#### World War II 75th Anniversary Commemorative Series

### **COMBAT NARRATIVES**

## The Battles of **Cape Esperance** 11 October 1942 and **Santa Cruz Islands**

#### 26 October 1942





Naval History and Heritage Command



U.S. Navy

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Cover: Naval Air Might at Santa Cruz

Navy dive bombers blast a Japanese battleship in the foreground while shipmates attack other enemy ships in the distance.

Oil Painting by Robert Benney, c.1943. Naval History and Heritage Command, #88-159-AK

### Foreword to the Naval History and Heritage Command 75th Anniversary Edition

In recognition of the sacrifices made 75 years ago during World War II, the Naval History and Heritage Command (NHHC) has chosen to republish select volumes from a series, Combat Narratives, produced by the Publications Branch of the Office of Naval Intelligence during the early days of World War II. Twenty-five years ago, a similiar set was produced by NHHC's predecessor Naval Historical Center.

This set differs from the original and 50th anniversary issues only in that these volumes will be published solely as free distributable PDFs available from the NHHC website at www.history.mil.

### Foreword to the Naval Historical Center 50th Anniversary Edition

*The Battle of Cape Esperance and the Battle of the Santa Cruz Islands* comprise part of a series of twenty-one published and thirteen unpublished Combat Narratives of specific naval campaigns produced by the Publications Branch of the Office of Naval Intelligence during World War II. Selected volumes in this series are being republished by the Naval Historical Center as part of the Navy's commemoration of the 50th anniversary of World War II.

The Combat Narratiges were superseded long ago by accounts such as Samuel Eliot Morison's *History of the United States Naval Operations in World War II* that could be more comprehensive and accurate because of the abundance of American, Allied, and enemy source materials that became available after 1945. But the Combat Narratives continue to be of interest and value since they demonstrate the perceptions of naval operations during the war itself. Because of the contemporary, immediate view offered by these studies, they are well suited for republication in the 1990s as veterans, historians, and the American public turn their attention once again to a war that engulfed much of the world a half century ago.

The Combat Narrative program originated in a directive issued in February 1942 by Admiral Ernest J. King, Commander in Chief, U.S. Fleet, that instructed the Office of Naval Intelligence to prepare and disseminate these studies. A small team composed primarily of professionally trained writers and historians produed the narratives. The authors based their accounts on research and analysis of the available primary source material, including action reports and war diaries, augmented by interviews with individual participants. Since the narratives were classified Confidential during the war, only a few thousand copies were published at the time, and their distribution was primarily restricted to commissioned officers in the Navy.

Following the Battle of Eastern Solomons in late August 1942, the naval phase of the Guadalcanal Campaign entered a lull which lasted through September. During that period, a pattern developed that prevailed throughout muc of the remainder of the operation. In daylight, U.S. forces controlled the waters surrounding Guadalcanal while the Japanese controlled them at night. Under cover of darkness, the enemy conducted resupply and reinforcement efforts, dubbed the "Tokyo Express" by the Americans, which involved the sending of troop transports and escorts down "The Slot"—the naval passageway through the Solomon Islands from Bougainville southeast to Guadalcanal. After completing their escort work, the Japanese warships typically bombarded the Marine perimeter on the northern coast of the island, before heading back up "The Slot" towards Bougainville.

Try as they might, the Japanese never succeeded in gaining the upper hand against the Americans,

although they came close to doing so on several occasions. During the September lull at sea, the enemy launched a major attack against the Marine perimeter, producing the second major land engagement of the campaign, the Battle of Bloody Ridge, 12–14 September. The Japanese failure to break through the Marine lines and capture Henderson Field, the Americans' vital air base, prompted them to step up the "Tokyo Express" shipment of troops to Guadalcanal and to increase their naval bombardment of the airfield. Their efforts did not go unchallenged as an American cruiser-destroyer force advanced against them on the night of 11 October, precipitating the Battle of Cape Esperance, the first engagement described in this narrative.

Two weeks later, the two forces fought another major naval engagement, the Battle of the Santa Cruz Islands, which also is described in this narrative. It was a carrier battle in which the Navy's *Hornet* and *Enterprise* locked horns with a powerful Japanese battleship–carrier fleet.

The Office of Naval Intelligence first published this narrative in 1943 without attribution. Administrative records from the period indicated that Ensign Henry V. Poor wrote the account of the Battle of Cape Esperance and that he coauthored the story of the Battle of the Santa Cruz Islands along with Lieutenant (jg) Henry A. Mustin and Lieutenant (jg) Colin G. Jameson. All three were Naval Reserve intelligence officers. Poor was a lawyer, diplomat, and author who became Associate Dean of the Yale Law School after the war. Before World War II, Mustin was a journalist with the *Washington Evening Star*. After the war, he returned to that newspaper and later was associated with the Columbia Broadcasting System, Mutual Broadcasting, and the Voice of America. Prior to entering the Navy in 1942, Jameson was a free-lance short story writer who had published about 40 stories.

I wish to acknowledge the invaluable editorial and publication assistance offered in undertaking this project by Mrs. Sandra K. Russell, Managing Editor, *Naval Aviation News* magazine: Commander Roger Zeimet, USNR, Naval Historical Center Reserve Detachment 206; and Dr. William S. Dudley, Senior Historian, Naval Historical Center. We also are grateful to Rear Admiral Kendell M. Pease, Jr., Chief of Information, and Captain Jack Gallant, USNR, Esecutive Director, U.S. Navy and Marine Corps WWII 50th Anniversary Commemorative Committee, who generously allocated the funds from the Department of the Navy's World War II commemoration program that made this publication possible.

Dean C. Allard Director of Naval History

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COMBAT NARRATIVES

## Solomon Islands Campaign

### IV

## Battle of Cape Esperance

11 October 1942

## V

## Battle of Santa Cruz Islands

26 October 1942



Confidential

Office of Naval Intelligence U. S. Navy

**COMBAT NARRATIVES** 

## **Solomon Islands Campaign**

## IV

## **Battle of Cape Esperance**

### 11 October 1942

# **Battle of Santa Cruz Islands**

V

26 October 1942



**Confidential** 

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1943

#### NAVY DEPARTMENT

Office of Naval Intelligence Washington, D.C.

1 October, 1943.

Combat Narratives are confidential publications issued under a directive of the Commander-in-Chief, U.S. Fleet and Chief of Naval Operations, for the information of commissioned officers of the U.S. Navy only.

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Officers who have participated in the operations recounted herein are invited to forward to the Director of Naval Intelligence, via their commanding officers, accounts of personal experiences and observations which they esteem to have value for historical and instructional purposes. It is hoped that such contributions will increase the value and render ever more authoritative such new editions of these publications as may be promulgated to the service in the future.

When the copies provided have served their purpose, they may be destroyed by burning. However, reports acknowledging receipt or destruction of these publications need not be made.

/s/ R.E. Schuirmann Rear Admiral, U.S.N., Director of Naval Intelligence.

#### FOREWORD

8 January 1943.

Combat Narratives have been prepared by the Publications Branch of the Office of Naval Intelligence for the information of the officers of the United States Navy.

The data on which these studies are based are those official documents which are suitable for a *confidential* publication. This material has been collated and presented in chronological order.

In perusing these narratives, the reader should bear in mind that while they recount in considerable detail the engagements in which our forces participated, certain underlying aspects of these operations must be kept in a secrete category until after the end of the war.

It should be remembered also that the observations of men in battle are sometimes at variance. As a result, the reports of commanding officers may differ although they participated in the same action and shared a common purpose. In general, Combat Narratives represent a reasoned interpretation of these discrepancies. In those instances where views cannot be reconciled, extracts from the conflicting evidence are reprinted.

Thus, an effort has been made to provide accurate and, within the above-mentioned limitations, complete narratives with charts covering raids, combats, joint operations, and battles in which our Fleets have engaged in the current war. It is hoped that these narratives will afford a clear view of what has occurred, and form a basis for a broader understanding which will result in ever more successful operations.

/s/ E.J. King Admiral, U.S.N., Commander in Chief, U.S. Fleet, and Chief of Naval Operations.

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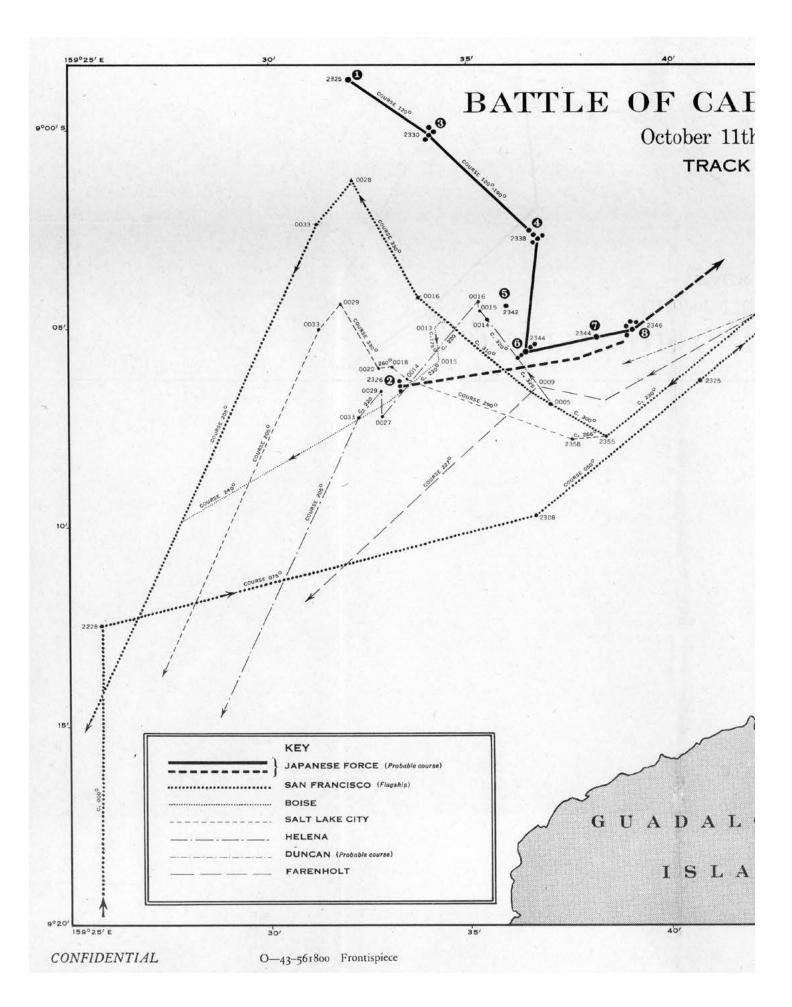
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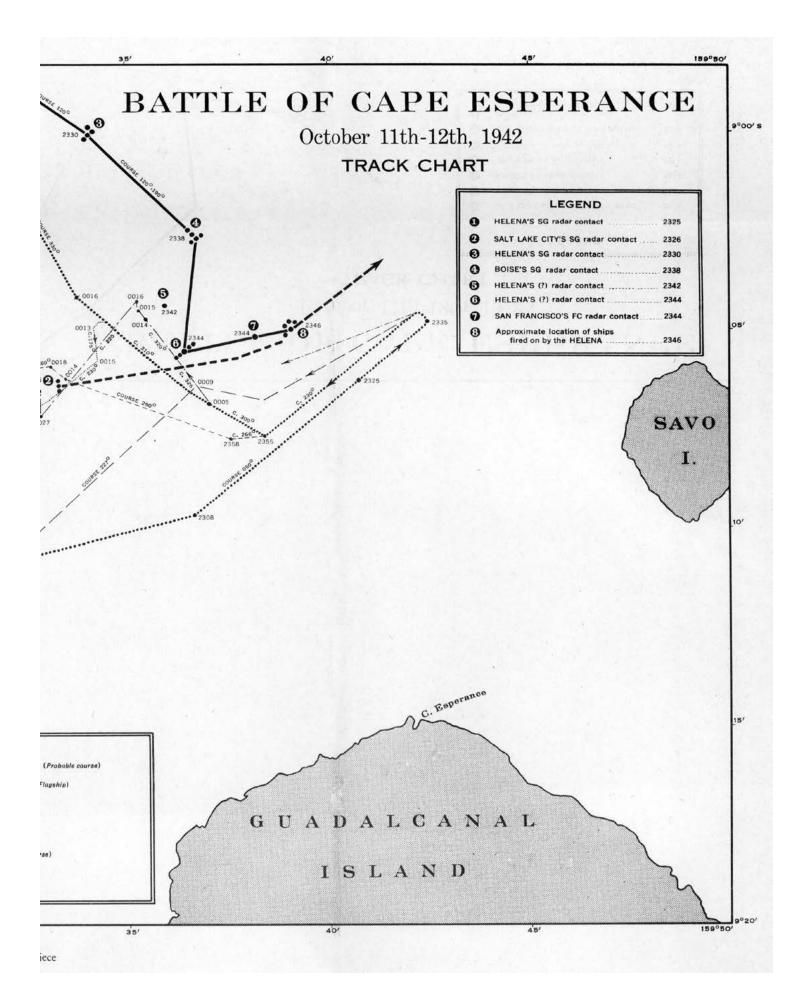
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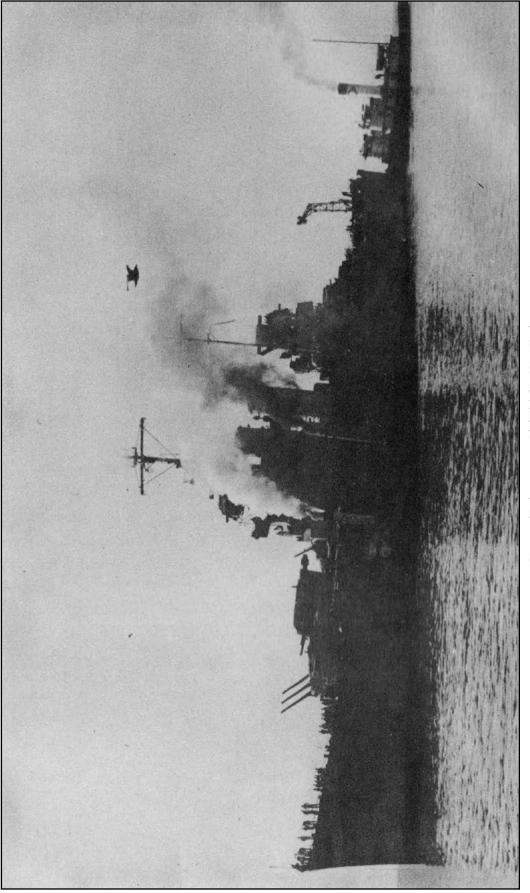
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#### **BATTLE OF CAPE ESPERANCE**

#### 11 October 1942

#### INTRODUCTION

S carcely had American forces consolidated their positions on Guadalcanal after the successful landing of 7 August 1942, when the Japanese indicated their resolve to regain control of the southern Solomons. Although they made no immediate effort to capitalize on their success in the Battle of Savo Island on the night of 8–9 August, strong forces appeared in the vicinity of the Santa Cruz Islands on 24 August. These forces included three and possibly four carriers. They withdrew after a violent attack by our carrier planes in the Battle of the Eastern Solomons, 23–25 August, which cost them the carrier *Ryujo*.<sup>1</sup>

For a time after this Japanese defeat, surface actions were confined to minor clashes, chiefly at night, between light destroyer and torpedo boat units.<sup>2</sup> Japanese surface forces attempting to land additional troops and materiel in the Cape Esperance area were continually harassed by planes from Henderson Field.

By mid–October, however, the Solomons had become for both the American and Japanese navies a magnet attracting increasingly large fleet units. The two great battles which assured the United States at least temporary control of the South Pacific were still distant 2 weeks and a month respectively, but they were clearly imminent. Neither side felt able to dominate the southern Solomons with the forces then on Guadalcanal; neither had marshalled sufficient strength to challenge the other to a full-size engagement; yet both were determined to fight, and by the end of the first week in October both were ready to risk their heaviest naval units.

During the latter part of September and early October, the Japanese were concentrating surface units in the Shortlands area, and sending them south toward Guadalcanal — through the inside passage between New Georgia, Choiseul and Santa Isabel Islands — so as to reach the northwest tip of Guadalcanal, Cape Esperance, at night. These ships would debark reinforcements, or bombard our Henderson Field positions, and retire by daybreak.

To consider means of halting these reinforcements and raids, which increasingly threatened our Solomons positions, a conference was called at Espiritu Santo. Our available surface forces in the South Pacific were few, and plans for the heaviest of them had already been laid. A large convoy with Army reinforcements for Guadalcanal was soon to depart from Noumea. By 11 October it would be about 250 miles west of Espiritu Santo. Task Force KING,<sup>3</sup> which included the aircraft carrier *Hornet*, was to support the convoy to the west. Protection to the east was to come from a battleship-cruiser force, built around *Washington*, which was to assume a position east of Malaita.

<sup>1</sup> See Combat Narratives, "The Landing in the Solomons," "The Battle of Savo Island," "The Battle of the Eastern Solomons."

<sup>2</sup> See Combat Narrative, "Miscellaneous Actions in the South Pacific."

<sup>3</sup> Task force numbers have been omitted from Combat Narratives for reasons of security. In their stead the Navy flag names for the first letter of the surnames of the commanding officers are used.

#### ORGANIZATION OF OUR FORCE

Based at Espiritu Santo, however, was Task Force SUGAR, commanded by Rear Admiral Norman Scott, and organized as follows:

2 Heavy cruisers

*San Francisco*, (F), Capt. Charles H. McMorris *Salt Lake City*, Capt. Ernest G. Small

1 light cruiser:

Boise, Capt. Edward J. Moran

3 destroyers, Capt. Robert G. Tobin

*Farenholt*, Lt. Comdr. Eugene T. Seaward *Buchanan*, Comdr. Ralph E. Wilson *Laffey*, Lt. Comdr. William E. Hank

The Task Force as thus constituted was too small for effective operations against the enemy units likely to be encountered. It was augmented therefore by three other ships operating in the vicinity of Espiritu Santo: the light cruiser *Helena* (Capt. Gilbert C. Hoover), and the destroyers *Duncan* (Lt. Comdr. Ennis W. Taylor) and *McCalla* (Lt. Comdr. William G. Cooper).

If dispatched within the next few days, this force would, when off the southern shore of Guadalcanal, exert a protective influence on the left flank of the Army convoy moving toward that island, even though not connected with the convoy in an operational sense.<sup>4</sup> Since its creation as a separate unit on 20 September, it had engaged only in target practice.

Accordingly, Task Force SUGAR was ordered to sortie from Espiritu Santo on 7 October, and steam to a point in the neighborhood of Rennell Island, from which, upon receipt of air search information that enemy units were moving towards Guadalcanal, it would proceed to the Savo Island area in time to intercept them. Its stated mission was to "search for and destroy enemy ships and landing craft."

#### ADMIRAL SCOTT'S INSTRUCTIONS

Task Force SUGAR's operational plans were contained in a memorandum issued by Admiral Scott on 9 October, 2 days out of Espiritu Santo.

Provided the horizon was visible, each cruiser was to launch two planes to scout the shore line of Guadalcanal for enemy landing operations, and offshore for supporting forces. The aircraft were to endeavor to maintain contact with the enemy until the approach of the Task Force, then to drop bombs and float-lights to indicate the enemy's position. Planes were to report any information regarding the enemy, even though negative. Flares were not to be used unless expressly ordered by Admiral

<sup>4</sup> Troops and supplies from this convoy were disembarked at Guadalcanal without incident the afternoon of 13 October.

Scott. Upon the completion of their mission, or in the event that tactical scouting was impossible, the planes were to proceed to Tulagi, fuel at daybreak, and report their readiness to Admiral Scott via the commanding general on Guadalcanal, who would inform them of the point for a rendezvous with Task Force SUGAR. Radio was to be used for essential messages.

Concerning the formation of his surface ships, Admiral Scott specified that the cruisers were to "form DOG,"<sup>5</sup> in order to facilitate signals, with the destroyers divided two ahead and two astern of the cruisers. The destroyers were instructed to illuminate targets as soon as possible after radar contacts, to fire torpedoes at large ships and direct shell fire at enemy destroyers and small craft. The heavy cruisers were to use continuous fire against small ships at short range, rather than full gun salvos with long intervals. The third and fourth cruisers in the column (the *Salt Lake City* and the *Helena*) were, with the destroyers, to keep watch on the disengaged flank, and to open fire without orders from Admiral Scott.

The van destroyers were cautioned to observe changes of course by the cruisers should TBS<sup>6</sup> fail, and to be alert for turn signals by TBS or blinker. They were specifically warned to keep the TBS adequately manned and the circuit as clear as possible. Emphasizing that Japanese gunfire would quickly follow searchlight illumination, Admiral Scott advised the use of counter-illumination and opening of fire without delay. He added that the danger of silhouetting one's own ship should be borne in mind.

Blinker tubes were to be dimmed, and to show blue or red lights; white lights were to be used only when necessary. TBS silence was to be maintained as long as feasible, although all ships were authorized to use TBS to report contacts.

Ships compelled to fall out of formation should do so on the disengaged flank, and proceed towards Tulagi if unable to make 15 knots. If consistent with the task, a destroyer screen would be provided. All ships were to be ready to tow or be towed. A ship becoming separated from the formation was not to rejoin until after requesting permission, giving bearing of approach in voice code. In the event of failure to rejoin during the engagement, ships would proceed to an agreed 0800 rendezvous.

In conclusion, Admiral Scott stressed the importance of maintaining formation to facilitate identification. All ships were to be alert for challenges, and to show night fighting lights with discretion.

#### PRELIMINARY MOVEMENTS

Task Force SUGAR departed from Espiritu Santo late in the afternoon of 7 October. Its approach was uneventful, marked only by target practice on 8 October and brief antiaircraft practice that night. A position north of Rennell Island, just outside the range of enemy air search, was assumed the next day. At 1122<sup>7</sup> on the 10th the *Helena* and *Duncan* joined the formation, which became complete with the

<sup>5</sup> Take formation, column, open order.

<sup>6</sup> Voice radio.

