

Class of 1921

PAMPHLET FILE

Thesis

TACTICS

Submitted by

COMMANDER WILSON BROWN, U.S.N. 1882

Naval War College  
Newport, R. I.  
15 August, 1921

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## THE BATTLE OF JUTLAND.

### General Strategical Situation.

Upon the outbreak of the World War the approximate naval strength of the belligerents in capital ships was as follows:-

Germany.....	22
Austria.....	4
Total.....	26
Great Britain.....	36
Japan.....	10
France.....	12
Russia.....	4 (plus 4 building)
Total	62

Until after the Battle of Jutland Japan was suspected of being ready to shift to the German side so that the total strengths might have changed to 36 and 52 at any time. In considering the world naval situation, the possible participation of the United States on either side with fourteen capital ships and Italy with ten, required careful consideration.

Prior to the Battle of Jutland the disposition of naval forces was as follows:-

The Austrian fleet was mobilized in the northern Adriatic and the Germans in the Baltic in the general locality of Kiel Bay.

The Japanese controlled the Pacific and so long as they held with the Allies, assured communications to the Far East.

The French and Italians had established surface control of the Mediterranean, and by their superiority alone effectually prevented any activity of the Austrian forces other than submarines, and precluded any possibility of a junction of the Austrian and German forces.

The German naval superiority over the Russians enabled them to control the Baltic and to keep the Russian forces bottled up in the Gulf of Riga.

The British superiority enabled them to establish surface control of the Atlantic including the North Sea, forcing the German Fleet to remain within reach of the protected waters of Heligoland Bight, or the Baltic.

British superiority forced the German Navy to assume an offensive-defensive policy. German trade in the Atlantic stopped almost automatically with the outbreak of war, so that her outside resources were limited to such as could be obtained from neutral states bordering the Baltic: her operations against allied commerce and communications in the Atlantic were limited to submarine activities and occasional raids by surface vessels. Her control of the Baltic effectively severed the lines of communication between Russia and her allies. The German defenses to the entrances to the Baltic were so secure, when supported by her fleet in being, that an invasion of the Baltic by the British fleet was impossible; and the Russian naval forces were too inferior to threaten an effective offensive action. The German High Seas Fleet was therefore free to carry on its training and preparation for battle in complete security. It was



### Orders of British Admiralty - 30 May

- 1- On 30 May, probably during the forenoon, the Admiralty received news which pointed to early activity on the part of the High Sea Fleet.
- 2- About noon the Admiralty ordered the Commander, Dover Patrol to send the Harwich destroyers back to their anchorage and to recall the Bally on coast patrol; the RA East Coast to recall messenger ships, the 2 B S and 3 C S to



- Have steam ready by daylight of the 31st. An submarine of the Harwich Force if he ready on short notice
- 3- At 6:40 pm following message was sent to C-in-C, F. of Dover: "You should be ready to move eastward of Long Forties, ready for eventualities"
  - 4- At 5:40, 5:0, 2 B S, made preliminary signal for leaving Cromarty
  - 5- At 5:40, C-in-C, F. made preliminary signal for leaving Dover
  - 6- At 5:40, 3 C S, made signal. Have steam ready by daylight

free to choose its time for sorties into the North Sea at such times when information of the location of British forces made it improbable that a superior enemy force would be met. The German hope for final naval supremacy was based upon the gradual wearing down of the British forces to a state of numerical equality.

The German offensive-defensive policy imposed upon the British the necessity of maintaining:- (1) a superior force in constant readiness to intercept raiding forces against commerce or British territory whether such raiding should consist of the entire High Sea Fleet or detachments of high speed cruisers (2) an information service to give timely warning of the movement of German naval forces in the North Sea (3) a blockade squadron to prevent contraband of war from reaching Germany and (4) escorts for allied shipping and sea communications. The British Grand Fleet was based at inadequately prepared anchorages at Scapa Flow, Rosyth and Cromarty in readiness to fulfill its portion of the above mentioned tasks: the battleship force was habitually kept at Scapa Flow where it could interpose between the Atlantic and the High Sea Fleet; the battle cruisers were kept at Rosyth in readiness to repel raids on the British coast or to serve as a scouting force for the battleships. Reserves were held at Harwich to protect the Straits and about half of the total available destroyer force was based on Harwich, Plymouth and Queenstown for anti-submarine escort duty.

The maintenance of the British Fleet in a state of constant readiness for action at short notice entailed a severe strain on material and personnel. Repairs and upkeep had to be so arranged that a sufficient margin of superiority to the maximum possible German force was at all times maintained. Losses from submarine attack, mines, collision and navigation in dangerous waters, worked for the gradual reduction of British superiority. There was constant risk of complete loss of superiority in case the Germans should succeed in bringing a superior force into action through the absence or unreadiness of any important part of the British Fleet.

#### Operations of Fleets Prior to Contact.

The burden of exercising control of the North Sea in opposition to a powerful fleet in being within easy striking distance of important communications, rested upon the British. The Germans were free to choose the time and place to contest control.

The only fleet action between the two opposing naval forces was that now known as the Battle of Jutland, which took place on 31 May 1916- 1 June 1916.

Prior to that date the German High Sea Fleet had made periodic cruises into the North Sea at such distances from the protected waters of Heligoland Bight that they were always able to refuse action. It is probable that these cruises had been primarily for training purposes and to sustain morale, with but little intention of seriously trying to engage any portion of the British Fleet unless a greatly inferior force should have providentially fallen into their hands. German naval offensive action had been limited to confining the Russian forces to the Gulf of Riga, mining and submarine operations against the British naval forces and allied commerce, and occasional artillery raids on British coastal towns for the purpose of imposing a separation



of British naval forces to defend their coast line, causing unrest and alarm in British territory and the consequent retention of troops in the British Isles for home defense, thereby materially reducing the available troops for the Western Front: the only additional offensive acts were occasional raids by fast surface units against allied commerce.

The main British effort was directed toward maintaining the fleet in a state of readiness to intercept and destroy all German surface craft that ventured far enough into the North Sea to make interception possible. This state was of necessity defensive - a protection of the allied lines of communication. British submarines were maintained at the approaches to the Baltic to report the movement of German forces, and secret agents were used in Holland, Denmark and Germany to supplement the information of enemy activities. The British Fleet made periodic sweeps through the North Sea in hopes of surprising and bringing the High Sea Fleet to action or of capturing and destroying all enemy forces that might venture out on raiding expeditions. Such sweeps ordinarily consisted of a large screen of fast cruisers with a support of battle cruisers and the Main Body out of sight but within supporting distance.

Admiral Von Scheer was made Commander-in-Chief of the German High Sea Fleet in April 1916 and Von Hipper was put in command of the battle cruisers. Early in May the Kaiser visited the Fleet. All of these developments were correctly interpreted by both the Germans and Allies to presage offensive operations on the part of the German Fleet.

Admiral Scheer states that a sortie into the North Sea by the High Sea Fleet had been contemplated and planned to take place during the last week of May. All submarines had been withdrawn from commerce raiding and assigned to the High Sea Fleet, and Admiral Scheer states that they had all been stationed near British bases in position to observe and report the movement of British forces and to attack as opportunity offered: it appears probable, however, from subsequent British reports, that at least a portion of the submarines were with the High Sea Fleet or stationed off the Danish Coast in support of the Fleet. Zeppelins were to have carried out extensive reconnaissance of the North Sea but unfavorable weather conditions had prevented the Zeppelins from leaving. On 31 May Von Scheer decided to proceed with his operation in spite of the failure of the air force to carry out a reconnaissance: this decision appears to have been due largely to the fact that the time limit of the availability of the submarines had nearly been reached, and they would soon have to be recalled.

On 30 May the British Admiralty, presumably as a result of information concerning the activities of the German Forces, informed Admiral Jellicoe that he should concentrate his forces east of the "Long Forties" prepared for eventualities. At the time of receipt of these orders the British Main Fleet with attendant cruisers and destroyers was at Scapa, the 2 B.S. at Cromarty and the Battle Cruisers under Beatty at Rosyth: the 3rd Battle Cruiser Squadron was at Scapa holding gunnery practice and the 5th B.S. was temporarily serving with Beatty as relief of the 3rd Battle Cruiser Squadron. All forces immediately put to sea on receipt of the Admiralty instructions. Jellicoe designated positions to be attained by the Main Body and Advance Force by 2 p.m. 31 May: these positions were fifty miles apart and some sixty miles off Skaggerak. It was directed that the two forces should then close to visual touch, the Main Body under Jellicoe heading down toward Horn Reef Lightship (distant 150 miles, bearing 143 true) and the Advance Force under Beatty heading to the northward until visual touch had been gained.



Comparison of Forces

<u>British</u>					<u>German</u>				
Type	No.	Tonnage	Guns	Speed	No.	Tonnage	Guns	Speed	
Battleships	28	654,000	56-15" 110-13" <sup>5</sup> 10-14" 104-12" 280	21 kts.	22	363,000	128-12" 48-11" 176	23-20	
Battle Cruisers	9	197,000	32-13" <sup>5</sup> 40-12"	33-28.5	5	119,000	16-12" 28-11"	28	
Cruisers	26	108,290	9"2 - 6"	21-25	15	60,000	8"2 - 4"	23-30	
Destroyers	78	77,000	4" - 5"	31-27	65	50,000	4"	30-25	
Submarines	--				15				

Comparison of Forces.

As shown in the above table the number of ships assembled for the Battle of Jutland were as follows: Battleships: British 28, German 22; Battle Cruisers: British 9, German 5; Cruisers: British 26, German 15; Destroyers: British 78, German 65; Submarines: British none, German 15. A proper understanding of the relative fighting strength of the two forces requires a study of the characteristics and relative strengths of the various types.

Battleships: The British had 28 battleships opposed to twenty two German. Four of the German ships were armed with 11" guns and had a speed of only 20 knots so that they did not properly belong in the line of battle. Discounting the inferiority of these four, however, (whose low speed hampered the movements of the German line) the numerical ratio was as one to point seven eight in favor of the British. This numerical superiority involved not only a proportionally greater number of guns but the British guns were of larger caliber. Admiral Jellicoe contends, however, that the correct basis of comparison is tonnage because granting equal skill in ship design, a superiority in offensive weapons necessarily implied a sacrifice in armour protection. Granting the tonnage comparison as the standard, the British battleships still had a superiority in the ratio of one to point five five. In addition the British battle line had at least one knot superior speed to the German battle line. The German ships were better armoured and great stress had been given in their design to ensuring their water-tight integrity and keeping them on an even keel when damaged; in this respect the individual battleships were superior to the British.

Battle Cruisers: The British had nine battle cruisers to the German five, - a numerical ratio of one to point five five or a tonnage ratio of one to point six. The British battle cruisers had greatly superior gun power but their water-tight integrity was greatly inferior. The British battle cruisers had a slight superiority in speed.

Cruisers: The British had 26 cruisers as opposed to the German 15. The British had somewhat superior gun armament but some of the German cruisers had superior speed.

Destroyers: The British had 78 destroyers opposed to 65 German. The British destroyers were individually superior in gun armament, speed and sea keeping qualities but the Germans carried a greater number of torpedoes on each destroyer.

Submarines: No submarines accompanied the British Fleet. The Germans deny having any with theirs, but the number of British ships that reported sighting submarines together with the fact that Admiral Von Scheer includes fifteen in his list of forces, indicates that about that number did accompany the High Sea Fleet and did take part in the battle. Whether any were actually present or not their existence created a submarine menace which at all times effected the disposition of British forces.



### Mission of each Fleet.

A study of the reports of the Battle of Jutland shows that all are so influenced by reserve, the desire to sustain prestige, and the disinclination to make public all conditions that may have influenced decisions, that a frank and unprejudiced statement of the missions of the two Fleets, as conceived by the Commanders-in-Chief, can not be obtained.

It is, therefore, necessary to try to deduce the correct mission for each Fleet; and having derived a correct mission, discuss the conduct of the battle from the standpoint of whether or not the actions taken were those that served best to carry out the mission.

