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THE BATTLE OF JUTLAND.

by

Lieutenant (jg) H. H. Frost, U. S. Navy.

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U. S. Naval War College,
Newport, Rhode Island,
November 26, 1916.

Frost, Lt. H. H.
European War
Jutland Battle of.

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NOTE: In Sketches 1 to 14 and in the
General Plan of the Battle, the
top of the blue print is North-
North-West.

Lieutenant (jg) H. H. Frost, U.S.N.

In constructing a detailed and impartial account of this battle the following reliable sources of information are available.

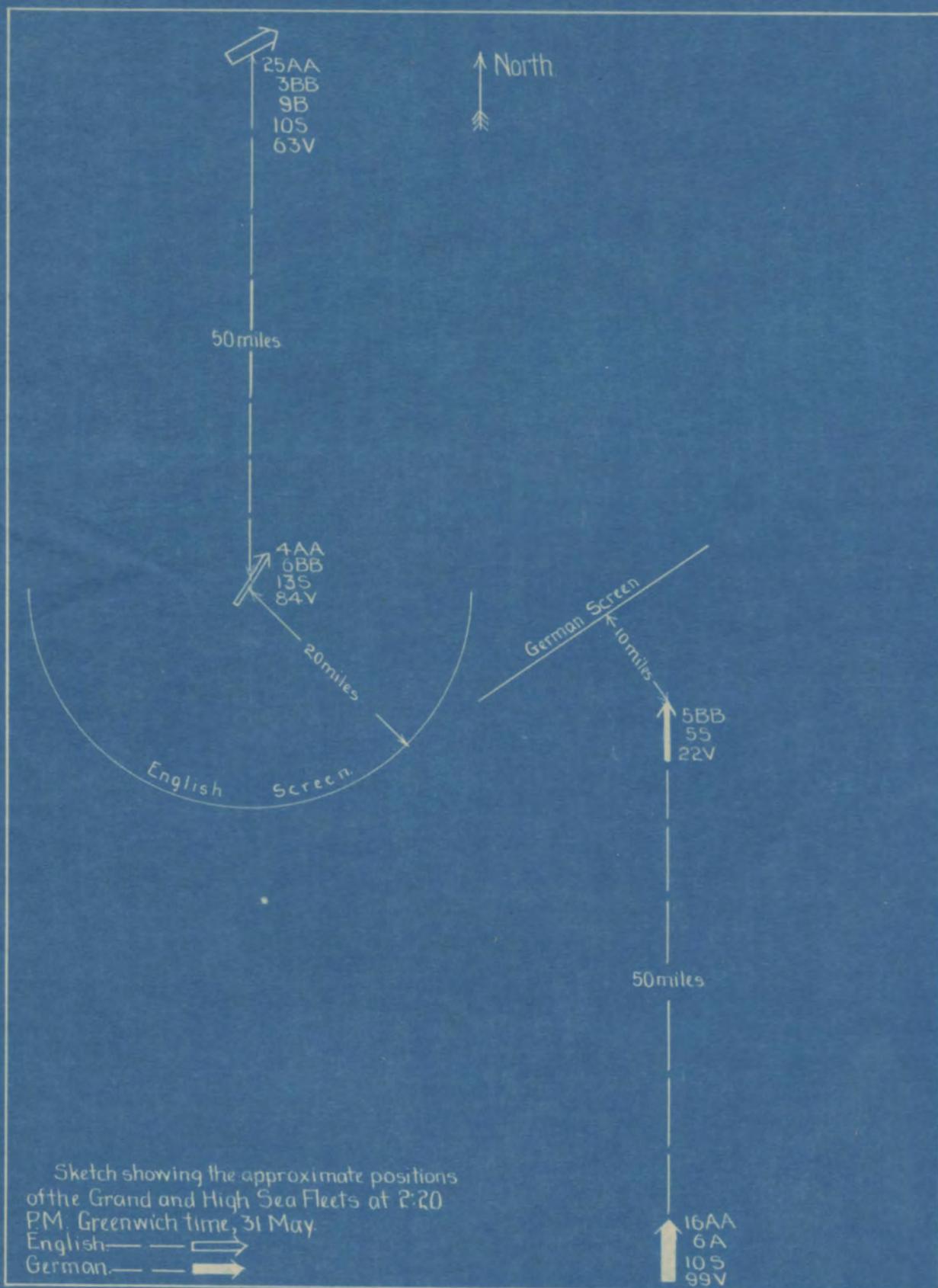
1. English official reports and accounts.
2. German official reports and accounts.
3. English semi-official account by Arthur Pollen.
4. German semi-official accounts by Captain Schreibe, I.G.N.
5. Official reports of U. S. Naval Attaches.

While there is a fair agreement among all these accounts as regards the general course of the action, there will naturally be considerable disagreement over the details. This is perfectly natural when the weather conditions were so bad that it was impossible to see over four miles at the most important part of the action. In determining facts the official reports will be given the most weight. Where the opposing official reports disagree materially, as, for example, in regard to the losses suffered, each report will be considered final as regards its own forces. The English time will be used throughout this account as the standard time and two hours will be subtracted from all times given by the German accounts. Numerous extracts will be given from the official reports and the authority for all important statements will be given.

THE DISPOSITION AND STRENGTH OF THE OPPOSING FORCES WHEN
FIRST CONTACTS WERE MADE.

The Sketch gives approximate dispositions of forces at 2:20 PM.

On the early afternoon of 31 May the English Grand Fleet according to Admiral Jellicoe's Report was making one of its periodical sweeps through the North Sea. According to this report the Grand Fleet was, in general, divided into two main detachments. That commanded by the Commander-in-Chief, Admiral Jellicoe, I will call the "Main Body"; that commanded by Vice-Admiral Beatty I will call the "Scouting Force."



The Main Body of the Grand Fleet was composed of the following forces.

1. The Battle Fleet.
2. Third Battle Cruiser Squadron.
3. First and Second Cruiser Squadron.
4. Fourth Light Cruiser Squadron.
5. Fourth, Eleventh and Twelfth Flotillas.

The composition of the Battle Fleet can be determined only roughly. Admiral Jellicoe's Report purposely conceals the names of the ships in it, mentioning only four ships - IRON DUKE, MARLBOROUGH, REVENGE and COLOSSUS. The only information we may derive from this is that three ships of the REVENGE class had probably joined the fleet, as it is definitely known that the two ships of this class had been completed before the REVENGE. If we further assume that the three ships taken over by the English at the beginning of the war from neutral nations - Erin, Agincourt and Canada - had been completed and that the AUDACIOUS had been lost, the Battle Fleet, might have been 27 ships strong - not considering, of course, the five ships of the QUEEN ELIZABETH class of the Fifth Battle Squadron. This is the exact number of ships which the German Official Account gives the English Battle Fleet. The Office of Naval Intelligence gives 26 ships, counting on the known normal composition of the three battle squadrons which the English Official Account mentions in its description of the action - First, Second and Fourth - plus the IRON DUKE, Fleet Flagship. As the normal English Battle Squadron consists of 8 ships, three squadrons plus the Fleet Flagship, would give 25 ships. Thus it may be said with some degree of certainty that the Battle Fleet was composed of from 27 to 25 ships. We will consider the Battle Fleet to have 25 ships. The organization of the Battle Fleet will be considered as follows:

The IRON DUKE - Fleet Flagship of Admiral Jellicoe, Commander of the Battle Fleet.

The Fourth Battle Squadron - Eight ships - Commanded by Admiral Jellicoe.
 First Division - four ships - Commanded by Vice Admiral Sturdee.
 Second Division - four ships - Commanded by Rear Admiral Gaunt.

The Second Battle Squadron - Eight ships - Commanded by Vice Admiral Jerram.
 First Division - four ships - Commanded by Vice Admiral Jerram.
 Second Division - four ships - Commanded by Rear Admiral Leveson.

The First Battle Squadron - Eight ships - Commanded by Vice Admiral Burney.
 First Division - four ships - Commanded by Vice Admiral Burney.
 Second Division - four ships - Commanded by Rear Admiral Duff.

The Third Battle Cruiser Squadron was commanded by Rear Admiral Hood and consisted of INVINCIBLE (Flagship), INDOMITABLE and INFLEXIBLE.