<sup>7</sup> All times in this Narrative are Zone minus 11.

arrival of the *McCalla* the next day.<sup>8</sup> On both the 9th and 10th, approaches were made, as planned, to a 1600 position that permitted reaching the vicinity of Savo Island, at 20–25 knots, by 2300. However, air search revealed no suitable targets, and on both days the Task Force retired to the south of Rennell Island. Four planes from the force were flown to Tulagi on 10 October, to remain overnight and effect a rendezvous at 1600 on the 11th.

#### 11 OCTOBER-EVENTS PRIOR TO ACTION

1347	Air search reports two enemy cruisers and six destroyers steaming towards Guadalcanal.
1400	Enemy air raid on Henderson Field delays return of Task Force SUGAR's planes.
1600	Approach to Savo Island begins.
1810	Air search again reports two enemy cruisers and six destroyers approaching Guadalcanal.
1815	Sunset; Condition of Readiness ONE is set.
2025	Course changed to 330° T.
2115	Course changed to 000° T.
2200	Cruisers launch 1 plane each.
2235	Battle disposition assumed on course 075° T.
2300	Course changed to 050° T.
2325	Helena's SG radar contacts enemy vessel bearing 315° T., distance 27,700 yards.
2326	<i>Salt Lake City</i> 's SC radar contacts three enemy vessels bearing 273° T., distance 16,000 yards.
2335	Cruisers countermarch to 230° T.
2342	Helena and Boise report radar contacts by TBS.
2346	Helena requests permission to open fire.

The morning of 11 October passed without incident and with no intimation that the day would be more eventful than the two which had preceded it.

At about 1345, however, search planes from Guadalcanal were reported by ComAirWing ONE as having sighted two enemy cruisers and six destroyers steaming at high speed on the accustomed Japanese route down "the slot" on course 120° T. bearing 305° T., at a point 210 miles from Guadalcanal. Estimating the situation, Admiral Scott concluded that to intercept the enemy, Task Force SUGAR should reach the Savo Island area about an hour before midnight. Meanwhile the force would proceed slowly to the 1600<sup>9</sup> position set for a rendezvous with the planes dis patched to Tulagi the previous day. The OTC also doubtless hoped for further air search information about the enemy force.

However, the rendezvous and the more detailed information were delayed by a heavy Japanese air attack on Henderson Field during the afternoon of the 11th. Seventy-five planes attacked in four waves. Eight enemy bombers and four fighters were shot down, at a cost of two of our fighters. The Task Force's planes at Tulagi were unable to take off as scheduled, and the enemy attack restricted the activities of long-range search planes at Guadalcanal. No other Japanese surface forces were sighted during the 11th, and Admiral Scott entered the engagement under the impression that only two enemy

<sup>8</sup> The *McCalla* was with the Task Force when it sortied from Espiritu Santo on the 7th, but late that night was ordered by Admiral Scott to return to Espiritu Santo to collect mail, rejoining the formation at the earliest possible date.

<sup>9</sup> Latitude 11°30' S., longitude 161°45' E.

cruisers and six destroyers were opposed to him. In reality, the enemy force appears to have been considerably larger. If it had not been for the Japanese air attack, the additional ships might well have been sighted by our search planes.

Despite the failure of the cruiser planes to effect the agreed rendezvous, Task Force SUGAR at 1600 departed at 29 knots from latitude 11°30' S., longitude 161°45' E., on course 320° T. The cruisers were in column, the *San Francisco* leading, followed by the *Boise*, *Salt Lake City*, and *Helena*. The cruiser column was screened by the destroyers in a 2,500 yard semicircle ahead, with the *McCalla* and *Buchanan* to port, the *Farenholt* dead ahead, and the *Duncan* and *Laffey* to starboard.<sup>10</sup>

At 1614 the cruisers each catapulted one plane to proceed to Tulagi, since it had been determined that each was to retain a single aircraft for search purposes on approach to the probable contact area.<sup>11</sup> Between 1652 and 1709, however, the planes which had been flown to Tulagi the previous day finally appeared. It had been planned to send these aircraft back to Tulagi, but because of contaminated gasoline they were forced down in the immediate vicinity of our vessels. The Task Force immediately slowed to 10 knots, and the ships came right to render assistance. During the maneuver the *San Francisco*'s plane hit the ship's side and was badly damaged. Admiral Scott was unwilling to lose the time required for salvage and ordered the *Buchanan* to recover the personnel and sink the plane. The *Buchanan* complied but did not regain her position in the formation until just after 2200, thus causing apprehension that she might not be available during the expected action.

At 1810, ComAirWing ONE reported his search planes had again sighted two enemy cruisers and six destroyers on course 120° T., bearing 310° T., steaming at 20 knots some 110 miles from Guadalcanal. There was little doubt that it was the force originally reported. This second message reinforced the belief that no other enemy vessels were in the area.

Condition of Readiness ONE was set as the sun went down at 1815. The wind was 7 knots from 120° T., the sea calm, with moderate swells. There was a 1,000-foot ceiling of broken cumulo-nimbus clouds. Dusk gradually gave way to a dark night, permitting surface visibility of 4,000 to 5,000 yards. The temperature was 81° F.

Half an hour later, a navigational fix obtained aboard the *Salt Lake City* established her position as latitude 10°42' S., longitude 160°14' E. At 2025 the course was changed to 330° T., and at 2145, when the Task Force passed through latitude 09°43' S., longitude 159°26' E., a further alteration was made to 000° T. Speed was reduced to 25 knots.

From sunset onward Task Force SUGAR's radars were as active as security considerations permitted. The *San Francisco* (F), lacked SG<sup>12</sup> equipment. Admiral Scott had been informed that the frequency

<sup>10</sup> Shortly before 1700, Admiral Scott informed the ships in the Task Force of his intention to attack that evening and mentioned the enemy's strength as reported to him.

<sup>11</sup> In the Battle of Savo Island, the night of 8-9 August, planes had proved dangerously inflammable, and it was felt unwise to have any aboard during an action.

<sup>12</sup> Radar designed for installation in large vessels and used primarily for detection of surface craft.

of the flagship's SC<sup>13</sup> radar was similar to that with which Japanese apparatus operated. Hoping to achieve surprise, he ordered the *San Francisco*'s SC not to be used during the evening. The flagship's FC radar<sup>14</sup> was in use, although on a limited search sector. The *Salt Lake City*, *Boise*, and *Helena*, possessed excellent SG equipment, all of which was actively employed as contact with the enemy became probable. The *Boise*'s SG was searching for enemy vessels continuously through 360°. So, presumably, were the SG's aboard the *Salt Lake City* and the *Helena*. The *Salt Lake City*'s SC was searching sector 180° to 360° R, and her FC was covering sector 225° to 315° R. The *Boise*'s FC had been assigned to sector 045° to 135° T.<sup>15</sup>

About 2200, with the enemy likely to be encountered in another hour, Admiral Scott ordered one aircraft launched from each cruiser. Immediately after the *Salt Lake City*'s plane was catapulted, flares in the after cockpit inexplicably ignited, setting the aircraft ablaze. It crashed in flames 500 yards from the ship, burned fiercely for 3 minutes, and sank. The pilot and observer made Guadalcanal in the plane's rubber boat. Task Force personnel were fearful that the fire had revealed the Force's position to the enemy.

Admiral Scott's order to the cruisers to launch their planes was never received by the *Helena*. But her commanding officer, Capt. Gilbert C. Hoover, was unwilling to incur the risk of keeping his plane aboard, and jettisoned it at 2214.

Just before 2230, as the Force neared the northwestern end of Guadalcanal, the course was changed to 075° T., in order to round the tip of the island as previously planned. A few minutes later, with the enemy expected within the half hour, battle disposition was assumed. The destroyers *Farenholt*, *Duncan*, and *Laffey* formed column in the van, followed by the *San Francisco*, *Boise*, *Salt Lake City*, and *Helena* in column, with the *Buchanan* and *McCalla* in column in the rear.

After effecting the change of course, the *Salt Lake City* made final battle preparations, jettisoning six 600-pound depth charges, and one depth bomb, all without pistols. As the ships passed the tip of Guadalcanal on the starboard hand, several lights were noted on the island. The *Salt Lake City* observed a white light, never identified, about 14,000 yards distant. The *Helena* saw a light on the starboard beam. Capt. Robert G. Tobin, commanding the destroyers from the *Farenholt*, sighted two blue lights on the beach at the northwest end of Guadalcanal. They had the appearance of range lights, so oriented that they might have been intended as aids to an approaching surface force. All indications were that such a force was expected.

Shortly before 2300, the pilot of the *San Francisco*'s plane reported sighting one large and two small vessels off the north beach of Guadalcanal, 16 miles from Savo Island. The message was not "well understood" on board the flagship, where a strong possibility was felt that the ships reported by the plane were friendly. Moreover, the night was very dark, and visibility from a plane was known to be extremely poor. Furthermore, even if taken at face value, the plane's message seemingly referred to

<sup>13</sup> A medium-range radar designed for detection of both surface ships and aircraft.

<sup>14</sup> A fire-control radar primarily used for directing the fire of the main batteries; also used for short-range search.

<sup>15</sup> Information concerning the radar operations of other ships in the Task Force is scanty. Admiral Scott indicated that he had assigned search sectors to several ships, but it is impossible to deduce what they were from the Action Reports, and War Diaries.

a force other than that which Admiral Scott believed to be approaching. With two cruisers and six destroyers expected off Savo momentarily, one large and two small vessels were merely an appetizer.

Ten minutes later Savo Island was uncomfortably close, and the course was changed to 050° T., which left the island to starboard. The formation steamed on, while each passing minute increased the curiosity as to the whereabouts of the larger enemy force. The *San Francisco*'s FC radar was inadequate for long range search, but Admiral Scott had to rely on it for all information except that afforded the lookouts by the surface visibility of 4,000–5,000 yards. At 2330 the flagship's plane reported that the one large and two small vessels previously reported were 16 miles east of Savo Island, about 1 mile off the Guadalcanal beach.

Meanwhile, unknown to the flagship, radar activity aboard the cruisers following her was becoming significant. At 2325, the *Helena*'s SG apparatus recorded an unmistakable surface vessel at bearing 315° T., range 27,700 yards.<sup>16</sup> A minute later, the *Salt Lake City*'s SG recorded three ships on bearing 273°, 16,000 yards distant, proceeding at about 20 knots on course 120° T.<sup>17</sup>

Neither of these contacts was reported to Admiral Scott, who was becoming increasingly concerned lest, by steaming too far north, the enemy be given an opportunity to pass unnoticed between Savo and Guadalcanal. On the other hand, the two cruisers and six destroyers might have decided not to move on Guadalcanal that night. By reversing his course, the OTC would at least be able to engage the three ships reported by the *San Francisco*'s plane, and another sweep off the northern end of Guadalcanal would assure him of meeting the larger force if in fact it did appear.

At 2332, according to the reports of the *Salt Lake City, Farenholt* and *McCalla*,<sup>18</sup> Admiral Scott transmitted the following TBS message to the Task Force: "This is CTF. Execute to follow: left to course 230." Thirty seconds later he ordered, again over TBS: "From CTF: execute." The four cruisers executed column left about, the *San Francisco* leading, followed by the *Boise, Salt Lake City* and *Helena*. The destroyers, however, delayed. Capt. Tobin ordered them "to slow as necessary to remain astern of the cruisers until it could be ascertained whether DD's which had been in the rear were following cruisers in formation, or had turned to take new van positions." When Capt. Tobin learned that the rear destroyers, the *Buchanan* and *McCalla*, had turned in the same water as the cruisers and were thus still in the rear, he ordered the former van destroyers, the *Farenholt, Duncan* and *Laffey*, to increase their speed and, advancing along the starboard flank of the cruiser column, to regain their positions in the van. Capt. Tobin was as unaware as Admiral Scott of the radar contacts aboard the *Salt Lake City* and *Helena*. As luck would have it, scarcely 10 minutes elapsed between the completion of the countermarch by the cruisers and their opening fire at 2346. The *Farenholt, Duncan* and *Laffey* were then almost directly in the line of fire.<sup>19</sup>

<sup>16</sup> See track chart, item No. 1.

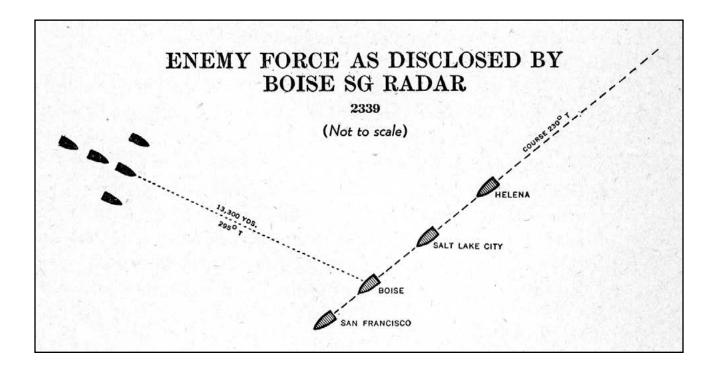
<sup>17</sup> See track chart, item No. 2. It is possible that the bearing was relative, not true; if relative, the enemy's bearing would be approximately the same as recorded by the *Helena*.

<sup>18</sup> The most accurate and complete record of the TBS messages which passed among the nine ships in the Task Force was kept by the *McCalla*. After the *McCalla*'s report, the *Salt Lake City*'s appears the most reliable. These two reports have been used as final authority for all points of disagreement.

<sup>19</sup> See track chart.

For a very few moments after turning south, Admiral Scott had no cause for concern other than uncertainty regarding the position of his destroyers. This period of calm was short-lived. Immediately after the turn, the *Helena*'s SG radar picked up at least five enemy ships at 18,500 yards on bearing 315° T. At 2338, the *Boise*'s SG recorded a group of objects bearing 295° T., about 14,000 yards distant.

Capt. Moran promptly directed the assistant navigator to make sure the objects were not land. A minute later Battery 1 received a report from Radar Plot locating five ships on bearing 065° R. (295° T.), only 13,300 yards away. "Action starboard," "Set Condition Affirm," and "Load" were immediately ordered by Capt. Moran. The enemy formation appeared thus on the *Boise*'s radar screen:



Aboard the *Boise*, the location of Task Force SUGAR'S destroyers was known generally, but not precisely. *Boise* personnel were convinced there was no confusion at 2339 between the enemy's ships and ours.

At about 2342, the *Helena* reported via TBS to Admiral Scott a surface radar contact, bearing 298° T. The *San Francisco*'s FC radar was ordered trained out of its previously assigned sector to pick up this target, and the *Helena*'s report was transmitted to the task force.

When Capt. Tobin aboard the *Farenholt*—then abreast the cruiser column—received the message reporting the *Helena*'s radar contact, he realized the predicament of the three van destroyers. He ordered the speed of the destroyers reduced, and considered the possibility of turning toward the cruisers in an attempt to take position astern of them.<sup>20</sup>

<sup>20</sup> Admiral Halsey pointed out that "had the destroyers received radar contacts they would have passed on the opposite side."

Admiral Scott also perceived the threat to the destroyers, and queried Capt. Tobin as to whether the destroyer squadron was coming ahead. Capt. Tobin replied affirmatively, saying he was coming up on the starboard flank. At that moment, 2342, the *Helena* reported another surface contact, on a target 12,000 yards distant at 285°. T.

A minute later the *Boise* reported the radar contacts as pictured on her screen, but the message referred to the objects as "bogies" and two bearings went out over TBS: 065° R. and 295° T. Only the *San Francisco* received both bearings; other ships in the Task Force received only the relative bearing, which they interpreted as true. Even aboard the *San Francisco*, however, there was doubt whether by "bogies" the *Boise* meant surface ships or aircraft, and whether, if surface ships, they were friendly or hostile. Lacking the visualization of the scene afforded by an SG radar screen, Admiral Scott feared the five objects reported by the *Boise* were his own destroyers. The *San Francisco*, in the van of the cruiser column, was separated by several thousand yards from the rear of the column. Admiral Scott did not know what course the five destroyers had taken after the cruiser countermarch. He did not know whether all five destroyers, or only the three which had formerly been in the van, were coming up on the right flank of the cruisers. All he did know was that from three to five destroyers were the "bogies" reported by the *Boise* was alarmingly real. At 2344 he again asked Capt. Tobin whether the destroyer squadron was taking station ahead. An affirmative answer, received just as the *Helena* again reported 5 ships (at 10,000 yards on bearing 276° T.), was scarcely reassuring.

Only from the limited viewpoint of Admiral Scott aboard the *San Francisco* are the circumstances in which he ordered "open fire" and "cease fire," understandable. Throughout the first phase of the battle, he could never know for sure that the cruisers following the *San Francisco* were not firing solely on our own destroyers.

#### THE ENGAGEMENT

On pages 19–21 is a chronological record of the experiences of all ships in the Task Force submitting Action Reports.<sup>21</sup> Because the action was so intense and firing by all ships so rapid and simultaneous, it is impossible to relate their several stories without somewhat violating the sequence of time. It is hoped that occasional references to the chronological record and to the track chart will enable the reader to ascertain at a glance what was happening to other ships in the formation.

The first ship to go into action was the *Helena*, though only by a few seconds' margin. At 2345 she requested permission over TBS to commence firing. The message was misinterpreted as a request for Admiral Scott to acknowledge the *Helena*'s last transmission reporting her radar contact on five ships. He answered her message by sending the word "Roger" over TBS. At 2346 both the *Helena*'s batteries opened on separate but unspecified targets.<sup>22</sup>

<sup>The Duncan was badly damaged during the first part of the action and sank about noon the following day, 12 October. See Appendix,
The Laffey was sunk during the Battle of Guadalcanal, 13-15 November. There is no official record of the latter's experience in the Battle of Cape Esperance.</sup> 

<sup>22</sup> Admiral Scott explained that he had instructed the cruisers to open fire without his prior permission.

A few seconds later the *Salt Lake City*'s main battery opened on a ship 4,000 yards to starboard, believed to be a *Natori* class light cruiser, which was illuminated by star shells from the 5-inch battery. She was followed almost instantaneously by the *Boise*, whose main batteries concentrated on the *Salt Lake City*'s target, while her 5-inch battery directed its fire on a lighter vessel in the enemy van.<sup>23</sup> Shortly thereafter, the *Farenholt*, from her position abreast of the cruiser column, fired on one of two heavy cruisers clearly visible to starboard. The *McCalla* recorded sighting an apparently friendly destroyer 2,000 yards forward of her starboard beam. To the left of this destroyer (which was probably the *Duncan*), she saw an enemy cruiser and destroyer.

Aboard the *San Francisco*, the *Helena*'s unexpected opening of fire caused genuine alarm. The flagship's FC radar, which had been trained out of its assigned search sector in an effort to locate the enemy vessels reported by the *Helena*, had by 2344 tracked a destroyer on bearing 300° T., only 5,000 yards distant. A minute later this ship was visible through the heavy darkness, but whether friendly or hostile was not known. It was thought the destroyer might be the *Farenholt*, *Duncan* or *Laffey*. When the cruisers in the *San Francisco*'s rear had been firing for a few moments, the flagship herself opened fire with both her batteries on an unidentified enemy ship 4,600 yards to starboard. After a few salvos had been fired, the target ship and another close to it were burning, one severely. Fire was shifted to an *Amagiri* class destroyer approaching from the starboard beam, and it was soon heavily damaged.

Just after the *San Francisco* joined the other cruisers in continuous fire to starboard, Admiral Scott Ordered "Cease firing" over TBS.<sup>24</sup> His information regarding the location of the former van destroyers was still confined to the fact that they were somewhere on the starboard flank of the cruiser column, striving to regain their van position.

At 2347 the OTC asked Capt. Tobin over TBS whether the destroyers had been fired upon. He replied that none of his ships had as yet been fired on, and that he did not know on whom the cruisers were firing. A minute later, the *Farenholt* was hit twice in the rigging, and Capt. Tobin reported the hits to the flagship. The destroyer's peril was most grave, but Capt. Tobin had no alternative to steaming ahead and reaching the van position as soon as possible. A turn to the left would have thrown the *Farenholt* into the middle of the cruiser column, and a turn to the right would have thrown her against the enemy.

Following the *Farenholt* was the *Duncan*. She appears quite early to have seen the opportunity for a torpedo salvo at an enemy heavy cruiser, to have weighed the risk of fire from our cruisers against the advantage of torpedoing the Japanese ship, and deliberately to have changed her course to starboard, toward the enemy. She apparently scored two torpedo hits on the cruiser, and was then so severely damaged by shells from both Japanese and United States vessels that she retired from the action, blazing furiously and drifting northeastward toward Savo Island.<sup>25</sup>

<sup>23</sup> Less than a minute after the *Boise* opened fire, one of the antenna wires of the SG radar was jarred loose and wrapped itself around the antenna mast. The SG was useless thereafter, depriving the *Boise*'s fire directors of the visualization afforded by the SG screen.

<sup>24</sup> The *McCalla*'s log times this TBS message at 2346, the *Salt Lake City*'s at 2347; the latter time seems more likely because, during the 60 seconds from 2346 to 2347, the TBS was heavily occupied with other messages, particularly the "Roger" colloquy between the flagship and the *Helena*.

<sup>25</sup> The recovery of the Duncan's personnel, her attempted salvage, and final sinking are discussed in the appendix.

Within a few minutes after Task Force SUGAR went into action, at least three enemy ships were in flames. The *Salt Lake City* checked her fire when she received Admiral Scott's order and did not resume for several minutes. The *Helena* and *Boise* recorded that their three targets sank at about 2350. The ship reported sunk by the *Helena* was never identified. The *Boise* stated that several of her officers identified her main battery target as a *Nachi* class heavy cruiser. The vessel burned furiously before sinking and was identified in the light of the flames.<sup>26</sup> The *Boise*'s 5-inch battery target, which sank at about the same time, was a destroyer. A minute later, the destroyer engaged by the *San Francisco* sank. It had closed in to about 1,400, and could clearly be distinguished from our own destroyers. In less than 5 minutes, Task Force SUGAR had apparently destroyed one heavy cruiser, one unidentified ship, and three destroyers, without the enemy having fired a single shell.

