8,000 yards—apparently old battleships.

RE-DISPOSITION OF GERMAN FORCES

8:40 TO 9:00 P.M.

(positions approximate only)



REFERENCE

- A. 8:38. Enemy B.F. west (from Comus).
- B. 8:40 Enemy B.C's and Pre-Dreadnought's N. 34° W. 10 to 11 miles (from Lion).
- C. 8:45 Enemy B.C's North (from Falmouth).
- D. 8:55. (from Caroline) "3 ships N.W. about 8000 yards apparently old battleships."

The dusk was now deepening but it was still light, and the Vice-Admiral, 2nd Battle Squadron, somewhat unaccountably mistook the ships for our battle cruisers¹ and negatived the attack.

The *Caroline* replied that the ships were evidently enemy battleships (which was corroborated by the *Castor* at 9.15) and made an attack.²

The enemy opened fire on them, but the *Caroline* fired two torpedoes and the *Royalist* one, all without result. The *King George V* still remained convinced that they were our battle cruisers and reported them as such to the Commander-in-Chief.³

There could be little doubt then at 9.0 p.m. that the enemy were about 7 miles to the westward going in a South-Westerly direction. Their van had engaged the Battle Cruiser Fleet; their rear had fired on the *Calliope*; they had been fired at by the *Comus*, never lost to sight by the *Falmouth*, attacked by the *Caroline* and *Royalist*, fired at by the *Benbow*,⁴ and mistaken by the *King George V* for our own battle cruisers.

Meanwhile the *Southampton* and 2nd Light Cruiser Squadron a couple of miles on the starboard quarter of the fleet had not been idle. Enemy destroyers⁵ had twice pushed up to the starboard quarter of the fleet. Two had been engaged and driven off at 8.30, and just before nine they made a more determined attack on the 5th Battle Squadron, and were again met by the fire of the *Southampton's* squadron and driven off.

¹ Vice-Admiral, 2nd Battle Squadron (r), states that he was certain the vessels on the starboard beam were our battle cruisers. The *Lion* was then about six miles ahead of him. It is possible that the Vice-Admiral, 2nd Battle Squadron, saw the 1st S.G. and mistook them for our battle cruisers, or may have been misled by the *Falmouth's* position. It is hardly possible that the *Deutschland* class could be mistaken for them. *King George V* made the "negative" at 9.6 p.m.

² It seems to have been made before it was negatived.

³ At 9.05. The enemy fired a star shell about 9.15 which ought to have sufficiently indicated their nationality, but the *King George V* did not amend her previous report.

⁴ *Benbow* turret fired at 9.4, probably at 1st Squadron.

⁵ Probably of the German 2nd Flotilla.

CHAPTER XI.

PROCEEDINGS DURING THE NIGHT.

General View of Situation.

73. The position of the two fleets at 9.0 p.m.¹ is shown in Diagram 45. The British Battle Fleet is in single line ahead, course S.W., speed 17 knots,² with the battle cruisers about eight miles ahead, also steering S.W. 17 knots. The 2nd Light Cruiser Squadron is at the rear of the battle line; the *Calliope*, *Constance* and *Comus* of the 4th Light Cruiser Squadron at its head on the port bow of the *King George V*, with the *Royalist* and *Caroline* on the starboard side. The 1st Light Cruiser Squadron³ and 3rd Light Cruiser Squadron are on the starboard side of the Battle Cruiser Force with the 2nd Cruiser Squadron⁴ on its starboard quarter. The *Galatea*⁵ is on the port side of the Battle Fleet making for the head of the line. The 4th and 11th Flotillas, with the *Castor* (Commodore F.), are ahead and the 9th, 10th, 12th and 13th Flotillas at the rear of the battle line. The 1st Flotilla is in company with the battle cruisers.

The German 1st and 3rd Squadrons are approximately W. by N., 6' from the *Iron Duke*, in single line, steering South by West, the van led by the *Westfalen*.

The 2nd Squadron and 4th Scouting Group are on the 1st Squadron's starboard bow, also steering South by West, and on the port quarter is the 1st Scouting Group.

The enemy Battle Fleet was not sighted from the Battle Fleet after 7.59 p.m.,⁶ but, as explained in Chapter X, the Commander-in-Chief could have had no doubt of their approximate position at 9.0 p.m.

¹ It was still light at 9 p.m. J.P. 74, *Hercules* (r): "9.5 p.m., weather misty; visibility two to five miles." J.P. 289, *Duke of Edinburgh* (r): "10 p.m., too dark for long-range firing; went to night defence stations." J.P. 297: "9.5 p.m., *Caroline* and *Royalist* engaged with enemy's battleships at four miles range." J.P. 284: "8.45 p.m." *Shannon* reports *King George V* in sight at five miles range.

² The 6th Division (*Marlborough*, *Revenge*, *Hercules* and *Agincourt*) and 5th Battle Squadron were slightly astern of station.

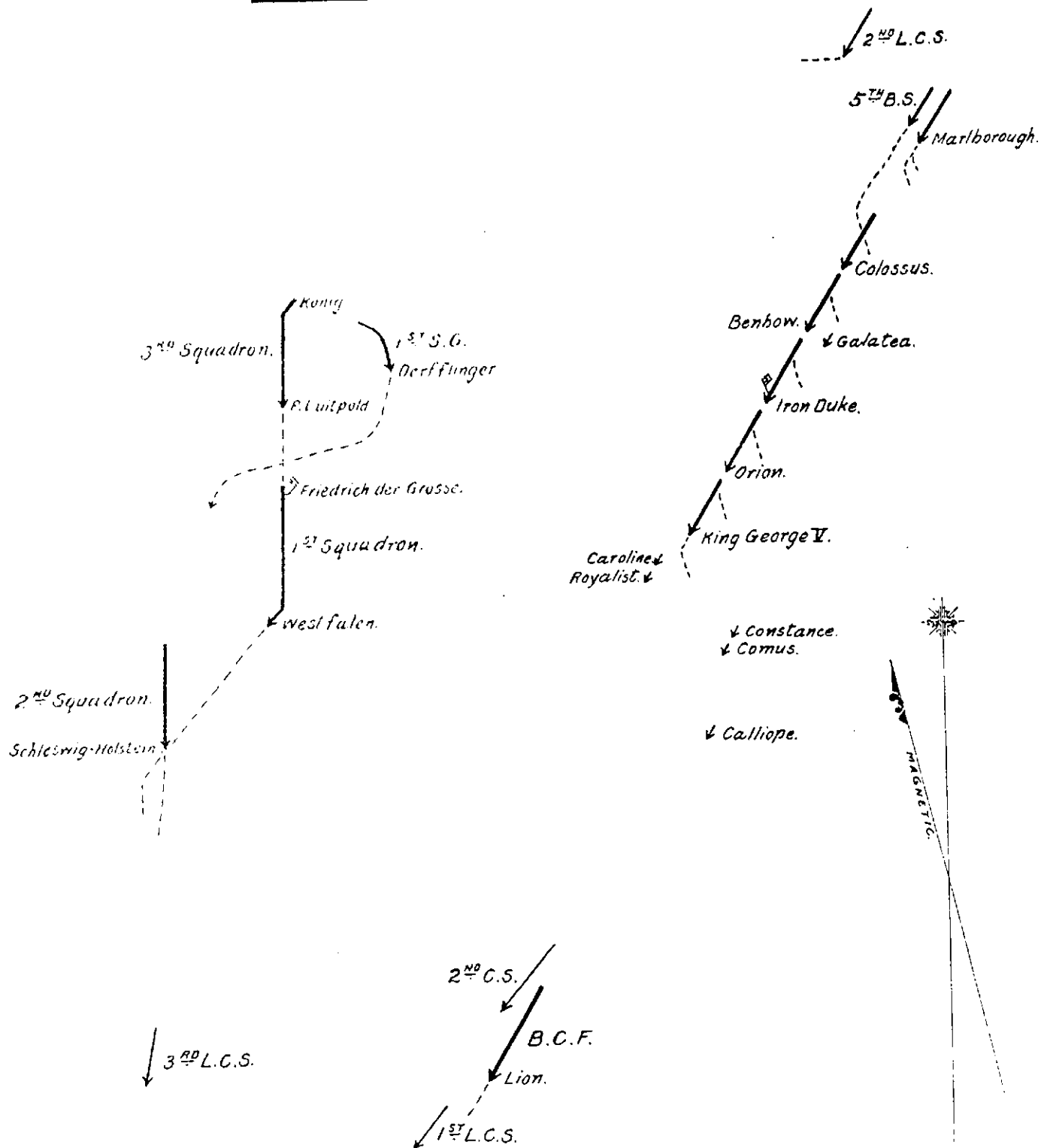
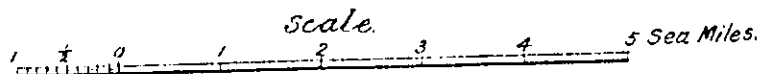
³ Less *Galatea*.

⁴ Plus *Duke of Edinburgh* and *Chester*.

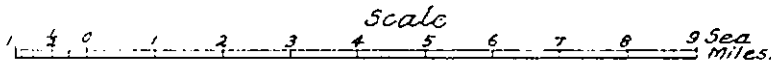
⁵ At 6.7 p.m. *Galatea*'s speed had been temporarily reduced to 18 knots by damage to forced draught fan.

⁶ G.F. 367 states that enemy battleships were sighted to westward on the starboard bow at 7.59 p.m. Lieutenant-Commander Calvert in *Iron Duke*'s turret saw nine heavy ships ahead at 8.25 (J.P. 60), but this was an individual observation. The *King George V* sighted enemy battle cruisers, which she at first mistook for British, about 9.5 p.m. They fired at the 4th Light Cruiser Squadron, and it is probable that they were observed by other ships in the Battle Fleet.

APPROXIMATE POSITIONS AT 9:00 P.M.



ERRORS IN PLOTTING DUE TO THE DIFFERENCE IN RECKONING OF THE IRON DUKE AND LION.



1930°
(from Lion).

REFERENCE.

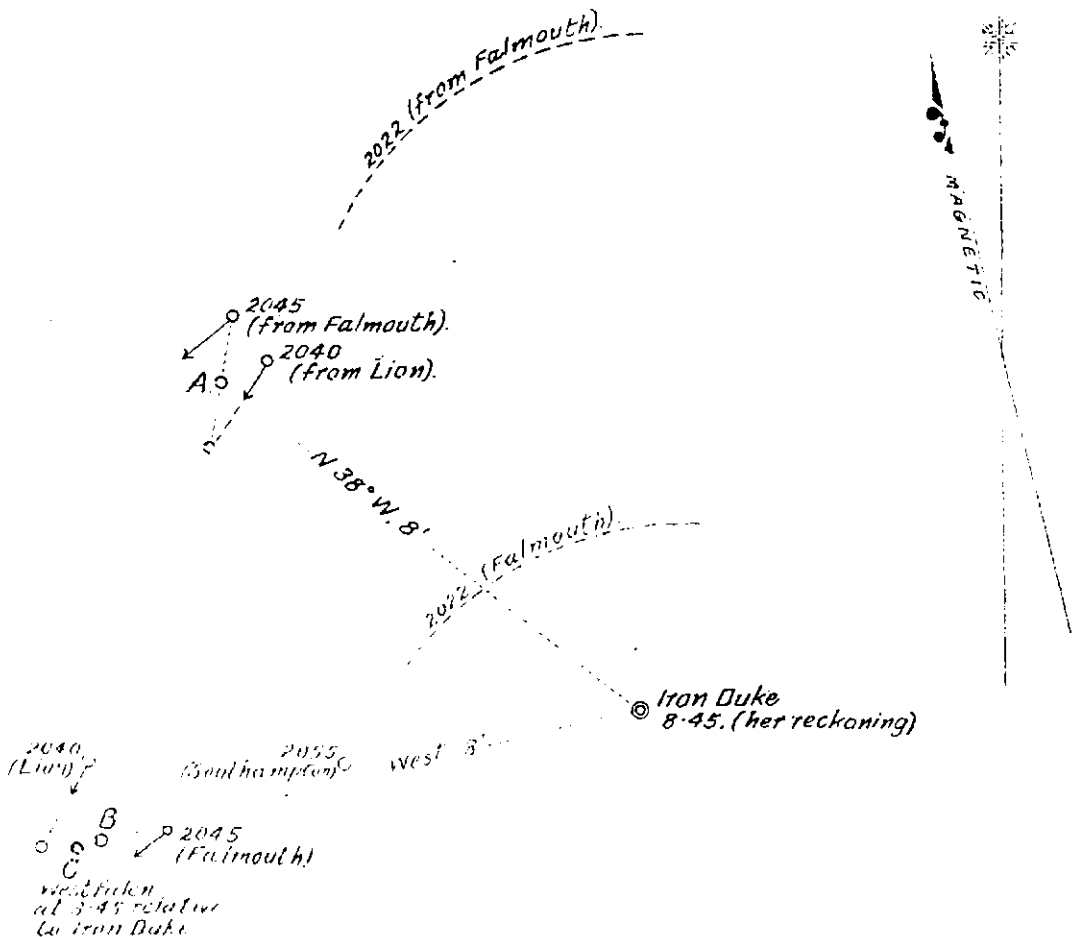
The plotted positions are shown in black.
These positions corrected for the difference
in reckoning are in red.

A is the enemy's van at 8.45 p.m. plotted in accordance
with the signalled reports—N.38°W. 8 miles from the Iron Duke.

B is the same position corrected to the Iron Duke's
reckoning—West 8 miles from Iron Duke.

C is the actual position of the Westfalen, the leading
German Dreadnought, relative to the Iron Duke.
It is practically coincident with B.

1930
Lion.



2055
(from Southampton).

If the High Sea Fleet had not been so close, the difference between the reckoning of the *Iron Duke* and the Battle Cruiser Fleet would have made its location difficult. In Diagram 46 the reports of the *Lion*, *Falmouth* and *Southampton* between 7.30 and 9.0 p.m. are plotted so as to emphasise this point. But if the actual position of the Battle Cruiser Fleet had not been known,¹ the Battle Fleet might have been misled by these signals. The whole service of tactical scouting depends on synchronizing the reckoning of detached forces to that of the Battle Fleet. Although an opportunity for this occurred between 6.10 and 6.35, and again between 7.10 and 7.35 p.m., when the *Lion* was in sight of the *Iron Duke*, and although great stress was laid on this particular point in the Battle Orders,² it was not done.³

State of the Two Fleets.

74. The day was over and it was possible to survey the situation. As a result of the fighting the British had lost the *Queen Mary*, *Indefatigable* and *Invincible*. The *Lion* and *Princess Royal* had each one turret out of action, but the battle cruisers were otherwise ready and fit to renew the action. The *Warspite* was returning to Rosyth, and the guns' crews of the *Malaya's* secondary battery had suffered heavy casualties, but with these exceptions the steaming and fighting qualities of the 5th Battle Squadron were practically unimpaired. In the Battle Fleet the speed of the *Marlborough* had been slightly reduced, and the *Colossus* had five men wounded, but for all practical purposes it was as fit for action as on the day it left harbour. The *Defence* and three destroyers⁴ had been sunk, and the *Warrior* and three destroyers disabled.

On the German side, the *Lützow* and *Seydlitz*, two of their most powerful battle cruisers, were incapable of renewing the action; the former had received about 40 large calibre hits, and the latter 24 besides having been torpedoed. Nor was the

¹ The battle cruisers had been in sight of the Battle Fleet until about 7.35 p.m. Their course and speed were reported at 7.40 p.m., and the flashes of their guns were seen from the Battle Fleet at 8.20. The 2nd Cruiser Squadron, too, was in sight of both Battle Fleet and battle cruisers until 8.15 p.m. Lord Jellicoe says that during this period he assumed the *Lion* to be five or six miles ahead of the van of the Battle Fleet. G.F., p. 366.

² G.F.B.O. XXII, para. 6: "Attention is called to the vital necessity of indicating the position based on the Commander-in-Chief's reference position in all reports of the enemy; unless this is done, officers not in visual touch can make no use of the signals . . . and the most serious consequences may arise."

³ Reference positions were made at 0.40 p.m. and 9.48 p.m., the former by visual and the latter by wireless, but the Battle Cruiser Fleet was not in sight at either time.

⁴ *Nestor*, *Nomad* and *Shark* sunk. *Acasta*, *Onslow* and *Defender* disabled.

Derfflinger much better off; she had 3,400 tons of water on board, and only one turret and two 5·9 in. guns fit for action.¹ There remained only the *Von der Tann* and *Moltke*, and the latter had one turret out of action.² The battleships had not suffered so severely as the battle cruisers, but the powerful 3rd Squadron had lost some of its fighting value.³ The *König's* fore part was flooded, and she had been hit by ten large projectiles, whilst the *Grosser Kurfürst*, *Markgraf* and *Kaiser* had received 15 hits between them. The 1st and 2nd Squadrons had escaped with little damage, but the *Wiesbaden* and four torpedo boats⁴ had been sunk.

Although the absolute losses were heavier on the British than the German side, the actual result was to increase the relative superiority of the British battle cruisers. Four modern and five older British battle cruisers had originally been opposed to four modern and one older; but now at the end of the day the British had three modern and three older battle cruisers fit for action against only one modern and one older—the *Moltke* and *Von der Tann*.

To the Commander-in-Chief the situation may have appeared in a still more favourable light, for he did not know the full extent of the British losses, and was spared any anxiety as to the *Queen Mary* and *Indefatigable*. He knew only that the *Invincible*⁵ had been sunk and that the *Marlborough's* speed had been reduced to 17 knots.⁶

It was not till the next day that he learnt of the fate of the *Queen Mary* and *Indefatigable*.⁷

The loss of the *Defence*, too, must have been known; and the *Warrior* had reported both engines disabled at 8.37 p.m. No reports had been made to the Commander-in-Chief as to destroyer casualties, and he would only be aware of those that came under his immediate notice.⁸

For an estimate of the state and efficiency of the German Fleet, the Commander-in-Chief could rely on his own observation.

¹ Von Hase.

² See Appendix D for hits on German ships.

³ Scheer's Report. J.P. 598.

⁴ V.27, V.29, V.48 and S.35.

⁵ J.P. Signal made at 7.3 p.m.

⁶ J.P. Signal made at 7.49 p.m.

⁷ "I was unaware of the loss of the *Queen Mary* and *Indefatigable* until the morning of June 1." G.F. 328. The Commander-in-Chief seems to have mistaken the *Indomitable* and *Inflexible* for the *Queen Mary* and *Indefatigable*, for on meeting the Battle Cruiser Forces the next morning he asked Beatty at 5.55 a.m. what he knew of the movements of the *Indomitable* and *Inflexible*, though these two ships were actually with the Battle Cruiser Forces and in sight of the *Iron Duke*. At 11.4 a.m. the Commander-in-Chief asks: "when did the *Queen Mary* and *Indefatigable* go?"

⁸ Probably only the *Acasta*.

BRITISH AND GERMAN MINEFIELDS UP TO 1ST JUNE, 1916
AND THE
GERMAN SWEEP CHANNELS IN THE HELIGOLAND BIGHT.

Horns Reef
L & V.

Vyl
L & V.

Mines
laid by
Abdiel
1.30 a.m. 1st June.

Amrum Bt

Heligoland

Sylt

Elbe R.

Jade R.

REFERENCE.

— British minefields.
— German " " swept channels.

On the two occasions when the Battle Fleet was in effective range of the enemy, the latter's ships were seen to be repeatedly hit and to be incapable of effective reply. The *Iron Duke* herself had one of the *König* class under an accurate fire from 6.30 to 6.37 p.m., and she was not even fired at in return. The Commander-in-Chief had also seen the three torpedo attacks made by the enemy flotillas at 7.10, 7.25 and 8.15 p.m. driven off without difficulty, and two German boats destroyed. Only one ship on the British side had been hit by a torpedo, and she was still in the line fit for action. So far, then, as the Commander-in-Chief could judge of the situation, he could look forward with confidence to a renewal of the battle. The gunnery of the Grand Fleet appeared to be undoubtedly superior to that of the enemy, and the threat of the torpedo had proved less serious than was anticipated.

The fighting had also revealed the mind and intentions of the German Commander-in-Chief in a very definite and satisfactory manner. He had turned away in every encounter with the Battle Fleet, and it was clear that his one idea was to avoid action and return to harbour.

The Problem before the Commander-in-Chief.

75. The Commander-in-Chief decided very rightly not to fight a night action, and the problem now before him was to intercept the enemy in daylight before he reached the shelter of his shore defences.

This problem resolved itself into two main aspects—the danger of minefields and the probable route of the enemy. Reference to Diagram 47 will show that minefields offered no real obstacle above the latitude of 55° N., whilst South of it only British minefields stood in the way of the pursuit of the German Fleet *via* the Horns Reef route. But the position of these was known; they could be regarded in the same light as shoal water, and there was even a possibility of driving the German Fleet towards them. The latest information as regards German minefields was contained in H.F. 005 of May 25, 1915¹.

There was next the question of Scheer's probable route. These were limited to four—the Kattegat and the three channels

¹ Mining Memorandum H.F. 005 of May 25, 1915, stated that a German minefield was reported to exist from a position $10^{\circ} 258'$ from Heligoland towards a gas buoy in $53^{\circ} 52' \text{ N.}, 7^{\circ} 15' \text{ E.}$, and probably beyond that buoy towards Baltrum Island (Lat. $53^{\circ} 44' \text{ N.}, \text{Long. } 7^{\circ} 33' \text{ E.}$). It went on to say that "the waters between Heligoland and the northern end of the above line are believed to be mined, with a swept channel through. A black conical buoy is reported in $53^{\circ} 52' \text{ N.}, 7^{\circ} 8' \text{ E.}$ Vessels should not pass to eastward of a line drawn $33\frac{1}{4}^{\circ}$ from this buoy. A German minefield is reported to exist in the area formed by a parallelogram, two of whose adjacent sides are drawn 20 miles 253° and 7 miles 153° from Lat. $53^{\circ} 56' \text{ N.}, 6^{\circ} 56' \text{ E.}$ "

(NOTE.—The above fields are in the Ems to Nordeney and Nordeney to Heligoland areas.)

which the Germans kept regularly swept in the Bight in response to British minelaying. Return *via* the Kattegat was unlikely. Scheer was 344 miles from the Little Belt, and a choice of this route would give the British a whole day to chase and renew the action. The channels or "ways" kept swept in the Bight were three in number—one past the Ems along the Frisian coast, one radiating to the North-West from Heligoland, and one by Amrum Bank and Sylt to Horns Riff.¹ These "ways" were known at the Admiralty and their general direction had been communicated to the Commander-in-Chief.

The Ems route was improbable, for it was long and round about. Heligoland and Horns Riff were the most likely,² and Horns Riff the more probable of the two.

At the Admiralty there were very distinct indications that the Heligoland route was not in use. The routine signals made in the Bight were intercepted daily and decoded in Room 40,³ and the minesweeping signal in force on May 28 appeared to rule out the Heligoland route.⁴ There is, however, no trace of this important piece of information having been communicated to the Commander-in-Chief, and it seems probable that it never reached him. This must be regarded as a serious omission, for the Commander-in-Chief, at 9 p.m., was evidently thinking both of the Ems and Heligoland routes.⁵

At the same time it was obviously unsound to rely wholly on assumption. The enemy might have made for the Kattegat, and definite arrangements ought to have been made and orders issued for keeping in touch with him during the night.

A glance at the chart⁶ will show that a favourable position for intercepting a fleet making for either Horns Riff or Heligoland was about 10 miles to the south-westward of the Horns Riff Light, for the shallow water made the passage of large ships to the eastward of the Light extremely improbable. From Scheer's 9 p.m. position to a point 10' to the South-West of Horns Riff was 90'. Allowing some delay in getting round the

¹ See Diagram 47.

² See Diagram 48. From Scheer's 9 p.m. position to Sylt *via* Horns Riff was 142'. To Heligoland *via* the Heligoland way was 175.

³ Room 40 at this time was not under the Director of the Naval Intelligence Division. Special intelligence was not sent regularly to the Commander-in-Chief till August, 1917.

⁴ German message, decoded 7.16 p.m., May 28, 1916: "The way from Horns Riff East of Amrum Bank is free of mines, and also the way to the Ems from 31 epsilon (54° 3' N., Long. 5° 15' E.) and 61 epsilon (53° 33', 5° 45' E.), area 7-147 beta (54° 33' N., 7° 45' E.) is suspected of mines. Mines were found in 117 beta area 7 (54° 27' N., Long. 7° 15' E.)." The suspected area and the one in which mines were found fouled Scheer's return route *via* Heligoland.

⁵ Commander-in-Chief's despatch, J.P. 21: "Should be favourably placed to intercept the enemy should he make for his base by steering for Heligoland or towards the Ems."

⁶ See Diagram 48.