### The Mission of the German High Sea Fleet.

German writers try to give the impression that the mission of the High Sea Fleet was to force a reluctant and evasive enemy to fleet action by a raid upon the English Coast or Allied commerce in the North Sea. Although such an alleged mission may have been accepted by the mass of the German people and by some of the German naval personnel, it is quite evident from Admiral Von Scheer's own report that his conception of his mission was, in general terms "To bring the entire High Sea Fleet, supported by submarines, into action with separate and inferior detachments of the British Fleet." Such a mission appears to be perfectly sound and may be accepted as the correct and probable German mission. The Germans were numerically so inferior to the British that no allowance for individual superiority, luck of battle, or superior tactics could hold more than the most remote promise of defeating the entire Grand Fleet so completely as to leave the Germans in command of the sea. The destruction of detachments of the British Fleet, however, offered the only means of gaining ultimate control. In his memoirs Von Tirpitz states that he urged a decisive fleet action on the grounds that such action, even though it might result in the complete destruction of the German Fleet, would so reduce British sea power that Japan would join the Germans. He received no support, however, and it was the German policy to hold their fleet intact as an asset in peace negotiations.

Von Scheer first planned to accomplish his mission by raiding Sunderland in the hope that the nearest and probably inferior British forces would be rushed against him in response to public clamour; and that the situation so developed would result in heavy British losses through mines, submarine attack and the action of the High Sea Fleet against separate enemy detachments. When weather conditions prevented the Air Force from carrying out preliminary reconnaissance, an attack on Sunderland was believed to involve too much risk of being cut off by the entire British Grand Fleet, and Von Scheer, therefore, decided to accomplish his mission by a raid on Allied commerce inside and just beyond the Skagerrak. This procedure left two lines of escape open - the Skagerrak itself or Heligoland Bight.

To sum up the German aims, we may therefore accept as their Mission: To engage and destroy inferior detachments of the British Fleet and to avoid action with a superior force; and the Decision on 31 May of how to accomplish the mission:- "To raid enemy commerce outside and within the Skagerrak and to destroy inferior enemy forces attempting to protect their communications." Von Scheer counted on surprising a large portion of the British Fleet in a state of unreadiness for immediate action, or in case the attempted surprise was unsuccessful, to escape through the Skagerrak upon the receipt of information from his submarines that a superior force was in pursuit.



The Mission of the British Grand Fleet and Courses of Action Open.

" The success of the attack is the result of present superiority of force, it being understood that the moral as well as the physical forces are included x x x If a preponderance on the side of the attack, although daily diminishing, is still maintained until peace is concluded, the object is attained."

" A successful combat encounter or even battle for the sake of trophies or merely for the honour of the arms, sometimes even for the mere ambition of the Commander: that this does happen no one can doubt unless he knows nothing whatever of military history x x x But what is of more importance for us to observe is that these things are not without objective value, they are not the mere pastime of vanity; they have a distinct influence on Peace, and therefore lead as it were direct to the object. The military fame, the moral superiority of the Army and of the Generals are things, the influence of which, although unseen, never ceases to bear upon the whole action in War."

" The aim of such combat presupposes: (a) that there is an adequate prospect of victory, (b) that there is not a heavy stake dependent on the issue." Clausewitz.

On 30 May, 1916, the Allies held surface control of the sea communications of the world with the exception of the Baltic which was under German control. There appears to be no evidence to indicate that the British Admiralty had at that time any intention of attempting to gain control of the Baltic and the Mission of the Grand Fleet would therefore appear to have been:-  
" To maintain control of the North Sea and Atlantic."

Upon receipt of information that the German High Sea Fleet had put to sea the Courses of Action Open to Admiral Jellicoe were:-

1. To engage the High Sea Fleet decisively and destroy it.
2. To drive the High Sea Fleet from the North Sea by concentration of superior force and attack under conditions that would not unduly hazard the maintenance of British naval world superiority.

The advantages that would have accrued from the successful accomplishment of course one would have been:-

1. The release of all surviving British naval forces for offensive operations and concentration against the submarine menace.
2. The moral effect of a sweeping victory at sea would have had far reaching effect; but the extent and influence of this effect can only be conjectured. It would undoubtedly have seriously weakened the German national morale and strengthened the morale of the Allies. It might have so effected the attitude of neutral states bordering the Baltic as to have made possible the subsequent Allied control of the Baltic thereby enabling Russia to obtain necessary supplies to exert her full strength.
3. Diverted German troops from the Western Front to the protection of her coast line.



The disadvantage of course one was that it risked either the annihilation of the British Grand Fleet or such severe losses as to make it inferior in strength to the Navy of the United States, Japan or France.

The strength of the British Empire rested and now rests upon the superiority of the British Navy over the navy of any other world power. Years of building and training are required to replace heavy naval losses. In 1916 the attitude of the United States was still in doubt. Japan was at best an uncertain ally. Although the interests of France and Great Britain were in 1916 firmly linked in a common cause, history is replete with examples of nations beginning wars as allies and ending as enemies. England with the most powerful navy in the world and the German navy intact but impotent, would find herself in a much stronger position among world powers than an England standing fourth or fifth in naval power even though she had brought about the complete annihilation of the German navy. In the latter case it is necessary to consider what terms Japan might have enacted for the continuance of her aid. The complete annihilation of the British Fleet under the circumstances seems hardly possible; but serious and costly damage to it, through torpedoes, mines and superior penetrating and destructive power of German shells, in the event of a decisive engagement, would appear to have been not at all improbable.

The advantage of course two was that it involved the minimum risk to the British Fleet consistent with the accomplishment of their mission. The disadvantage was that it might allow the complete escape of the German High Sea Fleet and leave conditions as before, without any benefit accruing to either side, thereby causing loss of prestige to the British Fleet with consequent loss of morale to the Allies.

It appears both from Admiral Jellicoe's actions during the battle and from his previous and subsequent writings, that he had a keen realization of the great importance of preserving the British Fleet, a constant anxiety concerning the damaging effect of long range torpedoes, and that his decision as to his course of action was therefore in substance in accordance with course two - i.e., to attack under conditions that would not seriously hazard the supremacy of the British Fleet.

This decision appears to have met with the approval of the British Admiralty prior to the engagement. It was a conservative decision and its wisdom is proven by the position of the British Empire in world politics today. A decisive engagement pressed home with vigour might and probably would have ended the war at an earlier date, with less total cost to the British in lives and money, and Great Britain might have been even stronger than she is today. Such predictions, however, are conjectural, and if conjecture is indulged in, critics of the decision must admit that an unfortunate melee might have lost the war for the Allies and brought about the subsequent down fall of the British Empire. Military victories are never won without some risk. In the case of Jutland the risk involved the future of the British Empire. The decision to engage decisively would have been sound in view of the Great British superiority and would probably have had a more decisive effect upon winning the war. The decision which we may accept as that taken by Admiral Jellicoe, to engage under conditions that





A- Battle Fleet - Jellicoe  
 Battleships - 24  
 Battle Cruisers - 5  
 Light Cruisers - 12  
 Cruisers - 8  
 Destroyers - 53

B- Battle Cruiser Fleet - Beatty  
 Battleships - 4  
 Battle Cruisers - 6  
 Light Cruisers - 14  
 Destroyers - 27  
 Scoutship Carrier - 1



Z- Scouting Force - Hipper  
 Battle Cruisers - 5  
 Light Cruisers - 5  
 Destroyers - 32

Y- Battle Fleet - Sueser  
 Battleships, 1st Line - 16  
 Battleships, 2d Line - 6  
 Light Cruisers - 6  
 Destroyers - 33

Note: Admiral Hipper states that the Germans had 65 Destroyers in the battle.

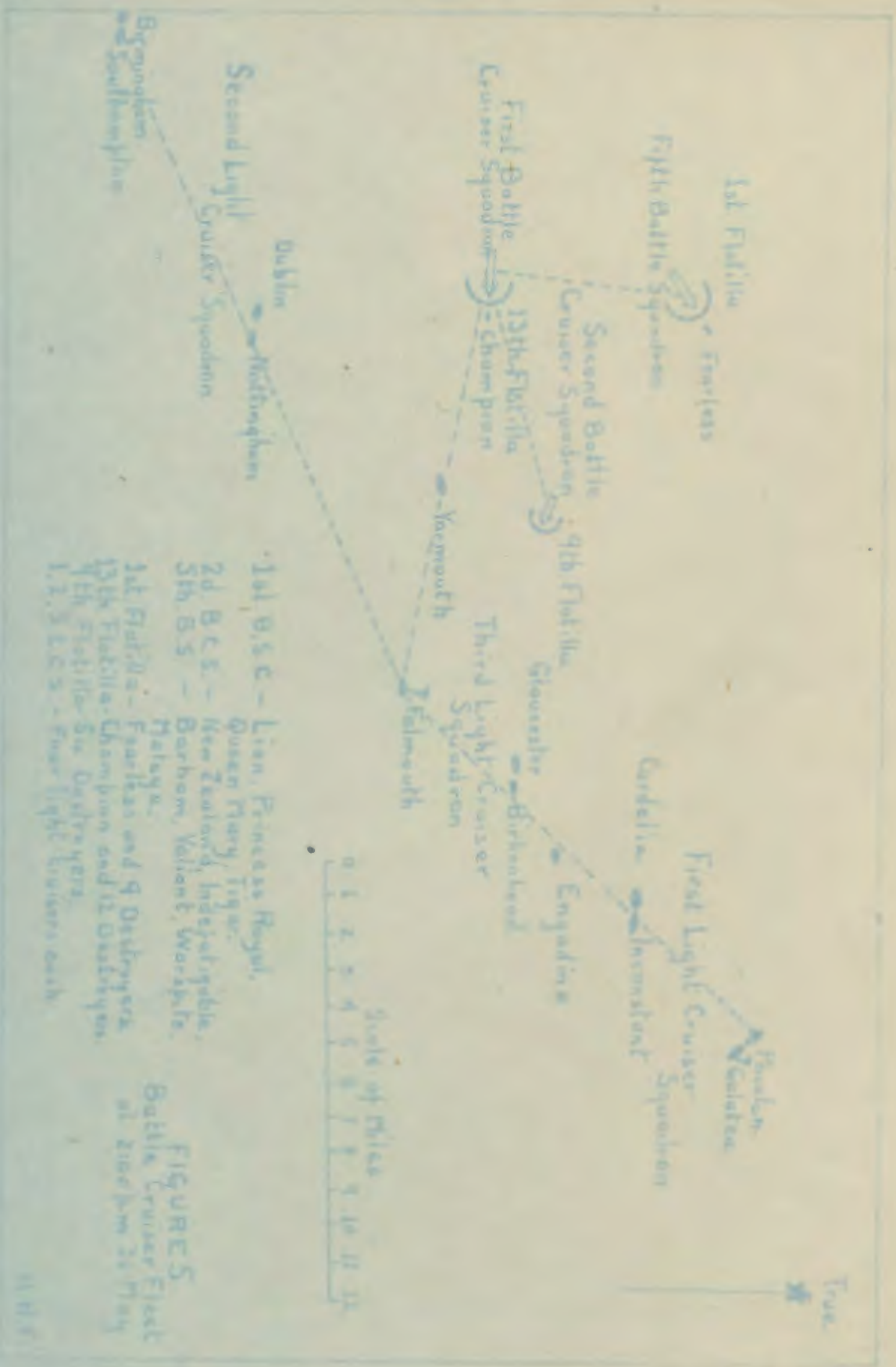






FIGURE B  
Positions of Sub  
marines and Air-  
ships of 31 May

2. Minefield laid 29 May by  
U-38, Hampshire, with Kilham  
aboard, sunk in this field 3 June  
3. Minefield laid by U-74

HMF

would not seriously hazard the British Fleet, assured the accomplishment of his mission and involved the least possible risk in the accomplishment of the mission. The decision is open to criticism as not being in keeping with the traditions on which the British Empire has been founded; but criticism of Admiral Jellicoe's actions during the battle should be based upon whether or not his action was at all times consistent with his decision.

### Operations of Fleets

2:00 p.m. 31 May to 6:16 p.m.

At 2:00 p.m. the British Battle Fleet was about eighteen miles to the north-westward of the position designated by the Commander-in-Chief, their arrival having been delayed by slowing down to effect an inspection of non-combatant craft encountered, and was steering a southerly course, speed 14, to effect junction with the Battle Cruiser Force under Admiral Beatty. The Battle Cruiser Force had reached the position required by their orders (seventy miles to the southward and eastward of the position prescribed for the Battle Fleet) and were heading to the northward, speed 19 1/2 knots in compliance with instructions to effect visual concentration. At 2:00 p.m. the two portions of the British Fleet were therefore separated by about eighty-five miles.

The German Fleet was proceeding on a northerly course with the Battle Cruisers or Reconnaissance Force fifty miles in advance.