By 2351, more certain of the location of the enemy vessels, Admiral Scott ordered the Task Force to commence firing. The *Boise* concentrated both her batteries on a destroyer in the vicinity of her 5-inch battery's first target. The enemy ship quickly exploded and disappeared from the radar screens. Both the *Helena*'s batteries were trained on the 5-inch batteries' first target, then 5,000 yards distant and to the right of two other burning ships. After several minutes observers saw it roll over and sink, having identified it as a *Kako* class heavy cruiser. The *Salt Lake City* trained her guns on a heavy cruiser and resumed fire, but checked after noting several hits.

Between 2353 and 2358, when almost abreast of the *San Francisco*, the *Farenholt* received what appeared to be two 6-inch hits on her port side. Shortly thereafter she succeeded in crossing ahead of the flagship, but her hard-won position in the van could not be maintained. She was badly damaged, and fell out to port on the disengaged flank, losing contact with the formation. She did not rejoin it until the next day, at Espiritu Santo.

The *Buchanan*, meanwhile, had apparently fallen in behind the cruiser column. After receiving Admiral Scott's "Commence Firing" order, she observed three destroyers on the starboard bow and a *Kako* class cruiser on the starboard beam, all on a course parallel to that of the Task Force. Probably this was the same *Kako* on which the *Helena* was firing. The *Bachanan* fired her main and torpedo batteries at the cruiser and 3 minutes later saw two explosions, presumably caused by torpedo hits. The cruiser was seen to break in two and sink, whereupon the *Buchanan* shifted fire to one of the destroyers. When it was observed sinking, she turned her guns on a target that was either a transport or a second-line cruiser. It was soon in flames and retired to the northwest.

Until 2353, no enemy gun or torpedo fire had been encountered. The Japanese were evidently completely surprised, and the impact of our accurate fire, concentrated into a period of barely 7 minutes, apparently prevented them from training their guns on our ships. A factor which doubtless contributed to the enemy's delay was that none of our ships had thus far used searchlights. Firing had commenced and continued either in full radar control, or, aboard the cruisers, with the 5-inch batteries illuminating targets which had initially been located by radar.

At 2353, with the Helena engaging what appeared to be a light cruiser, the McCalla firing alternately on a

<sup>26</sup> This was the same target fired upon by the Salt Lake City, which identified it as a light cruiser.

heavy cruiser and a destroyer, the *Salt Lake City* momentarily silent, and the *San Francisco* attempting to identify a destroyer approaching to starboard and flashing unrecognizable signals, the *Boise* fired with both batteries, using searchlights for illumination, on an enemy cruiser. The cruiser promptly retaliated, and a minute later the *Boise* received an 8-inch hit which started large fires in the area of the captain's cabin. Two or three enemy 5½-inch shells followed in rapid succession before the *Boise*'s target commenced burning brightly. In a minute it was reported to have sunk. Capt. Moran checked fire and instituted damage control measures.

The *Salt Lake City*'s main battery meanwhile had taken under fire, at a range of 7,000 yards, an enemy ship tentatively identified as an auxiliary. The target apparently sank, and the *Salt Lake City* checked fire, resuming with both batteries on a destroyer illuminated by searchlight. This destroyer disappeared after one salvo had been fired.

Between 2353 and 2358 the course of Task Force SUGAR was changed from 230° T. to 300° T. About midnight, Admiral Scott ordered "Cease Firing" in order to rectify his formation. He stated his course and ordered all ships to identify themselves by blinker lights. A lull in the fighting did occur, largely because most of the targets which had been engaged were no longer visible.

The lull was brief. Between 0001 and 0005 the *Salt Lake City* fired on three burning enemy ships, increasing the fires on each before shifting her guns to the next. At 0005 the *Helena* resumed firing on a destroyer which was soon in flames. Ten minutes later it exploded and disappeared both from the radar screens and from sight. At 0006 the *San Francisco* observed at least four enemy ships on fire and trained both batteries on them in succession.

For the first 8 minutes after midnight the *Boise* was busy with her own fires. At 0006 a torpedo wake was observed to starboard. She came right with hard rudder and the torpedo passed about 50 yards astern. By 0009 her fires were substantially extinguished, and she reentered the battle only slightly damaged. Using searchlights to illuminate the target, both batteries reopened on an unidentified ship to starboard, which promptly returned her fire. Simultaneously, she was engaged by a heavy cruiser separated from the previous enemy area and believed by *Boise* personnel to have been one of another enemy group hitherto not involved in the action. This latter cruiser fired "beautifully" at the *Boise*, hitting her repeatedly with 8-inch salvos which virtually destroyed her forward turrets and caused large personnel casualties and material damage. A succession of 5-inch, 6-inch, and 8-inch shells poured on the *Boise* for the better part of 4 minutes. She was soon blazing so fiercely that her sister ships feared she was lost. But she continued to mete out terrific punishment and had the satisfaction of seeing her destroyer target explode and sink. Then, while firing at the cruiser with every gun which could shoot, she began evasive action. But soon none of her heavy guns could bear, and at 0013, wrapped in flames, she fell out of the formation and retired to the southwest.

Though the heavy cruiser which had so grievously damaged the *Boise* enjoyed an initial advantage in being able to fire unopposed, it was not long before she was being heavily battered by the Task Force's other cruisers. The *Salt Lake City* was engaging a light cruiser when she saw the *Boise*'s plight. Fire was immediately checked, in order to obtain a solution on the heavier and deadlier target. The *Salt* 

*Lake City* had to maneuver frequently to avoid the *Boise*, which was changing course continually in efforts to escape her assailant's fire. While thus maneuvering the *Salt Lake City* received an 8-inch hit forward and to starboard. At 0014 her guns were trained on the enemy, and for a minute she rained 8-inch shells on the heavy cruiser. The *San Francisco*, meanwhile, had also brought this accurately shooting vessel under her 8-inch gunfire, and it is probable that other ships in the Task Force were also firing on her.

At this juncture the *Salt Lake City* received another 8-inch hit to starboard, causing minor damage and a few casualties to personnel. But the enemy cruiser could not withstand the concentrated fire of the Task Force, and at 0016 she was seen to sink.

The action was now virtually concluded, although the *McCalla* temporarily engaged a destroyer at 0016, and the *San Francisco* fired a few salvos at a three-stack cruiser at 0017. The enemy destroyer retired in flames, and the cruiser disappeared from the radar screen with no indication of the results of the flagship's salvos. The course had been changed to the right to 330° at 0016 in order to close the enemy, but after these last few minutes of desultory firing, Admiral Scott decided to retire. An eloquent silence prevailed over the area once filled with enemy ships.

Our own formation was "somewhat broken,"<sup>27</sup> and it seemed best to rectify it should any additional enemy ships appear. Course was changed at 0027 to 220° T. Admiral Scott tried unsuccessfully to establish communication with Capt. Tobin to have him detail a destroyer to stand by the *Boise*. Neither Capt. Tobin in the *Farenholt* nor Capt. Moran in the *Boise* could be reached. Accordingly, the *McCalla* was designated to remain in the area to render whatever assistance appeared necessary. The remainder of the Task Force then retired on course 205° T.

#### RETIREMENT

At 0050 the *Salt Lake City* "enlivened the occasion" by firing two star shells to illuminate the San Francisco. The flagship was then well ahead of the formation and her friendly character was doubted. In 10 minutes, however, the two cruisers identified each other, and the *Salt Lake City* fell in behind the flagship, reporting her maximum speed as 22 knots, an estimate she later raised to 25. Admiral Scott ordered all destroyers to close him, but could obtain no acknowledgment from the *Farenholt* or the *Duncan*.

Two hours later the *Boise* was encountered for the first time since she had fallen out of the formation. She was heavily damaged, and had lost three officers and 104 enlisted men, but because of intensive damage control measures her fires were out and she was able to make 20 knots, the speed Admiral Scott accordingly set for the Task Force. Meanwhile, the *Helena* had joined, and the victorious formation steamed southwards, minus only the *Farenholt* and the *Duncan*.

Admiral Scott's major concern was to get out of range of enemy land-based aircraft by daylight. He sent a radio report of the battle to COMSOPAC. He also requested air coverage, which arrived soon after day broke. Later in the morning, a message was received from the *Farenholt*, stating that she was

<sup>27</sup> See track chart.

50 miles to the rear. She reported that she had been holed twice near the water line but that she was seaworthy.

It was still necessary to pick up the Task Force's cruiser planes which had been flown to Guadalcanal. The *Helena* was detached for the purpose, and three destroyers, the *Lansdowne*, *Aaron Ward* and *Lardner* were dispatched from Espiritu Santo to screen her. The *Aaron Ward* was later directed to escort the *Farenholt*.

At 1530 on 13 October, Task Force SUGAR steamed into Espiritu Santo, followed two hours later by the *Farenholt*. The *Helena*, *Lansdowne* and *McCalla* arrived the next morning, with the *Duncan*'s survivors aboard the *McCalla* (nine officers and 186 men). Also aboard were 3 Japanese seamen who had been picked up from the water in the vicinity of the *Duncan*.<sup>28</sup>

Total casualties in the Task Force were about 175 killed and an unspecified number wounded. The Action Reports which form the basis of this Narrative indicate about 15 sinkings of enemy vessels. As in all night actions, observation was difficult and many duplications resulted. A preliminary effort to eliminate these was made at a conference at Espiritu Santo, attended by all the ships' commanding officers, where the enemy losses were estimated as: one heavy cruiser of the *Nachi* class, one of the *Kako* class, and one of the *Atago* class; one possible light cruiser of the *Sendai* class; four destroyers, one of the *Hibiki* class; one other possible, type unknown.

This estimate was later revised by Admiral Nimitz as follows:

(a)  $SUNK:^{29}$ 

Two-heavy cruisers, one of which was the *Furutaka*. One light cruiser. One auxiliary, possibly a transport. Five destroyers, one of which was the *Shirakumo*.

(b) DAMAGED:

One heavy cruiser, the *Aoba*, badly damaged. Other destroyers.

It seemed apparent, from the losses inflicted, that the Japanese force was larger than had been reported to Admiral Scott on 11 October. The ships sighted by search aircraft that day totaled only two cruisers and six destroyers. But it will be recalled that an air attack was made on Henderson Field the afternoon of the 11th, possibly preventing detection of other units which were either part of the force sighted or comprised a separate group moving towards Savo Island so as to effect a junction with the force reported by search planes. There is no way of assessing the exact size of the Japanese forces engaged. Admiral Scott estimated that three heavy cruisers, one light cruiser, and six destroyers were involved.

<sup>28</sup> The recovery of the *Duncan*'s survivors from the shark-infested waters off Savo Island and the seizure of the Japanese prisoners are treated separately in the appendix, p. 20..

<sup>29</sup> Later information made the following Japanese losses seem certain: sunk 1 CA (Furutaka), 2 DD (Fubuki and Natsugumo).

#### CONCLUSIONS

The major factor in the victory, as stated by Admirals Nimitz and Scott, was surprise. Our ships fired on the enemy with devastating effect for 7 minutes before his guns replied. Reasons for his delay in firing are difficult to ascertain. The most plausible are two: first, that the Japanese lacked radar as effective as that aboard the *Salt Lake City, Boise* and *Helena*; second, that the enemy ships engaged comprised two forces.<sup>30</sup> If two units were in fact involved, it is probable that the Japanese were, at the outset, uncertain regarding who was firing on them, and hesitated to retaliate for fear of hitting their own ships.<sup>31</sup>

But surprise alone would not have produced so one-sided a victory under the confused conditions prevailing when the action commenced. The cool judgment exercised by individual captains in handling their vessels, combined with gunnery as effective as could ever be expected, enabled our Task Force to wrest a decisive victory from an inherently dangerous opening situation.

<sup>30</sup> It is also possible that the Japanese vessels believed that they were being fired upon by the one large and two small ships reported by the *San Francisco*'s plane before the action started. These three vessels were later seen, at 0230 on 12 October, by Lt. (jg) R. C. Bartlett, the pilot of the *Boise* plane which had made a forced water landing midway between Guadalcanal and Florida Islands. Three Japanese warships, one of which was the light cruiser *Itsukushima*, passed within 300 yards of him.

<sup>31</sup> *Boise* officers, interviewed while she was undergoing repairs in Philadelphia, strongly inclined toward this second theory, particularly because of their conviction that the ships which fired so effectively on their vessel during the second phase of the action were not part of the force first engaged.

#### APPENDIX

#### Abandonment of the "Duncan" and Rescue of Her Survivors by the "McCalla"

While making two torpedo hits on a Japanese cruiser from a position between our cruiser column and the enemy force, the *Duncan* was simultaneously hit by four or more shells, including several from our cruiser column. Her No. 1 fireroom had already been damaged by a shell hit, but the crew had remained at their stations in order to secure the forward boilers. This devotion to duty cost them their lives, for when the fire-room was hit again, all men in it were killed. Other shells burst and killed all personnel in the charthouse and the main radio room. Another hit near the charthouse killed four men on the wings of the bridge. One of these men was standing next to the commanding officer, Lt. Comdr. Ennis W. Taylor. Uncontrollable fires quickly broke out near the No. 1 fireroom and the main radio.

No. 2 gun mount was a mass of flames, with fire and explosions from the handling room cutting off access to the forecastle. Everything from the bridge level up was isolated by fires roaring just below. The chart-house and after end of the navigating bridge were wrecked. The forward and after parts of the ship were two distinct units, separated by flames from the fire in No. 1 fireroom. All communications from the pilothouse to other parts of the ship were dead. The gyro-repeater was out. There was no answer from signals over the engine room annunciator. Bridge steering control was lost, and with her rudder jammed left the *Duncan* was carried clear of the line of fire and away from the battle area. She was still making 15 knots.

The director crew and the uninjured personnel on the director platform lowered the wounded to the starboard wing of the bridge. But the bridge was isolated from all parts of the ship by increasingly serious fires raging beneath, forward and aft. Accordingly, Lt. Comdr. Taylor ordered the personnel gathered on the bridge to abandon ship. Efforts were made to reach the life net just beneath the port wing of the bridge, but the smoke was too thick and the flames too fierce. Escape from the bridge level was possible only by dropping into the water over the starboard wing. All bridge personnel left the ship in this manner.

During their escape and for many minutes afterward, Lt. Comdr. Taylor strove unsuccessfully to signal the crew of gun No. 1 and the survivors from gun No. 2, who were gathered in the eyes of the ship, isolated by fires which had spread to the magazines under gun No. 2. After a final effort to communicate with men in the after part of the ship, and when an inspection of the bridge level showed that the port wing was on fire and that all living personnel had got clear, Lt. Comdr. Taylor jumped from the starboard bridge shield at about 0100, a half hour after giving the order to abandon the bridge.

The remaining personnel forward and aft made persistent efforts, despite continually exploding ammunition and intense fires, to bring the flames under control with fire and bilge pumps and the handy-billy. Both bilge pump and handy-billy failed. At about 0200, with the flames increasing in intensity and ammunition exploding ever more violently, Lieut. Herbert R. Kabat ordered all personnel to abandon ship.

The *McCalla*, meanwhile, had followed the course of the *San Francisco* during the battle with little difficulty. When the engagement was concluded, at about 0020, she was in her station astern of the flagship.

At 0055 she was ordered by Admiral Scott to locate the *Boise* which had last been reported 12 miles from Savo Island on bearing 295° T. The *McCalla* searched in vain for the damaged cruiser, using FD radar, on various courses and speeds. The only vessel sighted was gutted with fire, drifting so close to Savo Island that it was thought she might be on the opposite side of the island from which the action had been fought. As the *McCalla* neared the flames, several explosions were heard, and it seemed the ship was aground. The *McCalla* approached cautiously because the large fires made it impossible to determine the ship's characteristics. At 0220 her fires had diminished, and she was illuminated by searchlight from an approximate range of 2,500 yards. She was clearly not the *Boise*. Shortly, a lookout detected the numbers 485, and she was identified as the *Duncan*.

At 0300, the *McCalla* lowered a boat and despatched a salvage party under Lt. Comdr. Floyd B. T. Myhre with instructions to take no unnecessary chances, approach with caution, and fire a red Very star if immediate assistance was required. Lt. Comdr. Myhre was told the *McCalla* would remain in the vicinity for about half an hour, and then continue to search for the *Boise*, returning to the *Duncan* only if the Very star signal was observed.

The salvage party went aboard but found no signs of life. Many fires were still burning, which Lt. Comdr. Myhre gradually brought under control. After a brief examination of all parts of the destroyer, he decided there was a hope of salvaging her. He and his party worked steadily for several hours jettisoning equipment which was irretrievably damaged, and trying to restore power.

Meanwhile the *McCalla* searched north and west of Savo for the *Boise*, unaware that she had by that time resumed station in the Task Force. Around 0600, the Duncan was again encountered. She was still smoldering forward, but all large fires had burned themselves out. As the *McCalla* closed, Lt. Comdr. Myhre reported that she had been abandoned but could be salvaged, and asked Lt. Comdr. Cooper in the *McCalla* to send a repair party, stating that the *Duncan*, though deep in the water aft, could be towed by the stern.

Lt. Comdr. Cooper decided first to recover the *Duncan*'s personnel. Many survivors could be observed in the water as daylight approached, clinging to life rafts and debris scattered in a roughly rectangular area to the eastward of Savo Island, about 8 miles north and south and 2 miles west. The largest group rescued included 31 men lying on 3 life rafts which had been lashed together. Rescue operations continued from 0630, when the first survivors were taken aboard, until 1209. The *McCalla* was aided by planes and landing boats sent to the area by the Commanding General on Guadalcanal. In all, 9 officers and 186 enlisted men were rescued, the great majority being taken aboard the *McCalla*.

Most of the *Duncan*'s personnel were picked up without incident. But while one man was being picked up, another, 200 yards away, was seen being viciously attacked by a large shark. Three members of the *McCalla*'s crew were armed with rifles. Their many accurate shots kept the shark at a distance until a boat could be lowered and the victim, Lieut. Kabat, taken aboard. Several other survivors were

closely investigated by sharks, but only 3 were attacked. Fortunately, no lives were lost as a result.

When the *Duncan*'s survivors had been taken aboard the *McCalla* or sent to Guadalcanal, the *McCalla* endeavored to tow the *Duncan*. But all efforts were unavailing, and she sank shortly after noon.

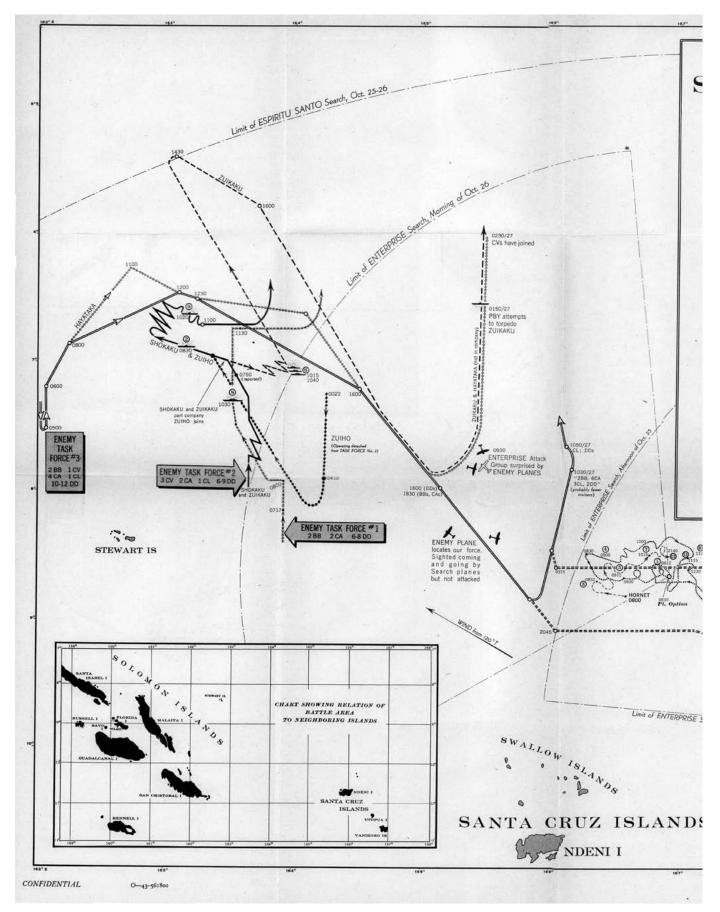
At 1430, a large number of men were sighted from the *McCalla*, floating in the sea near the scene of the previous night's action. Investigation revealed that these were Japanese seamen, survivors of the several enemy ships on the ocean floor beneath. The*McCalla* tried to pick up several of them by heaving them lines. None would catch hold, however. The *McCalla* lowered a boat and captured 3 survivors, not trying to seize more because she was already overcrowded and had very limited space in which to confine them. A message was sent to the Commanding General at Guadalcanal, with the request that he rescue those remaining in the sea. Two destroyers were dispatched from another task group in the area. Between them, these ships picked up 113 Japanese prisoners. How many were eaten by sharks is unknown.

