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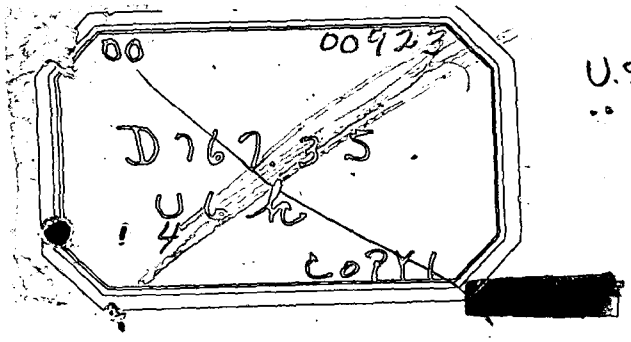

INFORMATION BULLETIN NO. 4

BATTLE EXPERIENCE

SOLOMON ISLANDS ACTIONS

NOVEMBER 1942

CAUTION

THIS BULLETIN AND THE INFORMATION CONTAINED HEREIN MUST NOT FALL INTO THE HANDS OF THE ENEMY.

UNITED STATES FLEET
HEADQUARTERS OF THE COMMANDER IN CHIEF

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~~SECRET~~

UNITED STATES FLEET

HEADQUARTERS OF THE COMMANDER IN CHIEF
NAVY DEPARTMENT, WASHINGTON, D. C

March 25, 1943

These Bulletins on "Battle Experience" during the first year of the War are issued for the general information of officers.

They are planned to promulgate reliable information concerning actual War experience. Any adverse comment made, is not intended to reflect criticism on any individual but to assist officers in appreciating the best line of action in many circumstances.

It is inevitable that there would be considerable delay if complete analysis were made before issue to the Fleet. Comments that are made in these bulletins represent those expressions of opinion from responsible sources that were available at the time the particular operation under discussion was completed.

Studies are continuing to the end that divergent views may be reconciled and complete analysis made.

Encounters with the enemy discussed in these Bulletins, are presented in their chronological order. It will be apparent that "lessons learned" during the earlier part of the war were put to good advantage in subsequent engagements.

Air combat actions, anti-submarine experiences, submarine patrol experiences, and technical gunnery experiences are covered in various Cominch Information Bulletins issued during the past year. These include Bulletins Nos. 15 to 21, inclusive; FTP 212 and FTP 213.

Material contained in these Bulletins was drawn largely from War Diaries, and Battle Reports of various Commanders and ships.

These Bulletins are ~~SECRET~~ and shall be safeguarded in accordance with the provisions of Article 76, U.S. Navy Regulations, 1920. They should be widely circulated among commissioned personnel.

When no longer required they shall be destroyed by burning. No report of destruction need be submitted.

Transmission by registered mail within the continental limits of the United States is authorized.

R. S. EDWARDS,
Chief of Staff.

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ADDENDA TO CHAPTERS XI, XX, XXVIII, & XXX OF COMINCH ~~SECRET~~ INFORMATION BULLETINS Nos. 2, 3, AND 4.

The proper designation for the battles of Savo is as follows:

Chapter XI First Battle of Savo - Night of 8-9 August 1942.
Chapter XX Second Battle of Savo - Night of 11-12 Oct. 1942.

Third Battle of Savo - 11-15 November 1942
Chapter XXVIII Cruiser Night Action - 12-13 November 1942.
Chapter XXX Battleship Night Action - 14-15 November 1942.

CHAPTER XXVII

SOLOMON ISLANDS, REINFORCING OF GUADALCANAL

PERIOD 8 - 15 NOVEMBER, 1942.

The operations in the Guadalcanal Area during the period 8-15 November consisted in our reinforcing the positions held with troops and supplies and preventing the Japanese from reinforcing and supplying their positions. In addition to covering the transports en route to Guadalcanal, during their unloading and retirement from surface, air and submarine attack, our Task Forces' operations were divided into three principal phases:

(a) Night engagement 12-13 November (T.F. 67.4.)

(b) Air attacks by Task Force 16 (ENTERPRISE) in cooperation with Marine Air Force based on Henderson Field 13-14 November.

(c) Night engagement 14-15 November (T.F. 64)

The ships composing these Task Forces were:

TASK FORCE 67.4	TASK FORCE 16	TASK FORCE 64
SAN FRANCISCO	ENTERPRISE	WASHINGTON
PORTLAND	NORTHAMPTON	SOUTH DAKOTA
ATLANTA	PENSACOLA	PRESTON
JUNEAU	SAN DIEGO	GWIN
HELENA	MORRIS	BENHAM
CUSHING	HUGHES	WALKE
LAFFEY	RUSSELL	
STERETT	CLARK	
O'BANNON	ANDERSON	
AARON WARD		
BARTON		
MONSSEN		
FLETCHER		

During the day of November 13 after the night action of 12-13 November, U.S. aircraft, (Navy and Marines), made continuous attacks on damaged Japanese ships which remained in the area. During the late afternoon a large formation of at least twelve enemy transports, under heavy Naval escort, headed toward Guadalcanal from the Bougainville Area. As a preliminary to the proposed landing, an enemy surface force bombarded our positions at Guadalcanal shortly after midnight on the morning of November 14. Later in the morning, as the transport group drew near to Guadalcanal, it

was struck heavily by our air forces and at least eight of the transports were sunk. The remaining transports continued toward Guadalcanal.

During the night of November 14-15, U.S. Naval surface units again engaged Japanese surface units in the Guadalcanal Area.

On the morning of November 15, four enemy cargo transports were found beached at Tassafaronga, about seven and one half miles west of our positions on Guadalcanal. These transports were attacked by air, artillery and naval gunfire and were destroyed.

On the morning of November 15, our patrol aircraft reported the Japanese forces withdrawing to the northward. No further action took place.

During the engagements described above the Japanese suffered the following losses and damage:

One battleship sunk.
Several destroyers sunk.
Eight transports sunk.
One battleship damaged.
Several destroyers damaged.

Two light cruisers and six destroyers were the U.S. Naval vessels reported sunk in the actions which were fought on November 13, 14 and 15.

The Commander Amphibious Force, South Pacific, who was S.O.P.A., in the Guadalcanal Area during this period, made the following report summarizing the operations for the period 8-15 November:

"The enemy during the last half of October succeeded in interrupting, to a great extent, the logistic supply to our forces in Guadalcanal and Tulagi; and succeeded in landing additional troops. As a counter to this forward push of the enemy, a comprehensive plan was drawn up for expediting the movement of supplies and reinforcements to Guadalcanal, and for disorganizing enemy operations. The operations described herein, a part of this larger plan, involved the movement to Guadalcanal of two groups of transports supported by strong combatant forces. The first group was scheduled to arrive on November 11th, and the second on November 12th.

The ZEILIN, LIBRA, and BETELGEUSE, had on board the First Marine Aviation Engineer Battalion, Marine replacement troops, Marine Air Wing ONE ground personnel, and aviation engineering and operating material, ammunition and food. These ships, with an escort consisting of the ATLANTA, AARON WARD, FLETCHER, LARDNER, and the McCALLA, the whole under command of Rear Admiral Norman Scott, constituted Task Group 62.4. This group was under the operational control of Commander Amphibious Force, South Pacific.

The McCAWLEY, PRESIDENT JACKSON, PRESIDENT ADAMS, and CRESCENT CITY, (Task Group 67.1), were loaded with the Army 182nd Reinforced Regiment (less one infantry battalion); a Marine 155mm. Howitzer battery; 1300 officers and men of the Fourth Marine Replacement Battalion; casuals; 372 Naval personnel as reinforcements for the Naval Local Defense Force; and considerable ammunition reserves for the troops in Guadalcanal. Cover for this convoy was provided by Task Group 67.4, under Rear Admiral D.J. Callaghan, consisting initially of the SAN FRANCISCO, PENSACOLA, PORTLAND, HELENA, JUNEAU, O'BANNON, BARTON, MONSSEN, SHAW, LAFFEY, BUCHANAN, GWIN, STERETT, PRESTON, and CUSHING. The units listed in this paragraph were organized into temporary Task Force 67, directly commanded by Rear Admiral R. K. Turner in the McCAWLEY. On arrival of this force at Guadalcanal, it was intended to merge Task Group 62.4 with Task Force 67.

An essential feature of the plan was the employment of the considerable surface combatant forces listed in the preceding paragraph. There were two chief purposes in assigning a strong combatant force to accompany the transports; first, to provide adequate protection for the Guadalcanal reinforcements against the expanding enemy operations; and second, to make an offensive strike against enemy surface forces which might be encountered, or which might be drawn to Guadalcanal to attack our transports. As the situation developed, the offensive purpose turned out to have the major importance.

Task Group 62.4 departed from Espiritu Santo on November 9th and, passing by the north of San Cristobal Island, arrived at Guadalcanal on the morning of November 11th, 1942. The route north of San Cristobal was chosen in order to evade discovery by the long-range enemy air scouts based in the Buin region; and to avoid a cluster of submarines further westward. However, the enemy, about November 9th, began basing two or three large twin-float seaplanes on a surface tender thought at first to be in the Swallow Islands, as had occurred about two weeks previously. Task Group 62.4 was sighted by one of these seaplanes during the forenoon of

the 10th, and this probably led to the enemy air attack described below.

On November 11th, the enemy made heavy air attacks on the airfield at Guadalcanal, and also made a dive bombing attack on Task Group 62.4, which had arrived that morning. The ZEILIN was struck by one bomb and flooded aft, while near misses slightly damaged the LIBRA and BETELGEUSE. There were considerable personnel casualties. The vessels continued unloading after the attack, but it became necessary at the end of the day to send the ZEILIN back to Espiritu Santo, with the LARDNER escorting. She proceeded under her own power at a speed of ten knots and arrived safely on November 14th. Remaining vessels of the group retired into Indispensable Strait at sunset, and joined Task Force 67 on its arrival in the Strait during the night."

THE U.S.S. ZEILIN MADE THE FOLLOWING COMMENTS AS A RESULT OF THE ENEMY AIR ATTACK 11 NOVEMBER,1942:

AT 0857 A RADIO MESSAGE REPORTED THAT ENEMY BOMBERS AND FIGHTERS WERE HEADED FOR GUADALCANAL; A SUBSEQUENT MESSAGE SET THE ARRIVAL TIME AT 0935.

THE SHIP ORDERED BOATS TO REMAIN CLEAR AND AT 0919 PROCEEDED TO GET UNDERWAY. AT 0936 ENEMY PLANES WERE OBSERVED COMING IN OVER THE WESTERN TIP OF THE ISLAND AND TEN WERE IDENTIFIED AS DIVE BOMBERS, TYPE AICHI 99-N-DB. THE FIGHTERS WERE TOO HIGH TO BE ACCURATELY COUNTED, HOWEVER A MESSAGE REPORTED TWELVE.

AT 0940 THE SHIP COMMENCED FIRING 3"/50 CAL. AA BATTERIES USING 1.5 SECOND FUZE SETTINGS. THE ENEMY PLANES TOOK DIVING FORMATION AND PROCEEDED TO PEEL OFF. ONE WAS HIT BY SHRAPNEL AND THE PORT WING WAS AFIRE. THIS PLANE DID NOT DIVE. FIVE PLANES DIVED ON THIS VESSEL, RELEASING BOMBS AT APPROXIMATELY 1,200 FEET. THERE WERE THREE NEAR MISSES REGISTERED ON THE SHIP; TWO ON THE PORT SIDE - ONE ABOUT AMIDSHIPS, THE OTHER AFT; AND ONE ON THE STARBOARD SIDE AT ABOUT FRAME 45 OPPOSITE NO. 8 HATCH, DEPTH ABOUT 15-30 FEET. THE SHIP SUFFERED SEVERELY FROM THIS BOMB.

THE SHIPS EIGHT 20mm. MACHINE GUNS OPENED ON THE DIVING PLANES AND TWO WERE SHOT DOWN IN FLAMES. ONE OTHER PLANE WAS SCISSORED BY FIRE OF TWO MACHINE GUNS AND FABRIC WAS SEEN RIPPING FROM UNDER THE INBOARD WING. THE ATTACK CONCLUDED AT 0946 AND THE SHIP RETURNED TO THE UNLOADING AREA.

AT 1055 FOLLOWING THE EARLIER ATTACK BY DIVE BOMBERS, THE SHIP RECEIVED WORD THAT ENEMY PLANES WERE AGAIN HEADED FOR GUADALCANAL.

ALTHOUGH DAMAGED FROM THE FIRST ATTACK THE SHIP GOT UNDERWAY. AT 1127 A FLIGHT OF ENEMY PLANES IDENTIFIED AS HEAVY BOMBERS, POSSIBLY MITSUBISHI 97-M OR 96, ABOUT 27 IN NUMBER, WERE OBSERVED ON A COURSE TOWARDS HENDERSON AIR FIELD.

FIRE WAS OPENED BY ALL SHIPS, THIS SHIP FIRING ALL 3"/50 CAL. AA GUNS AS THEY COULD BE BROUGHT TO BEAR. FUZE SETTINGS WERE 21 AND 30 SECONDS. FIRE WAS CONTROLLED LOCALLY AFTER THE INITIAL SALVO AND WAS CHECKED ONCE TO CHANGE FUZE SETTINGS AND AGAIN TO ALLOW TWO GUNS TO BEAR. BURSTS WERE WELL GROUPED AND APPEARED TO BE REACHING UP TO AND A LITTLE AHEAD OF THE PLANES. NO HITS WERE OBSERVED. FIGHTER PLANES FROM HENDERSON FIELD BEGAN ENGAGING THE ENEMY AND "CEASE FIRING" WAS ORDERED ON ALL SHIPS.

FOLLOWING THE CONCLUSION OF THE ATTACK THE SHIP RETURNED TO THE UNLOADING AREA. THE ENEMY'S OBJECTIVE APPEARED TO BE HENDERSON FIELD ON GUADALCANAL.

"The four transports of Task Force 67, Rear Admiral Turner commanding, with the PORTLAND, JUNEAU, O'BANNON, BARTON, and MONSSEN escorting, departed Noumea for Guadalcanal on November 8th. The SHAW left Noumea on the 9th and joined the group on the 11th. The other vessels of Task Force 67, comprising the greater part of Task Group 67.4, under the command of Rear Admiral D. J. Callaghan, the SAN FRANCISCO, HELENA, PENSACOLA, LAFFEY, BUCHANAN, GWIN, STERETT, PRESTON, and CUSHING, departed Espiritu Santo on November 10th, and rendezvoused with the Transport Group near the Eastern end of San Cristobal Island on the morning of the 11th. The PORTLAND and JUNEAU were detached from Task Group 67.1 and joined Task Group 67.4. This group thereafter, during daylight of the 11th, operated about twenty miles to the rear of the Transport Group and its four escorting destroyers. On November 10th the PENSACOLA, GWIN, and PRESTON had been detached from Task Group 67.4 by orders of the Commander South Pacific Force for the purpose of reinforcing Task Group 16. The developing situation had caused the Commander South Pacific Force to order Task Force 16 to leave Noumea on November 10th, and to proceed northward for offensive operations against the enemy.

By the afternoon of November 9th, it became apparent that the enemy had set in process a very strong amphibious, surface, and air offensive against Guadalcanal, and that he was already en route to the attack with strong units. It looked like his "all-out" effort, and created considerable apprehension for the safety of our position in the Solomons. Since intelligence reports indicated November 13th as the prospective arrival date of enemy transports at Guadalcanal, it was apparent that we ought to make every possible effort to land our own troops and equipment on the 12th; and also to make the most of favorable opportunities for offensive operations against enemy transports and surface vessels. An estimate of the situation, including instructions to Rear Admiral Callaghan, Commanding Task Group 67.4, was drawn up by the Force Commander in the forenoon of November 10th. Since the key to our successful defense of Guadalcanal was the airfield, it was then decided by the Force Commander that Task Force 67, with its excellent anti-aircraft and torpedo strength, must take the risk of serious damage for the sake of inflicting heavy loss on enemy carrier aircraft, and on enemy naval bombardment units. Our Guadalcanal aircraft, and our surface and carrier forces then starting northward, might thereafter be enabled to drive the enemy back.

It had been the intention to pass Task Force 67 to the north of San Cristobal Island. When news was received that Task Group 62.4 had been sighted by enemy seaplanes on the 10th, together with news that the SOUTHARD had sunk an enemy submarine off the west end of San Cristobal Island, the route was changed so as to pass via the south of that island."

SEE TRACK CHARTS AT END OF CHAPTER.

"Information as to the change of route, together with minor modifications in the operating plan, was incorporated in a second letter of instructions to Commander Task Group 67.4. These two letters were delivered to Rear Admiral Callaghan when he joined on the morning of November 11th. At about the same time, all four seaplanes of the PORTLAND were sent to Espiritu Santo, since they were not desired on board during the expected night action. Despatches were carried by these planes for transmission by Commander Task Force 63, one giving instructions to Rear Admiral Scott to join Task Group 67.4 during the night of November 11-12; one with instructions to the SOUTHARD and HOVEY to remain in Tulagi and join Task Force 67 on arrival; and one with instructions to the Commander Advanced Naval Base at Guadalcanal concerning unloading plans."

COPIES ARE APPENDED AT END OF CHAPTER.

"The SOUTHARD and HOVEY for two days had been sweeping Lengo Channel and the transport anchorage areas, since some evidence had appeared that the enemy had laid mines in these waters.

On the morning of November 11th it seemed almost certain that Task Force 67 would be subjected to attack by carrier aircraft early in the morning of November 12th, soon after arrival at Guadalcanal. The unloading plan was somewhat changed, therefore, in order to get all the troops except unloading details off the ships immediately on arrival. Troops were ordered to carry one unit of fire and two days' rations. They would thus be valuable to the defense if the enemy succeeded in landing, even if some of our own transports were struck and equipment and supplies lost.

The November 11th evening air search from Guadalcanal disclosed no enemy naval forces in the vicinity. However, the scouting report was not considered conclusive, as in the past enemy forces had sometimes been missed by air scouts. Task Group 67.4, in accordance with orders, therefore proceeded at high speed in advance of the transports, and, after reinforcement during the night by Rear Admiral Scott with the ATLANTA, AARON WARD, FLETCHER, and McCALLA, entered Savo Sound about 2330 in search of the enemy. Two thorough sweeps were made, both to the east and to the west of Savo Island, but no enemy were found. The group remained in Savo Sound and joined the Transport Group on its arrival at dawn on the 12th.

The four transports of Task Group 67.1 anchored at 0540 off Kukum Beach, and the BETELGEUSE and LIBRA of Task Group 62.4 anchored two miles eastward of Lunga Point. Combatant vessels were disposed about the Transport Group in two protective semi-circles; the SAN FRANCISCO, PORTLAND, and HELENA formed a semi-circle three thousand yards from the transports; and the ATLANTA, JUNEAU, eleven destroyers, and two light minelayers, formed an anti-submarine semi-circle six thousand yards from the transports. Preparatory orders were issued to close in to form a screen one thousand yards from the transports, should these be directed to get underway to repel the expected enemy air attack.

A vessel of the anti-submarine screen made contact with a submarine about six miles north of Lunga Point about 0600. Depth Charge attacks seem ineffective. The presence of the submarine was confirmed when, at 1930 of the same day, one was reported by Guadalcanal about

one mile from the reported morning position. Apparently this submarine had lain dormant during the day."

UNDER THE CIRCUMSTANCES IT APPEARS THAT A CONTINUOUS SUBMARINE HUNT MIGHT HAVE BEEN CARRIED OUT UNTIL ALL FORCES HAD CLEARED THIS AREA.

"At 0718 the transports off Kukum were taken under fire by an enemy six-inch shore battery. This battery was soon silenced by counter-battery work from our own shore batteries, and by naval gunfire from the HELENA, who began returning the fire at 0728, and by the BARTON and the SHAW, who began firing at 0743. Transports continued debarkation. None were hit. Subsequently, the BUCHANAN and CUSHING fired on enemy positions further westward. Fire of all vessels appeared to be effective. Many large fires and explosions were caused ashore, about thirty large landing boats were destroyed, and other landing boats were damaged.

The expected attack by enemy carrier aircraft did not eventuate. This fact was taken as an indication that the enemy might have postponed his troop landing from the 13th to the 14th. More time would thus be given Task Force 16 to get into position for an offensive strike.

At about 1010 on the 12th a flight of friendly aircraft, arriving from Espiritu Santo, was fired on by two or three vessels of the screen and by two transports, who mistook these planes for enemy. Fortunately, the planes were not hit. Announcement of the expected arrival of these planes had previously been made over a radio circuit which all ships were required to guard, but a low, direct approach by the planes was believed by the firing vessels to constitute an enemy torpedo attack."

A STANDARD APPROACH PROCEDURE BY FRIENDLY PLANES IS INDICATED.

"At 1317 Commander Task Force 67 received from Radio Guadalcanal, a despatch stating that the coast-watcher near Tonolei had reported a flight of enemy bombers and fighters passing to the southeastward, and further stating that these planes could arrive at Guadalcanal by about 1330. Orders were at once given to get underway and form an anti-aircraft disposition. The disposition was formed by 1340, at which time another despatch was received indicating that the radar ashore had picked up approaching enemy planes, and that they would arrive about 1415.

The enemy aircraft turned out to be 21 torpedo planes, protected by about 12 fighters. These planes approached low behind Florida Island, and remained out of sight until they appeared over the eastern end of the island at about 1405.

The enemy torpedo planes first headed toward the transport anchorage in a single group, but finding the force underway, turned back to the north and divided into two equal groups. One of these headed westerly over the top of Florida Island, and the other circled toward the south, the evident intention being for the two groups to attack simultaneously, one coming from the northeast and the other from the southeast. At this time our own disposition was headed away from the northern group. The Task Force Commander then turned the ships 90 degrees to the right, to put them broadside to the northern group of enemy planes. The idea was to induce the northern group to attack before the eastern group gained its position; and thus to permit our ships to deal with the groups in succession rather than simultaneously. The scheme was successful, as the northern group immediately attacked from directly on the starboard beam, though the eastern group was not yet ready. As soon as the northern group was within gun range, the ships were turned to the left 90 degrees, with the result that enemy torpedoes ran harmlessly parallel to our own course. This group of torpedo planes was not attacked by our fighter aircraft until after passing through our disposition.

During its approach, the eastern group was attacked by our fighters. Due possibly to this fact, this group also made a rather premature attack, coming in from the eastward instead of the southeastward, as apparently had been intended. While prepared to turn the disposition away from this attack, this did not become necessary, as the torpedoes came up from astern nearly parallel with the ships, and small individual maneuvers proved adequate for preventing hits.

One enemy plane was shot down by the landing boats scattered off Lunga Point. Eight other enemy planes were seen shot down by ships' gunfire; these fell in or near the disposition. Others undoubtedly were hit by ships' gunfire and fell to the westward during an attack on the remaining planes by our own fighter aircraft. Only one of the 21 attacking aircraft was seen to escape, and this one was later reported passing over New Georgia Island. Our fighters were also seen to shoot down several enemy fighters. Ship's gunfire was accurate, and in great volume.

High level and dive bombing attacks on the disposition were also expected at this time. While not reported by radio by Guadalcanal, a staff officer was told at General Vandegrift's headquarters about 1730 that ten enemy dive bombing planes had been shot down by our fighters to the westward of Savo Island; and that nine high altitude bombers had dropped their bombs harmlessly on shore near the airfield. The statement was made that, out of a total of 52 planes which made this coordinated attack, between 32 and 35 had been destroyed by our own fighters and by ships' gunfire. No confirmation of these figures has been received.

The enemy torpedo-planes flew very close to the water in making their attack. As a result, a number of vessels were struck by the defensive gunfire from other vessels. The BUCHANAN was hit by a 5-inch projectile, which exploded and caused numerous casualties, besides doing considerable damage to the ship. A few casualties on other vessels were caused by 20mm. and 50 Cal. projectiles. Several casualties were caused by machine gun fire from enemy planes. One enemy plane, which passed close along the starboard side of the McCAWLEY and there dropped its torpedo, was heavily set on fire by gunfire from the McCAWLEY. The pilot headed to crash the SAN FRANCISCO, but, as he was flying almost parallel to that ship, succeeded only in striking Battle II and the After Control structure with one wing. The plane then side-swiped the ship and fell in the water to port. Fires started on the SAN FRANCISCO, but these were soon extinguished. However, a considerable number of officers and men of the SAN FRANCISCO were killed or badly burned, and Battle II and the After Control Station were destroyed.

The transports anchored at about 1525, having lost two hours unloading time.

During the day, reports from our scouting aircraft indicated the following enemy vessels had been sighted in positions from which they could arrive in the Guadalcanal Area during the night of November 12-13:

(a) Two battleships or heavy cruisers, one cruiser , and six destroyers, sighted at 1035 bearing 008°, distant 335 miles from Guadalcanal.

(b) Five destroyers, sighted at 1045, bearing 347°, distant 195 miles from Guadalcanal.

(c) Two enemy aircraft carriers and two destroyers, sighted at 1450, bearing 264°, distant 265 miles from Guadalcanal. (It later developed that these

vessels were not carriers.)

There could be no feeling of assurance that additional vessels were not in the vicinity, since enemy task units had in the past frequently been missed by scouting aircraft. Nor could there be any assurance that enemy types were correctly reported.

Since no transports were sighted, the enemy's intention was estimated as either:

(a) To attack transports and escort in Indispensable Strait during the night, or

(b) To bombard Guadalcanal airfield and troop positions.

Enemy probable strength, for either task, was estimated as two battleships, two to four heavy cruisers, two light cruisers, and ten to twelve destroyers. Since the enemy strength previously reported in Buin and to the north was considerably greater than this, it was considered possible that additional cruisers and destroyers might be en route from the west.

At the disposal of the Task Force Commander, besides four transports and two cargo vessels, were two heavy cruisers, one light cruiser, two AA light cruisers, eleven destroyers, and two light minesweepers. The decision was made to assign to Rear Admiral Callaghan all of the cruisers and eight destroyers. This left one damaged destroyer, two destroyers with reduced fuel, and two DMS for the protection of the transports, as there was some prospect of attack on these vessels on their retirement to the south. But the chief reason for not assigning all eleven destroyers to Task Group 67.4 was that, during a night action, a force of five cruisers and eight destroyers seemed about all that could be effectively handled in the restricted maneuvering room available in Indispensable Strait and Savo Sound.

Most careful consideration was given to the tactical situation. There was no question that, in fire power, the enemy force in the vicinity was far stronger than our own. In reaching the decision to send Task Group 67.4 to the attack, the Force Commander considered that this action was the only method through which this major enemy offensive against Guadalcanal might be stopped. Even were our forces almost entirely sacrificed, bombardment of the airfield would be prevented, and enemy losses might permit our remaining air and surface forces to complete the defeat of

the landing attempt. On the other hand, while greater cruiser fire power would have been desirable, Task Group 67.4 in a close night engagement, was considered a formidable unit. The event is considered to have justified the decision to order the attack.

By late afternoon, it was seen that 90% of the material on the transports could be landed, but that it would take several days' additional time to complete unloading the LIBRA and BETELGEUSE. In view of the developing enemy offensive, it was decided to withdraw all transports and cargo vessels from the area, and to direct Task Group 67.4 to strike the enemy on his arrival, either in Indispensable Strait, or in Savo Sound. A preliminary despatch was sent during the forenoon forecasting this decision. During the late afternoon, this decision was confirmed to Rear Admiral Callaghan by TBS, voice, but was modified to the extent that Task Group 67.4 was directed to remain concentrated after entering Indispensable Strait, to sweep north through the strait to strike the enemy if he came that way, and, if no enemy were found, to return to Savo Island for the purpose of striking him there. At the time the Task Force Commander issued the afternoon directive, both he and the Commander Task Group 67.4 were cognizant of the despatches concerning enemy forces.

The following brief narrative of the Third Battle of Savo is based on prolonged interviews with most of the commanding officers of surviving vessels and with some of those that were sunk, and on a study of reports so far received. It is believed that the reports themselves merit a more careful analysis than can be given here, in order to bring out the many valuable points which can be found in them. The Force Commander has some despatch reports of our own air activity the following day, but the picture given by them is incomplete. Until an accurate report from aviation sources is available, it will be impossible to make an estimate of enemy losses that will not be subject to doubt.

Task Force 67, at 1815, proceeded eastward out of Savo Sound. Task Group 67.1, Rear Admiral Turner, with McCAWLEY, PRESIDENT JACKSON, PRESIDENT ADAMS, CRESCENT CITY, BETELGEUSE, LIBRA, BUCHANAN, SHAW, McCALLA, SOUTHARD, and HOVEY passed southward via the western end of San Cristobal Island and thence to Espiritu Santo, where it arrived on November 15th. Task Group 67.4, Rear Admiral Callaghan in the SAN FRANCISCO, and Rear Admiral Scott in the ATLANTA, passed through Sealark Channel and northward for its sweep of Indispensable Strait. It was in

"Battle Disposition Baker One", a column with order of ships: CUSHING (Commander Destroyer Division Ten), LAFFEY, STERETT, O'BANNON, ATLANTA, SAN FRANCISCO, PORTLAND, HELENA, JUNEAU, AARON WARD (Commander Destroyer Squadron TWELVE), BARTON, MONSSEN, and FLETCHER. Signals were made by voice over TBS. At 0000, November 13th, making eighteen knots, Task Group 67.4 entered Lengo Channel. The sky was overcast; the moon had set, and the night was dark.

Near Lunga Point, at 0124, while on course 280° enemy vessels were picked up to the northwest by SG radar at a range of 27,000 yards. It later developed that the enemy was in four groups, one being considerably to the northward of the others. The existence of the northern group, certainly containing at least one battleship, previously suspected, though not reported, is confirmed by the report of the O'BANNON, and the fact that the SAN FRANCISCO received one 14" hit which, entering through the deck of the communication platform, without exploding, passed downward through two decks at an angle of fall of about 20°. All other hits noted were nearly horizontal.

The exact strength and composition of the enemy is difficult to estimate. Including the two "carriers" reported to the southwest, a total of eighteen enemy combatant vessels had been sighted the afternoon of the 12th. All were on routes of approach known to have been used frequently by the enemy. After further study of this matter, the Force Commander has somewhat revised his former opinion, and now believes the enemy strength and composition to have been substantially as follows:

(a) The force sighted to the southwestward at 1450 and reported as two aircraft carriers and two destroyers, probably consisted of two heavy cruisers and two or three destroyers. These vessels are believed to have formed the left hand enemy group in the night action.

(b) The force sighted to the north at 1035 consisted of two battleships of the KONGO class, one light cruiser of the TENRYU class, and six destroyers. This force probably divided on entering Savo Sound; one detachment formed the northern group of one battleship and three destroyers, and the other formed the center group of one battleship, one light cruiser, and three destroyers.

(c) The force sighted to the northwest at 1045 and reported as five destroyers, probably consisted of one or two light cruisers of the NATORI class and three or four destroyers. These vessels are believed to

have formed the right hand enemy group.

(d) The enemy force, under this concept, thus consisted of two battleships, two heavy cruisers, three or four light cruisers, and eleven or twelve destroyers. This is approximately the composition of a force which bombarded the airfield on October 14th.

There is some evidence that one or two additional enemy battleships, plus three or four destroyers, were present, but the evidence is not sufficiently strong to justify its acceptance at this time. If these ships actually were present, they probably formed the northern group. In this case, the center group would have consisted of two battleships, one light cruiser, and six destroyers.

The enemy seems to have been completely surprised. Task Group 67.4, from near Lunga Point, turned north, then northwest, west, and finally north, and, passing between the right and center groups, engaged the enemy from 0148 to about 0222, at ranges between 1,000 and 8,000 yards. Most of the firing was at less than 5,000 yards. The large enemy vessels fired only bombardment projectiles. Many torpedoes were fired by both sides. The gunfire of our vessels apparently was extremely effective and accurate.

The engagement soon became a melee, collisions being narrowly averted between own and enemy vessels. At times, both sides fired into friendly vessels. At the end of the action, ships of Task Group 67.4 able to do so retired from the scene. The enemy also withdrew, but it is believed probable that they picked up many survivors of their sunken ships.

Early the next morning the PORTLAND, though with rudder jammed hard right and unable to proceed under her own power, sank a disabled enemy destroyer of the SHIGURI type. Apparently the CUSHING and the MONSSEN, afloat near Savo Island, were fired on by enemy vessels still remaining in the vicinity near their stricken battleship.

Damage suffered by Task Force 67.4 was as follows:

LAFFEY and BARTON sunk during the action.
ATLANTA, CUSHING, and MONSSEN set on fire and sunk the following day.

JUNEAU damaged, and sunk the following day en route to Espiritu Santo by a torpedo from an enemy submarine.

SAN FRANCISCO and PORTLAND so damaged as to require return to the United States for repairs.

HELENA, AARON WARD, and STERETT damaged, and may require return to the United States.

O'BANNON slightly damaged from underwater explosions, possibly depth charges from the LAFFEY; now back in service.

FLETCHER undamaged.

Heavy personnel losses, including Rear Admirals Callaghan and Scott.

Based on the best evidence available, it is believed that the enemy suffered the following losses:

One battleship of the Kongo class (HIYEI ?) put out of action by gunfire from the San Francisco and by torpedoes, and sunk the next day by aircraft.

Two destroyers, one of the AKUTSUKI and one of the SHIGURI classes, sunk.

Other destroyers, number unknown, were damaged.

It seems probable that one battleship of the northern group was damaged by both gunfire and torpedoes.

This desperately fought action, the Third Battle of Savo, is believed to have few parallels in Naval history. We have come to expect, and to count on, complete courage in battle from officers and men of the United States Navy. But here, in this engagement, we had displayed for our lasting respect and admiration, a cool but eager gallantry that is above praise. These splendid ships and determined men won a great victory against heavy odds. Had this battle not been fought and won, our hold on Guadalcanal would have been gravely endangered."

T.G. 67.1 Operation Order No. 2-42 of Nov. 7, 1942.

"Transport Group 67.1. On arrival in the Transport Area, and upon signal to commence the landing, transports anchor one thousand yards apart and from six hundred yards off shore, opposite assigned sectors on the beach, using a short scope of chain and remaining ready to get underway in emergency. Maintain debarkation stations. A strong set of current must be anticipated. During the approach, without signal, pass from battle stations directly to landing force stations for debarking. Be in all respects ready for debarking by zero five thirty LOVE.

If directed to get underway to repel air attack or in case of approach of enemy surface vessels, ships will take stations promptly on column guides. Interval will be 1500 yards, distance 1000 yards, in case of air attack."

This order was modified as follows:

"If the transports get underway to evade air attack, form division columns, without regard to order of divisions from right to left, course and axis 340°, speed 13; distance 600 yards, interval 1000 yards. The ZEILIN, BETELGEUSE, and LIBRA will form as one division. The OTC will maneuver the disposition, frequently with emergency turn signals."

Task Force Sixty-three operated in support of Task Force Sixty-seven in accordance with the following directive :

"Beginning the second day after departure of the transport group from White Poppy and continuing until the day after departure from Cactus, it is requested that Task Force Six Three support Task Force Six Seven as follows Colon Afirm Scout to west and north of Cactus and to east of Malaita as deep as possible against approach of enemy ships baker conduct early morning and late afternoon scouting with observation of approaches to Cactus for enemy submarines Cast provide fighter cover, submarine patrol and bomber striking group while Task Force Six Seven is in the Cactus Area Dog Bomb enemy airfields within range of Cactus on eleventh twelfth and thirteenth to prevent air attacks on Task Force Six Seven."

The following is a copy of Commander Task Force 67's letter of instructions concerning future operations of Task Force 67:

~~"SECRET~~ November 10, 1942.

From: Commander Task Force 67.
To : Commander Task Group 67.4 (Rear Admiral Callaghan, USS SAN FRANCISCO.)

Subject: Letter of Instructions concerning future Operations of Task Force 67.

1. It is apparent that the enemy is again engaged in making a very strong attack on Cactus. My estimate as to the strength which he will employ is as follows:

(a) The Third Fleet, with two to four aircraft carriers operating in the area to the northward of Cactus, and protected by several cruisers, destroyers, and possibly two to four fast battleships. Operations to the eastward of Malaita by this fleet have not yet been indicated.

(b) The Eighth Fleet, with 2 CA, 2 to 4 CL, 12 to 16 DD, and several light minelayers, operating from Buin in support of the troop expeditionary force.

(c) An expeditionary force of at least one division embarked in eight to twelve transports, including two landing craft carriers.

My estimate of the enemy intentions is as follows:

(a) Land-based aircraft attacks beginning against Cactus today, November 10th, and continuing daily with increasing strength.

(b) Departure of troop convoy from Buin late afternoon or early night of November 11th. This force might be escorted by as many as eight destroyers, and possibly one or two light cruisers, and the light minelayers.

(c) Possibly naval bombardment of Cactus airfield during the night of November 11-12 (Possibly after midnight), using the Eighth Fleet cruisers and destroyers not employed in the escort of the expeditionary force.

(d) Attack on Cactus airfield, and ships, by carrier aircraft about 0700, November 12th, and continuation of the attack during the day.

(e) Landing by enemy troops on Cactus during the night of November 12-13, possibly arriving after midnight; accompanied by naval bombardment. Landing may be near Esperance or Koli Point.

Our own surface forces in or approaching the area are:

(a) Task Group 62.4, Rear Admiral Scott, with the ATLANTA, 4 DD, ZEILIN, BETELGEUSE, and LIBRA, due at Cactus at 0530, November 11th. The combatant vessels will become a part of Task Force 67 on arrival of that force in the Cactus area. This group will retire to Indispensable Strait during the night.

(b) Task Group 67.4, Rear Admiral Callaghan, with Rear Admiral Tisdale as second-in-command, with SAN FRANCISCO, PENSACOLA, HELENA, and six destroyers. This Task Group, on the morning of November 11th, will be reinforced by the PORTLAND and JUNEAU; and during the night of November 11th, off the eastern entrance of Sealark Channel, by the ATLANTA and three destroyers. This gives a total of three heavy cruisers, one HELENA, two ATLANTAS, and nine destroyers.

(c) Task Group 67.1, four transports and four destroyers, Rear Admiral Turner in command.

(d) At Ringbolt are six motor torpedo boats. Due at Cactus on the 10th or 11th to sweep for mines are the DMS SOUTHARD and HOVEY. Due at Cactus on the 13th are the MEADE and KOPARA.

(e) At White Poppy is Task Force 16. I have no knowledge as to its future movements.

2. It is possible that the schedule of enemy action may be postponed one day; it seems unlikely that it will be postponed longer than that length of time. An indication of the enemy landing date may possibly be given by the beginning of land-based aircraft attacks on Cactus, three days in advance of the date of landing. The enemy landing date is assumed to begin at midnight.

3. It is my intention to continue current movements of Task Force 62 and 67. If it becomes essential to withdraw transports temporarily, all possible combatant vessels will be left under your command, in a position to strike the enemy.

4. In order to avoid being sighted by enemy aircraft, Task Group 67.1 is proceeding to arrive at 1200, November 11th, at a point fifteen minutes to the eastward of Point Roger. Immediately upon receipt of this letter, you will proceed with Task Group 67.4 about twenty-five miles to the eastward of Task Group 67.1, in order also to reduce your chances of detection by enemy aircraft.

5. At your discretion, about 1230 LOVE, November 11th, proceed at a speed of about twenty-two knots, passing to the southward of Task Group 67.1, and arriving at the eastern end of Sealark Channel about twenty-two hundred, November 11th. On arrival at that position, over the TBS voice circuit, direct Commander Task Group 62.4 to join you with three destroyers.

6. With the proviso that you are hereby given full discretion as to the tactical operations of your Task Group, I desire that, at an appropriate time during the night of November 11-12, you proceed through Sealark Channel, and strike enemy forces which may be in the immediate vicinity of Cactus. It is particularly important that enemy transports, which might be to the rear, be struck. If reports from minesweepers warrant, transports will enter Cactus through Lengo Channel, leaving Sealark Channel free for your entrance and exit.