The first contact of the opposing fleets took place between the screens of the two Battle Cruiser Forces and it is, therefore, well at this point to form a clear conception of the disposition of these forces, bearing in mind their relative positions to the two main bodies, and deferring a study of the disposition of the Battle Fleets until just before contact between them.

### Disposition of British Battle Cruiser Fleet.

The British Scouting Force consisted of the 1st B.C.S. (Four B.C. - Lion, Flag), 2nd B.C.S. (Two B.C.), 5th B.S. (Four 25-kt. dreadnaughts - Barham, Flag), 1st, 9th and 13th Destroyer Flotillas, and 1st, 2nd and 3rd Light Cruiser Squadrons, consisting of four light cruisers each. The 2nd B.C.S. was about six miles to the eastward of the Lion, and the 5th B.S. about five miles to the northward. Each squadron was protected against submarine attack by a flotilla of destroyers. The cruisers were deployed by sections to the southward and eastward, forming a scouting line about thirty miles in length, scouting interval seven miles.

### Disposition of German Scouting Force.

The German Scouting Force consisted of five battle cruisers in column with a submarine screen of destroyers and a screen of five light cruisers with destroyer escort in advance. The screening interval was probably about ten miles. As before stated this force was about fifty miles to the northward of the German Battle Fleet.



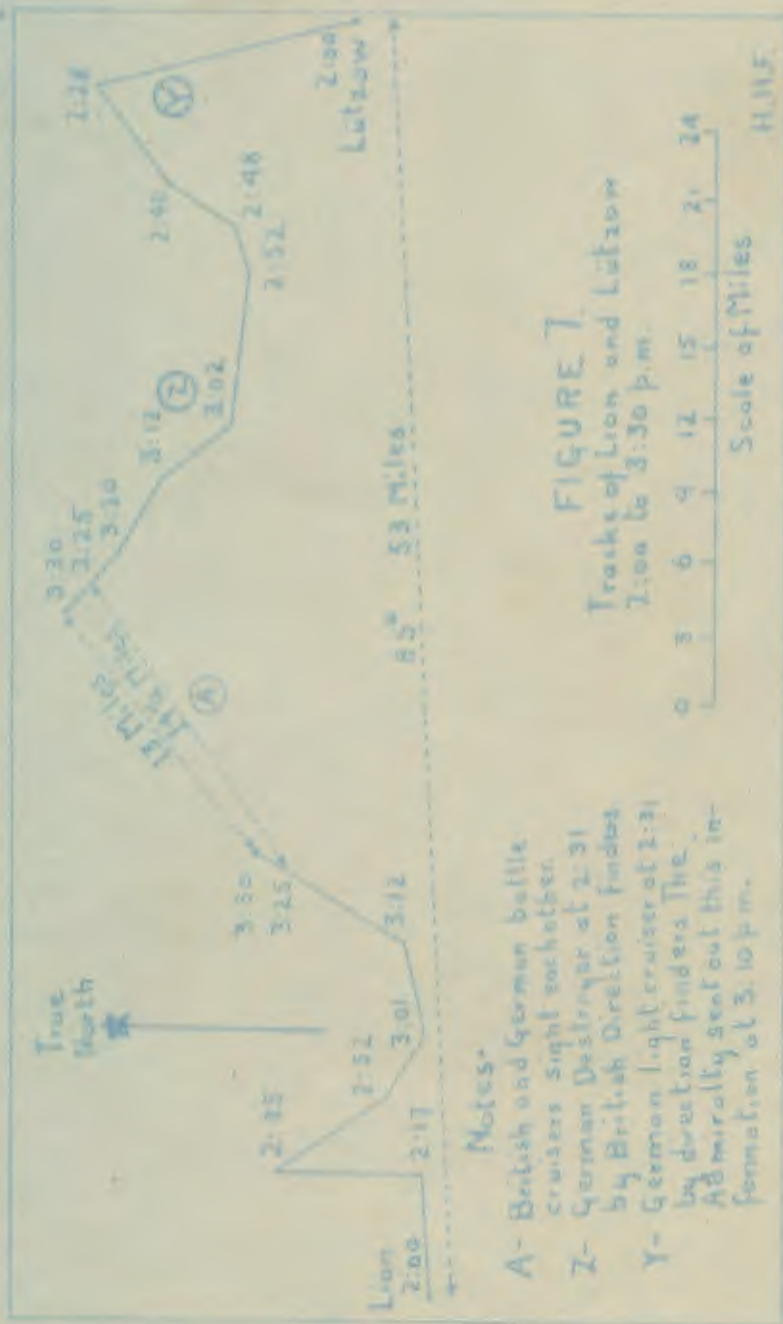


FIGURE 7  
Tracks of Lion and Lützow  
2:00 to 3:30 p.m.

- Notes:
- A- British and German battle cruisers sight each other
  - Z- German Destroyer at 2:31 by British Direction Finders
  - Y- German light cruiser at 2:31 by direction finders. The Admiralty sent out this information at 3:10 p.m.

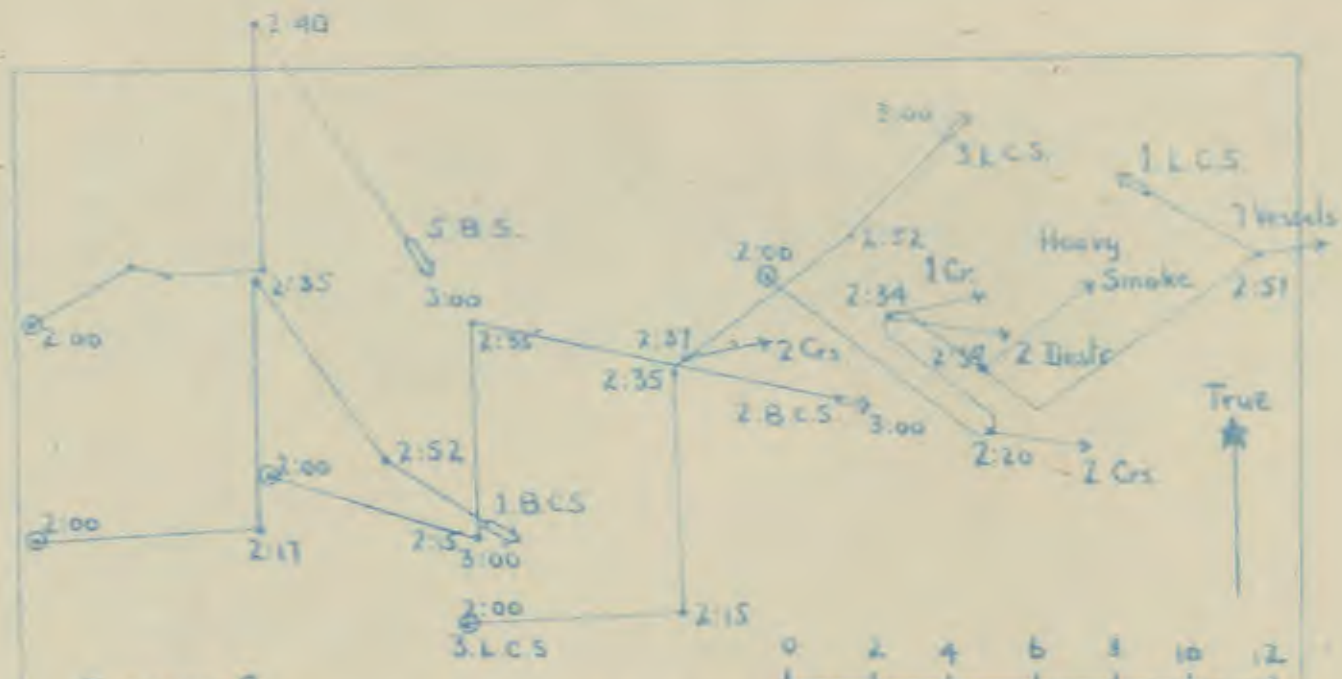


FIGURE 8.  
Deployment of the  
Battle Cruiser Fleet  
2:00 to 3:00 pm.  
H.H.F.

Note: 2 L.C.S. is omitted  
from this sketch.  
Arrows show bearings  
of German Forces as reported.





First Contact and Engagement Between Scouting Forces.

As stated under the discussion of the disposition of the Scouting Forces, the Screen of the British battle cruisers covered the rear to the southward; whereas the Screen of the German battle cruisers covered their front to the northward. At 2:20 the eastern ship of the British screen sighted the western ships of the German screen; the latter vessel had worked to the westward to examine a merchant vessel and this fortuitous incident was responsible for the contact, which otherwise might not have taken place that day. Immediately upon making contact the two Scouting Forces closed, - the British Battle Cruisers in a generally SE'ly direction with a view to cutting off the German force from escape by way of Horn Reef; the German Battle Cruisers in a NW'ly direction to develop their contact. It is important to note at this point that both Scouting Force Commanders, Beatty and Hipper, were probably of the opinion that they had to do with detachments of the enemy fleets rather than with advance forces, with the main fleets within supporting distance. The Germans advanced with their screen properly deployed in a formation that might be expected to develop the enemy strength; but the British cruisers instead of continuing a properly disposed screening formation, maneuvered to prevent the escape of the forces sighted: the British 2nd L.C.S. assembled ahead of the 1st B.C.S.; the 3rd L.C.S. and 1st L.C.S. first deployed ahead of the Battle Cruisers and then headed for the point of contact and upon sighting the German Battle Cruisers at 2:51, retired to the north-westward with a view to drawing the Germans on and permitting the British Battle Cruisers to cut them off. This maneuver proved to be unfortunate as it kept these two cruiser squadrons out of action for an hour at a time when they might have been of great service in supporting destroyer attacks. At 3:31 the Battle Cruiser Forces sighted each other, the Germans bearing about 45 from the British. The five German ships were already in column. The British 2nd B.C.S. had formed astern of the 1st B.C.S. but the powerful 5th B.S. was still 10,000 yards to the northward. It is difficult to understand why a concentration by the British was not effected immediately upon making contact; the failure to do so kept the 5th B.S. for a long time almost out of range and prevented Beatty from immediately establishing an overwhelming superiority. It is probable that, as in the action of the 1st and 3rd L.C.S., the desire to cut off the enemy outweighed all other considerations. The speed of the Battle Cruisers was not increased above 20 knots until after 3:30 however, and it therefore appears that a concentration could have been established without delaying the final contact. The failure to concentrate resulted in six British ships being opposed to five when ten might just as well have been effectively engaged; and not only may the loss of the Queen Mary and Indefatigable be attributed to this failure, but the five German battle cruisers in all probability would have been subjected to such an overwhelming fire as to have brought about their destruction.

At 3:31, immediately upon sighting the German Battle Cruisers, Beatty deployed to an easterly course, 98 true, still with a view to preventing the enemy from escaping by way of Horn Reef,



0 - Star boom from (Lower Bow) (Lower Star) 2400  
 1000 - 1000 - 1000 - 1000 - 1000 - 1000  
 Scale of yards



German Notes  
 Z -- S.D.I. takes 4 point line of bearing at 5:44.  
 Y -- S.D.I. opens fire on B.C.F. at 5:48

British Notes  
 A -- 2 J.B.C.S. takes station astern 1000  
 B -- B.C.F. takes 2 point line of bearing of 5:45  
 C -- B.C.F. opens fire on S.D.I. at 5:50

FIGURE 10.  
 Phase 1 - 5:50 to 5:48 pm





British Notes  
 A--Queen Mary sunk by Derfflinger  
 at 4:27  
 B--13th Flotilla gains a position for  
 destroyer attack



German Notes  
 Z--German destroyers advance  
 to the attack.  
 Y--S.D.I, reopens fire at about 4:11.

FIGURE 12

Scale 0 2000 4000 6000 8000 10000 12000 Yards  
 Move 3 - 4:08 to 4:30 pm  
 South of Yards

and soon changed course to 122, formed line of bearing to avoid smoke and increased speed to 24 knots. Hipper deployed to a course of about 160 at a range of about 23,000 yards. The result of these maneuvers was to cause the two forces to converge rapidly and to draw the action toward the German Battle Fleet and away from the British.