NOTE The German swept channels are shown thus:-

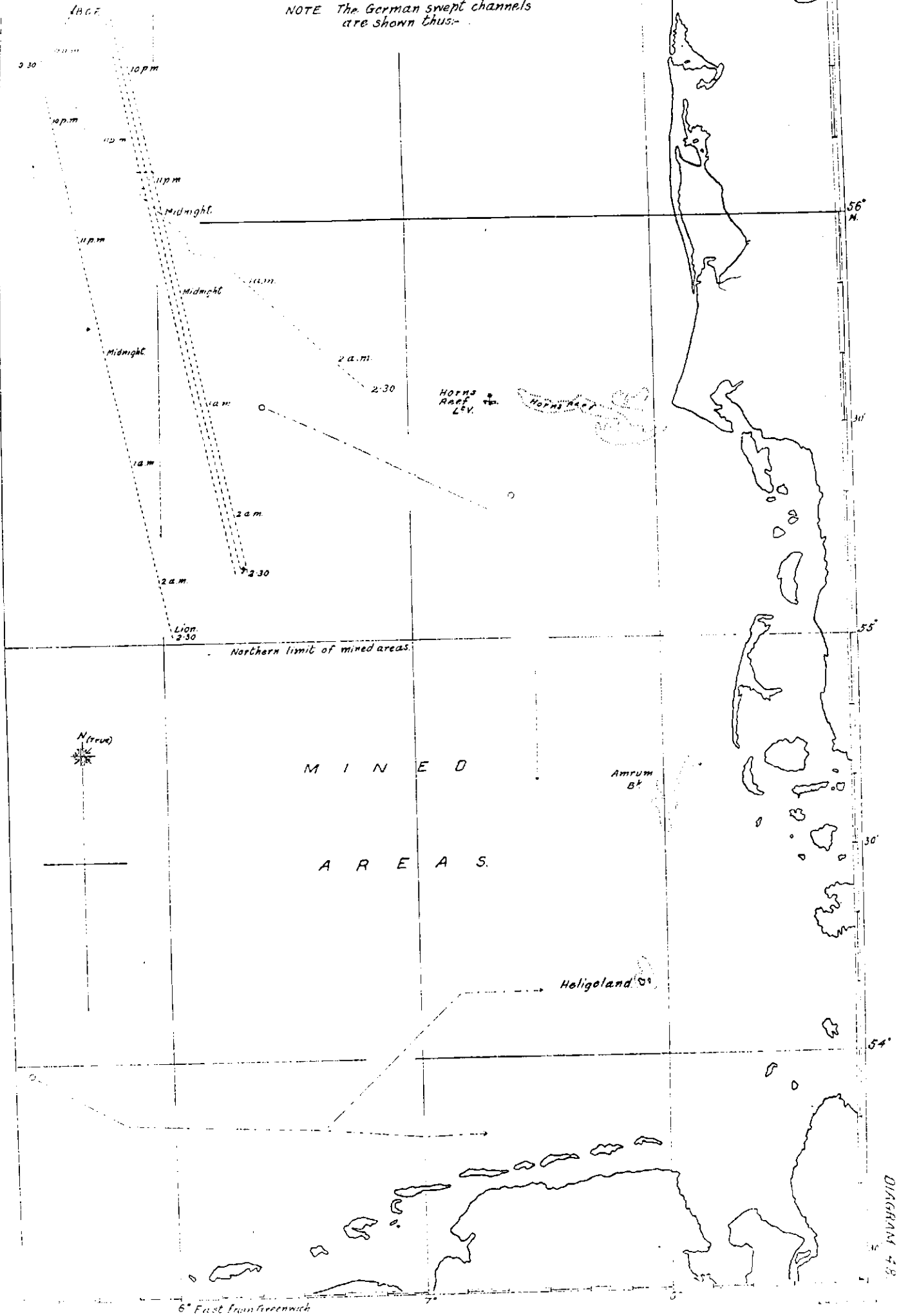


DIAGRAM 78

GERMAN BATTLE
SQUADRON FLEET

Midnight.

24

Midnight

Midnight.

20. 71.

2.30

Horns
Reef
Lcy.

Horns Reef

Northern limit of mined areas.

M	I	N	E	D
---	---	---	---	---

A R E A S.

Amrum
B*

Heligoland. 5

British Fleet, and crediting his fleet with an average speed of 16 knots,¹ he could not get there before 3 a.m., half an hour after daylight.² The British Fleet was nearer and could go at least two knots faster than the German. It was imperative to prevent the High Sea Fleet slipping past unobserved, and the Grand Fleet had only to keep in touch with it in order to force it to fight at daylight. By 11 p.m. there could have been no further doubt as to its destination. Its destination was Horns Riff.

Narrative of Proceedings.

76. At 9.01 p.m. the Battle Fleet was turned by divisions to South, speed 17 knots. The Commander-in-Chief states: "I was loath to forego the advantage of position which would have resulted from an Easterly or Westerly course, and I therefore decided to steer to the southward, where I should be in a position to renew the engagement at daylight, and should also be favourably placed to intercept the enemy should he make for his base by steering for Heligoland or towards the Ems and thence along the North German coast."³ The reasoning is difficult to follow, for the course ordered by the Commander-in-Chief was on the direct line to the Ems, and if it were continued during the night the fleet must find itself at dawn (2.30 a.m.) 43 miles to the south-westward of Horns Riff and 25 miles to the westward of Scheer's direct course to Heligoland,⁴ in either case much too far off to force him to action. The course decided on left the enemy fleet free to retreat by Horns Riff, the Kattegat, or Heligoland, unless it were merely intended as a temporary measure pending further information of the enemy's movements. At about 9.05 p.m. the *King George V* sighted the enemy's battle cruisers bearing West-North-West, but mistook them for British, reporting them to the Commander-in-Chief as such, and negating a signal of the *Caroline* to attack with torpedoes. The *Castor* and 11th Flotilla were also ready to attack, but apparently owing to the lack of support from the Battle Fleet did not do so. Meanwhile, the enemy battle cruisers turned away to starboard, and some enemy battleships opened fire on the *Caroline* and *Royalist*. The former fired one torpedo and the latter two, but without result. A good opportunity of dealing a final blow at the already beaten German battle cruisers was thus missed, and the whole incident shows a grave lack of tactical co-operation, which must be partly attributed to a rigid and inelastic system of command. Here was the Battle Fleet within effective range

¹ The German 2nd Squadron could not steam more than 16 knots, and some of his ships were known to be damaged.

² Cf. *Shannon*, "2.45 a.m., *Lion* in sight bearing South six miles"; *Colossus*, "2.15 a.m., 'general quarters'"; *Lizard*, "2.30 a.m., Zeppelin six to seven miles away"; *Fearless*, "When daylight broke . . . and . . . at 2.45 a.m."

³ Commander-in-Chief's despatch, J.P. 21.

⁴ See Diagram 48.

of the enemy, offering a good opportunity of dealing one final blow before dark. But the Battle Fleet did not recognise the enemy. It mistook him for Beatty's battle cruisers, which were really eight miles ahead. Surely it was the business of the 2nd Cruiser Squadron to keep it better informed. It mustered six ships¹ lying between the *King George V* and the *Lion*, actually in sight of both until about 8.15 p.m.² Though it was of vital importance to maintain continuous and clear visual communication, this force remained concentrated and apparently thought only of maintaining its deployment position on the quarter of the battle cruisers.³ Its true function was lost in blind obedience to the letter of the deployment diagram. Similarly the van of the Battle Fleet seems to have thought only of maintaining station on the Commander-in-Chief. It neither pressed forward in support of the battle cruisers nor did it endeavour to maintain visual touch with them by means of the 2nd Cruiser Squadron.

At 9.17 p.m. the Battle Fleet assumed the second organisation (*vide* Appendix B) and formed divisions in line ahead columns one mile apart, disposed abeam to port from the *King George V*. The *Marlborough's* sub-division⁴ was by this time two to three miles astern of station, with the 5th Battle Squadron between it and the Main Fleet. The object of the closer formation was to ensure the divisions remaining in sight of each other during the night and prevent ships mistaking each other for enemy vessels.⁵ At 9.27 p.m. the destroyer flotillas were ordered to take station astern five miles. Admiral Jellicoe states that it was intended to provide the Battle Fleet with a screen against torpedo attack, and also to give them a chance of attacking the enemy's heavy ships should they also be proceeding to the southward. But this was not communicated to the destroyers, and not a word was told them of the formation and disposition of their own fleet nor of the position and probable course of the enemy. To tell a flotilla merely to take station astern was worse than nothing at all. It was a justification of inactivity. It was equivalent to telling a brigade to march on a certain road and await further orders. At 9.30 p.m. the Battle Cruiser Fleet altered course to South, speed 17 knots. The *Lion* now bore about 13 miles West-South-West from the *Iron Duke*, maintaining this position during the night. No instructions were issued as to the Commander-in-Chief's intentions, but Beatty states that he considered he would be carrying out the Commander-in-Chief's

¹ The 2nd Cruiser Squadron accompanied by *Duke of Edinburgh* and *Chester*.

² *Shannon* (r). (J.P. 280.) *

³ *Minotaur* (r). "It was now decided that the place for our squadron was on the quarter of the Battle Cruiser Squadron, which would be in conformity with the plan of the deployment." (J.P. 272.)

⁴ *Marlborough, Revenge, Hercules and Agincourt*.

⁵ Commander-in-Chief's despatch. (J.P. 21.)

wishes by turning to the course of the fleet so as to ensure that the enemy did not regain his base by passing round the Southern flank of the fleet.¹

77. Meanwhile Scheer had also been disposing his fleet for the night. He had ordered the officers commanding the 1st and 2nd Torpedo Divisions to launch all flotillas to the attack during the night,² and they had therefore distributed them over the various sectors where the British were expected to block the passage to Horns Riff. At 9.14 p.m. Scheer ordered the Main Fleet to proceed in, course S.S.E.½ E., speed 16 knots. The 1st Squadron, which had scarcely been in action, was at the head of the line, followed by the 3rd Squadron, both being in reverse order with the *Westfalen* leading, and at 9.29 p.m. the 2nd Battle Squadron was directed to take station astern of the 3rd Squadron.³ At the same time the battle cruisers were placed in the rear, but as the *Lützow* had been left behind and the *Sevditz* and *Moltke* were proceeding independently, only the *Derfflinger* and the *Von der Tann* actually took up this position. The 2nd Scouting Group covered the van and the 4th Scouting Group the starboard side.

The two fleets were now converging on one another: at about 10.15 p.m. the 2nd Scouting Group came in contact with the *Castor* and 11th Flotilla, which were on the starboard quarter of the British starboard wing division and a short action ensued.⁴

By 10.0 p.m. the *Marlborough's* sub-division was about four miles astern of station, and at 10.03 the 5th Battle Squadron

¹ Beatty (r), J.P. 139.

² The decentralisation of command practised in the High Sea Fleet is illustrated by the orders to the torpedo flotillas. At 7.16 p.m. the Commander-in-Chief directed the 2nd Torpedo Division (*Regensburg*) to launch the 2nd, 6th and 9th Flotillas to night attack. The latter thereupon issued the necessary orders allocating each flotilla to a definite sector, and at 8.26 he reported them advancing through these sectors to the Commander-in-Chief. At 8.12 the Commander-in-Chief issued further instructions to the 1st Torpedo Division (*Rostock*) and 2nd Torpedo Division (*Regensburg*) to launch all flotillas to night attack. Whereupon the Officer Commanding 1st Torpedo Division (*Rostock*) ordered the 2nd Torpedo Division (*Regensburg*) to allocate his flotillas independently, and then proceeded to divide his own flotillas over the sectors left vacant by the 2nd Torpedo Division. In each case the *Rostock* kept the flotillas informed of the position of the Main Fleet, and at 10.32 p.m., without any instructions from the Commander-in-Chief, he warned all flotillas to be off Horns Riff at 2 a.m., leaving it to their discretion to return round the Skaw if necessary. At 1.15 a.m. (the *Rostock* being out of action) we find the *Regensburg*, again without instructions from the Commander-in-Chief, ordering all flotillas to assemble at the head of the 3rd Battle Squadron, owing to the delay in reaching Horns Riff.

³ Commander-in-Chief to High Sea Fleet—"2nd Battle Squadron behind 3rd. All large cruisers in the rear. 2nd Scouting Group ahead. 4th Scouting Group to starboard."

⁴ Details of destroyer actions during the night are given in the next chapter, see p. 133.

turned 16 points to starboard to regain station on her, resuming its course at 10.12 p.m. As the *Marlborough* was then seen to be going very slowly, the Rear-Admiral, 5th Battle Squadron, increased speed to take station on the Main Fleet.

At 10.05 p.m. *Abdiel* received orders from the Commander-in-Chief to lay mines in accordance with instructions which had been previously issued.¹ The work was completed by 2.04 a.m., and the *Abdiel* returned to Rosyth.

78. In the meantime the 2nd Light Cruiser Squadron, which it will be remembered was astern of the 5th Battle Squadron at 9.0 p.m., had moved over to westward of the Battle Fleet.

About 10.30 p.m.,² when approximately seven miles on the starboard quarter of the *King George V*, five ships steering in the same direction appeared on the starboard beam. This was the 4th Scouting Group. They suddenly switched on searchlights and concentrated a heavy fire on the *Southampton* and *Dublin*. The action was brief and fierce. The *Southampton* was extensively damaged about the upper deck and suffered very heavy casualties. The *Dublin*, which was hit on the fore-bridge, lost touch with the squadron and did not rejoin until 10.0 a.m. next day. The enemy ships were also frequently hit, and the *Frauenlob* was sunk by a torpedo fired from the *Southampton*. After the action was over, the 2nd Light Cruiser Squadron altered course to the eastward and took station astern of the Battle Fleet with the idea of screening it against torpedo attack.³ In taking up this position the *Birmingham* had to alter course to avoid the two rear ships of the 5th Battle Squadron and, becoming separated from the *Southampton*, took station astern of the rear ship of that squadron. This movement of the 2nd Light Cruiser Squadron right through the area where its own flotillas were placed to attack the enemy is open to criticism. Destroyer officers are not likely to accept the responsibility of instant attack unless they are positive that the ships attacked are not their own. Dispositions and instructions for the night should therefore be communicated to all vessels as a matter of routine, and the mere fact that destroyers are ordered to attack in a certain area should be sufficient warning for other craft to keep clear. Unfortunately it must

¹ For position of minefield *vide* Diagram 47.

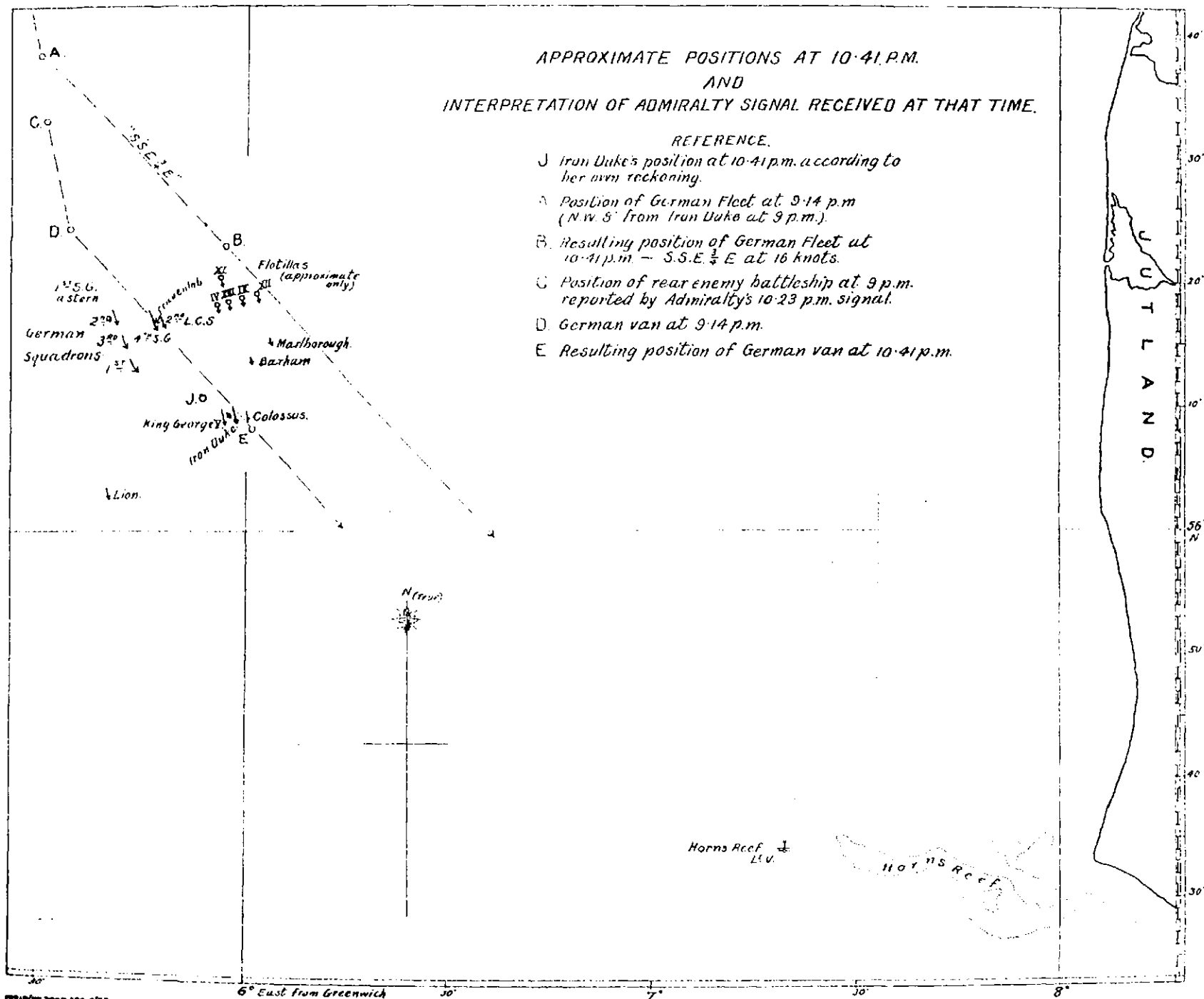
² Times are somewhat conflicting. *Southampton* (r), "at 10.20 squadron was engaged." *Birmingham* (r), "about 10.15." *Dublin* (r), 10.40, "sighted enemy vessels on starboard beam." Scheer states the *Frauenlob* was hit by a torpedo at 10.45 p.m.

³ The Commodore, 2nd Light Cruiser Squadron, explains his action in taking station astern of the Battle Fleet by saying that he did not know what protection had been provided against torpedo attack. *Southampton* (r), J.P. 177.

APPROXIMATE POSITIONS AT 10.41 P.M.
AND
INTERPRETATION OF ADMIRALTY SIGNAL RECEIVED AT THAT TIME.

REFERENCE.

- J Iron Duke's position at 10.41 p.m. according to her own reckoning.
- A Position of German Fleet at 9.14 p.m. (N.W. 8° from Iron Duke at 9 p.m.).
- B Resulting position of German Fleet at 10.41 p.m. — S.S.E. $\frac{1}{2}$ E at 16 knots.
- C Position of rear enemy battleship at 9 p.m. reported by Admiralty's 10.23 p.m. signal.
- D German van at 9.14 p.m.
- E Resulting position of German van at 10.41 p.m.



be admitted that in these matters the staff work in the Grand Fleet was inferior to that of its opponents. The German flotillas were allotted definite areas in which to attack, and they were informed of the formation of their cruiser squadrons, and the position of the Main Fleet was communicated to them periodically.

The signal reporting the *Southampton's* engagement did not reach the Commander-in-Chief until 11.38 p.m.,¹ but the gun flashes and searchlights were seen by the whole Battle Fleet.² As the scene of the engagement was about four points abaft the starboard beam, it must have been apparent even at that early hour that the course of the Grand Fleet was rapidly opening the enemy's path to Horns Riff. At 10.41, just as this action was finishing, the Commander-in-Chief received information of the greatest importance from the Admiralty. It read: "German Battle Fleet ordered home at 9.14 p.m., battle cruisers in rear course S.S.E. $\frac{3}{4}$ E.,³ speed 16 knots." This course, laid off from the position of the German Fleet at 9.0 p.m. as given in the Admiralty's 10.23 signal, passed some 9 miles S.W. of the Horns Riff Light Vessel, and could have left no further doubt that the High Sea Fleet was returning to its base by this channel. (Diagram 49.)

If the Commander-in-Chief really desired to intercept the German Fleet, his course was now clear; without risking a night action he had only to turn his fleet to a parallel course and increase speed to 18 knots. This would have brought him to a favourable position to cut off the High Sea Fleet at daylight, and the danger of torpedo attack would not have been increased one whit.

But the fleet continued on its course. Nothing was done, and as it proceeded South there commenced a series of destroyer actions,⁴ which gradually working round from the starboard to port quarter pointed a great guiding finger direct to Horns Riff. Astern of the British Battle Fleet the flash of guns, the gleam of searchlights, the sudden glare of explosions and the great torches of flame rising from burning destroyers marked the route along which the German Fleet was escaping as surely and unmistakably as the compass in Scheer's flagship.

79. About 10.50 p.m. the German 7th Flotilla⁵ sighted British destroyers, and these were reported by the *Rostock* to

¹ The *Southampton's* wireless had been shot away, but at 11.30 she ordered the *Nottingham* to report the action.

² Practically every battleship's report mentions gun flashes and searchlights on the starboard quarter at about 10.30 p.m., and the *Royal Oak* and *Vanguard* report seeing ships silhouetted against the searchlights.

³ Cf. App. G, Nos. 25 and 27.

⁴ These are described in detail in Chapter XII.

⁵ This flotilla had been ordered at 8.40 p.m. to advance from Lat. 56° 35' N., Long. 5° 30' E., through a sector S.E., to S. by E.

the German Commander-in-Chief.¹ This report, combined with one from Neumünster,² repeating the British Commander-in-Chief's order to his flotillas to take station 5 miles astern of the Battle Fleet, probably gave Scheer a fairly accurate idea of the relative positions of the two fleets at this time. In any case, at 11 p.m. he altered course to S.E.½S.—two and three-quarter points to the eastward³—evidently to give the High Sea Fleet a little more room as it crossed the track of its opponent. The *Rostock* and 7th Flotilla were not unobserved by the British, for at 10.35 p.m. the *Garland* reports sighting a cruiser of the *Graudenz* class, and at 10.50 the *Porpoise* and *Unity* sighted three enemy destroyers approaching from the starboard quarter. Neither of these reports were passed on to the Commander-in-Chief.

It was 11.30 p.m. when the German Fleet struck the 4th Flotilla, and a heavy fire was opened on the latter's van, probably by the 2nd Scouting Group, supported by the *Rostock* and 1st Squadron. The *Tipperary* was set on fire forward and completely disabled, the *Broke* was seriously damaged, the *Spitfire* collided with the *Nassau*, and the *Sparrowhawk* was disabled by collision with the *Broke*. On the German side the *Elbing* was rammed and disabled by the *Posen* and the *Rostock* was torpedoed. The remainder of the flotilla made off to the eastward, then turned again to the South, and ignorant of the course of the German Fleet inevitably struck it again at about midnight, and the *Fortune* and *Ardent* were both sunk by gunfire.

During this action, the *Pillau* and *Frankfurt* became separated from the Main Fleet. Following a more Northerly course they were kept informed of Scheer's position and rejoined shortly after daylight. The 13th Flotilla heard the firing and made off to the eastward.

At 0.10 a.m. the *Black Prince*, which had lost touch with the fleet when it deployed and was apparently following it up, found herself within 1,600 yards of the rear ships of the German 1st Squadron. A tornado of fire was opened on her from the *Thuringen* and *Ostfriesland*. She burst into flames and sank with a terrific explosion in four minutes. At about 0.25 a.m. the head of the German line, by this time well on the port quarter of the British Fleet, cut through the end of the line formed by the 9th and 10th Flotillas and stragglers from the 13th. A heavy fire was opened on them and the *Turbulent*, the last of the line, was sunk. There can be no possible doubt that these engagements were seen by the Battle Fleet, and several ships saw the firing commencing on the

¹ "Enemy destroyers in Lat. 56° 3' N., Long. 5° 55' E., course S. high speed."

² Neumünster to German Commander-in-Chief, 10.10 p.m.: "Destroyers have taken up position five sea miles astern of the enemy Main Fleet."

³ J.P., German Plan VII.

starboard quarter and gradually working round to the port quarter.¹ The Commander-in-Chief's idea that no enemy ships were seen by the Battle Fleet during the night² probably arose from the fact that no reports of the enemy were received from the Battle Fleet.

80. At 11.30 p.m. the *Birmingham*, then astern of the 5th Battle Squadron, observed two large enemy ships switch on their searchlights. She took them for battle cruisers,³ and at once reported them bearing North-East and steering South: her D.R. position placed them a long way to the northward of their true position, but the report clearly confirmed the passage of German ships across the rear of the British Fleet.

At 1.48 a.m. the Commander-in-Chief received another message from the Admiralty to the following effect: "Position of the *Lützow* at midnight 56° 26' N., 5° 41' E., course S., speed 7 knots, damaged. All German submarines are being hurried from German ports to attack. One flotilla returning round Skaw."⁴ This signal did not convey the exact sense of the German original, and tended to exaggerate the submarine danger, for the Order apparently applied only to the 3rd Submarine Half Flotilla and to U.67 and U.51.⁵

At 1.55 a.m. the Vice-Admiral, 1st Battle Squadron, reported to the Commander-in-Chief that the *Marlborough* was obliged to ease to 12 knots. She thereupon hauled out of line, and at about 3 a.m. the Vice-Admiral transferred his flag in the *Fearless* to the *Revenge*. Shortly afterwards the Commander-in-Chief ordered the *Marlborough* to the Tyne, the *Fearless* accompanying her as escort. The *Revenge*, *Hercules* and *Agincourt*, which had continued their course, were 12 miles astern of the fleet at daylight, and if the action had been

¹ *Hercules* (r): "From 10.15 p.m. to 12.30 a.m. (June 1) five separate engagements seem to have occurred. . . On the first occasion searchlights were observed, and attack bore N.W. by W. The attack gradually worked round the stern to N. by E." (J.P. 74). *Colossus* (r): "10.35 p.m., firing starboard quarter; 11.40, rapid and continuous firing for 15 minutes right astern. *Superb* (r): "10.13, much firing on starboard quarter; 11.30 and 11.43, firing observed right astern; 0.25 a.m., ditto on port quarter." (J.P. 81, 307.) The *Revenge*, *Thunderer*, *Temeraire*, *Vanguard*, *Barham*, *Malaya*, *Valiant*, *Agincourt*, *Active* and *Boadicea* all report sighting enemy ships at various times between 10.15 p.m. and 0.30 a.m., and the *Malaya* actually identified one of the *Westfalen* class as leading the German line during the attack on the 4th Flotilla.