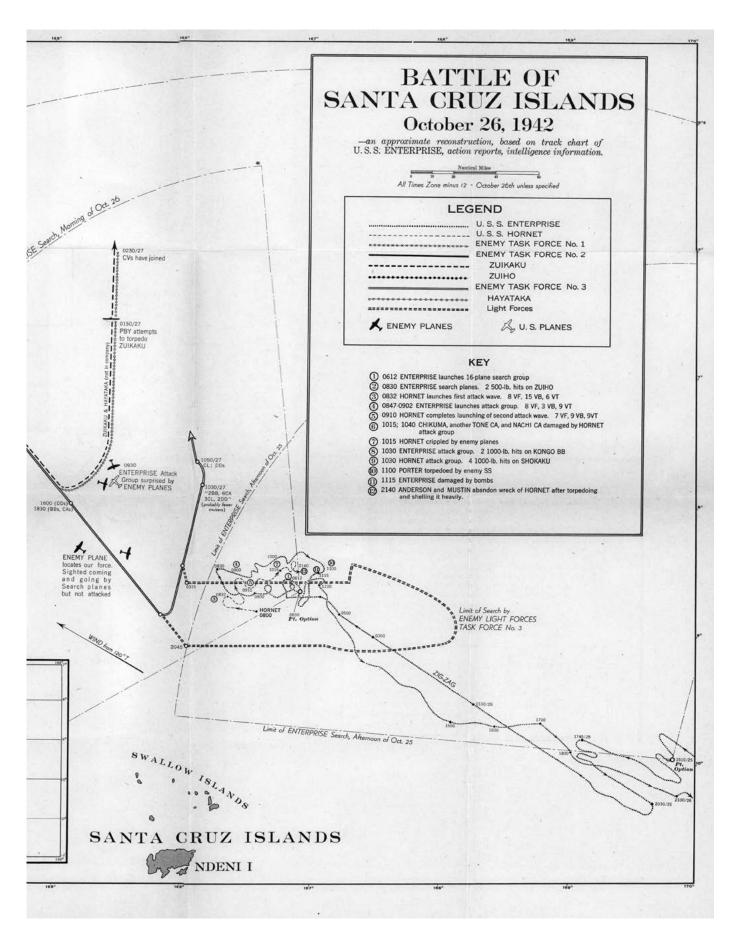
RANCE	
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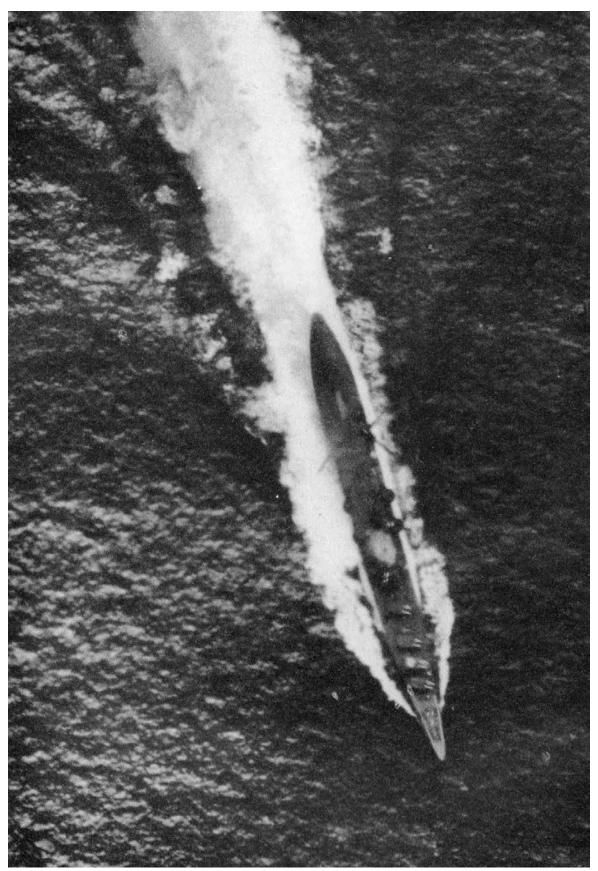
	\$		Chrone	Chronological Outline		5 1	8
Time	San Francisco	Boise	Salt Lake City	Helena	Farenholt	McCalla	Buchanan
2346		Main battery opens fire on Salt Lake City's target, 4,500 yards to starboard. 5'' battery opens fire on DD(?).	Main battery opens fire on CL(?) 4,000 yards to starboard; 5" battery fires star- shells.	Main battery opens fire on unspecified target 3,600 yards to starboard. 5" bat- tery opens fire on unspecified target a few degrees to left of main battery target range 4,800 yards.	Opens fire on 1 of 2 CA's on starboard bow, then on a DD on starboard quarter.	Sees apparently friendly DD 2,000 yards forward of starboard beam; to left of this DD, sees enemy cruiser and DD.	7
1462	fire on unidentified enemy ship.	Nam Dattery target eliminated by fire: Nachi class CA.	October 111 112	THILD OL WILDOW	Chifte And to anomy		
2348		Both batteries con- tinuing fire on 2346 targets.		CDECKS DIF atter main battery target disappears from FC & SG radar	CA on starboard Quarter. Re- ceives hits in rig-		
2349	Shifts fire to Amagiri	Both batteries still fir- ing at 2346 targets.		screens. Main battery resumes fire on 2346 target.	gung.		
	class DD; 2347 target and another enemy ship close to it on fire.	0				a. <sup>0</sup>	
2350	Cease firing; DD tar- get closes in to 1,400 yards on parallel course.	Main and 5" batteries targets, CA and DD, sink. Both batteries cease fire.		Both batteries firing on 2346 targets.			
2351	Both batteries fire on and sink DD.	Both batteries fire on DD in vicinity of 5" batteries' first · tar- get.	CTF orders com- mence firing,	Main battery's 2346 target sinks, main battery's fire shifted to 5'' battery 2346			

19

Time	San Francisco	Boise	Salt Lake City	Helena	Farenholt	McCalla	Buchanan
0008		Topside fires from					
		hits e					
6000	5" salvo straddles	Using searchlights, re-					
	ship's wake but no	sumes fire on un-					
	actual hits received.	identified target; re-					
	i.	ceives several hits				÷	
0		another CA.					
00100	Fires on Nachi class	Receives repeated hits.	Both batteries resume	DD target on fire; ex-			
	cruiser.		fire on CL believed	plodes and disap-			
			1st target.				9
0011-0012	Cruiser target hit	Receives many 5", 6",	Maneuvers to avoid	Cease firing.		Fires on DD.	
	heavily and ex-	and 8" hits; con-	Boise.				
	plodes; other ships	tinues firing from					
	also firing on this	after 6" and star-					
	cruiser.	board 5" batteries.					
0013		DD target explodes	Checks fire to obtain				
		from other ship's	solution on cruiser	_			
		fire. Boise guns un-	firing on Boise.			1.	
		able to bear, ceases					
		fire and falls out of					
		formation.		9			
0014			Receives hit to star-				
			board, forward;				
			maneuvers to avoid				*
		5	Boise falling out of				
			formation.				
0015	Cruiser target under		Opens fire on CA,			Firing on DD; 0016	
	fire from other ships.		target silenced and			receives 8" hit on	
		2	seen to sink.			starboard side.	
0017			Ceases fire			Ceases fire as burning	
-						target retires.	
0017-0020	Ceases fire at 0020 after						
	firing on 3-stack						
	ANTION WANTED IN						







Tone class cruiser in Battle of Santa Cruz

# **BATTLE OF SANTA CRUZ**

## 26 October 1942

# INTRODUCTION

Remy naval losses in the Battle of Cape Esperance on the night of 11 October appeared to have been the heaviest since Midway. Indeed, it might reasonably have been anticipated that the Japanese High Command would pause to resurvey the situation in the South Pacific before committing itself to further attempts to recapture Guadalcanal.

As it turned out, the lull lasted only 48 hours, during which some 6,000 United States Army troops were landed without opposition. From that time until 26 October, enemy land, air, and sea power made strenuous efforts to cut our communications and to put Henderson Field out of commission so that contemplated full-scale amphibious operations would not face land-based air opposition. In the final stage of neutralization, the Japanese expected their ground troops to capture the field, making it available as a staging point for the carrier planes which would support the final mopping up of our forces.

The initial phase of this plan enjoyed a measure of success. The drive to take Henderson Field, however, ended in bloody failure. With it, as a sort of by-product, came the carrier action known as the Battle of Santa Cruz Islands.

First evidence that the enemy's determination had not been shaken came shortly before midnight on 13 October, when a Japanese force of two battleships, one light cruiser, and eight destroyers began a furious bombardment of Henderson Field which lasted an hour and 20 minutes. Casualties to personnel were light, but most of our planes were destroyed. The next night, cruisers and destroyers again shelled the field, and in the morning only one dive bomber was able to take to the air to oppose a Japanese landing being made from six transports west of Kokumbona. Other dive bombers were flown in from Espiritu Santo, and with the help of Army B-17's they destroyed at least three of the transports, set others afire, and damaged a heavy cruiser which, with two light cruisers and four destroyers, was acting as screen. Nevertheless, considerable equipment and about 10,000 enemy troops had been put ashore.<sup>32</sup> Another bombardment took place that night, and air raids occurred almost daily. Under cover of darkness, smaller hostile units and additional supplies were debarked, and the strengthened Japanese ground forces began intensive probings of our positions along the Matanikau River, where we had established our western line in anticipation of a general enemy offensive.

Simultaneously with the beginning of Japanese pressure on Guadalcanal, large numbers of merchant and combat vessels assembled in the Upper Solomons-New Britain area. At the same time troops and aircraft began a steady procession from the Netherlands Indies, the Philippines, and other strongholds toward the vicinity of the impending conflict.

A growing number of enemy submarines began to harry our Espiritu Santo-Guadalcanal supply line.

<sup>32</sup> Estimated as 16,000 by General Vandegrift.

On 20 October, one of them torpedoed the heavy cruiser *Chester*, inflicting extensive damage. On the 15th, planes from the converted carriers *Hitaka* and *Hayataka* attacked a convoy en route to Guadalcanal, sinking the destroyer Meredith.

Estimating the situation as the third week of October opened, CINCPAC concluded that the enemy intended to launch simultaneous land and sea attacks, sending in carrier planes to support his gains. Available carriers and battleships were expected to attempt to contain or destroy any surface forces which we might send to intervene. It was anticipated that 23 October would be the Japanese "zero day." As it developed, "zero day" was apparently postponed repeatedly because the Japanese were unable to maintain a breach in the Marine defenses and thus did not reach their Henderson Field objective.

## FORCES INVOLVED

Before the action there was no way of accurately gauging the naval strength which the enemy planned to unleash when "zero day" arrived. The event proved that his forces were more than impressive, comprising four carriers, four battleships, and an armada of lesser war vessels, in addition to transports and other auxiliaries. The carriers were the *Shokaku*, *Zuikaku*, *Hayataka* [a mistransliterated name for the carrier *Junyo*], and *Zuiho*. A fifth, the *Hitaka*, was available in the Shortlands area until 21 October, when damage necessitated her departure for Truk.

Our own forces in the South Pacific area were weak in comparison. The *Enterprise* had been damaged in the Battle of the Eastern Solomons,<sup>33</sup> 23–25 August, and was undergoing repairs at Pearl Harbor. The *Wasp* had missed that engagement, but while supporting Guadalcanal on 15 September she was torpedoed and sunk by an enemy submarine. On the same day the new battleship *North Carolina* was torpedoed and forced to put in for repairs. The *Saratoga*, likewise, was out of action because of a torpedo hit received on 31 August.<sup>34</sup>

On the credit side of the picture was a task force built around the aircraft carrier *Hornet* and including the heavy cruisers *Northampton* and *Pensacola*, the antiaircraft light cruisers *Juneau* and *San Diego*, and a number of destroyers. Our only battleship in the South Pacific was the *Washington*, which had supported the movement of the Army convoy into Guadalcanal on 13 October.

With the exception of several destroyers engaged in protecting the supply ships running between Espiritu Santo and Guadalcanal, COMSOPAC had no other combat units available except the surviving ships of Task Force SUGAR, which the Battle of Cape Esperance had temporarily deprived of the *Salt Lake City, Boise*, and *Farenholt*, in addition to the *Duncan*, which was sunk.

One carrier, one battleship, and their attendant complement of cruisers and destroyers could hardly be expected to withstand the weight of the forces known to be available to the Japanese. Therefore, as the power of the enemy offensive became more and more evident, COMSOPAC began marshalling all possible resources. United States submarines were concentrated in the Bismarck Islands. Air strength available to COMAIRSOPAC at Espiritu Santo was augmented to include about 85 patrol planes and

<sup>33</sup> See Combat Narrative, "The Battle of the Eastern Solomons."

<sup>34</sup> See Combat Narrative, "Miscellaneous Actions in the South Pacific."

heavy land-based bombers. By 26 October, 23 fighters, 16 dive bombers, and one torpedo plane were ready for action at Guadalcanal. Four PT boats moved into Tulagi Harbor at dawn on 25 October. Aircraft of the Southwest Pacific Command intensified their attacks on Rabaul and on airfields in the Bismarcks. On the 3 nights before the 26th, they reported hits on about 10 ships in Rabaul Harbor, including a cruiser and a destroyer.

Our most urgent need, however, was for fleet surface and air units with which to counter the enemy carrier and battleship forces. At Pearl Harbor was Task Force KING, under Rear Admiral Thomas C. Kinkaid, built around the *Enterprise* and the new battleship *South Dakota*. Repairs to the damaged carrier were rushed to completion, and on 16 October she departed with her escort, including the *South Dakota*, under orders to proceed at high speed to the South Pacific and rendezvous with the *Hornet* group, commanded by Rear Admiral George D. Murray. Thereafter she was to operate under the command of Admiral William F. Halsey, Jr., Commander South Pacific. COMSOPAC, meanwhile, had decided to use the *Washington* force, reinforced by the remaining effective ships of Task Force SUGAR, as a striking unit to interrupt Japanese surface forces supplying Guadalcanal. About midnight on 25 October, these ships made a sweep around Savo Island. They encountered no enemy vessels and retired southward before daylight, under the sporadic observation of Japanese planes.

At 1245<sup>35</sup> on 24 October the *Enterprise* and *Hornet* Task Forces joined in latitude 14° 07' S., longitude 171° 37' E., northeast of the New Hebrides Islands. Admiral Kinkaid, acting under orders from COMSOPAC, assumed command of both groups, which will hereafter be identified as Task Force KING. The following ships were present:

#### Enterprise Group

1 carrier:

Enterprise (F, Rear Admiral Kinkaid)-Capt. Osborne B. Hardison.

1 battleship:

South Dakota—Capt. Thomas L. Gatch.

1 heavy cruiser:

Portland (Capt. Mahlon S. Tisdale, Commander Cruisers)-Capt. Laurance T. DuBose.

1 antiaircraft light cruiser:

San Juan-Capt. James E. Maher.

8 destroyers:

Porter (Capt. Charles P. Cecil, Commander Destroyers) Lt. Comdr. David G. Roberts.

Mahan-Lt. Comdr. Rodger W. Simpson.

Cushing-Lt. Comdr. Christopher Noble.

Preston-Lt. Comdr. Max C. Stormes.

Smith-Lt. Comdr. Hunter Wood, Jr.

Maury-Lt. Comdr. Geizer L. Sims.

Conyngham-Lt. Comdr. Henry C. Daniel.

Shaw-Lt. Comdr. W. Glenn Jones.

<sup>35</sup> All times in this Narrative are Zone minus 12.

#### Hornet Group

1 carrier:

Hornet (F, Rear Admiral Murray)—Capt. Charles P. Mason.

2 heavy cruisers:

Northampton (F, Rear Admiral Howard H. Good, Commander Cruisers)-

Capt. Willard A. Kitts, III.

Pensacola-Capt. Frank L. Lowe.

2 antiaircraft light cruisers:

San Diego-Capt. Benjamin P. Perry

Juneau—Capt. Lyman K. Swenson.

6 destroyers:

Morris (Comdr. Arnold E. True, Commander Destroyers)-Lt. Comdr. Randolph B. Boyer.

Anderson—Lt. Comdr. Richard A. Guthrie.

Hughes-Lt. Comdr. Donald J. Ramsey.

Mustin-Lt. Comdr. Wallis P. Petersen.

Russell-Lt. Comdr. Glenn R. Hartwig.

Barton-Lt. Comdr. Douglas H. Fox.

## THE APPROACH

COMSOPAC ordered Task Force KING to skirt the northern shores of the Santa Cruz Islands, move southwestward to a point east of San Cristobal Island, the southernmost of the Solomon chain, and be prepared to intercept the Japanese as they approached Guadalcanal. The *Hornet* was instructed to operate about 5 miles to the southeast of the *Enterprise* force, on a bearing approximately normal to the wind line. Course was set to leave Fataka Island and Strathmore Shoal to port. The Task Force was steaming at 23 knots.

At 0400 on 25 October, in latitude 10° 50' S., longitude 171° 50> E. (east of the Santa Cruz Islands), course was altered to the northwest. The Enterprise assumed duty carrier status and conducted all inner air patrols, combat air patrols, and searches. The *Hornet* maintained a striking group on the alert.

The morning search to a distance of 200 miles in sector  $290^{\circ}-080^{\circ}$  T. (see chart, 22–23) was accomplished with negative results. However, about 1120 a shore-based patrol plane contacted an enemy force of two battleships, four heavy cruisers, and seven destroyers. And at 1250 the seaplane tender *Curtiss* relayed a report from another patrol plane that two Japanese carriers and supporting vessels had been sighted in latitude 08° 51> S., longitude 164° 30> E. (about 360 miles from Task Force KING), course 145, speed 25. The location of the battleship-cruiser group was not clear (actually it was operating 60-80 miles south of the carriers). In order to gain more complete information on the enemy>s whereabouts and to strike the carriers if they continued their approach, Admiral Kinkaid decided to launch search and attack groups from the *Enterprise*, keeping the *Hornet* aircraft in reserve pending further reports.

At 1430 the *Enterprise* sent out 12 scouts in pairs for a mile search of sector 280°-010° T. About an

hour later she launched an attack group of 11 fighters, 12 scouts and 6 torpedo planes, with her Group Commander, to follow up the search. These aircraft were ordered to proceed out on the median line of the search to 150 miles, and to return if no enemy ships were encountered.

Scarcely was the second group air-borne when another report was received indicating that the enemy carriers were now proceeding on a northerly course, so that no contact would be made. Not wishing to break radio silence, Admiral Kinkaid did not recall the planes. The scouts returned as scheduled and were successfully landed. The striking group, "through excess zeal of its leader," proceeded out 200 miles and then searched 80 miles to the northeast in hopes of a contact. None was established, and when the planes returned to the *Enterprise* after dark they were low on fuel. Six aircraft were lost through water landings and deck crashes. The carrier had lost 5 other planes earlier in the day as a result of damage received in routine operations. She was thus deprived of a total of 11 aircraft at a most inopportune time.

Instead of proceeding to the south of Guadalcanal, as originally intended, Task Force KING changed course to permit engaging the enemy north of Santa Cruz Island if he should cease his retirement. During the night Task Force KING cruised so that "by daylight of the 26th it had returned to the position shown on the chart opposite page 22."

# ACTION ON GUADALCANAL

The Japanese launched their land offensive before the two fleets made contact. As has been noted, land operations on Guadalcanal had already begun on the 20th, with the probings of our advanced line along the Matanikau River. These increased in intensity throughout the next 2 days, culminating in a full-scale offensive the night of 23–24 October. Four times the enemy attacked, only to be hurled back with heavy losses. A fifth attack the following morning was frustrated with the aid of aircraft and artillery. Nevertheless, assaults continued throughout the 24th along the Matanikau River and at Lunga Ridge on our southern line. Heavy rains turned Henderson Field into a muddy waste from which no plane could take off.

Before dawn on the 25th a Japanese surface force of one heavy cruiser, one light cruiser and four destroyers put in toward Guadalcanal, landed troops and supplies, and supported with their gunfire a further series of enemy attacks that day. However, the rains had ceased, and later in the morning the surface of Henderson Field had hardened sufficiently to permit the departure of 25 bombers. These attacked the enemy surface units from noon until 1700, scoring two bomb hits on the light cruiser. Six B-17's from Espiritu Santo assisted in the aerial attack, making two 500-pound bomb hits on a destroyer.<sup>36</sup>

The enemy land drive reached its peak during the night of 25 October. Weakened by almost incessant attack by land, sea, and air, the Marines were unable to prevent a break-through along Lunga Ridge. Encouraged by this success, the Japanese naval striking forces commenced a new approach toward

<sup>36</sup> At 0700 on the morning of the 26th, enemy ships remaining in the area were attacked by dive bombers from Guadalcanal which obtained another 500-pound hit on the light cruiser.

the eastern Solomons, ready to take part in the final extinction of American power on Guadalcanal.<sup>37</sup>

### **RESULTS OF ENTERPRISE AIR SEARCH, 26 OCTOBER**

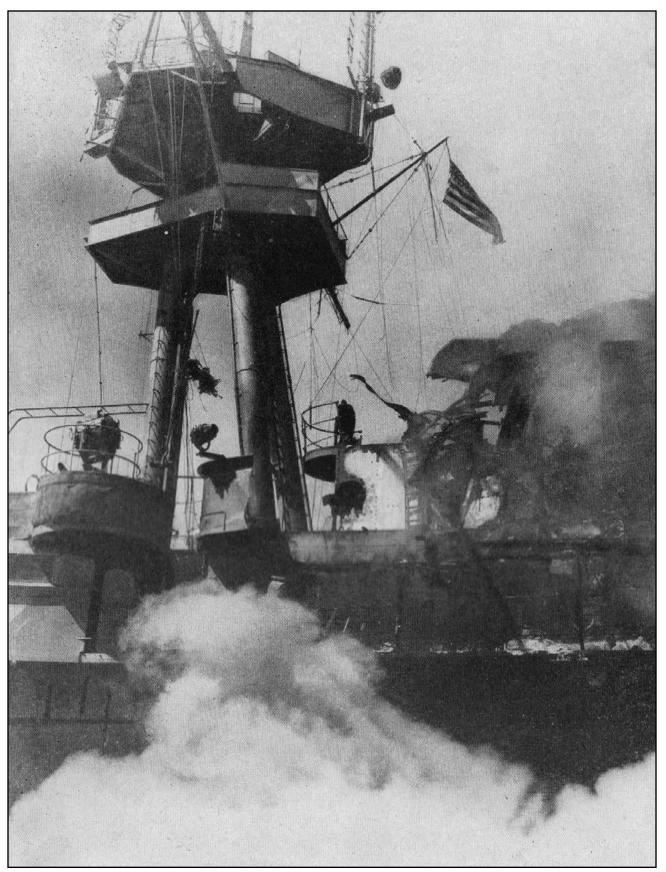
- 0110 Patrol plane reports locating the enemy, but gives no details other than coordinates.
- 0600 *Enterprise* launches 16-plane search group to cover sector 235°-345° T.
- 0612 Admiral Kinkaid receives report that Espiritu Santo patrol plane has located enemy force including the carrier *Zuiho*.
- 0730 Two Japanese battleships, one heavy cruiser, and seven destroyers sighted.
- 0750 Two carriers, *Shokaku* and *Zuikaku*, reported.
- 0830 Two 500-pound bomb hits on Zuiho. Unidentified enemy cruiser attacked; results unobserved.