7. Unless otherwise directed, after arrival of Task Group 67.1 in the transport area at Cactus, direct Rear Admiral Scott, with three destroyers, to report to me to provide anti-aircraft and anti-submarine protection. Dependant on the tactical situation, I recommend that you, with the remainder of your group, retire eastward to

Indispensable Strait during the day time and remain in a support position.

8. It is my present intention to continue unloading transports until about 2200, November 12th, and then, with the transports and cargo vessels, to withdraw entirely from the immediate vicinity of Cactus, unless the state of unloading is such as to make essential a return on November 13th, or unless the enemy offensive has been postponed. You are, therefore, requested to reenter Cactus waters about eighteen hundred, in order to cover my unloading and retirement.

9. You will be expected to strike the enemy during the night of November 12-13, if he is then engaged in attacking, or landing on, Cactus or Ringbolt.

10. Keep me informed currently, by short despatches, as to the progress of your operations, after radio silence has been broken.

11. It might be well to ask for a tanker northwest of Button.

R. K. TURNER."

The following is a copy of Commander Task Force 67's letter containing modified instructions concerning future operations of Task Force 67:

"SECRET November 11, 1942.

From: Commander Task Force 67.
To : Commander Task Group 67.4 (Rear Admiral Callaghan, USS SAN FRANCISCO).

Subject: Modified Instructions concerning future operations of Task Force 67.

1. It now appears that the major enemy troop landing will take place on November 13th, and that Cactus will be struck by enemy carrier and land-based aircraft on the 12th. It therefore becomes essential to get our troops ashore without delay.

2. Cancel paragraph 7 and enclosure (B) of Reference (a). In the third line of paragraph 8, change the word "southward" to "westward." Due to more recent information

as to enemy submarine movements and the apparent presence of enemy aircraft in the Swallow Islands, Task Group 67.1 will proceed to Cactus passing south and west of San Cristobal and east and north of Guadalcanal. The proposed track of Task Group 67.1 from the 0800 rendezvous position is as follows:

Point Sail: Lat. 11° 01' S.
Long. 161° 30' E. About 1600,

Point Tare: Lat. 10° 36' S.
Long. 160° 55' E. About 1930,

Point Unit: Lat. 10° 18' S.
Long. 160° 55' E. About 2100,

thence to pass five miles to the eastward of Taunu Shoal. If possible, entry will be made through Lengo Channel, to arrive at the Transport Area by 0500.

3. Also modify paragraph 10, to the extent that, if the enemy is not found to the westward, you will, as practicable, cover the entry of the transports against surface attack down Indispensable Strait. Thereafter, with your entire force, you will remain near the Transport Area to screen the transports against air and submarine attack while unloading. If the transports get underway when air attack develops, they will form in three columns, axis about 340. You will then form all combatant vessels about them, equally disposed in a close circular screen, with vessels at a distance of 1000 yards from the nearest transports. The disposition will be maneuvered as a whole by the OTC; at times by "Emergency Turn" signals. If the transports remain at anchor, some of the screening vessels should come in among the transports in order to provide the greatest possible anti-aircraft protection against dive bombing and torpedo attack.

4. Change the last sentence of paragraph 11 to read as follows: "On retirement to the eastward, it is planned for the Transport Group plus four anti-submarine screening vessels to pass out through Lengo Channel, and for the Support Group to pass out through Sealark, the relative position of the latter ahead and astern being such as to afford cover against enemy attack from the most probable direction".

5. Immediately upon receipt of this letter, you will proceed with Task Group 67.4 about twenty miles bearing about 150° T. from Task Group 67.1. On proceeding in accordance with paragraph 8 of Reference (a), pass within visual or TBS range of Task Group 67.1. /s/R.K.TURNER."

LEGEND

A. CTF 67 - PORTLAND, JUNEAU, MONSSEN, BARTON, O'BANNON, McCAWLEY, CRESCENT CITY, PRES. JACKSON, PRES. ADAMS.

B. SHAW joined from White Poppy.

C. Japanese seaplane 1100-1300/11.

D. PORTLAND, JUNEAU join TG 67.4.

E. SOUTHARD destroyed Jap submarine 1015/10.

F. TG 62.4 arrived Cactus 0530/11. Retired to Indispensable Strait 1800/11.

G. TG 67.4 plus ATLANTA, AARON WARD, FLETCHER, McCALLA, arrived Cactus 2300/11.

H. TG 67.1 plus BETELGEUSE, LIBRA, O'BANNON, BARTON, MONSSEN, SHAW arrived Cactus 0530/12.

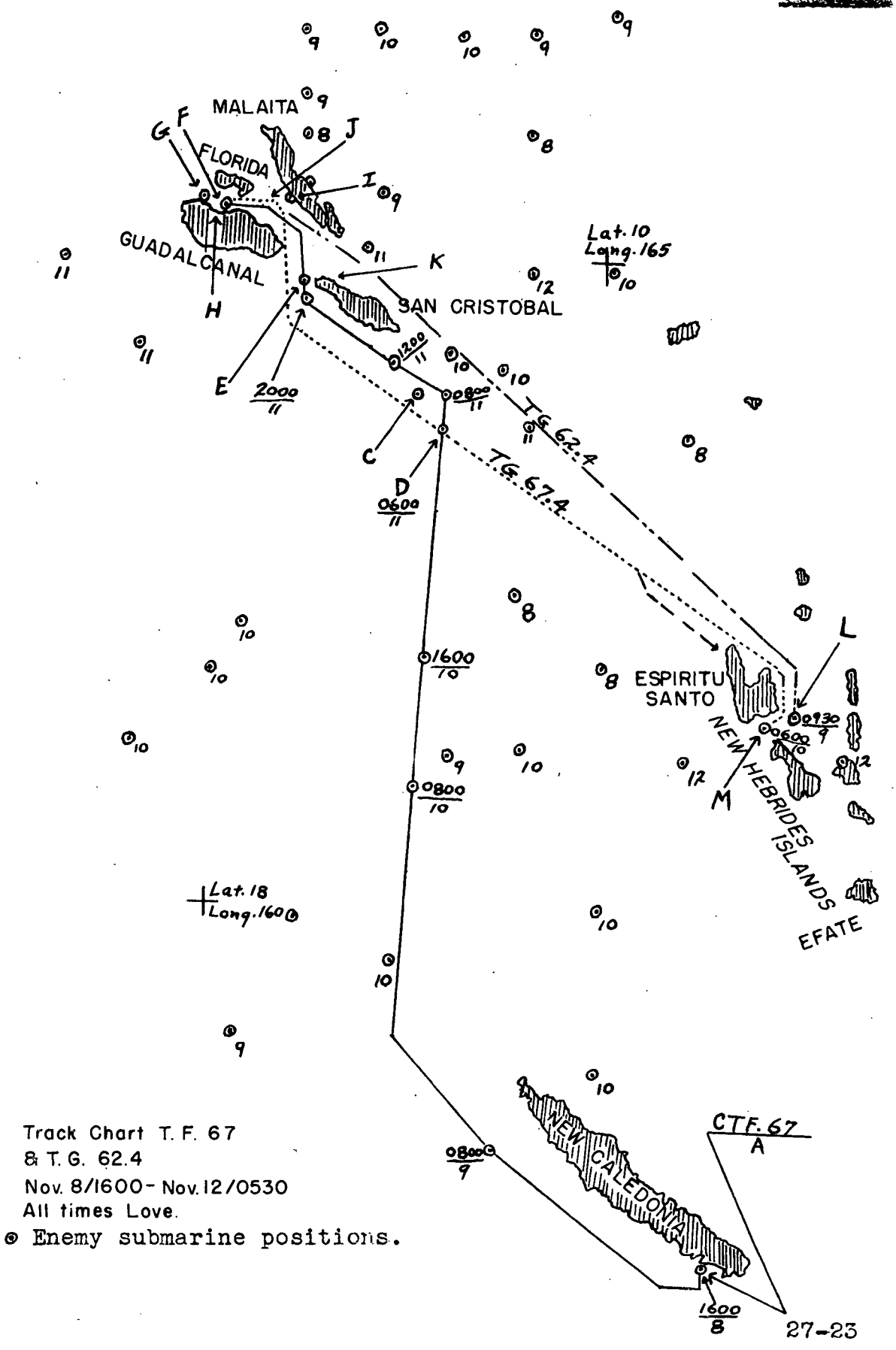
I. BETELGEUSE, LIBRA 2200/11.

J. ATLANTA, AARON WARD, FLETCHER, McCALLA join TG 67.4 2200/11.

K. ZEILIN, LARDNER 2200/11 en route Button.

L. TG 62.4 ATLANTA, AARON WARD, FLETCHER, LARDNER, McCALLA, ZEILIN, BETELGEUSE, LIBRA.

M. TG 67.4 SAN FRANCISCO, PENSACOLA, HELENA, LAFFEY, BUCHANAN, GWIN, STERETT, PRESTON, CUSHING.



Track Chart T. F. 67
& T. G. 62.4
Nov. 8/1600 - Nov. 12/0530
All times Love.
⊙ Enemy submarine positions.

27-23

LEGEND

A. 1700/14 - TG 67.4 arrived.

B. 0600/14 - ZEILIN, LARDNER.

C. TG 67.1 arrived.

D. BUCHANAN directed to join TG 67.4.

E. ZEILIN, LARDNER.

F. MEADE, KOPORA, YP-130 arrived Aole Bay from Button 0530/13.

G. TG 67.4 HELENA, JUNEAU, SAN FRANCISCO, O'BANNON, FLETCHER, STERETT.

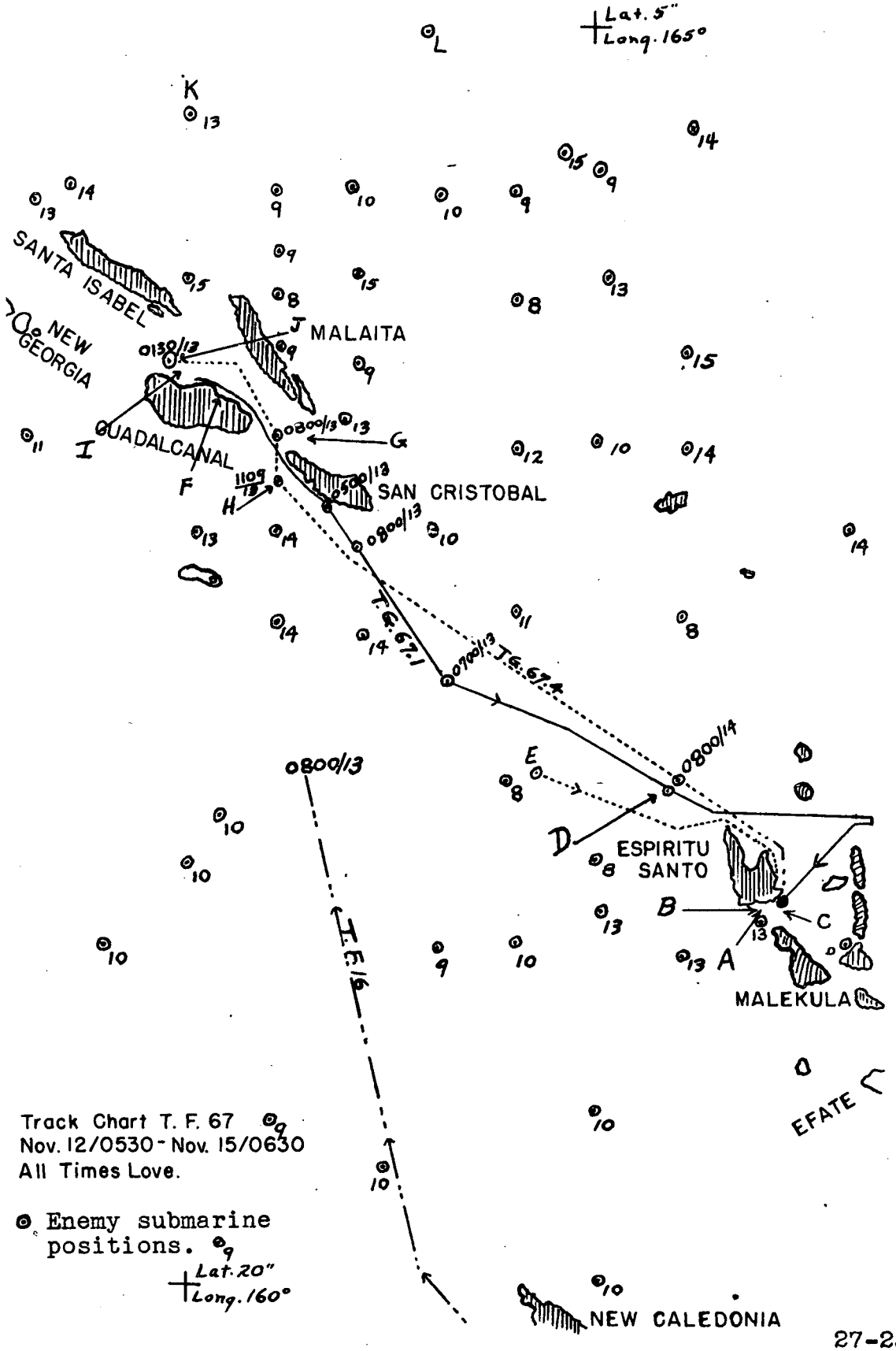
H. JUNEAU torpedoed - sunk.

I. TG 67.1 McCAWLEY, CRESCENT CITY, PRES. JACKSON, PRES. ADAMS, BETELGEUSE, LIBRA, SHAW, BUCHANAN, McCALLA, SOUTHARD, HOVEY.

J. TG 67.4 SAN FRANCISCO, ATLANTA, HELENA, PORTLAND, JUNEAU, AARON WARD, FLETCHER, O'BANNON, BARTON, LAFFEY, STERETT, CUSHING, MONSSEN.

K. Enemy 1045/12 - 5 DD, course 090°, speed 15.

L. Enemy 1035/12 - 2 BB or CA, 1 CL, 6 DD, course 180°, speed 25.



Track Chart T. F. 67
Nov. 12/0530 - Nov. 15/0630
All Times Love.

⊙ Enemy submarine positions.

CHAPTER XXVIII

SOLOMON ISLANDS, THIRD SAVO ISLAND NIGHT BATTLE

NOVEMBER 12 - 13, 1942.

Task Group 67.4, consisting of SAN FRANCISCO, Rear Admiral Callaghan, OTC, ATLANTA, Rear Admiral Scott, PORTLAND, HELENA, JUNEAU, AARON WARD, BARTON, MONSSEN, FLETCHER, CUSHING, LAFFEY, STERETT and O'BANNON, was operating in the Guadalcanal area as a support group screening transports and cargo ships from submarine, aircraft and surface attacks.

GENERAL.

Air reconnaissance during the early days of November revealed a heavy concentration of Japanese transports, cargo ships and combatant units of the enemy fleet in the New Britain-Northwestern Solomon region. An attempt by the enemy to recapture our positions in the Guadalcanal - Tulagi Areas of the southeastern Solomons was indicated and on November 10th it became evident that the expedition was being launched in force.

> AIR ATTACKS BY OUR AIR FORCES IN THE SOUTHWEST PACIFIC AREA APPEAR TO BE RELATIVELY INEFFECTIVE. IN DUE TIME IT SHOULD BE POSSIBLE TO INFLICT SUFFICIENT DAMAGE ON ENEMY CONCENTRATIONS SO THAT A MAJOR NAVAL EXPEDITION CANNOT BE LAUNCHED TO THE SOUTH OF RABAUL.

Japanese naval forces approached the Southeastern Solomons from the north as other detachments, including many transports, moved southeastward toward Guadalcanal from Rabaul and Buin, where expeditionary forces had been assembling.

> ON NOVEMBER 10 A TOTAL OF SIXTY-ONE VESSELS WERE REPORTED IN THE BUIN-FAISI AREA OF WHICH FOUR WERE HEAVY CRUISERS AND THIRTY-THREE DESTROYERS.

The spearhead of the Japanese attack was a force composed of two battleships of the KONGO Class and a number of other vessels believed to have been two heavy cruisers, four light cruisers and about ten destroyers. This unit reached the Guadalcanal Area shortly after midnight on the morning of November 13, intending to bombard our shore positions prior to a large scale landing from a large group of transports which had been observed

in the Buin-Shortland Area. This Japanese bombardment force was formed in three groups. As they approached the bombardment area they were engaged by Task Group 67.4 and the ensuing battle was fought at close range. During this furious night engagement the Japanese seemed confused and during the latter part of the battle two of the three Japanese groups were firing at each other. Shortly thereafter the enemy fire ceased and the Japanese withdrew from the battle and retired to the northward.

NARRATIVE.

During the afternoon of November 12, Task Group 67.4 fought off an air attack. The action lasted from about 1412 to 1417, during which time it is estimated that at least eight planes were shot down by the Task Group. No ships were observed to suffer damage except that reported in the case of the SAN FRANCISCO. One flaming plane, prior to crashing was observed to head for and strike the mainmast structure of the SAN FRANCISCO causing a large intense fire on that ship which was quickly extinguished. The plane itself fell into the water nearby on port side of the ship. After the action ships continued maneuvering in the general direction of the transport area. Ships of Task Group 67.1 anchored in the transport area about 1515 and continued with unloading operations. Cruisers and destroyers of support group 67.4 continued to screen transports and cargo ships from submarines, aircraft and surface attacks.

The Commander in Chief, Pacific Fleet remarked as follows:

" On November 12, 1942, Task Group 67.1 (Transport Division Two) (McCAWLEY, PRESIDENT JACKSON, CRESCENT CITY and PRESIDENT ADAMS), screened by Task Group 67.4 (five cruisers and eight destroyers) plus two AK's (BETELGEUSE and LIBRA), and two DMS (SOUTHARD AND HOVEY) were unloading troops and cargo off Lunga Point, Guadalcanal.

At 1200 LOVE, the BUCHANAN was detached from the screen and detailed to join the CUSHING to bombard about 75 landing boats visible along the beach between Tassafaronga and Kokumbona, Guadalcanal. The two destroyers with the assistance of a cruiser type plane, which did a creditable job of spotting and directing fire, destroyed about 25 of the landing boats, damaged many more, and did an unknown amount of damage to enemy supply and equipment depots inshore.

At 1320 LOVE, word was received of an impending air attack. The BUCHANAN rejoined the screen, and all units got underway on course and axis 340, speed 14 knots.

Twenty-one MITSUBISHI, Type 96, heavy bombers were sighted at 14,600 yards at 1410 (-11). They approached over and around Florida Island in three groups of 7, 9, and 5 planes. The first group of seven approached from the starboard bow of the formation and the other two groups approached from the starboard quarter. Their speed was about 170 knots and altitude was not more than 50 feet and they used the dark background of Florida and Tulagi Islands to reduce the silhouette effect.

The formation opened fire at 12,000 yards, and the SAN FRANCISCO brought down a plane on the opening salvo. The SANFRANCISCO fired fifteen rounds of 8" ammunition and the splashes caused the planes to make radical maneuvers. The main battery fired between ranges of 5,000 and 2,000 yards.

The use of the main battery against torpedo attack interferes to some extent with the 5" and automatic weapons because of blast and smoke. In this instance the fire was embarrassing, and only tended to make targets maneuver. The use of the main battery in repelling torpedo attacks is still open to question.

The action lasted seven minutes and only one plane escaped.

A damaged plane intentionally crashed the after superstructure of the SAN FRANCISCO. It demolished control aft, burned out Battle Two, and put the after AA director and FC radar out of commission. The three 20mm. machine guns on the after superstructure were demolished. The crews of these guns remained at their stations and maintained fire until they were killed by the plane flying into them. The performance of these gun crews is inspiring.

When those injured by the colliding plane were transferred to the U.S.S. PRESIDENT JACKSON, Commander Mark H. Crouter elected to remain aboard the ship so that he could be returned to duty in the minimum time. As a result of his devotion to duty he was on the sick list in his room where a 14" projectile exploded during the action the next night. By this coincidence his death was a result of his gallantry.

The BUCHANAN received a 5"/38 Cal. hit, and some machine gun and shrapnel hits from the fire of our own forces, damaging the #2 stack, the #3 20mm. machine gun and the torpedo tubes."

The SAN FRANCISCO commented as follows:

"Task Force 67 formed special anti-aircraft disposition about 1317 on orders of Commander Task Force 67. Transports were formed in two columns, in line of divisions, axis 340, course 340, speed 10 knots, with SAN FRANCISCO stationed 1000 yards on the axis ahead of the transports. Speed was later increased to 14 knots and the disposition maneuvered by Commander Task Force 67 off Lunga Point. SAN FRANCISCO generally adhered to the station assigned but during the attack increased speed to 25 knots (for brief intervals) and maneuvered radically to avoid torpedoes and to enable the main and anti-aircraft batteries to fire at torpedo planes.

Torpedo planes approached undetected (or at least unreported) down the north coast of Florida Island, and came south going over Florida Island. They fanned out as they came over and appeared to break up into two groups, one approaching the formation from the southeast, the other from the northeast. AA control estimated their speed at 170 knots. Planes flew very low, literally skimming the water (less than 50 feet) and used the dark background of Florida and Tulagi Islands to reduce silhouette effect against the sky. Approach formation appeared to be excellent, planes fanning out from three plane sections.

Fire was commenced at 1408 with the 5" battery. The first bursts were on and the plane under fire crashed immediately. Salvos were fired by the main battery at ranges between 5,000 and 2,000 yards. Splashes from 8" AP projectiles were very effective in causing planes to make radical maneuvers. Our AA fire shot down one plane, damaged two planes and heavily hit the plane which crashed into Control Aft.

One torpedo passed ahead of this ship and was avoided by maneuvering. One passed forward along the starboard side. One torpedo was seen to ricochet upwards at an angle of about 45° on striking the water and nearly torpedoed the plane that dropped it. It went end over end several times and then sank. One or two were seen to porpoise during the early part of the run but apparently took their depth and ran properly. One erratic run (circular) was noted.

No hits were registered on any ships. Wakes were very distinct, more by apparent ripples on the surface of the water than by bubbles.

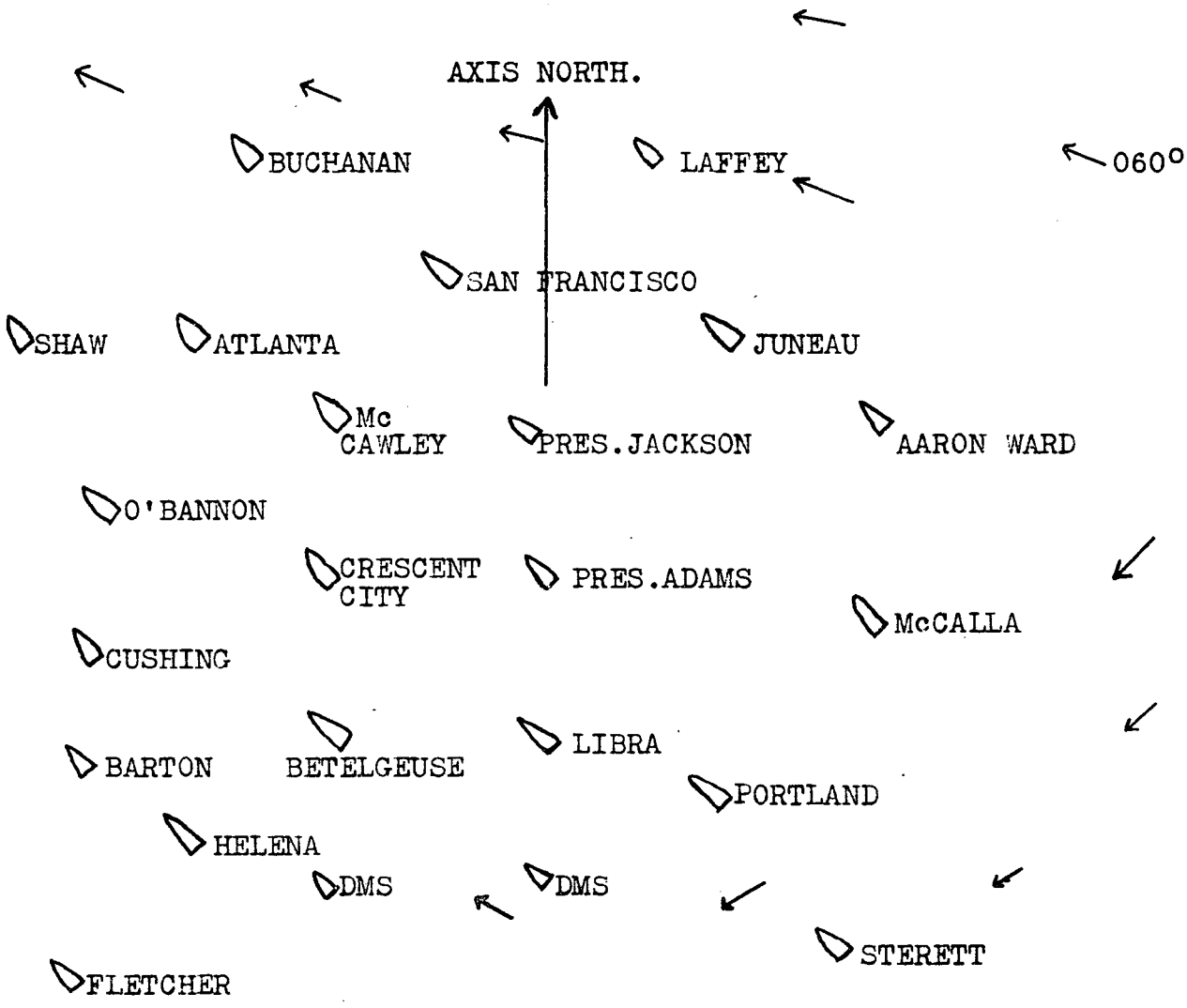
At 1416 this ship was individually attacked by an already damaged torpedo plane which dropped its torpedo on the starboard quarter (torpedo passed alongside to starboard) and plane then appeared to deliberately crash the after superstructure of this ship. Plane's right wing struck Control Aft about 170° Rel., swung around into that structure, and plunged over the port side into the sea where it crashed and burned. Considerable damage and intense fires were caused by this crash. Control Aft was demolished, Battle Two burned out, and the after AA director and after FOX CAST radar were put out of commission. Three 20mm. mounts were demolished. Wounded personnel were transferred to U.S.S. PRESIDENT JACKSON, with the exception of Commander Crouter who wished to remain aboard ship so that he could be returned to duty in a minimum of time. Commander Crouter's gallantry was ill-regarded in that he suffered additional injuries when a shell exploded in his cabin during the subsequent night action resulting in his death. The loss of personnel and disabling of equipment was most keenly felt by this vessel in the following engagement.

During the action, a submarine was seen on the surface in the vicinity of Cape Esperance, Savo Island, with one Jap torpedo plane flying low in the vicinity. Commander Task Group 67.4 was notified and the U.S.S. SHAW was despatched by him to destroy the submarine, and reports reaching this ship indicate that she destroyed this submarine by gunfire on the surface."

SPECIAL COMMENTS ON OWN FORCES.

Training opportunities for close range weapons have been entirely lacking to this vessel since the outbreak of the war. Both occasions of firing anti-aircraft weapons have been during actual combat against torpedo planes.

The importance of leading the target adequately cannot be overemphasized. The proper amount must be clearly realized in the mind of the gunner before he opens fire. Aircraft attacks are completed in such short intervals that realization of this lead cannot be gained through trial and error in actual firing. Additional training opportunity in actual firing must be given in order to effect any substantial improvement in the effectiveness of close range weapons. It is therefore recommended that gunners be sent to a pool



←Direction of Torpedo plane attack - formation slowly turned to left.

at a training base where ample firing opportunity is afforded, and that gunners be sent back to ships from the pool, after attaining expert status.

LESSONS LEARNED AND RECOMMENDATIONS.

The practicability of use of single purpose guns against low flying torpedo bombers was demonstrated by our success in downing a plane with an aimed shot from a 4"/50 Cal. gun. The effectiveness of this type of defense would be immeasurably increased by the issue of a fuzed projectile of cannister type. This is comparable to use of a shot gun, rather than rifle, in shooting ducks. The short range of torpedo plane attacks would insure the effectiveness of this type of barrage.

The Commanding Officer, U.S.S. BUCHANAN reported as follows on this air attack:

"At 1200/12 while on station off Kokum, Guadalcanal, screening transports as a part of Task Group 67.4, received orders from Commander Task Force 67 to join CUSHING off Tassafaronga, Guadalcanal, and assist that vessel in bombarding enemy landing boats visible along the beach between Kokumbona and Tassafaronga. Proceeded at 25 knots and at 1217 took station astern of CUSHING on course 310° T., speed 15 knots, distance 2100 yards from beach. At 1221 opened fire with main battery on landing boat targets visible along the beach. At 1228, following motions of CUSHING turned to course 150° T., and resumed fire at visible beach targets. Following motions of CUSHING continued firing while maneuvering at 15 knots on various courses on patrol approximately parallel to the beachline between Tassafaronga and Kokumbona. Direct hits were obtained by the two ships on approximately 25 landing boats of various sizes. One large landing boat, apparently well stacked with gasoline, burned violently after being hit. A friendly, cruiser type, observation plane, continued to fly over the area during the bombardment and assisted both ships by diving on suitable targets along and slightly inshore from the beach. Several fires were started a few hundred yards back from the beach in what appeared to be supply or equipment dumps. When the range closed to about 1500 yards, used the 1"1 and 20mm. machine guns on landing boat targets. At 1320 received word of impending enemy air attack, ceased firing and proceeded to rejoin transports at 27 knots.

At 1343 took station in anti-aircraft screen around transports on course 340° T., with SAN FRANCISCO bearing 130° T., distance 1,000 yards, McCAWLEY bearing 145° T., distance approximately 3,000 yards, ATLANTA broad on port quarter, distance approximately 1,500 yards, SHAW broad on port bow, distance approximately 1,000 yards. Commenced maneuvering on various courses at speed 14 knots in accordance with signals from OTC. At 1405 maneuvered to close distance to transports by taking station between SAN FRANCISCO and ATLANTA. At 1410, while on course 250° T., sighted formation of about twenty enemy torpedo planes, two points on the starboard bow, distance 14,600 yards. Planes descended to very low altitude and commenced approach on formation. At 1413 commenced firing at planes approaching on starboard bow, range about 12,000 yards. At 1414, on signal commenced changing course to the right to 160° T. Continued fire on approaching planes.

At 1416 one enemy plane approaching from starboard at an elevation of about 50 feet, crossed about 100 yards ahead of this vessel and was seen to drop a torpedo when about 300 yards away on the starboard bow. The wake was not sighted but it is believed this torpedo crossed ahead. There was not sufficient time to maneuver, although the ship was swinging to the new course.

At this time, 1416, BUCHANAN suffered a direct hit by a 5" shell on the after side of #2 stack. This shell approached from a relative bearing of about 200°. At about the same time two hits from 20mm. machine guns were received, one at the base of the torpedo tube mount on the port side and one on the port side of #2 gun shield. These machine gun hits resulted in only minor damage.

At about 1419 one enemy plane passed close aboard along the port side at an elevation of about 50 feet. This plane was taken under fire and hit by the port machine gun battery. As the plane drew ahead the ship was subjected to steady fire from the tail machine gun. A few hits resulted with no damage of any consequence except for one bullet which struck the port wing of the bridge and slightly injured one signalman. Continued to fire main battery at planes retiring on port bow, one of which was seen to go down as a result of shell fire. At 1422 all planes out of range, ceased firing.

Based upon the experience of this action and a similar one on August 8, 1942, it is recommended that an anti-aircraft screen employing more than six vessels not be formed closer than 3,000 yards from the vessels being screened. It is believed that an anti-aircraft screen

consisting of more than six vessels and formed closer than 3,000 yards offers the very likely possibility of vessels blanketing and shooting across each other where low altitude, high speed targets are involved. Furthermore, the lack of sea room precludes radical maneuvering to avoid an immediately impending attack on a screening vessel. During the action on August 8 collision with other vessels was narrowly averted and during the action covered by this report it was necessary to haul out directly away from the transports at high speed in order to avoid both the SAN FRANCISCO and ATLANTA which were converging sharply on either side."

The Commander in Chief, Pacific Fleet commented as follows concerning the BUCHANAN report:

"The 5" direct hit on #2 stack from an adjacent screening vessel is most regrettable. Battery officers and gun captains are directly responsible that their guns do not endanger friendly vessels. This requires alert observation and good judgement during a melee or when repelling low level aircraft attacks.

The action of the friendly observation plane during the shore bombardment was commendable and assisted materially in this successful operation.

Frequent task force defensive maneuvers against simulated air attacks will reduce the difficulties now encountered during actual attacks when close anti-aircraft screens are formed."

The Commanding Officer, U.S.S. HELENA reported on this air attack as follows:

"The attack began on schedule, as warning had been received that enemy planes would arrive at 1415. At 1414 planes were sighted approaching over and around Florida Island flying low.

THE JAPS APPEAR TO KNOW THAT BY FLYING LOW THEY CAN AVOID RADAR DETECTION.

The attack consisted of three flights of twin-engine MITSUBISHI bombers operating as torpedo planes. One group of seven attacked from the starboard bow of the formation. Two of the group were seen shot down by ships anti-aircraft fire. Two groups, the first of approximately nine planes, and the second of approximately five planes, attacked from the starboard quarter of HELENA, flying low and fanned out

slightly. Sky Aft of HELENA controlling the starboard 5" battery, opened fire at a range of approximately 14,000 yards.

FIRE APPARENTLY OPENED WELL OUTSIDE RANGE BUT THE RESULTING BARRAGE HAD A DEFINITE EFFECT IN BREAKING UP THE ATTACK.

40mm. mount #3 opened fire shortly thereafter in order to build up a barrage in front of the attacking planes. One plane was attacked by two F4-F's and crashed on the beach crossing far astern of the HELENA. The initial fire was believed effective, as the formations were seen to waver and break up. Some of the planes crossed astern of the HELENA and diverged off to port. The port 40mm. and 20mm. battery opened fire on one of these planes and it was seen to be hit in the belly and shot down. Sky Forward, controlling the port battery, took one plane under fire at about 5,000 yards and finally shot it down on the port beam, range about 12,000 yards. Fighters attacked the remaining planes as they passed out of range. Two planes passed to starboard of the HELENA about 600 yards distant, between the ship and convoy. The leading plane was hit by the forward 20mm. guns and crashed in flames. The second plane was fired on by the entire starboard automatic weapon battery, was hit squarely and crashed in flames. Owing to the position of the transports on the starboard beam, fire of the battery was restricted after the attacking planes passed forward of the quarter. Fortunately a good clear shot was offered as they came in on the quarter, and after they had passed ahead. The main battery fired five salvos from Turret #2 and two salvos from Turret #1 as the planes passed from starboard to port bow. No hits were observed.

The firing of the main battery against low flying planes is not considered generally advisable inasmuch as the fire is ineffective and to a certain extent reduces the efficiency of the automatic weapons battery as well as the 5" because of blast and smoke.

A SWEEP CURTAIN BARRAGE BY MAIN BATTERY AGAINST LOW FLYING TORPEDO PLANES MIGHT ASSIST IN THE PROTECTION OF THE TRANSPORTS.

The fire control radars (FD) were not effective during the attack owing to the myriad signals on the screen and the inability to determine the proper target. The problem was further complicated by land signals and signals from the convoy.

OPERATING PERSONNEL MUST HAVE A REALIZATION AND KNOWLEDGE OF THIS EQUIPMENT, ITS LIMITATIONS AND CAPABILITIES.

The attack was not a surprise. Warning of about 45 minutes was given which was ample to get the convoy underway and form the screen.

THE WARNING SYSTEM IN THIS AREA APPEARS TO BE QUITE EFFECTIVE. AN EFFICIENT SYSTEM IS ESSENTIAL. THE SYSTEM HERE SEEMS TO BE COAST WATCHER AND RADAR.

Planes were picked up by binoculars, radar and naked eye as they approached over Florida Island. Type radar "FD" and "SC-1".

Planes were picked up about 20 miles away. Visibility in direction of the attack being excellent.

IN SPITE OF ANY TYPE OF DETECTION, LOOKOUTS ARE ESSENTIAL AND SHOULD BE CONTINUOUSLY TRAINED.

Twenty one planes were counted in groups of 7, 9 and 5.

Planes were believed to be MITSUBISHI Type 98 heavy bombers, used as torpedo planes.

Planes approached at a speed of about 160 MPH at low altitude (intermediate and low).

Approximate range first shot - 14,000 yards.

Approximate range last shot - 12,000 yards.

Torpedo release height was between 50 and 150 feet.

Approximate range of torpedo release: attempts were made to drop at close range, but the fire of the formation was so heavy that few drops were observed. Size of torpedo unknown.

The plane shot down by the 5" fire seemed to be literally hammered down. Those shot down by 40mm. and 20mm. appeared to be hit in gas tanks and burst into flames.

NARRATIVE - CONTINUED.

At 1800 Task Group 67.4 got underway and took battle formation, order of ships in column: CUSHING, LAFFEY, STERETT, O'BANNON, ATLANTA, SAN FRANCISCO, CTG 67.4 Rear Admiral Callaghan, PORTLAND, HELENA, JUNEAU, AARON WARD, BARTON, MONSSEN, FLETCHER.

THIS BATTLE FORMATION DID NOT RECOGNIZE THE DIFFERENT TYPES OF SHIPS WITH THEIR DIFFERENT ARMAMENTS AND CAPABILITIES. IT DOES NOT APPEAR SOUND TO GO INTO BATTLE IN A COLUMN LED BY FOUR DESTROYERS FOLLOWED BY ONE CL/AA, TWO 8" HEAVY CRUISERS, ONE 6" CRUISER, ONE CL/AA AND THEN FOUR DESTROYERS, IN THAT ORDER. WHY TYPES WERE NOT GROUPED TOGETHER FOR MUTUAL SUPPORT AND SO STATIONED TO BRING THE GREATEST FIGHTING EFFECT INTO PLAY IS NOT KNOWN. DESTROYERS ARE ESSENTIALLY AN OFFENSIVE WEAPON, PARTICULARLY AT NIGHT WITH THEIR TORPEDO BATTERIES. DESTROYER GUNFIRE AT NIGHT IS SECONDARY TO TORPEDOES. THE FOUR DESTROYERS IN THE REAR COULD HAVE BEEN MORE EFFECTIVELY EMPLOYED IN THE VAN CONCENTRATED WITH THE OTHER DESTROYERS PREPARED TO MAKE A HIGH SPEED TORPEDO ATTACK AND RETIREMENT FROM THE IMMEDIATE VICINITY OF THE ACTION. THE THREE TYPES OF CRUISERS MIGHT HAVE BEEN BETTER EMPLOYED CONCENTRATED BY TYPES, MUTUALLY SUPPORTING EACH OTHER TYPE. ONE OF THE REASONS FOR THIS ARRANGEMENT OF SHIPS IN THE BATTLE FORMATION MAY HAVE BEEN CONSIDERATION OF AVAILABILITY OF SG RADARS AND ENEMY THREAT ON FLANK AND REAR OF FORMATION BY TORPEDOES. IT IS NOT CLEAR WHY THE SECOND IN COMMAND WAS PLACED AHEAD OF THE OTC IN COLUMN UNLESS IT WAS INTENDED THAT THE ATLANTA SUPPORT THE VAN DESTROYERS. ATLANTA CARRIED TORPEDOES. THE EMPLOYMENT OF A CL/AA IN THE BATTLE LINE DOES NOT APPEAR SOUND. THIS TYPE IS ESSENTIALLY AN ANTI-AIRCRAFT CRUISER. COMMAND MUST RECOGNIZE FUNCTIONS OF VARIOUS TYPES OF SHIPS AND EMPLOY THEM PROPERLY. THE OTC SHOULD USE A SHIP EQUIPPED WITH THE BEST RADAR UNTIL ALL SHIPS ARE SO EQUIPPED. THE SAN FRANCISCO WAS NOT THE BEST EQUIPPED SHIP. A MUCH BETTER ARRANGEMENT OF SHIP CONSIDERING RADAR ONLY, MIGHT HAVE BEEN MADE RESULTING IN MORE SUCCESS. PORTLAND, HELENA, JUNEAU,FLETCHER AND O'BANNON HAD SG RADAR. THE HELENA WOULD HAVE BEEN AN IDEAL FLAGSHIP WITH HER EXCELLENT RADAR EQUIPMENT. LIKEWISE, THE SENIOR DESTROYER DIVISION OR SQUADRON COMMANDER SHOULD

HAVE BEEN IN THE FLETCHER SO A COORDINATED RADAR CONTROLLED TORPEDO ATTACK COULD HAVE BEEN MADE.