² Commander-in-Chief's despatch (J.P. 22).

³ They were probably battleships of the German 1st Squadron.

⁴ The paraphrase in J.P. 477 hardly conveys sense of original message.

⁵ From Heligoland N.I.C. to Arcona, time group 2150 (7.50 p.m.) 3rd Submarine Half-Flotilla, 3rd of 4th Submarine Half-Flotilla (U.67). Heligoland N.I.C. for 2nd of 2nd Submarine Half-Flotilla (U.51). Submarines ready for service and U.67 at once to advance North. At 6 a.m. report position. Officer Commanding Submarines. (Room 40 Records Signal 20438, Vol. 897.)

renewed would have experienced difficulty in rejoining. At midnight they had crossed the enemy's track only $4\frac{1}{2}$ miles ahead of him, with the British Battle Fleet $7\frac{1}{2}$ miles away, and the situation which would have arisen had an action ensued is an interesting subject for conjecture. The German Fleet was greatly superior, but it certainly would not have escaped scathless; the 5th Battle Squadron, which had crossed within two miles of the enemy Battle Fleet at about 11.45 p.m., was only three miles away, and would almost certainly have been dragged into the fight, and a situation might have arisen which would have compelled the Commander-in-Chief either to turn and force an action or face very serious losses to the 6th Division and 5th Battle Squadron.

By 1.45 a.m. the enemy fleet had worked right round to the port quarter and were sighted by the 12th Flotilla, led by the *Faulknor*. This was reported to the Commander-in-Chief, the *Faulknor* giving her position as 10 miles astern of the 1st Battle Squadron.¹ There is no trace of this signal having been received in the *Iron Duke*. At 2.10 a.m. the 12th Flotilla carried out an organised attack and succeeded in torpedoing the *Pommern*, which blew up with a terrific explosion and the loss of all hands. At 2.35 a.m., just as it was getting light, the *Champion*, after making to the eastward, was returning to the southward in company with the *Obdurate* and *Moresby* of the 13th Flotilla,² and the *Marksman* and *Maenad* of the 12th, when they sighted the German 2nd Squadron at about 4,000 yards. They were unobserved by the enemy, but the *Champion* appears to have turned away again, leaving the *Moresby* to make an attack without support. She fired one torpedo and evidently sank the German destroyer V.4.

81. Meanwhile the fleet was approaching the end of its fruitless journey to the South. At 2.15 a.m. the Commander-in-Chief signalled that single line would be formed on a Northerly course at 2.30 a.m., and at 2.22³ he ordered the various detached squadrons to conform and close. The *King George V* led round to North at 2.39 a.m., and the Battle Fleet, less the *Marlborough's* division, formed line ahead on her in the 5th Organisation.⁴ The Commander-in-Chief states that: "I deemed it advisable to disregard the danger from submarines due to a long line of ships and to form line of battle at once in case of meeting the enemy Battle Fleet before I had been able to get in touch with my cruisers and destroyers." The battle cruisers and 5th Battle

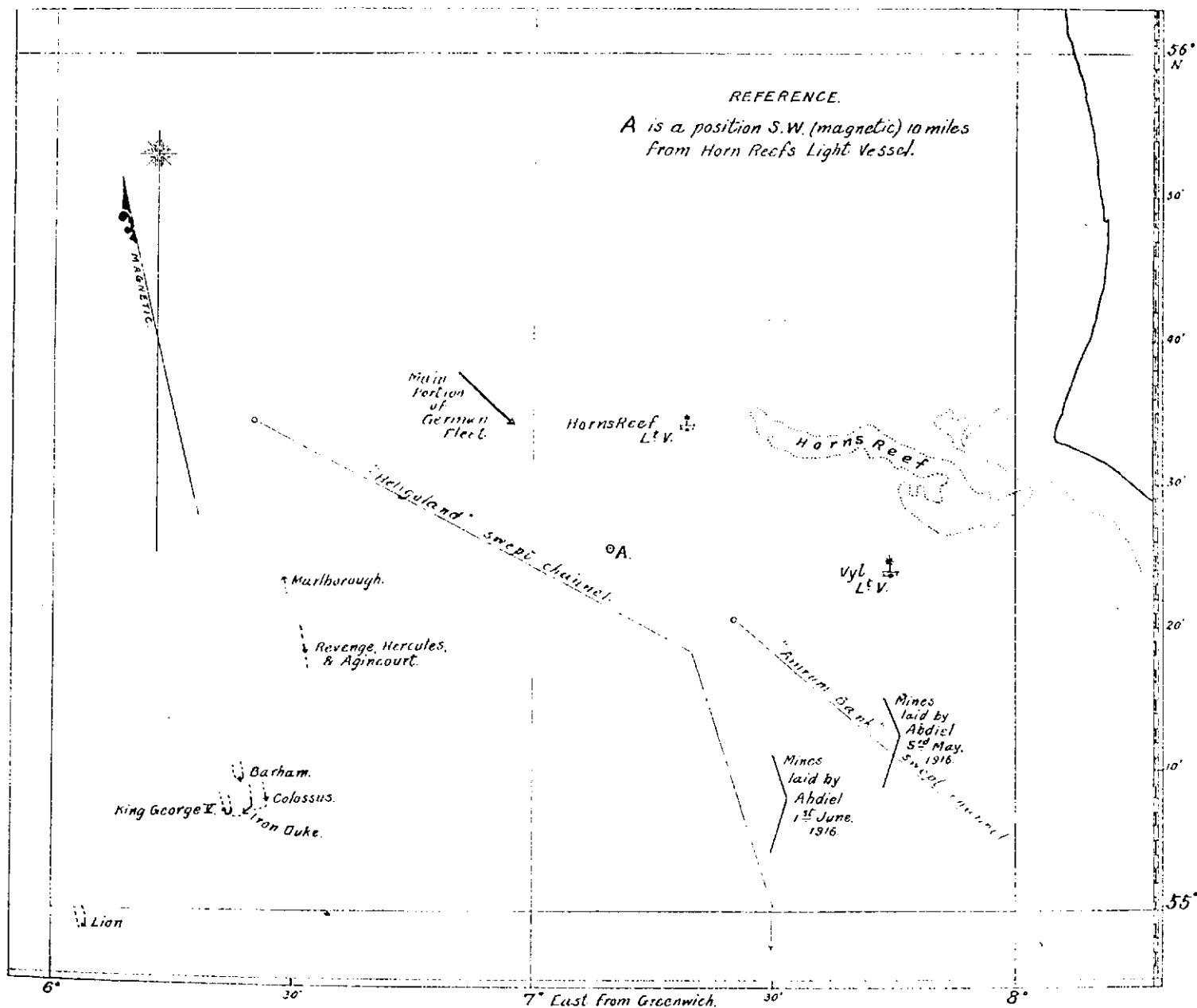
¹ He appears to have been further away, probably about 30 miles N.N.E. of the *Iron Duke*.

² The remainder of the flotilla had joined up with the 9th and 10th Flotillas.

³ Priority: "My position 2.30 a.m., Lat. $55^{\circ} 07' N.$, Long. $6^{\circ} 21' E.$, altering course North, conform and close."

⁴ See Appendix B.

APPROXIMATE POSITIONS AT 2.45 A.M. 1ST JUNE.



Squadron altered course to the North a few minutes after the Battle Fleet.¹

But it was now too late to bar the way to Horns Riff, for the *Iron Duke* was 33 miles and the Germans only 12 miles away from it.² It was not too late, however, to make an effort to intercept stragglers and to harass their retreat. No effort was made to do so, and it is impossible to resist the conclusion that the Commander-in-Chief had abandoned any idea of renewing the action, for the Northerly course of the fleet was now taking it almost directly away from the enemy's line of retreat.

Beyond the avoidance of a night action, it is difficult to trace any definite purpose in the British movements during the night. No instructions were issued as to the Commander-in-Chief's intentions, no organised attempt was made to obtain information of the enemy's movements, and when definite intelligence from the Admiralty supplied absolute confirmation of the enemy's course, nothing was done to intercept him.

This is the darkest part of the battle. The question of deployment and the question of turning away from torpedo attack are points which belong to the sphere of tactics, but the question of pursuing the enemy was a very different one. It was an irredeemable charge which was not done.

The official despatches throw no light on the subject, but Lord Jellicoe states³ that when he decided to steer to the southward, it had been his intention to close Horns Riff at daylight, but the scattered state of the fleet next morning prevented his doing so.

This, however, would not have solved the problem, for course had to be altered to the eastward not later than about 0.30 a.m. in order to intercept the High Sea Fleet. If this had been done the various squadrons and flotillas could have been concentrated within supporting distance of the Battle Fleet at daylight. But no one was told the intentions of the Commander-in-Chief nor the disposition of the fleet, nor the position and course of the enemy. Course South, speed 17 knots, were the only instructions issued.

82. At 3.15 a.m. the *Indomitable* and some of the 3rd Light Cruiser Squadron opened fire on a Zeppelin which was observing the movements of the Battle Cruiser Force. At 3.20 a.m. the Commander-in-Chief received information from the Admiralty that five light cruisers and 13 destroyers from Harwich had been ordered to join his Flag. At 7.0 a.m. the Commander-in-Chief ordered four of these to screen the *Marlborough*. The remainder did not join the fleet, as the Commander-in-Chief informed the Admiralty at 4.0 p.m. that they were not required. At 3.30 a.m.

¹ For position at 2.45 a.m., see Diagram 50.

² From position A. in the diagram, 10 miles S.W. of Horns Riff.

³ G.F., p. 385.

the *Champion*, accompanied by the *Obdurate*, *Moresby*, *Marksmen* and *Macnad*, sighted four enemy destroyers steering in opposite directions. The latter fired two torpedoes and the *Champion* appears to have opened fire with her 6 in. guns, but although in greatly superior force no attempt was made to follow the enemy boats, which would have been an easy prey, for they were returning to their base with 1,250 survivors of the *Lützow*.

At 3.29 a.m. a final signal came from the Admiralty informing the Commander-in-Chief that at 2.30 a.m. the German Main Fleet was in Lat. 55° 33' N., Long. 6° 50' E., course S.E. by S., 16 knots. This placed it 17 miles from Horns Reef Light and 23 miles from the Grand Fleet at that time.

At 3.42 the Battle Fleet altered course to West and reduced to 15 knots, heavy firing having been heard to the westward.¹ It turned again to North and increased again to 17 knots at 3.52 a.m.

Meanwhile the battle cruisers were also steering in a Northerly direction at 20 knots to regain visual touch with the Battle Fleet. At 4.07 the Vice-Admiral ordered his light cruisers to spread to the westward to locate the enemy. Thus, five hours after the Commander-in-Chief had received definite information of the enemy's course² to the south-eastward, Beatty still was in ignorance of it, and imagined him to the westward. The battle cruisers had been too far ahead to observe the route of the High Sea Fleet as indicated by the destroyer actions, and the Admiralty cypher signals were not received in the *Lion*.³ The *Birmingham*'s report of sighting hostile battle cruisers at 11.30 might have given Beatty a hint, but their course had been received by him as W.S.W. instead of South, an error which tended to support the idea that the British battle cruisers were still between the enemy and his base.

The failure to sift and promulgate information during the night indicates a practical breakdown in the staff organisation. It is a mere truism to say that intelligent co-operation is impossible if subordinate commanders are not informed of the general situation, but unfortunately these truisms turn out to be astoundingly true.

There is little more to be told. At 4.10 a.m. the *Dublin* sighted some enemy vessels steering a Southerly course, one of which appeared to be a light cruiser. This may have been the *Regensburg*, which had turned back to escort the destroyers

¹ Presumably the Battle Cruiser Force engaging a Zeppelin at 3.20 a.m.

² 10.41 p.m. Admiralty to Commander-in-Chief. "German Battle Fleet ordered home at 9.14, battle cruisers in rear, course S.S.E. $\frac{1}{2}$ E., speed 16 knots."

³ *Lion*'s wireless was shot away. The *Princess Royal* received signals addressed to Vice-Admiral, Battle Cruiser Force, but not the Commander-in-Chief's signals.

bringing in the survivors of the *Lützow*, one of which had been hit in the engine room.¹ It was the last occasion on which the ships of the opposing fleets sighted each other.

At 4.13 a.m. the Battle Fleet formed divisions in line ahead columns disposed abeam to starboard with the 5th Battle Squadron three miles ahead.

At 4.40 a.m. the Commander-in-Chief informed the Senior Officer, Battle Cruiser Force, that the enemy fleet had returned to harbour and told him to try and locate *Lützow*, but omitted to mention the position given in the Admiralty's 1.48 a.m. message.

At 4.45 a.m. the battle cruisers altered course to East to close the Battle Fleet and turned up astern at 5.10 a.m., and at 5.40 increased to 20 knots and proceeded to sweep out an area to the South and south-eastward.

Meanwhile, the Battle Fleet also swept out an area to the southward of the scene of the action, and at noon it was in Lat. 56° 20' N., Long. 5° 26' E. It only remained to return to harbour.

The Battle Fleet, which had put to sea full of hope and ardour, superior to the foe in numbers and gunpower, at least his equal in discipline, individual skill and courage, returned home with two killed and five wounded. It had never been seriously in action.

The enemy meanwhile had swept right across the stern of the fleet during the night.² At dawn his ships were still 16 miles from Horns Riff and scores of glasses swept the horizon anxiously for the British Fleet which they fully expected to see. To their surprise and intense relief it was not there. The way lay open and the battle cruisers were ordered to proceed in at 3.24 a.m. The *Seydlitz* did not reach Horns Riff till 4 a.m. and it was still doubtful if she could get home. She was ultimately beached the next day at the entrance to the Jade steering stern first and drawing 42 ft. of water. The Battle Fleet arrived at Horns Riff at 3.0 a.m. and Scheer waited for the *Lützow*, which he had not heard of. At 3.30 came the news that she had been abandoned. At 3.38 a.m. the fleet was reformed³ with a submarine screen, but the three British submarines posted off Vyl Light did not sight the enemy.⁴ One misfortune still awaited them. The *Ostfriesland* struck a mine at 5 a.m., and had to be escorted back by tugs.⁵ By 6.30 all danger of pursuit by the Grand Fleet was over, though the *König* drawing 34½ ft. could not pass the Amrum Bank channel till 9.30 a.m.

¹ Possibly during the short encounter with the *Champion* at 3.30 a.m.

² Eleven miles astern at midnight.

³ "2nd Scouting Group astern, 4th Scouting Group ahead. Officer Commanding, 1st Torpedo Division, 'distribute T.B.s for submarine protection, 2nd Squadron proceed in.'"

⁴ E.50, E.26 and D.1 had orders to spread on a line 270°, 4, 12 and 20 miles respectively from Vyl Light Vessel.

⁵ This was one of the mines laid by the *Abdiel* on May 5, 1916.

Interception of German Signals.

83. It will have been noted that the meeting of the two fleets was directly due to the interception of enemy signals, and that during the battle both Admirals were receiving from London and Neumünster at least a portion of their opponents' signals. The general effect of this factor on the strategy of the Grand Fleet has been dealt with in Chapter I (p. 18), but it has also an important tactical aspect.

Appendix G (p.165). gives the more important German signals as decoded at the Admiralty between May 30 and June 1, and a comparison between them and those passed on to the Commander-in-Chief¹ shows that this priceless talisman of intelligence was not fully utilised.

Three of the German signals (Nos. 25, 28 and 32), made between 9.06 p.m. and 10.32, indicated clearly that Horns Riff was the destination of the High Sea Fleet. Only one of these—No. 25—was transmitted to the Commander-in-Chief at 10.41. Nos. 27, 31, 37 and 38, which gave Scheer's course at 9.46 p.m., 10.32 p.m., 11.30 p.m. and 11.36 p.m. respectively, were not passed on. Of three signals, Nos. 35, 43 and 45, fixing the position of the High Sea Fleet at 11 p.m., 12.30 a.m. and 2.30 a.m. respectively, only No. 45 was transmitted at 3.29 p.m. It is true that No. 25 (received in the *Iron Duke* at 10.41 p.m.) was enough for the purpose, but the Commander-in-Chief might justifiably complain that other signals of great importance, confirming the enemy's destination and giving his position and course at various times during the night, were not sent to him.

Precisely what happened at the Admiralty is obscure, but we know that between 10.41 p.m. and 3.30 a.m. information of vital importance remained gazing blankly upwards from an Admiralty table whilst the fate of the war hung in the balance.²

The special intelligence branch (Room 40) was not attached to the Intelligence Division at this time, and this truly peculiar organisation may partly explain the failure to make full use of it. The Room was not open to the officers of the German Section (Section 14) nor to the German Movements Section (Section E). Co-operation with the German Section would have been enormously useful to Room 40,³ and Room 40 could have supplied the German Section with priceless information, but they were not allowed to work in conjunction, though the German Section had actually translated the early codes in use in Room 40. The case of E.I Section was

¹ These will be found amongst the signals in Appendix II, Jutland Papers.

² This cannot be regarded as an exaggeration, for had the Grand Fleet cut Scheer off from Horns Riff, there can be little doubt that it would have been able to inflict a disastrous defeat on the German Fleet.

³ The special intelligence personnel was installed in Room 40, Old Building.

precisely similar. E.1 dealt with the movements of German submarines on the basis of British and neutral sources. All reports of ships attacked and reports of sighting and attacking German submarines came to E.1, and were duly plotted and recorded there. Room 40, on the other hand, obtained its information from German sources, and knew nothing of British reports. It took in the submarines' signals and knew their identity and time of departure. E.1 followed their track across the ocean so far as British reports could give it, but the two sections were not allowed to work in conjunction.¹ It was not till July, 1917, that Room 40 became a section of the Intelligence Division; it was not till September, 1917, that the German section and submarine movements section were given access to it; and it was not till December, 1917, that Room 40 and E.1 became sub-sections of the same section.²

Enough has now been said to show that at the time of Jutland a policy of secrecy, amounting to an absolute obsession, was maintained. Vital information, instead of being sent out as a matter of course, was only sent to the Chief of the War Staff and Director of Operations, who passed or did not pass it on. The defects of the system are obvious. The section that is responsible for such information was the only section able to "vet" it in the light of continuous and cumulative intelligence.³ It was clearly the function of the Intelligence Division to keep the Commander-in-Chief supplied with information as to the movements of the High Sea Fleet, and this it did not do because its function had been withheld.

CHAPTER XII.

DESTROYER ACTIONS DURING THE NIGHT.

The British destroyer flotillas played such an important part in the night operations that it is necessary to devote a separate chapter to their proceedings.

¹ The prohibition was a real and not a nominal one. The only channel of communication was through the Director of the Intelligence Division himself, which was a very different thing from the sections coalescing. This policy of secrecy was accepted quite as a matter of course, the enormous handicap it offered to staff work being apparently ignored.

² The H.S. operations of October, 1917, in which three submarines were destroyed, was the direct consequence of E.1 using Room 40 material. E.1 was also able to construct the German squared chart of the Atlantic by combining British reports of attacks with German signals, which led directly to the destruction of U.154. Room 40 and Section E.1 became Sections 25a and 25b of the Intelligence Division under a single head.

³ See Birch and Clark for an interesting exposition on this point.

11th Flotilla.

84 At about 10.15 p.m. the *Castor* and 11th Flotilla,¹ which were on the starboard quarter of the Battle Fleet, came in contact with the 2nd Scouting Group. The two leading German cruisers opened fire on the *Castor*, obtaining several hits and wounding 23 men. The *Castor* replied with her 6 in. guns and fired one torpedo. The *Magic* and *Marne* also fired torpedoes, but the remainder of the destroyers did nothing; some were blinded by the flash of the guns, and others were under the impression that the attacking ships were British.² This uncertainty as to the identity of enemy ships, with its natural consequence of hesitation and delay, was a characteristic feature of nearly all the night actions on the British side, and must be largely ascribed to the fact that the destroyers were given no information whatever as to the general disposition of the British squadrons, or the position of the enemy fleet and its probable course.

At 10.45 p.m. the flotilla again fell in with the 2nd Scouting Group, and after exchanging a few rounds the enemy was lost to sight.

At 0.15 a.m. the *Castor* reports sighting an enemy torpedo boat and firing on her at point blank range.

At 8.40 a.m. the 11th Flotilla rejoined the Battle Fleet and formed a submarine screen.

4th Flotilla.³ (Diagram 51.)

85. At about 9.0 p.m., when the 4th Flotilla was in screening station ahead of the 2nd Battle Squadron, the *Garland* engaged four enemy destroyers, which fired two torpedoes and made off at high speed to the westward. On being ordered to take station astern of the fleet 5 miles, the flotilla turned 16 points and passed through the lines. At 9.50 it was in two columns, led by *Tipperary* and *Broke*, and at 10.0 p.m. single line ahead was formed, course South, speed 17 knots. No instructions had been issued as to the duties of the flotilla during the night, and the formation adopted was equally unsuitable for attack or defence. It was right in the path of the High Sea Fleet, which was rapidly converging on a South-South-Easterly course, and ran into it an hour or so later without any effort to find or avoid it.

At 10.35 p.m. the *Garland* reported to the Captain (D) a cruiser of the *Graudenz* class bearing W., course S., speed 17 knots, whilst at 10.50 the *Porpoise* and *Unity*, the rear ships of the

¹ Consisting of *Kempenfelt*, *Ossory*, *Mystic*, *Morning Star*, *Magic*, *Mounsey*, *Mandate*, *Minion*, *Martial*, *Milbrook*, *Moon*, *Marne*, *Manners*, *Michael* and *Mons*. Individual reports from the vessels of this flotilla cannot be traced, and the only information available is that given by ships' logs and Captain (D). (J.P. 303.)

² *Castor* (r), J.P. 304: "It is unfortunate that this element of doubt existed in the minds of the Captains of the Destroyers as to whether the ships were enemy, as a good opportunity of firing torpedoes was lost."

³ Consisting of *Tipperary* (Captain D), *Spitfire*, *Sparrowhawk*, *Garland*, *Contest*, *Broke*, *Achates*, *Ambuscade*, *Ardent*, *Fortune*, *Porpoise* and *Unity*.

line, reported three enemy destroyers¹ approaching from the starboard quarter. Other suspicious vessels² were apparently sighted after 11 p.m., but the flotilla continued its course as if the enemy fleet was the last thing it expected to meet.

A rude awakening was at hand. At 11.30³ searchlights blazed out suddenly on the starboard beam of the flotilla, and three enemy ships⁴ poured a heavy fire on the head of the line, quickly disabling the *Tipperary* and setting her on fire forward.⁵ The subsequent movements of the flotilla are shown in Diagram 51. The *Spitfire*, second ship in the line, fired two torpedoes and claims to have hit a four-funnelled cruiser.⁶ She then turned to the westward to reload, apparently under the impression that there was a British flotilla in that direction, and on again steering towards the *Tipperary* suddenly found herself close to what she thought were two cruisers. These were ships of the German 1st Battle Squadron. The *Spitfire* opened fire on the *Nassau*, putting her searchlights out of action and killing many of the crews. The *Nassau* attempted to ram, but the *Spitfire* escaped by putting her helm hard over, and the two ships ran into one another, port bow to port bow. The *Spitfire's* bridge and funnels received the full blast of the *Nassau's* 11 in. guns. The side plating was torn off her forecastle, and the bridge, searchlight platform, mast, foremost funnel, boats and davits were completely demolished. The Germans thought they had sunk her, but she managed to get clear, and eventually proceeded to the Tyne at reduced speed with 20 ft. of German plating as a memento of her exciting encounter. The *Garland* also endeavoured to return to the *Tipperary's* assistance but was driven off to the eastward, rejoining the remainder of the flotilla shortly before midnight.

86. When the enemy first opened fire, the *Broke*, followed by the *Sparrowhawk*, altered course outwards to fire her starboard after tube, and then resumed course. A few minutes later searchlights were directed on her by a large ship on the starboard beam. After waiting a short pause for the after tube to be fired, the *Broke* put her helm hard-a-starboard, but just then a shell

¹ Probably of German 7th Flotilla.

² The surviving executive officer of the *Tipperary* states that the enemy ships were sighted about 20 minutes before they opened fire, but their identity was in doubt. The *Sparrowhawk* reports that "about 11.30, vessels were sighted on the starboard quarter overtaking the flotilla, and apparently steering the same course. . . . When the leading ship was abreast of the *Tipperary* she switched on searchlights." As the *Sparrowhawk* was third ship in the line an appreciable interval must have elapsed between sighting these vessels and the moment of attack.

³ *Achates*, *Sparrowhawk*, *Unity*, *Ambuscade*, *Spitfire* and *Champion* (13th Flotilla), 11.30. *Garland*, 11.28. *Nassau* reports ramming a destroyer 11.31. *Broke*, 11.0 p.m.