The First Cruiser Squadron was commanded by Rear Admiral Arbuthnot. It was composed of the armored cruisers DEFENSE, WARRIOR, BLACK PRINCE and DUKE OF EDINBOROUGH.

The Second Cruiser Squadron, commanded by Rear Admiral Heath, was composed of five armored cruisers, ACHILLES, COCHRANE, HAMPSHIRE, SHANNON and MINOTAUR.

The Fourth Light Cruiser Squadron, Commodore Le Mesurier, consisted of CALLIOPE and three other lightcruisers of that class.

Attached to the Battle Fleet were the light Cruisers, BOADICEA, ACTIVE, BLANCHE and BELLONA for use as repeating ships. The light cruisers CHESTER and CANTERBURY were attached to the Third Battle Cruiser Squadron.

The fourth, Eleventh and Twelfth Flotillas consisted probably of about 63 destroyers.

Thus the Main Body of the Grand Fleet consisted of 25 Dreadnaught Battleships, 3 Battle Cruisers, 9 Armored Cruisers, Ten Light Cruisers and 63 destroyers.

At a distance which we may estimate as about 50 miles to the southward of the main body was the Scouting Force. This was commanded by Vice Admiral Beatty. It was composed of:

1. The Battle Cruiser Fleet.
2. The Fifth Battle Squadron.
3. The First, Second, and Third Light Cruiser Squadrons.
4. The First, Ninth, Tenth and Thirteenth Flotillas.

The Battle Cruiser Fleet was organized as follows:

Fleet Flagship - LION - Vice Admiral Beatty.

First Battle Cruiser Squadron - TIGER, QUEEN MARY and PRINCESS ROYAL.

Second Battle Cruiser Squadron - NEW ZEALAND and INDEFATIGABLE.

The Fifth Battle Squadron was probably composed originally of the five ships of the QUEEN ELIZABETH class. The Germans claim in their official account that five ships composed this squadron in the battle. However, the English unofficial accounts seem to prove that the QUEEN ELIZABETH was absent, and therefore, according to our rule of allowing each side to determine the facts relating to its own forces, we will consider this squadron to be composed of but four ships - BARHAM (Flagship) VALIANT, WARSPITE and MAYLAYA.

The First Light Cruiser Squadron, commanded by Commodore Sinclair, was composed of the GALATEA and three other light cruisers of that class.

The Second Light Cruiser Squadron, commanded by Commodore Goodenough, was composed of SOUTHAMPTON, BIRMINGHAM, LOWESTOFT, NOTTINGHAM and DUBLIN.

The Third Light Cruiser Squadron, commanded by Rear Admiral Napier, was composed of FALMOUTH, LIVERPOOL, GLUCESTER and YARMOUTH.

The four Flotillas were composed probably of about 84 boats.

The Scouting force was therefore composed of 6 Battle Cruisers, 4 Dreadnaught Battleships (speed 25 knots) 13 light cruisers, and about 84 destroyers.

According to Admiral Beatty's Report the Scouting Force was steering to the northward to join the commander-in-chief. The capital ships were probably in two formations, the Battle Cruiser Fleet to the eastward and the Fifth Battle Squadron to the westward at an interval of a few miles. According to Admiral Beatty's report the light cruisers were formed in a screen to the rear of the capital ships which extended from East to West. This screen was probably circular and distant about 15 or 20 miles from the Battle Cruiser Fleet. According to the German account about 15 or 20 destroyers were with the light cruisers at the first contact. It is therefore probable that at least 2 Flotillas were with the screen, The other two, if not also there, were probably accompanying the capital ships, possibly guarding against submarine attack.

The Grand Fleet was composed of a total of 9 Battle Cruisers, 29 Dreadnaught Battleships, 9 Armored Cruisers, 23 light cruisers, and 147 Destroyers.

Now consider the strength and dispositions of the German High Sea Fleet. According to the German Official Account the High Sea Fleet was "cruising in the Skagerack on May 31 for the purpose of offering battle to the British Fleet." The High Sea Fleet was divided into two general detachments, which we will call, as we did in the case of the English Fleet, the "Main Body" and the "Scouting Force."

The Main Body, under the command of Vice-Admiral Scheer, Commander-in-Chief of the High Sea Fleet, was composed of:

The Battle Fleet, under the personal command of Vice Admiral Scheer.

Light Cruiser Groups.

Destroyer Flotillas.

The Battle Fleet, according to German accounts, nowhere contradicted, consisted of:

Fleet Flagship - FRIEDRICH DER GROSSE - Vice Admiral Scheer.

Third Battle Squadron - Seven Dreadnaught Battleships, Rear Admiral Behnecks.

First Battle Squadron - Eight Dreadnaught Battleships. Vice Admiral Schmidt.

Second Battle Squadron - Six Pre-dreadnaught Battleships, Rear Admiral Mauve.

The Light Cruiser Groups consisted probably of about 10 vessels. There were probably nine Destroyer Flotillas of 99 boats. Thus the Main Body of the High Sea Fleet consisted of 16 Dreadnaught Battleships, 6 Pre-dreadnaught Battleships, 10 Light Cruisers and 99 destroyers.

The German Scouting Force was about 50 miles North by West from the Main Body of the High Sea Fleet. It was commanded by Vice Admiral Hipper and composed of:

The First Cruiser Division.

Second Group of Light Cruisers.

Two Destroyer Flotillas.

The First Cruiser Division, commanded in person by Vice Admiral Hipper, was composed of five Battle Cruisers - LUTZOW, DERFLINGER, MOLTKE, SKYDLITZ and VAN DER TANN.

The Second Group of light cruisers was composed probably of about 5 ships, and the two destroyer flotillas were made up of about 22 boats. Of this force, the light cruisers were probably in advance about 10 miles to the Northwest, possibly accompanied by some of the destroyers. The German Scouting Force consisted therefore of 5 Battle Cruisers, 5 Light Cruisers and 22 Destroyers.

All the German forces were steaming in a northerly direction. The High Sea Fleet was composed of 16 Dreadnaught Battleships, 5 Battle Cruisers, 6 Pre-dreadnaught Battleships, 15 Light Cruisers and 121 Destroyers.

The total opposing forces may be compared as follows:

<u>CLASS</u>	<u>ENGLISH</u>	<u>GERMAN</u>
Dreadnaught Battleship	29	16
Battle Cruisers	9	5
Pre-dreadnaught Battleships	0	6
Armored Cruisers	9	0
Light Cruisers	23 or more.	15 (about)
Destroyers	about 147	about 123

The English were therefore superior to the Germans in the ratio of practically two to one. Having now seen the strength and dispositions of the opposing forces we will take up the narrative of the action.

↗ Battle Cruiser Fleet
Beatty

↖ German Light Cruisers

↖ German Battle Cruisers
Hipper

SKETCH I. 3:30 P.M.

MOVE 1. 2:20 P.M. to 3:30 P.M.

Sketch 1 gives positions at 3:30. See also General Plan of the battle.

At 2:20 P.M. the GALATEA, in the southeast sector of the Light Cruiser screen surrounding the British Scouting Force, reported to Admiral Beatty the presence of enemy vessels, actually the Second German Light Cruiser Group, to the eastward. Admiral Beatty with the capital ships at once changed course to SSE with the intention of cutting the German forces off from their base. The First and Third Light Cruiser Squadrons immediately formed a screen to the Eastward of the Battle Cruiser Fleet. The Second Light Cruiser Squadron closed the Battle Cruiser Fleet at full speed. The Main Body of the Grand Fleet must have received the information of enemy ships having been sighted, but there is no information as to its movements. It probably continued at slow speed, waiting for developments.

At 2:25 the GALATEA reported that the enemy force was considerable.

At 2:30 Admiral Hipper received word from his Second Light Cruiser Group that about 8 English Light Cruisers and 15 or 20 destroyers had been sighted. These ships retiring to the Northwest, Admiral Hipper followed them at high speed with all his forces. The Main Body of the High Sea Fleet increased speed upon receipt of this information.