This formation proceeded east through Sealark Channel screening the retirement of Task Group 67.1 from Cactus Area through Lengo Channel.

Wind from 120°, 9 knots; sea smooth, swells from 125°; sky partly cloudy but clear overhead. Jagged lightening over land areas especially in mountains on Guadalcanal and Florida Island.

CHRONOLOGICAL LOG OF BATTLE OF HELENA AND STERETT.

November 12

2203 - Task Group 67.4 completed covering retirement of transport group. Reversed course through south and headed for Lengo Channel, course 270°T., speed 18 knots. (See track chart).

Distance between DD's 500 yards. Distance between types 800 yards. Distance between cruisers 700 yards.

500 YARDS BETWEEN DESTROYERS GIVES AMPLE MANEUVERING ROOM TO DESTROYERS BUT MAKES STATION KEEPING AT NIGHT MORE DIFFICULT. 350 YARDS MIGHT BE BETTER.

November 13

0028 - Changed course to 285° T. Received "Condition Red" over warning net from Guadalcanal. Enemy planes coming in from north, distance 26 miles. CTF 67.4 reported this to TF 67.4.

0124 - HELENA radar contact (SG radar) bearing 312° T., distance 27,100 yards.

0125 - HELENA radar contact (SG radar) bearing 310° T., distance 31,900 yards. (Note: Above two contacts appeared to be several large ships with screen).

AT THIS TIME (0125) A TURN TO THE NORTH-WEST AND ATTACK THE ENEMY FROM THE FLANK (NE) INITIALLY WITH A DESTROYER TORPEDO ATTACK MIGHT HAVE LED TO MORE SUCCESS. CRUISERS COULD HAVE ROUNDED SAVO ISLAND COUNTER-CLOCKWISE AND ENGAGED THE ENEMY FROM THE WESTWARD THUS PREVENTING HIS ESCAPE.

0127 - Van unit from SAN FRANCISCO "Take course 310° T."

0130 - HELENA picked up enemy ships on FD radar on port bow, 14,500 yards, and began tracking nearest large unit.

0132 - TBS - SAN FRANCISCO from HELENA - "Contact course 105°, speed 23."

0134 - HELENA, while tracking, continued all around search which revealed screening body of main group. Van unit ordered to take course 000° T.

0135 - Changed course to 310° T.

0137 - Changed speed to 20 knots.

0139 - Four targets on port bow of HELENA, course 315° T., speed 10 knots.

0140 - PORTLAND changed course by column movement to 000° T.

0141 - Leading destroyer reported seeing ships dead ahead and on port bow. SAN FRANCISCO asked O'BANNON "What is range?"

DOCTRINE SHOULD HAVE PROVIDED FOR A TORPEDO ATTACK AND HIGH SPEED RETIREMENT TO NORTHWEST TO COVER ENEMY RETIREMENT. IF LEADING DESTROYER HAD HAD SG RADAR, SHE WOULD NOT HAVE BEEN OBLIGED TO WAIT UNTIL SIGHT CONTACT HAD BEEN MADE.

0142 - About this time the SG of PORTLAND showed four ships in a SW to NE line, eastward of Savo. The third ship from SW gave a large echo, believed to be a battleship. The other three were cruisers or destroyers. This force was moving toward Florida Island.

0143 - Destroyers in van launched torpedo attack.

---- - TBS - SAN FRANCISCO from HELENA, "Range 2,246."

---- - TBS - SAN FRANCISCO from CUSHING, "Looks like dead ahead on port bow."

---- - TBS - Van Unit from SAN FRANCISCO, "What is their course?"

---- - TBS - SAN FRANCISCO from Van Unit, "There is a ship crossing bow from port to starboard, range 4,000 yards, maximum."

---- - TBS - Van Unit from SAN FRANCISCO, "What do you make of it now?"

---- - TBS - SAN FRANCISCO from HELENA, "We have a total of about ten targets."

---- - TBS - "FLETCHER have you come around yet?"

---- - TBS - "I have come 25° to left."

---- - TBS - "Can you let them have a couple of fish?"

"Wilco," "Do so."

---- - TBS - SAN FRANCISCO from HELENA, "Appear to be in cruising disposition."

---- - TBS - Van Unit from SAN FRANCISCO, "What is bearing now?"

0146 - At about this time, column movement 90° left to 270° was believed ordered.

---- - TBS - SAN FRANCISCO from Van Unit, "They bear 60 from last course you ordered."

---- - TBS - to or from HELENA, "Do you still have target in sight?"

---- - TBS - "There are some ships on starboard in cruising disposition. Also few on port. Standby to open fire."

DOCTRINE FOR NIGHT ACTION SHOULD HAVE PROVIDED FOR OPENING FIRE AT TARGETS OF OPPORTUNITY WHEN SHIP WAS READY AND HAD PROBLEM SOLVED.

---- - TBS - "ATLANTA, what are you doing?"

---- - TBS - From ATLANTA, "We ---------destroyer."

---- - TBS - Van Unit from SAN FRANCISCO, "Come back to your course as soon as you can. You are throwing whole column into disorder."

---- - TBS - Van Unit from SAN FRANCISCO, "What do you have on starboard hand now?"

---- - TBS - Van Unit from SAN FRANCISCO, "Are you back?"

---- - TBS - SAN FRANCISCO from JUNEAU, "We have several ships on starboard."

---- - TBS - "All hands hold your course."

0148 - HELENA commenced firing. Opening range 4,300 yards. Fired on furthest target to left. Fired two or more minutes after target illuminated ship and hit our searchlight platform. (Clock in D/F shack stopped at 0148.)

HELENA HAD PROBLEM WELL SOLVED IN ADVANCE AND SHOULD NOT HAVE BEEN OBLIGED TO WAIT FOR ENEMY TO INITIATE ACTION AT SUCH A CLOSE RANGE OF 4,300 YARDS. HELENA'S ARMAMENT OF 6" GUNS ARE CAPABLE OF INFLICTING GREAT DAMAGE AT GREATER RANGES.

0148 - OTC ordered commence firing, odd numbered ships to starboard, even to port. STERETT had a complete fire control solution of heavy unit on port bow but immediately ordered action starboard in order to avoid any confusion or undue concentration on targets. STERETT course was then 000° T., speed 18 knots. She had sight contact of three ships on her starboard bow and one to port. One of the ships to starboard appeared to be the size of a cruiser.

WHY WERE NOT ALL VAN DESTROYERS DELIVERING A TORPEDO ATTACK AT THIS TIME? DOCTRINE APPARENTLY HAD NOT PROVIDED FOR IT. IT IS DOUBTFUL WHETHER THE OTC HAD A CLEAR PICTURE OF THE SITUATION.

Shortly after sight contact ComDesDiv 10, in CUSHING, leading destroyer, turned to left apparently to parallel enemy track. LAFFEY followed and STERETT

had started left when OTC ordered ComDesDiv 10 to resume column formation. Some ships commenced fire immediately. One enemy ship to port played searchlight on our formation.

COMPLETE SURPRISE WAS NOT ACHIEVED. IT SHOULD HAVE BEEN AND FIRE OPENED BEFORE THE ENEMY ILLUMINATED OUR FORCE. COMDESDIV TEN APPEARS TO HAVE ATTEMPTED TO MAKE AN ATTACK BUT WAS PREVENTED BY OTC.

0149 - STERETT opened fire on largest vessel in starboard group, range 4,000 yards, opening. This target was sharp on bow and silhouette too vague for torpedo attack. The order for leading destroyer to resume column prevented STERETT from making a coordinated torpedo attack at this time.

A COORDINATED DESTROYER TORPEDO ATTACK SHOULD HAVE TAKEN PLACE CONSIDERING THE CLOSE RANGE. DESTROYERS WERE NOT EMPLOYED PROPERLY. THEY SHOULD BE USED OFFENSIVELY. THEIR TORPEDOES ARE THEIR PRIMARY WEAPONS AND SHOULD BE USED PROPERLY AT EVERY OPPORTUNITY.

Shortly after STERETT opened fire to starboard, an enemy large ship on port hand of STERETT began firing at our cruisers and opened a searchlight. This made it more difficult for STERETT to see her target. Fire control radar on STERETT was of great assistance at this time. Thirteen salvos were fired at this target by STERETT. Fire broke out on target illuminating forecastle of cruiser. Two turrets could be definitely seen forward of bridge. Several observers on STERETT insist they saw three turrets forward. Only two stacks were sighted but there could have been three. Best estimate is that this was of the NATORI class.

0149 - HELENA hard left and right rudder, various speeds,
0153 final course 000° T.

0151 - STERETT received hit on port quarter cutting starboard cable to steering gear and rudder was momentarily jammed. Ship was maneuvered by engines. During this period O'BANNON came up on our starboard hand and STERETT checked fire. The cruiser was burning fiercely forward at this time. Several minutes later there was a heavy explosion in this cruiser. It is believed she blew up, probably due to fire from some

other ship in our group. The CUSHING and LAFFEY were under heavy cross-fire during this period and sight contact of them was lost by STERETT.

0155 - Order over TBS from OTC to "Cease fire."

WHY DID OTC ORDER CEASE FIRING AT THIS TIME? IT INDICATES THAT CONSIDERABLE UNCERTAINTY AND CONFUSION EXISTED.

Large explosion off port bow of HELENA. Considered target fired at by HELENA was sunk.

0157 - Hard right rudder by HELENA to avoid ship which passed from starboard to port at right angles. Ship either ATLANTA or JUNEAU. (Believed ATLANTA.)

0200 - Ship ahead of HELENA illuminating.

TO ILLUMINATE UNNECESSARILY INVITES DISASTER.

0201 - PORTLAND turned off to starboard.

0202 - PORTLAND torpedoed.

0204 - HELENA engaged enemy to port range 9,200 yards and ceased firing at 0206 when six enemy ships were observed 5,000 yards on starboard bow, approximate bearing north.

AN IDEAL OPPORTUNITY FOR THE REAR DESTROYERS TO ATTACK WITH TORPEDOES.

0205 - STERETT under heavy fire from port. Numerous near misses and many shells passed overhead. About this time foremast was hit disabling SC radar, emergency identification lights, and TBS transmitting antenna, and wounding one officer and two men in gun director. Temporary emergency lights and antenna were rigged. STERETT ordered action port and designated KONGO class battleship as target. This target was plainly visible, illuminated by starshells and by flare from a burning ship to the southward. STERETT closed range to 4,000 yards, then 2,000 yards. Fired full salvo of four torpedoes, normal spread shortly thereafter, and opened fire with 5"/38 on bridge structure. Two torpedoes were seen to hit, causing two explosions aft. The torpedoes were "clocked" and time checked with explosion. A number of direct 5" hits were observed.

LEGEND

A. Main enemy group at 0124 bearing 310° T., Range 31,900 yards, Course 134°, Speed 22 knots.

B. Advanced enemy group at 0124 Bearing 312°, Range 27,100 yards.

C. Another enemy group at 0134 Bearing 322°, Range 16,500, Course 120°, Speed 21.

D. AARON WARD opened fire on enemy BB or CA at 0149.

E. AARON WARD opened fire on enemy DD at 0209.

F. Enemy CL sank at 0209.

G. AARON WARD opened fire on enemy DD at 0213.

H. ATLANTA at 0600.

I. MONSSEN at 0600.

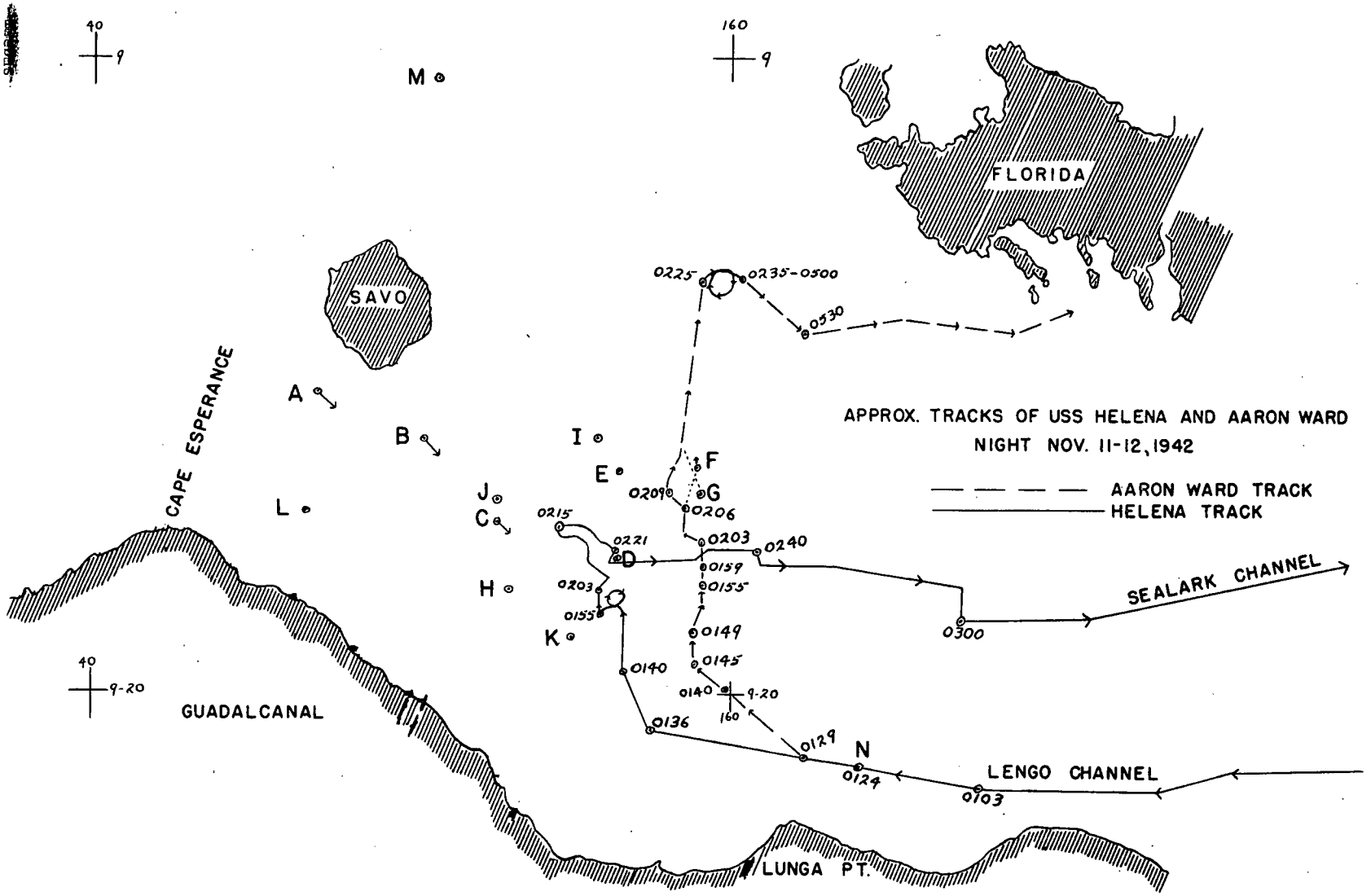
J. CUSHING at 0600.

K. PORTLAND at 0600.

L. Enemy DD sunk by PORTLAND fire at 0615.

M. Enemy BB firing at AARON WARD at 0630.

N. At 0124 HELENA SG radar picked up 3 groups of ships bearing 310-312° T., Range 27,000 to 32,000 yards.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GUADALCANAL
LUNGA PT.
APPROX. TRACKS OF USS HELENA AND AARON WARD
NIGHT NOV. 11-12, 1942
AARON WARD TRACK
HELENA TRACK

This battleship had been under fire by other ships in our force. A few minutes later, STERETT saw men abandoning battleship going over the side fore and aft. STERETT was then within 2,000 yards of battleship and under heavy cross-fire.

STERETT APPEARS TO HAVE HAD A GRASP OF THE SITUATION AND TO HAVE TAKEN ADVANTAGE OF EVERY OPPORTUNITY.

0210 - HELENA changed course to right. JUNEAU or ATLANTA (believed ATLANTA) on fire on starboard beam bearing 160° T.

0212 - "Enemy cruiser on starboard bow" of HELENA.

0214 - HELENA took station astern of PORTLAND.

0215 - Commenced firing by HELENA on course 115° T. "Hard right rudder." Opened fire at 16,300 yards bearing approximately 110° Rel. Enemy course 330° T. Enemy speed 17.

ENEMY WAS APPARENTLY CONFUSED, HAD SUFFERED DAMAGE AND WAS RETIRING TO THE NORTH. WE FAIL TO TAKE ADVANTAGE OF OUR OPPORTUNITIES ON ACCOUNT OF NO DOCTRINE AND FAILURE TO EMPLOY OUR SHIPS FOR THE FUNCTION THEY WERE DESIGNED.

0218 - PORTLAND lost steering control.

0220 - (Approx.) A Jap destroyer of the FUBUKI class was silhouetted 1,000 yards on STERETT's starboard bow, target angle 120°, and STERETT immediately ordered torpedo battery to fire two torpedoes and 5" battery to open fire on destroyer. Two torpedo hits were definitely scored. Only two salvos of 5" had been fired and were hitting squarely when the torpedoes hit the destroyer causing large explosions lifting ship out of water and starting fires forward and aft. This destroyer positively sank almost immediately.

0224 - HELENA illuminated by searchlight.

0227 - STERETT received numerous hits on port quarter. STERETT was thoroughly illuminated when enemy destroyer to starboard exploded.

0230 - STERETT was burning fiercely aft and was at this time completely separated from own force. Colors and after part of ship were illuminated. Only two guns were serviceable. Two torpedoes were still in the starboard nest but one 5" hit had put this battery out of commission. When torpedo officer stated that it was impossible to fire this battery, STERETT retired at high speed, slowing from time to time to reduce "draft" when fire appeared to be getting out of control. Remainder of the force had already retired. DRT had been disabled during afternoon air attack. Ship was headed east to clear area then south until close to Guadalcanal shore.

STERETT APPEARS TO HAVE DONE A MAGNIFICENT JOB. SHE WAS FOUGHT BOLDLY AND WITH DETERMINATION. LEADERSHIP WAS LACKING HOWEVER AS WELL AS PROPER DOCTRINE.

0231 - HELENA received message from PORTLAND requesting tow.

0232 - HELENA assumed guide and proceeded through Sealark Channel followed by SAN FRANCISCO.

0240 - SAN FRANCISCO told HELENA to take charge.

0312 - HELENA changed speed to 15 knots. Large explosion bearing about 278° T. from HELENA.

0311 - STERETT heard and sighted heavy explosion in large ship bearing 345° T. That ship was burning from stem to stern but did not sink at this time. Six or seven burning ships were in sight during the retirement by STERETT.

IT WOULD BE TOO OPTIMISTIC TO ASSUME THAT NONE OF OUR SHIPS WERE BURNING IN THIS AREA.

0345 - HELENA passed clear of Sealark Channel.

0600 - STERETT joined HELENA, SAN FRANCISCO, JUNEAU, O'BANNON and FLETCHER.

The commanding officer of the U.S.S. PORTLAND reported as follows:

0150 - At about this time the PORTLAND was starting the turn to the left to 270°. About five evenly spaced enemy searchlights illuminated from about 45° on the port bow to about 30° on the starboard bow.

Captain ordered "Action Starboard," and ordered "commence firing on vessels in left group." Firing opened between both forces.

SURPRISE APPARENTLY LOST. THE ENEMY ILLUMINATED FIRST, FIRED FIRST AND HIT FIRST.

0152 - About this time the starboard battery was unmasked, and the main and AA batteries commenced firing. Visibility was poor from this point, due to own gun flashes, burning ships, flares, and starshells. At about this time enemy searchlight illumination ceased. Own firing was continuous. An enemy destroyer was blown from the water on our second salvo.

0152½ - Received shell hit in starboard hangar. No fire, negligible damage. Executive officer received a fragment wound in the right shoulder, and about twelve men received fragment or shrapnel wounds or bruises.

FIRE HAZARDS APPEAR TO HAVE BEEN ELIMINATED.

0153 - TBS - From SAN FRANCISCO, "Cease firing own ships." (Note: This order was disregarded by all vessels, apparently.)

THE OTC APPEARS TO HAVE ENTERTAINED FEAR OF OWN SHIPS FIRING AT EACH OTHER. SHIPS WITH SG RADAR AND GOOD VISUAL SIGHT APPARENTLY CONTINUED FIRE BECAUSE THEY WERE CONFIDENT OF ENEMY CHARACTER OF THEIR TARGETS AND THEY KNEW IF THEY DID NOT KNOCK THE ENEMY OUT, THEY WOULD BE KNOCKED OUT.

TBS - SAN FRANCISCO from PORTLAND, "What is the dope, did you want to cease fire?" Answer from SAN FRANCISCO, "Affirmative."

TBS - PORTLAND from SAN FRANCISCO, "All ships take course 000°." Came right to 000°. Resumed fire, opening on enemy cruiser on starboard beam, 7,000 yards.

0158½ - While loading for the third salvo to be fired at the cruiser, the ship received a torpedo hit near the stern on the starboard side, shearing the inboard screws, flooding steering aft, and bending out the shell plating on the starboard side to form an extensive right rudder.

JAP TORPEDO ATTACKS ARE THE BIGGEST THREAT. THEY APPEAR TO SUCCEED IN FIRING WELL PLACED TORPEDO SALVOS. THEY HIT FROM THE FLANK AND ALSO FROM THE DISENGAGED SIDE. THEY UNDOUBTEDLY USE DESTROYERS AND CRUISERS AS WELL AS SUBMARINES WELL PLACED IN AREA.

Explosion centered at frame 134. Ship began circling to right, and turning could not be counteracted by the two outboard screws. A 4° list to starboard was promptly removed. As the first swing to the right was completed a HARUNA type battleship became clearly visible. Fire was opened on the battleship and continued by the forward turrets throughout the swing, four hitting salvos being fired, range 4,000 yards. Sometime later the HELENA drew forward along our starboard side, and passed clear. At about the same time a friendly destroyer was about 1,000 yards to port. The four salvos fired at the battleship concluded this vessel's main battery firing. In the confused picture of burning and milling ships it became impossible to distinguish friend from foe. The action drew away from this vessel. Starshell illumination of the enemy was continued as long as they remained within range.

0230 - (About). TBS - All ships from HELENA, "Show fighting lights momentarily." Fighting lights were lighted and turned off.

0235 - PORTLAND position Lat. 09° 18' S., Long. 159° 58' E. Still turning in tight circles. By this time most of the firing had ceased, with some firing to northward. About this time SAIL GEORGE observed three vessels retiring around Savo Island. One passed to southward, two to northward. About this time, or shortly after, HELENA ordered our ships to "Form 18" to retire toward Sealark Channel. After the firing had nearly died out or stopped altogether, about nine ships were burning. One appeared to be a NACHI class cruiser which exploded about 0400. Other occasional explosions were observed on burning ships, and one TENRYU class cruiser, or large destroyer, is believed to have blown up. About 0400 the ATLANTA was observed to be burning.

0630 - Sank the SHIGURE class destroyer south of Savo Island with six gun salvos, range 12,500.

0820 - Received damage report from ATLANTA stating that if tow was not available, conditions warranted scuttling and requesting instructions. Directed ATLANTA to act at discretion.

0908 - Set Condition III in attempt to rest crews which had been in Condition I throughout two nights.

1115 - ATLANTA reported flooding beyond pumping capacity and jettisoning topside weights.

1432 - BOBOLINK came alongside starboard side, abreast Well Deck, having anchored ATLANTA off Lunga Point.

1850 - Sighted red flare and red steadly burning light near Savo Island. Received report of enemy battleship near Sandfly Passage. Sounded General Quarters.

2000 - Position 09° 17' S., 160° 03' E.

SUMMARY OF DAMAGE TO ENEMY.

A. By PORTLAND:

(1) HIBIKI Class destroyer sunk during action.

(2) Several hits on unidentified cruiser.

(3) Hit HARUNA type battleship many times (estimated ten to fourteen hits) with four salvos, at about 4,000 yards.

(4) Sank SHIGURE type destroyer off Savo Island at 0630.

B. Observed by PORTLAND in addition to (A) above:

(1) One large vessel, at least light cruiser, blew up during the action. At least three destroyers, unidentified, were seen to blow up.

(2) After the action, and at about 0300, nine ships were burning, only three of which could have been friendly, the ATLANTA, CUSHING and MONSSEN. At 0330 NACHI type cruiser (or possibly HARUNA type battleship) blew up, and a TENRYU, or possibly a heavy destroyer also. At daylight, one HARUNA type battleship, later hit by Guadalcanal aircraft, and one unidentified cruiser, were NW of Savo.

THIS ESTIMATE OF DAMAGE INFLICTED ON THE ENEMY IS ON THE OPTIMISTIC SIDE.

The gunnery officer, U.S.S. PORTLAND states as follows:

At about 0127, while on course 280°, speed 18, the first radar contact with the enemy was reported by the HELENA, range 31,900 yards, bearing 310°. At about 0142 the PORTLAND made her first radar contact on SG radar, showing about three echoes from 305° T., to 320° T., range 11,000 to 14,000 yards. The FC radar on main battery Director Two then picked up the contact about 30° on the port bow, and tracking was commenced by the plotting room.

PORTLAND APPEARS NOT TO HAVE GOTTEN THE MOST FROM HER RADAR. PORTLAND'S FIRST SG RADAR CONTACT WAS FIFTEEN MINUTES AFTER HELENA CONTACT.

At about 0146 our leading destroyers made a column left 90°, reporting that enemy groups were on both bows on present course. They were followed in turn by succeeding ships in the column. Just as the PORTLAND came up to the turn and put over the rudder, an enemy vessel on our port bow illuminated our leading destroyers. Several other enemy ships in this group illuminated immediately thereafter, and ships at the head of our column counter-illuminated.

IT IS UNFORTUNATE ADVANTAGE WAS NOT TAKEN BY OUR FORCES WITH THEIR RADAR INFORMATION. THEY SHOULD HAVE BEEN ABLE TO FIRE FIRST WITHOUT ILLUMINATION.

Fire was opened by both forces practically simultaneously. At the same time another group of enemy ships further to the right, also turned on searchlights.

"Action starboard" was given by the commanding officer, followed by orders to open fire on enemy vessels of the left group. During the turn the main battery was kept on the designated bearing by radar contact and the plotting room obtained an approximate solution on the target. As soon as the PORTLAND swung sufficiently left to unmask the starboard AA battery, illumination by starshells was begun.

THIS ILLUMINATION WAS UNNECESSARY AND POSSIBLY CONTRIBUTED TO TORPEDO HIT.

By this time an enemy vessel on the designated bearing, which had just turned on her searchlights, was picked up optically by main battery Director One. The plotting room solution was verified by Spot One, and fire was opened at range 6,200 yards by Turrets I and II, Turret III not yet having had opportunity to match up.

PORTLAND APPEARS TO LACK CONFIDENCE IN HER RADAR.

When the first salvo landed at least four bursts of flame lept from the enemy vessel, which by this time was recognized as a destroyer. The second salvo was fired and the destroyer exploded and sank immediately. This vessel was later identified from silhouettes as of the HIBIKI class, and probably was the AKUTSUKI.

Check fire was given and a new target picked up on about the same bearing, range about 7,000 yards. Visibility at this point was poor, as flares were burning between the two forces and the smoke from gunfire was getting heavy. This second target was not positively identified, but is believed to have been either a light or heavy cruiser.

DURING A NIGHT ENGAGEMENT IT IS EXTREMELY DIFFICULT TO IDENTIFY TARGETS AND TO ACCURATELY OBSERVE DAMAGE INFLICTED.

Two 9-gun salvos were fired, and several hits from each salvo were observed. The after FC radar was functioning perfectly and the opening range was right on. The ship began to burn at several points. Just as the turrets were completing their loads for the third salvo (fifth of the action) a violent explosion occurred aft, which proved to be a torpedo hit in the starboard quarter at frame 135. Just previously enemy destroyers had been reported on the starboard quarter close aboard, and the AA battery had fired a search spread of starshells in that direction without seeing anything. However, the wake of the torpedo was seen coming from the starboard quarter.

AA BATTERY WITH RADAR CONTROL MIGHT HAVE BEEN BETTER EMPLOYED FIRING AT DESTROYERS INSTEAD OF FIRING STARSHELLS.

The ship immediately began to swing hard right, and steering control was completely lost. During the remainder of the engagement it was impossible to maneuver the ship by the engines in other than a tight right-hand turn. Turret III was jammed in elevation and train by this explosion, but otherwise the ship's armament was unimpaired. The two inboard propellors were blown off, but speeds up to 20 knots were maintained when necessary, and the ship remained steaming in a tight circle until daylight.

A very short time after the torpedo hit, when the ship had made a full turn, a HARUNA type battleship was picked up by Directors One and Two to starboard. This ship was adequately illuminated by the many flares and stars which were everywhere, as well as the fires of several burning ships. The after FC radar functioned sporadically due to excessive vibration, but a range of 4,200 yards was obtained which proved excellent. Fire was opened when the battleship was almost dead ahead, and four 6-gun salvos were fired as we swung around. The battleship was firing at us, but practically all of her salvos were passing overhead. We were hit twice by what appeared to be 14" bombardment shells which dissipated their force without serious penetration of our starboard side. The battleship was an excellent target and was hit many times by all four salvos. Flames broke out immediately, and were particularly fierce around the pagoda superstructure.

As we continued to swing in a circle the situation at this point became extremely confused, and it was impossible in many instances to distinguish friend from foe. A large ship, at least the size of a light cruiser, blew up in a tremendous blast and vanished. The SAN FRANCISCO was identified burning rather badly but still firing. The HELENA came by close aboard with all guns blazing. No other ships could be identified at this time, and the action began to draw away from us. Orders were received at about this time from Commander Task Group 67.4 to turn on recognition lights which was done for a short time by this ship. Due to smoke and flares it was impossible to tell whether any other ship complied as no recognition lights could be distinguished by this ship.

At daylight, about 0530, the following ships were in sight:

(a) ATLANTA, lying to but not burning, 5,000 yards to southward.

(b) A SHIGURE class destroyer lying to, not burning, 12,500 yards to westward, just south of Savo Island.

(c) CUSHING, burning badly, 8,000 yards to northwest.

(d) MONSSEN, burning badly, 10,000 yards to northward.

(e) A HARUNA class battleship and one unidentified Jap cruiser hull down, 35,000 yards to northwest.

(f) AARON WARD, 15,000 yards to northward.

At 0630, after positively identifying the SHIGURE class destroyer, we opened fire on it, range 12,500 yards. Six 6-gun salvos were fired, she was hit several times, and when the 6th salvo landed her after magazines blew high in the air and she sank immediately. It was noted that two small boats were standing by her at the time.

At about 0700, the Japanese battleship fired two single gun salvos at the AARON WARD. No hits were obtained.

At about 1400 commanding officer of the ATLANTA stated that he was unable to check flooding and would have to abandon and scuttle ship. Authority was granted to do so by commanding officer, PORTLAND as SOPA. The crew of the ATLANTA was taken off by Higgins boats and and demolition party set to work.

The following comments were made by the various commanding officers:

U.S.S. HELENA.

As stated in the HELENA's report of the Night Action off Savo Island on October 11-12, Reference (k), Para. 1 (1) and 1(5-c), the value of the SAIL GEORGE radar cannot be over-emphasized. It was invaluable, and was the sole means of keeping the OTC informed of the enemy prior to sight contact. The OTC was informed of the approximate formation, general size of ships (large or small),bearing, distance, course and speed. This information started at about 31,900 yards on true bearing 310°. It was necessary

to send this in voice code via TBS as the flagship was not equipped with SG radar and therefore must rely on outside information. With this invaluable instrument available every possible effort should be made to at least equip flagships with it.

THE CONTINUOUS USE OF TBS JEOPARDIZES SURPRISE.

Reference (k), Para. 1(1) and 1(5-c) of HELENA's Action Report, October 11-12.

"1(1). THE OUTSTANDING EVENT IN THIS SHIP'S OPERATION WAS THE FACT THAT THIS WAS A NIGHT ACTION BETWEEN LIGHT FORCES OF APPARENTLY NEARLY EQUAL STRENGTH. THE TARGET WAS PICKED UP AT ABOUT 28,000 YARDS BY SAIL GEORGE RADAR AND COMPLETELY DEVELOPED AS TO COURSE, SPEED AND PROBABLE COMPOSITION. NO ILLUMINATION WAS USED AND FIRE WAS OPENED WITH WHAT IS BELIEVED TO BE A STRADDLE USING RADAR RANGE AND BEARING, AND THIS FIRST ENEMY TARGET WAS SUNK OR DISAPPEARED FROM SIGHT AND RADAR SCREEN IN ABOUT TWO MINUTES. AGAIN THE IMPORTANCE OF AN ACCURATE OPENING FIRE ON THE ENEMY BEFORE HE OPENS FIRE WAS EMPHASIZED AND BORNE OUT.

1(5-c). THE EFFECTIVENESS OF THE SG RADAR WAS CLEARLY SHOWN IN THIS ACTION. THE PPI SCOPE GAVE A CLEAR GRAPHIC PICTURE OF JUST WHAT WAS AHEAD AND WHERE OUR OWN FORCES WERE AT ALL TIMES. THE DIFFICULTY OF HANDLING A LAND BACKGROUND ON THE SCREEN WAS OVERCOME BY HAVING A CHART OF THE AREA AVAILABLE AND CONSULTING IT FREQUENTLY. DUE TO THIS LAND BACKGROUND THE BEARING OF EVERY TARGET ON THE SEARCH RADARS HAD TO BE CHECKED. DESIGNATION OF TARGETS FROM RADAR PLOT WAS USED BY CHECKING ALL PROBABLE TARGETS AND THEN GIVING PLOT THE NECESSARY INFORMATION. THIS ACTION WAS VERY IMPORTANT DUE TO THE PRESENCE OF LAND. DUE TO THIS COORDINATION NO TROUBLE WAS EXPERIENCED IN DEFINING TARGETS AS WAS EVIDENTLY HAD BY A FORCE OF OUR CRUISERS WHO HAD BEEN IN ACTION IN THE SAME AREA AT AN EARLIER DATE.

IT IS RECOMMENDED THOUGH THAT ADDITIONAL CHARTS BE FURNISHED SHIPS IN ORDER THAT GUNNERY PLOT COULD CHECK THE BEARING WITHOUT HAVING TO ASK RADAR PLOT, LOCATED IN THIS SHIP IN THE CHART HOUSE.

THE PERFORMANCE OF ALL GUNNERY RADAR EQUIPMENT WAS EXCELLENT THROUGHOUT THE ENTIRE ENGAGEMENT. AT NO TIME DID ANY OF THE EQUIPMENTS FAIL TO FUNCTION PROPERLY. AS A MATTER OF FACT ALL INSTALLATIONS GAVE PEAK PERFORMANCES THROUGHOUT."

An enemy cruiser illuminated this ship by searchlight, simultaneously opening fire, prior to our force commencing fire, two hits doing minor material damage were at once registered.

COMPLETE SURPRISE WAS LOST DUE TO USE OF TBS AND NO SG RADAR IN FLAGSHIP.

As the main battery of the HELENA was tracking the target that illuminated it, and was completely ready to open fire with fire control problem solved by radar, our fire was effective at once and large fires with quick sinking resulted. This burning ship illuminated others in this force and greatly assisted the destroyers in directing torpedo fire on major ships. This is the ideal method of night illumination.

Four important decisions were involved in this action, and its aftermath, which the commanding officer of this ship had to make.

(1) The ship was illuminated and under fire of the enemy. When should fire be returned as no orders to "commence firing" had been received? Just "stand-by to open fire."

DOCTRINE SHOULD COVER THIS. ORDERS SHOULD NOT BE NECESSARY.

This ship had furnished most of the information on the enemy and had a very good picture of them showing our force surrounded on three sides, or soon would be. The enemy was hitting us at once and a delay might be fatal. See Reference (k), Para. 1(7-b). This was discussed at the preliminary conference with Rear Admiral Callaghan prior to sailing. I opened fire at 0148.

Reference (k), Para.1(7-b).

"(b). THE OPENING OF FIRE IN A NIGHT ACTION IS SOMEWHAT SIMILAR TO AN AIR ATTACK, IN THAT DISCRETION MUST BE USED, BUT IT IS BELIEVED THE INDIVIDUAL SHIPS MUST BEAR THE BURDEN OF RESPONSIBILITY AS TO WHEN TO OPEN FIRE (AFTER THE ENEMY IS DEFINITELY KNOWN TO BE PRESENT.) THEREFORE, ALL SHIPS MUST BE LOADED AND READY WHEN THE CONTACT IS MADE (IF WITHIN RANGE,) AND JOIN IN THE FIRE AT THE EARLIEST OPPORTUNITY USING STANDARD FIRE DOCTRINE AS TO TARGETS."

(2) At about 0218 the PORTLAND appeared to be out of control and on questioning reported a torpedo hit jamming her rudder. They asked for a tow at 0231. Should the HELENA stop and do this under the circumstances?

DEFINITELY NOT. COMPLETE DEFEAT OF ENEMY SHOULD TAKE PRECEDENCE.

Action was still taking place. The position of our forces was not definitely known. Every effort was being made to close the SAN FRANCISCO. The PORTLAND and JUNEAU had been torpedoed, and from previous observation probably the ATLANTA. Enemy destroyers were in all directions and a grave danger of torpedoing existed. See Reference (k) Para. 1(7-d).

Reference (k), Para. 1(7-d).

"(d). SHIPS SUFFERING CASUALTIES REDUCING THEIR SPEED OR MANEUVERABILITY SHOULD SO INFORM OTHERS BY TBS SO THAT APPROPRIATE ACTION MAY BE TAKEN BY FOLLOWING SHIPS. THIS SHOULD BE FOLLOWED BY INSTRUCTIONS FROM THE OTC, IF DOCTRINE DOES NOT COVER IT (i.e. SPEED OF FORMATION TO TAKE, AND WHETHER REAR SHIPS SHOULD GO AROUND SLOWED SHIPS TO CLOSE UP AND MAINTAIN CONTACT.)"

I tried to contact the OTC by TBS and to find the SAN FRANCISCO visually. After the action described in Reference (k), Rear Admiral Scott emphasized the desirability of all remaining forces keeping closed up and assembling for possible further action. At about 0228 the only ships that would answer on TBS was the O'BANNON and FLETCHER. Returning to the area of the PORTLAND was not considered justified. At 0240 the SAN FRANCISCO was contacted by blinker tube on our port bow and instructed us to take charge. A message was then sent to Radio Tulagi requesting tow and air coverage for the PORTLAND.

(3) When should the night action be broken off and a retirement started?

At about 0214 while attempting to get the course of the rest of the ships in the force I received no answer. As I knew the PORTLAND was damaged, the ATLANTA appeared to have been hit, the SAN FRANCISCO was known to have been hit, and the JUNEAU was not seen. I called all ships and at about 0226 attempted to assemble what forces remained. Firing then was sporadic and numerous ships were burning. The O'BANNON and FLETCHER only were contacted. Course 092°, speed 20 knots and "Form 18" was given in code by TBS to all ships, and destination Sealark.