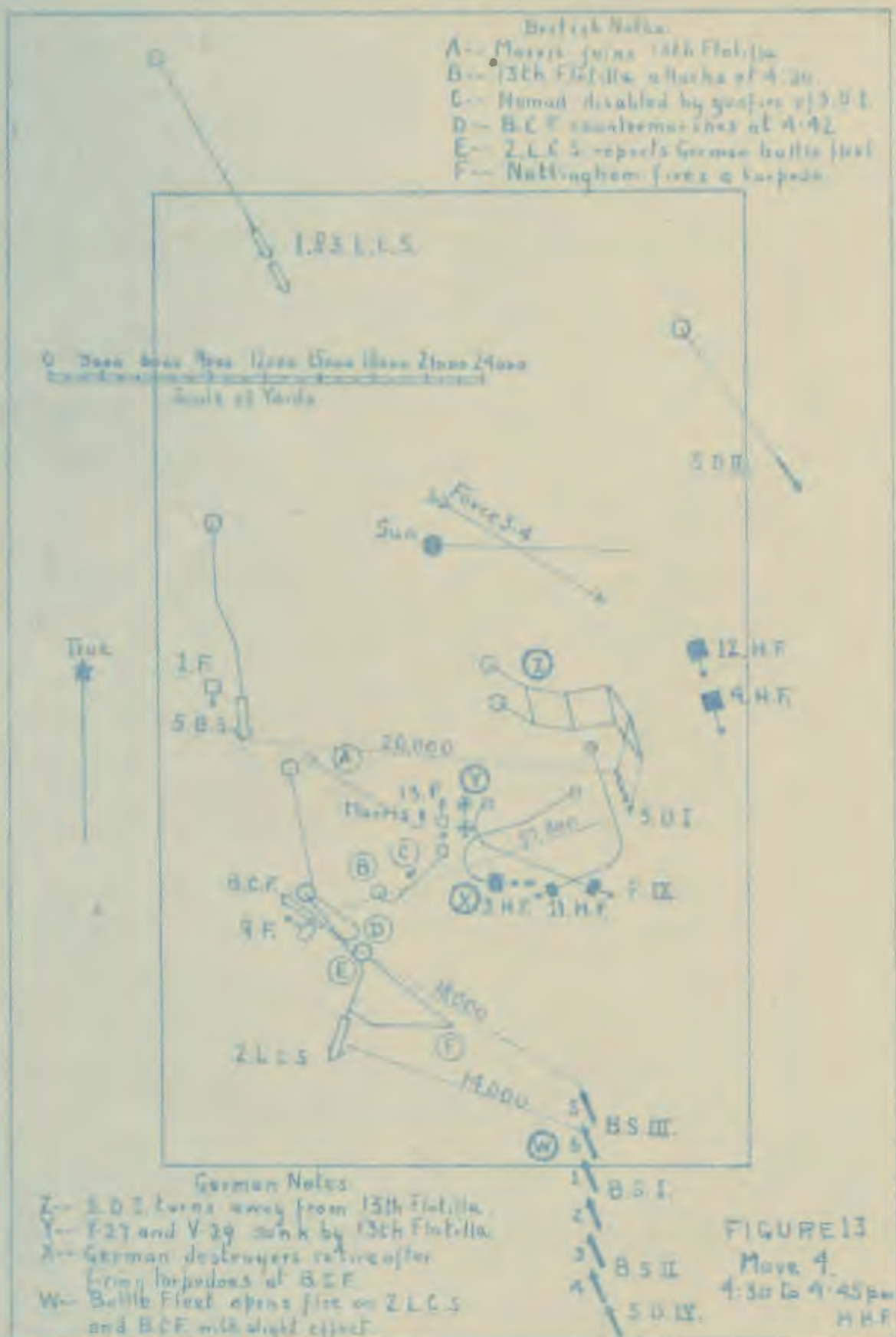
At 3:48 the two forces opened fire simultaneously at a range of about 18,000 yards. The Germans succeeded in establishing the range within three minutes of opening fire and gained a heavy initial advantage. By 4:00 the range had closed to 16,000 and the German fire was so heavy that the British course was changed to 180 in an effort to confuse the enemy fire control. At 4:06 the Indefatigable blew up probably as a result of a shell bursting in the powder magazines. At 4:08 (twenty minutes after the action had commenced) the 5th Battle Squadron had succeeded in closing the range to 19,500 and opened fire at that range. Their fire was interfered with by smoke from the vessels ahead and was therefore not as effective as if they had been concentrated with the Battle Cruisers.

At 4:12 the range between the Battle Cruiser Forces had opened to 18,000 and decreasing visibility rendered the firing on both sides less effective, so that Beatty changed course to 135 in order to close the range. At about this time torpedoes passed through the British Battle Cruiser line; these were probably fired from submarines whose periscopes had been sighted by British destroyers. To have attained this firing position the German submarines must have been cruising just astern of their Scouting Force.

Admiral Beatty had directed the destroyers to attack when favorable opportunity offered and at about 4:15 twelve of the British destroyers advanced to the attack from a favorable position ahead. Fifteen German destroyers were sent out almost simultaneously by Hipper with the light cruiser Regensburg in support. The two destroyer forces met between the lines with the result that only five British destroyers succeeded in getting in an effective attack, whereby the Seydlitz was torpedoed but nevertheless succeeded in maintaining her position in line throughout the engagement. The Germans were unable to reach a favorable position for attacking the British Battle Cruisers, but did succeed in getting torpedoes through the line of the 5th Battle Squadron, thereby forcing that force to turn away at a time when their fire against the German Battle Cruisers was most effective. Two German destroyers were sunk and two British.

The action between the capital ships of the Scouting Forces continued almost without interruption until 4:41. At 4:26 the Queen Mary was destroyed by a magazine explosion. In spite of the loss of two capital ships to the British and no losses for the Germans, the British finally regained the preponderance of fire (due to a large extent to the 5th Battle Squadron) in spite of the initial disadvantage; and at the end of fifty minutes firing the German fire had materially weakened with a corresponding strengthening of the British. The British losses may be attributed to a large extent to their faulty armour protection and design; whereas the German survival was largely due to their excellent armour protection, the integrity of their under-water body and the failure of the British to use armour piercing shell for the greater part of the firing.





British Notes

- A - 13th Flotilla returns after firing torpedoes
- B - 5th Battle Squadron countermines
- C - 2d L.C.S. turns away under heavy gunfire
- D - Nestor and Albatross fire torpedoes at S.D.I.
- E - Nestor disabled by gunfire of Roslock
- F - Moorson fired torpedoes at battle fleet



German Notes

- Z - S.D.I. countermines at 4:50
- Y - 11th Half Flotilla fires torpedoes
- X - Roslock opens fire on Nestor
- W - 5th Division opens fire on S.B.S. at about 7:00

FIGURE 14

Nov. 5 - 4:45 to 5:00 pm  
N.H.S.









At 4:38 the British 2nd L.C.S. sighted and reported the leading ships of the German Battle Fleet. A few minutes later the German Main Fleet was in sight of the Lion and Beatty promptly changed course to the northward by change of column head to the right. This maneuver in succession rather than a simultaneous movement increased the time of the evolution and interference with gun fire, and risked bringing the end of his column under effective fire of the rapidly approaching enemy battleships. The movement called for quick action, however, and it is probable that time could not be taken to get through a signal that would have been required for a simultaneous movement. The action taken (successive movement rather than simultaneous) had little or no effect on the outcome of the action.

The 5th Battle Squadron held on to the southward keeping the enemy battle cruisers under fire until 4:57 when they turned to the northward in obedience to orders from Beatty. They turned just outside of effective range of the leading enemy battleships. Hipper turned to the northward, also in succession, a few minutes before the 5th Battle Squadron.

The turn about of the British and German Scouting Forces developed a new situation. After the turn, the movement was toward the British Main Fleet,- the German battle cruisers heading their battle line, the battleships following in column astern. The British battle cruisers and 5th Battle Squadron were gradually working round the head of the enemy column at 14,000 yards range and working gradually to the eastward to effect junction with the British Fleet and to concentrate on the head of the enemy column. The effectiveness of the fire from both sides was greatly impaired by the rapidly decreasing visibility. No material change in conditions developed until the junction with the British Main Fleet.

#### Disposition and Movements of British Main Fleet.

As previously stated, at 2 p.m., 31 May, the British Grand Fleet was 18 miles to the north-westward of their appointed rendezvous, or eighty-five miles from their Scouting Force. The disposition of forces was as follows:- Twenty-four battleships in line of divisions in the order from east to west,- 2nd, 4th, 1st Squadrons, with the Commander-in-Chief on board the Iron Duke as leading ship of the eastern division of the center (fourth) squadron. The 12th and 4th Destroyer Flotillas, a total of thirty-nine destroyers, were formed as an anti-submarine screen for the battleships. Three miles ahead of the battleships, five light cruisers, comprising the 4th L.C.S., were deployed in line; and twelve miles ahead the Second and First Cruiser Squadrons were deployed in line covering a front of twenty-four miles. The 3rd B.C.S. (Invincible, Indomitable, and Indefatigable) with a division of destroyers and the light cruisers Chester and Canterbury as screen, were five miles ahead of the advance scouting line or twenty miles ahead of the battle line. Admiral Jellicoe offers no explanation of the disposition of the 3rd B.C.S. ahead of his screen, and the disposition can be defended only on the ground that the 3rd B.C.S. was in the process of relieving the 5th Battle Squadron. Visual communication was maintained between the Battle Fleet and its screen by means of linking ships.





The Approach of the British Battle Fleet.

At 2:00 p.m. the British Battle Fleet was <sup>ready</sup> at short notice for full steam. The Galatea's report of contact at 2:20 was intercepted and the Battle Fleet was immediately directed to raise steam for full speed, and the 3rd Battle Cruiser Squadron was directed to cut off the enemy's escape via the Skagerrak. This order to the 3rd Battle Cruiser Squadron resulted in a still greater dispersion of the British forces. When at 4 p.m. Admiral Jellicoe received information of the presence of enemy battle cruisers, he directed the 3rd B.C.S. to join Admiral Beatty. At 4:00 p.m. fleet speed was made 20 knots, zig-zagging was stopped and the British Battle Fleet made all possible haste to support their battle cruisers.

Upon receipt of instructions to join Beatty, Admiral Hood in command of the 3rd Battle Cruiser Squadron laid his course to intercept and increased speed to 25 knots. At 5:30 one of his outlying cruisers, the Chester, heard firing to the S.W. and quickly developed enemy light forces (Scouting Division II) on that bearing. At 5:40 the 3rd B.C.S. stood in to her support on a NW'ly course. The German Scouting Detachment so developed reported the 3rd B.C.S. as the British Main Fleet. This incorrect information (probably caused by poor visibility) served to seriously embarrass Admiral Scheer and enabled the British Battle Fleet's approach from the northward to come as a complete surprise. The 3rd B.C.S. encountered all of the light forces and destroyers on the unengaged bow of the German Fleet and the accompanying British destroyers attacked with vigour. By 6:10 the 3rd B.C.S. sighted the Lion and formed up in the van, immediately engaging the enemy battle cruisers who were compelled to turn about. At 6:34 the Invincible with Admiral Hood on board was blown up.

At 5:40 the Battle Fleet screen heard firing ahead, soon sighted the 3rd B. C.S. and engaged German light forces ahead of their battle cruisers. The Defense and Warrior crippled the Wiesbaden and became so intent upon their engagement with her that they jammed and blanketed the fire of their own battle cruisers and later came under fire from the enemy capital ships. The Defense blew up and the Warrior was so badly damaged that she fell out of action astern.

The British Battle Fleet had continued its approach in line of divisions. At 6:04 the Iron Duke made out the British battle cruisers bearing 121. Beatty signalled that the enemy was to the S. W. Until the receipt of this information Admiral Jellicoe had expected to find the enemy right ahead and previous information had led him to believe that contact would not be made for another twenty minutes. The earlier contact and finding the enemy on the starboard bow rather than ahead made a proper decision as to the correct deployment difficult. Incomplete information as to the enemy disposition, and the impossibility of sighting more than a few of the ships engaged owing to the low visibility made the task still more difficult.





Admiral Jellicoe had the choice of deploying on either his right or left flank. The right flank had the advantage of throwing some of his capital ships into action immediately and of placing all ships in action in the shortest possible time. It had the disadvantage of exposing his fleet to destroyer attack while deploying and compelling his forces to turn on a knuckle at ranges that would have rapidly decreased below twelve thousand yards. Deploying on the left flank division had the advantage of effecting deployment before any of his forces could be heavily engaged; it had the disadvantage of taking the greatest length of time for closing the range and risked losing the enemy in the haze. Jellicoe adopted the safe course (and only sound course) and deployed on the left flank division. For this decision he has been severely criticized,- it was one of the most critical stages of the battle. In the light of after events it appears that although a deployment on the right flank would have been tactically unsound, the element of surprise to the Germans would have been so great that they probably would have failed to take advantage of the opportunity offered, and their entire line might have been so quickly and decisively engaged as to preclude any possibility of escape.