At 2:35 Admiral Beatty saw considerable smoke to the Eastward, and believing that he was definitely between the Germans and their base, changed course to the Eastward and then to the Northeastward. At 2:45 he ordered ENGADINE to send up a seaplane. By 3:08 this order had been executed. The information obtained, however, was too late to be of value. At 3:30 the forces of Admirals Beatty and Hipper sighted each other. The five German battle cruisers on course about Northwest were about 25,000 yards east of the six English battle cruisers on course about Northeast. At this time the four battleships of the Fifth Battle Squadron were slightly to

the rear and to the southward of the English Battle Cruiser Fleet.
The light cruisers were skirmishing between the lines at long range.

Battle Cruiser Fleet
Beatty
2nd Lt. Cr. Squad.

German Light Cruisers

German Battle Cruisers
Hipper

SKETCH 2. 3:35 P.M.

MOVE II. 3:30 to 3:35 P.M.

Sketch 2 gives positions at 3:35.

As soon as Admiral Beatty made out the German Battle Cruisers he formed line of battle - LION, TIGER, QUEEN MARY, PRINCESS ROYAL, NEW ZEALAND and INDEFATIGABLE. He then changed course six points to the right, steadying on ESE. The Fifth Battle Squadron, conforming to the movements of the Battle Cruiser Fleet, bore NNW, distant 10,000 yards from LION. The Second Light Cruiser Squadron took station ahead of the Battle Cruiser Fleet, accompanied by the destroyers of the Ninth and Thirteenth Flotillas. The standard speed was made 25 knots.

As soon as Admiral Hipper made out the English forces approaching, he went column left about 14 points and steadied on course SSE. His light cruisers fell in astern of him.

At 3:35 the opposing battle cruisers were distant about 23,000 yards and converging at an angle about 45°. The wind was light and from the SE, the sea smooth and the visibility good, according to the Report of Admiral Beatty.

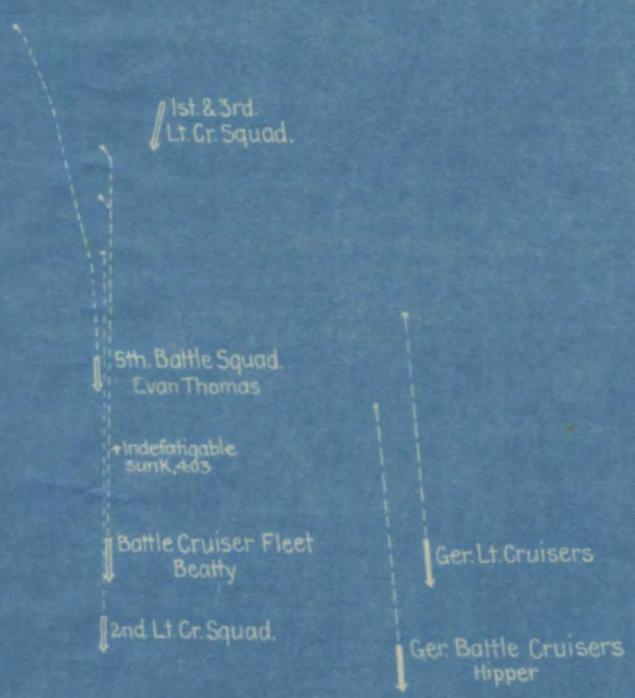
MOVE III. 3:35 TO 3:48 P. M.

Sketch 3 gives positions at 3:48.

At 3:35 Admiral Beatty formed line of bearing about SSE so as to avoid smoke interference, continuing on the same course, ESE. The other English forces continued as before.

At 3:45, probably upon the receipt of news reporting the location of the German Battle Cruisers by the English Battle Cruiser Fleet, the main body of the Grand Fleet increased their speed to the maximum to come to the support of Admiral Beatty. Admiral Jellicoe reports: "On receipt of the information that the enemy had been sighted, the British Battle Fleet, with its accompanying cruiser and destroyer force, proceeded on a SE by S course to close the Battle Cruiser Fleet. During the two hours which elapsed before the arrival of the Battle Fleet on the scene, the steaming qualities of the older battleships were severely tested." As the Battle Fleet could not possibly be considered as arriving on the scene until 5:45 it is evident that it was not until 3:45 that they commenced their run at full speed toward the Battle Cruiser Fleet.

The German forces continued on their courses. "Admiral Hipper formed his line ahead of the same general course (SE) and approached for a running fight." (German Official Account).



SKETCH 4. 4:08 P.M.

MOVE IV. 3:48 to 4:08 P.M.

Sketch 4 gives positions at 4:08

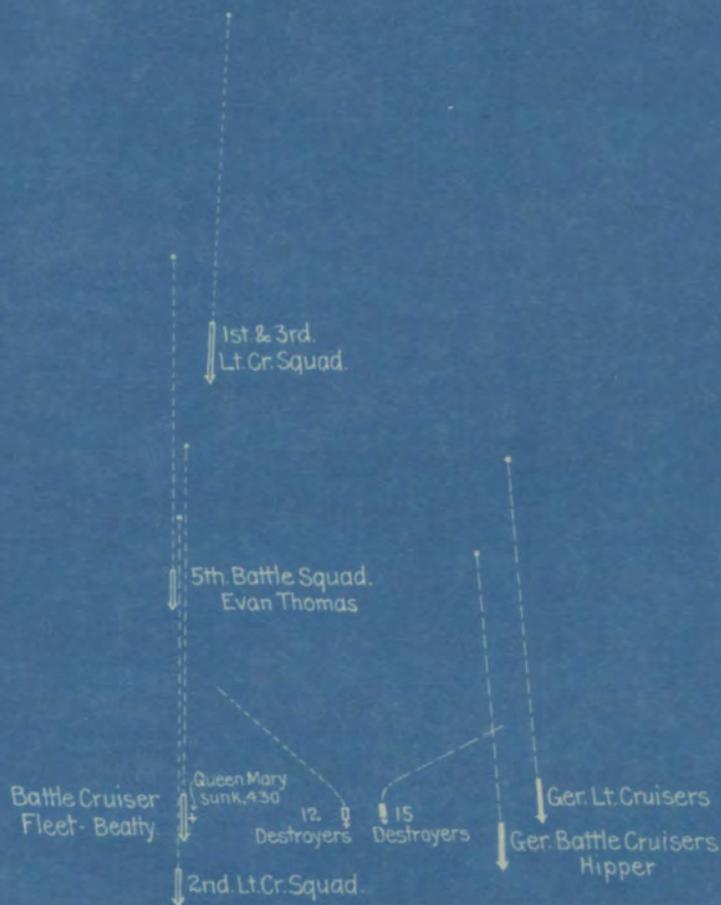
At 3:48 both sides opened fire simultaneously, the Fifth Battle Squadron being for the present out of range. According to Admiral Beatty's Report the initial range was 18,000 yards. According to the German Official Account, it was 13,000 meters. I will consider 16,000 yards, about the mean of the two, to be correct. As soon as fire was opened Admiral Beatty went ships right four points, forming column. He says: "Course was altered to the southward and subsequently the mean direction was SSE."

At this time the German Official Account describes the weather as follows: "The weather was clear and light, and the sea was light with a northwest wind." As Admiral Beatty stated that it was SE a few minutes before, the wind must have been extremely variable.

At about 4:05 the sixth ship in the English column, INDEFATIGABLE, blew up and sank. "After about a quarter of an hour a violent explosion occurred on the last cruiser of the INDEFATIGABLE type. It was caused by a heavy shell, and destroyed the vessel." (German Official Account). "A black cloud of smoke arose, fully 100 meters in height, wrapping the ship in a pall, and when it disappeared a quarter of an hour later, the place where the INDEFATIGABLE had been was empty." (Captain Schriebe) "10 minutes after the engagement had become general the INDEFATIGABLE was hit, blew up and sank." (Pollen)

Numerous hits were made by each side, Captain Schriebe describes the effect of the English fire on the German Battle Cruisers: "Naturally on our side injuries were also received. The steel bodies of our ships trembled under the impact of the heavy blows. The first officers began their hard struggle

devastation wrought by the heavy projectiles, and against the threatening elements of fire and water which raged blindly against both friend and enemy. Whenever the shells struck in the vicinity of the ships, they threw up great columns of water which thundered upon the decks. Clouds of flying splinters fell upon the decks, or whistled through the rigging. Great brands hurled by the bursting shells hissed and blazed on all sides, melting and charring everything they touched.