THE CONFUSED SITUATION, DESPERSION OF FORCES, AND EXTENT OF DAMAGE SUFFERED, APPEARS TO HAVE WARRANTED WITHDRAWAL. HOWEVER, WITH TWO DESTROYERS AVAILABLE, FURTHER DAMAGE MIGHT HAVE BEEN INFLICTED IF A SWEEP HAD BEEN MADE TO THE EAST OF SAVO ISLAND ROUNDING THE ISLAND COUNTER-CLOCKWISE AND COMING BACK FROM THE WESTWARD BEFORE RETIRING.

Soon after this the SAN FRANCISCO was contacted ahead on our port bow headed for Sealark Channel and some idea of her crippled condition was obtained. SAN FRANCISCO asked HELENA to lead her out. This together with the few ships contacted caused my decision to retire with the remaining forces via Sealark Channel, which was done with the aid of the SAIL GEORGE radar. The FLETCHER proceeded us, and the O'BANNON joined to the eastward having transited Lengo Channel. At 0420 the STERETT having transited Lengo and being damaged, joined near Nura Island at the rendezvous I had given for 0425. At 0455 sighted JUNEAU ahead on the port bow. At 0526 the JUNEAU was directed to join us.

(4) At 1101 the JUNEAU was torpedoed. Should an attempt have been made to search the area for survivors?

THE DECISION NOT TO REMAIN IN THIS VICINITY WAS NO DOUBT SOUND. HOWEVER, IT IS UNFORTUNATE THAT SOME IMMEDIATE ARRANGEMENTS COULD NOT HAVE BEEN MADE AS THERE WERE SURVIVORS FROM THE JUNEAU. AIRCRAFT SUBSEQUENTLY SIGHTED APPROXIMATELY SIXTY SURVIVORS IN THE WATER. OF THESE SEVERAL WERE RESCUED. A LIFE BOAT MIGHT HAVE BEEN MANNED AND LEFT IN THE AREA AND THIS BOAT PICKED UP LATER BY OTHER SHIPS.

The SAN FRANCISCO and HELENA were screened by the STERETT, (damaged), and FLETCHER, as the O'BANNON was at about 0815 sent off to send a message to Tulagi, and it rejoined at 1530. Due to the small screen, the crippled condition of the ships, and the devastating nature of the explosion, it was not considered that the risk of further torpedoing was justified. No sound or sight contact was made. The hope that a plane would soon appear was held, as the message sent by the O'BANNON asking for air coverage had been already received by us on the Fox schedule. At 1121 a B-17 did appear and another message was transmitted to him for forwarding. This message was acknowledged for by the plane, but apparently not forwarded to Commander South Pacific Force.

USE OF RADAR WITH GUNNARY IN U.S.S. HELENA.

While our force was steaming on course 280° T., speed 18, in special battle disposition (column with four destroyers leading in column, five cruisers (HELENA 4th cruiser in column), followed by four destroyers), off Guadalcanal between Lunga Point and Cape Esperance, Radar Plot reported a contact at 0124, bearing 312° T. range 27,100 yards. One or two minutes after this, Radar Plot reported that three separate groups of targets were distinguishable, two at 27,000 yards, and one at 32,000 yards. At about 0130 Radar Plot reported that target course was approximately 134° T., speed 20. Between 0125 and 0130 our course was changed to 000° and speed increased to 20 knots. At about 0135 range to left closest target group was 15,000 yards, bearing 324° T., and tracking gave enemy course 120°, speed 20 knots. According to plotting room at about 0137 we changed course to 315° T., and speed to 25 knots which was directly toward the farthest of the three enemy groups and between the two closest enemy groups.

WOULD THE OTC HAVE DELIBERATELY DONE THIS HAD HE HAD THIS CLEAR PICTURE? IT APPEARS THAT HE BLINDLY WENT INTO ACTION. TBS COULD NOT HAVE GIVEN THE OTC THIS CLEAR PICTURE. IT DOES NOT APPEAR SOUND TO CLOSE TO POINT BLANK RANGE AT NIGHT WHEN AT BEST THE SITUATION IS CONFUSED. IT WOULD APPEAR BETTER TO DELAY CLOSING RANGE UNTIL A COORDINATED DESTROYER TORPEDO ATTACK CAN BE MADE AND DESTROYERS WITHDRAW CLEAR OF BATTLE AREA.

The forward FC radar picked up one target group at about 18,000 yards and in conjunction with Radar Plot tracked this group. It was the left hand group of the two closest groups of targets. It never appeared to change course or speed. At a range of about 6,000 or 7,000 yards the Gunnery Officer checked and found that we were not on the left hand ship of this group and by use of SG radar shifted to a ship farther to the left in this group. This enemy group passed ahead of and crossed to port of our leading destroyers which had at about 0140 changed course to about 270° T.

IF THE DESTROYER DIVISION COMMANDER HAD HAD THIS PICTURE AND DOCTRINE HAD PERMITTED, A SPLENDID TORPEDO ATTACK COORDINATED, MIGHT HAVE BEEN MADE.

Director I was tracking the target using the Forward FC radar for range and train. Director II was doing likewise. All turrets were loaded and in automatic train and elevation. Director I controlling in train, Director II in elevation. At about 0148 we were illuminated by a searchlight bearing about 285° Rel., and exactly in line with the train of Director I. Commence firing was ordered immediately and the main battery opened fire in continuous fire at a range of about 4,200 yards.

THIS WAS THE ONLY THING TO DO IN SPITE OF THE FACT THAT OTC HAD NOT ORDERED "COMMENCE FIRING" NOR DID DOCTRINE PRESCRIBE IT.

Rapid continuous fire was maintained for about two minutes using a 200-yard rocking ladder. Almost at the same time that we opened fire we started our turn to the left following in column the ships ahead which had changed course to about 270° T. The searchlight on the target (which appeared too high and large to be on a destroyer) was immediately turned off or shot away. Spot I reports that the target was visible to him, that our tracers appeared to be perfect in deflection and that practically all of our shots appeared to hit, and that before cease firing the target was afire forward and amidships and was sinking. Cease firing was given as ordered by Task Force Commander and commanding officer after about two minutes of firing at which time the range was about 3,000 yards. At about the moment of opening fire on this target a large and compact salvo was seen to hit directly in our wake and 50 to 100 yards astern. During this firing we received two hits in the vicinity of the stacks and searchlight tower, one of which has been definitely

determined to have been 8". It is also probable that the hit we received on the airplane crane was received at this time. It is believed that our target was an 8" cruiser and that it was sunk. Two destroyers, the O'BANNON and the FLETCHER, both report that it was a cruiser and both report seeing it sink. Its burning silhouetted a battleship target for the O'BANNON.

The forward FOX DOG picked up the target at about the same time as the FOX CAST and tracked a target ship in the same group obtaining the same enemy course and speed as did the main battery. The 5" battery was in automatic using radar train. Upon opening fire the 5" was on a target slightly to the left of the main battery target and at a range of 6,200 yards. The director control officer and spotter reports seeing hits on this target. The 5" battery ceased firing at the same time as the main battery.

The succeeding few minutes were mostly absorbed in avoiding damaged ships and identifying own vessels on most of which before challenging the batteries were trained.

> FLASHING OF RECOGNITION LIGHTS ASSISTS THE ENEMY. EACH TIME OUR SHIPS HAVE FLASHED RECOGNITION LIGHTS, THE ENEMY HAS RECOGNIZED THEM AND OPENED FIRE. THE HELENA APPEARS TO HAVE BEEN AWARE OF THIS AND EXERCISED EXCELLENT CONTROL IN NOT SHOOTING AT OWN SHIPS.

During this period we almost rammed but managed to avoid by about 100 yards a large capsized vessel bottoms up, the beam of which I am certain was greater than that of this vessel. (It appeared to the gunnery officer just like the OKLAHOMA did on December 7th at Pearl Harbor.) Within about 2,000 yards of this, a vessel with outlines aft generally similar to that of the SAN FRANCISCO was burning fiercely and completely from bow to stern. It was first thought to be the SAN FRANCISCO but the SAN FRANCISCO was then sighted nearby and definitely identified. With both in sight it was obvious that the burning vessel was definitely larger than the SAN FRANCISCO. It is not considered possible that the burning vessel could have survived as it was already well down. During this period there was considerable firing between vessels mostly to the southwestward.

> IT APPEARS THIS WAS THE ENEMY FIRING AT EACH OTHER.

Also during this period we narrowly avoided being rammed on the starboard side by the ATLANTA or JUNEAU. (It is believed to have been the ATLANTA.)

At about 0203 radar plot reported at least six enemy ships on our starboard hand heading in a northerly direction. While putting the main battery on one of these targets one was observed to be firing on the SAN FRANCISCO then on our starboard bow. Both FC radars got on this target and at 0204 opened fire with the main battery in full automatic using forward FC radar in train. Opening range was 8,800 yards. Fired for approximately 1½ to 2 minutes and ceased firing at range of 9,400 yards when SAN FRANCISCO on our starboard hand came in line of fire. Approximately 125 rounds were expended in this phase and were believed to be very effective.

At the same time the 5" battery was getting on the enemy ships to starboard as coached by radar plot it picked up a destroyer on our starboard quarter firing at us and opened fire on it at a range of 7,200 yards. About 40 rounds were fired and cease firing ordered when the SAN FRANCISCO came into line of fire. This fire was also most effective.

During the above firing of the main and 5" batteries the automatic weapons' control officer observed between the lines of fire of the other batteries and at about 3,000 yards, a vessel with four stacks passing on a diverging course. Fire was opened with the forward starboard 40mm. mount on this vessel and 159 rounds expended. This firing was very effective being directly in the bridge area, and at least 2/3 were seen to hit. Cease firing was ordered at the same time as the other batteries. During this phase of the action two hits were received, one on the face plate of turret four and one on the forecastle deck by a large projectile.

After clearing several of own vessels the main battery again opened fire on a vessel of the same group as before. The opening range was 16,400 yards, target course 330°, speed 17. It had been tracked out from about 10,000 yards by radar plot and the main battery and FC radars. Rapid continuous fire was maintained for about one minute at a very high rate of fire when the range was again fouled and cease firing given. About 60 rounds were fired. The target appeared to be on fire.

At about the same time during this third phase the 5" battery fired about 40 rounds at a target believed to be a destroyer just forward of starboard beam at a range of about 5,000 yards. Cease firing was ordered when the range was fouled by own vessel. This target also appeared to be in flames.

GENERAL COMMENT BY HELENA.

The enemy illuminated and opened fire before the HELENA did. Only searchlight noted was the first one opening on the HELENA. It soon went out or was turned off. Starshells and possibly flares were in the sky. Enemy planes were overhead and may have dropped flares. Some of our destroyers and the SAN FRANCISCO are known to have fired starshells which appeared well placed.

IT IS UNFORTUNATE ADVANTAGE WAS NOT TAKEN BY OUR FORCES WITH THEIR RADAR INFORMATION. THEY SHOULD HAVE BEEN ABLE TO FIRE FIRST WITHOUT ILLUMINATION.

A very high degree of fire discipline was imperative throughout the action due to rapid and frequent maneuvers and close proximity of own vessels which frequently blanketed line of fire. There was also the necessity frequently to point the batteries on ships believed to be our own as a precautionary measure before attempting to identify by challenge or recognition. The fire discipline maintained throughout was most gratifying and there is complete confidence felt that at no time was a friendly ship fired upon. In the opinion of the gunnery officer this action has again demonstrated that with our present equipment illumination of the target by searchlight or starshell is not necessary and that the use of searchlights serves to draw enemy fire.

THE SPLENDID FIRE DISCIPLINE EXERCISED BY HELENA INDICATES THOROUGH TRAINING AND INDOCTRINATION IN THE GUNNERY DEPARTMENT.

The effectiveness of the radar installation and its performance cannot be praised too highly. Everything said in Reference (k) was doubly confirmed again in this night action.

LESSONS LEARNED AND EMPHASIZED.

Attention is invited to Reference (k), Paragraph 7.

Reference (k), Para. 7, (Not previously quoted).

"(a). SHIPS USING SEARCHLIGHTS WERE THE ONLY HEAVY ONES BELIEVED HIT, AND ALTHOUGH PERHAPS NOT USING THEM AT THE TIME OF BEING HIT, THEY COULD HAVE PREVIOUSLY FURNISHED A POINT OF AIM FOR TRACKING.

(b). Quoted on page 28-29.

(c). AS RADAR EQUIPMENT VARIES IN EFFEICIENCY IN DIFFERENT SHIPS AND TYPES, INSTRUCTIONS SHOULD BE CLEAR AS TO THE REPORTING OF INITIAL CONTACTS AND THEIR FURTHER DEVELOPMENT. THIS IS ESPECIALLY IMPORTANT TO THE DESTROYER SCREEN, DUE TO THEIR LACK OF CERTAIN FACILITIES HELD BY LARGER SHIPS. SECTORS SHOULD BE ASSIGNED RADARS TO AVOID INTERFERENCE.

(d). Quoted on page 28-29.

(e). FIGHTING LIGHTS WERE USED TO GREAT ADVANTAGE FOR IDENTIFICATION, BUT SOME DISTINGUISHING MARK FOR THE GUIDE OR OTC WOULD BE MOST USEFUL IN ASSISTING SEPARATED SHIPS TO REJOIN. OTHERWISE THE FLAGSHIP SHOULD MAKE HER CALL BY BLINKER TUBE TOWARDS SHIPS REJOINING AND SHOWING PROPER FIGHTING LIGHTS. THE POSSIBILITY OF A SHIP BEING HIT AND BOTH FIGHTING LIGHTS AND TBS BEING OUT OF ACTION IS EMPHASIZED. WHAT PROCEDURE IS THEN POSSIBLE TO ESTABLISH IDENTITY?"

Every statement made in that paragraph was confirmed in this action. Commenting by paragraphs as used in the reference:

(a) The first enemy ship opened a searchlight and was hit and destroyed.

(b) The HELENA faced the decision as to opening fire.

(c) Fully confirmed as SAN FRANCISCO was again flagship and had no SG radar.

(d) Ships were injured and no instructions to those astern furnished or possible.

(e) Fighting lights were again used. The SAN FRANCISCO and STERETT (and perhaps others) had both lights and TBS shot away at once, and again how establish identity? It was finally done by challenge and blinker.

NEW RECOGNITION EQUIPMENT IS ENROUTE TO THIS AREA NOW.

U.S.S. STERETT.

At 0148 the STERETT was illuminated briefly by enemy searchlights to port. Fire was opened at 0149 on enemy cruiser on starboard bow, range 4,000 yards. Thirteen salvos of 5" were fired. It was not considered practicable to fire torpedoes at this time.

LACK OF ENUNCIATED DOCTRINE BY OTC RESULTED IN NO COORDINATED DESTROYER TORPEDO ATTACK. FAILURE TO DO SO RESULTED IN NOT INFLICTING MAXIMUM DAMAGE TO ENEMY. THE DESTROYERS IN THIS ENGAGEMENT WERE UNNECESSARILY EXPOSED. THEY WERE NOT EMPLOYED OFFENSIVELY.

Numerous hits were made on enemy and a fire started around #2 turret. Range was then fouled by O'BANNON and fire was checked. STERETT received her first hit at 0151. At 0205 STERETT received numerous near misses and hit #2. A broadside of 4 torpedoes at a KONGO class battleship was fired on port bow, range 3,000 yards, and at the same time eight 5"/38 salvos were fired at bridge structure of this battleship. Two torpedoes were seen to hit starting large fires. A few minutes later men were seen abandoning the battleship fore and aft. At 0220 STERETT fired two torpedoes and two 5" salvos at a destroyer on starboard bow, range 1,000 yards. This destroyer blew up and sank without firing a single shot. At 0227 eight hits were received and at 0230 STERETT commenced retirement, all other ships of the Task Group having started retirement prior to this last engagement.

The STERETT had engaged three enemy ships, a light cruiser, a KONGO type battleship and a destroyer. Fires were started on the cruiser and it later exploded while under fire from one of our heavy ships. Two positive torpedo hits were scored on the battleship. Fires were started and the ship abandoned. This battleship received severe punishment from several of our ships and was sunk later by our torpedo bombers. The destroyer exploded.

IT TOOK A TOTAL OF SEVEN TORPEDOES AND TWO 1000-lb. BOMB HITS TO FINALLY SINK THIS BATTLESHIP. THIS DOES NOT SPEAK WELL FOR OUR WEAPONS.

The STERETT, equipped with only FD and SC radars made contact with only two enemy groups, estimated course about 110°, speed 23 knots. These later proved to be the right and center units of three groups. Sight contact revealed two cruisers (probably both CL's) and three destroyers in the right wing. The center force was later estimated to consist of two battleships and two or three heavy cruisers.

The explosion on the enemy destroyer illuminated the entire area. This occurred about 0220 and caused resumption of heavy cross-fire from sharp on our starboard bow and on our port beam. It was during the next few minutes that the STERETT received most of her damage. It is believed that all our units had started retirement prior to this last engagement and it is quite definitely established that the enemy ships at this time, were confused and fired at their own units. At 0230 the STERETT was burning fiercely aft, both after guns were disabled and when it was certain that the two remaining torpedoes could not be fired the STERETT retired at high speed.

IT APPEARS THAT THE STERETT, AS WELL AS THE OTHER DESTROYERS, WERE OBLIGED TO STEAM ALONG IN THE VAN AND REAR AND TOOK SERIOUS PUNISHMENT WITH NO GREAT FREEDOM TO COORDINATE AND ATTACK OFFENSIVELY WITH TORPEDOES.

The STERETT had received eleven direct hits and fragments from several near misses. Serious fires had started in #3 and #4 handling rooms and up through the mounts; several compartments were on fire. Over 20% of our ship's company had been killed or seriously wounded. Yet the STERETT managed to retire at flank speed (a short time later boilers #1 and #2 had to be secured and speed was limited to 23 knots) and about 0615 joined up with remainder of our retiring force.

SPECIAL COMMENTS ON ENEMY FORCES.

STERETT encountered two groups of enemy ships on roughly easterly heading making 23 knots. These groups consisted of two battleships, five cruisers, two or three were heavy, and about three or four destroyers. One or more searchlights were used first by the enemy, then several starshells or aircraft flares high over the area

between the forces, and thirdly a form of firecracker or sparkle effect with brilliant white flashes fired low between the two forces with apparent intention of blinding our cruisers.

Unable to estimate total damage to enemy. A cruiser and a destroyer were seen to explode. Two battleships were seriously damaged. When STERETT left area seven ships were seen burning fiercely.

SOME OF THESE SHIPS WERE UNDOUBTEDLY OUR OWN.

SPECIAL COMMENT ON OWN FORCES.

Communications were all via TBS. Our transmitter was disabled by hit on mast. Almost impossible to hear TBS on destroyer bridge during height of battle.

LESS USE OF TBS AND MORE CONDUCT OF BATTLE BY DOCTRINE IS INDICATED.

Radar search was with FD radar only as directed by Task Group Commander. Two groups of enemy ships were located, first at 14,500 yards.

A RADAR DOCTRINE SHOULD HAVE BEEN IN FORCE. AFTER INITIAL RADAR CONTACT BY HELENA, FULL USE OF RADAR SHOULD HAVE BEEN PERMITTED AUTOMATICALLY BY DOCTRINE.

Three hits were from major calibre shells set with instantaneous fuzes, possibly for shore bombardment. Two or three hits were 4", source not known. All others are believed to have been 5". Two 5" shells pierced ship completely from port to starboard without exploding.

FORTUNATELY THE ENEMY WAS NOT PREPARED FOR SURFACE ENCOUNTER.

LESSONS LEARNED AND RECOMMENDATIONS.

It is recommended that: All TBS orders be paralleled by CW radio.

A VERY SOUND RECOMMENDATION.

A spare temporary emergency identification light string be ready to run up with a halyard for night action.

A DIFFERENT IDENTIFICATION SYSTEM IS BADLY NEEDED. THE PRESENT ONE JEOPARDIZES OUR FORCES AND ASSISTS THE ENEMY.

A cease firing gong contact maker be installed on the bridge for use of the captain in stopping gunfire, with a sounder in the gun director in addition to those already mounted in gun shields.

THE CAPTAIN SHOULD HAVE SOME MEANS OF CONTROLLING FIRE IN AN EMERGENCY.

The flagship must be equipped with the most modern radar.

UNTIL FLAGSHIPS HAVE THE BEST AND MOST MODERN RADAR WITH PLOTTING FACILITIES, WE WILL CONTINUE TO SUFFER.

Consideration should be given to locating remote control release to magazine flooding and sprinkling valves on the top side. It is very difficult to operate them in smoke and flame.

U.S.S. MONSSEN.

Formation made a sweep of Indespensable Strait and returned to Cactus area via Lengo Channel arriving at a point about three miles north of Kukum at about 0150 LOVE. At this time course was changed by column movement to 290° T., speed 15 knots. Shortly thereafter radar contact with two unidentified vessels was reported bearing 310° T., distant 30,000 yards. Course was again changed by column movement to 310° T., and speed to 18 knots. Column leader was approximately 6,000 yards ahead of MONSSEN. At about 0200 radar contact with three vessels was reported as bearing 312° T., distant 23,000 yards, course 105° T., speed 20 knots. MONSSEN FD radar was out of commission as a result of a burned out transformer during an afternoon anti-aircraft action and had been so reported. No contacts were made by usually reliable SC radar. All contact information was received via voice radio. All hands were at their battle stations and alert, torpedoes were primed and depth charges were set on "safe". Material condition Afirm was set throughout the ship. Weather was calm but overcast with visibility to north and west estimated at 2,000 to 3,000 yards.

THE FLETCHER WAS IN THIS REAR DESTROYER GROUP. SHE SHOULD HAVE BEEN LEADING IT AND IN CHARGE OF COORDINATING ATTACKS BY ALL REAR DESTROYERS. IF THIS HAD BEEN THE CASE, THE REAR DESTROYERS COULD HAVE BEEN MORE EFFECTIVE.

Upon receipt of radar contact bearing 312° T., formation course was changed by column movement to 000° T. This is estimated to have been about 0200.

At about 0212 and just after MONSSEN had turned to course 000° T., gunfire was observed on port bow at a range of about 10,000 yards. It appeared that head of own column was engaged to port. A few minutes previously a TBS report had been received that some enemy units had been observed crossing the head of the column from port to starboard. All torpedoes had been primed and tubes were ordered trained out to starboard and the torpedo officer was ordered to fire on any good enemy target to starboard giving preference to capital ships if any should be sighted.

THE MONSSEN APPEARS TO HAVE BEEN CRUISING AT THE REAR OF THE COLUMN BLINDLY DUE TO NO FAULT OF HER OWN.

At about 0215 at least one enemy torpedo was seen to pass under the after conning station, probably from starboard. No explosion of this torpedo was observed. At about the same time a large target was observed by the torpedo officer about 30° forward of the starboard beam.

MAXIMUM USE DOES NOT APPEAR TO HAVE BEEN MADE OF THE REAR DESTROYERS BY OTC. DOCTRINE SHOULD HAVE PROVIDED FOR IT.

It appeared to be a battleship or large cruiser and appeared to be making little or no way, target angle about 320°, range about 4,000 yards. A 20mm. gunner on the forward battery claimed to have seen a fair silhouette and later promptly and definitely identified it in the book of Japanese silhouettes as a battleship of the KONGO class. At about 0216 all five torpedoes in tube #2 were fired at this target singly, by percussion, using target speed zero, torpedo speed intermediate, average depth setting 10 feet with 2½° gyro spread. The above mentioned 20mm. gunner reported two hits on this target between forward superstructure and mainmast. Several other survivors reported two heavy underwater explosions on this target.

The hits were observed at about three minutes after the torpedoes were launched.

A few seconds before the above two hits were observed, another target was observed broad on the starboard beam and was believed to be a cruiser or destroyer, more likely the latter. It appeared to be making no speed relative to the previous target so another spread of five torpedoes were fired singly, by electricity from the forward tube using the same set up and torpedo speed and depth setting as was used on the previous target. This was about 0219.

THE MONSSEN APPEARS TO HAVE BEEN TRYING HER BEST TO BE EFFECTIVE.

The range was again estimated at 4,000 yards. Before the last five torpedoes could reach the target, the 5" battery opened fire to port and no definite observations were made. The Chief Torpedoman, who is missing in action, told a surviving torpedo striker at the time, that he thought that there was a possible hit resulting from the second spread. During this period in which all torpedoes were fired, MONSSEN was not under fire but had been illuminated by starshells from port.

At about 0220 one of our own destroyers was observed about 30° on port bow being heavily hit by an enemy cruiser or destroyer at close range.

THIS DESTROYER WAS THE CUSHING.

Range to enemy vessel was estimated to be about 6,000 yards, target angle 330° or 150°. The 5" battery was ordered to open fire on this target and all four guns began firing in salvo, director controlled. There was no illumination at this time but several hits are believed to have been scored on this target. The target vessel ceased firing and MONSSEN ceased fire. This action is believed to have lasted 30-45 seconds. MONSSEN was still undamaged.

Almost immediately starshells began bursting above and slightly ahead. These appeared to be coming from port quarter. Course was changed with full rudder at full speed to about 040° T. During this maneuver and at about 0221 a destroyer was sighted close aboard to starboard, range about 500 to 1,000 yards on course about 150° T., and either stopped or making very slow speed. All starboard 20mm. guns (five) opened fire on this target and sprayed her entire upper works with 800 to 1,000 rounds. Gun #4 seeing this target opened fire and expended about 5 or 6 rounds at point blank range, local control. None of this

fire was returned by this enemy vessel. It was definitely described as being a destroyer with low superstructure and having two stacks, each having two white bands near the top of each stack.

COULD THIS HAVE BEEN ONE OF OWN DESTROYERS?

Still MONSSEN had not been hit.

Almost immediately after this action or at about 0223 MONSSEN was again illuminated by starshells from port. Thinking that stars from port were from a friendly vessel, recognition lights were flashed. Immediately MONSSEN was illuminated by two searchlights from starboard beam, lights being estimated to be 24" and range about 2,500 yards.

ANOTHER INDICATION OF THE DANGER OF SHOWING RECOGNITION LIGHTS.

Starboard 20mm. battery immediately opened fire on both searchlights. At this instant MONSSEN began to be hit by medium caliber shells from starboard. #1 gun shield was hit almost immediately killing the gun crew. Two torpedoes were observed approaching close on starboard bow, perpendicular to own track and running on the surface. Hard right rudder was used and course change about 50°. Flank speed was ordered but could not be answered because forward steam line had been hit in #1 fireroom and throttle manifold in after engineroom had been ruptured. At this same time two torpedoes were observed by torpedoman aft to pass under the MONSSEN but did not explode. Torpedoes on bow passed close ahead.

The remaining 5" guns opened fire on the aftermost searchlight and it was soon extinguished. Numerous hits are believed to have been made on this target. This opinion was concurred in by the commanding officer of the SHAW, who observed what he believes to have been this engagement.

The proximity of other enemy ships was not known. MONSSEN was ordered abandoned at approximately 0240.

Firing had ceased about five minutes after order to abandon ship was given.

It is believed MONSSEN was engaged by two and possibly three destroyers and one cruiser or battleship who inflicted the damage described above. It is the opinion of the commanding officer that MONSSEN inflicted damage to the enemy as follows:

Two torpedo hits amidships on KONGO class battleship.

One possible torpedo hit on a cruiser or large destroyer.

Several 5" hits on one cruiser or destroyer to port.

Many 20mm. and 3 or 4 5" hits on a destroyer at close range to starboard. This destroyer had two stacks with two white bands on each stack.

Numerous 20mm. and several 5" hits on a large destroyer to starboard at about 2,000 to 2,500 yards range.

After daylight MONSSEN though burning from forward bulkhead of CPO quarters to Torpedo Workshop was still afloat. At this time STOREY, C.C., BM2c, SPURGEON, L.F., GM2c, and HUGHES, J.G., Flc, returned to the ship and found eight more men alive. These they put on their raft.

COULD THE MONSSEN HAVE BEEN SAVED?

U.S.S. CUSHING.

The CUSHING was heavily hit by enemy fire at about 0200, November 13, 1942, and was stopped, lying dead in the water with no power on the ship. Shortly thereafter the ship again came under heavy enemy fire to which no adequate reply could be made.

At about 0220, while under fire, the commanding officer ordered that the ship be abandoned, and about one half the crew (who were unwounded) and over sixty-five wounded men and six wounded and four unwounded officers left the ship.

THE CUSHING APPEARS TO HAVE CRUISED BOLDLY INTO ACTION AT THE HEAD OF THE BATTLE LINE. SHE WAS PREVENTED FROM MAKING A TORPEDO ATTACK INITIALLY BY THE OTC AND FORCED TO STEAM DIRECTLY INTO THE ENEMY. CORRECT EMPLOYMENT OF DESTROYERS, PARTICULARLY IN A NIGHT ACTION IS INDICATED.

Due to the enemy fire the ship commenced to burn furiously forward, spreading aft. There was also a fire below decks aft.

At about 0315, the commanding officer left the ship and believes that he was the last man off the ship.

The CUSHING burned the day of the 13th until about 1700 when as reported by Lieut. Colonel William J. Fox, USMC, observing from Guadalcanal, there was a large explosion at the location of the CUSHING and cold air moved in on the water; no further sign of the ship being seen. Air search from this area on the morning of November 14th, found wreckage but no sign of the ship.

ANOTHER SHIP LOST BY FIRE.

Commander Destroyer Division TEN stated:

At about 0150, LOVE, November 13, when the CUSHING, the leading ship of Task Group 67.4 was about 3½ miles off Kokumbona, on a course of 280° or 290° T., the HELENA reported two radar contacts bearing 310° T., 26,000 yards, course 105° T. Immediately thereafter our course was changed to 310° T., which headed us to westward of Savo Island, and another change shortly thereafter to 000° T., which course lead to eastward of Savo Island. Speed at this time was 18 knots. Very shortly after changing course to the north (estimated to be 4-5 minutes) radar contacts indicated increasing number of enemy ships, including from 3 to 10, then to 12. Bearing of these additional contacts were not received in the CUSHING. About this time three vessels identified as enemy destroyers crossed ahead of the CUSHING port to starboard on a course estimated to be about 20° - 30° T., distance 3,000 yards.

THESE DESTROYERS MUST HAVE BEEN THE ONES WHICH FIRED TORPEDOES WHICH HIT PORTLAND AND ATLANTA.

These were reported to Commander Task Group 67.4 by voice with word that CUSHING was changing to left. This change to left was made to bring torpedoes to bear, but torpedoes were not fired because the destroyers were turning away and immediately thereafter CUSHING was ordered to return to 000° T. Simultaneously with this order a report was received that two large ships were on the port bow, (CUSHING was then on 330° T., beginning the change to north.) These two heavy ships were not sighted by me at this time, but it was assumed as an accurate report since initial radar contacts had placed them on that side and on a course (105° T.) that would have kept them on that side. Shortly after CUSHING was on course 000° T., fire was opened by our units, CUSHING #1 in column firing to starboard on enemy destroyer, odd ships having been ordered to fire to starboard, even numbered to port.

Heavy ships previously reported were later sighted to port.

A TORPEDO ATTACK ON THESE LARGE SHIPS TO PORT MIGHT HAVE BEEN EFFECTIVE. THE DESTROYERS IN THE VAN APPEAR NOT TO HAVE HAD FREEDOM OF ACTION GUIDED BY DOCTRINE.

Voice radio reception from the time of opening fire was unreliable in the CUSHING. The CUSHING increased speed to 25 knots after opening fire. A speed change had been ordered but not understood in the CUSHING due to difficulty in receiving TBS transmissions.

About two minutes after opening fire the CUSHING received one or two shell hits amidships resulting in gradual loss of power. The helmsman was assisted by shaded light to maintain course by magnetic compass and continued on a generally northward course as long as he had steering control. While still making 10-12 knots ahead, an enemy battleship was sighted on the starboard hand heading on a westerly course which at the time looked to be on a collision course. Bridge steering had failed by this time but hand steering was ordered, and the CUSHING came right to fire torpedoes at this battleship. Six torpedoes were fired by local control at an estimated range of 1,000 yards and shortly after firing, three heavy detonations were heard near by and it is believed that these were hits on the battleship from CUSHING's torpedoes. This enemy battleship was believed to be of the FUSO class, and was being heavily hit on superstructure by our cruiser gunfire. After CUSHING fired torpedoes at her, the battleship continued slowly to westward and disappeared and was not again sighted. Shortly after firing torpedoes at the battleship, the CUSHING was dead in the water and apparently not too badly damaged, but before any estimate of damage could be made, we were illuminated and fired on from both sides,being hit heavily. All guns were hit, Wardroom, Chart House, #1 stack, Galley, Machine Shop, #1 Fireroom, Director, After Living Compartment, a total of 13 definite hits and probably nearer 20, believed to be from cruisers and destroyers. Emergency identification signals were made with flashlights but firing continued.

FEAR APPARENTLY EXISTED THAT OWN SHIPS WERE FIRING ON CUSHING.

After losing power and being dead in the water the CUSHING continued fire on enemy targets using illumination of other ships. When enemy character could not be established, fire was checked since we had been leading, and our own ships now were passing us. After being hit by the two ships from opposite sides, above mentioned, no guns were able to fire and ready ammunition in #2 gun shelter caught fire, and no means available to combat it, steam and diesel power had failed, and the remaining undamaged handy billy inadequate. The repair parties had been practically wiped out by hits in the Machine Shop and near the Galley. The commanding officer ordered boats and rafts in the water. One boat had been shot away and the other holed. All life rafts except 2 (1 of these picked up after air attack on afternoon of November 12) were broken up by shell fire. Fires broke out aft in the living compartments; in after machine gun ammunition; and the fire in #2 gun shelter was beyond control. Orders to abandon ship were given about 0230 - 0245. Wounded able to get off were helped to rafts and rafts cleared the side. The commanding officer and a small salvage party remained on the ship to attempt saving her and to insure depth charges were all set on safe. As rafts cleared the side, the ammunition in forward gun shelter began exploding and soon there was a combined oil and ammunition fire forward with the repeated explosions of both 5" and 20mm. ammunition which could still be observed until survivors were picked up. The last violent explosion being seen about 0830 while en route to Cactus in rescue boats. The fire forward gutted the ship from Gun #1 to abaft the engineroom, but the fires aft did not appear to cause any explosions up to time survivors were picked up. A large oil fire forward on the water started at 0300 and all bridge structure was in intense flames for about 4-6 hours, and flames continued there and spread aft to engineering spaces, apparently due to oil, and burned through the day.

U.S.S. O'BANNON.

At 0030 the report was received from the director control that a torpedo wake was sighted ahead passing from starboard to port.

THIS TORPEDO SIGHTING WAS POSSIBLE CONSIDERING THE SIGHTING OF A SUBMARINE AT 1930.

This wake could not be seen by Conn. No offensive action could be taken by any ship at this time, therefore, no report was made of this probable torpedo. At this time the sky was quite dark, moon had become hidden behind dark clouds, a limited number of stars were visible, and there was a slight breeze from NNE. The sea was smooth. The ship was in Condition of Readiness I and Material Condition ZED.

At 0100 course was changed to 280° T.

ENGAGEMENT PHASE.

At 0130 radar contact was made with enemy units being reported directly ahead and on starboard bow. The formation course was immediately changed to 310° T.

At 0137 course was changed to 000° T. At about this time this vessel's radar screen showed contacts as noted. Targets were reported by TBS to be on port bow also. At 0143 course was changed back to 310° T.

At 0144 torpedo battery and gun battery were ordered to standby for action starboard.

At 0145 three to five ships were visible on starboard beam distant about 4,000 yards. These units were heading on an opposite and parallel course at slow speed.

At 0148 order was received over TBS from OTC "Odd ships fire to starboard, even ships to port." At this time the column was jammed up due to the turn to 310° T. This vessel was making many rudder and engine changes to avoid collision with ship ahead.

THERE APPEARS TO HAVE BEEN UNNECESSARY CONFUSION CAUSED BY NO DOCTRINE AND NO BATTLE PLAN.

The gun battery was given "Action Port." The enemy unit which had been visible on the starboard bow could not now be seen and the torpedo battery was ordered to standby for action port.

At 0149 enemy vessel on port bow opened searchlight on CUSHING and commenced firing. Fire from our units was commenced immediately thereafter. Guns were ordered to shoot at the searchlight on port bow. It was believed that this searchlight was shot away by our fire for shortly thereafter several blazes were noted on enemy vessel under

fire and the searchlight went out. Our tracers were definitely seen hitting the forward superstructure. The target's gunfire became sporadic. This target was thought to be a heavy cruiser.

At 0153 turned hard right and hard left to avoid collision with ship ahead (STERETT), then resumed course approximately 270° T., to rejoin column astern of LAFFEY. At this time it was observed that CUSHING and LAFFEY were receiving many hits from cross-fire on port and starboard bows. Rejoined column shortly thereafter and continued fire on a target which now had been identified as a KONGO class battleship. The identification is considered certain because at this time there was a flaming enemy unit on the opposite side along our line of fire which silhouetted this battleship sharply. My impression at this time is that there were light enemy units drawing ahead to starboard.

At 0154 order was received over TBS to cease fire. This order was not authenticated. Check fire was given and the order given "pick up target on starboard bow." At about this time the two ships ahead, CUSHING and LAFFEY, were lost to sight to starboard, the LAFFEY apparently sinking. This vessel was then about 1,800 yards from the battleship and in the lead of our column.

At 0155 there was heavy gunfire to starboard. No targets were visible to Conn but control said there were several vessels to starboard on westerly course, one of which could be identified as a three-funnel TENRYU class cruiser. Gunfire was opened on this cruiser.

At 0156 the range to the KONGO class battleship on the port bow had closed to 1,200 yards. There were numerous fires on this battleship and its gunfire had slackened. Its fire was all passing over this vessel. Two aimed torpedoes were fired deliberately at this battleship on the port bow. Each of these torpedoes were fired to hit, no spread. Before firing the remainder of torpedo salvo it was intended to await the results of shots #1 and 2. It was then decided to fire the remainder of a torpedo salvo. Just as the third torpedo was fired, a tremendous explosion was noted and the battleship was enveloped from bow to stern in a great sheet of flame. Burning particles fell on this vessel's forecastle. It was decided not to fire more torpedoes at this time, the target being considered killed by these three torpedo hits. Torpedo fire was checked.

At 0159 gun targets were lost to starboard. Fire was ceased and ship was swung right to reverse course to about 090° T.

WHY THE REVERSAL OF COURSE IS NOT KNOWN. LACKING OTHER DIRECTIVE OR RATHER NO DIRECTIVE, O'BANNON APPEARS TO HAVE DECIDED TO RETIRE WITHOUT FURTHER ACTION.

At this time there were five burning and exploding vessels on the starboard quarter and one explosion was noted at a long range off forward of the port quarter. Control reported that no definite targets could be picked up, Conn could see nothing.

At 0201 the ship was swung hard left to avoid the sinking bow of what is now believed to be the LAFFEY. Many personnel were sighted in the water and about 50 life jackets were thrown over from this ship. Shortly thereafter, torpedo wakes, at least two, were seen to pass ahead.

THESE TORPEDOES MAY HAVE BEEN THE ONES WHICH HIT THE PORTLAND.

This vessel swung hard left.

At 0203 experienced a heavy underwater explosion which seemed to be close aboard on the port beam. This may have been depth charges from the LAFFEY but since it was a single sharp explosion it is believed that, rather than depth charges, it may have been a torpedo detonating at end of run. All light and power was lost. Light and power was regained very quickly but many electrical circuits had been ruptured. The gun and torpedo controls were reported available in local control.

LAST PHASE.

This ship then broke off action at approximately 0204 and headed southeast attempting to locate either definite targets or definite friends.

At about 0215 a smoking vessel was sighted on the port bow. This vessel could not be identified. Torpedo battery was ordered to standby for action. This vessel apparently was drawing away to northeast. Although this vessel could not be identified, torpedo fire was withheld. (From subsequent tracking by radar this smoking vessel

was later identified as SAN FRANCISCO with HELENA close by.) From its size and indistinct outline the vessel was believed to be a transport. Thinking that transports may have gotten in, this vessel turned to the south and investigated the coast line about two miles west of Lunga Point where a light was visible on the beach. No transports were seen. At about this time the HELENA was heard on the TBS and information received that HELENA and SAN FRANCISCO were standing out Sealark Channel. This vessel then stood out Lengo Channel and joined as escort with HELENA and SAN FRANCISCO at 0415.