" As it is an object with the Commander of the defensive battle to delay the decision as long as possible, and gain time, because a defensive battle at sunset is commonly one gained; therefore the Commander in the offensive battle requires to hasten the decision; but, on the other hand, there is a great risk in too much haste, because it leads to a waste of forces." Clausewitz.

#### Effect of Contacts on Missions.

The contacts and engagement of the battle cruiser forces did not effect the missions of either side. When Admiral Scheer learned that he was opposed to the entire British Fleet, his mission undoubtedly changed to withdraw his forces with the least possible loss. Jellicoe's mission on the other hand remained unchanged.

#### Visibility and Weather Conditions.

When the first contacts had been made about 2 p.m. the visibility had been good with light NW'ly breezes. By 5:00 p.m. the wind had shifted to SW and the visibility became rapidly worse from then on. Although Beatty's forces had had the better of light conditions during the southerly courses, after the turn they were at a marked disadvantage with the sun behind them. By six o'clock the haze had become patchy, rendering sighting uncertain and causing all fire to become intermittent. It appears to be well established that at that time the best visibility was to the southward but that even on that bearing ships could not be made out over fourteen thousand yards.

#### The Grand Fleet Deployment.

To have forced a decisive engagement in view of the rapid decrease in visibility and the approach of darkness, the British Grand Fleet should have been placed in a low visibility formation prior to contact in order to throw one wing immediately into action on whatever bearing the enemy might have been sighted. Admiral Jellicoe had decided not to hazard British supremacy however; his object was to engage with his whole fleet and not with part and his action throughout the deployment was therefore consistent with his original decision.



British Notes

- A- Acosta fires torpede of S.O.I. range 4500 yards.
- B- Invincible sunk at 6:25 by S.O.I.
- C- Shark sunk about 6:35.
- D- Defense sunk at 6:16, probably by S.O.I.
- E- Warspite heavily hit by battle fleet.
- F- Warrior escapes after being heavily hit.



German Notes

- Z- Lützow leaves formation after having been very heavily hit. Other battle cruisers also badly damaged.
- Y- Admiral Scheer signals "Ship's Right About" at 6:35.
- X- German destroyers lay smoke screen.

FIGURE 18

Move 9-6:10 to 6:35 pm. H.H.F.



0 3000 6000 9000 12000 15000 18000 21000 24000  
Scale of Yards

British Notes

- A- ZLCG keeps in touch with High Sea Fleet which now was completely disengaged
- B- BCF commences turn through 560°
- C- Marlborough torpedoed at 6:54 pm.



German Notes

- Z- Battle Fleet executes "Ships Right About"
- Y- Flotilla 30 fires 6 torpedoes about 6:42
- V-48 sunk by gunfire of Battle Fleet

FIGURE 19.

Move 10 - 6:35 to 6:55 pm  
H.H.E.

0. Zone from Home Base (from Home Line 24000)  
 Scale of Yards



British Notes  
 A - 2.1 C.G. reports German turn to the eastward. Time of report 1:04.  
 B - Adm Jellicoe at 7:05 changes course 3 points to westward.  
 C - Adm Jellicoe at 7:07 orders 2 pts to E. ind.  
 D - At 7:12 183 ordered to form astern of B.C.  
 E - At 7:16 283 ordered to form ahead of B.C.



German Notes  
 Z - Battle Fleet goes "Right About" to D III follows  
 Y - S.O.I and II. Initial move to starboard  
 X - German battle fleet under heavy fire. Destroyer Seydlitz, Mainz, Gessenner has fired and "black out" has hit.  
 W - III and IV. Flatties ordered to attack. Flatties III and I follow

FIGURE 20.

Move II - 6:55 to 7:15 pm H.M.F.



British Notes  
 A. The Battle Fleet, having formed single column, turns away two points by sub division at 7:22. At 7:25 an additional change of 2 points is made.

0 2000 4000 6000 8000 10000 12000 15000 18000 20000 24000  
 Scale of yards



German Notes

2- At 7:00 the battle fleet was in single column  
 3- 5:00 is heavily hit and turns away  
 4- 5:00 B. turns away  
 5- 5:00 B. forms 10 perpendiculars at 7:00 and turns away  
 6- 5:00 B. forms 11 perpendiculars at 7:00 and turns away

FIGURE 21.

May 12. 7:15 to 7:30 pm  
 H.M.F.

Operations of Fleets From 6:16 to 8:38.

The Grand Fleet's deployment on the left wing required fleet speed to be slowed to fourteen knots in order to allow the battle cruisers to haul clear. In order to take position in rear of the battle line the 5th Battle Squadron was compelled to make two ninety degree turns while under heavy fire, but fortunately no serious damage resulted during the maneuver. The Grand Fleet destroyers had been kept as an anti-submarine screen until just before the deployment, and although signal had been made for them to take action stations they were unable to gain position for attack for sometime. By 6:17 the right flank divisions of the Grand Fleet were able to engage the enemy line and by 6:38 the deployment was completed. The visibility was such that it was difficult to distinguish friend from foe but by 6:30 the greater part of the Grand Fleet had opened fire, although owing to poor visibility a proper fire distribution could not be made, the disabled Wiesbaden received a great deal of attention, and fire was continued intermittently until 7:30. The course was changed from SE to south by divisions in an effort to close the range. The British had accomplished an encircling movement and Von Scheer, realizing that his force was in a critical situation, went ships right about. This maneuver was accomplished with skill, and due to the low visibility not only was not accompanied with serious damage but not having been made out by the British, served to open the range. The maneuver was covered by smoke screens and destroyer attack. At 7:05 the Grand Fleet turned three points to starboard to close the range but upon the receipt of the report of a submarine and upon sighting approaching enemy destroyers, Admiral Jellicoe turned the entire fleet back to south and later turned away four more points to avoid torpedoes. The Marlborough had been struck by a torpedo before the turn away.

The Grand Fleet returned to a southerly course by 7:33. The Fourth L.C.S. reached a position to drive off further enemy destroyer attacks by 7:15 and succeeded in sinking four enemy destroyers with the help of the secondary batteries of the battleships. The contacts between the two fleets after the German retiring movement and the British turn away, until all contact was finally lost at 8:38 was only intermittent due to the low visibility, the use of smoke screens by the Germans and the retiring tactics of the Germans. The Grand Fleet lost sight of their own battle cruisers during the turn away, and although the cruisers succeeded in maintaining touch by radical change of course to the westward, the Grand Fleet failed to make similar changes and thereby failed to force a decisive engagement before dark. Admiral Jerram leading the battle line should have followed and kept touch with his battle cruisers; and to his failure to do so may be ascribed the failure to force a decisive action rather than to Jellicoe's turn away signal. Shortly after the first turn away of the High Sea Fleet, Von Scheer again went ships right about with the alleged intention of taking the initiative as to course, but as this maneuver only served to drive the head of his line into the entire Grand Fleet, which occupied a perfect capping position, the High Sea Fleet was soon for the third time turned through one hundred, and eighty degrees by simultaneous ships movements. Von Scheer's explanation of the reasons for these tactics are not convincing; it would appear that he was badly confused and was trying desperately to escape. Low visibility and frequent use of smoke screens alone prevented these wholly unsound tactics under gun fire from being disastrous. Whatever Von Scheer's



reasons may have been for his maneuvers, they served to keep Jellicoe and the British Fleet in doubt as to the direction of the German movement, and largely due to Jellicoe's determination not to blindly risk the torpedo menace as would have been necessary in prompt and decisive pursuit tactics to the westward, the Germans succeeded in avoiding a decisive engagement until overtaken by dark.

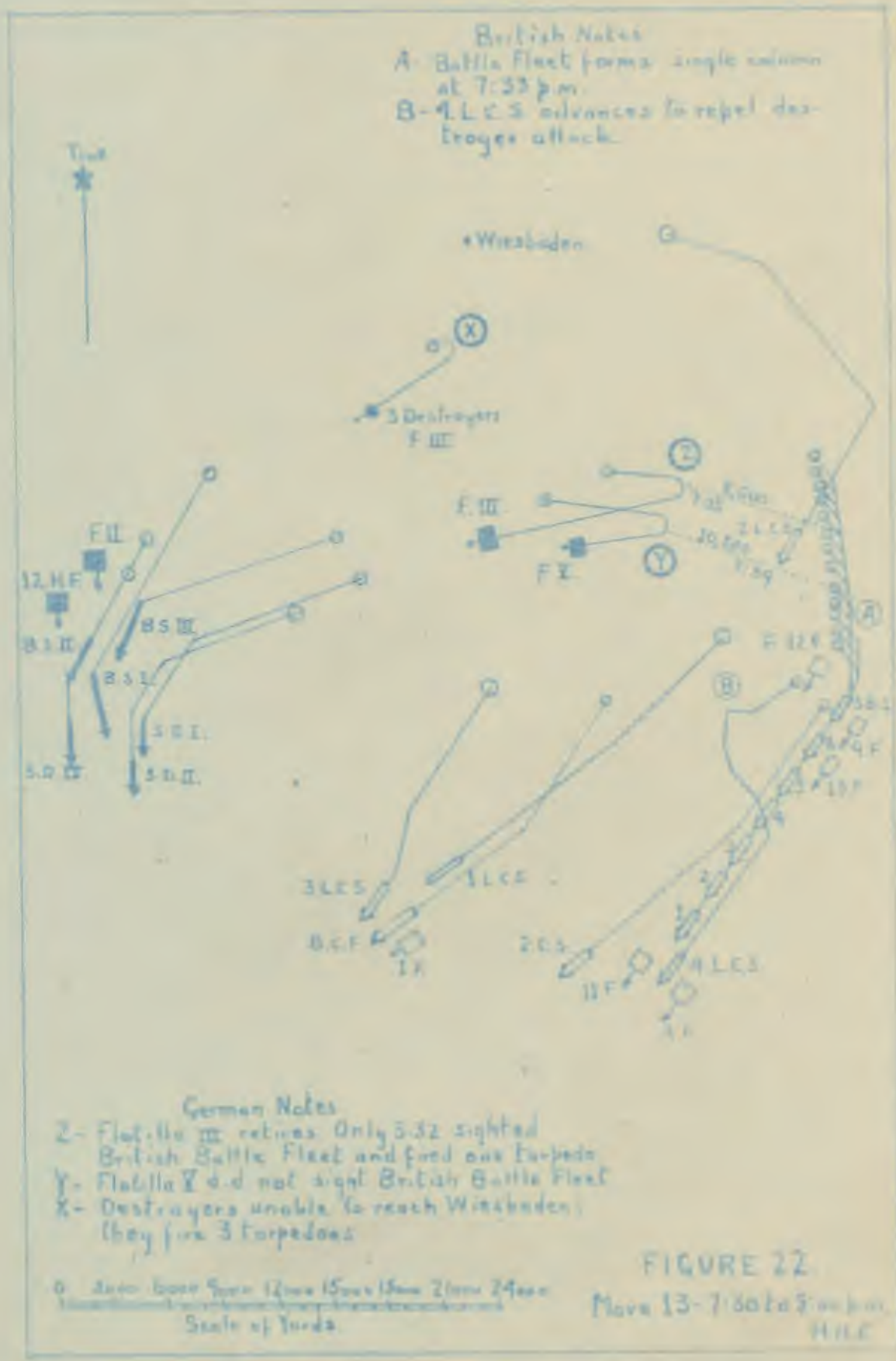
Admiral Jellicoe's original turn away at 7:10 and his subsequent failure to close the enemy by prompt and radical changes of course to the westward, have been severely criticized as his second failure to force a decisive engagement. His action, however, was again absolutely consistent with his original decision not to hazard the Fleet. At first view it would appear unnecessary that he should have turned the entire battle line to avoid the attacks of a few destroyers, and his action in so doing may have been in error, - it was certainly extreme caution; but when conditions of visibility are considered it appears quite probable that had Jellicoe allowed individual divisions to maneuver independently to avoid the torpedo threat, the British battle line might soon have become separated, so that instead of bringing a preponderance of force to bear upon the Germans, a sufficient force might have lost touch to place the British in a position of inferiority. On the whole Admiral Jellicoe's decision and action throughout the day battle appear to have been perfectly sound. As before stated the failure of the British battle line to maintain contact with their battle cruisers rests with Admiral Jerram, the leader of the battle line.