A large Japanese fleet, including vessels of every type, was ready to strike by 26 October. Some 40 enemy ships had left the Shortlands area during the night of 24-25 October, and these were joined by others from Rabaul. On the 25th there were three large and some smaller Japanese forces operating under the protection of a weather front to the northeast of Malaita, including the two groups sighted by our patrol planes. The advance force, hereafter referred to as "Enemy Task Force No. 1", included 2 battleships, plus heavy cruisers and destroyers. The major carrier striking force to the rear comprised 3 carriers, the *Shokaku*, *Zuikaku*, and *Zuiho*, and escorting vessels.<sup>38</sup> This will be designated as "Enemy Task Force No. 2". A support force of 2 more battleships, heavy cruisers and destroyers, at times including the converted carrier *Hayataka*, will be known as "Enemy Task Force No. 3". Transports and auxiliaries maneuvered out of range of our air power until control of the sea approaches to Guadalcanal could be assured.

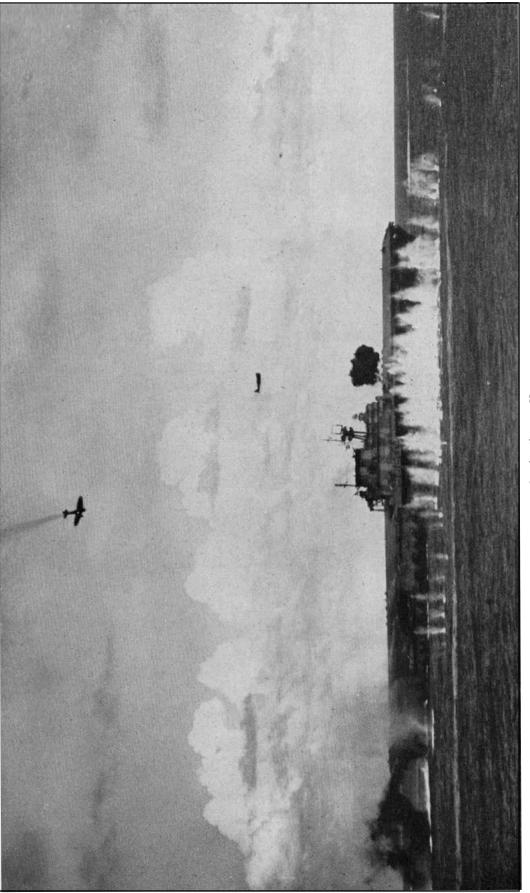
At 0111 on the morning of the 26th, a patrol plane transmitted to Task Force KING a message that the "enemy" had been located in latitude 07°74' S., longitude 164°15' E., about 300 miles from our Task Force. The aircraft, however, omitted to give the course, speed, or composition of the Japanese force. Admiral Kinkaid considered it unwise to dispatch an attack group without securing this information. Accordingly, shortly after 0600, the *Enterprise* launched a 16-plane search group to cover sector 235°-345° T. to a distance of 200 miles. At the very same time a report was coming through which undoubtedly would have changed the OTC's plans had he received it before the planes had taken off. At 0410 an Espiritu Santo patrol plane had sighted the carrier *Zuiho* in latitude 07° 55' S., longitude 164°15' E. (about 200 miles from Task Force KING), traveling at 10 knots on a southerly course. For some reason the plane's report was delayed till about 0600, so that Admiral Kinkaid did not have it in his hands until 0612. Had he known the position of the *Zuiho* in time, he could have included the 16 search planes in an attack group and dispatched it immediately, thus beating the enemy to the punch and possibly altering the entire course of the ensuing battle.

<sup>37</sup> For a brief interval enemy confidence seemed to be justified. But a desperate counterattack by Marines and Army troops restored our line. Except for a minor setback on the 27th, we never again were seriously threatened by Japanese land forces on Guadalcanal. However, it must be borne in mind that when the Japanese carrier forces joined battle with us they believed that the land attack was well on the road to success.

<sup>38</sup> The Organization of this force was fluid, and its make-up changed frequently. At no time were all three carriers observed to be in company. The *Shokaku* appears to have operated now with the *Zuikaku* now with the *Zuikaku* and the *Zuikaku* with the *Shokaku* at one time and with *Hayataka* later on. (See chart, 22–23.)



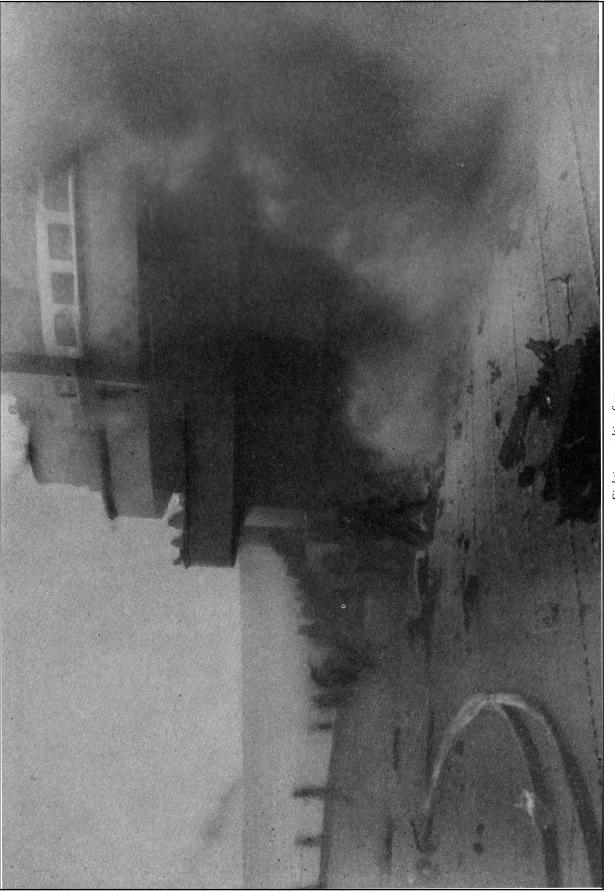
Damage to Hornet by suicide bomber



Burning bomber dives on Hornet.









The search group was composed of two divisions: one of 6 SBD-3's, from Bombing Squadron TEN, for the patrol of sector 235°-282° T., and the other of 10 SBD-3's of Scouting Squadron TEN, assigned to sector 282°-345° T. Aircraft operated in pairs, each of which covered a subsector.

The planes took off into a clear morning sky, with broken to scattered cumulus and strato-cumulus clouds at 2,000 feet. Visibility at sea level was somewhat greater than 15 miles. Only slight swells marred the smoothness of the sea. A surface breeze of 6 to 10 knots was blowing from the southeast.

Lieut. Vivien W. Welch and Lt. (jg) Bruce A. McGraw had been assigned subsector 268°–288° T. When about 85 miles out, they observed a Mitsubishi Type 97 single-engine torpedo bomber flying on an opposite course about 3 miles to starboard, altitude 1,200 feet. They ignored the enemy aircraft and continued on their way. At 0717, in latitude 08°10' S., longitude 163°55' E., they sighted Enemy Task Force No. 1, which they identified as two battleships, one heavy cruiser, and seven destroyers. Course was north, and speed was 20 knots.<sup>39</sup> The two search planes climbed into clouds at 2,000 feet and circled the force at a distance of 10 to 20 miles. Except for occasional rain squalls at about 1,300 feet, visibility was excellent. The pilots made sure that the enemy group contained no carriers and then reported location, composition, course, and speed to the *Enterprise*.

The planes continued north to a point 200 miles from Task Force KING but failed to sight any carriers. They turned back, and when they again passed over Enemy Task Force No. 1, at 0800, it had turned west and was making 25 knots. Lieut. Welch reported the new course and speed to the *Enterprise*. A few minutes after this transmission was completed, the heavy cruiser and several destroyers opened fire on the two U. S. aircraft, but without effect. On their return leg, when about 100 miles from Task Force KING, our pilots again saw a Mitsubishi Type 97 flying on an opposite course about a mile to starboard. As was the case previously, the planes ignored each other. Our aircraft landed aboard the *Enterprise* about 1031.<sup>40</sup>

At 0750 Lt Comdr. James R. Lee and Lt. (jg) William E. Johnson, searching subsector 298°-314°, reported sighting the *Shokaku* and *Zuikaku* in latitude 07°05' S., longitude 163°38' E.<sup>41</sup> The enemy carriers' decks were empty, their aircraft already having taken off to attack Task Force KING. When the Japanese vessels were first seen, our planes were at an altitude of 1,200 feet, about 35 miles away. Course was changed toward the enemy, and the ships were more positively identified at a distance of 15 miles. Our aircraft then reversed course, reported the carriers to the *Enterprise* by radio, and began climbing to gain positions for an additional report and a possible attack. During the transmission all enemy ships changed course and made heavy black smoke.

At 0805, when their altitude was 2,200 feet, the search planes were attacked by five to eight Zeros. Lt. Comdr. Lee shot down one of the fighters and Lt. Johnson two others. The United States planes were forced to take evasive action and entered cumulus clouds, where they became separated. They returned

<sup>39</sup> See track of Enemy Task Force No. 1, chart, 22–23.

<sup>40</sup> There is little doubt that the plane encountered on the return leg was the same observed while going out. From its course, it could hardly have missed sighting and reporting Task Force KING to the enemy.

<sup>41</sup> It is possible that the carrier identified as the *Zuikaku* was in fact the *Zuiho*. However, the chart of the battle, opposite p.27, follows the theory that at this time the second ship was the *Ziukaku*, as reported.

to the Enterprise independently.

Lieut. Stockton B. Strong and Ens. Charles B. Irvine, assigned to subsector 330°–345°, proceeded on their search until 0740, when they changed course to contact the enemy battleships reported by Lieut. Welch. At 0805 these planes received Lt. Comdr. Lee's report on the carriers and hastened to intercept them. After flying more than 100 miles southwest of their assigned sector, the pilots located two enemy carriers which they presumed to be the *Shokaku* and *Zuikaku*. At 0830 they attacked the *"Shokaku"* and each scored a 500-pound hit on her stern. It now seems probable that the carriers were the *Shokaku* and *Zuiho* and that the target was actually the *Zuiho*.<sup>42</sup> Either the latter vessel had been mistaken for the *Zuikaku* when the two were previously sighted, or she had taken the place of the *Zuikaku* in the main body of Enemy Task Force No. 2 since the initial contact was reported at 0750.

The *Zuiho* was badly hurt but not crippled. No antiaircraft fire was encountered until our planes had released their bombs. The pilots then retired to the west and for a distance of 45 miles were repeatedly attacked by enemy fighters. Each accounted for two Zeros. At 0900 they eluded their pursuers by entering a cloud and set their course for the *Enterprise*, which they reached without mishap.

Ens. Howard R. Burnett and Ens. Kenneth B. Miller, searching subsector 282°-298°, climbed to 14,000 feet upon receiving an unspecified contact report and attacked a Japanese cruiser.<sup>43</sup> The results were undetermined, although a fire on the stern of a cruiser was later reported by the *Enterprise* attack group. Before attacking, Ens. Burnett sent the *Enterprise* a report of the ships sighted.<sup>44</sup> Furious antiaircraft fire was experienced during the bombing dive. It was so effectively directed that the concussions "caused [the plane] to spin approximately 4,000 feet before it could be brought under control and the dive reentered." Neither of these aircraft met fighter opposition, and both returned safely to the *Enterprise*. Ens. Burnett joined one of the combat air patrols endeavoring to protect the *Hornet* and shot down one enemy plane.

Ens. Leslie J. Ward and Ens. Martin D. Carmody, covering subsector 314°–330°, proceeded toward the enemy carrier force as soon as they learned its location. They were maneuvering into attack position when intercepted by many enemy fighters. Ens. Ward and Ens. Carmody each shot down one Zero, but the strength of the Japanese air opposition prevented their making an attack on the carriers. Effective evasive action was taken, and both planes returned to the *Enterprise*.

The remaining 4 scouts failed to contact the enemy and flew back to the carrier without incident. None

<sup>42</sup> The Zuiho, a 12,000-ton carrier, is thought to be a sister ship of the Shoho, sunk in the Battle of the Coral Sea. The reasoning which points to the Zuiho as the ship hit by the Enterprise search planes is as follows: The Shokaku and Zuihoare known to have been damaged at the Battle of Santa Cruz. Therefore, since United States forces did not claim to have hit more than two carriers, the Zuikaku presumably escaped uninjured and may be eliminated from consideration. As regards the Shokaku vs. the Zuiho, two conflicting reports were made. Hornet pilots, prior to their attack at 1030, saw a damaged "small carrier" in company with the large and apparently uninjured one which they bombed. Conversely, other pilots reported that the damaged carrier was the larger of the two. These opposed statements cannot be reconciled, nor is it essential to reconcile them. Regardless of how large the injured vessel appeared to the flyers, it can hardly have been the Shokaku. The known location of some of the damage suffered by that carrier almost certainly precludes the possibility that it was inflicted by two 500-pound bombs dropped on the stern.

<sup>43</sup> Details regarding the actions of these planes are few. Neither the name of the cruiser attacked nor the force of which it was a unit is mentioned. Presumably it was a part of the screen for the carriers of Enemy Task Force No. 2.

<sup>44</sup> The text of this report is missing.

of the 16 search planes sustained other than minor damage.

# OUR AIR GROUPS ATTACK

- 0830 Hornet launches first attack wave.
- 0900 Enterprise launches attack group.
- 0915 *Hornet* launches second attack wave.
- 0930 *Enterprise* torpedo planes surprised by Zeros.
- 1040 *Enterprise* scout bombers attack *Kongo* class BB of Enemy Task Force No. 1. Scout bombers of *Hornet*'s second wave score four 1,000-pound bomb hits on CA *Chikuma* of *Tone* class. Torpedo planes of same group make five 500-pound hits on another *Tone* class CA and one 500-pound hit on a CL or large DD.
- 1050 Scout bombers of *Hornet*'s first wave register four to six 1,000-pound bomb hits on CV *Shokaku*. VT's of same group make three probable torpedo hits on CA *Myoko*, a *Nachi* class cruiser.

Upon receipt of the search planes' report of contact with enemy carriers, Admiral Kinkaid ordered an attack group launched to strike the *Shokaku* and what was thought to be the *Zuikaku*, now steaming about 210 miles to the northwest of Task Force KING. Beginning at 0830, the *Hornet* launched two waves of planes. The first consisted of 15 SBD-3's of Bombing Squadron EIGHT and Scouting Squadron EIGHT, 6 TBF-1's of Torpedo Squadron SIX, and 8 F4F-4's of Fighting Squadron 72.

The second *Hornet* wave, which began taking off at 0915, was made up of 9 SBD-3's and 9 TBF-1's, with 7 F4F-4's as escorts. The Group Commander, Comdr. Walter F. Rodee, took off with this flight in a TBF.

In the meantime, at 0900, the *Enterprise* began launching 3 SBD-3's of Bombing Squadron TEN, 8 TBF-1's of Torpedo Squadron TEN, and 8 F4F-4's of Fighting Squadron TEN. Lt. Comdr. Richard K. Gaines, the *Enterprise* Air Group Commander, also took off with this flight in a TBF.<sup>45</sup>

In order to save time and fuel, each of the three waves of planes proceeded toward the target independently. Thus, while the course of all planes was approximately 304° T., the attack group was strung out through several miles. At 0920 the first *Hornet* wave, which was in the lead, had progressed about 60 miles from the Task Force. The *Enterprise* aircraft were slightly behind to starboard, with 4 fighters on either bow about 1,000 feet above. Suddenly, without warning, about 12 Type 2 Zeros attacked the *Enterprise* planes, from out of the sun.<sup>46</sup> Several Zeros engaged the 4 fighters on the right flank.

Our four fighters never recovered from the initial disadvantage at which they found themselves, although they managed to account for at least two Zeros. Only one of our pilots, Ens. Willis B. Reding, returned. His plane was badly shot up, with the guns and radio out of commission. Lt. (jg) John A. Leppla, Ens. Albert E. Mead, and Ens. Raleigh E. Rhodes were shot down.

<sup>45</sup> Lt. Comdr. James A. Thomas, leader of VB-10, was to have taken off around 1100 with an attack group tentatively including nine other SBD-3's of that squadron, but the enemy attack forestalled their departure.

<sup>46</sup> The Zeros obviously were part of the enemy attack group which hit the Hornet several minutes later.

The pilots of the four fighters on the left flank, who were executing a weaving turn, did not observe the enemy attack until it was well under way. When the leader, Lt. Comdr. James H. Flatley, became aware of the situation, he saw a Zero preparing to make a run on the torpedo planes from below and ahead. He immediately led his group in an attack which destroyed the enemy.

The torpedo planes, however, fared badly. Lt. Comdr. James D. Collett, the Squadron Commander, was shot down in flames almost at once. Two other planes, piloted by Lieut. Marvin D. Norton and Lt. (jg) Richard K. Batten, also were lost,<sup>47</sup> and a fourth was forced to turn back soon afterward because of engine trouble. Torpedo plane gunners claimed three Zeros.

Pilots of both the first and second *Hornet* waves observed the attack by enemy fighters but did not deviate from course. Torpedo planes of the latter group literally flew through the center of the melee. About 24 Japanese bombers and torpedo planes were seen in the vicinity of the dogfight, and several of our pilots reported their position and course to our fleet. Although no reply was heard, the carriers received the warnings.

#### First "Hornet" wave.

When the brief air skirmish was over, our striking group, which had lost 8 planes, became further disorganized. The *Hornet*'s first wave split in two, with the dive bombers climbing to about 17,000 feet and the torpedo bombers remaining at about 800 feet. Four fighters accompanied each section.

The 15 dive bombers, slightly in the lead, sighted several enemy ships. At 1015, about 150 miles out, they noted 2 heavy cruisers and several destroyers to starboard.<sup>48</sup> Some 20 miles farther on they saw Enemy Task Force No. 1, now consisting of 2 battleships, 1 heavy cruiser, 1 light cruiser, and 7 destroyers. This group was to their left. Over the force were 9 Zeros which attacked the dive bombers and were promptly engaged by their covering fighters and by those accompanying our torpedo bombers. In the ensuing dogfight we lost 2 fighters piloted by Lieuts. Thomas C. Johnson and John C. Bower. Our bombers proceeded without escort.

The dive bombers flew on for about 15 minutes and at 1030 sighted an enemy formation of one large carrier, one converted carrier, one light cruiser, and four destroyers. The smaller carrier, which, as has been pointed out, was probably the *Zuiho*, was smoking, so the bombers deployed for an attack on the other (the *Shokaku*). At this juncture they were intercepted by a large number of Zeros. Lt. Comdr. William J. Widhelm, leader of the first *Hornet* wave, was shot down a short distance from the Japanese carriers.<sup>49</sup> Soon afterward, Lt. (jg) Philip F. Grant was shot down. Two other pilots had to turn back because of wounds or damage.<sup>50</sup> By maintaining a tight formation and turning no farther into the attacking Zeros than was necessary to permit their free guns to bear, the remaining 11 SBD's

<sup>47</sup> Norton and Batten, with their crews, were rescued by destroyers.

<sup>48</sup> This group perhaps was covering the *Zuikaku* which was presumably retiring to the northwest after launching her planes. See chart, 22–23.

<sup>49</sup> Lt. Comdr. Widhelm and his gunner were rescued from their rubber raft by a PBY 3 days later.

<sup>50</sup> Lt. (jg) Kenneth B. White, shot through the hand and shoulder, reached the *Enterprise* despite the fact that his left aileron had been torn off. Lt. (jg) Clayton E. Fisher made a forced landing in the water.

reached their push-over point after a running fight which lasted 10 minutes or more. Though the Zeros followed the bombers down in their dives, attacking before and after the pull-out, and in spite of heavy antiaircraft fire, our bombers scored at least four 1,000-pound bomb hits on the *Shokaku*.<sup>51</sup> The enemy carrier was badly damaged and probably retired to the northward soon thereafter, possibly under tow.

The SBD's were attacked by Zeros for several minutes after they had dived on the *Shokaku*, but escaped further damage by a quick rendezvous and close-up. Fire from their fixed and free guns was reported to have accounted for approximately 15 Zeros.

Upon sighting the enemy carriers, Lt. Comdr. Widhelm had repeatedly broadcast their position. The *Enterprise* flight leaders heard him, but those, in the second *Hornet* wave did not. The 6 torpedo bombers in the *Hornet*'s first wave also failed to get the information.

The TBF's had continued their low approach unmolested. However, they lost sight of the dive bombers after observing them under attack by Zeros, and upon reaching the end of their leg at 1015 sighted several cruisers and destroyers but no carriers.<sup>52</sup> Lieut Edwin B. Parker, Jr., leading the flight of torpedo planes reported that after sighting the cruisers and destroyers he "scouted an area 50 miles to the north and west. Upon failure to locate the enemy carriers, I led my division back to the vicinity of the enemy cruisers and destroyers, searching an area of rain squalls that extended for 30 miles. Since I sighted no better target and because I was unable to establish radio communication with anyone who might have sighted a carrier, I proceeded to lead my 6 torpedo planes in an attack on a *Nachi* class heavy cruiser."

Active antiaircraft opposition was encountered, but our planes gained an attack position with three planes deployed on either side of the cruiser's bow. Three torpedo hits were probably scored, two on the port side and one on the starboard side, but the *Nachi* does not appear to have been seriously crippled.

The dive bombers and torpedo planes of the *Hornet*'s first wave returned independently. On the way back each type fell in with several of the escort fighters from which they had become separated in the dogfight going out.