DAMAGE OBSERVED.

A. Own Forces:

(1) Sinking of LAFFEY.

(2) Many hits on CUSHING, practically cutting her down to the waterline.

B. To Enemy Forces:

(1) Fire throughout and heavy explosions in one KONGO class battleship. It is believed that this battleship sunk. Several witnesses state that it was "sagged in the middle and going down." No witnesses can say it disappeared below the water surface.

(2) Small fire aft in TENRYU class cruiser fired upon by this vessel.

(3) At least five other burning vessels.

(4) Two burning vessels.

IMPRESSIONS OF COMMANDING OFFICER AND VARIOUS PERSONNEL.

(a) There were heavy guns firing from long range, 10-16,000 yards, from between Savo and Florida Islands, all during the engagement. This firing appeared slow and deliberately controlled. The air defense officer and gunnery officer both reported observing this fire and watching the tracers pass overhead.

(b) Aircraft flares were believed used by the enemy. Many flares were observed between 0205 and 0215 for which there was no corresponding gunfire. Some of these flares

were dropped directly over this vessel and the gunfire noted above were believed at this time to be directed at this vessel as a hail of shorts and overs were noted.

(c) That the enemy units were not surprised in the main, although the enemy units that passed astern to starboard and then returned passing ahead to starboard, at high speed, were firing very few guns.

(d) That the enemy illuminated and opened fire first.

(e) That the enemy fire was extremely accurate and rapid in the very early stages of the action but that accuracy and volume decreased materially within a matter of 2-3 minutes from open fire.

(f) That in the latter stages of the action the enemy's center and left groups were firing at each other.

(g) That the use of searchlights for illumination and gun control is an invitation for accurate fire concentration and that tracer control is sufficiently accurate not to warrant use of searchlights.

THIS HAS BEEN FULLY PROVED TO DATE AND SEARCHLIGHTS SHOULD BE USED WITH CAUTION.

(h) That the SG radar is invaluable to the OTC and each individual ship for early and continued information of disposition of own and opposing forces.

OTC MUST HAVE AN SG RADAR IN HIS FLAGSHIP.

The executive officer, O'BANNON commented as follows:

It was quite evident that the enemy were not surprised at our appearance. No doubt one task group of theirs was preparing to bombard Cactus; they had aircraft overhead to provide the necessary illumination. The fragment which hit our ship was from an 8" bombardment projectile. The KONGO class battleship with which we engaged, appeared to be screening a contemplated landing operation in or near Tassafaronga. I believe that the light cruiser which was observed on our starboard bow was the outer screen of the bombardment force coming down from the northeast, the main force of which was 12,000 to 14,000 yards away when the firing commenced. It is further believed that the Japanese operations for this night had been well and strategically planned in their entirety, and that we

completely upset their plans. A submarine had been sighted off Koli Point according to a report which we had received aboard prior to midnight of the 12th. It is quite possible that this submarine was covering the channel and inflicted some damage to the ships at the rear of our column.

During our approach to the battle area and while still in Lengo Channel a report was received on the bridge from the gunnery officer that we had just passed over the track of a torpedo wake. This was not observed by me although I was watching the water very carefully.

DAMAGE.

A. Friendly:

I saw two large flashes appear around the after guns in the STERETT. The CUSHING and LAFFEY were observed to be under a cross-fire from the battleship on the port bow and the cruiser on the starboard bow, both of whom were hitting our ships and tearing them down gradually. Heavy explosions were felt and heard throughout the engagement.

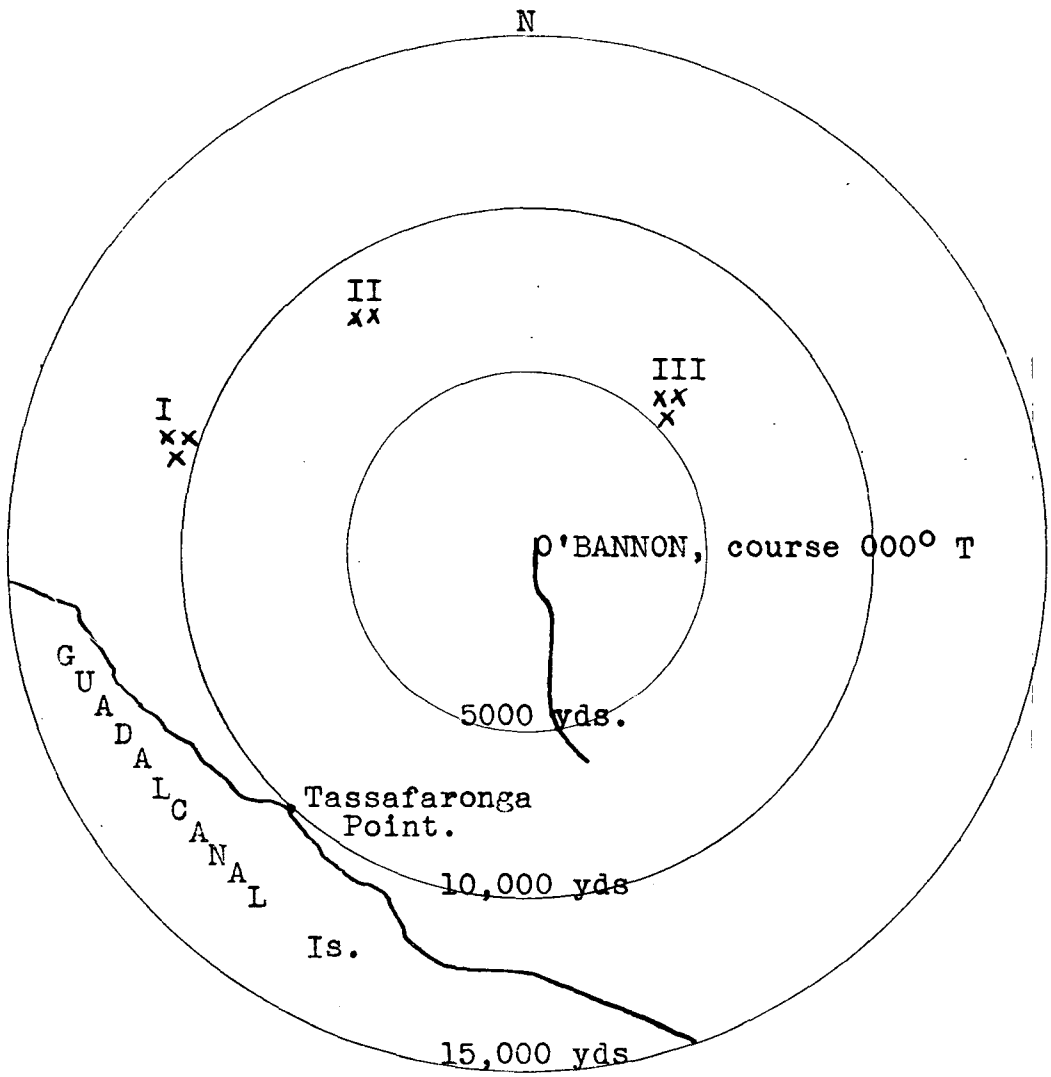
B. Enemy:

I did not see any enemy ships blow up and sink but I did observe great fires coming from something in behind the battleship on our port bow and then later huge flames enveloped the battleship. Several ships on our starboard hand were on fire but it was impossible to observe who they were.

The following recommendations are submitted:

(a) That less use of the TBS be made during the approach to an engagement. Furthermore it is not completely reliable with all the noise that is created during an action.

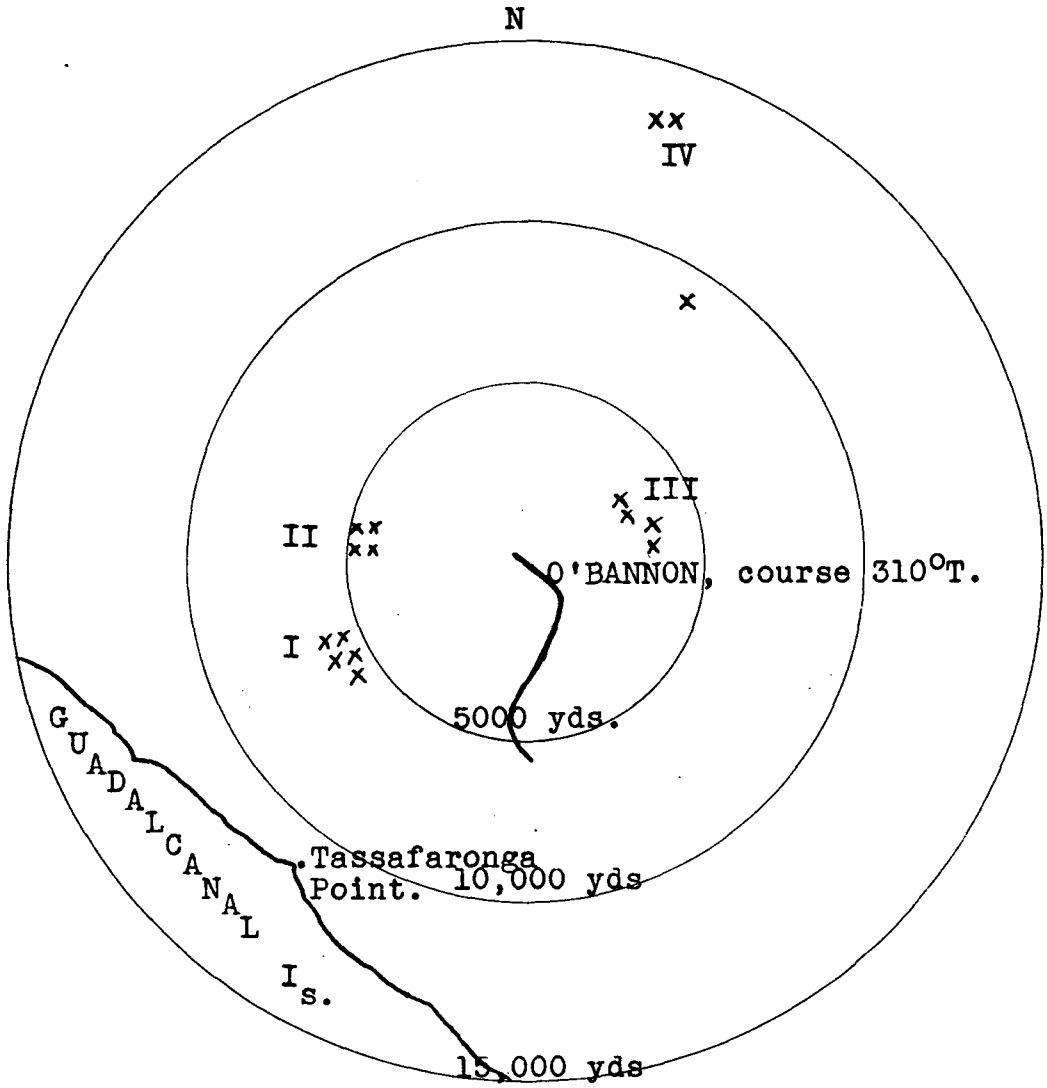
(b) That the PPI on the SG radar have a duplicate repeater on the bridge.



SAIL GEORGE RADAR PPI screen at time approximately 0140, November 13, 1942.

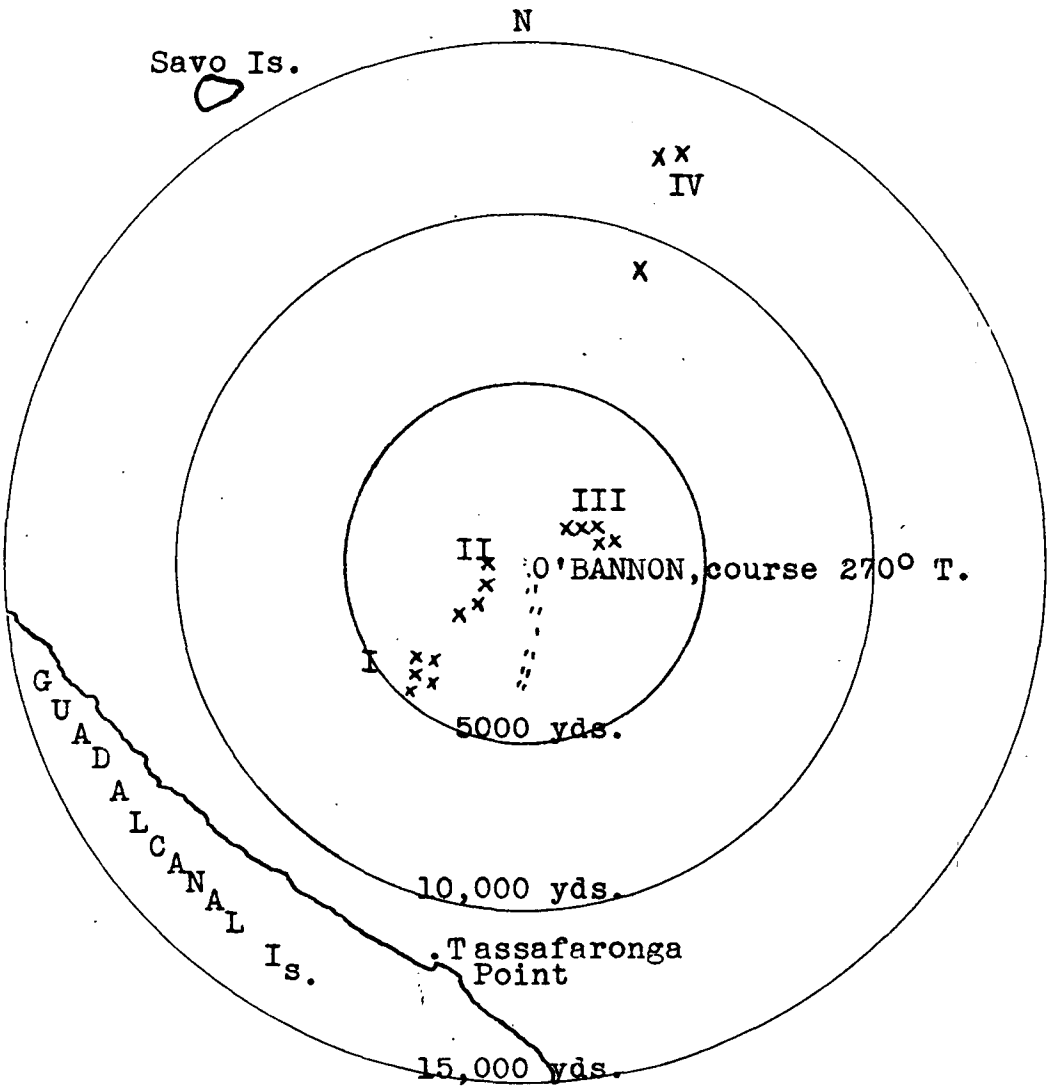
Count of pips at I and II is not definite.
Count of pips at III is 3.

Best count of total pips is 11.



SAIL GEORGE RADAR PPI screen at time approximately 0145, November 13, 1942.

Count of pips at I and II is not definite, although operator's impression is more than counted in these two groups at 0140.
Count of pips at III is 3 to 5.
New pips as shown at IV, count as shown, 1 single, 1 double.
Total pip count is 16.



SAIL GEORGE RADAR PPI screen at time approximately 0155, November 13, 1942.

Count of pips at I, II and III is confused, grouping was lost.
Count of pips at IV is as shown, 1 single, 1 double.

U.S.S. FLETCHER.

At 0130 made radar contact with enemy forces in area southwest of Savo Island. Our column had turned to north and enemy was ahead of and to port of own forces. (See Sketch I.)

Own course north, speed 18. Enemy forces were apparently in three groups, one of which had crossed ahead of our column from port to starboard. The second was on the port bow of our column and the third on the port beam. A target in the third, or southwesterly enemy group was selected by the radar. There were apparently three or four heavy ships in this group preceded by a destroyer screen. Approximately 20 enemy ships were visible on the radar screen at this time. At 0149 an enemy ship on our port bow illuminated our cruisers by searchlight and all our vessels opened fire. Opening range of this ship was about 5,500 yards. FLETCHER's target turned out to be the ship which had illuminated, and since it was under fire from other vessels, fire was shifted to a cruiser astern of her. This vessel had three stacks and two high masts and was possibly of the TENRYU or NATORI class. She burst into flames in many places. One Jap destroyer in her vicinity blew up and one or two were on fire. At 0153 received order by voice radio from OTC to cease firing. Complied with this order and selected a new target, a cruiser astern of the original target. Opened fire on this third target at 0155. By this time the TENRYU cruiser was seen by several observers to suffer several minor explosions and sink. The radar screen during this first phase of gunfire appeared as in Sketch II.

At 0156 BARTON (second ship ahead) exploded and simply disappeared in fragments. The MONSSEN, low in the water, had by this time dropped aft on FLETCHER's starboard beam and the AARON WARD pulled out on the port bow.

THE FLETCHER BRINGING UP THE REAR HAD NO CHOICE BUT OBSERVE THE DESTRUCTION OCCURRING TO OWN FORCES AND COULD ONLY FIRE AT TARGETS OF OPPORTUNITY AS ANY COORDINATED ACTION HAD NOT BEEN INDICATED. THE FLETCHER WAS FORTUNATE TO HAVE ESCAPED.

At the same time (illuminated by BARTON's flame) one torpedo was seen to broach and porpoise about 50 yards ahead, two were seen to pass under the ship from star-

board to port and one passed astern making a surface run. Medium calibre shells were splashing on both sides of us.

The situation at this time became very confused. Our column had disintegrated; the cruisers appeared to have turned left to course 270° and were engaging heavy units ahead. The JUNEAU was crossing our line of fire and necessitated shifting to a target farther aft. Fire from both sides was still heavy and sustained. At this stage the radar screen appeared approximately as shown in Sketch III.

IT APPEARS THE FLETCHER DID NOT FIRE TORPEDOES WHEN OPPORTUNITY OFFERED USING RADAR DATA.

Apparently the northerly group of enemy has turned south down our starboard side and fired torpedoes at the starboard side of the rear of our column. One of the destroyers was observed to have a stack marking of white stripe over red stripe. Own 5" guns continued to fire all during the preceding events with unknown results. Two or three men are reasonably sure they saw a medium sized ship catch fire in several places but, with all the chaos, there is no coherent information.

The FLETCHER was then turned hard left (backing port engine) proceeded at maximum speed and threaded through the remainder of enemy disposition, firing at random. Commenced making smoke and retired to south-southwest about 6,000 yards. Started turn to right to return and deliver torpedo attack when a large ship was seen emerging from the melee. She was northeast of FLETCHER at this time and moving to the right on a southerly or southeasterly course. About this time the general firing became sporadic, seeming to consist of individual duels.

At 0205 turned south at 35 knots to round up ahead of enemy. The gun director matched with radar, found the target and plot commenced to track. The enemy was then northeast on a southerly or southeasterly course at speed 20 knots. FLETCHER gradually drew ahead to position about three miles on her starboard bow. At 0221 the target had slowed to 17 knots and was on course 070°. FLETCHER came left to course 030° to reach firing position.

This enemy ship was at this time firing major calibre guns with white tracers at a fairly high range to northward. This fire was being returned by several minor calibre ships (possible also enemy.) This was about the only gun action then taking place. At 0222 slowed to 15 knots and when target was on bearing 273° T., distant 7,300 yards fired a half salvo of five torpedoes, previously set for a 36 knot run. At 0223 fired the second half salvo of five torpedoes using new solution which was almost identical with previous data. About 6 minutes later a series of two or three low horizontal flashes were seen at the target. A series of increasingly large explosions took place in her, followed by continuous burning, and about twenty or thirty minutes later she blew up and completely disintegrated. By means of the gun flashes and occasional flares overhead the target was at times quite well lighted. All witnesses agree that it was a large cruiser or a battleship, that she had two forward and two after turrets, and that her general outline was somewhat comparable to our AUGUSTA class. Her identity cannot, unfortunately, be stated with any certainty. She could have been a KONGO battleship or a MAYA cruiser.

After the action, retired to eastward via Sealark Channel and fell in with HELEÑA, SAN FRANCISCO, O'BANNON, STERETT and JUNEAU. Retired to southeast down Indispensible Strait.

The commanding officer of the FLETCHER reported as follows on the use of type SG radar during this night action. It is considered that this organization for analysis and use of radar information is excellent and that vessels having similar equipment should examine their organizations with a view to attainment of comparable efficiency.

"This vessel in company with Task Force 67 was engaged with enemy forces in the night action of November 12-13, 1942 off Savo Island. On this occasion the SG radar was used with marked success for ship, gunnery, and torpedo control. Since this was one of the first opportunities to utilize the panoramic feature of the PPI screen in night action, the procedure is reported in detail.

A coordinating officer was stationed in the radar control room (just off chart hourse.) This officer had as an assistant a Radarman 3c to aid in actual operation of the instrument. The officer wore a 1JW headset with

one phone removed, he had 21MC (inter-office type "talk back" telephone) communication with the captain on the bridge, and had immediately available the JU (torpedo) telephones and an extension speaker and microphone for the TBS tactical voice-radio circuit. The 1JW circuit was so manned that the coordinating officer in radar control, the gunnery officer in the director, the FD radar operator in the director and computer operator in plot were the only outlets on the circuit. The JU circuit was normally rigged, the customary torpedo-track outlet in the chart house being led into the Radar room for use there.

With this communication arrangement the officer in radar control was able to keep the captain constantly informed of the tactical situation, which was often visually obscured; was able to select and designate gun targets; and was able to coordinate the fire control tracking and torpedo director pointing for torpedo fire.

For ship control:

First contact with the enemy was made by SG radar. The range was closing rapidly and no ships were sighted prior to opening fire. Only through the radar control officer was the commanding officer appraised of the location and disposition of the enemy groups, and of the general movements of our own column. After the first developed into a melee, the radar control officer was able, through his uninterrupted picture of developments, to designate the general location and movements of friends and enemy. This made it possible to thread the ship at high speed through an enemy formation and to conduct it to an advantageous point for torpedo fire.

For gunnery control:

(a) The officer at radar control saw on the screen an enemy formation of about seven or eight ships as the closest (southerly) of three enemy groups. The destroyers were apparently arranged in a screening formation around the heavy ships. At a range of about 10,000 yards the largest pip on the screen was selected as a target and the gun director was matched in train with radar by means of the automatic target bearing indicator. The ships were so close together that several pips showed up on the FD radar screen. To make certain the FD radar was on the selected target, SG radar constantly coached FD radar on in range over the 1JW circuit, and once a rate was established and plot had a reasonable solution, the FD radar had little

difficulty in staying on the correct target. It should also be noted that, by means of the PPI screen, it was possible to make an initial visual estimate of target course and speed merely by observation of the relative movement on the screen. This procedure saved priceless time in plot. At no time prior to opening fire were the enemy vessels seen by members of the director crew.

(b) When fire actually commenced, the range was slightly less than 6,000 yards and the first shots were hits. As it turned out, this target was also under fire by other vessels of our formation. The gunnery officer reported that he was shifting to the target next astern, which was already illuminated. SG radar then reported to plot that the range to this second target was 500 yards greater. The enemy ship were on parallel courses and so no alteration was even attempted in the computer solution other than an increase in range, and there was no interruption in the gunfire. From this stage on, the gunnery officer stayed on in train by FD radar and rocked his range back and forth in hundred yard steps. Several hits and fires of increasing severity were seen before the target sank.

(c) After this target sank, the ranges were so short (1,000 yards or less) that there was no opportunity for any control other than point blank fire and this vessel merely fired at every enemy that could be seen as they passed down our port side. It is believed that several vessels were hit although there is no accurate data available.

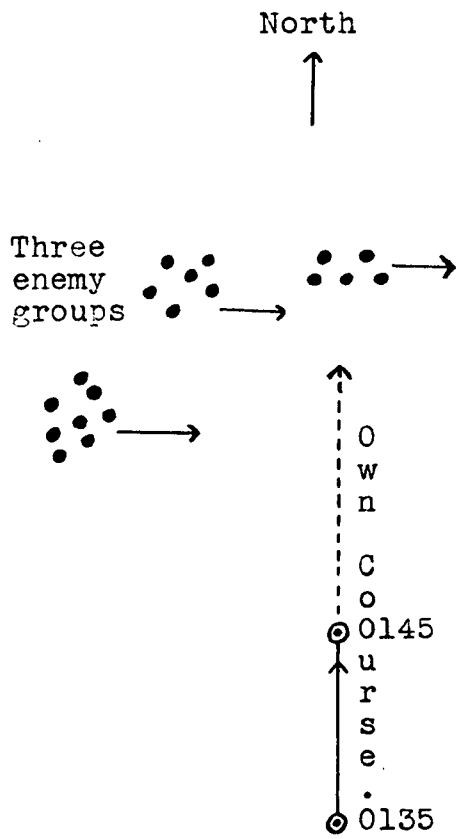
For torpedo control:

The captain on the bridge sighted a large target by means of its gun flashes and flares overhead. SG radar identified this target on the screen, the director matched in train, FD radar was coached on in range, and plot commenced to track. There was ample time to track and plot obtained an accurate solution, following the target through course and speed changes while this vessel was reaching a torpedo firing position. When the torpedo release point was reached, the torpedo director matched in train with SG radar bearing indicator. The target course and speed data were relayed from plot to radar control and from there to the torpedo director. The torpedoes were fired; and the first time the torpedo director trainer saw the target was when the torpedoes hit.

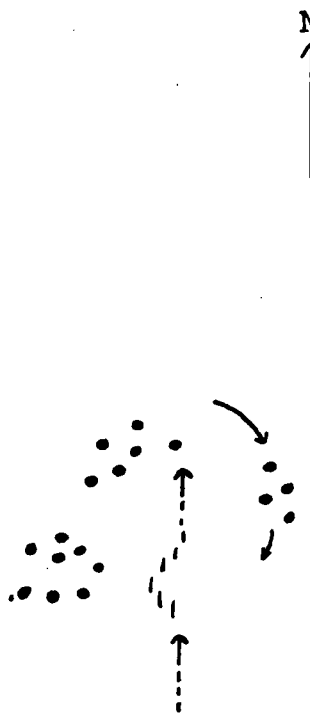
For the later rendezvous with HELENA and SAN FRANCISCO, the SG radar was used in the customary manner for navigational purposes, in this case merely ranges and bearings on Lunga Point, the northwest tip of Koli Point, on Pari Pile and on Nuga Island as they became visible on the screen.

Without this SG radar and its PPI screen it would not have been possible to select and hit with opening shots a heavy ship, to track and torpedo a heavy ship with such accuracy, nor would it have been safe to steam at 35 knots within a mile or so of the beach on a pitch dark night while reaching torpedo firing position. For both historical and analytical purposes, a motion picture recording of an SG screen during action would provide an invaluable record of relative strength, tactics and losses.

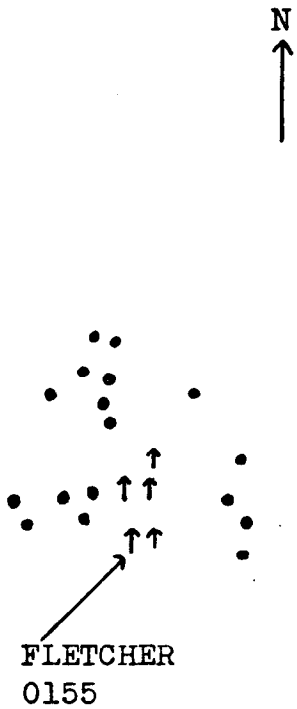
In the opinion of the commanding officer this instrument is the most priceless advantage we hold over the enemy for effectiveness in night operation. Its usefulness is, to a great extent, dependent on the experience, resourcefulness and judgement of the viewing officer. In the foregoing instance, the executive officer was stationed at the SG radar."



U.S.S. FLETCHER SKETCH I.



U.S.S. FLETCHER SKETCH II.



U.S.S. FLETCHER SKETCH III.

U.S.S. LAFFEY.

Contact with the enemy was first reported over the TBS by radar at a distance of 13 miles and between Savo Island and Cape Esperance. This placed the enemy on the port side of the formation. A short time later further contacts by radar were made on the starboard side of the formation towards the northward of Savo Island. The number of contacts is roughly estimated as 15 enemy units. Previous to opening fire the order was given by the OTC for odd numbered ships to fire to starboard, even numbered ships to port. The LAFFEY was second ship in column and opened fire to port. Just previous to opening fire two large enemy ships could be made out bearing about 315° Rel. The enemy illuminated our formation about simultaneously with both sides opening fire. A short time after firing commenced a large enemy unit bore down on the LAFFEY from port and only by speeding up was a collision prevented. Torpedoes were fired at this ship and they were seen to run to the target but did not explode due to the short run and the torpedoes not arming. This large enemy ship crossed astern of the LAFFEY and fire was opened on its bridge structure by all guns which would bear. At about this time a large calibre salvo of shells hit the LAFFEY in the bridge structure and in number two gun turret, followed very shortly by a torpedo hit at the fantail. Shortly after this another large calibre salvo hit amidships piercing the after fireroom and electrical workshop. This was the extent of hits known to have been made on the LAFFEY.

The Commander in Chief, Pacific Fleet commented as follows in summarizing this action:

The preliminary estimate of the damage inflicted on the enemy is as follows:

(a) Sunk - 2 CA.
1 CL, (NATORI Class).
5 DD, (Including one each of the FABUKI, AKATSUKI and SHIGURI Classes).

(b) Damaged and later sunk -

1 BB, (KONGO Class.)

(c) Damaged - 1 BB, (2 torpedoes and gunfire - reported as FUSO Class but propably KONGO Class.)

2 CL, (TENRYU Class).
3 DD, (Escaped with damaged BB.)

(d) Undamaged - Unknown, but it is believed all enemy units present were hit.

Task Force 67.4 suffered the following damage:

(a) Sunk -ATLANTA, JUNEAU (By SS next day), CUSHING, LAFFEY, BARTON and MONSSEN.

(b) Badly Damaged - SAN FRANCISCO, PORTLAND, AARON WARD and STERETT.

(c) Lightly Damaged - HELENA and O'BANNON.

(d) Undamaged - FLETCHER.

Prior to this action Task Group 67.4 under the command of Rear Admiral Callaghan, consisted of the following ships, arranged in the order of their disposition prior to the engagement. This task group had covered the withdrawal of our transports from Guadalcanal, and then made two sweeps; one through Indispensable Strait which revealed nothing; and the other toward Savo Island which resulted in this action.

Task Group 67.4 in order of disposition:

SHIP	COMMANDER	RADAR	TORPEDOES	GUNS
CUSHING	ComDesDiv 10	SC-1, FD	12	4-5"/38 DP 7-20mm. 3-4 TT
LAFFEY		SC-1, FD	5	4-5"/38DP 1-1.1 Quad 5-20mm. 1-5 TT
STERETT		SC-1, FD	8	4-5"/38 DP 6-20mm. 2-4 TT
O'BANNON		SG, FD	10	5-5"/38 DP 6-20mm. 1-1.1 Quad 2-5 TT
ATLANTA	R.Adm. Scott	SC	8	16-5"/38 DP 4-1.1 Quad 8-20mm. 2-4 TT

[redacted]

SHIP	COMMANDER	RADAR	TORPEDOES	GUNS
SAN FRAN-CISCO	CTF 67.4 R.Adm.Callaghan	SC		9-8"/55 8-5"/25 4-1.1 Quad 12-20mm.
PORTLAND		SC-1		9-8"/55 8-5"/25 4-1.1 Quad 12-20mm.

IT IS BELIEVED THAT THE PORTLAND WAS ALSO EQUIPPED WITH AN SG RADAR. HER REPORT SO INDICATES.

HELENA	SC-1, SG		15-6"/47 8-5"/38 DP 12-20mm. 4-40mm.Quad
JUNEAU	SC, SG	8	16-5"/38 DP 4-1.1 Quad 8-20mm. 2-4 TT
AARON WARD	SC	5	4-5"/38 DP 1-1.1 Quad 5-20mm. 1-5 TT
BARTON	SC-1,FD	5	4-5"/38 DP 1-1.1 Quad 6-20mm. 1-5 TT
MONSSEN	SC, FD	10	4-5"/38 DP 9-20mm. 2-5 TT
FLETCHER	SC-1, SG, FD	10	5-5"/38 DP 2-40mm 2-5 TT

The orders to Admiral Callaghan are contained in the following despatch:

"APS AKS EXPECT RETIRE FROM AREA TONIGHT 12th WITH ANTI-SUBMARINE SCREEN SHAW SOUTHARD HOVEY PLUS TWO SCOTT'S DESTROYERS LOWEST IN FUEL. REMAINDER COMBATANT SHIPS WILL BE UNDER YOUR COMMAND. ROUTE OF APS AND AKS WILL BE VIA LENGO CHANNEL NORTH OF NURA AND PASSING WITHIN SEVEN MILES WESTERN END SAN CRISTOBAL. SUPPORT GROUP COVER AGAINST ENEMY ATTACK FROM MOST PROBABLE DIRECTION. SEND ONE CRUISER TWO DESTROYERS TWENTY MILES AHEAD OF TRANSPORTS TO SWEEP INDISPENSABLE STRAIT BETWEEN LENGO CHANNEL AND NURA ISLAND FOR ENEMY SHIPS THEN REJOIN YOU. SUPPORT GROUP RENDEZVOUS IN POSITION TO RETURN TO CACTUS TONIGHT AND STRIKE ENEMY SHIPS PRESENT."

The following contacts had been previously reported and were presumably known to the Task Group Commander:

CTF 67 FULLY INFORMED CTG 67.4.

(a) Five DD's bearing 321°, distant 730 miles, speed 15; course 090°.

(b) Two BB's or heavy cruisers, one cruiser, six destroyers at 1035 LOVE in position Lat. 03° 45' S., Long. 161° E, course 180°, speed 25 knots.

(c) There had also been reported two carriers with two destroyers as escort south of New Georgia Island, course 135°, and several transports escorted by destroyers south of Shortland Island, course south. The identification of carriers in the first group was considered doubtful and was never confirmed.

The original plan called for one cruiser (ATLANTA) and two destroyers to sweep Indispensable Strait 20 miles ahead of the retiring transports and to rejoin Task Group 67.4 at a rendezvous from which a return was to be made to Cactus that night to strike any enemy ships present. This plan was not carried out. The sweep was made by the entire task group as a unit, disposed in a column as shown above.

Task Force 16 (ENTERPRISE) was to the southward of Guadalcanal and Task Force 64, composed of two battleships and four destroyers was also to the southward but neither was in a position to reach the scene of action.

The enemy approached in three groups hereinafter referred to as the Northern, Middle, and Southern, with the Northern and Southern Groups somewhat on the bows of the Middle Group as shown from radar contacts.

The following radar contacts were made:

(a) By the HELENA - At 0124: One group bearing 312°, distant 27,100 yards, second group bearing 310°, distant 32,000 yards. From the strength of the signals, it was believed that the two nearest plots were part of the screen for the more distant plot.

THE HELENA, FLETCHER AND O'BANNON APPEAR TO GET THE MAXIMUM INFORMATION FROM THEIR SG RADARS. IT IS REGRETTABLE THAT THE OTC DID NOT FLY HIS FLAG IN THE HELENA WHERE HE COULD HAVE HAD THE BEST POSSIBLE PICTURE. ALSO IT IS REGRETTABLE THAT THE DESTROYER SQUADRON COMMANDER DID NOT USE THE O'BANNON AS HIS FLAGSHIP AND LEAD THE DESTROYERS IN THE VAN. THE RESULTS OF THIS ACTION MIGHT HAVE BEEN MORE DEVASTATING FOR THE JAPANESE IF THIS HAD BEEN DONE.

(b) By the O'BANNON -

(1) At 0140 LOVE: One group bearing 287°, distant 11,000 yards, containing three or more units, a second group bearing 318°, distant 8,500 yards, containing two or more units, and a third group bearing 042°, distant 6,000 yards, containing three units.

(2) At 0145: The first group bearing 238°, distant 6,000 yards, contained an indefinite number of units but was believed to be greater in number than the first group at 0140 above. The second group bearing 279°, distant 4,500 yards, contained an indefinite number of units, but likewise was believed to be in excess of the number in the second group at 0140. A third group, bearing 055°, distant 4,000 yards, contained from three to five units. A fourth group was divided into two parts to wit: A double bearing 017°, distant 13,500, and a single bearing 031°, distant 9,000 yards.

(3) At 0155: The first group bearing 223°, the second group bearing 261°, and the third group bearing 041°, had become confused by this time and their identity as groups lost. The fourth group, still divided into two parts, was on bearing 022° - the double being

12,500 yards distant and the single 8,000 yards distant.

By tracking the plots the HELENA determined that the enemy was on course 134°, speed 20, later changing course to 120°.

The Northern Group consisted of one light cruiser (NATORI Class) and four destroyers. The Middle Group consisted of two battleships which apparently were not in close formation at any time, plus one heavy cruiser and three destroyers. The Southern Group consisted of one heavy cruiser, two light cruisers, and three destroyers.

The Task Group Commander ordered the following changes of course over the TBS at the times indicated:

0100 (LCT)	Course 280° T.
0130	Course 310° T.
0137	Course 000° T.
0143	Course 310° T.
0147	Course 000° T.

At 0143 the destroyers were given permission to fire torpedoes at three enemy ships crossing from port to starboard, range 3,000 yards. The CUSHING was swinging to port to fire torpedoes and was ordered by the Task Group Commander to course 000° before torpedoes were fired.

> DOCTRINE SHOULD PROVIDE FOR DESTROYER TORPEDO ATTACK. IT SHOULD NOT BE NECESSARY FOR OTC TO ORDER IT. THE DESTROYERS WERE ATTEMPTING TO DO THEIR UTMOST BUT IT APPEARS THAT THE SITUATION WAS CONFUSED IN THE FLAGSHIP.

The above mentioned turn to the left and then to the right caused confusion at the head of the column. The SAN FRANCISCO swung outboard of the ATLANTA on both turns, with the result that on the last turn to the right the ATLANTA found herself on the SAN FRANCISCO's starboard hand. This had an effect later.

The maneuvering incident to this confusion is exemplified by extracts from the HELENA's log:

0149 - Hard left, flank speed.
0150 - Stop.
0151 - Flank speed.

[redacted]

At 0145 the OTC ordered over TBS "Standby to fire". The range was then about 3,000 yards. At 0148 he ordered "Odd ships fire to starboard, even to port." At this time the HELENA was illuminated by an enemy searchlight on the port beam and opened fire on it. The SAN FRANCISCO opened on the targets on the starboard side, one of which had illuminated our formation with searchlights.

HERE AGAIN DOCTRINE SHOULD PRESCRIBE WHEN TO OPEN FIRE. THE OTC SHOULD NOT HAVE PERMITTED THE RANGE TO CLOSE TO 3,000 YARDS BEFORE OPENING FIRE. HE DEFINITELY DID NOT APPRECIATE THE SITUATION BECAUSE HE HAD NO SG RADAR IN HIS FLAGSHIP.

The enemy ships to port shortly reversed course in a simultaneous turn and appeared to fall back on the Middle Group which had not yet been sighted. The STERETT opened fire to starboard at about 0149. Shortly thereafter the cruiser on the starboard side blew up. At this time the CUSHING and the LAFFEY were under heavy fire. At this time PORTLAND's second salvo sank a destroyer.

At 0155 the Task Group Commander gave the order to cease fire over the TBS including the words "own ships" in the order. From conversations with SAN FRANCISCO personnel it was ascertained that the reason for this order was the belief that the ATLANTA was under fire from our own ships.

THIS IS QUITE POSSIBLE. WE MUST GET MORE RADAR IN OUR SHIPS AND ALSO PROVIDE IFF.