SKETCH 5. 4:30 P.M.

MOVE V. 4:08 TO 4:30 P. M.

Sketch 5 gives positions at 4:30

The battle cruisers continued their engagement at gradually decreasing ranges. At 4:08 the Fifth Battle Squadron opened fire on the German Light cruisers which were astern of the Battle Cruisers. After a few salvos they shifted fire on to the rear of the German Battle Cruiser column at the extreme range of about 20,000 yards. The First and Third Light Cruiser Squadrons took station in rear of the Fifth Battle Squadron.

At about 4:15, 15 German destroyers and 12 English destroyers moved out simultaneously from positions ahead of their battle cruisers. The German Official Account says: "To equalize this superiority (of the English since the Fifth Battle Squadron came into action) Vice Admiral Hipper ordered the destroyers to attack the enemy." Admiral Beatty states that eight destroyers of the 13th Flotilla, and two of each the 10th and 9th Flotillas, "having been ordered to attack the enemy with torpedoes when opportunity offered, moved out at 4:15 p.m. simultaneously with a similar movement on the part of the enemy destroyers."

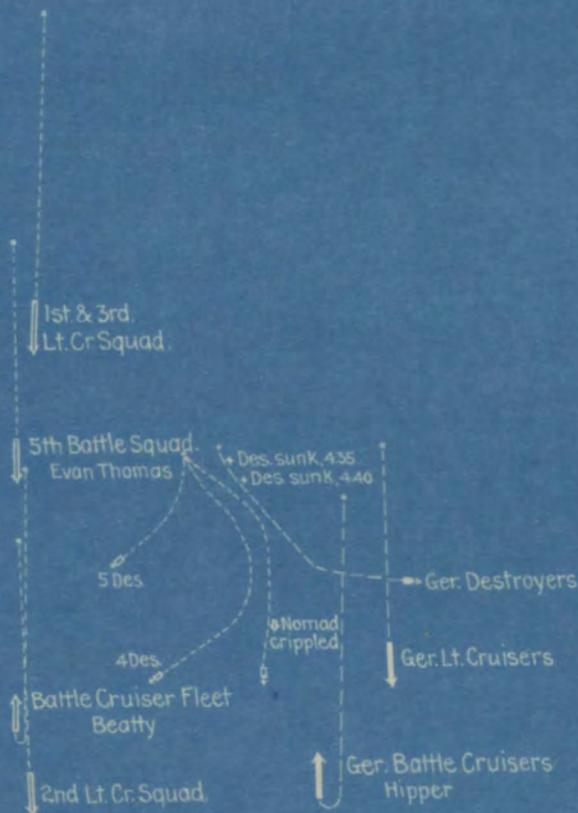
The destroyers met between the lines. The English boats were supported by light cruisers, according to the German Account, probably the Second Light Cruiser Squadron. The German boats were supported by the light cruiser REGENSBURG. A desperate engagement occurred at several hundred yards range. The Germans retreated without being able to fire torpedoes. They lost according to their admission two boats, whose crews were rescued by the other boats. The English, by their own statement, lost no boats, but five of their destroyers fell so far astern that they were unable to attack the battle cruisers.

Shortly after the beginning of the destroyer attack, the English destroyer LANDRAIL, while on the port beam of the LION, trying to take station ahead, claims to have sighted the periscope of a submarine. The light cruiser NOTTINGHAM also claims to

have sighted the periscope. Admiral Beatty believes that these light craft around the van of his column prevented an attack on his battle cruisers. On the other hand the German Official Account says: "It is expressly pointed out that neither mines nor submarines were employed by our High Sea Fleet." This must be taken as final.

At 4:30 the English Battle Cruiser QUEEN MARY, third in the column, was hit, blew up and sank, during the destroyer engagement between the lines. Pollen says: "Twenty minutes later (after the loss of the INDEFATIGABLE) the QUEEN MARY shared a similar fate."

The Main Body of the High Sea Fleet had by this time nearly reached the scene of battle.



SKETCH 6. 4:45 P.M.

3rd. Battle Squad. Behnecke
 1st. Battle Squad. Schmidt.
 German Battle Fleet Scheer

MOVE VI. 4:30 to 4:45 P.M.

Sketch 6 shows the positions at 4:45.

The English destroyers, having disposed of the German destroyers, pushed home the attack on the battle cruisers. NESTOR, NOMAD and NICATOR, led by Commander Bingham, fired two torpedoes at the battle cruisers, which probably fell short. The battle cruisers opened fire with their torpedo defense battery and the NOMAD, being hit, remained between the lines, having lost all speed. The other two boats escaped and went on to the SE. Four other destroyers - PETARD, NERISSA, TURBULENT, TERMAGANT - fired torpedoes, and although none hit, some probably passed through the German formation. After firing they retreated, apparently unharmed.

The action between the battle cruisers continued until 4:43. The Fifth Battle Squadron fired at the rear German Battle Cruisers at a very long range. It is hardly possible that they made any appreciable number of hits. The visibility began to get poor at about 4:30 and favored the Germans slightly.

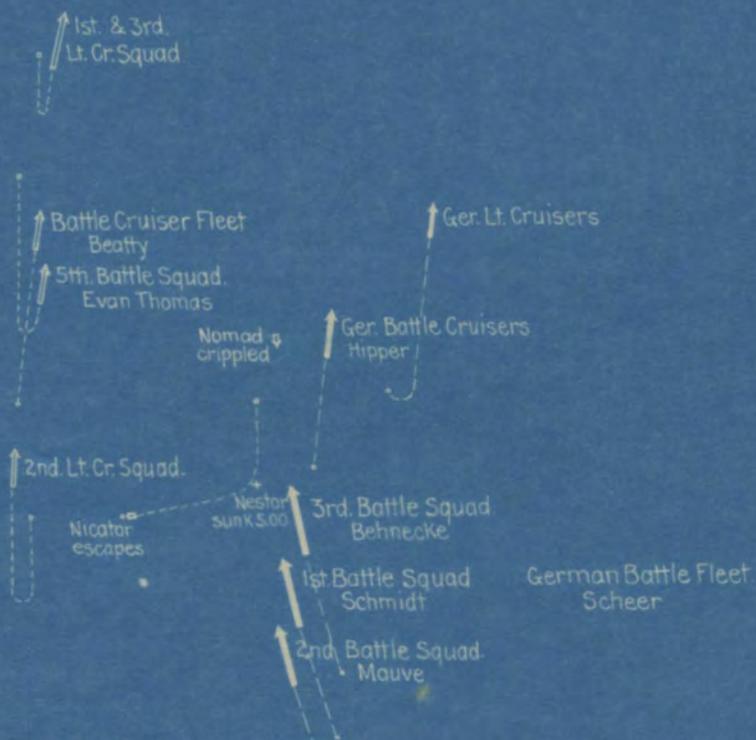
At 4:38 the Second Light Cruiser Squadron from its station ahead of the Battle Cruiser Fleet reported to Admiral Beatty that the German Battle Fleet was in sight to the Southward. Admiral Hipper probably made out his main body at about the same time.

At 4:42 Admiral Beatty from the LION made out the German Battle Fleet. He immediately went column right for 18 points and headed to the northward. At the same time Admiral Hipper performed exactly the same maneuver and took station ahead of the German Battle Fleet. The Fifth Battle Squadron kept on and engaged the German Battle Cruisers, the two forces approaching on opposite parallel courses.

The Second Light Cruiser Squadron maintained its course to the Southward and reported the dispositions of the German Battle Fleet. When about 13,000 yards distant from the Third

(the leading) German Battle Squadron it came under a heavy fire and ran out of range without being hit.

The two English destroyers - NESTOR and NICATOR - which had stood on to the SE after attacking the German battle cruisers, pressed home an attack on the leading squadron of the Battle Fleet. They each fired one torpedo at the short range of 3,000 yards, neither of which hit. Then the NESTOR was hit and sank. THE NICATOR escaped to the Westward under a heavy fire. The MOORSOM also attacked the Battle Fleet, but did not score hits. The NOMAD, which had remained stopped between the lines as the result of a hit by the battle cruisers, was sunk by the Battle Fleet. The survivors of the NESTOR and NOMAD were rescued by the German destroyers, as were also a few men from the QUEEN MARY.