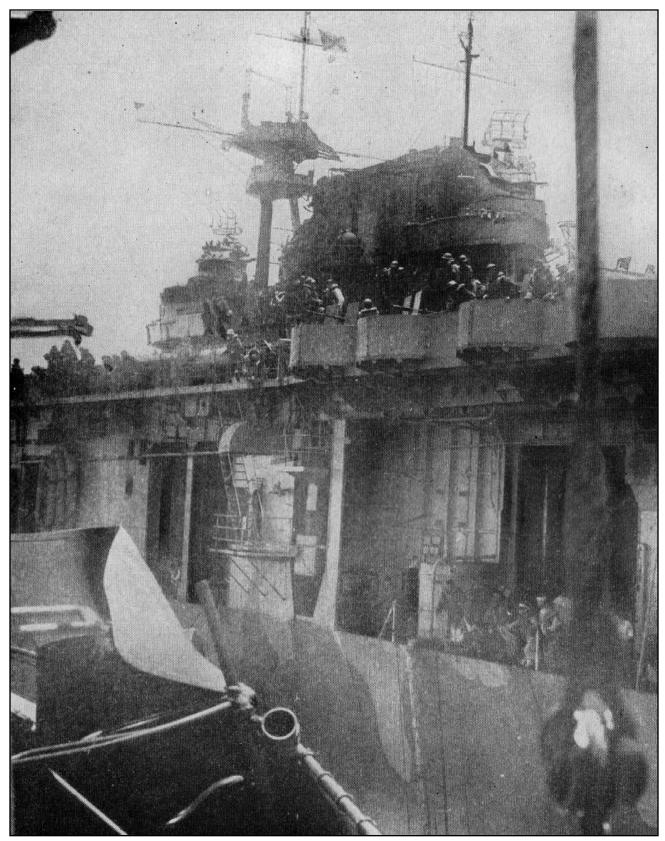
The six torpedo planes reached the *Hornet* at 1155, found her dead in the water, and were directed to the *Enterprise* by the *Northampton*. They arrived in the vicinity of the *Enterprise* at 1205 and were circling to land when an enemy air attack materialized. They flew clear, but one plane then disappeared and two others made forced landings when their fuel ran out. The remaining three were safely taken aboard the *Enterprise*.

The 11 dive bombers returned somewhat later and were handled by the Enterprise without incident.

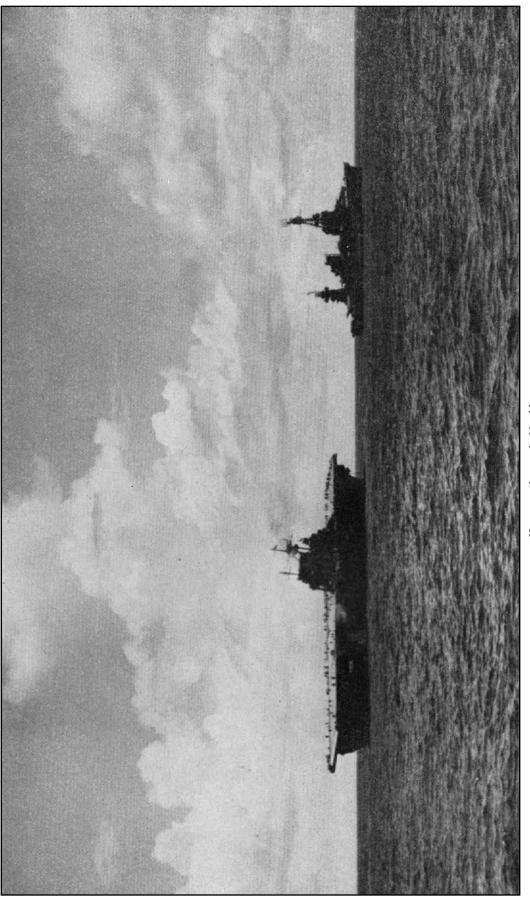
The "Enterprise" wave

<sup>51</sup> Lieut. James E. Vose, Jr., who led the SBD's after Lt. Comdr. Widhelm was shot down, observed four hits. Lt. Comdr. Widhelm reported six hits.

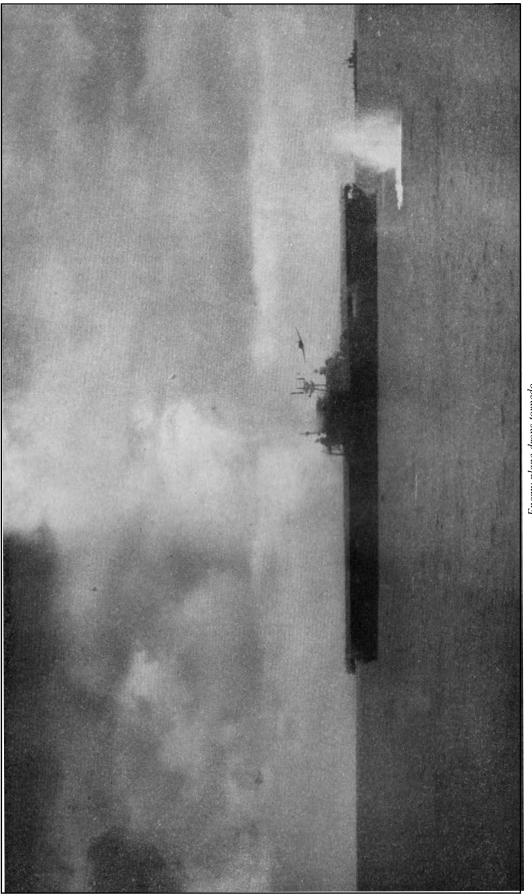
<sup>52</sup> In all probability these cruisers and destroyers were the ones sighted by the SBD's on their starboard hand which were perhaps covering the *Zuikaku*'s retirement.



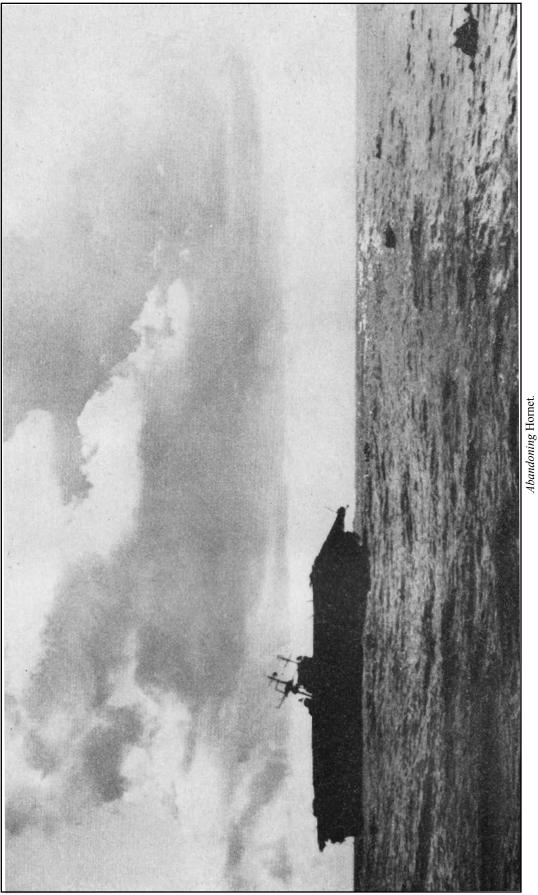
Destroyer removing wounded personnel.



Hornet under tow by Northhampton



Enemy plane drops torpedo.





After the surprise attack by Zeros which cost them 8 planes, the *Enterprise* wave not only had lost contact with the first *Hornet* wave but also was disorganized within itself. The remaining 4 fighters stayed with the 4 surviving torpedo bombers. The 3 dive bombers proceeded independently on a westerly course until they sighted Enemy Task Force No. 1, identified as 2 *Kongo* class battleships, 2 heavy cruisers, 3 light cruisers, and 10 destroyers, on course 350°, speed 30 knots. At 12,000 feet the planes pushed over. Lt. (jg) John F. Richey made a near-hit with a 1,000-pound bomb on the starboard bow of one of the battleships. Ens. C. B. Irvine scored a direct hit on No. 2 turret. Lt. (jg) C. G. Estes made a direct hit on the starboard side amidships. There was no antiaircraft fire until after the pull-out. The 3 planes rendezvoused, whereupon Zeros appeared and made one pass. One of the *Enterprise*.

About 1040 the *Enterprise* torpedo bombers and fighters sighted the same enemy force, which was identified as 2 battleships, 2 heavy cruisers, what was possibly a third heavy cruiser, 2 light cruisers, and 3 or 4 destroyers.<sup>53</sup> Twenty minutes earlier these planes had intercepted Lt. Comdr. Widhelm's broadcast concerning the Japanese carriers. Now, since the force sighted contained no carriers, Lieut. MacDonald Thompson, leader of the TBF's, asked the fighters if they were able to fly 90 miles farther to the reported location of the flat-tops. Lt. Comdr. Flatley, having exhausted excessive fuel in combat, replied in the negative. Accordingly, at 1045, the TBF's descended rapidly from 6,000 feet through the clouds and launched an attack on a heavy cruiser of the *Atago* class. The enemy ship turned sharply to the right while throwing up considerable antiaircraft fire which was either below or behind. All our planes made their runs from the port side. One pilot found it impossible to drop his torpedo. Another, Lt. (jg) Raymond G. Wyllie, could not drop on the first run but succeeded in releasing on a second approach. No hits were observed.

The 4 fighters strafed the cruiser during the torpedo attack to divert her fire, perhaps causing some casualties.

No air opposition was encountered. The TBF's returned to the *Enterprise* at 1425. Two landed aboard, but the other 2 ran out of gas over the Task Force and made water landings. The 4 fighters reached the *Enterprise* somewhat earlier to find her under attack. While circling clear they were attacked by 3 Zeros. Being low on gas and ammunition our planes took avoiding action. When they finally got aboard, none had more than 18 gallons of fuel.

### Second "Hornet" wave

As has been noted, planes of the second *Hornet* wave saw the Zeros attacking the *Enterprise* torpedo and fighter planes. While watching the dogfight, the *Hornet* aircraft observed a flight of about 25 Japanese planes with 12 escorting Zeros. The enemy formation was headed on an opposite course at about 16,000 feet, with escorts at 20,000 feet. This was reported to the Task Force, but no acknowledgment was received.

<sup>53</sup> This was the description given by the leader of the TBF's. The leader of the fighters reported "2 battleships, 3 or 4 heavy cruisers, and several destroyers."

The nine dive bombers of the second *Hornet* wave, which had taken off before the nine torpedo planes, were overtaken by the latter and by Comdr. Rodee at 1000. About this time snatches of radio conversation were overheard which gave the false impression that Lt. Comdr. Widhelm's flight had failed to locate the enemy carriers.<sup>54</sup>

The second *Hornet* wave proceeded out to the end of its leg and observed "a group of enemy cruisers and destroyers." (One pilot described the enemy formation thus: "At 160 miles out an enemy DD was sighted, followed at a great distance by a CA and other forces all strung out heading toward our force.") This again was presumably the section of Enemy Task Force No. 2 which was perhaps screening the *Zuikaku*'s retirement.

After scouting to the north and west beyond this line of ships and finding nothing, our planes concluded that the enemy carriers were out of range. The leader of the dive bombers, Lieut. John J. Lynch, thereupon called the Group Commander and stated that unless otherwise directed he would attack a heavy cruiser of the *Tone* class which was throwing up considerable antiaircraft fire.

Receiving no reply, Lieut. Lynch pushed over at 1040 and led an attack from 11,500 feet. Four certain and one probable 1,000-pound hits were made on the selected cruiser, which was later identified as the *Chikuma*. Flames and smoke blanketed the target, but she continued to steam at reduced speed. As the dive bombers retired to the east, the *Chikuma* was rocked by a heavy explosion.

During their return the SBD's encountered 8 enemy planes, in pairs, on opposite course. Attempts to make runs on them were futile because the Japanese resorted to superior speed and fled each time our aircraft began such a maneuver. The dive bombers reached the *Hornet* at 1225, found her dead in the water, and proceeded to the *Enterprise*. They had just started to circle for a landing when an enemy attack developed. The SBD's moved out of antiaircraft range, and several of them attacked enemy planes, reporting three bombers and one torpedo plane probably shot down. All 9 SBD's got aboard the *Enterprise* about 1330.

The TBF's saw the SBD's attack the *Chikuma* but elected to search farther, although they, too, were not very hopeful of finding the Japanese carriers. While flying over and around the long line of enemy ships, they were subjected to heavy but ineffective antiaircraft fire.

Just beyond the enemy formation, the torpedo planes encountered "a large group of Zeros at our altitude." However, only one enemy fighter attempted to attack, making two opposite-course runs which took him right through our formation. After this the Zeros disappeared.

Ten-minute searches to the north and northwest disclosed nothing further. The TBF's returned to the force previously sighted, singled out a sister ship of the *Chikuma (Tone* class), and attacked with their 500-pound bombs, of which each plane carried four. Several pilots experienced mechanical difficulties and were able to drop their bombs in salvo only. Consequently, with the exception of one plane, only the one attack was delivered, which scored five hits.<sup>55</sup> The exception was Lt. (jg) Humphrey L.

<sup>54</sup> One pilot reported overhearing this radio remark addressed to Lt. Comdr. Widhelm: "No carriers in sight out here; let's return."

<sup>55</sup> Two amidships to starboard, one on the fantail, one on the stacks, one abaft the stacks to port. Presumably this cruiser was the Tone,

Tallman, who, after unsuccessfully attacking the heavy cruiser, dived on a destroyer without results and eventually obtained a direct hit on the fantail of an unidentified light cruiser or large destroyer.

On returning to the *Hornet* at 1210, these aircraft also were directed to the *Enterprise* because of their own carrier's condition. They found the *Enterprise* under attack and had to stay clear until the enemy planes had left. Lieut. Ward F. Powell, leader of the flight, landed first at 1420. Three other pilots also got aboard, but the remaining three made water landings after exhausting their fuel.<sup>56</sup>

Little information has been discovered regarding the activities of the seven fighters which served as escorts for the second *Hornet* wave. According to Lt. Comdr. Flatley's report, they "joined up on the rendezvoused attack group and returned to the *Hornet*. Upon return to this [*Enterprise*] area the VF aircraft augumented the Combat Air Patrol and succeeded in shooting down several planes."

#### Summary of Damage Inflicted on Enemy Ships

CV *Shokaku* — Four to six 1,000-pound bomb hits (*Hornet* SBD's). CVE *Zuiho* — Two 500-pound bomb hits (*Enterprise* search planes). BB *Kongo* class — Two 1,000-pound bomb hits (*Enterprise* SBD's). CA *Chikuma* (*Tone* class) — Four 1,000-pound bomb hits (*Hornet* SBD's). CA *Tone* class — Five 500-pound bomb hits (*Hornet* TBF's). CA *Nachi* class — Two to three torpedo hits (*Hornet* planes). CL or DD — One 500-pound hit (*Hornet* plane).

### ENEMY ATTACKS ON THE HORNET GROUP

- 0800 Hornet Group cruising in disposition Victor ONE, speed 23 knots, course 270° T.
- 0930 Outgoing planes report two large groups of enemy aircraft approaching.
- 0950 First Combat Air Patrol refueled and relaunched.
- 1005 Course changed to 040° T. on Admiral Kinkaid's order to close *Enterprise* group.
- 1005 *Hornet* radars indicate many enemy planes approaching on course 230° T., 20-30 miles distant. Ship begins radical evasive maneuvers at 28 knots.
- 1010 *Hornet* undergoes coordinated dive bombing and torpedo plane attack.
- 1020 Hornet dead in water, all power and communications disrupted.
- 1030 DD's *Morris, Russell*, and *Mustin* come alongside and pass fire hoses.
- 1105 Northampton ready to tow Hornet, but moves off when, at
- 1109 Single enemy dive bomber attacks; no damage.
- 1130 Northampton again ready to tow.
- 1200 Juneau leaves for Enterprise group.
- 1240 Tow-line snaps.
- 1300- Russell and Hughes remove Hornet's wounded and excess personnel.
- 1540

since there are only 2 ships listed in the class.

<sup>56</sup> The report by Commander *Hornet* Air Group was not available when this was written. It is assumed that he was able to land on the *Enterprise*.

- 1620 Four to six torpedo planes attack *Hornet* and *Northampton*; *Hornet* hit on starboard side. 1640 Five dive bombers attack, but score only one near-hit. 1655 Six horizontal bombers attack; one bomb strikes Hornet's flight deck. 1727 Hornet abandoned by Capt. Mason, who boards Mustin. 1802 Four dive bombers score 1 hit on Hornet's forward hangar. 1840 Mustin detached to torpedo Hornet. 1900 Task Force KING retires in 2 groups on course 090° T., speed 27 knots. 1903 Mustin fires 8 torpedoes at Hornet with no perceptible results.26a 1940 Anderson launches 8 more torpedoes. Only moderate damage.26a
- 2140 Anderson and Mustin set Hornet ablaze with shell fire and retire to southeast as enemy forces close in.

At 0800 on 26 October the *Hornet* was in latitude 08°45' S., longitude 166°38' E., about 10 miles south and east of the *Enterprise* group and about 80 miles northeast of the Santa Cruz Islands. A combat air patrol of eight fighters was stationed 10,000 feet above the *Hornet* to be controlled by the *Enterprise* fighter director in the event of an enemy attack.

The *Hornet* group was on course 270° T., axis 120° T., speed 23 knots, in cruising disposition Victor ONE.<sup>57</sup> The *Pensacola* and the *Northampton* were on the *Hornet*'s port and starboard quarters respectively. The *Morris*, the *Mustin*, and the *Hughes* occupied the forward sectors. The *Barton*, *Russell*, and *Anderson* steamed in the sectors astern.

At 0822 the *Hornet* received the report that *Enterprise* search planes had located a large enemy surface force which did not include carriers. Admiral Kinkaid immediately ordered a total of 22 fighters, 24 dive bombers, and 16 torpedo planes launched. Eight of the fighters constituted a second combat air patrol, replacing the first patrol which had been out since 0600. This first group was refueled and relaunched by 0950. As soon as the last fighter had been serviced, the gasoline system of the *Hornet* was blanketed with CO 2.

At 0930 radio reports were received from the outgoing planes that they had passed within about 5 miles of two large groups of enemy carrier aircraft which were then approximately 60 miles from Task Force KING. A portion of the fighter escort of these planes was concurrently attacking the *Enterprise* striking group.

Shortly thereafter the *Hornet* made radar contact with the approaching aircraft, which had not been previously identified because our own attack groups confused the radar screen.<sup>58</sup> As has been pointed out, the *Enterprise* fighter director was charged with control of the F4F's protecting both carrier groups. Radar plot aboard that vessel was physically adequate to enable the fighter director to handle a single enemy raid, but with several attack groups approaching the two separate targets, the timely vectoring of fighter planes proved most difficult. As a result, most enemy aircraft were intercepted too late, often not until they had completed their attack.

<sup>57</sup> Disposition Victor ONE is a circular formation for meeting air attack. Each screening vessel maintains an assigned true heading from the carrier at the center. As the carrier maneuvers, the screening vessels conform to keep their distance and true heading (though not their relative position) from the guide.

<sup>58</sup> The Hornet was equipped with the CXAM radar which had been removed from the U.S.S. California after the Pearl Harbor disaster.

A few minutes before 1000, under orders from Admiral Kinkaid, Admiral Murray headed the *Hornet* group into the wind, then blowing at 4 knots from 120° T. The attack was developing from 270° T. Shortly afterward, Admiral Murray was instructed to close the *Enterprise*, about 25,000 yards to the northwest, and changed his course to 040° T. The *Hornet* radar showed several enemy planes approaching from 230° T., 20 to 30 miles away. When these aircraft were distant about 15 miles, the *Hornet* combat air patrol was seen to attack them, and several unidentified planes crashed flaming into the water. The *Hornet* was ready for attack, with no planes on deck and with the protecting ships in their 2,000 yard circular screen. Radical evasive maneuvers at 28 knots were begun.

The F4F's only partially disrupted the oncoming enemy formations, and at 1010 the Hornet underwent a well-coordinated dive-bombing and torpedo attack from several directions. Reports of the various ships in the *Hornet* group disagree regarding the number of aircraft participating in this first assault, but the Hornet's commanding officer, Capt. Charles P. Mason, estimated that 15 dive bombers and 12 torpedo planes were involved. The 5-inch batteries and automatic weapons of the Hornet and screening ships threw up a heavy antiaircraft curtain, but it was ineffective in preventing many planes from coming in on the starboard beam and the port quarter of the carrier. One of the first dive bombers scored a hit on the starboard side of the after end of the flight deck. Then came two near-hits on the starboard side abreast of the bridge. Next a dive bomber with machine-guns blazing crashed into the stack, spraying gasoline over the signal bridge, and plunged part way through the flight deck in the neighborhood of the first bomb hit. This suicide plane apparently was armed with one 500-pound and two 100-pound bombs. One 100-pound bomb demolished the signal enclosure, causing many casualties, and partly destroyed the stack. The plane itself, and probably the other 100-pound bomb, exploded on piercing the flight deck, causing a large fire there and in the compartment below. Fortunately the 500-pound bomb proved to be a dud. The fire on and under the flight deck burned for 2 hours, finally being extinguished by the efforts of a bucket brigade which carried foamite to the scene since all water pressure had been lost at 1015.

This dive bombing attack had been delivered from the port quarter. Almost simultaneously a torpedo attack developed from the starboard quarter. At 1015 two hits in the engineering spaces disrupted all power and communications and caused a  $10\frac{1}{2}^{\circ}$  list to starboard which slowly improved to 7°-8°. At the same instant two 500-pound bombs landed on the after part of the ship, one penetrating to the fourth deck before exploding, and the other detonating on piercing the flight deck. A third heavy bomb reached the third or fourth deck and exploded near the forward messing compartment, starting fierce fires and killing a number of personnel. Two minutes later, an unarmed and flaming torpedo plane attempted a suicide dive from dead ahead. It miscalculated its approach and crashed into the port forward gun gallery, exploding just outboard of the No. 1 elevator shaft, the wreckage lodging in the pit.

During the remaining minutes of the first attack, about 6 planes penetrated the screen to port and 9 or 10 to starboard. Five or six of the former were brought down by machine-gun fire, and although several dropped their bombs, none scored hits. Only a few of the planes attacking to starboard escaped. Six were either shot down or left the vicinity smoking. *Hornet* gunners alone reported destroying 9 dive bombers during the entire first attack.