At 0157 the HELENA went hard right to avoid the ATLANTA crossing starboard to port. About the same time the SAN FRANCISCO sighted a KONGO class battleship bearing 30° relative and shifted fire to her, range 2,200 yards. Two main battery salvos were fired , all shots appearing to hit. The battleship did not return the fire. At 0158, according to the HELENA's log, course was changed to 000°, speed 28. PORTLAND was torpedoed but continued firing at a battleship.

The CUSHING at this time reports sighting an enemy battleship on a westerly course. Thereupon the CUSHING turned right and fired six torpedoes, local control, range 1,000, resulting in three hits. The battleship, reported as one of the FUSO class, but probably a KONGO, was also hit by one of our cruisers and continued slowly to the westward and disappeared. At this time the CUSHING was dead in the water and the

JUNEAU had been torpedoed, after firing about 25 rounds.

Shortly after fire commenced, a large enemy ship bore down on the LAFFEY from port and collision was avoided only by LAFFEY's speeding up. LAFFEY launched two torpedoes which were seen to hit the target, but did not explode due to the short run. This ship crossed the stern of the LAFFEY, which opened fire on its bridge structure with all guns that would bear. About this time the LAFFEY was hit by a large caliber salvo, followed shortly by a torpedo hit.

The MONSSEN was on fire and had turned away, the PORTLAND had been hit by a torpedo, the ATLANTA had, according to hearsay, only gotten off three salvos and sheered out to the left and the AARON WARD was in trouble. The JUNEAU had been torpedoed at some indeterminate time. (The Northern enemy group had fired torpedoes at about 0152.) The FLETCHER had turned left and had torpedoed a heavy cruiser.

Shortly after 0200 the STERETT shifted to port and picked a KONGO class battleship as a target. This ship was plainly visible, illuminated as she was by starshells and by a burning ship to the south. STERETT launched four torpedoes, range 2,000 yards, two of which seemed to hit, and she in turn received many 5" hits on the bridge.

The SAN FRANCISCO now engaged a battleship on its starboard bow. At this time the SAN FRANCISCO had a battleship on the starboard bow, a second battleship ahead, a cruiser on the starboard quarter, and a destroyer close ahead and passing down the port side.

A TIGHT SPOT TO GET INTO DELIBERATELY.

At 0153 the SAN FRANCISCO fired two salvos at the KONGO class battleship on her starboard bow, and then checked fire on the orders of the Task Group Commander. The destroyer which passed down the port side was hit in the stern by the last salvo from her AA battery before the SAN FRANCISCO was knocked out by the battleship's fire. The destroyer's depth charges were seen to explode and she sank by the stern. The SAN FRANCISCO's main battery continued firing on the battleship as long as it could bear. Meanwhile, steering control had been shifted to Conn with the rudder angle indicator out 15°. The ship then sheered left and made a half circle.

During this multiple engagement, Admiral Callaghan, the Task Force Commander, was killed, and Captain Young, the commanding officer of the SAN FRANCISCO was mortally wounded. The senior officer on the bridge was Lieutenant Commander Bruce McCandless who conned the ship during the remainder of the action. Lieutenant Commander Herbert E. Schonland was the senior officer on board. At this time the second deck was flooded, and the roll of the ship was being accentuated by the reduction of stability incident to the free surface. Lieutenant Commander Schonland ascertained that Lieutenant Commander McCandless was in charge on the bridge and continued supervision of plugging the holes and unwatering the second deck. This was an outstanding job of damage control. The combined efforts of these officers saved the ship.

It was Lieutenant Commander McCandless' intention to go out between Savo Island and Cape Esperance but a big ship opened fire and as the ship kept swinging left the decision was made to go out to the eastward, and around astern of the enemy. There was a report from the STERETT that during the engagement heavy calibre deliberate fire was coming from between Savo Island and Florida Island at ranges from 10,000 to 15,000 yards, with tracers seen going overhead. Shortly after this, all firing had stopped but slightly later some ship unloaded one 5" gun through the muzzle and the shooting started up again, but was quickly stopped. It is believed that at this time the two groups of enemy ships were firing at each other.

The SAN FRANCISCO now stood westward close to Guadalcanal, was joined by the HELENA at 0240, and stood out through Sealark Channel.

After the STERETT got away from the battleship, a destroyer of the FUBUKI class was silhouetted 1,000 yards on the starboard bow. STERETT obtained two torpedo hits on her which lifted her out of the water, and she sank. The STERETT was burning fiercely.

She had lost contact with her own ships, had only two guns serviceable, and only two torpedoes, which could not be fired due to tube damage. She headed close to Guadalcanal and went out through Lengo Channel, rejoining the formation at 0600.

THE STERETT RETIRED ONLY AFTER HAVING ALL OFFENSIVE ARMAMENT EXCEPT FORWARD 5" GUN PUT OUT OF ACTION AND BEING COMPLETELY ABLAZE AFT. HER FIRE CONTROL AND DAMAGE CONTROL WAS OUTSTANDING.

At about 0156 the O'BANNON found herself within 1200 yards of a KONGO class battleship and fired four torpedoes with three hits. She then lost all gun targets and swung right to the eastward. At this time there were five burning vessels on the starboard quarter. At 0200, the O'BANNON swung hard left to avoid the bow of what is now believed to be the LAFFEY. Life jackets were thrown to the personnel. At 0204 she broke off the action because there were no targets, and headed southeast, attempting to locate either friends or enemies. At 0215 a smoking vessel was sighted on the port bow which later was believed to be the SAN FRANCISCO with the HELENA close by. From conversation it is understood that the BARTON was struck by two torpedoes; she blew up and sank at 0156.

The HELENA at 0212 had attempted to reassemble our remaining forces. At 0215 her radar showed enemy disorganized and retiring to northward. At 0226 she changed course to 092°, met the SAN FRANCISCO; and later met the JUNEAU in Indispensable Strait. At 0231 PORTLAND asked for a tow. At 0630 while disabled southeast of Savo Island, she sank a SHIGURE class destroyer some 12,000 yards distant.

COMMENT AND RECOMMENDATIONS.

The Japanese ships were firing bombardment ammunition which was responsible for the extensive damage to the upper works of the units of Task Group 67.4 and to the exposed personnel. Had armor piercing projectiles been used, our ship losses would probably have been greater. Torpedoes, probably launched by Japanese cruisers of the Northern Group, caused the greater material damage.

From information available there is no record of any operation order or battle plan issued by Commander Task Group 67.4

IT APPEARS THAT CTG 67.4 HAD SUFFICIENT TIME TO PREPARE A BATTLE PLAN. HOWEVER OUR COMMANDERS SO FAR THIS WAR HAVE BEEN CHANGED FREQUENTLY AND THEY HAVE NOT HAD AN OPPORTUNITY TO THOROUGHLY INDOCTRINATE THEIR SUBORDINATES AND TRAIN PRIOR TO COMBAT OPERATIONS. THIS CONDITION HAS BEEN GETTING PROGRESSIVELY WORSE AS THE WAR HAS PROGRESSED.

In the disposition used the destroyers were not in a position to attack unless the enemy put themselves in a position to be attacked. They were rigidly tied to the cruisers. Apparently no consideration was given to the employment of the destroyers as pickets or as a screen against destroyer action, submarine threat, or motor torpedo boats.

DESTROYERS ARE ESSENTIALLY AN OFFENSIVE TYPE AND SHOULD BE SO EMPLOYED. THIS EMPLOYMENT OF DESTROYERS IS NOT SOUND UNDER THE CIRCUMSTANCES.

The distribution of destroyers between van and rear, with the squadron commander in the rear group, is open to question.

Apparently the Vee and the Wedge formations, prescribed for light forces in night attack, were not considered. It is presumed that the choice of this disposition is the result of a desire to maintain close control of own forces. The installation of IFF, and the perfection of a combat operations center will reduce the tendency to such close formations.

A THOROUGH STUDY OF PACIFIC FLEET TACTICAL BULLETIN NO. 5TB-42 IS INDICATED, FOR ALL LIGHT FORCE COMMANDERS AND OFFICERS IN LIGHT FORCES.

With respect to the arrangement of the cruisers, it would appear that a better control might have been exercised by interchanging the ATLANTA, with Admiral Scott, and the JUNEAU, thereby putting the second in command at the rear of the cruiser column. It is possible that the position of the ATLANTA was dictated by her ability to illuminate and possibly as a support for the destroyers should the latter be ordered to act as a striking unit.

THIS INTERCHANGE WOULD HAVE ALSO PLACED A SHIP WITH SG RADAR AHEAD AND IN CLOSE TOUCH WITH OTC WHO DID NOT HAVE AN SG RADAR IN HIS FLAGSHIP. THE HELENA MIGHT HAVE BEEN BETTER PLACED AHEAD OF THE OTC AND THE TWO CL/AA'S CONCENTRATED AHEAD OF THE REAR DESTROYERS FOR THE PURPOSE OF LEADING THE REAR DESTROYERS IN A TORPEDO ATTACK. THE CL/AA'S WITH THEIR TORPEDO BATTERIES AND THEIR STRONG 5"/38 BATTERIES COULD BE EFFECTIVELY EMPLOYED WITH THE DESTROYERS. WITH THEIR ARMAMENT, THE TWO CL/AA'S WITH FOUR REAR DESTROYERS MIGHT HAVE ATTACKED THE ENEMY ON THE FLANK FROM THE NORTH.

There is no evidence that searchlights were used by our forces. Starshell illumination was employed in the early stages of the battle but apparently was not used for the purpose of identification of units in the disorganization that ensued. There are a number of instances, as shown by the HELENA's TBS log, of the use by our forces of fighting lights. The first occasion was at 0200 when the LAFFEY instructed the STERETT to turn on her lights for three seconds. The next occasion was at 0235 when the HELENA instructed all ships to turn on their fighting lights. By this time the main portion of the battle had ended.

SEARCHLIGHT ILLUMINATION IS NOT RECOMMENDED IN A NIGHT ACTION WHEN RADAR IS AVAILABLE.

There is nothing to indicate the intention of the OTC in turning to the westward in between the converging enemy column or the extent of his information as to the enemy dispositions. The radar plots show clearly the groups of enemy units converging on our forces, but there is nothing to indicate that the OTC was in receipt of this information.

IT APPEARS THAT THE OTC DID NOT HAVE THE BEST AVAILABLE INFORMATION AS TO THE ENEMY DISPOSITION DUE TO LACK OF SG RADAR. IT IS HARD TO REALIZE THAT THE OTC WOULD DELIBERATELY TURN IN TO THE WESTWARD IN BETWEEN THE CONVERGING ENEMY GROUPS UNDER THE EXISTING CIRCUMSTANCES.

What he might have done in maneuver based on enemy course and speed solution and his own relative movement remains a speculation. Further, there is no evidence that the OTC knew that he was engaging battleships, unless he assumed that battleships would be present from the contact reported above. It can be said, however, that once the battle was underway and the presence of battleships known,

there was little that he could do to extricate his forces except to fight his way out, as he did.

In this, as in previous actions, the authority of the commanding officers of the individual ships to open fire was curbed by the OTC over TBS, presumably because of his fear of firing on his own units.

A WELL CONCEIVED PLAN OF BATTLE THOROUGHLY DISSEMINATED AND UNDERSTOOD, WOULD HAVE ELIMINATED THE FEAR OF FIRING ON OWN UNITS.

The delay in the initial opening of fire is regrettable. The value of ordering a fire plan based on odd and even ships cannot be discerned. The action of the following night, in which our battleships were engaged, demonstrates the unquestioned advantage of opening fire before the enemy does.

There is no evidence that a rendezvous had been designated. The movement of all ships at the conclusion of the engagement was based on individual decision, with fortunate results. The establishment of location points, for plain language transmission would be of value in similar cases.

Although super frequency radio (TBS) has proved of important tactical value in battle, commanders should keep in mind that its effective communication distance, except under abnormal conditions, is limited to sight range.

THERE IS A TENDENCY TO USE TBS TOO MUCH. THIS HEAVY USE OF TBS UNQUESTIONABLY ASSISTS THE ENEMY.

This fact, along with the possibility of battle damage, makes it essential that other means of bridge communication be utilized periodically so as to insure their being kept in a high state of efficiency. It is necessary to be ready to parallel TBS communication with keyed radio.

This action, in which a brave and gallant leader, well knowing the odds, took in brave men against far superior forces, was a turning point in the Solomon Islands campaign. Had the powerful enemy fleet succeeded in its mission of bombarding our airfield on Guadalcanal, the task of preventing a major enemy

attack and landing of large scale reinforcements would have been much more difficult if not impossible. The calculated decision of Rear Admiral Turner to send in the cruiser force, the resolution with which Rear Admiral Callaghan and Scott led the ships in, the well directed fire and courage of our personnel, merit the highest praise.

CHAPTER XXIX

AIR ATTACKS BY TASK FORCE 16 IN COOPERATION WITH MARINE AIR UNITS BASED ON GUADALCANAL.

13 - 14 NOVEMBER, 1942.

Task Force 16 under the command of Rear Admiral Kinkaid had been reconstituted as follows: ENTERPRISE, WASHINGTON (Rear Admiral W.A. Lee), SOUTH DAKOTA, NORTHAMPTON, SAN DIEGO, CLARK, HUGHES, BENHAM, ANDERSON, MORRIS, MUSTIN, RUSSELL, and WALKE.

On November 11, 1942, the U.S.S. ENTERPRISE got underway from Noumea, New Caledonia, and proceeded to sea in company with Task Force 16, Rear Admiral Thomas C. Kinkaid, U.S.Navy. After clearing the channel, Air Group TEN, composed of 38 fighters, 16 scouts, 15 bombers and 9 torpedo planes, flew out from Tontouta Field and landed aboard.

Task Force 16 proceeded on a northwesterly course west of New Caledonia. At 1925, November 12, a report was received from Radio Guadalcanal of two enemy CV and two DD at 1450 LOVE on course 135°, speed 15, bearing 265°, distant 150 miles, from Lunga Point, or approximately 575 miles to the northwest of Task Force 16.

> CONTACT REPORTS OF ENEMY SHIPS FROM OUR PILOTS MUST BE RECHECKED BY THEM IN AMPLIFICATION IN ORDER TO ASSURE ACCURACY. IN THIS ACTION SEVERAL CV'S WERE REPORTED THOUGH IT WAS ULTIMATELY DETERMINED THAT NO CV'S WERE USED BY THE ENEMY IN THIS ACTION. IN THIS CONNECTION IT SHOULD BE NOTED THAT ENEMY TRANSPORTS AND CARGO SHIPS, DUE TO CAMOUFLAGE, LOOKED LIKE CONVERTED CARRIERS AT A DISTANCE, TO MANY PILOTS. SOME OF THE TRANSPORTS WERE CAMOUFLAGED BY BLACK AND WHITE DAZZLE PAINTING AND STRIPED, AND OTHERS OBSERVED WERE OF SOLID RUST COLOR. BROAD WHITISH LINES WERE REPORTED INGENIOUSLY PAINTED HORIZONTALLY ON ENEMY TRANSPORTS THUS MAKING THEM LOOK LIKE CONVERTED CARRIERS.

Task Force 16 closed the contact at high speed, and in Lat. 14° 44' S., Long. 161° 28' E., at dawn on November 13, a 10-plane search by single planes was launched, sector bearings 270° to 030° T. distance 200 miles. No contacts

resulted. However, in view of the fact that No. 1 elevator of the ENTERPRISE was still out of commission, it was deemed wise to send the torpedo planes with a fighter escort in on an offensive sweep with orders to attack any targets found and then to land at Cactus and report to the Commanding General for temporary duty. This plan would increase the effectiveness of flight operations should an action occur, as well as reinforce Henderson Field. Accordingly, at 0810, when the search planes had reached the end of their search and no contacts had been made, 9 torpedo planes (8 armed with torpedoes and 1 with 500-lb. bombs) and 6 fighters were launched for Guadalcanal with instructions to search and to strike any suitable targets they might encounter. This flight also provided a search to considerable depth for much needed information. Subsequent information received on the activities of this group indicates that it struck the enemy many hard and timely blows. En route to Cactus, this flight sighted a battleship of the KONGO class with a CA and DD escort 10 miles north of Savo Island steaming into position for bombardment of the airfield. The TBF's attacked, reported 3 torpedo hits on the battleship, landed at Cactus for rearming, made a second attack three hours later reporting 3 more torpedo hits, and left the battleship practically dead in the water and listing heavily.

SIX TORPEDOES SHOULD SINK A BATTLESHIP.
HENDERSON FIELD WAS BOMBARDED THAT NIGHT BY
THIS BATTLESHIP.

These attacks probably prevented destructive bombardment of our only air base in the Solomons and probably prevented the sinking of the PORTLAND then dead in the water two miles north of Lunga Point. Running shuttle trips from Cactus during the next two days (14-15 November), this squadron made six additional attacks on Japanese vessels, expending a total of twenty-six torpedoes, thirteen 500-lb. bombs, and twenty-nine incendiary bombs.

At 0848/13 (-11), Task Group 16.9, Rear Admiral M.S. Tisdale, U.S.N., in PENSACOLA with GWIN and PRESTON, joined Task Force 16 in Lat. 14° 00' S., Long. 161° 30' E. Task Force 16 then continued to the northward but the speed of advance was considerably reduced by submarine contacts requiring emergency turns and by flight operations into a light breeze on the starboard quarter.

At 1110 orders were received from Commander South Pacific to proceed to northerly position to support our damaged units retiring from the Guadalcanal Area, but to

remain south of Lat. 11° 40' S., unless circumstances required otherwise and to guard against observation from Rennel Island and Indispensable Reef. Commander Task Force 16 also was directed to organize his force as desired. A surface attack group, consisting of all units except one CL/AA and four DD's which were to remain with the carrier, had already been organized under Rear Admiral Lee and no change was made at this time.

At about noon the combat air patrol shot down a 4-engine KAWANISHI flying boat which was shadowing this force from a position to northwestward. It was later learned that this plane or possibly a submarine had reported accurately the position of Task Force 16.

A despatch received from Commander South Pacific at 1653 LOVE, 13 November, Commander Task Force 16 was directed to organize both battleships and four destroyers as a striking force under Rear Admiral Lee to proceed only on orders of Commander South Pacific to operate in the vicinity east of Savo Island to intercept enemy bombardment force that night. Task Force 16 immediately increased speed to 23 knots on course 000° to gain distance to northward while getting organized. At 1929 LOVE, a message was received designating Lee's force as Task Force 64 and directing him to carry out the above orders and to clear the area by daylight. Task Force 64, Rear Admiral Lee in WASHINGTON, SOUTH DAKOTA, GWIN, PRESTON, BENHAM and WALKE, departed to northward at high speed and Task Force 16 turned south to retirement course for the night.

Since Lee was too far from Savo Island to arrive at the time designated, Commander South Pacific was informed by radio by a destroyer (MUSTIN) detached from Task Force 16 and directed to proceed 50 miles to eastward before breaking radio silence. The following day MUSTIN, not having rejoined because of change in the rendezvous, was directed to proceed to nearest port for fuel, there being no means of giving that vessel a new rendezvous without disclosing the position of the Task Force.

In compliance with orders from Commander South Pacific, received at 1943 LOVE, Task Force 16 turned to course 300° toward approximate daylight position Lat. 11° 30' S., Long. 158° 30' E., and increased speed to 25 knots thus placing the force at dawn on the 14th approximately 200 miles south-southwest of Cactus. The situation at dawn on the 14th was obscure.

GUADALCANAL MIGHT HAVE BEEN ABLE TO FURNISH INFORMATION. IT APPEARS THAT ALL PERSONS WHO SHOULD KNOW ARE NOT ALWAYS INFORMED. IF TASK FORCE 16 HAD BEEN INFORMED OF THE NIGHT ACTION OFF SAVO ISLAND IT MIGHT HAVE BEEN POSSIBLE FOR A PRE-DAWN STRIKING FORCE TO HAVE BEEN DISPATCHED TO HENDERSON FIELD FOR REFUELING AND EARLY ATTACKS ON RETIRING ENEMY FORCES.

No further contact reports on enemy carriers had been received, the presence or absence of other enemy forces within striking distance was not known, and no information as to the situation at Guadalcanal or the availability of the field was at hand. Orders were to operate the morning of the 14th to exploit targets offered.

In a despatch received at 0518 LOVE, 14 November, Commander South Pacific directed Task Force 16 to proceed northwesterly about 100 miles from the Solomons to attack transports proceeding toward Guadalcanal from Faisi. In another despatch Lee was directed to operate along the same general northwesterly course about 50 miles from the Solomon Chain. It was decided to send out a search of the minimum number of planes capable of giving satisfactory coverage in order to maintain as large an attack group as possible, ready to strike any targets which were developed. Because of heavy rain squalls, the dawn launching was delayed until 0708 when two VSB were launched for single plane search of sectors bearing 285°- 315°T. to a distance of 200 miles and four groups of two planes each to search sectors bearing 315° - 015° T. to a distance of 250 miles. At the same time a three plane inner air patrol and an eight plane combat air patrol were also established. All search planes were armed with 500-lb. bombs and were ordered to transmit contact reports carefully and then attack.

THIS SEARCH SHOULD NOT HAVE BEEN NECESSARY IF GUADALCANAL HAD KEPT THE TASK FORCE FULLY INFORMED.

At 0808 Lieutenant W.I. Martin, one of the search pilots, reported that ten unidentified planes were about 140 miles to the north, heading in the direction of our task force. On receipt of this message 12 VF were launched to augment our combat air patrol. In addition, it was decided to send off the attack group, consisting of 17 VSB with 1000-lb. bombs and 10 VF, in order to clear the flight deck in case the ship should be subjected to attack and in order to strike early the targets which, it was believed, certainly would be found in the Guadalcanal Area. Because of the absence of recent

contact reports, this attack group was sent on a northerly course and instructed to listen for contact reports and to attack the best targets within range. The flight of unidentified planes was not picked up by the radar and no attack on us developed.

The first contact report of enemy ships from our search planes was received from Lieut. (j.g.) R. D. Gibson, of VB -10, at 0915. He reported a force of 9 enemy ships including one "possible XCV." At 0921 he reported the weather good and conditions favorable for dive bombing. He then (0935) amplified his report to include "2 BB, 2 CA, 1 possible XCV, 4 DD, position 08° 45' S., 157° 10' E., course 290°" (South of New Georgia).

At 0925 ENTERPRISE broke radio silence to direct fighters.

THE ENEMY CERTAINLY SUCCEEDS IN KEEPING OUR TASK FORCES LOCATED. DURING THE RUN FROM NOUMEA, SEVERAL SUBMARINE CONTACTS WERE MADE INDICATING THAT THE JAPS DISPOSE THEIR FORCES, PARTICULARLY AIRCRAFT AND SUBMARINES, AT STRATEGICALLY ADVANTAGEOUS POINTS TO THEM.

Lieut. M. Kilpatrick and Lieut. (j.g.) W.K. Blair shot down a 4-engine patrol plane which was shadowing about 30 miles northeast of this Task Force.

At 0944 Lieut. Comdr. J. R. Lee, leader of the VSB group, was asked if he had received Lieut. (j.g.) Gibson's contact report. He answered that he had missed the position. This information was given, and at 0945 Lieut. Comdr. Lee's group was ordered to proceed to and attack this enemy force, then 270 miles from ENTERPRISE, and land at Guadalcanal. These messages to the attack group were acknowledged.

THIS INDICATES THAT OUR PEOPLE ARE CONSCIOUS OF OUR CONTACT REPORTING AND COMMUNICATION WEAKNESSES AND EMPHASIZES THE VALUE OF CHECKING UP.

Lieut. (j.g.) M. D. Carmody, at 0949, reported a second enemy force in position 08° 00' S., 158° 00' E. (North of New Georgia), course 130°, speed 14 knots. A few minutes later, he amplified this report to read: "many enemy transports, 2 CA, 3 CL, 6 DD," and confirmed position, course, and speed.

APPARENTLY A SPLENDID CONTACT REPORT AND INDICATES PROGRESS IS BEING MADE.

Lieut. (j.g.) Carmody then dove on one transport, and his wing man, Lieut. (j.g.) W. E. Johnson, dove on another. Lieut. (j.g.) Carmody's bomb hit just off the transport's stern. Lieut. (j.g.) Johnson was seen being chased by Zeros and, up to the present, no further report of him has been received. Lieut. (j.g.) Carmody landed back on board at 1233 with 5 gallons of gasoline remaining after having been in the air for five hours and twenty-one minutes, and having performed his duties in an excellent manner.

At 1044 Lieut. (j.g.) R. D. Gibson reported that he and his wing man, Ensign R. M. Buchanan, had made direct hits on a NICHI class cruiser and left it burning badly. He reported being low on gasoline and that he was proceeding to Cactus.

The only other report from the search planes was from Ensign R. A. Hoogerwerf whose bomb fell only a few feet astern of a heavy cruiser. His wing man, Ensign P. M. Halloran reported making a direct hit on another light cruiser which burst into flames and burned fiercely. Ensign Hoogerwerf reported on his return that the cruiser hit by Lieut. (j.g.) Gibson, when last seen, was sinking and being circled by 3 DD's.

OUR OBSERVATIONS FROM THE AIR CONTINUE TO BE OPTIMISTIC.

At 1133 Lieut. W.I. Martin having completed a thorough search of the Guadalcanal, Florida, Russell Islands and southeast tip of Santa Isabel reported: "No enemy surface vessels in the vicinity of Guadalcanal, Florida, Russell, Santa Isabel."

A summary of the reported damage inflicted by the search planes: 2 hits on a CA and 1 hit on a CL.

The first attack group changed heading at 0940 to intercept the BB-CA force reported by Lieut. (j.g.) Gibson in the vicinity of Rendova Island. One CA was sighted about 15 miles southwest of Rendova Island, burning and apparently being abandoned. The group continued on a northwest track, sighted and attacked a force composed of CA's, CL's, and DD's, 30 miles west of Rendova Island. Two direct hits were reported on one CL and several near misses on CA's and CL's. The VSB proceeded to Cactus on completion of the attack. Eight VF returned to the ENTERPRISE and two proceeded to Cactus after strafing a cruiser. Some half-hour before reaching the target, the VSB changed course to the left while separated from the VF escort by a cloud. Due to scattered clouds in the area and inability of the VF to transmit on

the search and attack frequency, contact was not regained.

FIGHTER ESCORTS SHOULD HAVE RELIABLE COMMUNICATION WITH THEIR STRIKING FORCE.

The 8 VF searched to the north and west, then due to fuel considerations, returned and landed on the ENTERPRISE. These VF were reserviced and relaunched with the second attack group.

At 1405, a second attack group composed of the remaining 8 VSB with a 12 VF escort were launched to attack the transport force east of New Georgia, then proceeding to Cactus.

A MOST ADEQUATE FIGHTER ESCORT.

At about 1620 this group attacked the transports with methodical and devastating effect, having been instructed to hit undamaged ships with only one bomb. The VSB armed with one 1000-lb., 1/100 second fuze, bomb, reported one 1000-lb. hit on each of five of the undamaged AP-AK's. The VF made two separate strafing attacks on the two remaining undamaged AP-AK's. The group landed at Cactus.

THIS, IF TRUE, MUST HAVE BEEN A MOST DEVASTATING ATTACK. A 1000-LB. BOMB HIT ON A TRANSPORT SHOULD DEFINITELY DAMAGE THE TRANSPORT SERIOUSLY.

After launching the second attack group, the ENTERPRISE retired to the southward with only 18 VF.

A SOUND EMPLOYMENT OF THE CARRIER - i.e., GO IN BOLDLY AND STRIKE AND THEN RETIRE AT HIGH SPEED.

Task Force 16 with 18 VF on board continued to retire to the southward. At 1400 LOVE, Task Force 16 encountered a weather front about 300 miles from Guadalcanal and the combat air patrol and inner air patrol of VF's were landed.

Probably just before Task Force 16 entered the weather front an enemy plane reported the position of this force. Later that afternoon Task Force 64 from a position to southwest of Guadalcanal observed on the radar screen a group of 20 or 30 enemy planes to westward heading south. These planes returned sometime later without seeing Task Force 64 which was in squally weather. Evidently these planes were sent to attack Task Force 16.

Because its position had been reported, Task Force 16 during the night made a wide jog to westward to avoid submarines which might have been sent to intercept.

In accordance with a despatch from Commander South Pacific received at 1335 LOVE, 15 November, Rear Admiral Tisdale in PENSACOLA with NORTHAMPTON, MORRIS, RUSSELL and ANDERSON was detached to Espiritu Santo and ENTERPRISE, SAN DIEGO, CLARK and HUGHES proceeded to Noumea, New Caledonia, arriving about noon, 16 November.

CONCLUSIONS, COMMENTS, AND RECOMMENDATIONS BY C.O.ENTERPRISE.

Nothing in the operations herein discussed altered materially previously held views as to methods of operations of Carrier Task Forces. However, a number of points did arise which are worthy of mention.

As in nearly all previous actions, the need for more complete information was keenly felt. Reports as to enemy targets in the Guadalcanal Area were in several cases incomplete and confusing. What now appears to have been erroneous reports of enemy carrier contacts might, under different circumstances, have had a decidedly adverse effect upon decisions as to the operations of this Task Force. The almost total absence of reports from Guadalcanal as to the status of the landing field introduced an unnecessary element of uncertainty.

THIS DEFICIENCY IS UNDOUBTEDLY RECOGNIZED AND STEPS ARE BEING TAKEN TO CORRECT IT. HOWEVER, PROGRESS IS MUCH TOO SLOW. IT SHOULD HAVE THE HIGHEST PRIORITY. WE HAVE SUFFERED UNDER THIS DEFICIENCY IN THIS AREA SINCE LAST MAY AND HAVE LOST MANY OPPORTUNITIES TO HIT THE ENEMY SUCCESSFULLY AND AVOID BEING HIT OURSELVES. THE ENEMY IS FAR SUPERIOR TO US IN THIS DETAIL.

The air operations of the ENTERPRISE, other than routine searches and patrols, consisted of the launching of attack groups, which were sent in to attack such targets as offered themselves in the vicinity of Guadalcanal. Even the search on the morning of the 14th had orders to attack objectives found, and if necessary proceed to Guadalcanal for reservicing, and thereafter to operate from Guadalcanal or return to the ship as conditions warranted or as directed. Under these circumstances it was permissible to launch the groups at distances from objectives varying from 230 miles up to as far as 290 miles. This is too far if recovery of planes by the carrier prior to their refueling is contemplated. Where such recovery is planned with present carrier

aircraft, launchings at distances from objectives above 200 miles, are rather awkward. The reasons for this lie in the small fuel margin which is left for developing contacts; for combat at the objective (as was required here); and for finding the carrier under conditions of low visibility, or when due to imperfect plane navigation, or to unexpected and unannounced movements of the carrier, difficulty is experienced in locating her. It follows therefore that unless the carrier plans to stand on in and close the range, attacks should if possible be launched from positions no more than 200 miles from the objective, and preferably closer. To extend this distance by relatively small increments makes little difference to attacking enemy planes, whereas it may make a great difference when it comes to recovering one's own group.

THE CARRIERS ARE OBLIGED TO OPERATE UNDER A DISADVANTAGE. CONSEQUENTLY IT IS EMPHASIZED THAT THE CARRIER SHOULD DRIVE IN, STRIKE AND GET CLEAR AS QUICKLY AS POSSIBLE.

Availability of a landing field ashore altered the situation in this particular operation. However, everything observed here supported the generally accepted view, that a carrier should go in, hit, get clear, and not remain in the danger zone longer than absolutely necessary. Two "snoopers" which were shot down on successive days, together with other information received, indicates that the position of this force was known within rather narrow limits by the enemy during the time the force was operating in the advance areas. Under such conditions the period of exposure must be kept to a minumum.

THIS OPERATION IS AN EXCELLENT EXAMPLE OF THE EFFECTIVE EMPLOYMENT OF CARRIER AIRCRAFT FROM AN INTERMEDIATE STAGING POINT. BY SENDING HER PLANES TO CACTUS, THE CV WAS ABLE TO REMOVE ITSELF FROM THE MOST LIKELY VICINITY OF AIR ATTACK, WHILE THE AIR GROUP, DUE TO THE COMPARATIVE PROXIMITY OF THE TARGETS, GOT IN A MAXIMUM NUMBER OF ATTACKS BY SHUTTLING BACK AND FORTH FROM THEM. HAVING A CHAIN OF FRIENDLY BASES MADE IT A SIMPLE MATTER FOR THE AIR GROUP TO REJOIN THE CARRIER AT WHITE POPPY SOME 800 AIRLINE MILES FROM CACTUS.

The employment of the ENTERPRISE air group first from the ship and subsequently from the field at Cactus was an effective use of the group and resulted in maximum damage to the enemy.

The successful landing of a large sea-borne force in the face of strong aircraft opposition is extremely difficult.

COMMAND OF THE AIR IS ESSENTIAL FOR ANY SUCCESSFUL OPERATION.

The phenomenally high percentage of bomb and torpedo hits was due to careful training in basic fundamentals, excellent leadership in the air, the employment of small highly flexible units, and efficient fighter protection on our part, and lack of effective AA and fighter opposition by the enemy.

The high percentage of malfunctioning torpedoes among those loaded at Cactus indicates the necessity of improvement in the protection, maintenance, adjustment, and loading of torpedoes at the landing field of an advanced base. The necessity of protecting the firing mechanism from the elements and from dust should be impressed upon all personnel concerned.

The potentialities for effective use of landing fields by carrier air groups should be given careful consideration in the planning of carrier task force operations.

CARRIER AIR GROUPS MUST BE ORGANIZED AND PREPARED TO OPERATE EITHER FROM CARRIERS OR ADVANCE BASES. ADVANCE BASES MUST HAVE AN ADEQUATELY TRAINED FORCE WITH SUITABLE FACILITIES.

Detailed Summary of Air Operations From Cactus.

As an indication of the pitch of the activity, the twenty-four flights made by our planes is the best scale of measurement. Shuttle trips were made between the field and the approaching transport group. Composite attack groups formed by Marine and ENTERPRISE pilots were launched as rapidly as planes could be reserviced and rearmed. Due to the repeated attacks by these composite groups, the transport group was smashed at sea as well as at the dawn attempt to beach the remnants of the transport and cargo vessels. Their attacks were murderously effective, however no individual claims of ships sunk exclusively by ENTERPRISE pilots during the operations can be rightly made. The nine torpedo hits plus three dud torpedo hits and five 500-lb. bomb hits by the 9 torpedo pilots, and twenty-five 1000-lb. bomb hits by the 29 VSB pilots, plus 15 Zeros by our VF and rear seat gunners testify to the destruction accomplished by ENTERPRISE planes during their operations from Cactus.

No accurate estimate of the total number of ships sunk and damaged can be arrived at. It is known that each of several ships was attacked and damaged at different times by different pilots. Some of these vessels were also attacked by Army bombers and strafers and by Marine Corps dive bombers, torpedo planes, and strafers.

The Task Force Commander commented as follows:

CARRIER OPERATIONS

This time the air group on the carrier was utilized more effectively than ever before. Because of the absence of enemy carriers, the availability of an airfield in the combat area and the presence of important targets at considerable distance from the carrier but near the friendly airfield, it was possible for the carrier to strike and get clear without being unduly exposed to attack. The air group continued its vicious attack on enemy transports and combatant ships from its temporary base ashore and, when the action was over, was flown back to the carrier base via a chain of island bases.

FUTURE OPERATIONS

On several occasions in the past circumstances have required that our carrier task forces give combat to enemy carriers under the latter's own terms and with heavy odds in their favor. It is true that in each case heavy damage has been inflicted on the enemy and his plans have been thwarted but at the cost of losses of our own carriers which we could ill afford. Because of our improved position and better material condition those circumstances may not prevail in the future. If enemy carriers come down from the north and northwest, as in the past, it may be permissible to let them come within easy range of our shore based aircraft and in waters made dangerous to them by our submarines, holding our carriers in reserve to strike at the right time and with full force.

FALSE REPORTS

Accurate and continuous reports of enemy forces are of vital importance. On November 12 two enemy carriers were reported to northwestward, and again on November 13 one enemy carrier was reported to eastward of Malaita. Both of these reports were false. They were not followed by confirmation or denial. They gave the Task Force Commander considerable concern.

COMMUNICATIONS

The attack group was launched before any contact had been reported by our search because an enemy air attack on the carrier appeared to be developing. SBD's of the attack group were quickly shifted to the search frequency so that they could listen for contact reports. This shift could not be made in the time available in the case of the fighters accompanying the attack group because of the necessity for changing coils. Some of the fighters became separated from the rest of the group, failed to receive the order to land at Guadalcanal and returned to the ship after excessive time in the air.

HENDERSON FIELD

Pilots returning from Guadalcanal report that the fighter strip and the taxi and parking areas around the bomber strip are not provided with Marston matting, which will be essential during the rainy season now about to begin. Also trained ordnancemen and torpedomen are badly needed to service planes and equipment.

RADAR

The CXAM and SC radars are subject to long range radio direction finding. At night they should be secured and full reliance should be placed in the SG radar for surface contacts. The SG has proved of enormous value in night action between surface forces and promises to be of still greater value to us. It should be provided with repeaters on the navigational bridge and flag bridge.

IFF

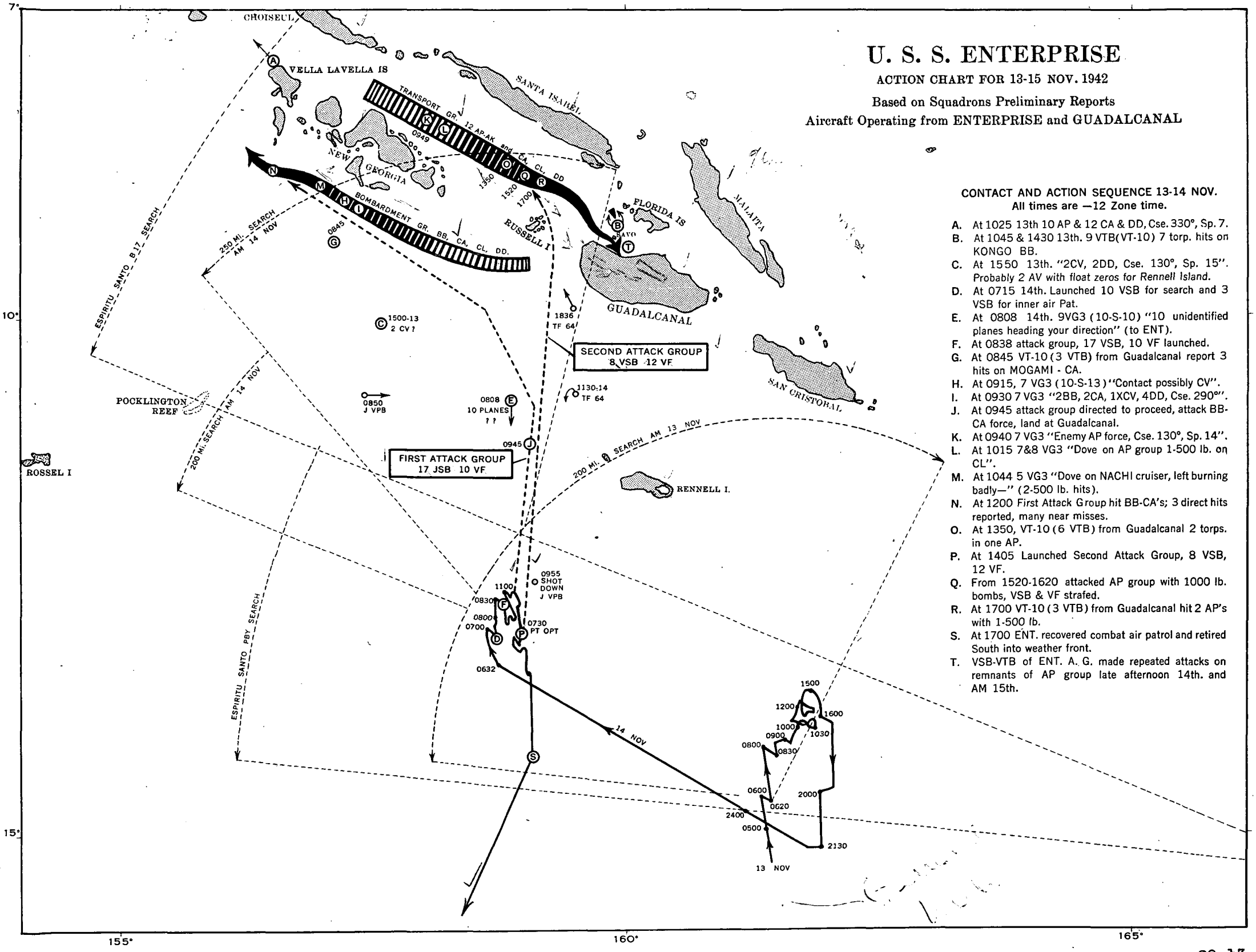
All ships should be so fitted with IFF that positive indication is given without dead spots. This is of great importance at night.