SKETCH 7.

5:00 P.M.

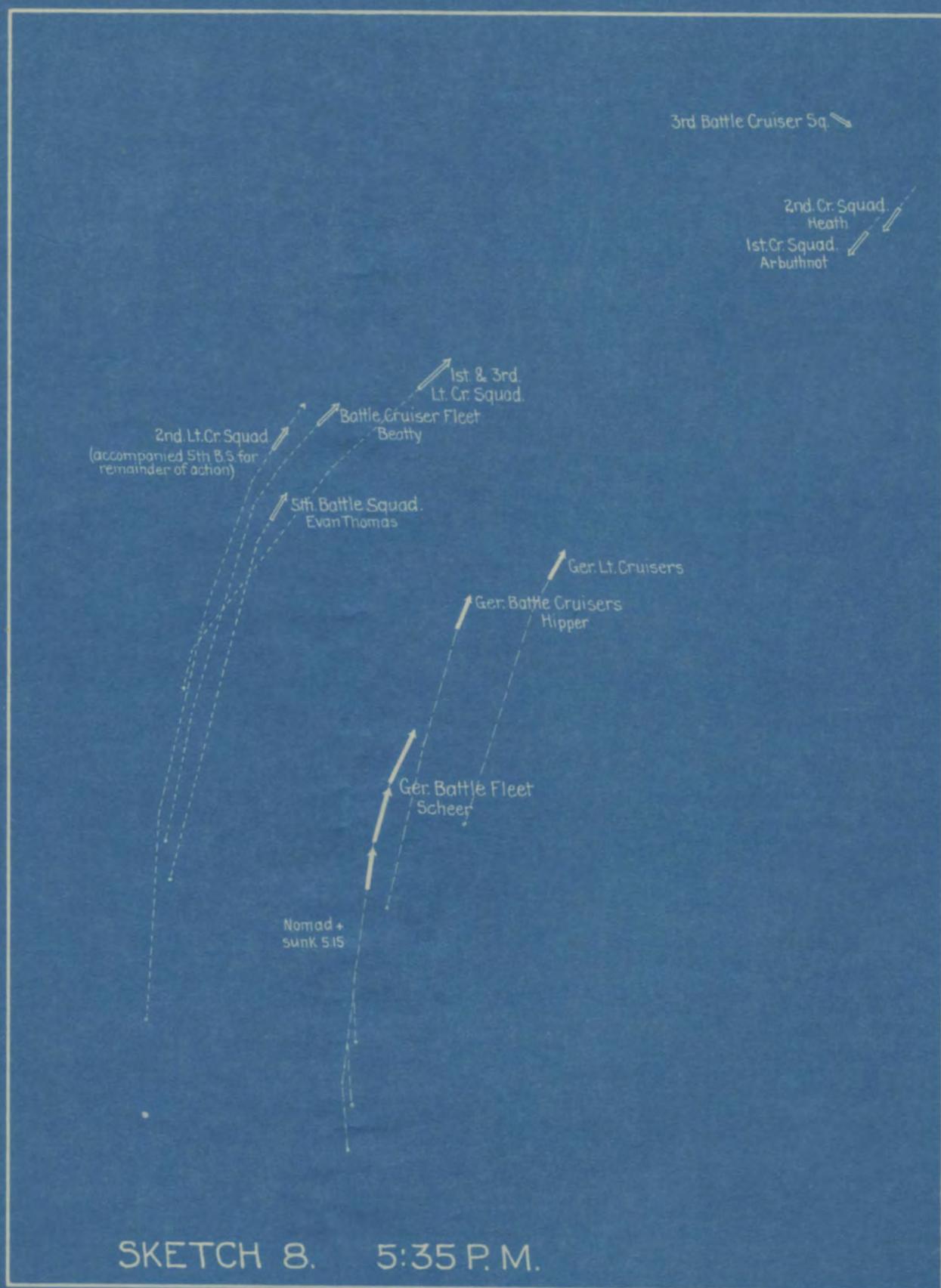
MOVE VII. 4:45 TO 5:00 P.M.

Sketch 7 gives positions at 5:00.

At about 5:52 the Fifth Battle Squadron, which was passing the German battle cruisers on an opposite course, countermarched (probably to port) upon a signal from Admiral Beatty. At 5:57 the turn was completed and this force fell in behind the Battle Cruiser Fleet. It had turned just in time, because it received a long range fire from the leading ships of the German Battle Fleet. It is probable that it received no hits from this fire.

At 5:00 the 1st and 3d Light Cruiser Squadrons took station ahead of the Battle Cruiser Fleet, as did also the 1st Flotilla. The 13th Flotilla took station near the Fifth Battle Squadron. The Second Light Cruiser Squadron took station on the port quarter of the Battle Cruiser Fleet.

At 5:00 Admiral Scheer took over command of all the German forces. At least one group of light cruisers and one destroyer flotilla were in the lead. On their port quarter were the Battle Cruisers, followed at a considerable interval by the Battle Fleet. The remaining destroyers and light cruisers were on the unengaged side of the battle cruisers and Battle Fleet.



SKETCH 8. 5:35 P. M.

MOVE VIII. 5:00 TO 5:35 P.M.

Sketch 8 gives positions at 5:35.

At 5:00 a heavy engagement at 14,000 yards range commenced between the Fifth Battle Squadron and the German Battle Cruisers. The former having about four knots excess speed over the Third German Battle Squadron, leading the Battle Fleet, was able to keep out of effective range of the German battleships. The English Battle Cruiser Fleet gained rapidly over the German Battle Cruisers, which were limited to the speed of their Battle Fleet, and gradually edged over to the eastward so as to get ahead of the German forces, keeping constantly at about 14,000 yards range. By 5:35 the course of the Battle Cruiser Fleet was WNE.

At 5:10 the English destroyer MORESBY fired a torpedo at the German Battle line, apparently without result.

During this move the First German Battle Squadron of Pre-dreadnaughts began to fall to the rear, due to their slow speed.

During this move the visibility conditions became worse especially to the Northward and Eastward. They were better to the westward and this favored the Germans slightly. The Fifth Battle Squadron and the German Battle Cruisers received considerable damage, but no ships were put out of action.

MOVE IX. 5:35 TO 5:55 P.M.

Sketch 9 gives positions at 5:55.

The heavy action between the German Battle Cruisers and the Fifth Battle Squadron continued at a range of about 14,000 yards. The leading ships of the German Battle Fleet fired from time to time at long range at the Fifth Battle Squadron, probably with little effect. The English Battle Cruiser Fleet, maintaining station at about 14,000 yards from the German Battle Cruisers gradually altered course to the Eastward. The German Light Cruisers maintained their position on the starboard bow of their own battle cruisers. The English First and Third Light Cruiser Squadrons gained a position nearly ahead of the German battle cruisers, and at 5:45 supported English destroyers in a determined attack on the German Battle Cruisers. Admiral Hipper avoided the attack by maneuvering. "At 5:45 in the evening, British small cruisers and destroyers launched an attack against our battle cruisers, who avoided the torpedoes by maneuvering." (German Official Account) This maneuver might have been either "ships right" or column right". The first would have brought the ships out of torpedo danger quicker, but it would be difficult to make with ships which had been severely damaged in a severe two hour struggle. In Captain Schreibe's Sketches (2 and 3), he indicates that the maneuver was "column right". While this is not conclusive evidence, it is all we have and so will be assumed as correct. As the German Battle Cruisers turned away from the attack, the German light cruisers on their starboard bow engaged the English attacking craft.

By this time the English Main Body had reached the scene of action and its advance detachments were entering in the engagement. While the Main Body had been advancing toward the English forces under Admiral Beatty at high speed, probably 20 knots, its cruiser force, being able to steam at from 3 to 8 miles an

hour faster than the battleships, had been sent on ahead to reinforce Admiral Beatty. The Third Battle Cruiser Squadron, Admiral Hood commanding, led the advance, followed by the First and Second Cruiser Squadrons. At 5:30 Admiral Hood made out the fire of guns to the Southwest. He sent in the Chester, one of the two light cruisers attached to his squadron, to clear up the situation. CHESTER ran into four of the German light cruisers, which were engaged in beating off the destroyer attack, and fought them single-handed for some time.