⁴ Probably the 2nd Scouting Group.

⁵ She eventually sank at 1.45 a.m.

⁶ The *Rostock* was torpedoed, but she cannot be definitely allotted to the *Spitfire*, as several torpedoes were fired at this time.

hit the lower bridge, killing everyone on it and jamming the helm. She therefore continued to circle and rammed the *Sparrowhawk* just before the bridge, cutting right into her. Whilst the two ships were locked together, the *Contest* added to the confusion by ramming the *Sparrowhawk* and cutting off five feet of her stern. The *Broke*, who had suffered very heavy casualties from the enemy's gun-fire, succeeded in extricating herself from the wreckage, and steaming North at slow speed eventually proceeded to the Tyne. The *Sparrowhawk* drifted to the north-eastward and was abandoned and sunk about 9.0 a.m., after the *Marksman* had attempted to tow her. The remainder of the flotilla, consisting of the *Achates*, *Ambuscade*, *Ardent*, *Fortune*, *Porpoise* and *Unity*, appears to have altered course to the eastward on the enemy opening fire, and after proceeding about three miles in that direction resumed a Southerly course. The *Unity* and *Contest*, however, lost touch with the flotilla, the former joining the 9th and 10th, and the latter, with a damaged stem, steering to the north-eastward, took no further part in the battle. On the British side this phase of the action resulted in the disablement of the *Tipperary*, *Sparrowhawk*, *Broke* and *Spitfire*, and the eventual loss of the first two. On the German side the *Rostock* and *Elbing*, which were abreast of the van of the 1st Squadron on the engaged side, turned away from the torpedoes fired by the 4th Flotilla, and in order to avoid masking the fire of the battleships endeavoured to pass through the line. During this manœuvre the *Rostock* was torpedoed by the 4th Flotilla and the *Elbing* was rammed by the *Posen*. Both vessels were eventually abandoned and sunk by the Germans, the former at 3.45 a.m. and the latter at 2.0 a.m.

87. The flotilla as an organised force now consisted of only the *Achates*, *Ambuscade*, *Ardent*, *Fortune*, *Porpoise* and *Garland*.¹ Their Easterly course and subsequent alteration to the South were again leading them rapidly towards the High Sea Fleet, and about midnight enemy ships were sighted on the starboard side. These at once opened fire, sinking the *Fortune* and hitting the *Porpoise* in the after boiler room. The latter, screened by steam and the smoke of the sinking *Fortune*, was able to make her escape slowly to the northward. The *Ambuscade* after firing a torpedo was chased off to the eastward with the *Achates*, the former joining up with the *Castor* and the latter returning to Rosyth. The *Garland* made off to the north-eastward after firing a torpedo. The *Ardent*, on the other hand, proceeded to repeat the manœuvre which had just brought about the loss of the *Fortune*. After retiring to the eastward she resumed a Southerly course, and converging on the enemy's South-Easterly course, suddenly ran right into them again. She at once fired a torpedo, but as it left the tube the two leading ships opened a devastating fire and quickly reduced her to a wreck. After firing for about five minutes they ceased fire and switched off searchlights.

¹ The *Garland* rejoined just before midnight.

The next squadron opened fire at point blank range, the survivors took to the water and the *Ardent* sank with colours flying.

The result of this phase of the action was the destruction of the *Fortune* and *Ardent* and the disablement of the *Porpoise*. Torpedo hits were claimed by the *Garland* and *Ambuscade*, but the German ships were undamaged.

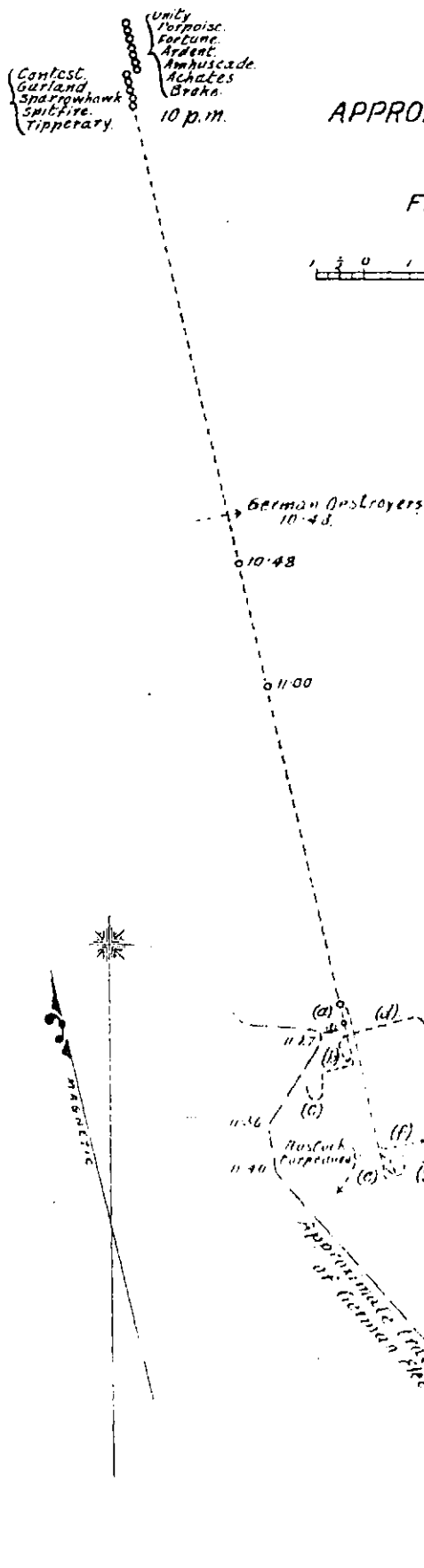
Those vessels of the flotilla that remained capable of action were now scattered and dispersed and took no further effective part in the operations. The 4th Flotilla had ceased to exist as an organised force.

The results of the two encounters between the 4th Flotilla and High Sea Fleet are summarised below :—

Approximate Time.	Vessel.	Damage and Subsequent Proceedings.	Torpedoes Fired.
11.30	<i>Tipperary</i> ..	Disabled by gun-fire. Sunk at 1.45 a.m.	2
11.35	<i>Spitfire</i> ..	In collision with <i>Nassau</i>	2 (possibly hit <i>Rostock</i>)
11.30	<i>Garland</i> ..	Fired torpedo; lost flotilla, but rejoined before midnight.	1
11.30	<i>Contest</i> ..	Fired torpedo; rammed <i>Sparrowhawk</i> , lost flotilla and took no further part in the action.	1
11.30	<i>Unity</i>	Lost flotilla and joined 9th and 10th Flotilla.	—
11.35	<i>Broke</i>	Damaged, and heavy casualties from gun-fire; returned to the Tyne.	1 (possibly <i>Rostock</i> .)
11.35	<i>Sparrowhawk</i> ..	Completely disabled by collision with <i>Broke</i> and <i>Contest</i> . Sunk by gun-fire next day owing to difficulty of towing.	1 (possibly <i>Rostock</i> .)
11.30	<i>Achates</i> , <i>Ambuscade</i> , <i>Ardent</i> , <i>Fortune</i> , and <i>Porpoise</i> .	Altered course to eastward. <i>Ambuscade</i> fired two torpedoes.	2
11.30	<i>Elbing</i> .. (German)	Rammed and disabled by <i>Posen</i> ; sunk by enemy at 2 a.m.	—
11.30	<i>Rostock</i> .. (German)	Torpedoed and disabled. Sunk by enemy at 3.45 a.m.	—
Midnight	<i>Fortune</i> ..	Sunk by gun-fire ..	—
Midnight	<i>Porpoise</i> ..	Disabled by gun-fire. Escaped to northward.	—
Midnight	<i>Achates</i> ..	Retired to eastward ..	—
Midnight	<i>Ambuscade</i> ..	Fired one torpedo; retired to eastward.	1
Midnight	<i>Garland</i> ..	Fired one torpedo; retired to north-eastward.	1
0.20 a.m.	<i>Ardent</i>	Sunk by gun-fire ..	1

APPROXIMATE MOVEMENTS OF THE FOURTH FLOTILLA FROM 10 P.M. TO 12-30 A.M.

Scale.
1 2 3 4 5 6 7 8 9 10 Sea Miles.



- (a) 11:27 Tipperary sunk; Broke's division hauls out. Sparrowhawk & Contest join Broke's division.
- (b) Garland turns to close Tipperary.
- (c) Spitfire in collision with Nassau.
- (d) Garland is chased to E⁴; then turns S. and rejoins Achates.
- (e) Broke, Sparrowhawk & Contest in collision, 11:40, approximately.
- (f) Unity loses touch & follows Lydiard
- (g) Remainder follow Achates.

- (h) Fortune sunk, Porpoise disabled
- (i) Garland chased to NE⁴.
- (l) Achates & Ambuscade chased to E⁴.
- (m) Ardent tries to regain touch

(n) Ardent, sunk

88. The 4th Flotilla's heavy losses on the night of the 31st must be attributed to a defective system of command and tactics, rather than to any particular efficiency on the part of the enemy. The sea was smooth and the enemy ships were in sight at a comparatively close range¹ for some time before they opened fire. In short, the conditions were ideal for torpedo attack. Although everything depended on getting in the first blow, the flotilla continued a steady course and speed without change of range or deflection. That under these conditions the enemy only succeeded in finally disabling one destroyer by gun-fire does not indicate any very high gunnery standard. The hesitation of the flotilla in attacking which placed the initiative completely in the enemy's hands arose partly from doubt as to the movements of the enemy and disposition of their own forces,² whilst the failure of the rear and centre to carry out any organised attack after fire was first opened must be put down to an over-centralised system of flotilla command which broke down with the disablement of the *Tipperary*.

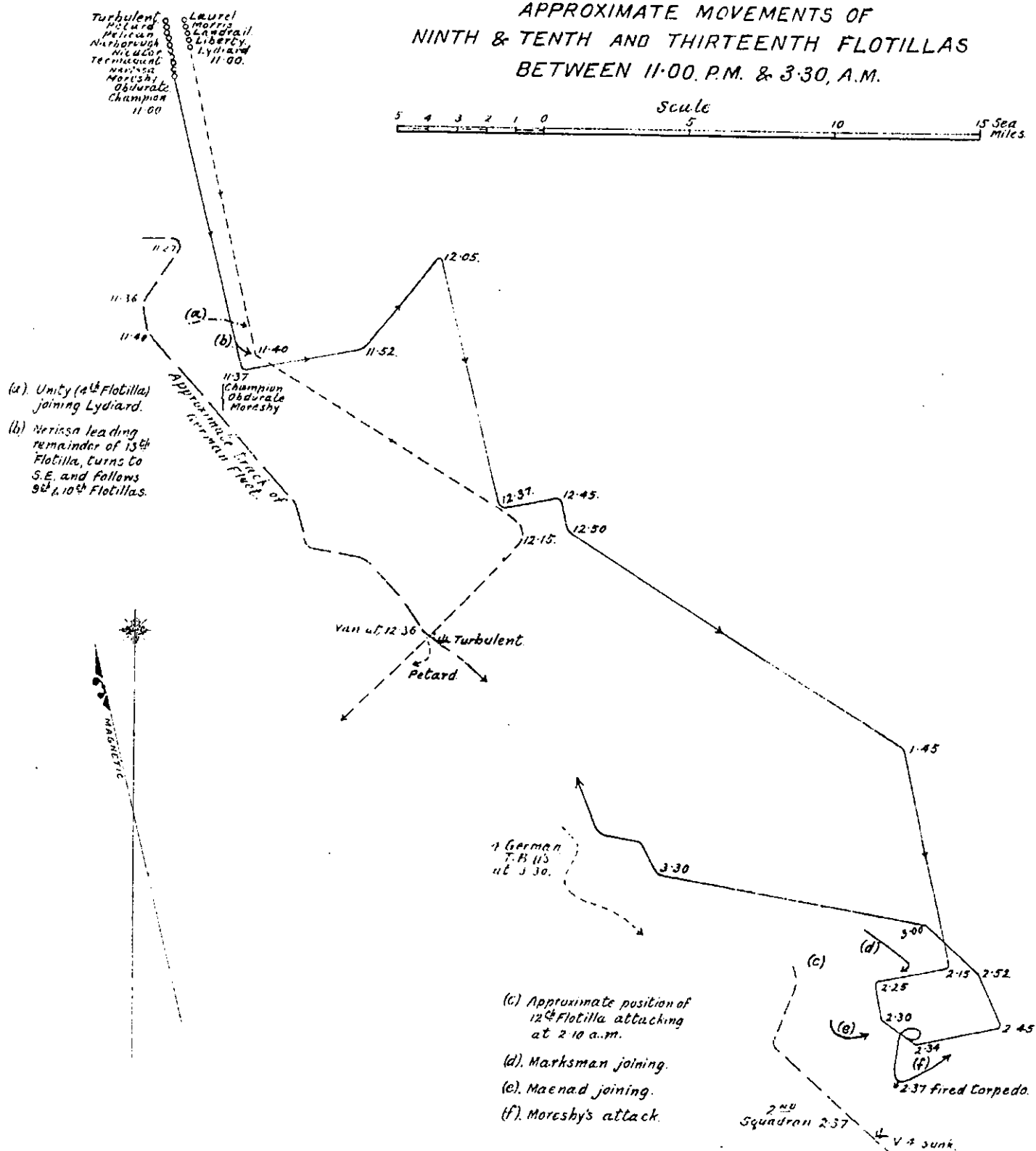
The necessity of separating the command of the flotilla or half flotilla from the executive command of an individual boat had never been recognised in the British service. The result of expecting one man without a staff to manœuvre an individual destroyer during the terrible stress and strain of a night action and at the same time to exercise general tactical control over a number of boats can be seen on the night of the 31st. The system of command fell to pieces with the first blast of the enemy's guns, for no organised attempt was thereafter made either to attack or avoid the enemy. The majority of the boats were merely guided by the sub-conscious idea of resuming their original course after getting clear of the enemy, a procedure that

¹ The range was certainly under 2,000 yards.

² The Commander-in-Chief knew the enemy's course by 10.45 p.m., but it was not passed on to any squadrons or flotillas. J.P., p. 309, *Achates* (r): "I respectfully submit that in future the maximum amount of information may be given to destroyers as to the disposition of our own forces." E.J., p. 323, Navigating Officer of *Broke*: "Our chief anxiety was that we were unaware of the relative positions of any of our ships or squadrons except the Battle Fleet, and also we did not know the position of the enemy." *Spitfire*, p. 337: "We had absolutely no idea of where the enemy were, and only a very vague idea of the position of our own ships." *Sparrowhawk*, p. 347: "We sighted three ships on our starboard beam steering approximately the same course as ourselves, but steaming a little faster, and we reported these ships to Captain (D), informing him that at least one of these ships was a three-funnelled light cruiser. He replied that he thought them to be our 1st Light Cruiser Squadron." (The 1st Light Cruiser Squadron was with the battle cruisers about 18 miles from the 4th Flotilla.) *Marksmen*, p. 368: "As we had little or no information as to the relative position of ourselves to the other ships and squadrons of the Fleet" *Faulknor*, p. 388: "We were not certain of the whereabouts or disposition of most of the Battle Fleet, and as for that of the other British destroyer flotillas."

APPROXIMATE MOVEMENTS OF NINTH & TENTH AND THIRTEENTH FLOTILLAS BETWEEN 11:00. P.M. & 3:30. A.M.

Scale
5 4 3 2 1 0 5 10 15 Sea Miles



could only lead to a repetition of the first encounter. Tactical co-operation with the Battle Fleet was also lacking, for not a single signal was made either during or after the fighting reporting the position and course of the enemy to the Commander-in-Chief.

13th Flotilla. (Diagram 52.)

89. On the Commander-in-Chief ordering the destroyers to take station for the night, the 12th and 13th, 9th and 10th (the Harwich detachment) Flotillas took up a position astern of the eastern flank of the Battle Fleet. At 9.35 p.m. the 12th Flotilla¹ was in station, two cables astern of the *Agincourt*. At 9.45 p.m. it reduced speed and by 10.45 p.m.² was five miles astern of the 5th Division. Up till 11.30 p.m., the 9th and 10th Flotillas³ were on the starboard beam of the 12th, and the 13th Flotilla⁴ was on the starboard beam of the 9th and 10th. When the enemy engaged the 4th Flotilla at 11.30 p.m. many shots fell amongst the 9th, 10th and 13th Flotillas,⁵ which were in the line of fire. The *Champion*, leading the 13th, thereupon altered course to the eastward,⁶ and increased to high speed without signal—a manœuvre which completely disorganised her own flotilla, of which only the *Moresby* and *Obdurate* managed to maintain touch. The remainder followed astern of the 9th and 10th Flotillas in a long straggling line without their senior officer being aware of this addition to his forces. The 12th Flotilla was also forced off its course to the north-eastward and had to reduce speed in order to let the *Champion* pass ahead.

¹ Consisting of *Faulknor* (Captain D.), *Obedient*, *Mindful*, *Marvel*, *Onslaught*, *Maenad*, *Narschal*, *Nessus*, *Noble*, *Marksmen*, *Opal*, *Nonsuch*, *Menace*, *Munster* and *Mary Rose*.

² *Faulknor* (r), J.P., p. 332.

³ Consisting of *Lydiard*, *Liberty*, *Landrail*, *Laurel*, *Moorsom* and *Morris*. The *Termagant* and *Turbulent* were temporarily attached to the 13th Flotilla and the *Moorsom* was ordered to return to her base at 9.57 p.m.

⁴ Consisting of *Champion* (Captain D.), *Obdurate*, *Moresby*, *Nerissa*, *Termagant*, *Nicator*, *Narborough*, *Pelican*, *Pelard* and *Turbulent*.

⁵ *Nerissa* (r): "Many salvos fell between *Nerissa* and *Moresby*."—J.P., p. 235. *Liberty* (r): "11.30. Fire was opened on the flotilla by about four heavy ships which appeared to be 4,000 yards on our port beam."—J.P., p. 259. *Champion* (r): "About 11.30 heavy firing was opened on our starboard beam, apparently at some of our destroyers between the 13th Flotilla and the enemy."—J.P., p. 224.

⁶ *Lydiard* (r): "*Champion* suddenly increased to high speed and disappeared to starboard."—J.P., p. 255. *Landrail* reports: "11.30. Fire was opened to starboard of us . . . during it *Champion* went on at high speed and disappeared without a signal."—J.P., p. 258. *Champion* states "about 11.30 heavy firing was reported on our starboard beam. I hauled out to the eastward as I was unable to attack with any of our flotilla, our own forces being between me and the enemy. Destroyers of the 13th Flotilla with the exception of *Obdurate* and *Moresby* lost touch with me during the night."—J.P., p. 225.

British destroyers were between the *Champion* and the enemy, but the orthodox method of attack is from ahead, and there was nothing to prevent her increasing speed and maintaining a Southerly direction so as to get into a favourable position. After proceeding about six miles to the eastward, the *Champion* altered course to the South and the *Marksman* and *Maenad*, which had become separated from the 12th Flotilla, took station astern about 2.30 a.m. In retiring to the eastward and afterwards steering a Southerly course, the *Champion* repeated the mistake of the 4th Flotilla, but when she sighted the enemy, consisting of four ships of the *Deutschland* class, it was getting light, and they could be seen about two miles away bearing West. The Germans apparently did not see the British in the half light and did not open fire. The *Champion* again altered course to the eastward¹ at 2.34 a.m., but the *Moresby* considering some action imperative, hoisted "Compass West" to point out the enemy, hauled out to port and attacked on her own initiative, firing one torpedo. This apparently sank the German torpedo boat V.4, but not having seen the *Moresby*, the enemy put her loss down to a mine. No report was made to the Commander-in-Chief.

About 2.45 the *Champion* altered course to the northward to close the Commander-in-Chief in accordance with the latter's signal made at 2.20 a.m. At about 3.30 a.m. four enemy torpedo boats were sighted steering South at about 3,000 yards range. They attacked with torpedoes and the *Champion* appears to have replied with one round from her 6 in. guns,² but she made no attempt to follow them and they quickly disappeared in the mist. They were probably G.37, 38 and 40, and V.45, returning with 1,250 men from the *Lützow*, and it is unfortunate that a light cruiser and four destroyers should have allowed them to escape without pursuit. Scheer states that these four torpedo boats engaged British cruisers and destroyers on two occasions, and that during the last action G.40 was hit in the engine room and had to be taken in tow. The failure to follow up the enemy is therefore all the more regrettable.

On the way North survivors of the *Ardent* and *Fortune* were picked up. The *Champion*, *Moresby*, *Obdurate* and *Maenad* then returned to their base, whilst the *Marksman*, after sinking the *Sparrowhawk*, joined the 1st Battle Squadron. The proceedings of the remainder of the 13th Flotilla will be considered in conjunction with the 9th and 10th.

¹ The *Champion* makes no mention of sighting the enemy battleships in her report, but the alteration of course corresponds with the time of the *Moresby's* report.

² Some of the destroyers accompanying the *Champion* also appear to have opened fire.

9th and 10th Flotilla. (Diagram 52.)

90. When the *Champion* crossed the bows of the 9th and 10th Flotilla, the *Lydiard* (the Senior Officer of the 9th and 10th Flotilla) altered course to the south-eastward, followed by the *Unity* from the 4th Flotilla and the seven boats of the 13th Flotilla which had just lost touch with the *Champion*. The shots directed at the 4th Flotilla continued to fall spasmodically in the direction of the 9th and 10th, and the object in view was to work round to the other side of the enemy ships.¹ At about midnight, course was altered to S.W., which took the majority of the flotilla across the head of the enemy's line about 0.25 a.m., but the last four boats passed very close. The *Narborough* and *Pelican* sighted enemy ships on the starboard quarter at short range, whilst the *Petard* had to alter course to avoid being rammed by the leading ship. The enemy switched on searchlights and opened fire on the last two boats—the *Petard* and *Turbulent*. The former received several hits and the latter was sunk with all hands, either by ramming or gun-fire.

At 1.30 course was altered to the westward to close the *Castor*. At 5.35 a.m. the 9th and 10th Flotilla, which was short of fuel, proceeded to its base, and the stragglers of the 13th Flotilla were ordered to close the battle cruisers.

The action taken by the 9th and 10th Flotillas at 11.30 p.m. was similar to that of the 4th and *Champion's* detachment—a retirement to the eastward followed by a Southerly course. Although there seems to have been no idea of attacking, the flotilla found itself in an excellent position to do so. The line of 13 destroyers was right across the van of the whole enemy Battle Fleet, but it was a long straggling inarticulated line, lacking cohesion and offensive power. It was left to the enemy to attack, and the *Turbulent* was sunk in the same manner as the *Tipperary*, *Fortune* and *Ardent*. There was also the same doubt as to the identity of the enemy ships,² and the same neglect to report the position of the enemy to the Commander-in-Chief.

12th Flotilla. (Diagram 53.)

91. At 11.45 p.m. the *Faulknor*, leading the 12th Flotilla, was pressed off her course to the southward by the *Champion*, *Obdurate* and *Moresby*. She altered course to the eastward and later to the north-eastward, reducing speed to allow the *Champion* to pass ahead. As the flotilla was turning to S.E., two enemy cruisers suddenly appeared on the starboard side close to the rear

¹ *Lydiard's* (r). J.P. 255.

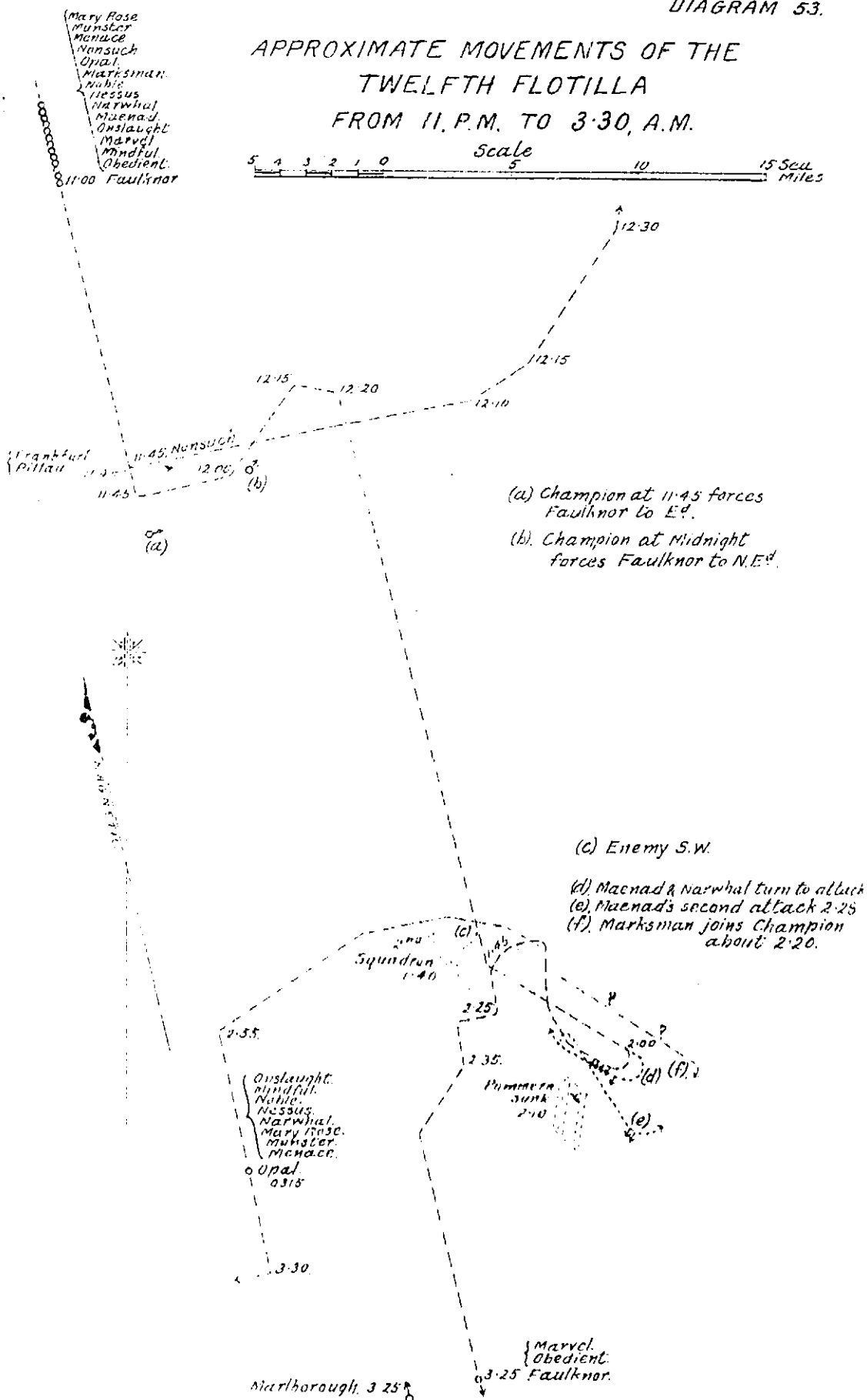
² *Pelican* (r), " at 0.40 . . . observed two ships which were at first taken to be our light cruisers." J.P. 234. *Narborough* (r), " at 0.30 a.m. . . . This vessel was thought to be one of our light cruisers or an armoured cruiser of the *Warrior* class, one of which had been on our starboard quarter during the first watch." J.P. 230.