U. S. S. ENTERPRISE

ACTION CHART FOR 13-15 NOV. 1942

Based on Squadrons Preliminary Reports

Aircraft Operating from ENTERPRISE and GUADALCANAL



CONTACT AND ACTION SEQUENCE 13-14 NOV.

All times are —12 Zone time.

A. At 1025 13th 10 AP & 12 CA & DD, Cse. 330°, Sp. 7.

B. At 1045 & 1430 13th. 9 VTB(VT-10) 7 torp. hits on KONGO BB.

C. At 1550 13th. "2CV, 2DD, Cse. 130°, Sp. 15". Probably 2 AV with float zeros for Rennell Island.

D. At 0715 14th. Launched 10 VSB for search and 3 VSB for inner air Pat.

E. At 0808 14th. 9VG3 (10-S-10) "10 unidentified planes heading your direction" (to ENT).

F. At 0838 attack group, 17 VSB, 10 VF launched.

G. At 0845 VT-10 (3 VTB) from Guadalcanal report 3 hits on MOGAMI - CA.

H. At 0915, 7 VG3 (10-S-13) "Contact possibly CV".

I. At 0930 7 VG3 "2BB, 2CA, 1XCV, 4DD, Cse. 290°".

J. At 0945 attack group directed to proceed, attack BB-CA force, land at Guadalcanal.

K. At 0940 7 VG3 "Enemy AP force, Cse. 130°, Sp. 14".

L. At 1015 7&8 VG3 "Dove on AP group 1-500 lb. on CL".

M. At 1044 5 VG3 "Dove on NACHI cruiser, left burning badly—" (2-500 lb. hits).

N. At 1200 First Attack Group hit BB-CA's; 3 direct hits reported, many near misses.

O. At 1350, VT-10 (6 VTB) from Guadalcanal 2 torps. in one AP.

P. At 1405 Launched Second Attack Group, 8 VSB, 12 VF.

Q. From 1520-1620 attacked AP group with 1000 lb. bombs, VSB & VF strafed.

R. At 1700 VT-10 (3 VTB) from Guadalcanal hit 2 AP's with 1-500 lb.

S. At 1700 ENT. recovered combat air patrol and retired South into weather front.

T. VSB-VTB of ENT. A. G. made repeated attacks on remnants of AP group late afternoon 14th. and AM 15th.

CHAPTER XXX

SOLOMON ISLANDS, FOURTH SAVO ISLAND NIGHT BATTLE

NOVEMBER 14 - 15, 1942.

Task Force 64 consisting of WASHINGTON, SOUTH DAKOTA, PRESTON, GWIN, BENHAM, and WALKE took its departure from Task Force 16 at about sunset on November 13, 1942, while south of Guadalcanal. This task force was unable to cover Guadalcanal that evening and protect it against the bombardment scheduled by the enemy. A point about 50 miles south-by-west from Guadalcanal was reached during late forenoon of November 14. Most of the day was spent in this area avoiding contact with enemy planes. The enemy did sight this force and reported it as a force of possibly one battleship, one cruiser and four destroyers.

Information from despatches indicated the presence of three groups of enemy ships to the northwest of Guadalcanal. One of these, a twenty-four ship convoy, had been subjected to heavy air attacks during the day and had broken up into small groups on various courses when last seen about 1830. (All times -12.)

A second group, when sighted that morning, was reported as composed of two battleships, one light cruiser, and eleven destroyers. A third group of twelve ships in a convoy trailed the battleship group when last reported that morning. Other scattered units indicated the presence of possibly two heavy cruisers, three light cruisers, and twelve destroyers. Most of these latter, however, were engaged in covering the retirement of damaged transports and other units. When at about 2330 it was learned that an enemy convoy was coming through the passage off Savo Island sometime between 0030 and 0230, the covering force was at once presumed to consist chiefly of the battleship group reported earlier in the day. An earlier report indicated the presence of an enemy light cruiser and destroyer in a cover on Savo Island.

Enemy forces as reported on November 14th:

Time (Z-12)	Composition	Position (Lat.S)(Long.E)	Course	Speed
0355	Enemy ships	Vicinity Savo	--	--
0800	1 BB,2 CA 4 DD,1 CV	150 mi.from Guad.Brg.300	120	15

Time (Z-12)	Composition	Position (Lat.S)(Long.E)	Course	Speed
0815	2 BB,1 CL, 11 DD.	300°,150 mi. from Guadalcanal.	130	25
0830	12 AP	07-55;157-45	--	--
1010	1 CC, 1 DD	Brg.080 Marau Sound, Guad.	--	--
1015 (TOR)	4 CA, 3 DD	170 mi.from Guad.Brg.280.	--	16
1035	2 CL,2 DD	08-00;156-20	350	25
1036 (TOR)	5 ships	07-00;160-20	340	--
1050	2 CV	08-16;158-43	--	--
1104 (TOR)	25 ships including 2 CV?	08-15;158-43	130	--
1105	2 CB, 3 CC, 6 DD.	09-00;157-15	310	25
1600	12 AP plus several small ves.	80 mi.from Guad.Brg.311	--	--
1600	1 CA, 1 CL, 6 DD, 4 AP.	08-40;159-00	--	--
1700	11 AP, several DD.	60 mi. NW Savo Is.	--	--
1700	4 CA, 1 CL, 10 DD.	06-52;150-00	165	17
1757	Enemy forces	60 mi. NW Savo Is.	--	--
1835 (TOR)	2 AP - burning 5 AP underway	70 mi.from Guadalcanal	305	--
1836	1 BB, 1 CC, 4 DD	09-50; 159-30	350	10
1845	9 AP-DD-CC 1 large unidentified.	80 mi.Brg.315 from Guadalcanal.	2 AP Crs.N. 2 AP Crs.NE.	

Time (Z-12)	Composition	Position (Lat.S)(Long.E)	Course	Speed
1848	AP's-CL-DD	08-20;159-10	--	--
1920	11 ves. including 1 CL.	08-25;158-15	--	--
2000	Position enemy (Refers to AP's unchanged; 1848 report) 1 CL, several DD's same posit.		302	
2010 (TOR)	1 CL, 1 DD	Cove in Savo Island.	--	--
2110	Unknown	09-10;158-45	--	--
0006	3 ships	Just rounded north of Savo headed west.	--	--

The commanding officer of the WASHINGTON (flagship) reported as follows: (See track chart attached.)

SUMMARY OF OUTSTANDING EVENTS AND GENERAL COMMENT.

On the night of November 14-15 WASHINGTON was flagship of Commander Task Force 64 (ComBatDiv 6.) In column, with four destroyers ahead and SOUTH DAKOTA astern, she stood north between Russell and Guadalcanal, then east and southeast, passing north of Savo. Standing west from this point, first radar contact was made at 0001 with enemy ships east of Savo. From 0016 to 0019 fired 42 rounds 16", opening at 18,500 yards, at large cruiser or battleship which it is believed was sunk. From 0016 to 0017 fired 100 rounds 5" at ranges 12 to 13,000 yards at enemy cruiser or large destroyer which was also engaged by SOUTH DAKOTA and was left burning. Standing on northwesterly courses fired 133 rounds 5" from 0025 to 0034 at ranges about 10,000 yards at light craft close to southeast shore of Savo which were engaging our destroyers; all were silenced and one was left burning. From 0100 to 0107 fired 75 rounds 16" and 107 rounds 5" at ranges from 8,400 to 12,650 yards, at battleship northwest of Savo which was firing at SOUTH DAKOTA. This battleship was silenced and was subsequently tracked by radar through a 500° turn. From 0100 to 0107 fired 120 rounds 5", at ranges from 7,400 to 9,500 yards, in succession at three enemy cruisers illuminating and engaging SOUTH DAKOTA and also under fire by her; they were silenced.

Sighted several torpedo wakes, presumably from motor torpedo boats while retiring on southerly courses near east end of Russell.

By the time our 5" fire on light craft close to southeast shore of Savo had ceased, one of our destroyers was sunk, one was hopelessly afire (she exploded and sank a few minutes later) and the other two were put out of action (they retired to southward.) Subsequently, and before we opened fire on ships northwest of Savo, the SOUTH DAKOTA was seen to the eastward between this ship and Savo on a course to northward of WASHINGTON course. What appeared to be the SOUTH DAKOTA was seen at about 0121 at a considerable distance to the southeastward between this ship and Guadalcanal on a southerly course.

From radar tracking and visual observation of enemy ships, there were:

(1) Fired upon by this ship and apparently sunk:

1 large cruiser or BB (WASH. only.)
2 large cruisers (S.D. plus WASH 5".)
1 destroyer (our DD's plus WASH 5".)

(2) Fired upon by this ship and apparently damaged:

1 - 14" BB silenced and out of control (WASH. only.)
1 DD burning (WASH. 5".)
5-9 light craft silenced (our DD's plus WASH. 5" plus S.D.)

There was no melee. This ship was undamaged.

COMMENT.

The following comments are submitted:

(1) Our radar is effective for accurate gunfire at long ranges at night. Japanese radar aboard ships present, if any, is not effective for surface targets.

(2) Japanese are sufficiently familiar with radar and aware of our use of it to make full use of land cover both between them and ourselves and closely backing them up.

(3) Our optical vision is superior to Japanese.

(4) Our fire control and the effectiveness of our projectiles meet or exceed our expectations.

accordingly,

(5) We should seek rather than avoid night action, opening at ranges as great as satisfactory solutions can be obtained.

(6) Surface craft need an effective means of radar identification urgently.

(7) For full effectiveness in night firing we need radar means of spotting in deflection.

From contact reports, radar tracking, and visual observations of enemy ships there were apparently present:

2 BB, 6 CA or CL, 5 large unidentified, 7-14 DD's and MTB's.

OUR OPERATIONS.

(1) Approached on northerly course about 9 miles to the westward of Guadalcanal.

(2) At 2100 in position Lat. 09° 20' S, Long. 159° 26-45' E, on course 020° T., at 23 knots.

(3) At 2135 Task Force 64 was disposed in column, as follows: WALKE, BENHAM, PRESTON, GWIN, WASHINGTON, SOUTH DAKOTA.

(4) At 2209 this ship changed course to 090°, following destroyers, and passed northernmost point of Savo Island abeam to starboard at 2245 distant 22,000 yards.

(5) At 2249 this ship changed course to 150° following destroyers.

(6) At 2330 changed formation speed to 17 knots.

(7) At 2352 this ship changed course to 270° following destroyers.

(8) Track during remainder of approach, and during action and retirement is shown on tracing.

WEATHER.

(1) Temperature 83°.

(2) Wind: from 170° T., 7 knots.

(3) Clouds: scattered Cirrus Cumulus, 3/10, none overhead.

(4) Visibility: prominent landmarks seen at distances as great as 25 miles during moonlight. After moonset prominent landmarks could be seen at 12 miles distance.

(5) Sea: flat, calm.

(6) Moonset: 0058, November 15, 1942.

CHRONOLOGICAL LOG OF THE BATTLE.

Time	Event
2058	Message from plane to another, intercepted, that one cruiser and one destroyer were in a cove at Savo Island.
2100 to 2318	Many reports of gunfire over the horizon north and northwest of Russell Island. Glows such as of ship afire, glows flaring up such as by explosions. A large explosion on the port beam reported during this period.
2125	Slowed to 20 knots.
2131	Something burning was reported as 2 points forward of the port beam, (about 310° T.)
2135	Increased speed to 23 knots.
2145	Unidentified plane bearing 080°, range 8,400 yards, flashed signal appeared to be numeral "9", plane on southerly course, friendly.
2150	This force commenced a change of course in succession from the van to 090° T.

Time	Event
2202	A glow was reported at 270° Rel. (290° T.)
2209	On course 090° T.
2215	Gunfire was reported at 202° Rel. (292°T.)
2249	Changed course to 150° T.
2250	Many Jap voice transmissions heard on 2070 - 2080 kcs.
2317	Dull light on eastern part of Savo Island about half way up hill. Tracked by computer giving speed zero. Identified as rock. CTF 64 talking with Cactus. Information useful to enemy passed in plain language. Probably the MTB's reported force as enemy.
2319	A red rocket was reported at 10° Rel.
2332	Changed speed to 17 knots.
2352	Changed course to 270° T.
0000	Light bearing 245° Rel. (115° T.) range 19,600.
0001	Target bearing 340° T., range 18,000 yards picked up simultaneously by radars 2 (SG) and 4 (FC). Main battery director 2 tracked for two minutes and then lost it because of land interference. In this location land signals were being received on the fire control and search (CXAM) radar screens at almost the same position on the screen as the target. Some of these echoes came from Santa Isabel, over a hundred thousand yards away (the sweep frequency is such that a repeat is made every hundred thousand yards); others were side lobes from Savo Island.
0003	Reports of floating objects in the water ahead and smell of oil.
0005	Secondary battery Director 1 reported a radar contact 340° T., range 19,600. There were probably 3 to 8 ships in the two groups east of Savo.
0006	Report received from Guadalcanal Control that three ships just rounded the north of Savo headed west.

Time	Event
0008	During this period Radar Plot was reporting two ships on the same bearing, 1 at 15,000 and 1 at 18,000 yards. Floating objects reported in water.
0010	Two radar targets reported by secondary battery 18,000 and 18,400 yards, (no bearing given). Full Condition ZED set; C02 on gasoline and paint stowage. Secondary battery Director 3 reported as being on target. Main battery plot shifted to Rangekeeper 1 to train from secondary battery director in order to designate to the main battery directors. The train was too erratic to be reliable.
0011	Shifted to main battery Director 1 in train.
0012	Main battery Director 1 picked up the farther target optically and checked it to be the one on which the radar was ranging (described by all radars as the largest target.) Described by Spot I as possibly a TENRYU class CL. A closer ship was seen slightly to the left.
0013	Started getting main battery radar ranges.
0014	SOUTH DAKOTA given permission by TBS to open fire.
0015	SOUTH DAKOTA reported by TBS a surface contact 345° T., distance 16,300 yards.
0016	Main battery opened fire on target at a range of 18,500 yards. Secondary battery opened fire on closer targets possibly destroyers, groups 1 and 3 firing (2 mounts each). Probably about 15,000 yards range, possibly less. Secondary battery group one officer stated that there appeared to be three destroyers in the group at which he fired.
0016	Main battery spotters blinded by secondary battery opening at time of search. First salvo observed "over" by radar 3 (FC), spotted "down". Radar 3 lost target after the second salvo, but could still see splashes. Second salvo observed to be a straddle by radar 4 (FC). Radar operators reported: "Following the second salvo the indication appeared to drop down and finally disappeared from the screen." Main battery director lost target optically. Radar 2 (SG) officer reported that the second or third salvo landed on the target which

Time	Event
	caused the signal to flicker. A sweep was made, and then only a fuzzy flickering indication could be found, where previous indication had been. Previous signal was very strong; signals from other ships continued strong.
0017	SOUTH DAKOTA opened fire on target to the left and closer (near one of the secondary battery targets.) Heavy black smoke from main battery target and a nearer vessel reported as obscuring the target, possibly a smoke screen. Results of secondary battery fire undetermined. Three secondary battery radars (FD's 7, 9 and 10) reported that the first main battery salvo straddled the target. It is believed that what they saw was the first salvo of the SOUTH DAKOTA. Second main battery salvo was fired with radar train, remainder in generated.
0019	Main battery ceased firing as the result of losing the target. Changed course to 300° T.
0020	Reports of: "Own DD's opening fire"; "Own DD's bearing 020° Rel. (320° T) have opened fire"; "Green flare on starboard bow"; "Enemy firing on us"; "SOUTH DAKOTA still firing main battery"; "White lights on port bow and beam". Changed speed to 23 knots.
0022	Green light reported bearing 055° T.
0024	Report of: "Being fired on from island"(decided subsequently to be from ships this side of island); "Our DD's returning fire".
0025	Secondary battery opened fire on "shore batteries" which were apparently ships. Secondary battery Director 3 in control of mounts 1,3, 5, and 7. Group 3 fired at about six shore batteries (ships) in turn until each stopped firing. A fire was started on one at the right tangent of Savo which burned for a long time.
0026	WALKE reported opening fire on target 320° T. Main battery ceased tracking and shifted to the end of Savo Island. Bridge reported a target broad on the starboard bow. Main battery directors were so blinded by 5" fire that they could not find a point of aim.

Time	Event
0027	Radar (CXAM) picked up target bearing 340° T, range 9,700.
0028	A ship reported by radar plot as bearing 356° T., moving around the end of the island. Other contacts following indicate that there were a number of other ships rimming the southern side of Savo (6 to 10 ships).
0029	Reports of: "Ships on the starboard bow firing at us";"fire started on beach"(ship close to Savo); "Main battery Director 1 on Target", bearing 356° T".
0031	Three excellent optical ranges were obtained on this burning ship at 10,200 yards by Range I (the coincidence rangefinder in Turret I.)
0032	Reports of target on starboard beam;"one of our destroyers has been hit."
0033	Two of our destroyers were hit at about this time, the WALKE burning badly, the PRESTON exploded having possibly been hit by a torpedo. Reports of: "Men in water dead ahead";"think one of destroyers sinking"; rafts ordered to be put over as we went by; all enemy fire ceased.
0034	"Cease firing" for 5" battery given as a result of Mount 3 firing wild (training motor kicked out and the pointers were not matched). It was feared the mount might endanger own destroyers. Explosions as of depth charges possibly from a destroyer of ours that had been hit. Changed speed to 26 knots. All secondary battery targets lost.
0035	Changed course to 282° T., to place burning destroyer between us and the enemy. Radar (SG) reported four ships bearing 330° T. Radar plot coached the main battery on to one reported to be larger than the others. These targets had been obscured by Savo up to this time. Main battery started tracking. Reports of vibration starboard side, frame 95; we may have hit some submerged wreckage. PRESTON was passed about 200 yards abeam submerged but with stack showing.
0041	Passed wreckage of burning destroyer (WALKE). Launched two life rafts.

Time	Event
0044	BENHAM reported she was O.K., one hit in fireroom.
0046	Burning enemy ship bearing 072° T., sank - reported by two sources as a cruiser but was probably a destroyer.
0048	Van destroyers ordered to retire.
0050	Course 290° T.
0054	CTF 64 received a report from the SOUTH DAKOTA that she was O.K. SOUTH DAKOTA reported as sheering to starboard. Enemy ship that the main battery was tracking started a change of course to the right, reversal completed by 0057.
0058	Moon set.
0059	"Transports" were reported on the starboard bow (evidently the ships already being tracked). Enemy ship on starboard beam opened searchlights.
0100	"Open fire". Main battery opened fire bearing 008° T., range 8,400 yards on target, apparently battleship. Secondary battery opened fire. Director I with Mounts 1 and 3 on main battery target. Director 3 with mounts 5 and 7 firing on ship (probably a CA) with searchlights trained on SOUTH DAKOTA. Director 4 provided starshell illumination with Mount 9 for the main battery. The main battery hit the battleship with at least three salvos with projectiles exploding.
0102	Green light reported on port beam. Group 3 hit the ship that had searchlights on SOUTH DAKOTA until the lights went out, then shifted to two others in turn until their lights were out. Fires were started on ship which SOUTH DAKOTA was hitting.
0102½	"Cease firing". Given by Control on receipt of erroneous report that target was sunk.
0103	Reports that enemy was still firing at us apparently with three turrets. Believed to have fired two salvos in the minute and a half during which fire was ceased.

Time	Event
0104	Bridge, "If you can see anything to shoot at, go ahead." Main battery resumed fire. Salvo 2 reported as a short straddle. More hits obtained. Japanese battleship continued fire with only one turret (aft). Warning given to keep a good look-out for enemy destroyers on both bows.
0107	Green light reported on port bow. Control reported that the forward group was getting to its limit of train (148). "Cease firing." The main battery target was burning, and heading away. Enemy battleship ceased firing. The main battery continued to track the burning ship for ten minutes. During this time she made a turn of at least 500°.
0114	A report was made by Spot 1 "Looks like someone opening fire on us on the starboard quarter." Order to train turrets 150° Rel.
0117	Main battery shifted to track new target bearing 049° T., 13,800 yards. The target tracked was the leading vessel of a group of five. Its type was unrecognized. The other ships were reported as freighters but they made 26 to 29 knots during the 22 minutes the leading ship was tracked by the main battery. They are all believed to have been destroyers. At the time of shifting, the previous target (BB) appeared to be steadying on a westerly course, speed about 18 knots.
0119	Firing reported on the starboard quarter. Doubt existed as to location of SOUTH DAKOTA.
0120	Changed course to 340° T.
0121	Control reported a good solution on the target main battery was tracking bearing 048° T. Targets reported at 326° T., and also at 147° T., 13,000 yards.
0123	Sky control reported flares on starboard quarter.
0127	Radar reports four targets bearing 260° Rel. (Russell Island).
0132	Leading ship that main battery was tracking laid smoke screen that laid well.

Time	Event
0133	Changed course to right to 180°. Slowed to 20 knots.
0137	Heavy explosion at 095° T.
0140	Changing course to 210° T.
0142	Sky control reported green light on port quarter. Increased speed to 26 knots.
0144	Sky control reported a ship signalling on port quarter. Control reported someone firing from dead astern. A splash 150 to 200 feet high landed about 200 yards astern 190° Rel. Bridge reported a target ahead. Dull flashes were seen in this direction.
0145	Bridge ordered turrets train 020° Rel. Turret 1 and Turret II were trained 020° Rel. The main battery continued to track the five unidentified vessels with director 2.
0148	Torpedo reported on port quarter. From this time until 0219 seventeen torpedoes were reported; some reports were of course duplications; some were actually light streaks from stars; from three to five are believed to have been torpedoes, all fired from abaft the beam.
0152	Report of light bearing 200° Rel.
0154	Several reports were received of motor torpedo boats for some time. At least most of these were undoubtedly false. Control reported two targets 040° T, 16,000 yards.
0155	Making full power.
0157	Main battery shifted control between Directors 1 and 2 during maneuvers to avoid torpedoes.
0208	Secondary battery Director 4 reported high speed targets 237° Rel., 1,600 yards and 194° Rel., 2,600 yards. Cannot see targets. NOTE: Such targets as these were probably our own bow wakes and stern waves meeting during maneuvers.
0220	Radar contact on large target 165° T,16,000 yards.

Time	Event
0222	Main battery ceased tracking the five unidentified vessels to the north. Main battery started tracking large target, 165° T., by radar.
0228	Report that the above radar target appeared to be SOUTH DAKOTA, speed 27 knots. It may have been the GWIN.
0235	Secondary battery Director 3 tracked target bearing 320° T., 13,300 yards.
0236	Radar 2 (SG) reported three faint targets approaching from a stern bearing 305° T., 10,750 yards, probably the targets that secondary battery Director 3 had. For ten minutes these targets appeared to maneuver back and forth across our wake at high speed. The closest ranges were about 9,000 yards. These are believed to have been phantoms.
0240	(About). Three explosions as of depth charges were felt, believed to have been torpedoes detonating at end of run.
0244	On course 180° T.
0245	Secondary battery Director 3 and Radar 2 both lost the three targets. The large target (SOUTH DAKOTA or GWIN) was tracked for a long period of time; at 0340 it was at 060° T., 25,000 yards.
0247	Fire by the end of Guadalcanal was reported as bursting into flame. For a long period of time during the retirement a strong glow, flaring up as by explosions was seen by many observers over the northwestern tip of Guadalcanal. Some observers thought that there may have been some gunfire flashes.

SECRET

SPECIAL COMMENTS ON ENEMY FORCES.

(a) Number, types, tactics - Ships and Planes.

(1) No enemy aircraft were involved in the engagement.

(2) Contact reports November 13-14 indicated the probable proximity of the following: 3 BB, 8-10 cruisers, 12 or more DD's, 4 AK and 6 transports. Study of reports of visual and radar observations; sizes of guns as indicated by gun flashes, explosions and splashes; target speeds; and density of fire indicated the following:

(a) East of Savo Island:

5-8 ships. Probably 1 BB,
2-3 CA(CL),
3-4 DD.

(b) Southeast of Savo Island:

6-10 ships. DD's and possibly large MTB's.

(c) West of Savo Island:

9 ships. Some could have been east of Savo during first phase. Probable types were: 1 BB, 3 CA(CL), 5 large unidentified.

A recapitulation of the above indicates that there were present at the scene of the action the following: from 20 to 27 ships, 2 BB, 6 CA-CL, 5 large unidentified, and 7-14 DD's and MTB's; of these possibly 4 ships, first observed east of Savo, may have later joined the force west of the island. This would make the total 16 to 23 ships.

No MTB's were actually identified although the wakes of MTB's were reported by several observers. Automatic fire from south of Savo on many bearings from which no larger calibre fire was observed indicates that large MTB's may have been in this area. It appears clearly established that there were 3-5 fast small vessels in our vicinity during retirement.

During the approach to the scene of battle, fires and explosions and possibly gunfire were sighted northwest of Russell Island over the horizon. They may have come from

transports set afire by planes earlier in the day; Japanese forces from north and south of Georgia may have engaged each other in error; Japanese may have been sinking abandoned ships which had been damaged November 14th.

Fires and explosions observed over the northwestern tip of Guadalcanal during retirement may have been burning ships left in that area and abandoned ships being destroyed. Again it is possible that some Japanese ships fought among themselves as a result of confusion.

TACTICS.

The four heavy ships northwest of Savo Island may have been covering the four auxiliaries which were beached on Guadalcanal about 0330, November 15, and which may have remained north of Savo during the action.

Japanese ships were probably using Savo Island to prevent detection by radar or silhouette effect. During the approach and initial phase of the engagement the radars were unable to resolve the ships on the southeast side of Savo. These ships could not be seen until they moved away from Savo.

Searchlights were used by the enemy three times but were left on for only short periods. The illumination apparently was effective. No Japanese starshells were observed.

Except for the initial movements of the groups east of Savo and the vessels rimming Savo, all vessels tracked made at least 26 knots.

COMMUNICATION, HOMING, RDF.

No comment.

USE OF SMOKE, CAMOUFLAGE, DECEPTION.

Twice during the entire engagement the Japanese used smoke screens. These screens were rapidly laid, and effectively hid subsequent movements of the ships screened from visual observation. No difficulty was found in tracking the obscured ships by radar. From our viewpoint the chief effectiveness of the use of smoke lay in preventing positive identification of enemy vessels and damage inflicted.

CAMOUFLAGE.

None observed.

DECEPTION.

None observed.

EFFECTIVENESS OF GUNNERY.

This ship was fired on only sporadically. She was not illuminated. No hits were sustained and the nearest miss noted was the splash apparently of a major calibre shell about 200 yards on the port quarter. Observers who witnessed other ships of our force under concentrated fire reported the Japanese gunnery to be accurate. Enemy ships close to Savo fired automatic weapons accurately at our destroyers. The Japanese ships were apparently not equipped with radar. Their searchlights provided excellent illumination of the SOUTH DAKOTA but attracted our fire and provided a point of aim.

The flashes of the Japanese guns appeared smaller and less bright than would have been expected without some form of flash retardent or flash hider.

No torpedoes were seen to explode and no wakes were seen until some time after the gun action. Wakes seen during retirement were not accompanied by explosions, but explosions were felt about twenty minutes later.

SPECIAL COMMENTS ON OWN FORCES.

Ninety minutes before engaging, a friendly plane was sighted to the eastward on a southerly course.

Night contact scouting from a small plane, where the duties of observer, navigator, pilot, and radio operator cannot be performed by four separate individuals, is a difficult task. Reports from such scouting might be more misleading than helpful. On the other hand, it is believed that the experience and skill of our aviation personnel permits dependable night contact scouting in a large plane where these four functions can be separately performed by well qualified individuals. Even without radar such a plane, could, it is believed, scout effectively in the excellent visibility conditions which obtained shortly before and during this action. No use of flares is contemplated. If such procedure is practicable the information obtained would be invaluable under conditions similar to this action.

EFFECTIVENESS OF GUNNERY.

MAIN BATTERY.

This ship's gunnery appeared highly effective. Fire was opened with a gun range of 18,500 yards initially by this vessel using radar ranges and optical train and hits were definitely obtained by the third salvo. It is believed target was stopped and sinking after third salvo. 42 rounds were fired.

In the second phase target had been tracked by radar ranges and bearing and later by optical train. Fire was opened at 8,400 yards and a hit was probably obtained on first salvo and certainly on the second. Fire was rapid, on one turret ready light, for about 2 minutes 39 seconds, firing about 39 rounds. It was interrupted for 1½ minutes due to an erroneous report that target was sunk, and resumed for 2 minutes and 45 seconds, during which time 36 rounds were fired. A total of 75 rounds was fired on this target which was believed to be an old type battleship. Starshell illumination was used on this phase after about the second salvo, 62 rounds being fired.

According to the best data available overall SPGPM was 1.30 and 5 guns had 1.8 average. Fire discipline was excellent.

The normal fire control set-up of this vessel was used throughout, namely:

Collective fire, Director I controlling in train.

Group I controlling in Plot.

Director IV (Stable Vertical I) controlling in continuous level and cross-level.

Director IV controlling firing circuit (Plot.)

Radar ranges by indicating and voice.

Turret pointers were matched during phases in which the director was being trained on the visual target. During the time when the visual target was obscured, whether training by radar or generated, a turret spread in deflection was fired.

The selected train firing key was used in plot to insure that the firing pointer could see the light that indicates when the director train is on target. It has been standard practice for this vessel to use that key at night when visual or radar train indications are accurate, shifting to generated bearing only in case of poor train indication or obscured target.

Against the first main battery target, 18,500 yards, radar range was used in conjunction with visual train. The target became obscured after the second salvo. The target was lost by all radars after this salvo. As a result the last salvos went out in what amounted to generated. That is, the present range was let ride and the director being in automatic remained on the generated train.

On the second main battery target the tracking was done entirely by radar for at least five minutes. When the target finally came into view optically, checks given by the pointer indicated that the radar was exactly on. In this connection it is noted that a considerable period of time is taken to adapt the trainer's eyes to the telescope at either night or day after looking at the radar scope (train indicator.) The reverse is also true. As a result of this difficulty, main battery Director II found it desirable to let the trainer keep track by radar and the pointer observe by telescope. Such a system is made possible by the fact that the director is trained automatically by generated bearing. Therefore small corrections only are necessary and such corrections can be made by coaching from a pointer's station.

Radar spots were used against the first target while the target echo was present. It is of interest to note that against the second target (BB) "overs" as well as "shorts" could be seen optically. Salvos were walked back and forth across the target.

The fire control switchboards on this ship provide for a secondary battery director to furnish target bearing to a main battery rangekeeper. Thus it can also be used to designate to a main battery director. At the time of first contact both main battery directors lost the target and the shift was made for designation, but the secondary battery director had not yet settled down and its designation was not used. In the meantime main battery Director I had again picked up the target and target bearing was shifted back to it.

SECONDARY BATTERY.

Secondary battery fire control used radar ranges throughout. During Phase 1 radar train was used. In Phases 1A and 2 optical train was used. Level for the basis of gun elevation order was obtained from the Stable Element with dip-range being set on the synchronized elevation knob in accordance with advance range. Firing circuits were controlled by director pointers. Group I used rapid continuous fire. On the other hand, Group III soon shifted to salvo fire, 4 second interval, to facilitate spotting.spotting.

In the first phase the effectiveness of the Secondary Battery was undetermined. Group I and Group III each controlled two mounts in firing at surface targets at ranges between 13,000 and 15,000 yards. The control of the groups was by radar, range and training. Group III used 400 yard rocking ladder in 200 yard steps. No radar spots were obtained and there was no observation of the fall of shot.

Phase 1A consisted of shooting at what at first appeared to be shore batteries on Savo Island but later identified as surface craft. Initially both groups opened fire on these targets. In view of the fact that Group I appeared to be shooting "over", Mounts 1 and 3 were switched over to Director III which continued the fire. Group III opened fire initially at the target near the right tangent of the island, aiming at the gun flashes, using a 200 yard rocking ladder based on the closest radar range with target speed set on zero. The first target was set on fire, many observers reporting that a stream of 5" tracers poured into the target which immediately burst into flames. A range of 10,200 yards on the burning ship from the main battery coincidence rangefinder was within 100 yards of the range set on the computer. Fire was shifted successively to the left using gunfire flashes as points of aim, and was continued against gunfire flashes until each gun ceased firing. Apparently another target on bearing near the center of Savo Island was set on fire. These targets may have been destroyers or large MTB's.

In Phase 2 (the third secondary battery phase) the secondary battery again opened with divided fire. Group I fired on main battery target and Group III on target whose searchlights were illuminating the SOUTH DAKOTA. Twice during the firing Group I was hitting, apparently starting fires in the upper works. When searchlights on another ship were seen to be turned on, secondary battery Director III used them as a point of aim. On this target, which

was apparently a heavy cruiser, also engaged by the SOUTH DAKOTA's 5", Group III fired with a 200 yard rocking ladder. The first salvo landed short and was spotted "up 400." Fires were started. At about the 4th salvo the searchlights went out. Director III continued with about eight or ten more salvos, at which time another group of searchlights was seen to come on. The point of aim was shifted to these searchlights and fire continued until they went out. Another set of searchlights came on and fire was again shifted to them. The last searchlights were turned off about the time of cease firing. No hits were definitely observed on the last two targets.

In only one case was fire discipline less than desired. Mount 3 had a training casualty apparently as the result of the training motor kicking out. Fire should have been ceased immediately but it appears that the mount trainer failed to note that his pointers were not matched. He may have been looking through the telescope and blinded so that dial observation was difficult. As long as the primary system is functioning properly the pointer and trainer should observe their dials to see that they are continuously matched. Observation of the target can be made by means of the Mount Captain's periscope.

STARSHELL ILLUMINATION.

Starshell illumination was employed against the main battery target in Phase 2. It was not initiated until main battery had opened fire but was of assistance when established. Fires started on the opposing battleship during the first or second salvo gave illumination that would have been sufficient in itself. Director IV was used for control of the starshell illumination using Mount 9. The director was uncertain as to which target the main battery was trained on. As a result a 2^{o} spread was used. Director IV was blinded to a considerable extent by the flash of main and secondary battery gunfire. The starshells came short of the target about two salvos after the main battery resumed fire. This may have been caused by failure to allow properly for the range rate of the target. The main battery spotters were blinded for about two salvos but it is believed the short stars had no effect on the firing since the main battery salvos were hitting both before and after this incident. It is possible that after fires were started on the enemy vessel, Mount 9 could have been used more properly to fire common projectiles at Japanese ships. It is evident that more starshell training is needed. The only night preactices fired by this vessel were night spotting and

night battle practices, fired last January.

RADAR SEARCH.

Radar searching was mainly accomplished by the SG radar (Radar 2). The radar plot officer was located so that he could observe the Plan Position Indicator of this radar. In accordance with the doctrine of this vessel radar plot officer was wearing the JR phone which was tied into 2JD-2JE phone so that he could give a description of the appearance of the screen to the gunnery officer and the main battery plotting room. Since the director trainers are also on this circuit, target designation is made quite easy. This is made possible by the true bearing dials of the main battery directors. Against the first main battery target this system placed the main battery on the largest enemy vessel. During Phase 1A the main battery was placed on the correct bearing of a target pulling out from Savo Island but the main battery director was unable to distinguish the radar signal from land echoes, and was so blinded that targets could not be picked out visually.

The four vessels north of Savo Island were picked up as soon as they ceased being obscured by the island. The appearance has been described by the radar plot officer as that of a part of the island being pulled out and then separating into "drops" similar to the effect of planes taking off from a carrier. The main battery was promptly placed on the largest target because the SG radar could distinguish its size. This radar kept accurate track of own destroyers in the screen but could not keep track of the SOUTH DAKOTA because the foremast structure blanks off this radar through a sector of about 60° astern.

The CXAM was not particularly effective because innumerable land echoes were present from land over 100,000 yards away and there also were many confusing side lobes from nearby land and from ships. The fire control radars were not used for general search, but were used for the examination of certain areas.

Since it had been reported by Guadalcanal that a cruiser and a destroyer were lurking in a cove off Savo Island, particularly close examination was made of it by the fire control radars. The after main battery radar picked up the initial contact at about the same time as the SG radar.

The necessity of a navigational plot on a chart in radar plot is very apparent when a night action is fought in restricted waters. It is possible that if such a plot

had been maintained in the radar plotting room the ship control stations could have been given a more satisfactory picture of the situation. At present, space for a navigation plot is not available in radar plot.

During the first main battery phase the fall of shot could be observed by both fire control radars and the SG. However, the SG was used primarily for search since other targets were expected. During the second phase no splashes were observed by the FC radar operators, even though a particular attempt was made to do so. The reason for this is not known. It may have been that the battleship signal was so strong that receiver sensitivity had been cut too low to see the splashes. On the other hand the other nearby targets may have confused the signals.

LESSONS LEARNED AND RECOMMENDATIONS.

Radar has forced the Captain or OTC to base a greater part of his actions in a night engagement on what he is told rather than what he can see. This ship was not hit but examination of the SOUTH DAKOTA revealed completeness with which bridge structure may be riddled by shells and splinters which penetrate 1" STS bulkheads. The enemy may be counted upon to hit foremast superstructure.

The captain and navigator should be in Conn.

An experienced officer other than the navigator should be OOD and should filter for the Captain the tremendously numerous reports received at the conning station over the various telephone circuits.

Although excessive and duplicate reports had been anticipated and although much drill had been held in battle problems toward eliminating undesirable reports there were excessive reports and many cases of initial reports being caught up at various stations and rebroadcast repeatedly over first one circuit and then another. This echo and re-echo effect must be guarded against.

Vision from platform aft of Battle II does not make up for loss of vision ahead from inside the station caused by radar on secondary battery Director I. It would be desirable also to be able to see aft over the stacks from Battle II.

Raise Battle II one level and provide all around platform outside. Raise forward surface lookout station one level to the former concentration dial station.

The SG radar was invaluable. It was found difficult for Radar Plot officer to pass along the contacts on the PPI verbally to ship and fire control particularly in the case of the former in which it was passed through talkers in both radar plot and bridge. Our doctrine provided that the radar plot officer be on the JR, cross-jacked with the 2JD, for main battery action and in this way the directors, control, and plot obtained first hand reports. However, due to the difficulty of resolving ship contacts from land signals, and to multiplicity of targets in groups and on various bearings, it was difficult for Conn and control to maintain the picture clearly. In addition, since the SOUTH DAKOTA was astern or sharp on the quarter, during the firing phase, it was impossible to keep continuous track of her with the SG radar. This handicapped control since it could not give bridge absolute assurance that we were not trained on the SOUTH DAKOTA after bridge had lost visual contact with her. The CXAM was used on stern and quarter bearings but could not be depended upon due to land interference. The crossing of the JR-2JD circuits caused heavy traffic on the main battery control circuit but this can be reduced by continued training.

A PPI scope should be placed in Conn and control, and if practicable in flag plot, so that these vital stations may have a continuous picture of enemy and friendly contacts. Desirable but less important would be an additional scope in plot.