MOVE X. 5:55 TO 6:10 P.M.

Sketch 10 gives positions at 6:10.

Admiral Hipper, having avoided the torpedo attack, continued his turn to the right through 360 degrees and by 6:10 had steadied on a northeasterly course. The German Battle Fleet was close up behind him in single column formation, the last squadron of pre-dreadnaughts being, however, well to the rear of the First Battle Squadron (the second in the formation.)

At 5:56 Admiral Beatty in the LION sighted the leading ships of the Battle Fleet to the northward distant about 5 miles.

"At 5:50 p.m. British cruisers were sighted on the port bow and at 5:56 the leading ships of the Battle Fleet, bearing north 5 miles." (Admiral Beatty's Report) As the English Battle Fleet covered a wide area and as there were at least three parallel columns of battleships, the location of the Battle Fleet at that time is fixed only very roughly. We will assume that Beatty saw the leading ships of the western column of battleships, as this fits in best with the subsequent narrative.

Beatty immediately changed course to East at full speed, so as to pass ahead of the English Battle Fleet and to take station on its eastern flank, which he saw was to be the van of the line of battle. During this movement he decreased the range of the leading German Battle Cruiser to 12,000 yards. His move was apparently unnoticed by the Germans. "While the British battle cruisers retired from the engagement, in which they did not participate further as/^{far}can be established." (German Official Account)

The melee between the CHESTER, English destroyers, and German light cruisers at the head of the German line now developed into a very bitter struggle, each side throwing fresh forces into the engagement. At about 5:57 the English First and Second Cruiser Squadrons entered the fight from the NE, and at 6:00 the light cruiser CANTERBURY and the entire Third Battle Squadron. "Shortly after 5:55 p.m., some of the cruisers ahead, under Rear-Ad-

mirals Herbert L. Heath, M.V.O., and Sir Robert Arbuthnot, M.V.O., were seen to be in action.

At 6:00, CANTERBURY, which ship was in company with the Third Battle Cruiser Squadron, had engaged enemy light cruisers." (Admiral Jellicoe's Report)

In the face of this overwhelming force the German light cruisers retired toward their battle cruisers. The light cruiser WIESBADEN was crippled and lost all speed. The English destroyer SHARK was sunk. The destroyer CNSLOW attacked the German Battle Cruisers and after firing one torpedo was struck amidships by a heavy shell, which brought her dead in the water. The destroyer DEFENDER was also hit amidships by a 12" shell and could make only 10 knots. The CHESTER had suffered severely during the engagement.

At 6:06, the Fifth Battle Squadron made out on its port bow the right squadron of the Battle Fleet. Admiral Evans-Thomas had intended to pass with Beatty to the Eastern flank of the Battle Fleet, but he saw now that this would be impossible. He then decided to take station astern of the Battle Fleet (on western flank).

"At 6:06 p.m., the Rear Admiral commanding Fifth Battle Squadron, then in company with the battle cruisers, had sighted the starboard wing-division of the battle-fleet on the port bow of BARHAM, and the first intention of Rear Admiral Evans-Thomas was to form ahead of the remainder of the battle-fleet but on realizing the direction of deployment, he was compelled to form astern, a maneuver which was well executed by the squadron under a heavy fire from the enemy battle-fleet." What was the "maneuver" of the Fifth Battle Squadron? Our attache to England reports that this squadron turned to the westward. This is shown by Captain Schreibe's sketch (No 4).

The turn was probably made by head of column, as this is the English method, already used by Evan-Thomas earlier in the afternoon. Captain Schreibe makes the turn toward the German Fleet, but it was probably made in the other direction so as to open the range, as the Fifth Battle Squadron was at this time under a heavy fire from at least 8 German battleships. The maneuver will accordingly be counted as a counter march to port.

MOVE XI. 6:10 TO 6:40 P.M.

At about 6:10 the Germans sighted the English Battle Fleet to the northeast. Three German Destroyer Flotillas advanced in its direction, possibly to attack it, or to attack the English Armored and Battle Cruisers which had driven in the German Light Cruisers.

After the German light cruisers had retired, the English concentration - Third Battle Cruiser Squadron, First and Second Light Cruiser Squadrons - broke up. The Second Cruiser Squadron countermarched and retired to the northeast.

"During the action between the battle fleets the Second Cruiser Squadron occupied a position at the van and acted as a connecting link between the battle fleet and the battle cruiser fleet." (Admiral Jellicoe) Therefore the Second Cruiser Squadron must have retired to the northeast toward the van of the English Battle Fleet.

The First Cruiser Squadron, Rear Admiral Arbuthnot, possibly to check the German destroyer attack, or in pursuit of the German light cruisers, stood about WSW, into a position directly between the two Battle Fleets. The Germans overwhelmed it with a heavy fire. At 6:17 the DEFENSE, Flagship of Admiral Arbuthnot sank. The BLACK PRINCE and WARRIOR, badly damaged made off to the Northwest. The DUKE OF EDINBOROUGH, the last ship in the column, escaped and joined the ^{Second} ~~First~~ Cruiser Squadron. The armored cruisers appear, however, to have stopped the German destroyer attack, although one flotilla appears to have approached the leading English battleships.

"It is probable that Sir Robert Arbuthnot, during his engagement with the enemy's light cruisers and in his desire to complete their destruction, was not aware of the approach of the enemy's heavy ships, owing to the mist, until he found

himself in close proximity with the main fleet, and before he could withdraw his ships they were caught under a heavy fire and disabled." (Jellicoe) "The enemy light forces, supported by an armored cruiser squadron of five ships of the MINOTAUR, ACHILLES, and DUKE OF EDINBOROUGH classes coming from the north-east, were encountered and apparently surprised on account of the decreased visibility by our battle cruisers and leading battleship division." (German Official Account.)

In the meantime Admiral Hood, leading the Third Battle Squadron on course NW, had at 6:10 sighted the Battle Cruiser Fleet, and in accordance with orders from Admiral Beatty, countermarched to port (probably) and at 6:21 took station some considerable distance ahead of the LION. Being distant only 8,000 yards from the leading German Battle Cruiser, the Third Battle Cruiser Squadron came under a very heavy fire. To support this force Admiral Beatty at 6:25 changed course to ESE.

While the Fifth Battle Squadron was countermarching to the westward under a very heavy fire from the German Battle Fleet, the WARSPITE'S steering gear jammed, and she headed toward the German Battle Fleet. Although hit many times she was able to get out of action by steering with the engines.

The Fifth Battle Squadron, after completing its countermarch to the westward, made another countermarch to the eastward, turning probably to starboard and away from the German Fleet. This squadron took station astern of the battle fleet accompanied by the Second Light Cruiser Squadron on the unengaged side.

Meanwhile the English Battle Fleet was coming on the scene. As early as 5:55, Admiral Jellicoe could see flashes of guns from ahead around as far as the starboard beam. After that he was able to follow the course of the melee between the German light cruisers and the English cruisers and destroyers. Finally at 6:14 he gave the order to deploy from the formation

of approach into line of battle. The Battle Fleet was during the approach steaming on course SE by S and was in either line of squadrons or line of divisions. I have assumed the formation to be line of squadrons. The First Squadron to the westward, the Fourth, in which the Fleet Flagship - IRON DUKE - was incorporated, in the center and the Second on the eastern flank.

The position of the First Battle Squadron is disclosed by the following two statements of Admiral Jellicoe: "Toward the van only some four or five ships (German Battleships) were ever visible at once. More could be seen from the rear squadron, but never more than eight or twelve." and "Sir Cecil Burney's squadron, owing to its position, was able to see more of the enemy Battle Fleet than the other battle squadrons." Therefore the First Squadron, commanded by Sir Cecil Burney, must have been at the rear after the deployment was made, and before it on the western flank.

The line of bearing of the squadron leaders I have assumed to be East. When the deployment was commenced, the squadrons probably went column left 5 points simultaneously, thus forming a long column of 25 battleships on course East.