FROM 11 P.M. TO 3:30 A.M.

Scale

Scale

5 10 15 Miles



of the line. The *Menace* had to put her helm hard over to avoid collision, and the *Nonsuch*¹ turned to the eastward and increased to full speed. The cruisers were probably the *Pillau* and *Frankfurt* of the 2nd Scouting Group, which apparently took a more Northerly course than the remainder of the fleet after the action with the 4th Flotilla. As a result of this encounter the *Nonsuch* lost touch with the flotilla. She fell in with the *Acasta* about 8.0 a.m. and towed her to Aberdeen.

At 0.20 a.m. the flotilla resumed its Southerly course. At about 1.45 a.m. the *Faulknor* and *Obedient* sighted strange ships on the starboard bow steering S.E. They proved to be the 2nd Squadron of the High Sea Fleet. The *Faulknor*, who was leading with the 1st and 2nd Divisions, disposed on the starboard and port quarter respectively, at once altered parallel to the enemy, increased speed to 25 knots, and ordered the 1st Division² to attack. But the enemy had sighted the destroyers, and turning away was temporarily lost to view. Thereupon the *Faulknor* recalled the 1st Division and ordered it to take station astern. The whole flotilla then proceeded at 25 knots in a South-Easterly direction to get into a favourable position for attacking. In the meanwhile the *Faulknor* found time to report the position and course of the enemy to the Commander-in-Chief,³ and at about 2.00 she turned some 16 points to starboard, followed by the *Obedient*, *Marvel* and *Onslaught*. The *Mindful*, which originally had been astern of the *Obedient*, only having two boilers available, was left some distance behind. The *Maenad*, who had expected the attack to be made to starboard, held on to the south-eastward to admit of her tubes being trained to port, and turned about five minutes after the *Faulknor*, followed by the *Narwhal*. The *Faulknor* and the three destroyers following her, sighted the enemy immediately after their turn was completed, and all fired torpedoes. The *Mindful*, which was apparently still steering in a South-Easterly direction, appears to have sighted the enemy on her starboard bow whilst the *Faulknor* was delivering her attack, and to have made straight for the German line, but being masked by the destroyers astern of the *Faulknor* she had to turn away to avoid being rammed. The *Faulknor* and *Obedient* each fired two torpedoes, and the *Onslaught* and *Marvel* four each. One of them hit the *Pommern*, the third ship in the enemy's line, which blew up with a terrific explosion⁴ at 2.10 a.m. The destroyers

¹ *Nonsuch* (-). "Two German cruisers passed astern and opened fire; attempted to fire torpedo. Increased to 33 knots."

² *Obedient*, *Marvel*, *Mindful* and *Onslaught*.

³ 0152, "Enemy's Battle Fleet steering S.E., approximate bearing S.W. My position 10' astern of 1st Battle Squadron." *Faulknor* reports that this signal was made twice on power but was not answered.

⁴ "... and directly ahead of us saw a huge pillar of fire shoot up to the sky. It looks to us like the trail of a gigantic rocket. ... The ship must have been blown literally to atoms, for a few minutes later not the slightest trace of her could be seen." Von Hase, I.D. 1220, p. 39.

came under a heavy fire, the *Onslaught's* bridge and chart house were totally wrecked, the Captain mortally wounded and the 1st Lieutenant killed.

92. The *Maenad* and *Narwhal* appear to have delivered their attack about ten minutes after the *Faulknor*, the former firing one torpedo and the latter two. The *Maenad* then turned approximately 16 points to starboard and delivered a second attack by herself, firing two torpedoes. None of these took effect.¹ The *Maenad* then ran down to the south-eastward and joined up with the *Marksman* and *Champion* about 2.30 a.m.

Nothing definite can be said as to the movements of the *Nessus*, *Noble*, *Opal*, *Menace*, *Munster* and *Mary Rose* after the *Faulknor* turned to the north-westward, for no reports from these vessels can be traced. They may or may not have followed the *Maenad* and *Narwhal*, but they did not fire any torpedoes,² and it may therefore be assumed that they took no part in the attack. The proceedings of the *Marksman* are also obscure. After the *Faulknor*, etc., had delivered their attack, cruisers were seen approaching from the rear of the enemy's battle line. They opened a heavy fire and drove the *Faulknor's* detachment off to the north-eastward.³ As soon as they were clear *Faulknor* altered course to the S.W. and gradually to the South with the intention of keeping in touch. A cruiser was sighted about 2.25 a.m., but after that the enemy was not seen again.⁴

The *Faulknor* proceeded to join the Battle Fleet, taking station on the quarter of the 5th Division at 3.40 a.m. In the meanwhile, at 3.20 a.m., the *Opal* had reported the remainder of the flotilla 15 miles to the westward of the *Faulknor's* 2.0 a.m. position, and at 3.46 a.m. the *Faulknor* ordered them to conform to her movements.

The command of the 12th Flotilla compares very favourably with that of the 4th, 9th, 10th and 13th Flotillas on the night of the 31st. The initiative was not left to the enemy; an attack was organised, and an attempt was made to get into a suitable position before delivering it. It is also noticeable that the

¹ *Maenad* states that the range was between 4,000 and 5,000 yards. But the enemy probably turned away, and the 4 in. guns are reported as hitting with 6,000 yards on the sights. Individual torpedo attacks cannot be expected to succeed at such long ranges.

² Analysis of Torpedo Firing in the Battle of Jutland, 1918—C.B. 1384.

³ The *Faulknor* reports that the cruisers which drove her off to the north-eastward "altered back towards their own fleet and continued to attack the destroyers astern of us." It is possible that these cruisers drove the remainder of the flotilla out of range and prevented them attacking."

⁴ When last seen the enemy battle line was steering S.S.W., and this was signalled to the Commander-in-Chief by the *Faulknor* at 2.12 a.m. It was made twice on power but was not answered.

flotilla leader endeavoured to communicate the position and course of the enemy to the Commander-in-Chief. The attack was, however, only a partial one; only six destroyers participated, and only 16 torpedoes were fired out of a possible 60.

Generally speaking, the British flotillas do not appear to have taken full advantage of their opportunities on the night of the 31st. Their system of command and organisation proved inadequate to meet the conditions of modern battle, and they were also seriously handicapped by lack of information as to the disposition and movements of their own and enemy forces.

Night had fallen on the flotillas taking up a position astern of the fleet. Break of day found them scattered and dispersed and the German Fleet passing Horns Riff.

93. Such was the Battle of Jutland, whose reverberations were felt in every corner of the globe, and which by virtue of the strength of the forces confronting one another and the magnitude of the issues involved must rank as one of the great naval battles of the world.

To the Germans it was a day very different from that of their vainglorious toasts, and they were successful only in avoiding a disastrous defeat. To the British it was a day of trial, when the thought and work of two generations were brought to the bar of reality and put to the test. The bed-rock qualities of the Navy stood unshaken, but the system of tactics and fleet command did not stand the strain.

It has been said that a great victory would have given us no more than we had. This is a lame commentary on the battle. It is not only a repudiation of the teachings of Nelson and Mahan, but it involves an entire misconception of the subsequent workings of the submarine campaign, and reduces contemporary British strategy to the level of a farce. It is better to look facts in the face. The battle of Jutland can only be regarded as the beginning of a great battle which was never driven home. By studying its history we may redeem our shortcomings and discover another and sounder conception of tactics and command.

APPENDIX A.

PRELIMINARY DISTRIBUTION OF BRITISH SHIPS, WITH NAMES OF COMMANDING OFFICERS.¹

On Tuesday, May 30, 1916, the sea-going ships of the Grand Fleet were distributed between the three northern bases as follows :—

AT SCAPA FLOW.

Iron Duke, Captain Frederick C. Dreyer, C.B. (Fleet Flagship). Flying the flag of Admiral Sir John Jellicoe, G.C.B., K.C.V.O., Commander-in-Chief. Vice-Admiral Sir Charles Madden, K.C.B., C.V.O., Chief-of-Staff; Commodore Lionel Halsey, C.M.G., Captain-of-the-Fleet.

Attached to Fleet Flagship :—

Destroyer.

Oak, Lieutenant-Commander Douglas Faviell, M.V.O.

Flotilla Leader.

Abdiel, Commander Berwick Curtis. (Fitted as a minelayer.)

Light Cruiser.

Active, Captain Percy Withers.

Seaplane Carrier.

Campania (was unable to raise steam in time to sail with the Fleet, left Scapa at 1.30 a.m., but was ordered back with defects at 4.30 a.m., 31st).

Kite Balloon Ship.

Menelaus (did not sail).

1ST BATTLE SQUADRON.

Marlborough, Captain George P. Ross, Flying the flag of Vice-Admiral Sir Cecil Burney, K.C.B., K.C.M.G., Second in Command of the Grand Fleet. Captain E. Percy F. G. Grant, Chief-of-Staff.

Revenge, Captain Edward B. Kiddle.

Hercules, Captain Lewis Clinton-Baker.

Agincourt, Captain Henry M. Doughty.

Colossus, Captain Alfred D. P. R. Pound. Flying the flag of Rear-Admiral Ernest F. A. Gaunt, C.M.G.

Collingwood, Captain James C. Ley.

Neptune, Captain Vivian H. G. Bernard.

St. Vincent, Captain William W. Fisher, M.V.O.

Attached to 1st Battle Squadron :—

Light Cruiser.

Bellona, Captain Arthur B. S. Dutton.

(*Royal Sovereign*, which had commissioned on April 18, 1916, and arrived at Scapa Flow on May 25, did not proceed to sea with the Fleet.)

4TH BATTLE SQUADRON.

Benbow, Captain Henry W. Parker. Flying the flag of Vice-Admiral Sir Doveton Sturdee, Bart., K.C.B., C.V.O., C.M.G.

Bellerophon, Captain Edward F. Bruen.

Temeraire, Captain Edwin V. Underhill.

¹ Reproduced from Harper's Report, p. 5.

4TH BATTLE SQUADRON—*could*;*Vanguard*, Captain James D. Dick.*Royal Oak*, Captain Crawford MacLachlan.*Superb*, Captain Edmond Hyde-Parker. Flying the flag of Rear-Admiral Alexander L. Duff, C.B.*Canada*, Captain William C. M. Nicholson.

Attached to 4th Battle Squadron :—

*Light Cruiser.**Blanche*, Captain John M. Casement.(Emperor of India, Second Flagship of this Squadron, was at this time refitting at Invergordon : the flag was flown temporarily in *Superb*.)

3RD CRUISER SQUADRON.

Invincible, Captain Arthur L. Cay. Flying the flag of Rear-Admiral The Hon. Horace L. A. Hood, C.B., M.V.O., D.S.O.*Indomitable*, Captain Francis W. Kennedy.*Inflexible*, Captain Edward H. F. Heaton-Ellis, M.V.O.

To this Squadron were temporarily attached :—

*Light Cruisers.**Chester*, Captain Robert N. Lawson, belonging to 3rd Light Cruiser Squadron.*Canterbury*, Captain Percy M. R. Royds.

2ND CRUISER SQUADRON

(Organised that day out of the ships of the old 2nd and 7th Cruiser Squadrons).

Minotaur, Captain Arthur C. S. H. D'Aeth. Flying the flag of Rear-Admiral Herbert L. Heath, M.V.O.*Hampshire*, Captain Herbert J. Savill.*Cochrane*, Captain Eustace La T. Leatham.*Shannon*, Captain John S. Dumaresq, M.V.O.

(Achilles was away refitting, and Donegal on detached service.)

4TH LIGHT CRUISER SQUADRON.

Calliope, Commadore Charles E. Le Mesurier.*Constance*, Captain Cyril S. Townsend.*Comus*, Captain Alan G. Hotham.*Caroline*, Captain H. Ralph Crooke.*Royalist*, Captain The Hon. Herbert Meade, D.S.O.

4TH FLOTILLA.

*Flotilla Leaders.**Tipperary*, Captain Charles J. Wintour (Captain D. IV).*Broke*, Commander Walter L. Allen.*Destroyers.**Achates*, Commander Reginald B. C. Hutchinson, D.S.O.*Porpoise*, Commander Hugh D. Colville.*Spitfire*, Lieutenant-Commander Clarence W. E. Trelawney.*Unity*, Lieutenant-Commander Arthur M. Lecky.*Garland*, Lieutenant-Commander Reginald S. Goff.*Ambuscade*, Lieutenant-Commander Gordon A. Coles.*Ardent*, Lieutenant-Commander Arthur Marsden.*Fortune*, Lieutenant-Commander Frank G. Terry.*Sparrowhawk*, Lieutenant-Commander Sydney Hopkins.*Contest*, Lieutenant-Commander Ernald G. H. Master.*Shark*, Commander Loftus W. Jones.*Acasta*, Lieutenant-Commander John O. Barron.*Christopher*, Lieutenant-Commander Fairfax M. Kerr.

4TH FLOTILLA—*contd.**Destroyers—contd.*

Owl, Commander Robert G. Hamond.

Hardy, Commander Richard A. A. Plowden.

Midge, Lieutenant-Commander James R. C. Cavendish.

Ophelia, Commander Lewis G. E. Crabbe (temporarily attached).

(*Cockatrice* and *Paragon* of this Flotilla were away refitting, and *Victor* remained in harbour.)

PART OF 11TH FLOTILLA.

Light Cruiser.

Castor, Commodore James R. P. Hawksley, M.V.O. (Commodore F., Captain D. XI).

Destroyers.

Marne, Lieutenant-Commander George B. Hartford.

Manners, Lieutenant-Commander Gerald C. Harrison.

Michael, Lieutenant-Commander Claude L. Bate.

Mons, Lieutenant-Commander Robert Makin.

12TH FLOTILLA.

Flotilla Leaders.

Faulknor, Captain Anselan J. B. Stirling (Captain D. XII).

Marksman, Commander Norton A. Sullivan.

Obedient, Commander George W. McO. Campbell.

Destroyers.

Maenad, Commander John P. Champion.

Opal, Commander Charles G. C. Sumner.

Mary Rose, Lieutenant-Commander Edwin A. Homan.

Marvel, Lieutenant-Commander Reginald W. Grubb.

Menace, Lieutenant-Commander Charles A. Poignand.

Nessus, Lieutenant-Commander Eric Q. Carter.

Narwhal, Lieutenant-Commander Henry V. Hudson.

Mindful, Lieutenant-Commander John J. C. Ridley.

Onslaught, Lieutenant-Commander Arthur G. Onslow, D.S.C.

Munster, Lieutenant-Commander Spencer F. Russell.

Nonsuch, Lieutenant-Commander Herbert I. N. Lyon.

Noble, Lieutenant-Commander Henry P. Boxer.

Mischief, Lieutenant-Commander The Hon. Cyril A. Ward, M.V.O.

(*Napier* and *Mameluke* of this Flotilla were away refitting; they returned to Scapa in time to screen the Battle Fleet into the Base on its return.)

AT INVERGORDON.

2ND BATTLE SQUADRON.

King George V, Captain Frederick L. Field. Flying the flag of Vice-Admiral Sir Martyn Jerram, K.C.B.

Ajax, Captain George H. Baird.

Centurion, Captain Michael Culme-Seymour, M.V.O.

Erin, Captain The Hon. Victor A. Stanley, M.V.O., A.D.C.

Orion, Captain Oliver Backhouse, C.B. Flying the flag of Rear-Admiral Arthur C. Leveson, C.B.

Monarch, Captain George H. Borrett.

Conqueror, Captain Hugh H. D. Tothill.

Thunderer, Captain James A. Fergusson.

Attached to 2nd Battle Squadron :—

Light Cruiser.

Boadicea, Captain Louis C. S. Woolcombe, M.V.O.

1ST CRUISER SQUADRON.

Defence, Captain Stanley V. Ellis. Flying the flag of Rear-Admiral Sir Robert Arbuthnot, Bart., M.V.O.
Warrior, Captain Vincent B. Molteno.
Duke of Edinburgh, Captain Henry Blackett
Black Prince, Captain Thomas P. Bonham.

PART OF 11TH FLOTILLA.

Flotilla Leader.

Kempfenfelt, Commander Harold E. Sullivan.

Destroyers.

Ossory, Commander Harold V. Dundas.
Mystic, Commander Claud F. Allsup.
Morning Star, Lieutenant-Commander Hugh U. Fletcher.
Magic, Lieutenant-Commander Gerald C. Wynter.
Mounsey, Lieutenant-Commander Ralph V. Eyre.
Mandate, Lieutenant-Commander Edward McC. W. Lawrie.
Minion, Lieutenant-Commander Henry C. Rawlings.
Martial, Lieutenant-Commander Julian Harrison.
Millbrook, Lieutenant Charles G. Naylor.
Moon, Commander (acting) William D. Irvin (on patrol: joined up with her flotilla about 2 p.m., May 31).
 (*Marmion* and *Musketeer* of this Flotilla were away refitting.)

AT ROSYTH.

Lion, Captain Alfred E. M. Chatfield, C.V.O. (Battle Cruiser Fleet Flagship).
 Flying the flag of Vice-Admiral Sir David Beatty, K.C.B., M.V.O.,
 D.S.O. Captain Rudolph W. Bentinck, Chief-of-Staff.

5TH BATTLE SQUADRON.

Barham, Captain Arthur W. Craig. Flying the flag of Rear-Admiral Hugh Evan-Thomas, M.V.O.
Valiant, Captain Maurice Woodcombe.
Warspite, Captain Edward M. Phillpotts.
Malaya, Captain the Hon. Algernon D. E. H. Boyle, C.B., M.V.O.
 (*Queen Elizabeth* of this Squadron was under refit.)

1ST BATTLE CRUISER SQUADRON.

Princess Royal, Captain Walter H. Cowan, M.V.O., D.S.O. Flying the flag of Rear-Admiral Osmond de B. Brock, C.B.
Queen Mary, Captain Cecil I. Prowse.
Tiger, Captain Henry B. Pelly, M.V.O.

2ND BATTLE CRUISER SQUADRON.

New Zealand, Captain John F. E. Green. Flying the flag of Rear-Admiral William C. Pakenham, C.B., M.V.O.
Indefatigable, Captain Charles F. Sowerby.
 (*Australia*, Flagship of this Squadron, was absent refitting at Devonport the flag was flown temporarily in *New Zealand*.)

1ST LIGHT CRUISER SQUADRON.

Galatea, Commodore Edwyn S. Alexander-Sinclair, M.V.O.
Phaeton, Captain John E. Cameron, M.V.O.
Inconstant, Captain Bertram S. Thesiger, C.M.G.
Cordelia, Captain Tufton P. H. Beamish.

2ND LIGHT CRUISER SQUADRON.

Southampton, Commodore William E. Goodenough, M.V.O., A.D.C.
Birmingham, Captain Arthur A. M. Duff.
Nottingham, Captain Charles B. Miller.
Dublin, Captain Albert C. Scott.

3RD LIGHT CRUISER SQUADRON.

Falmouth, Captain John D. Edwards, Flying the flag of Rear-Admiral
 Trevelyan D. W. Napier, M.V.O.
Yarmouth, Captain Thomas D. Pratt.
Birkenhead, Captain Edward Reeves.
Gloucester, Captain William F. Blunt, D.S.O.

PART OF 1ST FLOTILLA.

Light Cruiser.

Fearless, Captain Charles D. Reper (Captain D. I.).

Destroyers.

Acheron, Commander Charles G. Ramsey.
Ariel, Lieutenant-Commander Arthur G. Tippet.
Attack, Lieutenant-Commander Charles H. N. James.
Hydra, Lieutenant Francis G. Glossop.
Badger, Commander Charles A. Freemantle.
Goshawk, Commander Dashwood F. Moir.
Defender, Lieutenant-Commander Lawrence R. Palmer.
Lizard, Lieutenant-Commander Edward Brooke.
Lapwing, Lieutenant-Commander Alexander H. Gye.
 (*Boha*, *Archer*, *Jackal* and *Tigress* of this Flotilla were away refitting,
 and *Phoenix* remained in harbour.)

13TH DESTROYER FLOTILLA.

Light Cruiser.

Champion, Captain James U. Farie (Captain D. XIII).

Destroyers.

Nestor, Commander The Hon. Edward B. S. Bingham.
Nomad, Lieutenant-Commander Paul Whitfield.
Narborough, Lieutenant-Commander Geoffrey Corlett.
Obdurate, Lieutenant-Commander Cecil H. H. Sams.
Pelard, Lieutenant-Commander Evelyn C. O. Thomson.
Pelican, Lieutenant-Commander Kenneth A. Beattie.
Nerissa, Lieutenant-Commander Montague G. B. Legge.
Onslow, Lieutenant-Commander John C. Tovey.
Moresby, Lieutenant-Commander Ryger V. Alison.
Nicator, Lieutenant Jack E. A. Mocatta.
 (*Negro*, *Nereus*, *Paladin*, *Penn* and *Pigeon* of this Flotilla were away
 refitting and *Nepean* remained in harbour.)

PART OF 9TH FLOTILLA.

Lydiard, Commander Malcolm L. Goldsmith.
Liberty, Lieutenant-Commander Phillip W. S. King.
Landrail, Lieutenant-Commander Francis E. H. G. Hobart.
Laurel, Lieutenant Henry D. C. Stanistreet.

PART OF 10TH FLOTILLA.

Moorson, Commander John C. Hodgson.*Morris*, Lieutenant-Commander Edward S. Graham.*Turbulent*, Lieutenant-Commander Dudley Stuart.*Termagant*, Lieutenant-Commander Cuthbert P. Blake.*Seaplane Carrier.**Engadine*, Lieutenant-Commander Charles G. Robinson.

APPENDIX B.

ORGANISATIONS OF THE BRITISH FLEET.¹

BATTLE FLEET.

ORGANISATION No. 5.		ORGANISATION No. 2.	
2nd Battle Squadron	<i>King George V</i>	1st Division	<i>King George V</i>
	<i>Ajax</i>		<i>Ajax</i>
	<i>Centurion</i>		<i>Centurion</i>
	<i>Erin</i>		<i>Erin</i>
	<i>Orion</i>		<i>Orion</i>
4th Battle Squadron	<i>Monarch</i>	2nd Division (<i>Iron Duke</i> and 4th Battle Squadron).	<i>Monarch</i>
	<i>Conqueror</i>		<i>Conqueror</i>
	<i>Thunderer</i>		<i>Thunderer</i>
	<i>Iron Duke</i>		<i>Iron Duke</i>
	<i>Royal Oak</i>		<i>Royal Oak</i>
1st Battle Squadron	<i>Superb</i>	3rd Division (1st Battle Squadron).	<i>Superb</i>
	<i>Canada</i>		<i>Canada</i>
	<i>Benbow</i>		<i>Benbow</i>
	<i>Bellerophon</i>		<i>Bellerophon</i>
	<i>Temeraire</i>		<i>Temeraire</i>
Attached Cruisers	<i>Vanguard</i>	6th Division	<i>Vanguard</i>
	<i>Colossus</i>		<i>Marlborough</i>
	<i>Collingwood</i>		<i>Revenge</i>
	<i>Neptune</i>		<i>Hercules</i>
	<i>St. Vincent</i>		<i>Agincourt</i>
Attached Cruisers	<i>Boadicea</i>	Attached	<i>Oak</i>
	<i>Blanche</i>		<i>Abdiel</i>
	<i>Bellona</i>		
	<i>Active</i>		

5TH BATTLE SQUADRON.

Barham
*Valiant**Warspite*
Malaya

BATTLE CRUISERS.

Lion

1st Battle Cruiser Squadron.

Princess Royal
Queen Mary
Tiger

2nd Battle Cruiser Squadron.