As a result of the day action the British losses were:- 3 battle cruisers, 1 cruiser, and 3 destroyers; while the German losses were 5 destroyers, one battle cruiser, and one light cruiser. The German capital ships were badly shaken, however, and it is quite evident that their strongest desire was to escape. Many German ships owed their ability to keep afloat to their excellent armour protection, below water preparations and the fact that the British had stupidly used nearly fifty per cent of common shell instead of armour piercing.

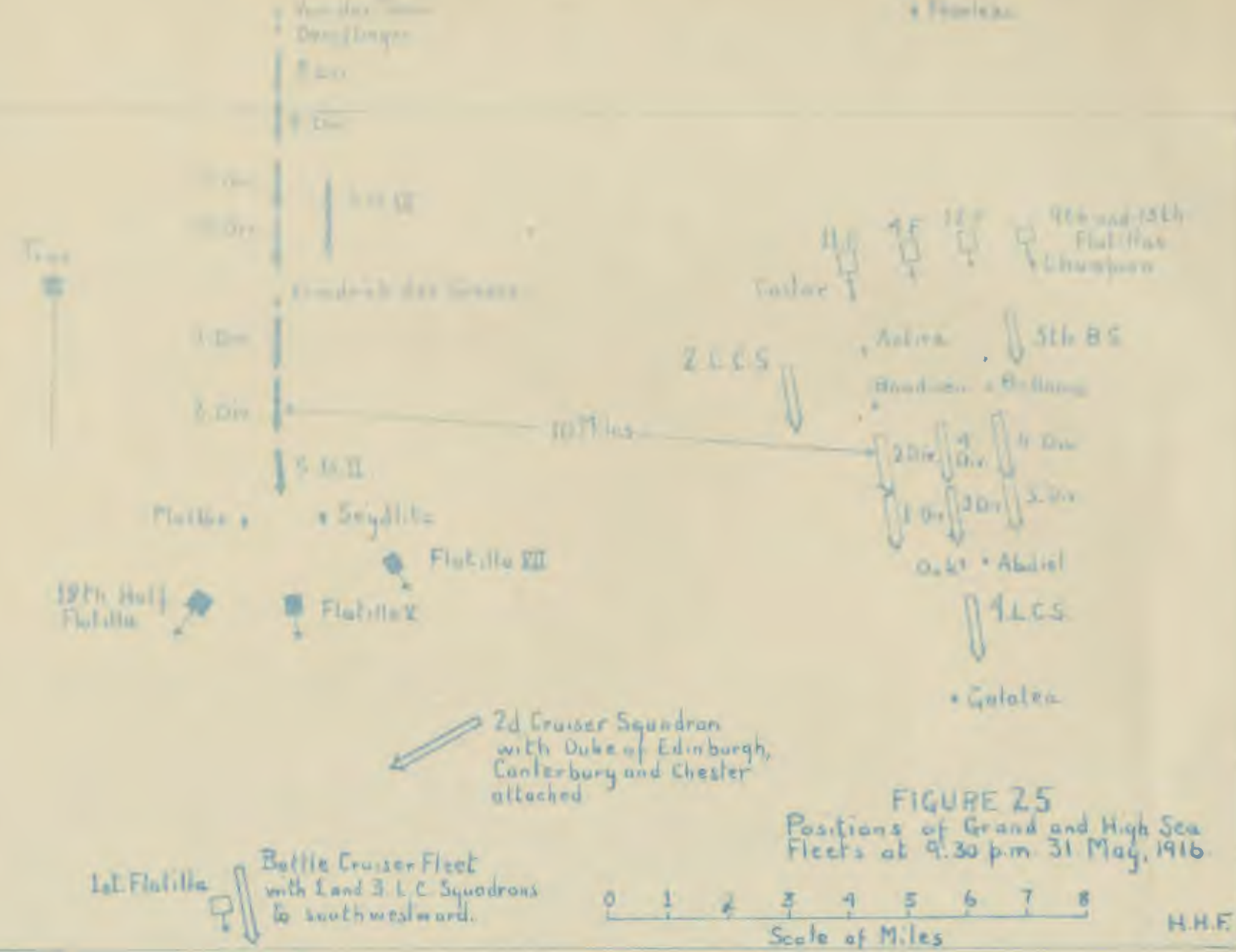
Von Scheer apparently had no conception of a proper approach formation. His battle line left port in column formation and held it until their return to port. This was the worst possible formation to avoid submarine attack while cruising. When the British battle cruisers steamed down to the German fleet no effort was made to bring more than the leading ships within gun range. The German battle line deliberately steamed into a capped position upon approaching the British Grand Fleet. Adherence to an approach formation would have overcome both errors.

Operations of Fleets from 8:38 p.m., 31 May to 5:00 a.m., 1 June.

At 8:30 Admiral Jellicoe decided not to risk a night fleet action. He correctly estimated that his fleet was between the enemy and their base and that he would be able to maintain that position during the night and be in a position to resume action at daylight. The Grand Fleet was therefore put on a southerly course in order to make dispositions for the night and still maintain a position between the enemy and his base. At 9:00 Jellicoe set course 180 in line of squadrons, interval one mile; this enabled the British line to maintain visual touch and reduced the possibility of mistaking each other for the enemy. The destroyers were directed to take station five







miles astern of the battleships; this was done to place the destroyers in position to attack the enemy from his probable direction of approach, to ward off enemy destroyer attacks and to avoid being mistaken for enemy destroyers by their own capital ships. This disposition proved to be most effective. The Abdiel laid mines off Vyl Lightship which caused the loss of the Ostfriesland. The Battle Cruisers, 1st and 3rd Light Cruiser Squadrons and Cruiser Squadrons covered the western flank; the 2nd Light Cruiser Squadron formed astern of the 5th Battle Squadron; and the 4th Light Cruiser Squadron ahead of the Battle Fleet.

When at 8:30 p.m. the British Fleet set a SW'ly course, the German High Sea Fleet was on a westerly course. About 9:00 they also set a southerly course and made disposition for the night with a view to winning through to Heligoland. At this time the two fleets were separate by only about 5 - 7 miles. The High Sea Fleet continued their column formation. Scouting Division I, because of its damaged condition, was detailed to cover the rear, Scouting Division II the van and Div. IV to the westward. Destroyers were directed to take position for attack and deployed in line at right angles to the assumed bearing of the enemy, i.e., 70 - 250.

The High Sea Fleet laid a direct course for Horn Reef and as this course converged with the British, the High Sea Fleet ran into the rear guard of the Grand Fleet resulting in a series of minor engagements during the night. The High Sea Fleet passed astern of the British Fleet about midnight, distance about eight miles, and thereafter worked to the westward. A study of the tracks of the two fleets show that although neither side sought a fleet night action, one would have resulted had not the Grand Fleet maintained a higher rate of speed than could be maintained by the Germans.

The destroyer forces of both sides failed to carry out a systematic search for the enemy. Little is known of the plan of action of the German destroyers, except that they were directed to attack, but it appears that they must have kept close to their fleet, for they failed to find the British main body, they were in contact with their own fleet at daylight, and their few contacts with British light forces appear to have been wholly due to chance and the converging courses of the two fleets. That the British destroyers made more numerous contacts and did succeed in successfully attacking the German battle line also appears to be due to the course taken by the High Sea Fleet rather than to any initiative of the British destroyers in seeking out the enemy, or in following up the contacts made. The determination and intrepidity of these British destroyers that did make contact during the night action leaves no doubt as to their desire to engage the enemy, and their failure to concentrate in the attack, when contacts were developed, indicates the difficulty of making the outcome of a night action with low visibility such as obtained in the North Sea on the night of 31 May - 1 June, other than a matter of chance, owing to the difficulty of distinguishing types, friend from foe, and even sighting other vessels until within point blank range. The effectiveness of the German starshell was a great asset to them in warding off destroyer attack. A slight conception of the difficulty of night action with low visibility may be gained by a study of the night engagements. In doing so it is necessary to bear in mind that the main





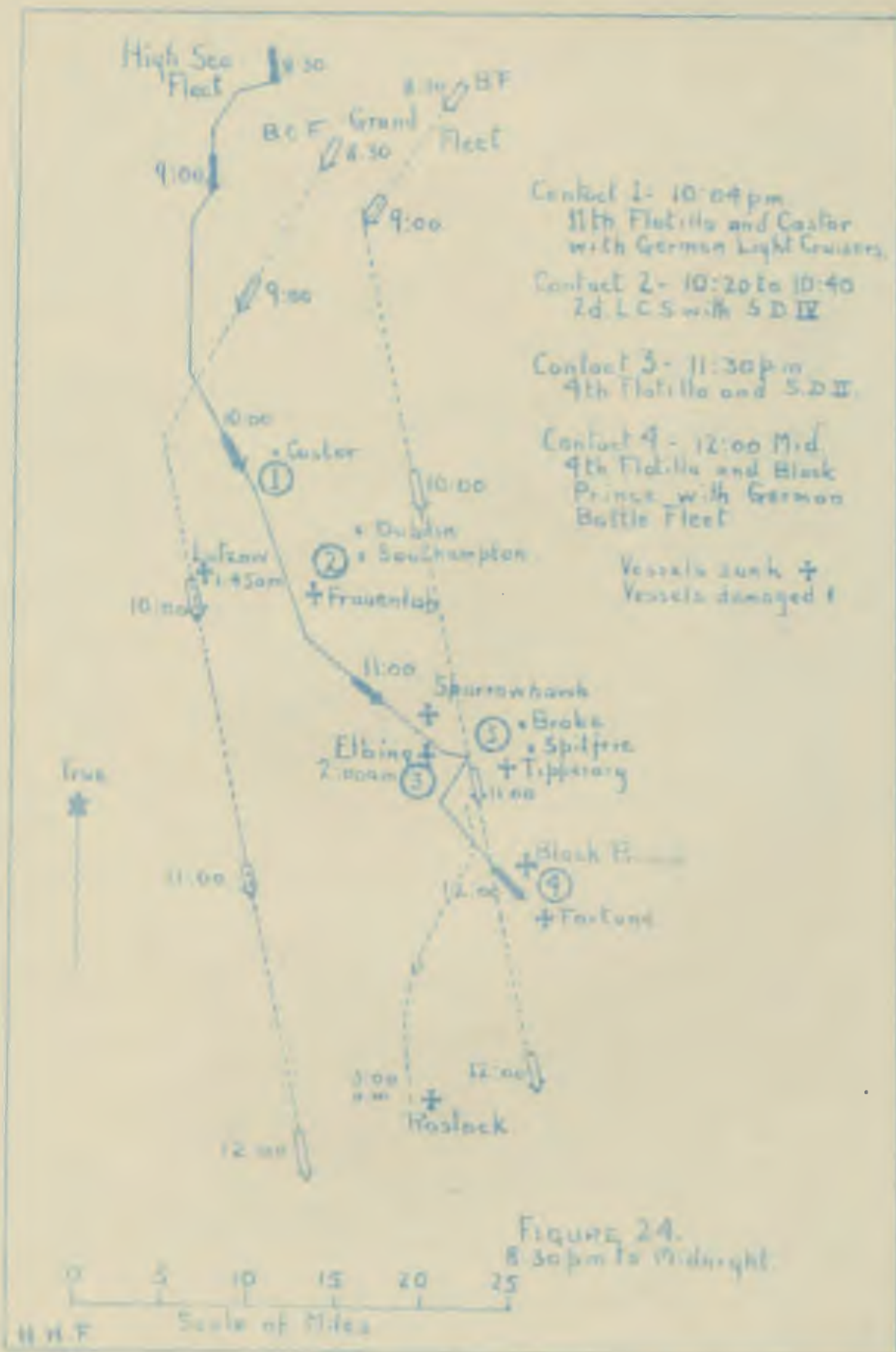


FIGURE 24.  
8:30 pm to Midnight.