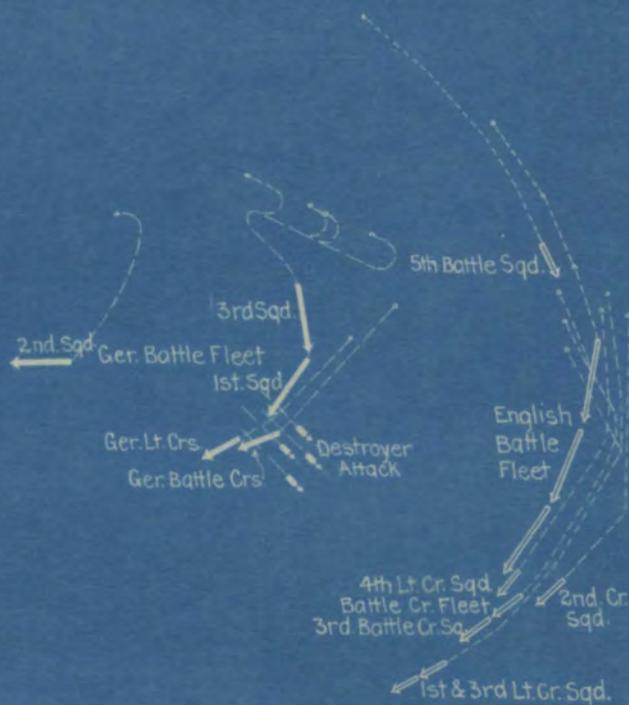
It is possible that the eastern squadron held its course SE by S, while the other two squadrons ~~were~~^{went} column left 5 points simultaneously, and ~~falling~~^{fell} in behind the eastern squadron, thus forming ultimately a long column of 25 ships on course SE by S. If this move was made, then the Battle Fleet must have been farther to the eastward than is shown in the sketch.

But before this deployment could be completed, the Battle Fleet became engaged. At 6:17 the First Squadron opened fire on the leading German battleships. The other two squadrons opened fire on the crippled WIESBADEN. At 6:30 they shifted fire on to the German Battle Fleet. At about 6:20 the English Battle Fleet probably commenced its gradual turn to the southward.

At 6:25 the Third Light Cruiser Squadron, from its position on the starboard bow of the English Battle Cruisers, pushed home a determined torpedo attack, probably assisted by destroyers, on the German Battle Cruisers.

At about 6:35 the INVINCIBLE, Flagship of Admiral Hood, blew up and sank. At about the same time the LUTZOW, Flagship of Admiral Hipper, having been hit by fifteen large shells, left the line. It is possible that she was hit by a torpedo fired by the English Light Cruisers. Admiral Hipper entered a destroyer to shift his flag to another of his ships. The captain of the DERFLINGER assumed the command of the battle cruisers.

Between 6:20 and 6:40 the heaviest fighting of the day occurred. The English fire was concentrated on the German battle and light cruisers at the head of the line, and on the four leading battleships. The fire of the First Battle Squadron was effective throughout this period. That of the Fourth Battle Squadron and the Second Battle Squadron was apparently ineffective on the whole until the end of the period, when the IRON DUKE made a few hits. On the German side all the 16 battleships and 4 battle cruisers were in action and their fire was very effectively directed at the Battle Cruisers, Fifth Battle Squadron, and with fair effect on the First Battle Squadron.



SKETCH 12. 7:20 P.M.

Sketches 12-13 and positions 12 and 13 in the General Plan of the Battle - The positions of "The Battle Cruiser Squadron" and "Battle Cruiser Fleet" should be interchanged.

MOVE XII. 6:40 TO 7:20 P.M.

Sketch 12 shows the positions at 7:20.

At 6:40 the visibility conditions were extremely bad. Admiral Beatty states that the visibility "At this time was very indifferent, not more than 4 miles and the enemy ships were temporarily lost sight of. It is interesting to note that after 6 P.M. although the visibility became reduced, it was undoubtedly more favorable to us than to the enemy." At about 6:30, when the two leading English battle squadrons opened fire, the German commander-in-chief had probably begun to realize the danger of his position, with the English Fleet so far forward on his port bow. By 6:40, ~~as~~ the fire of the leading English squadrons became more effective and they had gained a position nearly ahead of him, while the English battle cruisers were even a little on his starboard bow. To remedy this dangerous situation, Von Scheer ordered the Third Destroyer Flotilla to attack the English Battle Fleet and at the same time to cover the German Battle Fleet with a smoke screen. The destroyer attack was pushed home and the Marlborough hit by a torpedo at 6:54. The Germans lost one destroyer. "After the first violent onslaught into the mass of the superior enemy the opponents lost sight of each other in the smoke and powder clouds." (German Official Account) When the leading two German battle squadrons were concealed from the enemy by the smoke, Admiral Scheer signalled for a course West. While this movement to the rear ("umlegen") may have ^{been} made by squadrons, or divisions, it seems probable that it was "ships right about." It was probably carried out in good order, and if any ships fell out of position, they regained it before the gun fight between the fleets was renewed. After the turn had been completed, the WESTFALEN originally the rear ship of the First Battle Squadron (the second squadron in the formation) took the lead.

The German battle cruisers did not make the simultaneous turn with the two leading battle squadrons. At the time when the turn was made they were already on course south, both by Captain Schreibe's sketch of positions at 6:45 and by Beatty's Report, which says: "At 6:25 p.m. I altered course to E.S.E. in support of the Third Battle Cruiser Squadron, who were at this time only 8,000 yards from the enemy's leading ship. They were pouring a hot fire into her and caused her to turn to the westward of south." Thus as they were already heading south, they could not have executed this movement. Moreover they were so seriously damaged at this time that it could hardly have been carried out. The Second Battle Squadron, of 6 pre-dreadnaughts, was according to all the accounts well in the rear by this time, and it probably countermarched, conforming to the movements, of the other two battle squadrons.

At 6:50 the English battle cruisers cleared the van of the English battle fleet, whose fire they had been blanking off to some extent up until this time. Beatty ordered the Third Battle Squadron, of which but two ships - INDOMITABLE and INFLEXIBLE - remained, to take position in rear of him "to prolong the line astern". He reduced speed to 18 knots, which was probably the speed of the battle fleet, and held for some time a position about three miles ahead and slightly on the un-engaged bow of the Battle Fleet, having lost sight of the Germans, probably due to the smoke screen of the German destroyers.

The English Battle Fleet continued its gradual turn, so that by 7:06 its course was south, the MARLBOROUGH being hit by a torpedo at 6:54. During the period from 6:45 to 7:10 it would seem very probable that the Battle Fleet lost all sight of the German Battle Fleet. We have seen how the German Official Account and Admiral Beatty's Report state that nothing could be seen of the enemy at this time. The following extracts from Admiral Jellicoe's Report referring to

the general course of the action would seem to indicate that he also could not see the German Fleet as it went through its difficult maneuver of "ships right about". First - "The enemy constantly turned away and opened the range under cover of destroyer attacks and smoke screens." Second - "During the somewhat brief periods that the ships of the High Sea Fleet were visible through the mist." Third - "The fire of other ships of the Squadron (that in which the IRON DUKE was stationed) was principally directed at enemy battle-cruisers and cruisers as they appeared out of the mist." Finally the way in which he follows through the account of the MARLBOROUGH'S shooting and does not mention any fire at a capital ship between 6:54 and 7:12, may prove something. Thus I believe that during the period stated Admiral Jellicoe lost sight of the German Fleet behind the smoke clouds of the German destroyers.

Meanwhile the German Battle Fleet was again advancing. As soon as the movement of "ships right about" had been completed, this movement commenced. The German Official Account states: "After a short cessation in the artillery combat Vice Admiral Shceer ordered a new attack with all the available forces." The WESTFALEN apparently turned to the southeastward, followed by the two battle squadrons, and, when about 7:10 the English Fleet was made out again, gradually turned to the southwestward so as to take a parallel course. That such a move or one very similar to it was made is proved in several ways:

First: Both the German and English sketches shows that the action continued for some time on southerly and southwesterly courses.

Second: Admiral Jellicoe states: "The action between the battle fleets lasted intermittently from 6:17 p.m. to 8:20 p.m. at ranges between 9,000 and 12,000 yards." A glance at the sketch will prove that the Germans must have done about

as we have assumed they did for the range to be kept as low as 12,000 yards. It is evident that if they had continued on to the west after their simultaneous turn, they would never have entered the action again.