New Zealand
Indefatigable

3rd Battle Cruiser Squadron.

Invincible
Inflexible
*Indomitable*¹ Reproduced from Harper's Report, p. 106.

LIGHT CRUISERS.

1st Light Cruiser Squadron.	2nd Light Cruiser Squadron.	3rd Light Cruiser Squadron.
<i>Galatea</i>	<i>Southampton</i>	<i>Falmouth</i>
<i>Phaeton</i>	<i>Birmingham</i>	<i>Yarmouth</i>
<i>Inconstant</i>	<i>Nottingham</i>	<i>Birkenhead</i>
<i>Cordelia</i>	<i>Dublin</i>	<i>Gloucester</i>
		<i>Chester</i>

CRUISER SQUADRONS.

1st Cruiser Squadron.	2nd Cruiser Squadron.
<i>Defence</i>	<i>Minotaur</i>
<i>Warrior</i>	<i>Hampshire</i>
<i>Duke of Edinburgh</i>	<i>Cochrane</i>
<i>Black Prince</i>	<i>Shannon</i>

LIGHT CRUISER SQUADRON.

4th Light Cruiser Squadron.
<i>Calliope</i> <i>Caroline</i>
<i>Constance</i> <i>Royalist</i>
Comus.

LIGHT CRUISER—Canterbury.

DESTROYER FLOTILLAS.

12th Flotilla.	11th Flotilla.	4th Flotilla.
<i>Faulknor</i>	<i>Castor</i>	<i>Tipperary</i>
<i>Marksman</i>	<i>Kempfenfelt</i>	<i>Broke</i>
<i>Obedient</i>	<i>Ossory</i>	<i>Achates</i>
<i>Mænad</i>	<i>Mystic</i>	<i>Porpoise</i>
<i>Opal</i>	<i>Moon</i>	<i>Spitfire</i>
<i>Mary Rose</i>	<i>Morning Star</i>	<i>Unity</i>
<i>Marvel</i>	<i>Magic</i>	<i>Garland</i>
<i>Menace</i>	<i>Mounsey</i>	<i>Ambuscade</i>
<i>Nessus</i>	<i>Mandate</i>	<i>Ardent</i>
<i>Narwhal</i>	<i>Marne</i>	<i>Fortune</i>
<i>Mindful</i>	<i>Minion</i>	<i>Sparrowhawk</i>
<i>Onslaught</i>	<i>Manners</i>	<i>Contest</i>
<i>Munster</i>	<i>Michael</i>	<i>Shark</i>
<i>Nonsuch</i>	<i>Mons</i>	<i>Acasta</i>
<i>Noble</i>	<i>Martial</i>	<i>Ophelia</i>
<i>Mischief</i>	<i>Milbrook</i>	<i>Christopher</i>
		<i>Owl</i>
		<i>Hardy</i>
		<i>Midge</i>
1st Flotilla.	13th Flotilla.	9th and 10th Flotillas.
<i>Fearless</i>	<i>Champion</i>	<i>Lydiard</i>
<i>Acheron</i>	<i>Nestor</i>	<i>Liberty</i>
<i>Ariel</i>	<i>Nomad</i>	<i>Landrail</i>
<i>Attack</i>	<i>Narborough</i>	<i>Laurel</i>
<i>Hydro</i>	<i>Obdurate</i>	<i>Moorsom</i>
<i>Badger</i>	<i>Pelard</i>	<i>Morris</i>
<i>Goshawk</i>	<i>Pelican</i>	<i>Turbulent</i>
<i>Defender</i>	<i>Nerissa</i>	<i>Termagant</i>
<i>Lizard</i>	<i>Onslow</i>	
<i>Lapwing</i>	<i>Moresby</i>	
	<i>Nicator</i>	

SEAPLANE CARRIER.

Engadine.

ORGANISATION OF THE GERMAN FLEET.

BATTLESHIPS.

3rd Squadron	<i>König</i> <i>Grosser Kurfürst</i> <i>Kronprinz</i> <i>Markgraf</i> <i>Kaiser</i> <i>Kaiserin</i> <i>Prinzregent Luitpold</i>	} 5th Division. } 6th Division.
1st Squadron	<i>Friedrich der Grösse</i> (Fleet Flagship) <i>Ostfriesland</i> <i>Thüringen</i> <i>Helgoland</i> <i>Oldenburg</i> <i>Posen</i> <i>Rheinland</i> <i>Nassau</i> <i>Westfalen</i>	} 1st Division. } 2nd Division.
2nd Squadron	<i>Deutschland</i> <i>Hessen</i> <i>Pommern</i> <i>Hannover</i> <i>Schlesien</i> <i>Schleswig-Holstein</i>	} 3rd Division. } 4th Division.

CRUISERS.

1st Scouting Group (Battle Cruisers).	2nd Scouting Group (Light Cruisers).	4th Scouting Group (Light Cruisers).
<i>Lützow</i>	<i>Frankfurt</i>	<i>Stettin</i>
<i>Derfflinger</i>	<i>Wiesbaden</i>	<i>München</i>
<i>Seydlitz</i>	<i>Pillau</i>	<i>Hamburg</i>
<i>Moltke</i>	<i>Elbing</i>	<i>Frauenlob</i>
<i>Von der Tann</i>		<i>Stuttgart</i>

DESTROYER FLOTILLAS.

<i>Rostock</i> (light cruiser), 1st Leader of Torpedo Boats.	<i>Regensburg</i> (light cruiser), 2nd Leader of Torpedo Boats.
First half of 1st Flotilla	2nd Flotilla
3rd Flotilla	6th Flotilla
5th Flotilla	9th Flotilla
7th Flotilla	

Note.—Each Flotilla consisted of 11 destroyers, and was divided up into two Half-Flotillas, the 1st Flotilla consisting of the 1st and 2nd Half-Flotillas, the 2nd Flotilla consisting of the 3rd and 4th Half-Flotillas, and so on.

APPENDIX C. **BRITISH CASUALTIES.¹**

SHIP.	OFFICERS.			MEN.		
	Killed.	Wounded.	Prisoners of War.	Killed.	Wounded.	Prisoners of War.
<i>Marlborough</i>	—	—	—	2	—	—
<i>Colossus</i>	—	—	—	—	5	—
<i>Barham</i>	4	1	—	22	36	—
<i>Valiant</i>	—	—	—	—	1	—
<i>Warspite</i>	1	3	—	13(2)	13(1)	—
<i>Malaya</i>	2	—	—	61(4)	33	—
<i>Lion</i>	6	1	—	93(2)	43	—
<i>Princess Royal</i>	—	1	—	22(2)	77	—
<i>Queen Mary</i> (sunk) ..	57	2	1	1,209	5	1
<i>Tiger</i>	2	—	—	22	37	—
<i>Indefatigable</i> (sunk) ..	57	—	—	960(5)	—	2
<i>Invincible</i> (sunk) ..	61	—	—	965(5)	—	—
<i>Southampton</i>	—	1	—	35(1)	40	—
<i>Dublin</i>	1	—	—	2	24	—
<i>Chester</i>	2	3	—	33	39	—
<i>Defence</i> (sunk)	54	—	—	849(4)	—	—
<i>Warrior</i> (sunk) ²	1	2	—	70	25	—
<i>Black Prince</i> (sunk) ..	37	—	—	820(5)	—	—
<i>Calliope</i>	—	2	—	10	7	—
<i>Defender</i>	—	—	—	1	2	—
<i>Tipperary</i> (sunk)	11	—	—	174	2	8
<i>Broke</i>	1	3	—	46	33	—
<i>Porpoise</i>	—	—	—	2	2	—
<i>Spitfire</i>	—	3	—	6	16	—
<i>Ardent</i> (sunk)	4	1	—	74	1	—
<i>Fortune</i> (sunk)	4	—	—	63	1	—
<i>Sparrowhawk</i> (sunk) ..	—	—	—	6	—	—
<i>Shark</i> (sunk)	7	—	—	79	2	—
<i>Acasta</i>	1	—	—	5	1	—
<i>Moorson</i>	—	—	—	—	1	—
<i>Turbulent</i> (sunk)	5	—	—	85	—	13
<i>Castor</i>	—	1	—	13	22	—
<i>Nessus</i>	2	—	—	5	7	—
<i>Onslaught</i>	3	—	—	2	2	—
<i>Nestor</i> (sunk)	2	—	5	4	—	75
<i>Nomad</i> (sunk)	1	—	4	7	—	68
<i>Petard</i>	2	1	—	7	5	—
<i>Onslow</i>	—	—	—	2	3	—
Total	328	25	10	5,769	485	167

Numbers in brackets indicate the number of civilians included.

¹ Reproduced from Harper's Report, p. 117.

² Casualties sustained prior to loss of ship.

GERMAN CASUALTIES.¹

SHIP.	OFFICERS.		MEN.	
	Killed.	Wounded.	Killed.	Wounded.
<i>Ostfriesland</i>	—	—	1	10
<i>Oldenburg</i>	4	3	4	11
<i>Rheinland</i>	—	1	10	19
<i>Nassau</i>	2	2	10	13
<i>Westfalen</i>	—	1	2	7
<i>Pommern</i> (sunk)	71	—	769	—
<i>Schlesien</i>	—	1	1	—
<i>Schleswig-Holstein</i> ..	—	—	3	8
<i>König</i>	1	1	44	26
<i>Grosser Kurfürst</i> .. .	3	1	12	10
<i>Markgraf</i>	—	1	11	12
<i>Kaiser</i>	—	—	—	1
<i>Seydlitz</i>	5	4	93	46
<i>Moltke</i>	—	—	17	22
<i>Derfflinger</i>	1	2	153	24
<i>Von der Tann</i>	1	3	11	32
<i>Lützow</i> (sunk)	5	5	106	49
<i>Pillau</i>	—	—	4	23
<i>Frankfurt</i>	1	1	2	20
<i>Wiesbaden</i> (sunk) .. .	27	—	543	—
<i>Elbing</i> (sunk)	—	1	4	9
<i>Rostock</i> (sunk)	1	—	13	6
<i>Stettin</i>	—	1	9	26
<i>München</i>	1	4	7	15
<i>Hamburg</i>	1	4	13	21
<i>Frauenlob</i> (sunk) .. .	17	—	325	—
<i>S.32</i>	—	—	3	1
<i>G.40</i>	—	—	1	1
<i>B.98</i>	—	1	2	10
<i>V.48</i> (sunk)	6	—	84	—
<i>V.4</i> (sunk)	1	—	17	4
<i>VI Flotilla</i>	—	3	3	13
<i>IX Flotilla</i>	12	—	108	15
Total	160	40	2,385	454

¹ Reproduced from Harper's Report, p. 118.

APPENDIX D.

DAMAGE SUSTAINED BY BRITISH SHIPS.¹*Lion.*

Received about 12 hits from large projectiles.

1. Struck fore end of sick bay skylight, then upper deck plating and inboard side of 4 in. armour, where it exploded.
- 2 and 3. After end of forecastle, exploded on striking upper deck, and causing many casualties amongst 4 in. gun's crews.
4. Just above forecastle deck (starboard) and caused cordite fire near port side after 4 in. guns.
5. Pierced mainmast.
6. Struck " Q " turret, when trained on port beam. Front roof plate forced off and entire turret's crew killed, due to cordite fire in working chamber, hoist and waiting tray. Magazine was flooded.
7. 12-in. shell (probably a ricochet) pierced blast screen, and dropped between blast screen and middle funnel without exploding.
8. Pierced fore end of blast screen (port) and struck middle funnel casing. Exploded and caused a lot of local damage.
9. Entered ship's side, struck upper deck, and was deflected up, passing through forecastle deck. This shot caused a severe fire in cabins on entry.
- 10 and 11. Struck side armour close together, midway between main and upper decks. Armour damaged, but not pierced.
12. Struck sheet cable holder and passed through forecastle deck and side plating.

Repairs were completed on July 19, 1916.

Princess Royal.

Received about 6 hits from large projectiles.

1. Struck " X " turret armour, killing four men and putting turret out of action, through armour being driven in.
2. Struck just above joint of 6 in. and 9 in. side armour (starboard). Passed through and burst port side.
3. Struck 2 ft. below main deck (port), and pierced 9 in. armour, burst inside, causing many small fires.
4. Entered Admiral's pantry and exploded on striking upper deck, causing fire, and many casualties from gassing and burns.
5. Struck starboard strutt of foremast about 20 ft. above forecastle nearly half severing it, passed through funnel and more than half severed the port strutt. The mast was unaffected and director firing continued.
6. Struck edge of muzzle of right gun of " Q " turret, and apparently exploded in the air.

Repairs were completed on July 15, 1916.

Tiger.

Received about 10 hits from large projectiles.

1. On after plate of side armour (port) near water line. Plate slightly displaced and wing compartment flooded.
2. On port side of " X " turret close to deck. Armour broken, but gun mounting unaffected.
3. Struck 9 in. belt port side. Plate pushed in about 3 in.
4. Through 6 in. armour just below upper deck (port). Shell burst inside and caused local damage.

¹ Reproduced from Harper's Report.

Tiger—contd.

5. Between forecastle and upper decks (port). Struck and cracked "A" turret armour.
6. Entered between forecastle and upper decks (port). Burst inside and caused local damage.
7. Struck starboard cable holder, shattering it, passed through forecastle deck and exploded.
8. Struck forecastle deck (port) and burst inside.
9. Through shelter deck, hit forecastle deck, but did not penetrate.
10. Struck roof of "Q" turret, knocked off centre sighting hood. Turret not put out of action.

Repairs were completed on July 2, 1916.

Barham.

Received about 6 hits from large projectiles.

1. Through upper deck (starboard) and exploded between upper and main decks.
2. Through upper deck (starboard) and exploded between upper and main decks. One fragment entered lower conning tower.
3. Through superstructure (starboard) and exploded on forecastle deck.
4. Through forecastle deck, exploding inside.
5. Through side plating between upper and main decks (starboard), exploding inside and causing fire.
6. Struck armour belt port side. Armour not damaged but driven in $\frac{3}{4}$ in.

Repairs were completed on July 4, 1916.

Malaya.

Received 7 hits from large projectiles :—

1. On lower tier of armour. Armour pushed in slightly.
2. On upper tier of armour. Splash off face of plate.
- 3 and 4. Close together, inner and outer bottoms torn away just below armour shelf.
5. Through forecastle deck and burst causing cordite fire in starboard battery, 102 casualties. No. 3 casemate gun had to be replaced.
6. On lower boom stanchion, damage to superstructure.
7. Middle roof plates of "X" turret. No material damage inside turret.

Repairs were completed on June 24, 1916.

Warspite.

Received 13 hits from large projectiles.

1. On unarmoured side (starboard) between main and middle decks. Burst inside.
2. On unarmoured side (port) between main and middle decks. Burst in Captain's quarters.
3. Through 6 in. armour, 3 ft. above middle deck. Burst inside.
4. Through upper deck. Burst inside.
5. Through 6 in. armour between main and upper decks. Burst inside.
6. On main armour, breaking off top corner of armoured plate. Burst inside.
7. Through 6 in. armour and exploded inside.
8. Through upper deck, causing small fire.
9. Through after funnel, struck armour gratings and deflected up and burst starboard side.
10. Struck upper deck, exploded on impact, caused small cordite fire.

Warspile—contd.

11. Through after funnel, deflected up by armour gratings and passed through shelter deck.
12. Struck deck edge of fore shelter and burst inside, causing fire.
13. Struck after side of after communication tube, half severed it and turned it through 60°, then burst.

Repairs were completed on July 20, 1916.

Marlborough.

- 1 Torpedo. Struck about 18 ft. below water line and 3 ft. before fore end of boiler room.

Repairs were completed on August 2, 1916.

Southampton.

Received 18 hits from 5.9 in. and below.

1. Struck upper deck, making small hole.
2. Struck immediately below upper deck and burst in cabin.
3. Passed through deadlight and struck ammunition hoist.
4. Cracked 1½ in. protective plating along seam.
5. Struck ship's side, pierced 1½ in. protective plating and burst inside.
6. Struck ship's side and apparently exploded on impact.
7. Pierced starboard side of forecandle, did not burst.
8. Burst inside.
9. Struck forecandle deck and burst, putting both starboard and port guns out of action, set fire to cordite charges. The flame passed down adjacent ammunition hoist but no further.
10. Struck forecandle, and burst on impact.
11. Pierced 1½ in. protective plating. Small damage.
12. Struck mast 9 ft. above forecandle and caused fire on mast.
13. Slight damage.
14. }
15. }
16. } On protective plating, causing indentations and one small hole.
17. }
18. }

Repairs were completed on June 20, 1916.

Dublin.

Received 8 hits.

1. After end of forecandle, did considerable damage.
2. After davit of 30 ft. cutter, local damage.
3. Shell pierced protective and side plating in No. 4 bunker, but did no further damage.
4. Through top corner of chart house.
5. Pierced ship's side above protective plating, burst on mess deck.
6. Pierced ship's side above upper deck and burst on deck.
7. Indented protective and side plating.
8. Pierced ship's side forward, apparently did not burst.

Repairs were completed on June 17, 1916.

Chester.

Received about 17 hits.

1. On protective plating (starboard), which had to be renewed.
2. On protective plating (port). Plate renewed.
3. On protective plating (port). Plate renewed.
4. Port side upper edge of armour.
5. Port bow.

Chester—contd.

Most of the others burst on upper deck, causing much damage and many casualties.

S.1 gun damaged by splinter and condemned.

P.1 gun. Direct hit on gun.

S.2 gun. Breech mechanism damaged by splinter.

S.4 gun. Shield struck and bent.

Repairs were completed on July 25, 1916.

Broke.

Received about 9 hits and damaged by collision.

Repairs were completed on August 31, 1916.

Contest.

Collision, damage to bow.

Repairs were completed on June 19, 1916.

Spitfire.

Received about 2 hits, bow damaged by collision.

Repairs were completed on July 31, 1916.

Acasta.

Received about 2 hits, probably 5.9 in.

Repairs were completed on August 2, 1916.

Onslow.

Received about 5 hits, three 5.9 in. and 2 4.1 in.

Repairs were completed on August 8, 1916.

Porpoise.

Received about 2 hits, air chamber of spare torpedo burst.

Repairs were completed on June 23, 1916.

Defender.

1 hit from a 12 in. shell.

Repairs were completed on June 23, 1916.

Onslaught.

About 1 hit, fore end of ship.

Repairs were completed on June 23, 1916.

Petard.

About 3 hits.

Repairs were completed on June 27, 1916.

Moorson.

About 1 hit.

Repairs were completed on June 17, 1916.

DAMAGE SUSTAINED BY GERMAN SHIPS.¹*Lützow.*

Received about 40 hits—finally unable to steam and was sunk by a German torpedo.

Lion and *Princess Royal*, 3.48 to 4.30.

Lion and *Princess Royal*, about 6 p.m. (badly hit).

Seydlitz.

Received about 24 hits from large projectiles and 1 torpedo—3 smaller hits.

Apparently all turrets were hit except foremost one.

No. 4 turret put out of action and all the crew were killed.

Several 5.9 in. guns were put out of action.

Was in great danger of sinking.

Tiger, 4.26 and 4.50-5.10.

Hercules, 7.12.

Royal Oak, 7.16.

Revenge

Acasta, 1 torpedo 6.12.

Ready for sea on September 16, 1916.

Derfflinger.

Received about 20 hits from large projectiles and 9 smaller hits.

Two after turrets hit and put out of action and crews killed.

Several 5.9 in. guns put out of action.

Princess Royal, 3.40-4.30 and again 8.21-8.30.

Valiant, 4.50-5.10.

Agincourt, perhaps 6.24.

Benbow, *Colossus*, *Revenge*, *Royal Oak*, 7.12-7.21.

Ready for sea on November 3, 1916.

Moltke.

Received about 4 hits from large projectiles and several smaller hits.

New Zealand } 8.26-8.42.
Indomitable }

5th Battle Squadron, 4.10-4.30.

Ready for sea, August 7, 1916.

Von der Tann.

Received about 4 hits from large projectiles.

Fore turret put out of action. After turret hit, not much damage.

Barham, 3.40-4.30.

Tiger } 7.10-7.20.
Revenge }

Repairs took about six weeks.

König.

Received about 10 hits from large projectiles.

Fore part flooded and a heavy list to port.

Iron Duke, 6.25-6.40.

Marlborough, 7.10-7.20.

Ready for sea, August 3, 1916.

¹ The identification of the ships by whom the damage was inflicted is probably fairly correct, but there is insufficient data to guarantee its accuracy.

Grosser Kurfürst.

Received about 8 hits from large projectiles.

Marlborough

Orion

Ready for sea on July 18, 1916.

Markgraf.

Received about 5 hits from large projectiles and possibly a torpedo.

Barham, Agincourt, 7.06.

Kaiser.

Received about 2 hits from heavy projectiles.

Ready for sea on June 14, 1916.

Ostfriesland.

Hit a mine on her way home.

Ready for sea on July 29, 1916.

Helgoland.

Received 1 hit from heavy projectile.

There is also a report that she struck a mine.

Ready for sea on June 19, 1916.

Oldenburg.

Received 1 hit, 4 in. high explosive at night.

Ready for sea on June 19, 1916.

Rheinland.

2 medium calibre hits.

Nassau.

2 small calibre hits. High explosive or shrapnel.

Also damaged by ramming British destroyer.

Westfalen.

1 medium calibre hit.

Schlesien.

Received 1 hit from large calibre projectile.

Battle cruisers, 8.21-8.30.

Schleswig-Holstein.

Received 1 hit from large calibre projectile.

Battle cruisers, 8.21-8.30.

Pommern.

Received 1 hit from large calibre projectile.

Battle cruisers, 8.21-8.30.

Torpedoed and sunk by 12th Flotilla, 2.10 a.m., June 1.

Pillau.

Received 1 hit from large calibre projectile.

Funnels and superstructure damaged.

Frankfurt.

Received 1 large hit and 3 medium.

Stettin.

2 medium calibre hits.

München.

5 medium calibre hits.

Hamburg.

4 medium calibre hits.

S.32.

3 small calibre hits.

G.40.

1 medium calibre hit.

B.98.

1 small calibre hit.

S.52.

Received unknown number of hits.

S.36.

Received unknown number of hits.

APPENDIX E.

LIST OF SHIPS SUNK.

British.	Enemy.
BATTLESHIPS.	
—	<i>Pommern</i>
BATTLE CRUISERS.	
<i>Queen Mary</i>	<i>Lützow</i>
<i>Indefatigable</i>	—
<i>Invincible</i>	—
ARMOURD CRUISERS.	
<i>Defence</i>	—
<i>Warrior</i>	—
<i>Black Prince</i>	—
LIGHT CRUISERS.	
—	<i>Wiesbaden</i>
—	<i>Elbing</i>
—	<i>Rostock</i>
—	<i>Frauentob</i>

British.	Enemy.
DESTROYERS.	
<i>Tipperary</i>	V.48
<i>Ardent</i>	V.4
<i>Fortune</i>	V.27
<i>Sparrowhawk</i>	S.35
<i>Shark</i>	V.29
<i>Nestor</i>	—
<i>Nomad</i>	—
<i>Turbulent</i>	—

APPENDIX F.

SUMMARY OF REPORTS OF ENEMY RECEIVED IN *IRON DUKE*.¹

RECEIVED BETWEEN 2.20 p.m. AND 3.35 p.m.

REPORTS OF ENEMY LIGHT CRUISERS.²

1. Received 2.18 p.m. from *Galatea*. At 1420 in $56^{\circ} 48' N.$, $5^{\circ} 21' E.$, 2 cruisers E.S.E.
2. Received 2.30 p.m. from *Galatea*. At 1430, in $56^{\circ} 30' N.$, $5^{\circ} 19' E.$, 1 cruiser, East, steering S.S.E.
3. Received 2.34 p.m. from *Galatea*. Enemy ships reported are 2 destroyers
4. Received 2.35 p.m. from *Galatea*. At 1430, in $56^{\circ} 50' N.$, $5^{\circ} 19' E.$, smoke E.N.E.
5. Received 2.51 p.m. from *Galatea*. At 1445, in $56^{\circ} 52' N.$, $5^{\circ} 33' E.$, smoke, 7 vessels, turned North.
6. Received 3.5 p.m. from *Falmouth*. At 1500, in $56^{\circ} 59' N.$, $5^{\circ} 31' E.$, 3 cruisers, East course North.
7. Received 3.8 p.m. from *Galatea*. At 1507, in $56^{\circ} 59' N.$, $5^{\circ} 27\frac{1}{2}' E.$, course N.N.W. Enemy altered course N.W.
8. Received 3.21 p.m., from *Lion*. At 1515, in $56^{\circ} 48' N.$, $5^{\circ} 17' E.$, course N.E. (received as N. 40 E. by Commander-in-Chief) 23 knots.
9. Received 3.24 p.m., from *Nottingham*. At 1522, in $56^{\circ} 46' N.$, $5^{\circ} 14' E.$, smoke E.N.E. 5 columns.
10. Received 3.27 p.m., from *Galatea*. At 1515 (position omitted) smoke E.S.E., steering W.N.W.
11. Received 3.35 p.m., from Admiralty. At 2.31 p.m. in $56^{\circ} 57' N.$, $6^{\circ} 9' E.$, enemy light cruiser.

RECEIVED BETWEEN 3.40 p.m. and 4 p.m.

REPORTS OF ENEMY BATTLE CRUISERS.