Positions of 10:04 pm of II F, Custer, Seydlitz and S.D.II

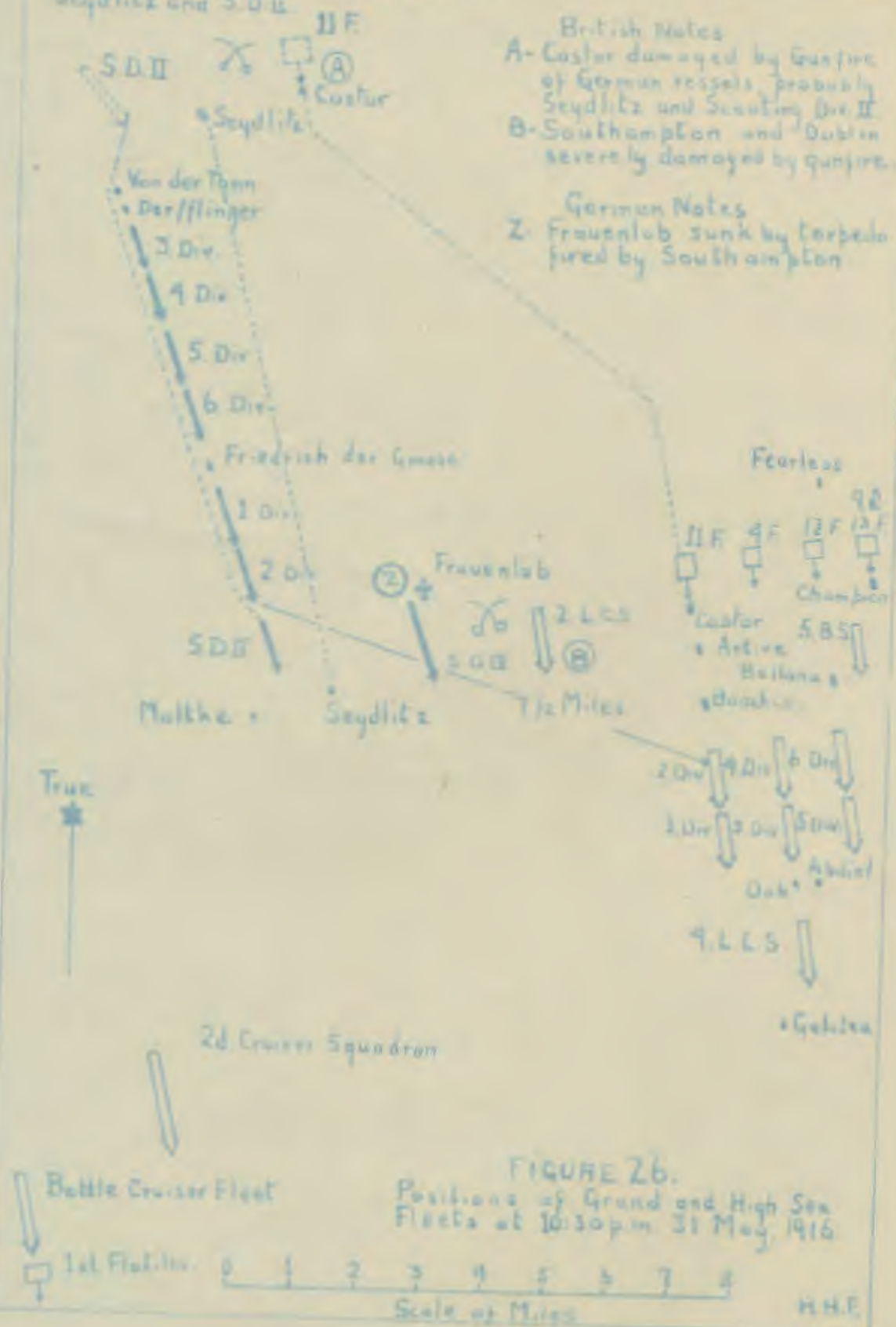


FIGURE 26.  
 Positions of Grand and High Sea Fleets at 10:30 pm 31 May, 1916



FIGURE 27.

Positions of Grand and High Sea Fleets at 11.30 p.m. 31 May, 1916.





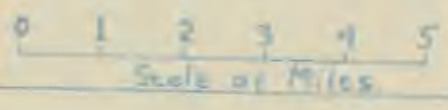
- British Notes**
- A- Left Column of 4th Flotilla makes contact with 2d Div. at Midnight; Fortune sunk.
  - B- Black Prince sunk at Midnight by 1st Division.
  - C- Ardent of 4th Flotilla sunk by 2d Division.
  - D- 13th Flotilla makes contact; Turbulent sunk; Peled put out of action.
  - E- 5th and 6th Divisions fall behind, due to reduced speed of Marlborough.

**German Notes**

I- Matthe makes contact with 6th Division but escapes due to position of British to open fire.



**FIGURE 29**  
Positions of German and High Seas Fleets at 12:30 AM June 1916  
H.H.F.



fleets were within eight miles of each other during the greater part of the time and yet none of the attacking forces were supported by their heavier units. An attempt at such support would undoubtedly have resulted in hopeless confusion of the two forces, thereby leaving the outcome wholly to chance. It is possible to visualize the Grand Fleet holding to its course with almost constant gun fire action in which only their light forces were engaged, taking place within sight and bearing astern; while the High Sea Fleet also held to its course, for the sole purpose of reaching the protected waters of Heligoland, and found itself exposed to attack all along the line.

The following brief summary of the night engagement afford an appreciation of the fortuitous characters of the contacts, and the degree of surprise and close action imposed by the low visibility:-

About 10:00 the Castor, flagship of the 11th Destroyer Flotilla, while in position as the most westerly vessel of the British screen, made contact with German light cruisers, which she took to be German battle cruisers. The Castor's radio was shot away. She and two destroyers fired torpedoes; the rest of the flotilla did not fire because of doubt as to whether the ships sighted were friend or enemy. Twenty minutes later, the 2nd L.C.S., while in position astern of the 5th Battle Squadron, engaged German cruisers for fifteen minutes. During this action the Southampton and Dublin were severely punished and the German light cruiser Frauenlob was sunk.

At 11:00 the light cruiser Active, astern of the 2nd B.S., sighted a vessel coming up from astern. Heavy ships opened fire on her and sunk her. Identity not known but now believed to have been the Black Prince.

At 11:30 the fourth flotilla, or western centre of British screen, made contact with German cruisers and attacked. Results: Tipperary sunk, Broke and Sparrowhawk collided, Spitfire collided with German ships. Germans lost Stettin, Munchen and Rostock. The Elbing was rammed by a German battleship.

At midnight the fourth flotilla again made contact, this time with the German 2nd Battle Squadron. The Pommern was sunk by torpedo and the Fortune was sunk by gunfire.

At 12:30 the Turbulent in the most easterly group of the British screen, was run down by a German capital ship, and the Petard was badly damaged by gunfire.

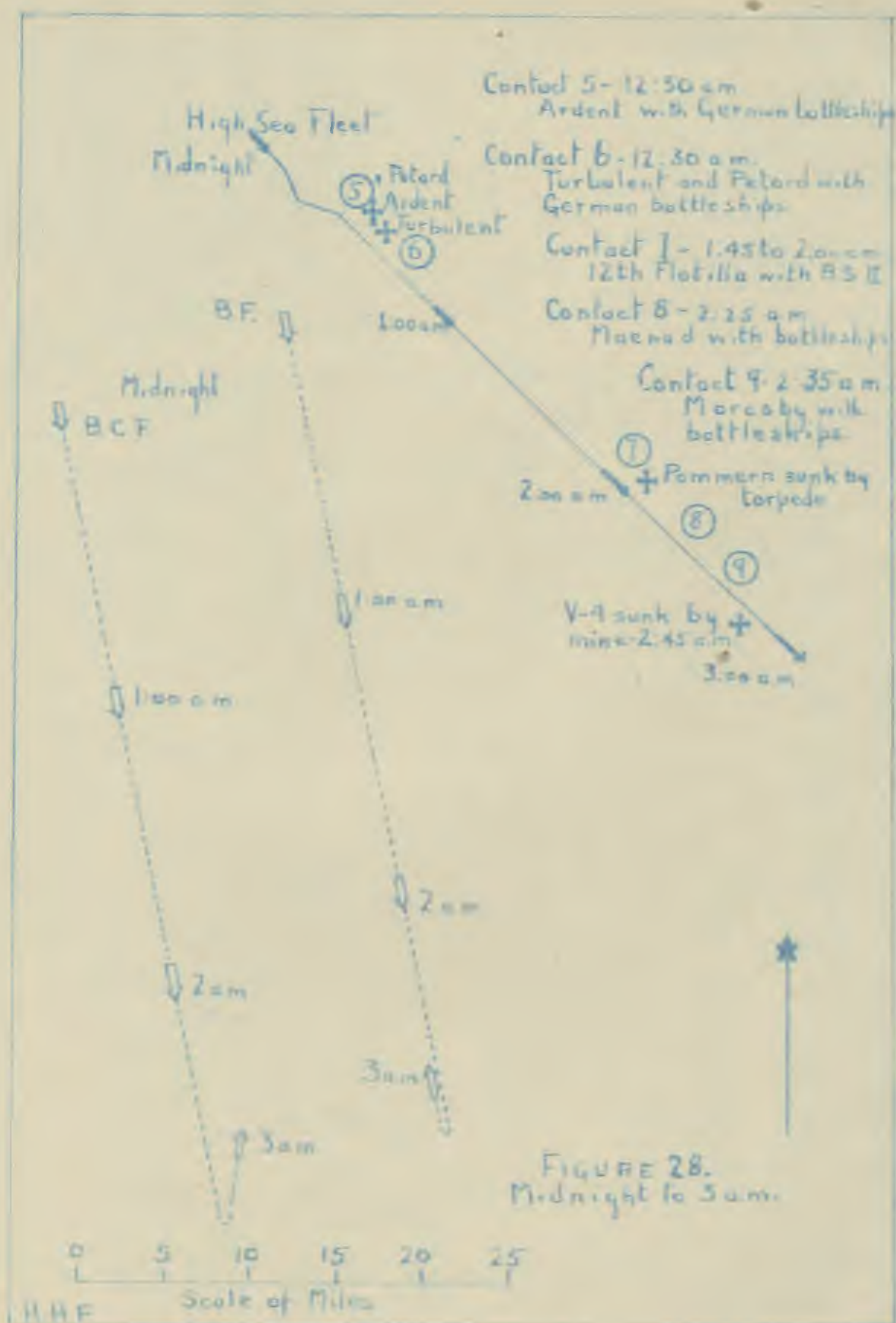
At 1:45 the twelfth flotilla, eastern central group, sighted enemy battleships and delivered a torpedo attack at 3000 yards, firing fifteen torpedoes. The Grosser Kurfurst and Markgraf were probably torpedoed in this attack, but did not sink. None of the British destroyers were lost. The report of this contact did not reach Admiral Jellicoe.

At 2:35 the Moresby sighted German capital ships and attacked.

The Moltke became separated from the German Fleet during the night and passed close to and within sighting distance of the British Fleet but was not fired on because of the doubt as to her identity.