Because of the intensity of the assault on the *Hornet*, details regarding the manner in which it was delivered must be gleaned from the reports of the protecting ships. From the viewpoint of the *Juneau*, the angle of the dive bombing was 70°–80°, and several aircraft were unable to pull out after reaching the release point of about 800 feet. The torpedo planes approached at low altitude from quite a distance away from the Task Force. *Juneau* observers saw no torpedoes released less than 1,000 yards from the *Hornet* but aboard the *San Diego* it was believed that they were launched from 300 to 800 yards away. Whatever the exact details of this first attack, there is no doubt that it was closely coordinated and driven home with determination.

Damage to other ships in the Task Force was negligible. One plane which started to strafe the *Mustin* was shot down by her 20-mm. guns. One torpedo bomber in the first group attacking the *Hornet* found the *Pensacola* in its path and attacked her. She swung toward the plane with right full rudder and set it afire with 20-mm. fire when it was about 1,000 yards away. It attempted a suicide crash but missed the bow by a few feet and dived into the water. A torpedo plane which fired a machine-gun burst at the *Anderson* caused no damage.

Although about 20 of the 27 aircraft estimated to have comprised the first enemy group were shot down, the attack was crippling.<sup>59</sup> By 1021 the *Hornet* was dead in the water, with several large fires burning, a decided list to starboard, many of her personnel killed, many more injured, and power and communications so disrupted that all efforts to reestablish them failed.

If the carrier was to be saved, her fires had to be brought under control. Accordingly, the *Morris* and the *Russell* and later the *Mustin*, were ordered to come alongside and pass hoses. The *Morris* was first on the spot and payed out three hoses, two of which were hauled across the flight deck and used to fight the fire on the port side, while the third was assigned to the conflagration on the signal bridge. When the *Russell* came alongside on the port bow, her hoses were directed against the fires on the port side, as were the *Mustin*'s when she came up on the port quarter. Many bucket brigades passed foamite and water, about a thousand men being occupied in fighting the fires. About 1100 they appeared to be under control.

Smoke from the *Hornet* had made it difficult for the *Mustin* to approach the carrier. As the destroyer maneuvered to place her bow on the *Hornet*'s starboard quarter, swells lifted her and brushed her bridge against the radio direction finder. Next the *Mustin* was forced under the lee counter. Finally she was ordered to proceed to the carrier's port side, where she joined the *Russell*.

By 1105 the *Northampton* had left her position in the screen and made ready to tow. Four minutes later, a single dive bomber attacked from ahead, with no warning from any ship in the Force, and interrupted the towing preparations. Its one bomb landed just outboard of the *Morris*, which was abreast of the *Hornet*'s bridge. No damage resulted, and the plane escaped, although fired on by all ships.

By 1130 the Northampton was again ready to tow. She took a light strain at 1223, but her 1<sup>3</sup>/<sub>4</sub>-inch line

<sup>59</sup> Most of the aircraft were destroyed during retirement.

snapped at 1240. Not until 1430 was a 2-inch towline secured which personnel aboard the *Hornet* had roused out by hand.

Meanwhile, just before noon, the *Juneau* had intercepted a message from the *Northampton* to the returning *Hornet* aircraft, saying "Go to *Enterprise*." Unaware that the message was intended for the planes, the *Juneau* proceeded to join the *Enterprise*. She was not recalled while en route because it was assumed she had left the *Hornet* formation to rescue personnel belonging to our planes, several of which were making water landings because of exhausted fuel. Thus the *Hornet*'s antiaircraft protection was diminished at a most inopportune time.<sup>60</sup>

Command of the *Hornet*'s screen, which had been exercised by the *Northampton*, was assumed by the *Pensacola* when the *Northampton* first commenced towing operations. At 1257, Admiral Murray and his staff were taken from the *Hornet* by the *Russell*, and transferred to the *Pensacola*, which became the flagship for the *Hornet* group. The *Russell* then went alongside the *Hornet* and removed wounded and some uninjured survivors. A total of 500 men were taken aboard by means of cargo nets stretched from the *Hornet*'s deck, by breeches buoys, and by stretchers. The *Hughes*, which also took off *Hornet* personnel, was slightly damaged at 1503 when she scraped against the carrier.

By 1540 all seriously wounded and excess personnel had been transferred to destroyers. The *Hornet* was being towed at a speed of 3 knots, and there was a faint hope that the persistent efforts of all engineering personnel might be successful in partially restoring her power.

About 1600, however, the *Hornet* began to pick up reports of the approach of unidentified aircraft on the voice warning net and by flag-hoist. At 1620, a group of from four to six torpedo planes was seen approaching from the starboard beam in a fast weaving glide which had commenced at 6,000 feet. One or two of these planes made for the *Northampton*. She promptly cast off the towline and evaded the attackers by using hard left rudder. Of the two or three planes which concentrated on the *Hornet*, one scored a hit on the starboard side, causing an immediate, progressive list. When the list had reached  $14\frac{1}{2}^{\circ}$ , orders were given to be ready to abandon ship but not to cast loose the life rafts or to go over the side. A few personnel aft misunderstood the order and, thinking the carrier was being abandoned, launched one or two nests of rafts. About 100 men went down the life lines.

The torpedo attack was clearly seen from aboard the *San Diego*. Six to eight planes were observed in a dive angle of 10°-15°, dropping their loads at ranges of from 250 to 700 yards. Although it seemed that all torpedoes should have hit, only two explosions were noted. The anti-aircraft fire of the circling ships was ineffective. *San Diego* personnel saw none of these planes shot down, but *Northampton* personnel believed three of them were destroyed.

Five dive bombers which attacked at 1640 scored only near-hits, one shaking the *Hornet* violently. Although the ship's guns continued to function effectively until the very end, and although all the ships in the Force fired on these planes, none was shot down. As the *Hornet*'s list had increased from 18° to

<sup>60</sup> The *Juneau* remained with the *Enterprise* group until the next day, when she rejoined the Task Group commanded by Admiral Murray.

20°, gunnery control personnel were ordered from the island and the command was given to abandon ship.

At 1650 Capt. Mason left the bridge for the flight deck. Five minutes later, 6 planes approached at about 9,000 feet in tight V formation and launched a horizontal bombing attack. These aircraft had been picked up by radar, but the contact faded. The planes became visible to the eye, but they released their sticks of bombs while still obscured by clouds, 4 to 6 missiles landing close aboard the *San Diego* on the starboard quarter, 40 to 100 yards away. The second pattern landed about 50 yards off the *Hornet*'s starboard quarter. One of the bombs struck the starboard after corner of the flight deck, the others being near-hits in a pattern so small as to seem one splash.

During this attack, four boats were busy rescuing *Hornet* personnel. Fortunately, none was damaged. Three of these horizontal bombers were seen to crash in flames.

The *Hornet* was abandoned in an orderly manner "although about 10 non–swimmers were urged into the water with some difficulty." Survivors were picked up by all destroyers of the Task Force. Four dive bombers again attacked the *Hornet* at 1802 when the destroyers had collected the occupants of all but two rafts and two boats, one carrying Capt. Mason, who had finally left his ship at 1727. One bomb exploded in the hangar just forward of the island, starting a large fire which died down in about 15 minutes. Although the screening and rescuing destroyers scattered as the attack was delivered, they soon returned and recovered all personnel shortly before dark. A destroyer which made a last-minute circle around the *Hornet* found no further survivors. Capt. Mason boarded the *Mustin*, temporary flagship of Destroyer Squadron TWO.

The *Mustin* was detached to destroy the *Hornet* with torpedoes, at 1840. About 1900 signal was made to break up the antiaircraft screen around the stricken carrier and to form column, course 090° T., speed 27. For several hours during that evening's retirement the Force was shadowed by Japanese patrol planes which hovered just outside antiaircraft range, occasionally dropping flares, but taking no offensive action.

### ENEMY ATTACKS ON THE ENTERPRISE GROUP

0940	<i>Hornet</i> aircraft report 24 enemy dive bombers approaching from 280° T. <i>Enterprise</i> launches all remaining planes and prepares for attack.
1026	Enterprise lands combat patrol and search planes for refueling and reservicing.
1100	SC radars report large groups of enemy planes approaching.
1101	Porter torpedoed while rescuing personnel of friendly torpedo plane.
1105- 1109	Enterprise receives 3 hits in attack by 24 dive bombers.
1135	Enterprise evades many torpedoes launched by 14 to 30 enemy planes.
1137	Enemy torpedo plane crashes on <i>Smith</i> , causing large fires.

- 1220 Twenty dive bombers and torpedo planes attack *Enterprise*; one near-hit causes only slight damage.
- 1230 *South Dakota*'s turret No. 2 struck by bomb. One hit and five near-hits on *San Juan* cause temporary loss of steering control.
- 1245 Fifteen dive bombers attack *Enterprise* in two groups; no hits received.
- 1308 *Porter* sunk by *Shaw*'s shellfire.

1300- *Enterprise* lands many planes of both air groups.
1400
1500 *Enterprise* retires to southeast independently of *Hornet*.

The *Enterprise*, it will be recalled, launched her 16-plane search group about 0600 on the morning of 26 October, and an attack group at 0847. The next hour was uneventful. But at 0940 *Hornet* aircraft reported 24 enemy dive bombers approaching from 280° T., distance 60 miles. Eleven F4F-4's on deck were immediately launched to augment the combat air patrol of 12 fighters which was already on station. The newly air-borne planes headed for the *Hornet*, which was 10 miles west of the *Enterprise*,<sup>61</sup> and the latter carrier prepared to repel the expected attack. The first radar contact was not reported until 0957, when planes 45 miles away were noted. Between 0957 and 1100, radar continually picked up aircraft coming in and going out. As we have seen, however, the first enemy attack was directed at the *Hornet*, and this gave the *Enterprise* an unlooked-for breathing spell. At 1026 she turned into the wind to land returning combat patrol and search planes which were low on gasoline. Many still remained to be serviced at 1100, when large groups of enemy planes were picked up on the search radar screen at a distance of 23 miles. These aircraft had been noted at 55 miles by the *South Dakota*'s radar and had been tracked in to about 25 miles, where they were observed to split into two groups. These now approached from 000° T. and 290° T.

Just before the attack began, a friendly torpedo plane (presumably a survivor of the duel between the Japanese and *Enterprise* attack groups) flew close aboard to port of the *Porter*, at an altitude of 200 feet, with its wheels down. It continued on until, at about 1,500 yards from the *Porter* and 500 yards from the *Shaw*, it crash-landed, nosing over as it struck the water. The commanding officer of the *Porter*, Lt. Comdr. David G. Roberts, conned his ship in the direction of the plane, ordering "all engines back full." The *Shaw*, which was on a parallel course to port, came right sharply, also intending to recover the personnel. The Commander of the Destroyer Squadron, Capt. Charles P. Cecil, ordered the *Shaw* notified that the *Porter* would recover. The latter, however, lost way more rapidly than expected. While still 100 yards or more from the plane, the *Porter* was practically dead in the water and was no longer closing the three flyers, who were manning their rubber boat.

The *Shaw* had not slowed so quickly as the *Porter* and was about 400 yards sharp on the port bow. Lt. Comdr. Roberts was reluctant to close until the *Shaw* cleared pursuant to the Squadron Commander's signal. At that moment the bridge reported a torpedo wake on the port bow. The wake crossed about 50 yards ahead between the *Porter* and the *Shaw*, curving to the left as it went.<sup>62</sup>

As the *Porter* was endeavoring to clear the rubber boat on the starboard side, another torpedo was reported approaching on the port beam. It struck, "shaking the ship violently and sending a column of water at least 100 feet in the air." The *Porter* took an ominous list to starboard, finally settling on an even keel with a 3 to 5 foot increase in draft. Although all power was lost, Lt. Comdr. Roberts

<sup>61</sup> For an account of the extraordinary achievement of Lieut. Stanley W. Vejtasa in shooting down seven enemy bombers, plus one probable, see Appendix B.

<sup>62</sup> Lieut. Albert D. Pollock, pilot of one of the *Enterprise*'s combat air patrol planes, had returned from his mission and was circling the *Enterprise* group when he noticed a torpedo running in the area and threatening to strike one of the destroyers.

decided the ship was not sinking and should not be abandoned. About 50 minutes later, however, a TBS message was intercepted from Admiral Kinkaid to the *Shaw*, telling her to recover personnel from the *Porter* and to sink her. While approaching, the *Shaw* sighted a periscope 500 yards off her port bow. No results were apparently obtained from dropping of two 300-pound and four 600-pound depth charges. The *Shaw* then came alongside the *Porter*, and the latter was abandoned.<sup>63</sup>

The incident involving the *Porter* and the *Shaw* occurred just as the first enemy dive bombing assault developed. The aircraft were not seen until they were well into their dives, when they were opposed by dense antiaircraft fire from the violently maneuvering ships. An estimated 24 planes attacked resolutely for about 4 minutes. Although 7 were shot down by the *Enterprise* and other ships, 3 hits were sustained by the carrier. One bomb pierced the flight deck 20 feet from the forward end, passed through the forecastle deck, and exploded in the water just off the forefoot. A second bomb hit the flight deck almost on the center line 10 feet abaft the forward elevator causing a number of casualties and starting fires which were speedily brought under control. Apparently part of one of these bombs spilt off from the main body and exploded on the third deck at frame 39, inflicting severe damage and casualties. A third bomb detonated near frame 129 to starboard, opening a seam in the side plating to a maximum width of 3 inches from frame 123 to frame 135. The ship shuddered from island to keelson. One plane was bounced off the deck into the sea, and another was hurled into the starboard 20-mm. battery.

As seen from the *Portland*, this first attack group comprised 20 to 25 bombers. The diving angle used by the 9 or 10 lead-off planes was no steeper than 50°. The next 10 to 15 aircraft glided in at 30° to 40° from all directions, pulling out as low as 1,200 feet. Many bombs narrowly missed the carrier. The *Portland* considered that "the fire of the entire force was less accurate than in previous actions."

At 1120 the *South Dakota*, *Conyngham*, and *Smith* fired on what they took to be a submarine surfacing 4,000 yards from the *Smith*. The target turned out to be a friendly plane which had pancaked on the water and which was actually sunk by these three ships' fire. This aircraft landed only 1,000 yards from the *Preston*, which maneuvered to collect the crew but was forced sharply to starboard to avoid being raked by the *South Dakota*'s 5-inch shell fire.

About 1135 a heavy torpedo plane attack began. The number of planes involved is uncertain: the estimates vary from a figure of 14 given by the *Enterprise* and the *South Dakota* to 30 by the *Portland*. Aboard the *Enterprise*, the aircraft were seen to split into two groups and attempt to gain favorable approach positions on both sides of the carrier outside the screen. Despite heavy antiaircraft fire from all ships, approximately 9 torpedoes were launched, 5 from the starboard and 4 from the port side, dropped from about 75 feet at ranges from 1,000 to 2,000 yards. Energetic evasive tactics enabled the *Enterprise* to avoid all torpedoes. Several of the planes were shot down.

One, however, diving on the Smith from slightly abaft the starboard beam, hit the shield of gun No. 2

<sup>63</sup> By 1209 the *Shaw* had taken aboard all the *Porter*'s personnel. The *Shaw* then fired one torpedo which passed under the *Porter* and did not explode. Next, four 4-gun salvos were fired, starting a heavy blaze forward. Another torpedo fired at 1235 passed to the *Porter*'s bow and also failed to explode. Ten additional 4-gun salvos had to be fired before the target sank at 1308.

and crashed on the port side of the forecastle deck, abreast of gun No. 1. There was an immediate flash of fire, enveloping the forward part of the ship in a sheet of flames and smoke caused by the bursting of the plane's gasoline tanks. Most of the fuselage fell over the side and sank astern. The bridge was abandoned at 1149, and firefighting measures were promptly instituted. A few minutes later a second detonation occurred forward, showering the ship with sparks and setting several small fires topside. The warhead of the plane's torpedo, which had skidded along the deck under gun No. 1, had apparently exploded. Several smaller explosions occurred in ready ammunition. The entire forward deck house was in flames, the topside was untenable from forward of No. 1 stack, and the wardroom country was filled with smoke. By cutting close under the *South Dakota*'s stern, however, and utilizing the spray from her high-speed wake, the *Smith* soon considerably reduced the severity of her fires.

At 1201 the *South Dakota* radar plot reported many aircraft approaching from 285° T., distant 45 miles. These planes scattered and came in from several directions. The attack was delivered at about 1220 over an arc of 90° on the port bow of the *South Dakota*, by about 20 torpedo planes and dive bombers which came out of a low cloud.<sup>64</sup> A slight rain squall ceased almost as soon as the attack began, and the cloud ceiling rose from 500 to 1,500 feet. It was still too low to permit the 5-inch batteries to be effective, because most of the shells were bursting about 3,000 feet above the clouds. Even the machine guns were hampered by lack of time in which to train on targets.

The rain squall was, however, an advantage in one sense. It somewhat concealed the exact location of the *Enterprise* and forced the enemy to spread his attack over the whole formation instead of concentrating on the carrier. The assault lasted only two minutes; 8 planes were seen to crash out of the total of about 20. A near-hit at frame 30 on the starboard side of the *Enterprise* caused minor damage about 15 feet below the water line.

At 1230 several enemy dive bombers appeared out of a cloud about 1,000 feet above the *South Dakota*'s port bow and dropped four bombs. One of these was a direct hit on turret No. 1. Fragments and blast injured Capt. Thomas L. Gatch and wounded many of the gun crews at the 20-mm. groups on either side of turret No. 2 and at the 40-mm. quad outside the Captain's cabin to starboard. The other three bombs missed.

During the same period, six bombs were dropped at the *San Juan*, which was turning at maximum speed with full right rudder. Five were near-hits, and one glanced off the starboard side at frame 131, 3 inches above the second deck, and exploded in the water, causing considerable damage aft. The rudder was jammed right, and steering control was not regained until 1241. Thirteen men were injured.

Five minutes after the last attack on the *Enterprise*, search radars reported another flight of planes approaching at an altitude of about 17,000 feet. They were identified as two groups of dive bombers containing nine and six planes, respectively, and protected by nine fighters above. The aircraft disappeared in a rain cloud before they could be fired on by the 5-inch batteries, and when seen again 2 minutes later, were already in their dives. No hits were scored, and 10 planes in the group were

<sup>64</sup> At this stage of the battle the *Enterprise*'s radar proved more of hindrance than a help. Not more than one minute before the planes appeared, Radar Plot reported the screen clear.

believed shot down.

\* \* \*

Except for the relatively light attacks on the *Hornet* in the late afternoon and evening, the action was over. The *Enterprise* resumed landing her planes and those of her sister carrier, although fuel exhaustion forced many to drop in the water. When all possible aircraft had been taken aboard, and the personnel of those which had landed in the sea had been recovered, Admiral Kinkaid ordered the *Enterprise* and *Hornet* forces to retire to the southeast independently. They were followed by the *Mustin* and the *Anderson*, which ceased firing on the *Hornet* at 2140.<sup>65</sup>

Admiral Kinkaid estimated that 170 to 180 enemy planes took part in the attacks on the *Hornet* and the *Enterprise*, and that approximately 133 came within striking range of the 2 carriers. He concluded that the *Hornet* had been assaulted by 49 planes, antiaircraft knocking out 23, and the *Enterprise* by 84, of which 33 were destroyed by antiaircraft fire. The *Enterprise* thus was attacked by almost twice as many planes as the *Hornet* and, together with her supporting ships, shot down 10 more. Her damage was much less severe, because, unlike the *Hornet*, she did not have the ill-fortune to receive torpedo hits in her vital engineering spaces at the very outset of the battle.

One of the most gratifying aspects of the engagement was the outstanding performance of the new battleship *South Dakota*'s antiaircraft batteries, in action for the first time. Their tremendous firepower contributed in large measure to the successful defense of the *Enterprise*.

Our own aircraft losses were reported by CINCPAC as 74 carrier planes lost, with 23 officers and 16 enlisted men. About 20 of these planes were shot down in combat. Of the personnel on our surface ships, we lost 29 officers and 254 men.

# Summary of Damage Suffered by Task Force KING<sup>66</sup>

Hornet — Fatally damaged by enemy air attack.

*Enterprise* — Two bomb hits and various damaging near-hits.

South Dakota — One bomb hit on turret No. 1. Some damage to guns of turret No. 2.

San Juan — One bomb hit.

Porter — Torpedoed by a submarine and sunk by our forces.

Smith — Damaged by torpedo plane crashing into No. 1 gun mount, setting heavy fires.

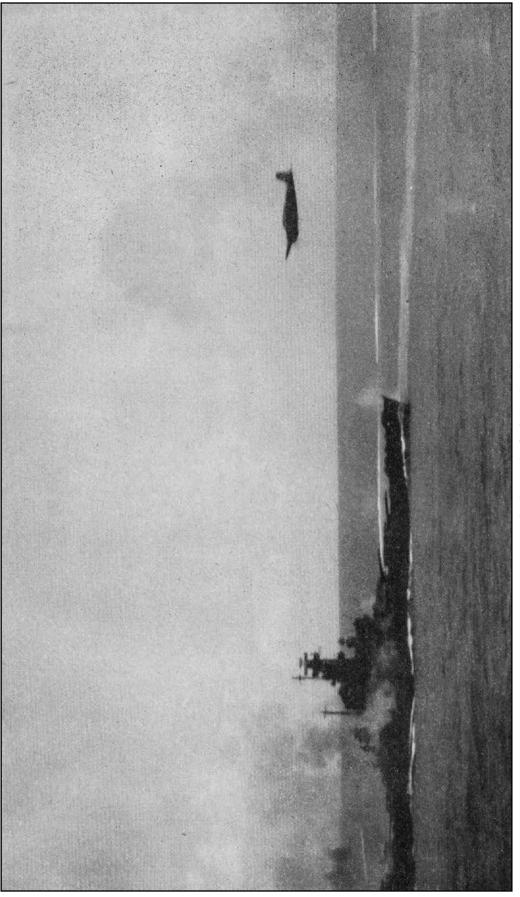
The destroyers were unaware that only about 40 miles separated them from light units of Enemy Task Force No. 3. These were searching in advance of the main battleship-cruiser body, which, in turn, was followed by the carriers *Zuikaku* and *Hayataka*, proceeding independently of each other. (See chart, 22–23.) The Japanese light units abandoned the chase at midnight. It is conceivable that they, too, attempted to destroy the hulk of the *Hornet* upon finding that it could not be towed, but according to the report of a patrol plane, the island structure was still visible next day. The main body of Enemy Task Force No. 3 changed course to the north and was later joined by the light units. The combined force retired in the general direction already taken by the two carriers, which joined company with each other soon after the *Zuikaku* was subjected to an abortive torpedo attack by a PBY at 0150, 27 October.