Pending installation of PPI scopes from the SG, the following procedure will be tried out. Conn and control maintain a rough mooring board plot of contacts as reported with notations as to time. In conn and control this will require a small portable board with a dry cell light attached to make visible to captain and control officer while shielded sufficiently to prevent showing light outside these stations.

Surface ships should have radar means of recognition.

The obscuring by the mast of the SG radar line of sight through an angle of about 60° across the stern is very undesirable.

Installation of additional SG or relocation of present SG in order to cover this blind sector.

During the night of the engagement no interference from other radars was encountered.

The tactical situation was greatly affected by the presence of islands and the necessity of fighting in comparatively restricted waters. As noted previously the radar screens had many land echoes. For a surface engagement under reduced visibility and especially in restricted waters a navigational plot should be maintained in radar plot for fully effective use of the radar. If this vessel were to keep such a plot more space would be required. An expansion of radar plot appears justified.

The picture presented by the SG radar is not a true plan view. Radar operators must be given concentrated training in areas surrounded by land in distinguishing between land and ships. During a previous sweep by this vessel around Russell Island at night, numerous false reports of surface targets were received from the fire control radars that turned out to be land more than 100,000 yards away. During the night of the engagement only one such report was received.

Receptions in the 100 to 200 thousand yard band should be eliminated in fire control radars if practicable.

The replacement of one of the present Mark I computers with one having starshell attachment is necessary to facilitate control of starshell.

The illumination correctors on the sky control platform should transmit to the starshell mount as well as to searchlights. The main battery director could then transmit direct to a starshell mount without necessity of designating to and using a secondary battery director.

The firing of starshell duels as ordered by recent CincPac instructions is highly desirable.

The value of spot coordination fire control drills for the main battery, every day when practicable, was apparent.

This ship has had no opportunity for any target practices since July, except for machine gun practices on sleeves towed by small planes. An offset calibration practice has been fired since then using service projectiles. This ship has never fired at a drone or held main battery local control or auxiliary practices. While offset practices are of inestimatable value, this ship needs practice against drones and towed targets,both surface and air.

Target ammunition, drones, and target facilities should be provided at advanced bases for use of ships in the battle zone.

Flashes of the Japanese guns appeared smaller and less bright than would have been expected unless some form of flash retardant or flash hiders were used by them. Our own flashes, both 16" and 5" hindered observation of own fire by spotters and control officers. Ship control was also blinded at times which would have hampered station keeping had we been in column astern of another ship.

That the subject of flash reduction be reexamined even if it means some addition to smoke.

Spot I and II found it necessary to use 7 X 50 binoculars through the overhead hatch of the main battery directors for several periods during the engagement. This would have been facilitated by wind protection and a seat at this hatch. As soon as facilities are available lenses should be coated so as to minimize reflection. This vessel has one pair of "night" 10 X 50 binoculars that is highly satisfactory in this respect.

In main and secondary battery directors it is frequently desirable to shift quickly from optical train to radar train and vice versa. It is frequently desirable to check one against the other. Director trainers are hampered in these shifts by changes in light accommodation and focus. The expedient of having the pointer observe optically and coach in train yields only a slight improvement.

Main and secondary battery directors should be altered to provide additional stations for radar training, and, in secondary battery directors, for radar pointing as well. A possible solution is to locate the radar train and elevation indicators below the directors, perhaps by suspending seats. Another is to locate fixed stations below to control in "automatic" and "local" when desired, and, by means of a synchro transmitter, to transmit indication so that directors may follow in manual.

The difficulty of exchanging verbal information within secondary battery directors during gun fire was again brought out.

Several telephone headsets were knocked off of the wearers by main battery gunfire concussion. In action all hands should wear telephone chin straps.

Use of true bearings in all reports except from lookouts and in all orders except those to turrets and secondary battery is in effect. It would facilitate control to be able to use true bearings with the secondary battery directors. In present installations, bearing indicator and gyro repeater are separate instruments. This requires conversion. In a night action with contacts on numerous bearings at short ranges and large and frequent changes of own course, use of true bearings wherever gyro repeaters can be installed is desirable.

Indicators should be installed in secondary battery directors to show the true bearing on which that director is trained.

The difficulty of telling what and how many ships were present indicates a desirability of infra-red photographic equipment on board ship.

The commanding officer of the SOUTH DAKOTA made the following report on this action. (See track chart attached).

The approach to Savo Island was made from the south on course 020° T, leaving Savo about 18 miles abeam to starboard. At 2210 changed course to 090° T., leaving Savo about 11 miles abeam to starboard. When the middle of Savo was abeam course was changed to 150° T. On this leg the speed remained 17 knots. At 2353 course was changed to 270° T. A sharp lookout had been maintained on Savo for signs of the cruiser. Visibility was good, a quarter moon showing, and some cloudiness casting shadows that made excellent background patches. At 0008 three ships were observed from the bridge visually, and checked by radar to bear 330° T., range 18,100 yards. The leading ship was large and is believed to have been a heavy cruiser or a battleship. Astern of it were two smaller ships, believed to be light cruisers, possibly one of them being a heavy cruiser. Contact was reported by TBS to the task force commander, and he very soon after this ordered "open fire when you are ready." At 0017 the WASHINGTON opened fire on the leading, or right hand ship. Less than a minute later the SOUTH DAKOTA main battery opened fire on the nearest ship at 15,700 yards, which at this time was overlapping in deflection the more distant ship astern of the leader. Both initial salvos started fires on the targets. At this instant Japanese voice transmissions,

which had been picked up on 2070-2080 kcs. earlier at about 2130, became excited and very numerous. Some thirteen different stations were on this frequency at one time. Firing was continued until the target had disappeared off the radar screen. Observers on board substantiated the radar operators' statements that the two leading targets were sunk. The third target, the last ship in the open column, was last reported as an indistinct and doubtful radar "pip". The main battery fire was then directed against another target at an estimated range of 10,000 - 11,000 yards but the bearing of this target changed so rapidly that divided fire was ordered when the forward turrets hit their train limit stops. Turret III kept the target under fire, shooting over our own stern and demolishing our planes. The target was observed to break in two and sink. It was identified as a cruiser. During the latter part of this first phase the secondary battery was firing at enemy ships close to shore in the direction of Savo Island. These were tentatively identified as 8 destroyers, of which two were observed on fire. One of these exploded and the fires soon stopped.

A short lull followed the sinking of the enemy cruiser astern of the SOUTH DAKOTA. No hits had been reported on the ship although shorts and overs were heard and seen. Enemy fire on the WASHINGTON was observed to be definitely over, only a few shorts were observed. Gun flashes had blinded most of the personnel in the conning tower as well as at other stations, temporarily, and it was very difficult to see the WASHINGTON. A change of course had to be made to maneuver clear of two of our destroyers which had been damaged in the action this far.

The second phase began abruptly. Radar plot had reported four enemy ships, just clear of the left tangent of Savo Island, approaching from the starboard bow. The greatest concern in Conn at this time was to avoid collision with our own units leading the column. Radar plot had just finished reporting the enemy bearing 070° Rel., range 5,800 yards, when the SOUTH DAKOTA was illuminated by four searchlights on the second ship in the enemy column. These searchlights were in pairs, each pair of lights having one light above the other. At the same instant the WASHINGTON opened fire with her main battery on the leading ship which was the largest of the four. It was this vigorous fire that prevented the enemy from inflicting more damage on the SOUTH DAKOTA. The SOUTH DAKOTA was under triple or quadruple concentration when the enemy opened fire about 30 seconds after illumination. The SOUTH DAKOTA's secondary battery opened fire simultaneously with the enemy and the searchlights were

extinguished at once. Our main battery did not actually fire on the illuminating ship until just after the lights went out. Two or three salvos were fired and all hit.

The ship was broken in two and the "pip" disappeared from the radar screen. The WASHINGTON's target when last observed was seen pouring out huge clouds of smoke. Some observers report seeing a deep red glow from within the ship but not much credence has been given to this observation. The third ship was put under fire both from our secondary battery and our main battery. Data at this point is not clear, but it is believed that the WASHINGTON also shifted to this target. When last seen, this ship, believed to be a cruiser, was gushing volumes of black smoke. No information is available as to whether the last ship was ever under fire, but it is believed that several salvos were fired at it by the secondary battery. All ships of the enemy were silenced because during the last two or three minutes of firing no gunfire was observed on the enemy ships.

The location of the WASHINGTON was not known. Radio communication had failed. Radar plot had been demolished. Main battery Director II radar was the only radar functioning. Three fire control radars had been damaged by shells, and number four secondary was inoperative due to electrical troubles. Many dead and wounded had been reported by battle station two as well as sky control. Turret III reported difficulty in train although it believed that it could still fire. Reports of fires were coming in, none serious, except that Conn believed the fire in the foremast structure to be serious, which it was not. Damage control had reported only minor damage to the hull and that we were shipping some water on turns at high speed but reported nothing dangerous. It was decided to withdraw to the 1000 rendezvous position assigned by the Task Force Commander prior to the engagement.

An accurate estimate of the enemy forces involved cannot be made. Exact analysis of the enemy operations is not feasible, however, the following is believed to be a fair estimate.

The enemy covering force preceded the convoy of transports. It may be possible that he expected one of our battleships, but did not expect to be engaged at the range at which this force opened fire. The fact that the trailing ships in the first group encountered were not in column and one ship's fire was masked by another, indicates that the enemy was taken by surprise. However, the resourcefulness of the enemy is apparent in that while we engaged the vanguard, he sent a

strong force, including one battleship, around Savo Island to attack us from the flank or rear. Somehow he had also placed destroyers close to shore in a good striking position had this force changed course to leave Savo Island on our port hand. Perhaps in his oriental fashion he had planned to repeat the QUINCY, ASTORIA, VINCENNES crossing the "T" from astern. Maintaining the course at about 300° T., we did not play up to the enemy's expectations.

During our approach to Savo Island, ships in the task force formed column. Four destroyers were stationed directly ahead of the WASHINGTON, distance 4,000 yards. The SOUTH DAKOTA was assigned station 1,500 yards astern of the WASHINGTON.

The sea was calm, wind 2-6 knots, easterly and southeasterly. There was a thin cloud layer covering 9/10 of the sky, estimated altitude 10,000 feet. Some low clouds were at 2,000 feet. The amount of upper clouds decreased, while the lower clouds increased toward the end of the engagement, giving an overcast by 0200. Surface visibility until the overcast was about 12 miles. The moon was in its first quarter intermittently obscured by low clouds and casting dark shadows on the water forming excellent dark background.

At 2317 CTF 64 was talking with Cactus on 3785. Our force reported as enemy by observers, probably MTB's. Information useful to the enemy was passed by plain language, our course and code name location.

ENEMY FORCES.

The number of enemy ships involved in this action totals between fifteen and eighteen. Definite identification as to types is not possible. Officers and petty officers considered best qualified were too busy correcting casualties and power failures. Information from sky control is denied us in that both officers at that station were killed. A breakdown of statements by lookouts and others about the decks leads to the following estimates:

(1) Enemy Group #1.

Leading ship, large, presumed to be a heavy cruiser and identified by at least three independent observers as a battleship. Two trailing ships, smaller in size, identified as light cruisers, possibly heavy.

(2) Enemy Group #2.

Eight destroyers, close to shore of Savo Island. Eight groups firing were definitely accounted for. High rate of fire fits identity of destroyers.

(3) Enemy Group #3.

Column of four ships identified by radar personnel. Leading ship much larger than the others. One observer noticed "collar" around a single stack, tentatively identified it as an ISE or FUSO. Second and third ships in column, large, identified as heavy or light cruisers. No consistent identification of last ship in column, somewhat smaller, might have been a light cruiser.

(4) Enemy Group #4.

Column of three ships reported by radar plot personnel, rounding Savo Island toward end of engagement. Statements not positive. Lookouts inclined to believe they saw some transports.

During the afternoon preceding the engagement, Japanese voice transmissions were heard on 2675. This is believed an aircraft frequency since it was most active during reported enemy air operations. At about 2130 considerable Japanese code heard in the radio spectrum between 2,000 - 4,000 kcs. No records were kept, but believed to be inter-base communications. At 2245 picked up Jap voice transmissions over a band 2070 - 2080 kcs. About thirteen different transmitters observed. Signals generally all strong. Some of the voices were very excited, one thought to be feminine. Several operators thought to be talking very rapidly, making sounds like "ka-ki-ka-ga" repeated irregularly, presumed to be voice modulation to represent our "dit-dah-dit" morse code transmission. One operator definitely read numbers being sent this way. Frequency stability of transmitters good, modulation in all cases only fair. Indications that all transmitters were not crystal controlled.

A station probably on shore had best signal, modulation, and enunciation, least excited of all. As soon as we opened fire this circuit was jammed with many voices, excited. Towards the end of the engagement the number of voices decreased and none heard after the engagement was broken off. At one time it was believed an effort was made to jam our 3785 but this was not successful and only lasted a few seconds at a time between our transmissions. Some English words were used, but marked with a Japanese accent and turned to Japanese towards the end of each transmission.

There is no positive evidence that at any time during the engagement did the enemy resort to smoke or camouflage. The presence of the destroyers close to Savo Island was a natural employment of dark background. Whether this was premeditated or accidental cannot be determined. It may be that this destroyer group was sent around the western side of the island when we first opened fire on the leading ships at 16,000 yards. The second group engaged, coming from around the western end of the island may have been an effort to catch us from the rear had this task force turned north to close the force to the northward of Savo Island.

A high rate of fire was attained by enemy destroyers which appeared to be directed at destroyers. A hail of shells equal in density to that which can be laid down by our secondary battery was observed to fall ahead of the WASHINGTON when our destroyers were hit.

Every time a ship was brought under our fire it was hit. The first group of three ships was hit on the first salvo both from the WASHINGTON and the SOUTH DAKOTA. One heavy cruiser, or battleship, in this group was sunk, by the WASHINGTON. The second ship in column, a heavy cruiser or possibly a light cruiser, was sunk by the SOUTH DAKOTA. The third ship, probably a light cruiser, was hit by the SOUTH DAKOTA's first salvo and when last seen was still burning. The eight destroyers close up to Savo Island were under fire by the secondary batteries. Two of these ships, the extreme left hand one and the extreme right hand one were quickly on fire. The right hand ship was seen to explode and is believed sunk. Some observers report at least two other of these on fire, but a reasonable doubt exists in that only the extreme left hand ship was definitely on fire when last observed. The column of four ships which illuminated the SOUTH DAKOTA sustained heavy casualties. The leading ship, presumed to be a battleship, was seriously damaged and undoubtedly set on fire. It may be that this ship fired its last gesture salvo at the SOUTH DAKOTA which scored a 14" hit on the barbette of Turret III at the end of the action. The second ship in column was definitely sunk, reported exploding in two. The third ship in column was set on fire. The fourth ship in column is doubtful. No reliable evidence is available as to damages inflicted.

Radar fire control was used throughout the engagement. The longest range used during the engagement was 18,000 yards, but it is believed that with real ships as targets radar spotting is reliable at extreme ranges assuming that both target and splashes are above the radar horizon.

Training in radar ranging and spotting cannot be over-emphasized, it is the only effective means of controlling fire at night.

There were no serious fires during or following the action. In general, fires were small and quickly extinguished, none spread beyond the immediate vicinity of ignition. In view of the number of hits and splinters, this is attributed to:

(a) Previous removal of paint and linoleum.

(b) General removal of mattresses from bunks above the waterline and use of flame retardent bedding bags.

(c) Use of fire retardent canvas throughout the ship.

(d) Clothing, paper forms, etc., kept behind metal.

(e) Failure of enemy shells to explode, and if rare explosions occurred, they were of low order.

(f) Smooth, rapid, and efficient functioning of repair parties.

It is imperative that IFF be installed in all our ships.

The value of fighting lights is doubtful. The globes and light bulbs are easily shattered, rendering the whole installation useless for the purpose intended. Proper employment of TBS and IFF will fill the need for proper identification of friendly forces.

COMMUNICATIONS.

The duplication of radio direction finders in the 100 to 1500 kcs.band is unnecessary. The installation of a high frequency direction finder was requested of and refused by the Bureau of Ships. Had this ship been equipped with a radio direction finder to cover the 2,000-3,000 kcs. band, Japanese transmissions could have been located much earlier and would have been utilized to our advantage. The value of a Japanese interpreter under these circumstances, as well as during the action on October 26th, should not be disregarded. The enemy utilizes much voice and coming as it does just prior to action much valuable information is denied our forces. There may be a real use for our loyal Japanese speaking people. One such interpreter assigned to a ship in a task force would be of great help.

The commanding officer, WALKE reported as follows:

The formation as described steamed on course 150° T., between Florida and Savo Islands until approximately 0020, reducing speed from 23 to 17 knots in search of reported enemy. 0020 turned to course 270° T. 0030 following action of WASHINGTON and SOUTH DAKOTA this ship opened fire to starboard on visible target believed to be a cruiser with a single raked stack. Continued rapid fire on this target for two minutes with FOX DOG radar, range 11,000 yards. Target appeared to blow up under heavily concentrated fire. Our formation increased speed to 26 knots. 0032 checked fire and shifted target to apparent enemy destroyer bearing one point on starboard bow. Resumed rapid fire at range 7,500 yards by radar. Apparent straddles clearly visible followed by heavy black smoke. Flames were reported on target as she disappeared behind the northwest point of Savo Island. 0037 checked fire to shift target to port hand flashes of gunfire off Guadalcanal. Resumed rapid fire. Numerous gun flashes visible on starboard hand. 0037 PRESTON blew up astern. 0039 attempted to shift torpedo battery from curved fire ahead set-up to broadside fire to starboard when a heavy explosion occurred in the vicinity of frame 45 to starboard. Ship had been straddled twice by gunfire immediately prior to this explosion caused by torpedo whose wake was observed. Following initial explosion the ship was struck by an apparent cruiser salvo. Shell hits were reported in the radio room, on the foremast, below the gig davits, and in the vicinity of gun #3. The explosion blew the forecastle and a section of the superstructure deck completely off as far aft as the bridge. Fire broke out throughout the forward section and the forward 20mm. magazine exploded. The bulkhead of the forward fireroom was buckled, as was the main deck amidships. All engines were ordered stop immediately and the commanding officer gave word to abandon ship, which was sinking fast by the head. Only two life rafts were left in condition to be freed. Depth charges were double checked and reported set on safe. At 0042 the ship disappeared stern last. The bow, detached, remained afloat.

At 0043 an unknown number of our depth charges exploded, killing and seriously injuring many of the men in the water. The crew was organized in the water, the most seriously injured being placed on the rafts. At approximately 0200 an enemy submarine surfaced close aboard the rafts and illuminated all survivors for several minutes, but proceeded without incident. An enemy destroyer later illuminated survivors on the detached bow. There was much shouting from this vessel, but she also proceeded without taking action.

SAVO ISLAND ENGAGEMENT

November 14 - 15, 1942

U. S. S. WASHINGTON AND U. S. S. SOUTH DAKOTA TRACK CHART

WASHINGTON TRACK

SOUTH DAKOTA TRACK

ENEMY TRACK

SAVO I.

GUADALCANAL I.

SECOND PHASE

THIRD PHASE

FIRST PHASE

WASHINGTON – SOUTH DAKOTA TRACK

9°

10°

15°

05'

159° 25'

30'

35'

40'

45'

50'

55'

160°

30-35a

Survivors were sighted and signalled at dawn by friendly planes. The MEADE was observed throughout the morning of November 15th firing on beached enemy transports. MEADE commenced picking up survivors with aid of boats and cruiser aircraft at 1400. 151 survivors were landed at Tulagi, where six died from wounds received in action. Total killed or missing in action: six officers and seventy-six men.

The Commander Battleship Division SIX (OTC), stressed the following points in summarizing this action:

(1) This action demonstrated the tremendous value of radar in a night action.

(2) Battleships obtained excellent fire control results using radar range and radar spots combined with optical instruments.

(3) Strong signals from enemy ships permitted quick and accurate solution and spots.

(4) First phase opening ranges 16,000 - 18,000 yards, illumination by setting moon. Hit with second salvo.

(5) Second phase opening range 6,000 - 9,000 yards, illumination by starshells but did not add to accuracy of fire.

(6) No indication that enemy used radar.

(7) Enemy apparently ranged on gun flashes but inaccurately. SOUTH DAKOTA hit after enemy searchlight illuminated her.

(8) Own gunfire superior to Japs particularly as range increased.

(9) SG radar invaluable in locating surface targets and coaching fire control radars on.

(10) More than one SG radar urgently needed to eliminate blind arc astern, improve fire control needs and supply adequate ship control and tactical information.

(11) PPI urgently needed for flag and conning officers.

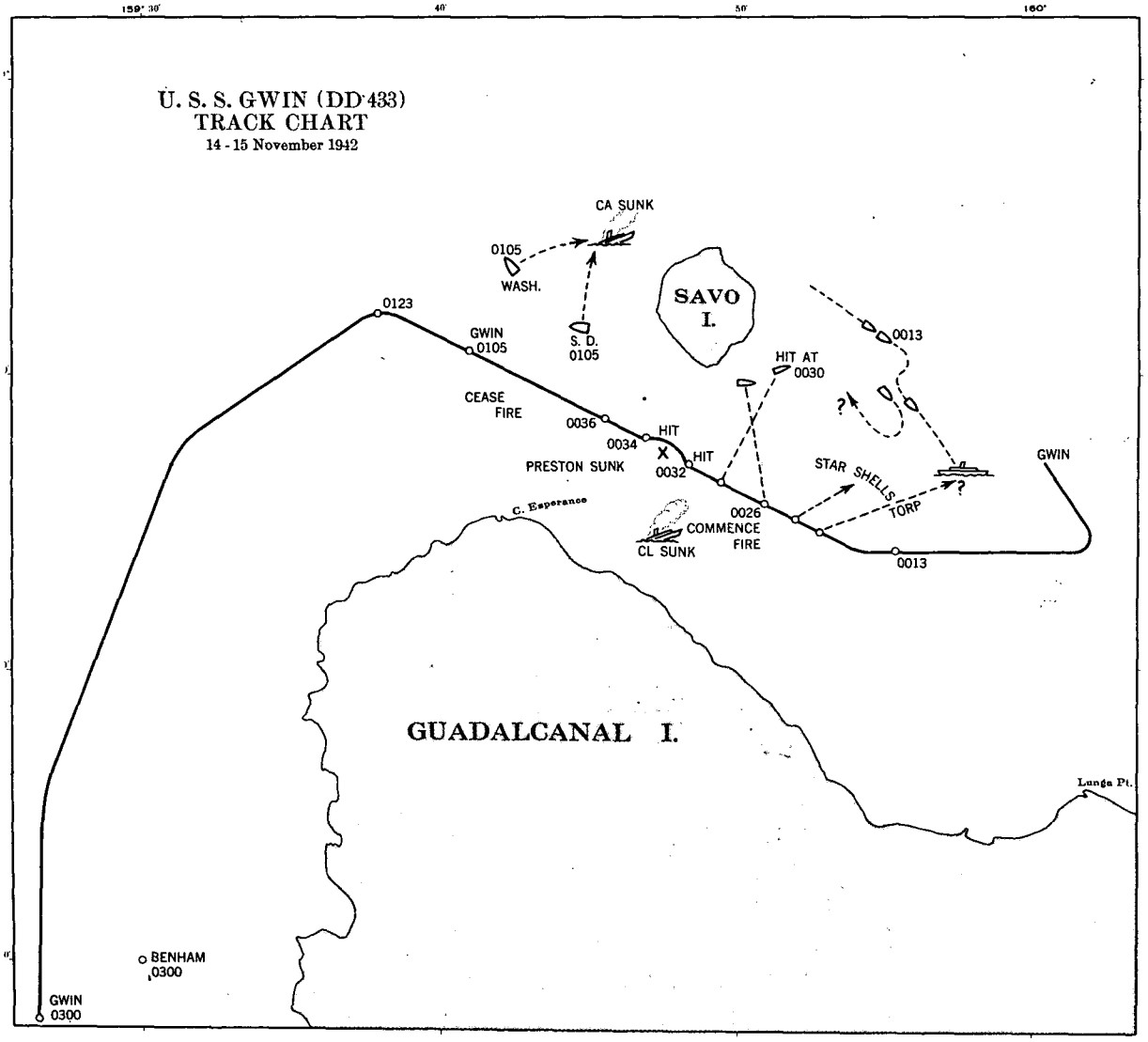
(12) SC type radar is of little value in enclosed waters as targets are lost in land signals.

The GWIN made the following report on this action:

Time (LCT)	Event
	Formation column, destroyers in van at standard distance, order, WALKE, BENHAM, PRESTON, GWIN. Battleships in column about 5,000 yards astern. Course 270°, speed 18.
0013	SOUTH DAKOTA reported contact bearing 330°, range 16,300. GWIN observed two cruisers, believed to be MOGAMI type, bearing 355°, range about 14,000 yards.
0014	Column right to 300°.
0019	SOUTH DAKOTA opened fire.
0020	Speed 23.
0021	Set up torpedo director on cruiser target, target angle 90°, speed 25. As tube ready lights were turned on, the center barrel of tube 2 fired due to a short circuit. The cruisers were beyond effective range for high speed setting.
0022	WALKE reported target 20° on starboard bow and opened fire.
0023	GWIN fired two starshell spreads to illuminate cruisers under fire of battleships. Fuze setting 45 seconds, range 12,000 yards. Fired two salvos AA common at cruisers but range was too great for the gunfire to serve other than distraction purposes. Checked fire.
0026	Opened fire on right hand ship of what appeared to be one cruiser and four destroyers which were apparently in column and circling Savo Island in a counter-clockwise direction. Target bearing 350° T., estimated range 10,000. Target angle 80°.
0027	One of the two cruisers on our starboard quarter is now flaming, and the other apparently retiring to the northwest.
0029	WALKE burning and has pulled out of column to port. BENHAM and PRESTON are still firing at targets which appear to be destroyers. Targets are very difficult

Time (LCT)	Event
	to distinguish as they are masked by Savo Island.
0030	We hit with two consecutive salvos. Target which had been firing 4-gun salvos now is replying with one gun. Hitting gun range 8,500, relative bearing 80, target angle 110°.
0031	We are being fired upon by a KUMO type cruiser on our port quarter.
0032	PRESTON exploded dead ahead, distant 300 yards. Almost simultaneously, ship received 4.7 calibre hit which entered forward starboard side of #2 engineroom about 4 feet above waterline. It apparently exploded in the vicinity of the control station, killing all personnel on the upper level, filling the enginerooms, after 20mm. clipping room and gun #4 upper handling room with steam, driving the crew out of the handling room. General lighting is out in guns #4 and #5 but they still have power and battle lighting. All safety links on the torpedoes failed. Three torpedoes slid out of #1 mount and over the side. The remaining torpedoes in both tubes slid part way out. Came right (hard) to avoid PRESTON and then resumed course 300°. Making 300 RPM on starboard engine.
0033	Flames from the PRESTON have subsided, but her depth charges exploded right after we had passed her and gave the ship quite a shaking up.
0033	Ship received an unknown calibre hit at break of deck, starboard side, frame 118, leaving a jagged hole about 2 square feet in area. This was evidently a ricochet on its upward traverse. Starboard depth charge rack was badly distorted. Two 600-pound depth charges were broken open and their contents spilled on deck.
0034	Ship is still firing at flashes in the lee of Savo Island, using guns one, two and five. One of the battleships had destroyed the cruiser firing on our port quarter. Torpedo crossed stern, coming from starboard, missing stern about 30 yards. BENHAM has disappeared from formation.

Time (LCT)	Event
0036	Ceased firing due to lack of suitable target. All firing has ceased temporarily.
0045	Task Group Commander ordered DD's to retire.
0050	Ship is acting very tender. Took a 15° roll to port and was very slow in recovering. Repair party has not been able to determine watertight integrity status of #2 engineroom because of escaping steam. Boilers #3 and #4 have been secured and after bulkhead stops closed. Ammunition is being removed from #4 upper handling room, shell room, and jettisoned. A fire hose is playing on the 20mm. ammunition in the after clipping room.
0100	Ordered jettison bill placed in effect.
0105	Observed WASHINGTON bearing about 030° T., distant 6,000, and SOUTH DAKOTA bearing 080° concentrating upon a large cruiser and destroyer caught between them.
0115	OTC announced that WASHINGTON was retiring, and directed SOUTH DAKOTA to join. The GWIN retiring, steaming on various courses at 15 knots to keep about 10 miles off Guadalcanal.
0140	Repair party reported that #2 engineroom was not making water. Ceased jettison operations. Five depth charges in port rack had been dropped, set on safe, and provisions located in FD radar compartment (vacant) had been thrown over.
0300	BENHAM reported her position as 9° 30' S., 159° 30' E., course 160°, speed 10. GWIN closed to sight contact with BENHAM and then took her course and speed.
0330	Have lost sight of BENHAM. Called on TBS and learned that she had slowed to 8 knots. Reversed course to reestablish contact.
0415	Took station 1,000 yards on BENHAM's port quarter, and retired in company at 8 knots.
0700	Course 130°, speed 12.


159° 30'
40'
50'
160°
U. S. S. GWIN (DD 433)
TRACK CHART
14 - 15 November 1942
CA SUNK
0105
WASH.
S. D.
0105
SAVO
I.
0123
GWIN
0105
CEASE
FIRE
0036
0034
HIT
X
0032
HIT
PRESTON SUNK
HIT AT
0030
0013
?
STAR SHELLS
TORP
?
GWIN
C. Esperance
0026
COMMENCE
FIRE
CL SUNK
0013
GUADALCANAL I.
Lunga Pt.
BENHAM
0300
GWIN
0300

The commanding officer, MEADE reported as follows on the operations by the MEADE on November 15th:

At about 0900, November 15, 1942, this vessel received orders from the Senior Naval Officer, Guadalcanal Area, to proceed to vicinity of Cape Esperance, Guadalcanal Island and destroy enemy vessels beached in that area. At 0914 the MEADE got underway from Tulagi Harbor and set course 240° T., speed 25 knots. Communications were established with Guadalcanal Air Control and cruiser spotting planes on voice radio. Targets were described and locations given by Guadalcanal Control.

The primary target designated by Guadalcanal Control was a transport beached in Domma Cove. At 1000 the primary target, a transport of about 10,000 tons, was sighted. Range was about 25,000 yards at this time. Other vessels were also seen beached along the shore in the following locations: two transports, one of 12,000 tons and one of 6,000 tons, near Tassafaronga Point. One transport or cargo ship of 10,000 tons near Aruligo Point. There were fires on all vessels from previous air attack and coastal battery hits. The vessel near Aruligo Point was burning fiercely and was not subjected to further bombardment as it appeared destroyed.

At 1012, MEADE reduced speed to 20 knots and commenced fire on the vessel in Domma Cove, range 12,500 yards. This fire was not accurate and was used for ranging and feeling out for opposition. At 1017 range was reduced to 10,000 yards, course was changed to 160° T., and effective fire was established between 10,000 and 8,000 yards. At 1021 the target was burning fiercely. At 1023 shifted fire to 6,000 ton transport off Tassafaronga Point and commenced hitting the target. At 1026 plane spotter reported ship near Domma Cove was still only slightly damaged despite fires. Fire was therefore concentrated on this target, and additional fires started in the ship. At 1030 shifted fire to 12,000 ton transport off Tassafaronga Point, changing course to 135° T. At 1040 ceased firing on vessel it being in flames and commenced strafing beach with 40mm. guns on course 315° T. At 1041 air spotter flew low over targets to check damage. Aircraft spotter reported both vessels off Tassafaronga Point burning with many internal explosions. At 1045 aircraft spotter reported vessel in Domma Cove required further bombardment. En route to take position to open fire on this vessel, the beach was strafed with 40mm. and main battery, using set fuzes. At 1049 opened fire on vessel in Domma Cove, range 5,000 yards. At 1054 this target broke in half longitudinally and firing

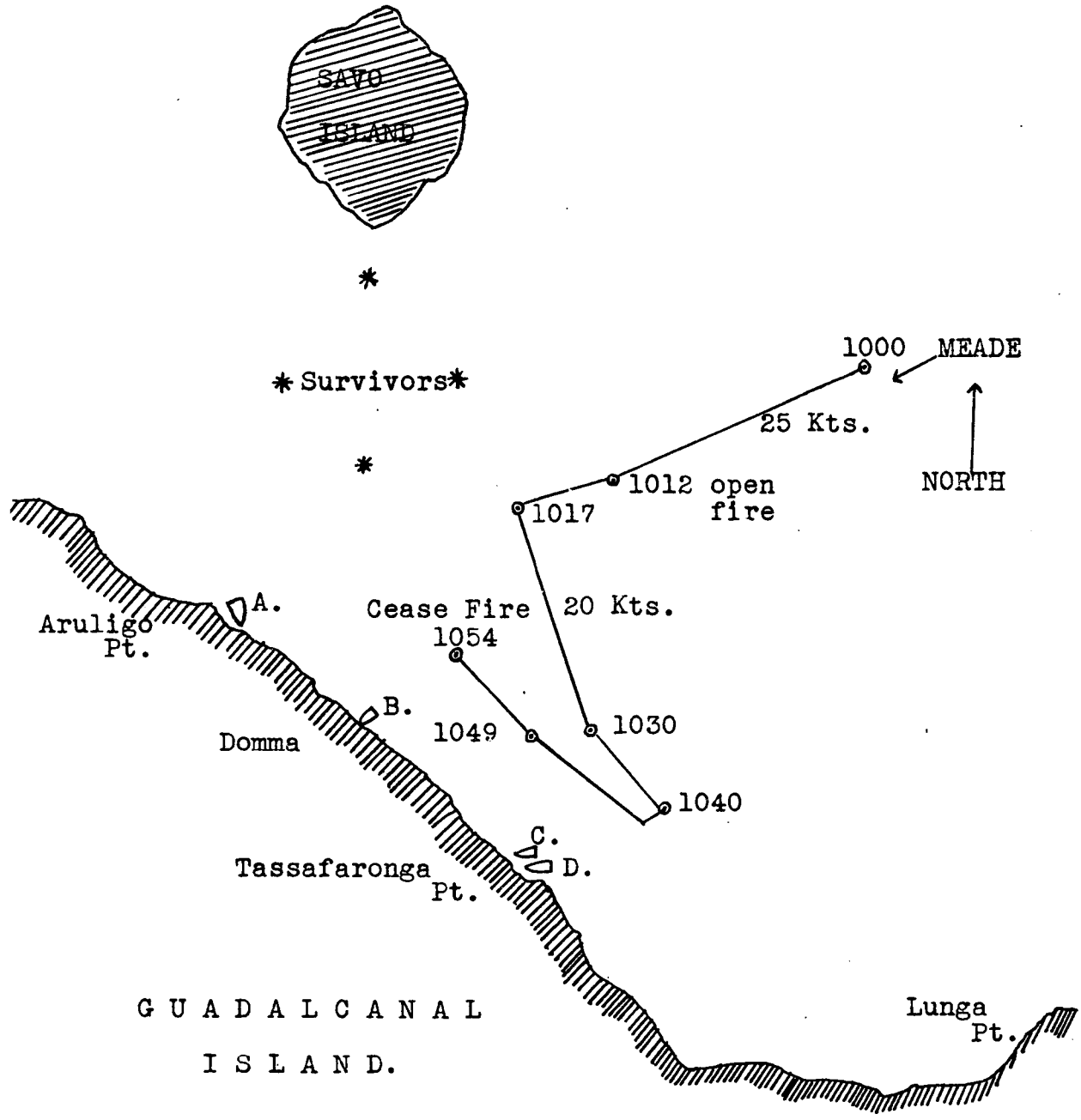
ceased. All targets were blazing with many internal explosions. Aircraft spotter reported no supply dumps on beach and no evidence of personnel in the vicinity. Proceeded to rescue survivors of WALKE and PRESTON, which has been covered in separate correspondence.

It is probable that if these vessels carried troops some may have landed prior to the bombardment. It is certain that no supplies were landed, and all cargo in the vessels was destroyed. No opposition was experienced from transport or enemy shore batteries.

The performance of the spotting plane, believed to have been a SAN FRANCISCO plane, piloted by a Lieutenant Thomas, USN, was excellent. This pilot flew at very low altitudes over hostile territory, checking damage to targets and correcting the gunfire.

The performance of the battery and ammunition during almost continuous firing for a period of 42 minutes was creditable. A casualty to the projectile hoist of #3 gun caused by tripping of relays slowed the ammunition supply to this gun for a few minutes. The trouble was immediately located and is believed to have been caused by the concussion of the gun. Upon correction, this gun resumed normal rate of fire. During the bombardment the main battery expended 600 rounds of ammunition. Bloomers of all guns were smouldering from the heat of the gun barrels, when fire was ceased.

The performance of personnel was good considering it was the first action in which this vessel had been in and that no firing had been done except during the training period after commissioning in July. Some difficulty was experienced in finding hitting range and deflection due to poor range finding and use of aircraft spots, which was new to the fire control party. It was noted that rate of fire slowed down considerably as the bombardment progressed. This was due to a decreasing rate of ammunition supply caused principally by fatigue of the magazine crews. This fatigue was accentuated by a shortage of personnel in these crews. Because of the lack of personnel, which has been reported in separate correspondence, there are only five men in each upper handling room and three in each magazine. Several men in the magazine crews were on the point of physical exhaustion, when fire ceased.



Track Chart USS MEADE bombardment of enemy ships on November 15, 1942.

ENEMY SHIPS

A. 10,000 tons.
B. 10,000 tons.
C. 6,000 tons.
D. 12,000 tons.

SUMMARY OF OUTSTANDING LESSONS.

Item	
1.	Destroyers were not employed offensively, nor were they used defensively as anti-submarine protection.
2.	No anti-submarine measures followed. No zigzag. Speed generally too slow, WASHINGTON operated from 2330 to 0022 at 17 knots; from 0022 to 0133 at 23 knots; from 0133 to 0142 at 20 knots; from 0142 retiring at 26 knots.
3.	Difficulty of maintaining contact with own forces due to large distance between ships, gun flashes and maneuvers required to avoid damaged ships and enemy torpedoes.
4.	Effectiveness of radar for searching and accurate gunfire at long range at night.
5.	Urgent need of IFF in all ships.
6.	Urgent need of infra-red equipment.
7.	Urgent need for radar to spot in deflection.
8.	Urgent need for more SG radars, elimination of blind arc astern, and PPI available to Conn and fire control.
9.	Urgent need for tactical plot facilities (Combat Plot).
10.	Urgent need for anti-radar equipment.
11.	Need for Intelligence Squad with interpreter and high frequency RDF.
12.	Need for more starshell training.
13.	Need for training and doctrine for aircraft night contact scouting.
14.	Advantage of freedom for individual ships to open fire without orders.
15.	Danger of using searchlights.
16.	Starshell illumination not essential.

Item

17. Need for auxiliary powered radio equipment.

18. Doubtful value of night fighting lights.

19. Security jeopardized by too great use of TBS prior to engagement and passing indiscreet information over TBS.

20. Desirability of captain - navigator remaining in Conn.

COMMENT BY CAPTAIN GATCH, COMMANDING OFFICER, U.S.S. SOUTH DAKOTA ON SUMMARY OF OUTSTANDING LESSONS.

Item

1. This comment is correct. However, the action developed so rapidly that there was very little time to do anything after the enemy was located. The DD's in line directly ahead of the BB's indirectly deceived the Japs, since they fired plenty of torpedoes at our DD's, probably mistaking them for cruisers. This probably saved the BB's being hit by torpedoes. Admiral Lee asked me afterwards if I thought the employment of the 4 DD's correct. I replied that as things turned out, I thought it was.

2. There was no zigzag, but on the other hand no steady course was steered for any appreciable time. The SOUTH DAKOTA made more speed than the WASHINGTON. I do not remember that any speed was prescribed after slowing to 17 knots well before the action. No exact formation was prescribed; the SOUTH DAKOTA was to follow the WASHINGTON in general at least 1,500 yards.

3. Additional, and all around SG would have obviated this.