The Marlborough (torpedoed during the afternoon) was unable to maintain Fleet speed after 2 a.m. and returned to port with destroyer escort. Admiral Burney transferred his flag to the





Notes - A - Minefield laid by Abdiel 4 May  
 Oostvriesland attack zone of these mines  
 B - Minefield laid by Abdiel 31 May  
 C - Stations of British Submarines  
 D - Zeppelin L-17 reports & Battle Cruisers  
 E - Regensburg and Dublin at 4:10 am

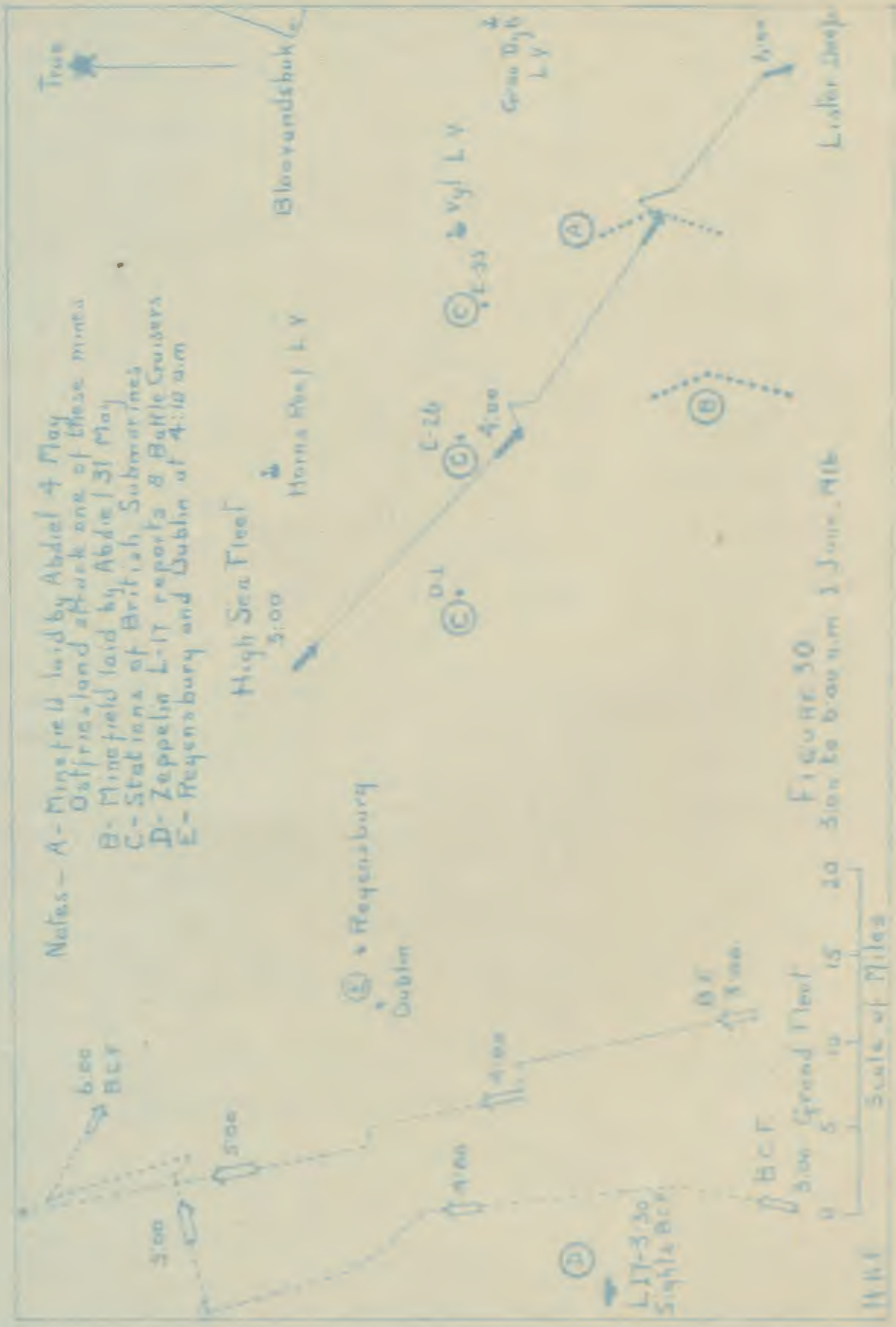


FIGURE 30  
 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200  
 1 June 1916



Revenge before releasing the Marlborough and this slowed the 6th Division so that it lost touch with the Fleet.

At daylight Admiral Jellicoe was faced with the decision as to whether he would assure the renewal of the engagement by heading for Horn Reef Light, or whether he would risk losing the chance for further action by first assembling his forces. At daylight the 6th Division had become separated as had the destroyers and cruisers. The visibility was still low. Word had been received from the Admiralty that enemy submarines were apparently coming out from German ports. An engagement in the vicinity of Horns Reef would therefore not only have exposed the British Fleet to being drawn over enemy mine fields but might have subjected them to submarine attack without destroyer escort. Admiral Jellicoe decided not to force an immediate engagement and at 2:47 set the course for the fleet as Z46.

This decision has been even more severely criticized than his original deployment and turn away. Again, however, his decision was absolutely in accordance with his apparent original decision - not to risk the supremacy of the British Fleet. In view of the low visibility, the nearness to enemy mine fields, the scattered condition of his fleet and the reported presence of enemy submarines, to have sought an engagement at daylight off Horn Reef would undoubtedly have hazarded the Fleet.

The High Sea Fleet entered their protected waters shortly after daylight of 1 June, and never thereafter ventured to risk fleet action.

The Grand Fleet collected its forces and after making sure that none of the enemy remained to contest control, returned to their bases and were again ready for action within forty-eight hours.

The British maintained surface control of the sea until the end of the war. The survival of the High Sea Fleet, compelled the British to hold the Grand Fleet in constant readiness for action until the end of the war. The material results of the battle left the strategic situation unchanged. The moral results deprived the Germans of their last hope of success through fleet action, but nevertheless lowered the morale of the Allied nations and temporarily raised the morale of the Germans, because an overwhelming victory for the British had been generally expected.

#### Summary and Conclusions.

The German tactics were in general consistent with their mission and decisions.

The British tactics were influenced largely by the necessity of maintaining British naval supremacy rather than throwing the full weight of British sea power toward annihilating German sea power. The principles so adopted imposed a degree of caution upon the British Commander-in-Chief in his conduct of the battle, that precluded the probability of an overwhelming victory under the conditions that obtained during the battle. Whereas the policy of caution pursued has resulted in British sea power surviving the war in unchallenged supremacy, thereby maintaining a stabilizing force for the entire world, the outcome of more venturesome tactics even though they might have and perhaps would have resulted in the destruction of the German Fleet, is purely conjectural. In my opinion the destruction of the High Sea Fleet on 31 May or 1 June, 1916, would have involved a cost in world supremacy that the British Empire could not afford.



Granting the soundness of the policy of caution, Admiral Jellicoe's decisions in his approach, deployment, turn away and failure to force action at daylight on 1 June, were sound. The reverse decisions might have been made in any or all cases without serious risk of losing the battle, but the reverse decision in all cases would have exposed the British Fleet to the probability of serious loss.

The German High Sea Fleet appears to have been better drilled and indoctrinated in the proper coordination of the various types for fleet action than was the British Grand Fleet.

My conclusions of the performances of the two fleets may be classified by types as follows:

#### Battleships.

British. Although complete information is lacking as to how much of the German plans and operations were known to Admiral Jellicoe, it appears that he had sufficient information of the possibility of fleet action to have established visual contact with Beatty's force before noon of 31 May; such contact would have aided prompt concentration and initial deployment. The British battleships were slow in raising steam for full speed, and it would seem that they should have had full steam at the throttle. Whereas the initial deployment on the left flank instead of the right did lose valuable time when time because of approaching darkness was a vital factor, except for the element of time, this deployment was the only sound one; and did succeed in placing the Grand Fleet in a perfect capping position, the full value of which was lost through low visibility and the subsequent turn away from torpedo attack. The turn away from the torpedo attack was consistent with Admiral Jellicoe's decision not to hazard his naval supremacy. Admiral Jerram should have maintained touch with his battle cruisers. The disposition for the night, line of squadrons, was sound in view of the known inferior speed of the enemy and his approximate bearing astern.

German. The German battle line left port in a line ahead formation and maintained that formation until their return to port. This action as well as Von Scheer's subsequent writings indicate that he had no conception of the value of a cruising or approach formation. His line ahead was tactically faulty during the following stages prior to and during the battle:- (1) For cruising it was the worst possible formation against submarine attack; (2) When the British battle cruisers were led within gun fire range of the High Sea Fleet, the latter's line ahead formation enabled only the leading ships to fire, whereas a proper approach formation would have enabled the Germans to have at least doubled their effective fire (the few minutes gained in supporting their battle cruisers did not by any means compensate for this tactical error), and (3) the adherence to the line ahead in pursuing the British battle cruisers, whose superior speed assured their ability to choose the range, ran the High Sea Fleet into a perfect capped position upon making contact with the Grand Fleet so that low visibility, approaching darkness and Admiral Jellicoe's caution alone saved them from annihilation. The three successive maneuvers of ships right about was accomplished with extreme skill, but the maneuver under gun fire was faulty, and the low



visibility and skilful use of destroyer threat and smoke screens alone prevented it from disaster. The second turnabout, driving the head of column directly into the British "T" can not be defended and has all the appearance of complete mental confusion. The line ahead formation during the night would appear to have been the best possible formation for the night run in view of the possibility of being forced to a fleet night action.

#### Battle Cruisers.

British. The conduct of the British battle cruisers was characterized with dash, determination and positive action. The 5th B.S. should have been concentrated with the battle cruisers when action was first began with the German battle cruisers. Beatty's forces effectively carried out their mission in developing the enemy and holding contact throughout the action; but he failed to keep the Commander-in-Chief fully and completely informed of the movement and disposition of the enemy. The diversion of the 3d B.C.S. toward Skagerrak after the first contact, was unsound; but after it had rejoined its participation was prompt and effective.

German. The German battle cruisers were handled with skill and determination throughout the battle. Their service of information appears to have been excellent.

#### Cruisers.

British. While the British cruisers were handled with dash and courage, a study of their individual movements does not carry the conviction that their leaders at all times had in mind a clear understanding of their mission in fleet action. The 2d L.C.S. is the only unit that consistently worked toward performing its proper function in the service of information of the enemy fleet movement and disposition. The 1st and 3rd L.C.S. separated themselves so far from the battle cruisers at the very outset as to have been of no value until toward the close of the day action, and their subsequent participation was directed by Admiral Beatty instead of acting on their own initiative with a proper understanding of their duty to the fleet. The following message from the 3d L.C.S. to 1st L.C.S. at 6:00 p.m. indicates the apparent state of indecision that existed:- "I was told to keep touch with battle cruisers. It seems to be getting a bit thick this end. What had we better do?" The 1st C.S. blindly rushed in between the battle lines, or their first contact, blanketing the fire of their own capital ships. The British cruisers did not show proper initiative in driving off enemy destroyer attacks or in supporting their own and constantly interfered with the fire of their own capital ships with their smoke.

German. The task of the German cruisers was much easier than that of the British because of the initial concentration of the German forces and the adherence of their battle line to a single line ahead formation. They succeeded in coordinating their movements with the movements of their fleet and their service of information appears to have been good except in the one glaring case where S.D. II reported the 3rd B.C.S. as the Grand Fleet, thereby enabling the approach of the British Fleet, on a bearing nearly ninety degrees from that reported, to be effected as a complete surprise. The German cruisers provided excellent support for their destroyers.

### Destroyers

British. As with the cruisers the British destroyers do not appear to have been led with a prompt understanding of their proper function in relation to the capital ships in fleet action. The destroyers with Jellicoe were slow in reaching their stations on the initial deployment. Only one of Beatty's destroyers attacked The High Sea Fleet in its advance to the northward. Throughout the engagement, whenever attacks were made they were carried out with high determination and courage.

German. The attacks of the German destroyers during the day action were at all times well timed to support the action of their capital ships. Their performance showed the years of training devoted to them by Von Tirpitz who had a proper appreciation of their use in fleet action. No explanation has been made of their utter failure to attack the Grand Fleet during the night of 31 May - 1 June. As most of their torpedoes had been expended during the day action, it may have been that Von Scheer's orders to them to attack could not have been carried out.

### Submarines.

No British submarines took part in the fleet action. In spite of Scheer's denial, it appears quite certain that a number of German submarines were present and that while they do not appear to have inflicted any damage their mere presence influenced the Grand Fleet in its disposition and tactics.

### Air Force.

The launching of a plane from the Engadine is the first instance of the participation of air craft in fleet action. The information gained by this plane was not of great value to Admiral Beatty owing to the rapid development of the enemy forces by his own movements. It is of interest to note that the planes activities were impeded by German gun fire. The German zeppelins were of no value because of the low visibility, but if high visibility had obtained it is probable that they would have been of great value (the one contact on 1 June was driven off by gun fire from the ships). In 1916 little progress had been made with bombing planes. The progress in aviation has since been such that the air force may be expected to play an important part in future naval battles.

### General Conclusions.

A study of the Battle of Jutland emphasizes the following truths:

1. That surface control of the sea is dependent upon a superiority in capital ships.
2. That the most effective offensive weapon is the gun of heaviest caliber.



3. That the effort to gain maximum offensive power at the cost of sound provision for keeping vessels afloat, is wrong.

4. That the serious menace to capital ships from torpedoes and mines has been clearly established; and that the development of torpedo craft, mine vessels and air craft must go hand in hand with the development of the capital ships.

5. That in spite of modern improvements in communications, the control of naval forces by detailed commands can not be relied upon in time of action, and the proper coordination of effort of the various branches that constitute a fleet must be effected by previous instruction, training and indoctrination.

(21 September, 1921).