12. Received 3.40 p.m., from *Lion*. At 1535 in $56^{\circ} 53' N.$, $5^{\circ} 28' E.$, enemy battle cruisers, five in number, North-East.
13. Received 3.41 p.m., from *Galatea*. At 1535 in $57^{\circ} 04' N.$, $5^{\circ} 10' E.$, light cruisers altered course to South.
14. Received 3.44 p.m., from *Falmouth*. At 1538 in $57^{\circ} 10' N.$, $5^{\circ} 14' E.$, enemy E. by S. Course S.E. 21–25 knots.

¹ The substance of the reports is given, but not necessarily the actual signals.

² The times of receipt are from J.P., Appendix II, except that of the Admiralty report, which is from *Iron Duke's* wireless entry log.

15. Received 3.45 p.m., from *Lion*. At 1545 in $56^{\circ} 53' N.$, $5^{\circ} 33' E.$ Course of enemy S. 55 E.
16. Received 3.55 p.m., from *Lion*. At 1550 in $56^{\circ} 53' N.$, $5^{\circ} 31' E.$, engaging enemy.
17. Received 3.59 p.m., from *Galatea*. At 1555 in $57^{\circ} 03' N.$, $5^{\circ} 27' E.$, own course E.S.E., 28 knots, enemy bearing E.S.E., Course E.S.E.

RECEIVED BETWEEN 4.30 and 5 p.m.

REPORTS OF ENEMY BATTLE FLEET.

18. Received 4.30 p.m., from *Southampton*. At 1630 in $56^{\circ} 38' N.$, $6^{\circ} 07' E.$, one cruiser S.E., course N.E., Commander-in-Chief asks at 4.41 to check repeat. Repeated at 5 p.m. in original form.
19. Received 4.38 p.m., from *Champion*. At 1630 in $56^{\circ} 51' N.$, $5^{\circ} 46' E.$ Enemy's Battle Fleet, centre S.E. Course E.N.E.
20. Received at 4.38 p.m., from *Southampton*. At 1638 in $56^{\circ} 34' N.$, $6^{\circ} 20' E.$ Enemy Battle Fleet, approximately S.E. Course North.
21. Received about 5.5 p.m.¹ *Lion* at 1645 in $56^{\circ} 36' N.$, $6^{\circ} 04' E.$, 26-30 battleships bearing S.S.E. steering S.E.
22. Received 5 p.m.² from *Southampton*. At 1646 in $56^{\circ} 29' N.$, $6^{\circ} 14' E.$ Enemy Battle Fleet, centre East, course North.
23. Received 5 p.m. Admiralty at 1609 in $56^{\circ} 27' N.$, $6^{\circ} 18' E.$ Enemy Battle Fleet, course N.W., 15 knots.
24. Received 5 p.m. from *Southampton*. At 1700 in $56^{\circ} 33' N.$, $6^{\circ} 00' E.$ Enemy Battle Fleet, East 10 to 11 miles, course North.

RECEIVED BETWEEN 5.35 p.m. and 6.14 p.m.

CONTACT SIGNALS (Diagrams 18 and 19).

25. *Falmouth* to *Black Prince* (S.L.). Received about 5.36 p.m. Battle cruisers engaged to S.S.W. 1735.
This is the first signal of contact, but was not received in *Iron Duke*. The *Falmouth* was about 5 miles North of *Lion*. The *Black Prince* was approximately 13 miles S.S.W. from *Iron Duke*, but she was only $4\frac{1}{2}$ miles from *Duke of Edinburgh*, and the latter was $5\frac{1}{2}$ miles from *Marlborough*. It was therefore possible to establish visual connection between the *Iron Duke* and *Lion*.¹
26. *Southampton* to Commander-in-Chief. Received 5.48 (W/T). Enemy's Battle Fleet has altered course N.N.W. My position Lat. $56^{\circ} 46' N.$, $5^{\circ} 40' E.$ 1740. [J.P. 456 gives 5.40. This is too early. *Iron Duke* did not receive it until 5.48. *Iron Duke* (s¹), 5.48; *Beatty* (s), 5.52; *Southampton* (w/c), 5.44; *New Zealand* (s), 5.47. *Falmouth* (s), 5.43. *Southampton*'s signalled position was 5 miles South of her actual position. The signal gives no bearing of enemy, which greatly reduces its value.]
27. *Black Prince* to Commander-in-Chief and *Minotaur* W/T. Received 5.42. Battle cruisers bearing South, 5 miles. My position Lat. $56^{\circ} 59' N.$, Long. $5^{\circ} 24' E.$ 1740.
[*Black Prince*'s signalled position was about S.27 W., 17 miles from Commander-in-Chief by *Iron Duke*'s reckoning. This would place battle cruisers S.S.W. 21 $\frac{1}{2}$ miles from *Iron Duke*. *Black Prince* was actually about 7 miles 60° from her signalled position. J.P. 456 has "Enemy Battle Cruisers," but *Iron Duke* (s¹), also *Marlborough* (s) has "Battle Cruisers," and Commander-in-Chief assumed them rightly to be Beatty's squadron (G.C. 344).]

¹ *Iron Duke* (s¹) 5.5. *Minotaur* (s) 5.10. *Marlborough* (s) 5.8.

² *Iron Duke* (w/c) 5.19. *Marlborough* (w) 5.15. J.P. says 5 p.m.

28. *Defence* to *Minotaur* (W/T and S.L.). Received 5.46. Ships in action bearing S.S.W., steering N.E. My position $57^{\circ} 07' N.$, $5^{\circ} 38' E.$ 1745.
 [*Iron Duke* (s), 5.46; *Benbow* (s), 5.49; *Marlborough* (w), 5.49. The *Defence* was actually $2\frac{1}{2}$ miles 74° from above position. This signal would make ships in action S. by W. by Commander-in-Chief's reckoning, about 45° on starboard bow. This was the boom and flash of Beatty's guns, but Commander-in-Chief thought they might be the enemy's battle cruisers (G.F. 344).]
29. *Falmouth* to S.O. cruisers (S.L.). Received 5.48. Two heavy enemy ships bearing S.S.E., steering N.E. My position $57^{\circ} 07' N.$, Long. $5^{\circ} 45' E.$ 1745.
 Not in *Iron Duke* (s), *Marlborough* (s), 5.50. The heavy enemy ships may possibly have been the *König* and *Grosser Kurfürst*, then about 14 miles S. 7 E. from the *Falmouth*, or, more probably, the 1st S.G., then bearing 10 miles S. 30 E. If this signal was received in the *Iron Duke* it would place the enemy sharp on the *Iron Duke's* starboard bow about 20 miles. The *Falmouth's* actual position was $5\frac{1}{2}$ miles 220° from position signalled.]
30. *Southampton* to Commander-in-Chief and S.O., B.C.F. Received 5.52 (W/T). Enemy Battle Fleet has altered course to North. Enemy battle cruisers bear S.W. from enemy Battle Fleet. My position $56^{\circ} 50' N.$, $5^{\circ} 44' E.$ 1750.
 [This makes the *Southampton* about 24 miles S. 2 W. from *Iron Duke's* reckoning, and would have been a valuable report if it had given the bearing of the enemy. The bearing of the battle cruisers from Battle Fleet was evidently intended to be N.E. The report placed the enemy roughly 26 miles, 15° from *Iron Duke's* starboard bow. *Southampton* was actually 7 miles 323° from signalled position.]
31. Admiralty Commander-in-Chief. Received 5.53. Enemy main force at 4.30 p.m. in $56^{\circ} 31' N.$, $6^{\circ} 5' E.$, steering North, 15 knots. 1745.
 [This signal would place the enemy at 5.50 p.m., S. 15 E., 26 miles from *Iron Duke's* reckoning, approximately 2 points on the starboard bow. This is only 4 miles 270° from the actual position of the head of the German line in $56^{\circ} 31' N.$, $6^{\circ} 15' E.$ at 4.30 p.m. The initial westerly error compensates for the German north-westerly course at 5 p.m., and gives a very good estimate of German position, though the course and speed did not hold good.]
32. *Marlborough* to Commander-in-Chief. Received 6 p.m. (S.L.).¹ Our battle cruisers bearing S.S.W. steering East 3 to 4 miles, *Lion* leading ship. 1800.
Note. — *Lion* had been in sight from *Marlborough* since 5.45 p.m.
33. *Southampton* to Commander-in-Chief and S.O., B.C.F. Received 6.3 (W/T).² Urgent. Have lost sight of enemy's Battle Fleet. Am engaging enemy battle cruisers. Position $56^{\circ} 57' N.$, $5^{\circ} 43' E.$ Course N.N.E., 26 knots. 1800.
 [This was the *Southampton's* last wireless message before deployment. The positions in 1750 and 1800 are 7 miles apart, giving her a speed of 42 miles. *Southampton's* actual position is $4\frac{1}{2}$ miles 298° from above position.]
34. *Lion*. Received 6.6. *Lion* to Commander-in-Chief (S.L.). Enemy's battle cruisers bearing S.E. 1806.
 [The *Lion* was about S. 18 W. $2\frac{1}{2}$ miles from *Iron Duke*. This would place enemy battle cruisers about S.S.E. of *Iron Duke* 7 miles, on the port bow of the fleet (going South at the time). The Commander-in-Chief thereupon turned to a S.E. course (G.F. 347).]

¹ *Iron Duke* (s), 5.55; *Marlborough* (s), 6.00.

² *Iron Duke* (s), 6.3; *Benbow* (s), 6.7; *New Zealand* (w), 6.7; *Marlborough* (s), 6.6; *Falmouth* (s), 6.7.

35. *Marlborough* to Commander-in-Chief. Received 6.7 (S.L.) 5th Battle Squadron bearing S.W. 1805.
[This places 5th Battle Squadron approximately 8 miles on starboard beam of *Iron Duke*.]
36. *Barham* to Commander-in-Chief (Flags). Received 6.12. Enemy in sight S.S.E. 1810.
[*Iron Duke* (s¹), 6.12; G.F. 347, 6.15. This would place the enemy at 6.12 about 5 miles, 40° on *Marlborough's* bow on the Commander-in-Chief's basis of a five-mile visibility. Lord Jellicoe's diagram 1. in G.F. shows the German van 7 miles, 31° on *Marlborough's* bow, in approximately its correct position.]
37. *Lion* to Commander-in-Chief. Received 6.14 (S.L.). Sighted enemy's Battle Fleet S.S.W. 1814.
[*Iron Duke* (s¹), 6.14; G.F. 347, 6.14. This makes enemy about 5 miles 34° on *Marlborough's* bow.]
38. *Southampton*. Received 6.24. Enemy Battle Fleet bears 10 to 11 miles S.S.E. Course N.E. My position Lat. 56° 58' N., Long. 5° 51' E. 1820.
Iron Duke (s¹), 6.18; *Marlborough* (w), 6.21; *Benbow* (s), 6.22; *New Zealand* (w), 6.22; *Falmouth* (s), 6.23. This position received after deployment gives the *Southampton* an easterly course from 1800; it may, however, have been meant for the position of the enemy, in which case it was approximately correct, for the *König* was in 56° 58½' N., 5° 55' E. course N.E. at 6.20, two miles to eastward of the above position of the *Southampton*.

APPENDIX G.

GERMAN SIGNALS.

The following list contains the more important German signals bearing on the Battle of Jutland as decoded and registered at the Admiralty between May 30 and June 1, 1916. They are extracted from Room 40 records, Volumes 896 and 897. The five figured number is the serial number as given in the Records. The first time represents the German time group converted to Greenwich Mean Time, the second the time received in Room 40 from the intercepting Station, and the third is the time the decoded messages was passed to the Operations Division.

1.

No. 20272.

From Flag.

To Ostfriesland.

May 30, 9.44 a.m./9.52/11.30.

For A.S. Fleet.

Be assembled in the outer Roads by 9 p.m. at the latest.

(Sgd.) Commander-in-Chief.

2.

No. 20274.

From Bruges.

To All Ships.

May 30, — — /10.4 a.m./11.50.

Reckon on the proceeding out of our forces on May 31 and June 1.

Note.—There was some doubt as to whether the word "our forces" meant enemy (*i.e.*, British) forces or our (*i.e.*, German) forces. It was translated "our forces" but its meaning was afterwards discovered to be "enemy (*i.e.*, British) forces." See Birch and Clarke.

3.

No. 20280.

From Flag.

To Ostfriesland.

May 30, 11.31 a.m./12.36/2.40 p.m.

For 1st Mine S. Divn.

U.R. (an Aux. M.S.D.).

A.C., 2nd Battle Squadron.

U.F. (1st M.S. Division) is to go this afternoon with gear from square 55° 1'–7° 25' E. to square 54° 33'–7° 25' E., from F and E to Place 8; on Wednesday commencing at dawn seek enemy submarines West of Heligoland and Amrum Bank; one half-flotilla is to search to-night Place 8 to Place 1.

(Sgd.) A.C., 1st Cr. Sq.

4.

No. 20293.

From Flag.

To Ostfriesland.

May 30, 3.36 p.m./4.40/5.8.

For High Sea Fleet.

On May 31, most secret (?) 2490.

(Note.—Remainder of signal not intercepted.)

(Sgd.) Commander-in-Chief.

5.

No. 20306.

From ———.

To ———.

May 30, 4.45 p.m./5.19/7.30.

For War Lightship E. of Jade.

Outer lights to be shown for proceeding out—from 2 a.m. to 4.30 a.m.

(Sgd.) Fortress Commandant Wilhelmshaven.

6.

No. 20310.

From Flag.

To Ostfriesland.

May 30, 6.41 p.m./6.43/8.10.

For High Sea Fleet.

Flag to take over wireless in Deutsche Bucht at 11 p.m.

(Sgd.) Commander-in-Chief.

(Note.—The preliminary to any important operation.)

7.

No. 20318.

From Heligoland.

To Flag.

May 30, 9.15 p.m./10.39/12.30 a.m.

For U.R. (An Auxiliary M.S.D.)

A.C., 1st C.S.

U.F. (1st M.S.D.)

U.N. (Auxiliary M.S.D. of Wilhelmshaven).

On Wednesday at dawn search with gear ways D. and F. return journey without gear *via* Places 7 and 8, after ascertaining the facts in accordance with 1837 (our No. 20304) (search) ways A, B, C with gear.

(Sgd.) E. H. (Chief of a Flotilla of North Sea Outpost Boats).

8.

No. 20332.

*From Fleet Flagship.**To Arcona.*

—/May 31, 7.52 a.m./8.28.

(Preamble) From 5th of 4th Half-Flotilla, U.66.

For Commander-in-Chief.

Eight large warships, course — (group unintelligible) in Area 3 (57° 36' N., 0° 15' W.).

(Sgd.) ———

9.

No. 20373.

*From Flag of A.C., 1st S.G.**To U.A. (C.-in-C.)*

May 31, 3.46 p.m./4.5/5.40.

For U.A.

Six enemy battle cruisers and light forces in square (?) 56° 51', 5° 19', steering S.E. 1st Scouting Group steering S.S.E. at 18 knots. Am engaged with six battle cruisers. Own main force report position.

(Sgd.) A.C., 1st Scouting Group.

10.

No. 20377.

*From Flag.**To Roslock.*

May 31, 4.21 p.m./5.50/5.56.

For O.C., 1st Torpedo Division.

Torpedo boats of our own main force assemble on the leading ship.

(Sgd.) Commander-in-Chief.

11.

No. 20383.

*From Flag.**To Ostfriesland.*

May 30, 5.41 p.m./7/May 31, 6.40 p.m.

For High Sea Fleet.

The head of the 3rd Battle Squadron will pass (warlightship) at 5.30 a.m. 2nd Battle Squadron will take part in the undertaking (and will) join up with the 1st Battle Squadron. Direction of the W/T in the German Bight will be carried out by Wilhelmshaven 3rd Entrance, which will have the W/T call (of the Commander-in-Chief, High Sea Fleet).

(Sgd.) Commander-in-Chief.

Note from Room 40.—Made last night in a new cypher, only now decyphered.

12.

No. 20388.

*From Neumünster, N.I.C.**To Flag of C.-in-C.*

May 31, 10.18 a.m./12.8/7.20 p.m.

For Commander-in-Chief.

Weather report Firth of Forth,—Wind West-----hazy, barometer 767.

Reports of this type are generally only observed when the Fleet is at sea.

(Sgd.) Neumünster, N.I.C.

(Note.—Delay due to new key.)

13.

No. 20391.

From *Rostock*.

To N.M.

May 31, 5.59 p.m./7.27/7.40.

For High Sea Fleet.

1st Scouting Group to move off in *echelon* as observation is impossible against the sun.

(Sgd.) A.C., 1st C.S.

14.

No. 20394.

From ———.

To ———.

May 31, ———/6.8 p.m./8.5.

The Route from squares $54^{\circ} 3' - 5^{\circ} 15'$; $53^{\circ} 33' - 5^{\circ} 45'$ —Arca 7—is free of mines, and also from Horns Riff East of Amrum Bank.

Count on meeting our own Outpost Forces on May 31 and June 1.

(Sgd.) ———.

15.

No. 20398.

From *Frankfurt*.

To Flag.

May 31, 7.22 p.m./7.43/9.7.

For Commander-in-Chief.

The *Lützow* is being fired on from the N.E. by strong enemy forces.

(Sgd.) A.C., 2nd Scouting Group.

16.

No. 20399.

From Flag.

To *Derfflinger*.

May 31, 8.12 p.m./8.17/9.31.

For O.C.'s 1st and 2nd Torpedo Division.

All torpedo boats to be sent to the night attack, under the command of the O.C., 1st Torpedo Division.

(Sgd.) Commander-in-Chief.

17.

No. 20400.

From *Hamburg*.To *Arcona*.

May 31, 7.50 p.m./9.50/9.40.

For 3rd Submarine Half-Flotilla.

2nd of 2nd Submarine Half-Flotilla.

3rd of 4th Submarine Half-Flotilla.

All submarines ready for service and U.67 at once advance to the North. Report position at 6 a.m.

(Sgd.) O.C., Submarines.

18.

No. 20401.

From *Stettin*.

To ———.

May 31, 8.21 p.m./8.23/9.45.

There are four small enemy cruisers in square $56^{\circ} 45' - 5^{\circ} 40'$.

(Sgd.) A.C., 4th Scouting Group.

19.

No. 20402.

From (missed).

To (missed).

May 31, 8.31 p.m./8.31/10.

For O.C., 2nd Torpedo Division.

The allotted flotillas are to attack independently.

(Sgd.) O.C., 1st Torpedo Division.

20.

No. 20404.

*From ? Regensburg.**To Flag.*May 31, 8.36 p.m./8.31/10.2 *(sic)*.*For Commander-in-Chief.*

O.C., 1st Torpedo Division.

From square $56^{\circ} 55'$, $5^{\circ} 30'$, the 2nd T.B.D. Flotilla to advance on the Sector E.N.E.-E.S.E., the 12th T.B.D. Half-Flotilla on the sector E.S.E.-S.E. *Note.*—The flotillas had been launched to the attack before signal 2212 (our 20399) was made.

(Sgd.) O.C., 2nd Torpedo Division.

21.

No. 20406.

*From (missed).**To (missed).*

May 31, ———/9 p.m./10.25.

For 2nd and 6th T.B.D. Flotillas.

At 11 p.m. the rear ship of our own main force was in square $56^{\circ} 33'$ — $5^{\circ} 30'$ lower part—on a southerly course.

(Sgd.) O.C., 2nd Torpedo Division.

22.

No. 20407.

*From Rostock.**To Flag of Commander-in-Chief.*

May 31, 8.56 p.m./10.20/10.40.

*For 5th Flotilla (T.B.D.).**7th Flotilla (T.B.D.).*

The 7th T.B.D. Flotilla is to advance from $56^{\circ} 35'$ — $5^{\circ} 30'$ E., sector S.E. to S. by E., 5th Flotilla sector S. by E. to S.S.W.

(Sgd.) O.C., 1st Torpedo Division.

23.

No. 20408.

*From Hannover.**To Flag.*

May 31, 9.27 p.m./9.33/9.45.

Enemy in sight ahead. Four ships in $56^{\circ} 27'$ — $5^{\circ} 30'$.

(Sgd.) 2nd A.C., 2nd B.S.

24.

No. 20409.

*From Rostock.**To Flag.*

May 31, 9.39 p.m./9.44/10.50.

For 18th T.B.D. Half-Flotilla.

With reference to 1127 (20408). Attack the enemy.

(Sgd.) O.C., 1st Torpedo Division.

25.

No. 20410.

*From Flag of Commander-in-Chief.**To H.S. Fleet.*

May 31, 9.14 p.m./10.39/10.55.

For H.S. Fleet.

Our own main body is to proceed in maintain course S.S.E. \downarrow E., speed 16 knots.

(Sgd.) Commander-in-Chief.

26.

No. 20411.

From Flag of Commander-in-Chief.*To* H.S. Fleet.

May 31, 9.29 p.m./10.39/10.55.

For H.S. Fleet.

2nd Battle Squadron behind 3rd Battle Squadron. All large cruisers in the rear. 2nd Scouting Group ahead. 4th Scouting Group to starboard.
(Sgd.) Commander-in-Chief.

27

No. 20413.

From Flag.*To* H.S. Fleet.

May 31, 9.46 p.m./9.54/11.10.

For H.S. Fleet.Own main body course S.S.E. $\frac{3}{4}$ E.

(Sgd.) Commander-in-Chief.

28.

No. 20414.

From Flag.*To* Helgoland, N.I.C.

May 31, 9.6 p.m./9.52/11.10.

For Airship Detachment.

Early air reconnaissance at Horns Riff is urgently requested.

(Sgd.) Commander-in-Chief.

29.

No. 20415.

From 3rd Boat of 3rd T.B.D. Half-Flotilla.*To* Rostock.

May 31, 9.50 p.m./9.50/11.5.

In $56^{\circ} 45' - 5^{\circ} 55' E$.

Five small enemy cruisers many destroyers turning to starboard.
I am steering N.W.

(Sgd.) 2nd T.B.D. Flotilla.

30.

No. 20421.

From Neumünster, N.I.C.*To* Flag.

May 31, 9.30 p.m./10.40/12.10.

For Commander-in-Chief.

Destroyers have taken up position five sea miles astern of the enemy main Fleet.

(Sgd.) Neumünster, N.I.C.

(As this message comes from Neumünster it is probably an English intercept).

31.

No. 20422.

From Flag.*To* Rostock.

May 31, 10.32 p.m./10.43/11.15.

For H.S. Fleet.

Main Fleet steering S.E. by S.

(Sgd.) Commander-in-Chief.

32.

No. 20423.

From Rostock.*To* Flag of C.-in-C.

May 31, 10.32 p.m./10.43/12.15 a.m.

For All T.B.D. Flotillas.

Be assembled by 4 a.m. at Horns Riff or course round Skaw.

(Sgd.) O.C., 1st Torpedo Division.

33.

No. 20426.

From Arcona.

To Flag.

May 31, 10.7 p.m./10.56/12.35 a.m.

For O.C., Submarines, High Sea Fleet.

U.19, U.22, U.64 are leaving the Ems for the North at high speed.

(Sgd.) 3rd Submarine Half-Flotilla.

34.

No. 20427.

From Flag.

To König.

May 31, 9.50 p.m./11.6/12.30 a.m.

For Flag.

König.

Lützow at 11.30 p.m. with four destroyers in $56^{\circ} 33' - 5^{\circ} 55'$, course S.S.W. Speed 13 knots.

(Sgd.) 4th of 1st T.B.D. Half-Flotilla

35.

No. 20428.

From Rostock.

To 1st of 3rd T.B.D. Half-Flotilla.

May 31, 11.6 p.m./11.25/12.50 a.m.

For H.S. Fleet.

Own main body at 1 a.m., $56^{\circ} 15' - 5^{\circ} 42'$ E. Course S.E. $\frac{3}{4}$ E.

(Sgd.) Commander-in-Chief.

36.

No. 20429.

From Rostock.

To -----.

May 31, 10.50 p.m./11.23/12.50 a.m.

For H.S. Fleet.

Enemy destroyers in $56^{\circ} 3' \text{ N.}, 5^{\circ} 55' \text{ E.}$ Course S. Full speed.

(Sgd.) 7th T.B.D. Flotilla.

37.

No. 20430.

From Flag.

To H.S. Fleet.

May 31, 11.30 p.m./11.43/1 a.m.

For H.S. Fleet.

Our main forces are to resume course S.E. by South.

(Sgd.) Commander-in-Chief.

38.

No. 20433.

From Flag.

To Ostfriesland.

May 31, 11.36 p.m./11.37/1.5 a.m.

For Ostfriesland.

The course ordered is S.E. $\frac{3}{4}$ S.

(Sgd.) Commander-in-Chief.

39.

No. 20438.

From Heligoland, N.I.C.

To Arcona.

May 31, 7.50 p.m./11.57/1.30 a.m.

3rd Submarine Half-Flotilla.

3rd of 4th Submarine Half-Flotilla (U.67).

Heligoland, N.I.C.

For 2nd of 2nd Submarine Half-Flotilla (U.51).

Submarines ready for service and U.67 at once to advance North.
At 6 a.m. report position.

(Sgd.) O.C., Submarines.

40.

No. 20439.

From 1st Boat of 3rd T.B.D. Half-Flotilla.

To Flag. May 31, 11.52 p.m./12.30/1.35 a.m.

For O.C., 1st T.B. Division.

O.C., 2nd T.B. Division.

Commander-in-Chief.

Am going round the Skaw.

(Sgd.) 2nd T.B.D. Flotilla.