Third: Admiral Beatty states: "The ships sighted at this time (7:14) were two battle cruisers and two battleships, apparently of the KOENIG class. No doubt more continued the line to the northward." This indicates that the line he saw was about north and south.

In order to give the evidence for believing that the Germans turned back toward the English under the cover of the smoke screen, we have run ahead of our narrative somewhat. Let us take it up again. As the WESTFALEN headed back toward the enemy, the German Battle Cruisers, in company with several light cruisers and destroyers, again took the lead.

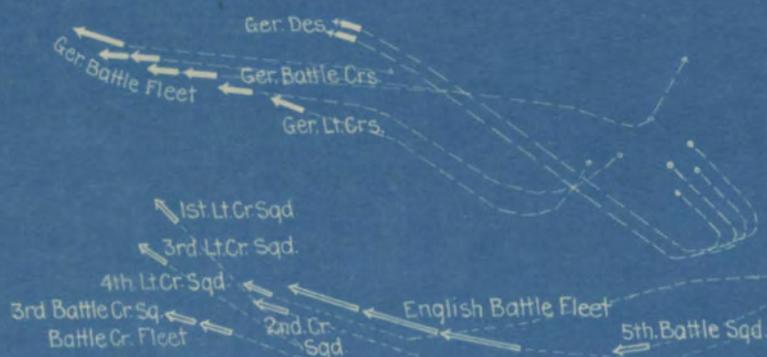
On the English side Beatty between 7:00 and 7:12 had been hauling around gradually "to S.W. by S, to regain touch with the enemy". After 7:06, when the English Battle Fleet was heading south, it continued its turn toward the southwest. At about 7:12 the opposing forces again sighted each other and the artillery battle commenced again. Admiral Beatty reports: "The visibility having improved considerably as the sun descended below the clouds, we re-engaged at 7:17 p.m. and increased speed to 22 knots." The British Battle Fleet again entered into action, but the First Battle Squadron was probably the only one to get in any effective fire, as it is stated by Admiral Jellicoe that the Second Battle Squadron was not engaged after 7:20 and as he does not appear to claim any effect for the fire of the Fourth Battle Squadron at this time. The Fifth Battle Squadron is last mentioned at 6:06 p.m. and therefore probably took little part in the action between the two battle fleets. The German Official Account states:

"German Battle Cruisers, which with several light cruisers and torpedo-boats again headed the line, encountered the enemy soon after 7 o'clock and renewed the heavy fire, which was answered by them from the mist."

At 7:20 during the course of this engagement, the English forces were formed in one long line on a general southwesterly course in the following order: First and Third Light Cruiser Squadrons, Battle Cruiser Fleet (6 ships now), Fourth Light Cruiser Squadron and Second Cruiser Squadron (both outside the line of battle), Second Battle Squadron, Fourth Battle Squadron, First Battle Squadron, and last of all the Fifth Battle Squadron (three ships now), accompanied by the Second Cruiser Squadron (not shown in sketch). Destroyers were massed on the unengaged side.

At the same time, 7:20, the German forces were also concentrated on a general southwesterly course in the following order: Light Cruisers, Battle Cruisers (four ships now), First Battle Squadron (order inverted), and the Third Battle Squadron (order inverted). The Second Battle Squadron was now west of these forces. Destroyers were massed at the van on the unengaged side.

At about 7:00 the WIESBADEN finally sank with colors flying. At 7:15 the DEFENDER, which was so crippled as to be able to make only 10 knots, gallantly took the completely crippled ONSLOW in tow; both boats were ultimately saved.



SKETCH 13. 8:10 P.M.

MOVE XIII. 7:20 TO 8:10 P.M.

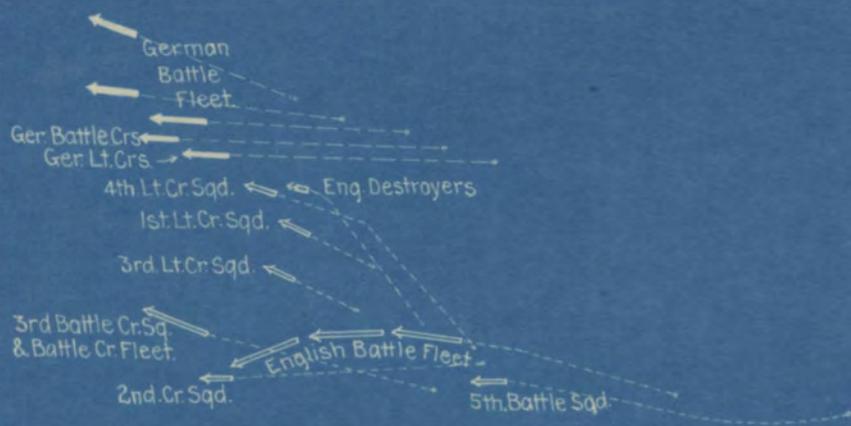
Sketch 13 shows the positions at 8:10.

To disengage the German Battle Fleet, Admiral Scheer ordered another destroyer attack. At 7:25 two flotillas, backed up by the light cruisers and battle cruisers, advanced against the English Fleet. Admiral Jellicoe ordered the Fourth Light Cruiser Squadron to counter the attack, and this squadron quickly moved out between the lines. The destroyers retreated with the loss of one boat, having made no hits. As they retired two more flotillas advance at about 7:35, but they also made no hits. While the German destroyers scored no hits they laid such an effective smoke screen that the German Fleet was completely concealed from the English. "The artillery fight was again interrupted, after this second violent onslaught, by the smoke from guns and funnels." (German Official Account) Admiral Beatty describes this part of the action: "At 7:32 my course was S.W., speed 18 knots, the leading enemy battleship bearing NW, by W. The destroyers at the head of the enemy's line emitted volumes of grey smoke, covering their capital ships as with a pall, under cover of which they turned away, and at 7:45 we lost sight of them."

Under the cover of the smoke screen, the Germans turned away in succession and headed probably about WSW.

Admiral Jellicoe, in the attempt to close the enemy, changed the course to West, but he could see them only for short periods and his fire was apparently ineffective.

At 7:58 Admiral Beatty sent in the First and Third Light Cruiser Squadrons to pick up the German Fleet. At the same time Admiral Jellicoe sent in the Fourth Light Cruiser Squadron and the Eleventh Flotilla for the same purpose.



SKETCH 14. 8:30 P.M.

MOVE XIV. 8:10 to 8:30 P.M.

Sketch 14 shows the positions at 8:30 P.M.

At 8:20 the English Battle Cruisers advanced to the west in support of the light cruisers which had apparently met the German Fleet, and an action of some ten minutes developed between the English Battle Cruiser Fleet, the First, Third and Fourth Light Cruiser Squadrons and the Eleventh Flotilla on the one hand and the German battle cruisers, light cruisers and two battle squadrons on the other. The English forces withdrew from the unequal conflict. Admiral Beatty went back to a southwesterly course parallel to that of his own Battle Fleet and away from the German forces. The Germans kept on to the West. There were no further contacts between the capital ships. The light cruiser CALLIOPE was severely damaged in this engagement.

THE NIGHT MOVE.

Due to the unreliability of reports covering this part of the battle, no attempt is made to treat it in detail. During the night the German destroyers searched for the English Battle Fleet but were unable to find it. On the other hand the English were more successful. They attacked with the Fourth, Eleventh and Twelfth Flotillas. The pre-dreadnaught POMMERN and the light cruisers ROSTOCK and FRAUENLOB were torpedoed and sank. The English lost the destroyer leader TIPPERARY, and the destroyers SPARROWHAWK, ARDENT, FORTUNE and TURBULENT. It is probable that other German ships were torpedoed and that a large number of English destroyers were very severely damaged.

During the night there were various other losses. The LUTZOW, being so badly damaged that she could not be taken into port, was torpedoed by the Germans, after all the crew had been loaded on four destroyers. The ELBING was damaged in a collision and was blown up by the Germans after the crew had been taken off. On the English side the armored cruiser BLACK PRINCE sank and at 7:15 the next morning the WARRIOR which had been towed 75 miles, was also lost.

At daylight no contacts were made and each fleet returned to its bases.