41.

No. 20440.

From 3rd of 1st T.B.D. Half-Flotilla.

To Flag. June 1, 0.17 a.m./1.44/2.0.

For A.C., 1st C.S.

Position of *Lützow* at 2 a.m., $56^{\circ} 26' N.$, $5^{\circ} 41' E.$ Course S. Speed 7 knots.

(Sgd.) 3rd of 1st T.B.D. Half-Flotilla.

42.

No. 20442.

From 4th Boat of 17th T.B.D. Half-Flotilla.

To Flag. June, 1—/0.32 a.m./2.5.

For O.C., 2nd Torpedo Division.

Commander-in-Chief.

H.S. Fleet.

In square $56^{\circ} 21' - 5^{\circ} 53' E.$, enemy destroyers in sight, course 29° .

(Sgd.) G.42 or 52.

43.

No. 20444.

From Flag of Commander-in-Chief.

To *Rostock*. June 1, 0.43 a.m./0.48/2.20.For *Lützow*.Own main body's position at 2.30 a.m., $55^{\circ} 57'$, $6^{\circ} 15' E.$

(Sgd.) Commander-in-Chief.

44.

No. 20448.

From ? *Regensburg*.

To Flag. June 1, 1.59 a.m./1.50/3.15.

For High Sea Fleet.

All T.B.D. Flotillas.

All T.B.D. Flotillas are to assemble at the head of the 3rd Battle Squadron.

(Sgd.) O.C., 2nd T.B.D. Division.

45.

No. 20456.

From Flag.

To H.S. Fleet. June 1, 2.30 a.m./2.35/4.0.*

For Fleet.

Main Fleet in $55^{\circ} 33' - 6^{\circ} 50'$. Course S.E. by S. Speed 16 knots.

(Sgd.) Commander-in-Chief.

*(Note.—As this signal was sent to Commander-in-Chief at 3.29 a.m. this must be 4 a.m. summer time.)

46

No. 20462.

From: Flag of Commander-in-Chief.

To: Molthe.

June 1, 3.24 a.m./3.44/5.5.

For A.C., 1st C.S.

1st Scouting Group to proceed in.

(Sgd.) Commander-in-Chief.

47.

No. 20464.

From: Flag.

To: U.S. Fleet.

June 1st, 3.38 a.m./3.51/5.10.

For Fleet.

2nd S.G. astern.

4th S.G. ahead.

O.C., 1st T.D. distribute T.B.D.'s for submarine protection.

2nd B.S. proceed in.

(Sgd.) Commander-in-Chief.

48.

No. 20465.

From: Flag.

To: U.S. Fleet.

June 1, 3.54 a.m./4.8/4.15.

For Fleet.

Course S.E. Proceed in East of Amrum Bank.

(Sgd.) Commander-in-Chief

INDEX.

	<i>Page.</i>
<i>Abdiel</i> , mines	124, 125
<i>Acasta</i> hit <i>Seydlitz</i>	75
ADMIRALTY—	
Intelligence of enemy	38
Harwich Force	41
Enemy reported	69
Send enemy's position to Commander-in-Chief	168, 125
Signals not sent	132
Baltic	13
<i>Barham</i> . See Squadrons, 5th Battle Squadron.	
BATTLE—	
Sequence of events, preliminary movements	37-43
Position 2 p.m., May 31	44
Enemy in sight	44
German preliminary movements	46
Beatty sights German battle cruisers	48
Battle cruiser action	49
<i>Lion</i> hit	51
<i>Indefatigable</i> blown up	51
5th Battle Squadron comes into action, <i>Queen Mary</i> blown up	52
13th Flotilla attack at 4.15 p.m.	53, 54
Enemy battle fleet sighted, 4.33 p.m.	56
The run to the North	59-61
Commander-in-Chief's view of situation	65-69
Discrepancies in reckoning	70
Renewal of action, Beatty and Hipper	71
<i>Chester</i> and 3rd Battle Cruiser come into action	72
<i>Defence</i> and <i>Warrior</i>	77
Contact with British Battle Fleet	79
Deployment of British Battle Fleet, 6.15	81
Remarks on	81
Signal for	84
Destroyer flotillas	90
German disposition	86
First phase of Battle Fleet fire, 6.25 to 6.40	92
Scheer's first turn away at 6.35	94
<i>Marlborough</i> torpedoed	95
British turn to South, 6.55 p.m.	96, 98
Scheer turns East again at 6.55	97
British disposition, 7 p.m.	98
Second phase of Battle Fleet fire, 7.12 to 7.20 p.m.	100
Scheer's second turn away at 7.17	101
Remarks on	105
German destroyer attack and British turn away at 7.22	103-4
Turn to S. by W., 7.35	107
Beatty's movements	107
Signal at 7.47	108, 110, 114
British Battle Fleet in single line at 8 p.m. on S.W. course	108
In touch with enemy again	110
Scheer's movements, 7.15 to 8.30	109
Beatty's engagement with Hipper, 8.18 to 8.32	112
Position at 9 p.m.	116
Course South	121
Destroyers ordered astern, 9.27 p.m.	122
Scheer's disposition for night	123
Admiralty signal Scheer's course to Commander-in-Chief, 10.41 p.m.	125

BATTLE (*contd.*)—

Gunflashes and searchlights seen astern	125
Fleet continue on Southerly course	125
Course altered to North, 2.39 a.m.	128
Morning disposition	131
Scheer off Horn's Riff	131
Battle Orders, Grand Fleet, T. and S.D.D. collection	20, 31
Conception of tactics	25, 29
Deployment	23
Cruisers—destroyers	23, 26
System of command	31
Submarine and torpedo menace	33
Battle Fleet. <i>See</i> Squadrons.	
Battle Cruiser Fleet. <i>See</i> Squadrons.	
Bight, mines laid in 1917	14
Routes open	120
Minfields in	119
Bingham, Commander Hon. E. S., in <i>Nestor</i>	54
Birch and Clarke, History of German Movements	7
<i>Birmingham</i> separated from 2nd Light Cruiser Squadron at 10.30	124
<i>Black Prince</i>	77
Sunk, 0.10 a.m.	126
Boedicker, Rear Admiral of 2nd Scouting Group	72
<i>Broke</i> seriously damaged, 11.30, rams <i>Sparrowhawk</i>	135
Callaghan, Sir George	20, 27
<i>Calliope</i> . <i>See</i> Squadrons, 4th Light Cruiser Squadron.	
<i>Caroline</i> , torpedo attack by, 9 p.m.	115
<i>Castor</i> . <i>See</i> Destroyers, 11th Flotilla.	
Casualties—	
British	153
German	154
Cattegat, mines laid, 1917	15
<i>Champion</i> . <i>See</i> Destroyers, 13th Flotilla.	
<i>Chester</i> meets 2nd Scouting Group, 5.36, severely hit	72
Chronological sequence. <i>See</i> Battle.	
<i>Colossus</i> hit	101
<i>Conus</i> firing on enemy, 8.30	114
Command, system of	22, 31
In High Sea Fleet	123
Commodore (S)	38
Commander-in-Chief—	
Tactical ideas	25
Letter, October, 1914	24, 30
Difficulties of situation at 6 p.m.	79, 80, 82
Orders 2nd Battle Squadron to follow Beatty, 8.10	110
Aspects of situation, 9 p.m.	121
Receives Scheer's course, 10.41	125
Morning situation	128, 129
<i>See</i> Battle Orders, Command, Staff work.	
Conference, <i>Iron Duke</i> , September, 1914	13
Cornwell, Jack Travers, Boy, 1st class	72
Cruiser, instructions in Grand Fleet Battle Orders	23, 26
Cruisers. <i>See</i> Squadrons.	
Damage—	
British } (<i>See</i> Losses) {	155
German }	159
<i>Defence</i> blown up, 6.19 p.m.	77
Deployment, instructions for, in Grand Fleet Battle Orders	23
Remarks on	81
Limitations of signal book	84

	Page.
Deployment Diagram	89, 91, 99
<i>Derfflinger</i> sinks <i>Queen Mary</i>	52
Sinks <i>Invincible</i>	93
Badly damaged	97, 100
Destroyers in Grand Fleet Battle Orders	22, 24, 26, 27, 28, 33
At time of deployment	90, 91, 99
Defensive task	105
Orders for night	122
Lack of information	138
Losses	138, 162
Signals to Commander-in-Chief	139
System of command	138
Organisation	152
DESTROYER FLOTILLAS, British—	
1st Flotilla	149
With Battle Cruiser Fleet at "Windy Corner"	90
<i>Fearless</i> falls behind	90
4th Flotilla	151
With 2nd Battle Squadron on deployment	90, 99
Engages destroyers, 9 p.m., orders for night	122
Sees enemy cruisers	134
Meets enemy fleet, 11.30	126, 135
<i>Tipperary</i> sunk	135
<i>Sparrowhawk</i> rammed by <i>Broke</i> and <i>Conest</i>	136
<i>Spitfire</i> rams <i>Nassau</i>	135
<i>Rostock</i> torpedoed	136
<i>Elbing</i> rammed by <i>Posen</i>	135
Resumes Southerly course, meets enemy again midnight.	
<i>Fortune</i> sunk	136
<i>Ardent</i> sunk	137
9th and 10th Flotillas	151
With battle cruisers	50
With 5th Battle Squadron on deployment	90
At 11.30, alter course to S.E. then S.W.	141
Pass ahead of enemy, 0.25 a.m.	141
<i>Tribulent</i> sunk, proceed to base, 5.35 a.m.	141
11th Flotilla	151
On deployment	90, 99
Drives off enemy destroyers at 7.30	104
Engages 2nd Scouting Group, 9.40 and again 10.45	134
Further movements uncertain	134
12th Flotilla	151
On deployment	90, 99
Orders for night	122
Position	139
Pressed off course by <i>Champion</i>	141
Alters to S.E., E. and N.E., sights two enemy cruisers	141
Course south, sights enemy, report to Commander-in-Chief (not received)	142
Attacks, sinks <i>Pommern</i> , 2.10 a.m.	142
<i>Maenad</i> attacks again	142
13th Flotilla	151
With Battle Cruisers, attack on <i>Hipper</i> , 4.15	53, 54
<i>Nector</i> and <i>Nomad</i> sunk	55
Position at 9.35	139
<i>Champion</i> goes off to eastward	139
Enemy sighted, 2.34	140
<i>Moresby</i> attacks, sinks <i>V.4</i>	140
<i>Champion</i> sights enemy destroyers	140

Destroyers, German—

Disposition and organisation	49, 58, 152
Engage 13th Flotilla 4.15, V.27 and V.29 sunk	54
Attack on 3rd Battle Cruiser Squadron	73, 87
Sink <i>Shark</i>	74
Attack 5th Battle Squadron	96
Possible hit on <i>Mardborough</i>	91
Attacks by	102—105
Driven off by 4th Light Cruiser Squadron	104
Activity of	105
<i>Calliope</i> drives them off, 8.15	110, 111
<i>Southampton</i> drives them off, 8.30	115
Scheer's orders for night	122
Flotillas to assemble off Horn's Reef	170
Save <i>Lützow's</i> crew, sighted by <i>Champion</i>	140
Dogger Bank	100

Elbing rammed by *Posen*, 11.30 p.m. 126

11th Flotilla. See Destroyer Flotillas.

Engadine 48

Equal Speed Pendant 84

Events, sequence of. See Battle.

Falmouth. See Squadrons, 3rd Light Cruiser Squadron.

Faulknor. See Destroyers, 12th Flotilla.

Fighting at Jutland, by Pawcett and Hooper 10

1st Battle Squadron, Cruiser Squadron, Light Cruiser Squadron.

See Squadrons.

4th Battle Squadron, Light Cruiser Squadron. See Squadrons.

5th Battle Squadron. See Squadrons.

Frauenlob sunk by *Southampton*, 10.30 124

Galatea. See Squadrons, 1st Light Cruiser Squadron.

GERMAN FLEET—

Organisation of	152
Relation to submarine campaign	15
Influence on war	16, 17
Plan of operations	37
Comparative strength	85
Disposition on way out	46
Position, 2.30 p.m.	46
Hipper sights Beatty	49
Battle Cruiser engagement	49-56
Destroyer action	54
Scheer in sight	56
Hipper turns to North, 4.53	56
Ordered to pursue, 5.21	64
Renews engagement, 5.40	71
Turns away, 5.53, 2nd Scouting Group met by 3rd Battle Cruiser Squadron	71
3rd Battle Cruiser Squadron mistaken for British Battle Fleet	73
<i>Shark's</i> attack	74
Hipper turns S.W., then N.E.	71, 76
<i>Seydlitz</i> torpedoed	75
Engages 3rd Battle Cruiser Squadron	93
German Battle Fleet at 6.15	86
Turn to west at 6.35	94
Destroyer attacks	94, 102
Scheer turns to eastward	97
Hipper meets British Battle Fleet	100
Scheer turns away, 7.17	101, 105

GERMAN FLEET (*contd.*)—

Movements to 8.30	109
Engaged by Beatty, 8.30	111
Seen by <i>Calliope</i>	111
By <i>Comus</i> and <i>Caroline</i>	114
Weakness of German 2nd Squadron	121
Scheer's disposition for night	123
4th Scouting Group meets 2nd Light Cruiser Squadron	124
Battle Fleet strike 4th Flotilla, 11.30	126
Sinks <i>Black Prince</i>	126
Attacked by 12th Flotilla, 2.10	128
Off Horns Riff at 3 a.m.	131
Guns, in British and German Battle Fleets	85
Gunfire—	
First phase, 6.25 to 6.40	92
Second phase, 7.12 to 7.20	100
Repelling destroyer attack	104
Hits on British ships	155
On German ships	159
H.S. Operations, October, 1917	16
Harper, Captain J. E. T. Report	7
Harvey, Major, R.M.A., in <i>Lion's</i> turret	51
Harwich Force—	
Retention of	41, 42
Ordered to join Commander-in-Chief on June 1	129
Hase, Von—	
On Beatty's tactics	71
On Scheer's turn at 7.17	101
High Sea Fleet. See German Fleet.	
Hipper, Admiral Commanding 1st Scouting Group—	
In <i>Lützow</i> , transfers flag	101
History of German Movements, Birch and Clarke	15
Hood, Rear Admiral Hon. Horace L. A. See <i>Invincible</i> .	
Horns Riff	109
Route	120, 168
Probable destination	121
<i>Iron Duke</i> 33 miles off at 2.45	129
Early reconnaissance requested by Scheer	170
<i>Indefatigable</i> blown up	51
Intelligence, special—	
Influence on strategy	17, 18, 29
Warning to Commander-in-Chief, May 30	38
Route signal not sent to Commander-in-Chief	120
Defect in organisation up to 1917	120
German signals received	165
<i>Invincible</i> —	
Blown up	93
Position surveyed	10
See Squadrons, 3rd Battle Cruiser Squadron.	
<i>Iron Duke</i> , fleet flagship—	
Reckoning	43, 44
Late at rendezvous	44
Hits <i>König</i> , 6.30	92
Signal log	6
<i>König</i> , leader of German 3rd Squadron, speed compared with <i>Barham's</i>	63
Latitude and Longitude	10
Code	6

<i>Lion</i> , flagship of Vice-Admiral Sir David Beatty—	
Badly hit	51
Reckoning	70
<i>See</i> Squadrons, Battle Cruiser Force.	
Loftus Jones, Commander in <i>Shark</i>	74
Losses—	
British and German	161
Commander-in-Chief's knowledge of, at 9 p.m.	118
<i>Maenad</i> attacks	143
<i>Malaya</i> —	
Badly hit	63, 78
Sights enemy	127
May, Admiral Sir William	19, 27
Mauve, Rear Admiral	112, 114
Mines—	
Tactical use of	34
Minefield not in way of pursuit	119
Laid in Heligoland Bight in 1917	14
<i>Abdiel's</i>	124, 131
Mining Memorandum, May, 1915	119
<i>Minotaur</i> , Beatty's signal to	108
<i>Moresby</i>	149
Attack at 5.10	62
Sinks V.4, 2.34	140
Naval Staff, memorandum, July, 1917	16
<i>Nestor</i> , attack	54
<i>Newmünster</i>	126, 132
<i>Nicator</i> , attack	54
Notes on Tactical Exercises, Home Fleet, 1909-11	27
<i>Onslow</i> , attack at 5.10	62, 77
<i>Ophelia</i> , attack	75
<i>Ostfriesland</i> —	
Sinks <i>Black Prince</i>	126
Strikes mine, 5 a.m.	131
Plans Section, in 1917	14
<i>Posen</i> rams <i>Elbing</i>	136
Projectile Committee, Report, 1917	63, 65
<i>Queen Mary</i>	148
Blown up, 4.26	52
Reckoning discrepancies, <i>Iron Duke</i> and <i>Lion</i>	70
Record of Messages, Jutland	6
<i>Regensburg</i>	49, 55, 131
Rendezvous—	
<i>Iron Duke's</i>	39
<i>Lion's</i>	40
Remarks on	40
Delay in reaching	44, 45
<i>Royalist</i> attack, 9 p.m.	115
Room 40. <i>See</i> Intelligence Special.	
Scheer	36, 37
Plans of operations	37
Reasons for turn	98, 101, 102
Plans for night	109, 125
<i>Seydlitz</i>	75, 100, 131
<i>Shark</i> , attack by and sunk	74

Signals—

Remarks on	106
Reports of enemy	162, 163
Report of enemy Battle Fleet, 4.45 p.m.	60
Deployment	81
Signal to turn away, 7.22	104
Beatty's signal, 7.47	108
Admiralty signal of Scheer's course, 10.41	125
German signals	165

(For complete record of signals see Battle of Jutland Cd., 1920.)

Signal Logs	5, 6
Smoke screen	73, 94, 103
<i>Sparrowhawk</i> rammed	135
<i>Spitfire</i> rams <i>Nassau</i>	126

Southampton—

Sights enemy Battle Fleet	56
Reports from	59, 68, 78
Badly hit, torpedoes <i>Frauentob</i>	124

Squadrons—

See also Battle.

<i>Fleet Flagship (Iron Duke)</i>	145
Rendezvous	39, 44
Reckoning	70
Sights <i>Lion</i> , 6 p.m.	79
Hits <i>König</i>	92
Engagement, 7.13	101
Turns away	104
<i>1st Battle Squadron (Marlborough)</i>	145
Risk of deployment on	83
Bunching	92
<i>Marlborough</i> torpedoed	96
Left exposed	97
Engagement, 7.12	100
Turns to port	103
Torpedo attack on	104
Astern of fleet, 9.17	122
10 p.m.	123
<i>Marlborough</i> hauls out of line, 1.55 a.m.	127
Vice-Admiral transfers flag to <i>Revenge</i> , position daylight	127
<i>2nd Battle Squadron (King George V)</i>	147
Ordered to take station ahead	103
Ordered to follow Beatty	110
<i>Caroline</i> reports enemy	115
Enemy mistaken for our battle cruisers	115
<i>4th Battle Squadron (Benbow)</i>	145
Forms astern of <i>Iron Duke</i> , 7.12	103
Drives off destroyers	104, 105
<i>5th Battle Squadron (Barham)</i>	148
With Battle Cruiser Force turns at 2.40	47
Comes into action	51
Turns, 4.56	59
Hits on	59, 62, 63
Reports enemy, 6.10	80
Follows <i>Marlborough</i>	87
<i>Warspite</i> disabled	88
In rear of fleet	88
Two miles from enemy, 11.15	128
Speed compared with <i>König</i>	63

	Page.
SQUADRONS (<i>contd.</i>)—	
<i>Battle Cruiser Fleet (Lion)</i>	148
Rendezvous	44
Engagement with Hipper	49-56
Sights enemy Battle Fleet	57
In sight from <i>Iron Duke</i> , 6 p.m.	79
Course on deployment	81, 89
Sights 3rd Battle Cruiser Squadron	87
Turns 6.54	99
Engages enemy, 7.12	101
Beatty's view of situation, 7.30	106
Signal to Commander-in-Chief, 7.47	108
Engagement with Hipper and Mauve	111, 112
Position, 9 p.m.	116
9.30	122
Beatty's intentions for night	122, 123
Daylight	130
<i>1st Battle Cruiser Squadron (Princess Royal)</i>	148
Hits on	51, 65
<i>Queen Mary</i> lost	52
<i>2nd Battle Cruiser Squadron (New Zealand)</i>	148
<i>Indefatigable</i> lost	51
<i>3rd Battle Cruiser Squadron (Invincible)</i>	146
With Battle Fleet, <i>Chester</i> and <i>Canterbury</i>	146
Proceeds to Beatty's support, 4 p.m.	67, 71
Meets 2nd Scouting Group	72
Is mistaken for Main Fleet	73
Torpedo attack on	73
Turns ahead of Beatty	87
Engages Hipper, 6.21	87
<i>Invincible</i> sunk	93
Forms astern of Beatty	99
<i>1st Cruiser Squadron (Defence)</i>	148
Disposition	43
Position, 5.35	66
Sights 2nd Scouting Group, 5.47, attacks <i>Wiesbaden</i>	76
<i>Defence</i> blown up 6.19	77
<i>2nd Cruiser Squadron (Minotaur)</i>	146
Disposition	43
<i>Minotaur</i>	108
<i>Duke of Edinburgh</i> and <i>Chester</i> join	122
Position	121, 122
Remarks on	122
<i>1st Light Cruiser Squadron (Galatea)</i>	44, 148
Sights enemy	45, 47
Position, 5 p.m.	61
On deployment	89
At 9 p.m.	116
<i>Galatea</i> breakdown	89
<i>2nd Light Cruiser Squadron (Southampton)</i>	45, 149
Sights enemy Battle Fleet	56
Reports	168, 163
On deployment	90, 96
Drives off destroyers	115, 116
Engaged by 4th Scouting Group, 10.30	124
Torpedoed <i>Frauenlob</i>	124
<i>Dublin</i> and <i>Birmingham</i> separated	124

SQUADRONS (contd.)—

3rd Light Cruiser Squadron (Falmouth)	45, 50, 149
At 5 p.m.	62
In touch with <i>Black Prince</i> , 5.33	78
On deployment	89
Engages German battle cruisers	91, 99
Position, 8 p.m.	109
Engages 4th Scouting Group, 8.15 p.m.	110
At 9 p.m.	116
4th Light Cruiser Squadron (<i>Calliope</i>) with Battle Fleet	146
Disposition	43
On deployment	89, 96, 99
Drives off enemy flotillas, 7.22	104
And at 8.15	111
<i>Calliope</i> , <i>Comus</i> , <i>Constance</i> under fire	111
<i>Calliope</i> hit	111
<i>Comus</i> firing	114
<i>Caroline</i> and <i>Royalist</i> sight enemy 8.45 and attack	115
Position, 9 p.m.	116
Staff work at night	130
Submarines—	
German	37
Reports of	43, 44, 46
Reported in action	98
None with German Fleet	52
Orders to German submarines	127
British off Vyl	131
Submarine campaign, influence of German Battle Fleet	15
Strategy—	
Influence of German Battle Fleet	13, 14
Possible effect of decisive victory	17
Influence of special intelligence	18
Tactics—	
19th century	19
Sir William May	19
Grand Fleet Battle Orders, conception of	21, 25
Commander-in-Chief's letter of October 30, 1914	24, 29
Destroyer tactics	26, 27
Divisional	30
The single line	106, 107
Turn to South at 6.55	96
Scheer's tactics	98, 101, 102
Thuringen	126
Times, all G.M.T.	1
<i>Tipperary</i> sunk	126
Torpedo attacks—	
13th Flotilla, 4.15	53
German 9th and 2nd	54
<i>Ouslow</i> and <i>Moresby</i> , 5.10	62
<i>Shark</i> on 2nd Scouting Group	74
<i>Acasta</i> on 1st Scouting Group	74
<i>Ophelia</i>	75
German on 3rd Battle Cruiser Squadron	87
German 3rd	94
German, between 6.35 and 7.10	91, 105
German, at 7.10	102
German 6th and 9th, at 7.15	103, 104
German 3rd and 5th, driven off by 4th Light Cruiser Squadron and 11th	104
4th Light Cruiser Squadron drives off	110, 111
2nd Light Cruiser Squadron drives off	115

Torpedo attacks (*contd.*)—

By <i>Calliope</i>	111
By <i>Caroline</i> and <i>Royalist</i>	115
By <i>Southampton</i>	124
By 5th Flotilla	134
By 12th Flotilla	141
By <i>Maenad</i>	143
By <i>Moresby</i>	140
Position at deployment	83, 90, 91
German orders for night	123

Torpedoes—

Menace of	25, 34
Number of tubes	35, 36
Number fired 4.30	55
At 7.15	104

Torpedo Boat Destroyers, German—

G.37	140
G.38	140
G.40	161
G.88	94, 94, 105
S.32	91, 94
S.35	105
S.36	105, 161
S.52	105, 161
V.4	140
V.27	54
V.29	54
V.45	140

Trade Protection 18

Turbulent sunk 141

Turn Away—

Scheer at 6.35	94
Scheer at 7.17	101
British at 7.22	104, 107

Visual signalling 78

Visibility 48, 59, 73, 78, 108, 116

Dawn, 2.30 a.m. 124

Warspite 88*Warrior* 77*Wiesbaden* 73, 76, 77, 92, 96, 98

Wilson, Sir Arthur, minute of 1914 29, 30, 41, 69

"Windy Corner" 90

Wireless— 78

Lion's, out of action 53*Barham's* 62

Zeppelin 129