<sup>66</sup> This may be compared with the damage inflicted upon the enemy as summarized on p. 46.

#### **CONCLUSIONS**

It is unlikely that the damage suffered by the Japanese in the Battle of Santa Cruz Islands was immediately instrumental in saving Guadalcanal, or indeed that it was the principal reason for the enemy's abandonment of the pursuit of Task Force KING. Even if the action had never been fought, the Japanese retirement was logical. This is easily comprehensible if we remember that the planned advance southward of the hostile armada was predicated on the capture of Henderson Field. Beginning with their original "zero day" on the 23d, the Japanese had retreated at sea each time their land attacks had failed to take the field. When they learned on the 26th that the Marines had stood fast once more, and that our land-based planes were still operating from Guadalcanal, it was reasonable for them to retire again, whether or not they had been in contact with Task Force KING.

In this light, the costly Battle of Santa Cruz, with the resultant reduction of our South Pacific carrier strength to one damaged vessel, was of dubious value to our cause. Perhaps the most that can be said is that the aircraft losses and carrier damage inflicted on the enemy kept him from providing a more effective air umbrella for his invasion fleet in the decisive Battle of Guadalcanal, three weeks later.



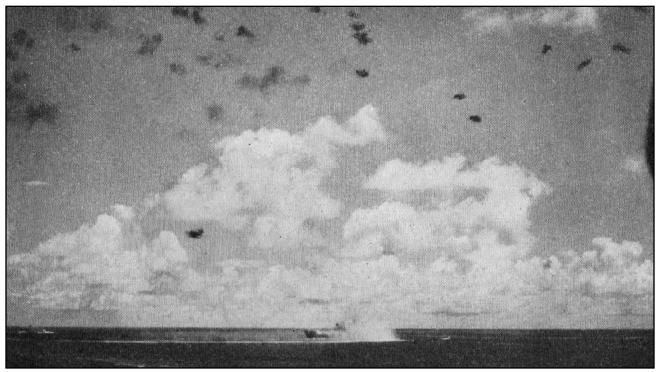
Torpedo plane under fire by South Dakota.



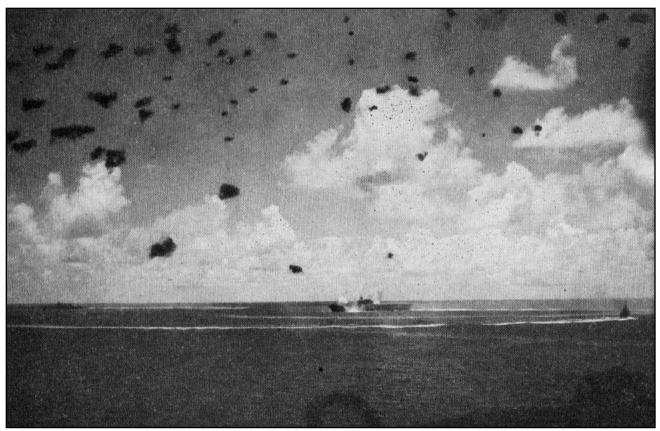
Enterprise turning to avoid bomb.



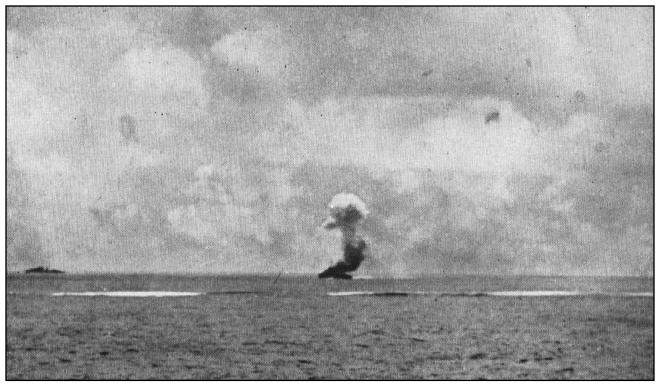
The maneuver succeeds.



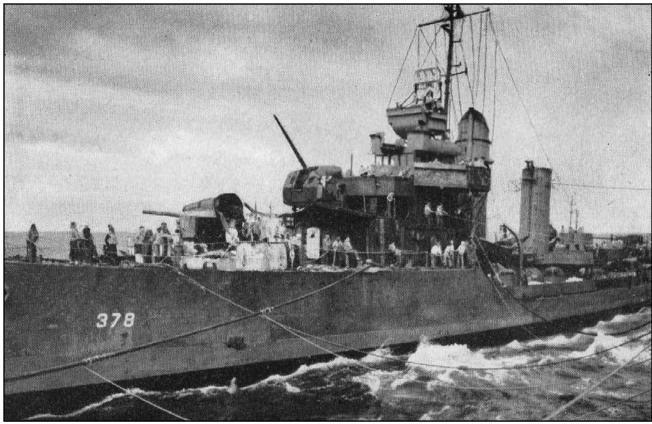
Enterprise on reverse course.



She sustains a hit.



Enemy plane crashes into Smith.



Smith, after fires have been put out.

## APPENDIX A

#### Torpedoing of the "Hornet" by Our Destroyers

After the *Hornet* had been abandoned at 1727, and most careful consideration given to available means of saving her, it was decided that there was no feasible alternative to her destruction. Accordingly, at 1840 the Commander of the *Hornet* destroyer group, Comdr. Arnold E. True, aboard the *Mustin*, was ordered to destroy the *Hornet* with torpedoes. Comdr. True's report forms the basis of the following account.

At 1903 the *Mustin*'s torpedo batteries went into action. All eight Mark 15 Model 1 torpedoes equipped with Mark 6 Model 1 exploders were fired with "most discouraging results," according to the action report. "Torpedoes were fired singly at a range of 2,000 to 3,000 yards with a cold set-up and missing the point of aim was impossible. The depth was set at 26 feet for the first 3 torpedoes, at 10 feet for the next 4, and at 15 for the last torpedo. Torpedo speed was set at intermediate for the first 5 shots and at low speed for the last 3. All torpedo tracks were observed for some time after leaving the ship in the dusk and all appeared to be running hot, straight, and normal. No evidence whatsoever of any explosion could be observed with either the first or last torpedo. The second torpedo reappeared several minutes after having been fired, leaping into the air about 300 yards broad on the [*Mustin*'s] starboard quarter and exploding violently, showering the ship with fragments...A third torpedo did not explode but was observed broaching wildly astern of the carrier on a course approximately at right angles to that at which it was fired...Sometime after the fourth torpedo was fired a dull explosion was heard and it is suspected that this torpedo functioned, although no evidence could be noted on the target. The fifth, sixth and seventh torpedoes apparently hit and functioned normally..."

After the *Mustin* had expended all her torpedoes and there was no evidence that the *Hornet* was about to sink, Admiral Murray ordered another destroyer summoned to complete the *Hornet*'s destruction. At 1940 the *Anderson* was ordered to join the *Mustin* and torpedo the *Hornet*. The *Anderson* fired salvos at a range of less than 2,000 yards. "Six of the torpedoes fired hit and exploded and one detonated prematurely for some unknown reason during the run." One took an angle about 3° to the right soon after leaving the firing point and missed.

The cumulative effect of all the torpedoes fired by the *Mustin* and the *Anderson* was negligible. Neither the list nor the trend of the *Hornet* appeared to have been effected by the destroyers' torpedoes and no fires were visible. The other vessels in the destroyer squadron had left the scene by this time, making it impossible to attempt further torpedo hits. It was therefore decided to use gunfire. The *Anderson* fired 130 rounds, setting several fires on the *Hornet* and at 2130 both the *Mustin* and the *Anderson* fired 150 rounds each. The destroyers ceased fire at 2146 and retired at high speed "leaving the hulk burning fiercely from end to end."

While the *Mustin* and *Anderson* were busy destroying the *Hornet*, they were under constant observation by Japanese patrol planes which cruised about the vicinity beyond antiaircraft range. It was later

revealed that these planes reported our ships to Enemy Task Force No. 3. As noted, this Japanese force proceeded toward our ships, whose retirement commenced just in time for them to outrun their would-be attackers. The enemy gave up his chase shortly after midnight. Neither the *Mustin* nor the *Anderson* had been aware of the pursuit.

## APPENDIX B

#### Lieut. Stanley W. Vejtasa Downs 7 Enemy Planes

One of the most astonishing feats in the history of naval aviation was performed by Lieut. Stanley W. Vejtasa, leader of one of the combat patrol flights launched from the *Enterprise* during the morning of 26 October. Lieut. Vejtasa and his three accompanying pilots took off shortly after it was announced at 0930 that an enemy attack group was approaching the *Hornet*. They rendezvoused and proceeded toward the *Hornet* climbing under full power, until they were vectored out on a bearing of 230° T., distance 5 miles, and instructed to look for "bogies" at 7,000 feet. The four fighters were at 12,000 feet by this time, and Lieut. Vejtasa noted that six to eight enemy dive bombers were above him, making a high-speed glide to their push-over point which was approximately at his altitude. One of the aircraft dived into a cloud and reappeared at this level, whereupon Lieut. Vejtasa executed a steep wing-over and made a high-side run. The Japanese plane went down in flames. The other bombers completed their attack, but Lieut. Vejtasa dropped to a lower altitude and shot down two of them retiring.

Lieut. Vejtasa had been using his wing tank, but at this point his engine cut out and he had to shift to the main fuel supply. He noticed gasoline squirting from beneath the trailing edge of his right wing and realized that the wing tank had been punctured or the fuel line had come loose. Consequently he decided to release the spare tank, but was able to do so only after pulling with both hands on the lever.

The flight climbed back to 10,000 feet and proceeded on vectors being supplied to other sections, but again the enemy bombers came in over them. The United States fighters followed another vector of 330° T. and when at 13,000 feet intercepted 11 torpedo planes which intended to attack the *Enterprise*. Lieut. Vejtasa and his wing man attacked one section of three aircraft as they were about to deploy for their approach, and each pilot set one plane on fire. As Lieut. Vejtasa broke away, he saw another F4F-4 attacking. The formation of bombers then scattered and flew into a cloud. Lieut. Vejtasa followed close behind a three-plane section and blew up the number two plane with two short bursts. He then shot the leader's rudder off and the aircraft caught fire. The third plane started a shallow turn to escape but broke into flames after a long burst.

Lieut. Vejtasa pulled up and tried a low-side attack on a torpedo bomber above him but missed. He followed the plane out of the clouds and discovered that it was too high and flying too fast for an effective drop. Antiaircraft opened up, and Lieut. Vejtasa broke away. The enemy aircraft kept going straight and crashed into the destroyer *Smith*. There was a large explosion near No. 1 turret.

As Lieut. Vejtasa circled around the screen; he saw two torpedo planes fly through the antiaircraft fire and begin a retirement close to the water. One was attacked by another fighter. Lieut. Vejtasa attacked the nearer one. His ammunition was nearly gone, so he emptied his guns into the bomber. It skidded violently in an attempt to evade, but caught fire and dived into the water after proceeding about five miles. Lieut. Vejtasa joined up with the other members of his section and returned to the *Enterprise*, where the four pilots circled for an hour and 20 minutes until the cessation of enemy attacks made it

possible to land. Lieut. Vejtasa was credited with two dive bombers, five torpedo bombers, and one probable torpedo bomber.

## APPENDIX C SYMBOLS OF U.S. NAVY SHIPS

AB	Crane ship.	AVD	Seaplane tender (converted DD).
AD	Destroyer tender.	AVP	Seaplane tender (small).
AE	Ammunition ship.	AX	Auxiliary tender, large.
AF	Provision store ship.	AY	Auxiliary tender, small.
AG	Miscellaneous auxiliary.	BB	Battleship.
AGC	Combined operations communications head-	CA	Heavy cruiser.
noe	quarters ship.	CIT	
AGP	Motor torpedo boat tender.	CB	Large cruiser.
AGS	Surveying ship.	CL	Light cruiser.
AH	Hospital ship.	СМ	Mine layer.
AK	Cargo vessel.	CMc	Coastal mine layer.
AKA	Cargo vessel, attack.	CV	Aircraft carrier.
AKF	Refrigerated cargo vessel.	CVB	Large aircraft carrier.
AKS	General stores issue ship.	CVE	Aircraft carrier escort.
AM	Large minesweeper.	CVL	Small aircraft carrier.
AMb	Base minesweeper.	DD	Destroyer.
AMc	Coastal minesweeper.	DE	Destroyer escort.
AN	Net layer.	DM	Light minelayer (high speed).
AO	Oiler	DMS	Minesweeper (high speed).
AOG	Gasoline tanker.	IX	Unclassified.
AP	Transport.	LCC	Landing craft, control.
APA	Transport, attack.	LCI (L)	Landing craft, infantry (large).
APc	Coastal transport.	LCM (2)	45' landing craft, mechanized.
APD	Troop transport (high speed).	LCM (3)	50' landing craft, mechanized.
APH	Transport for wounded.	LCP(L)	36' landing craft, personnel.
APM	Mechanized artillery transport.	LCP(R)	36' landing craft, personnel.
APR	Rescue transport.	LCP (N)	Landing craft, rubber (nested).
APS	Auxiliary cargo submarine.	LCR (L)	Landing craft, rubber (large).
APV	Aircraft transport.	LCR (S)	Landing craft, rubber (small).
AR	Repair ship.	LCS (S)	Landing craft, support. (small).
ARB	Repair ship, battle damage.	LCT (5)	Landing craft, tank, Mk. V.
ARD	Floating drydock.	LCT (6)	Landing craft, tank, Mk. VI.
ARG	Internal combustion engine tender.	LCV	Landing craft, vehicle.
ARH	Heavy hull repair ship.	LCVP	Vehicle and perssonnel.
ARL	Repair ship, landing craft.	LSD	Landing ship, dock.
ARS	Salvage vessel.	LST	Landing ship, tank.
AS	Submarine tender.	LVT (1)	Landing, tracked. (unarmored)
ASR	Submarine rescue vessel.	LVT (2)	Landing, tracked (new design).
AT	Oceangoing tug.	LVT (A1)	Landing, tracked (armored).
ATR	Rescue tug.	LVT (A2)	Landing, tracked (new design).
AV	Seaplane tender (large).	PC	173' submarine chaser.
AVC	Catapult lighter.	PCE	180' patrol craft escort.
PCE (R)	180' patrol craft escort, rescue.	YHB	Ambulance boat.

PCS	136' submarine chaser.	YH	Houseboat.
PE	Eagle boat.	YHT	Heating scow.
PF	Frigate.	YM	Dredge.
PG	Gunboat.	YMS	Motor mine sweeper.
PR	River gunboat.	YMT	Motor tug.
РТ	Motor torpedo boat.	YN	Net tender.
PTC	Motorboat submarine chaser.	YNg	Gate vessel.
PY	Yacht.	YNT	Net tendfer (tug class).
PYc	Coastal yacht.	YO	Fuel oil barge.
SC	110' submarine chaser.	YOG	Gasoline barge.
SM	Mine laying submarine.	YOS	Oil storage barge.
SS	Submarine	YP	District patrol vessel.
YA	Ash lighter.	YPD	Floating pile driver.
YAG	District auxiliary, misc.	ҮРК	Pontoon stowage barge.
YC	Open lighter.	YR	Floating workshop.
YCF	Car float.	YRC	Submarine rescue chamber.
YCK	Open cargo lighter.	YRD (H)	Floating workshop, drydock (hull).
YCV	Aircraft transportation lighter.	YRD (M)	Floating workshop, drydock (machinery).
YD	Floating derrick.	YS	Stevedore barge.
YDG	Degaussing vessel.	YSD	Seaplane wrecking derrick.
YDT	Diving tender.	YSP	Salvage pontoon.
YF	Covered lighter; range tender; provision store lighter.	YSR	Sludge removal barge.
YFB	Ferryboat and launch.	YT	Harbor tug.
YFD	Floating drydock	YTT	Torpedo testing barge.
YFT	Torpedo transportation lighter.	YW	Water barge.
YG	Garbage lighter.		

# **DESIGNATIONS OF U.S. NAVAL AIRCRAFT**

Model designation					
(Navy)	(Army)	Class	Manufacturer	U.S. name	British name
BD	A-20	Bomber	Douglas	Havoc	Boston III, Havoc
XBTC		ditto	Curtiss		
F2A		Fighter	Brewster	Buffalo	Buffalo
F3A		ditto	ditto	Corsair	Corsair
F4F		ditto	Grumman	Wildcat	Martlet
F6F		ditto	ditto	Hellcat	Hellcat
F7F		ditto	ditto		
FG		ditto	Goodyear	Corsair	Corsair
FM		ditto	Eastern Aircraft	Wildcat	Martlet V
F4U		ditto	Chance-Vaught	Corsair	Corsair
GB	C-43	Transport	Beech	Traveler	
GH		ditto	Howard		
GK	C-61	ditto	Fairchild	Forwarder	
HE	L-4	Ambulance	Piper	Grasshopper	
J2F	OA-12	Utility	Grumman	Duck	
J4F		ditto	ditto	Widgeon	
JRB	C-45	Utility, multi-engine	Beech	Voyager	
JRC-1	C78	ditto	Cessna		
JRF	OA-9	ditto	Grumman		Goose I.
XJRM-1		ditto	Martin	Mars	
JRS		ditto	Vought-Sikorsky		
JRS2		ditto	ditto	Excalibur	
JRY-1		Utility (cargo), multi- engine	Consolidated		
NE	O-59	Trainer, primary	Piper	Grasshopper	
NH		Trainer, advanced	Howard		
NP		Trainer, primary	Spartan		
NR	PT-21	ditto	Ryan	Recruit	
N2S	PT-17	ditto	Stearman (Boeing)	Caydet	
N2T		ditto	Timm	Tutor	
N3N		ditto	Naval Aircraft Factory		
OS2N		Observation scout	ditto	Kingfisher	
OS2U		ditto	Vought-Sikorsky	ditto	Kingfisher
XPBB		Patrol bomber, 2-engine, boat	Boeing	Sea Ranger	
PB2B		ditto	ditto	Catalina	Catalina
PBJ	B-25	Patrol bomber, 2-engine, landplane	North American	Mitchell	
PBM		Patrol bomber, 2-engine, boat	Martin	Mariner	Mariner

(Name)(Liss)ManufacturerU.S. nameIt US. nameIt rest it namePBN,ditoNaval Aircraft hetoryGatalinaIndoon IIPBO,A:29Patrol bomber, 2-engine, handplaneCacheedIduonGatalinaPBV0A-10ditoConsolidatedditoditoditoPBY-50OA.10ditoConsolidatedditoditoditoPBY-710A-10ditoConsolidatedditoditoditoPBY-81OA.10ditoConsolidatedditoditoCoronadoPBY-91B-24Patrol bomber, 4-engine, hondplaneditoCoronadoCoronadoPBY-1B-24Patrol bomber, 4-engine, hondplaneditoCoronadoCoronadoPSCC-54Tanpotr, multi-engineCurissCorumadoLectaraR4D-1.5C-53ditoLocaleaSkyranierLocalearR4D-2.4C-53ditoLocalearLocalearLocalearR5DC-54ditoLocalearLocalearLocalearR5DC-54ditoLocalearBearerenRemudaR5DK-54ditoLocalearBearerenLocalearR5DC-54ditoLocalearHeldiverLocalearR5DC-54ditoLocalearBearerenRemudaR5DC-54ditoLocalearHeldiverLocalearR5DC-54ditoCuriss <t< th=""><th colspan="2">Model designation</th><th></th><th></th><th>N G</th><th></th></t<>	Model designation				N G	
PBN         atito         Factory         Catalina           PBO         A.29         Patrol bomber, 2-engine, boat         Catalina         Mudson III           PBV         Patrol bomber, 2-engine, boat         Vickers         Catalina         Catalina           PBV-5         OA-10         dito         Consolidated         dito         dito           PBY-5         OA-10         dito         Consolidated         dito         dito           PBY-5         OA-10         dito         Consolidated         dito         dito           PBY-5         OA-10         dito         Consolidated         dito         dito         dito           PBY-5         OA-10         dito         Gondohne, 4-engine, landplane         dito         Liberator         liberator           PV         B-34         Patrol bomber, 4-engine, landplane         Vega         Ventura         Ventura           R5C         C-46         Tamoport, multi-engine         Gutis         Commando         Ventura           R4D-1,5         Gr47, 47,4         dito         Muto         Skymaster         Ledestar           R4D-2,4         C-49         dito         Lockheed         Lockheed         Lockheed         Lockstroper	(Navy)	(Army)	Class	Manufacturer	U.S. name	British name
PROA-29 Patrol bomber, 2-engine, boatLockheedPuusonPuuson inPBVPatrol bomber, 2-engine, boatVickersCatalinaCatalinaPBY-3OA-10dittoConsolidateddittodittoP4YdittodittodittodittodittoPBY-3Patrol bomber, 4-engine, landplanedittoCoronadoCoronadoPB4YB-24Patrol bomber, 4-engine, landplanedittoLiberatorLiberatorPVB-34Patrol bomber, 2-engine, landplaneVegaVenturaVenturaRSCC-46Transport, multi-engine landplaneCurissCoronadoVenturaR4D-1,5C-47, 47AdittoDouglasSkytrain	PBN		ditto		Catalina	
PHV         boat         Vickers         Cataina         Cataina         Cataina           PBY-3         OA-10         dito         Consolidated         dito         dito           PBY         dito         dito         dito         dito         dito           PB2Y-3         Patrol bomber, 4-engine, boat         dito         Coronado         Coronado           PB4Y         B-24         Patrol bomber, 4-engine, handplane         dito         Coronado         Liberator           PV         B-34         Patrol bomber, 2-engine, handplane         Vega         Commando         Ventura           R4D-1,5         C-47, 47, 47, 47, 47, 47, 47, 47, 47, 47,	РВО	A-29		Lockheed	Hudson	Hudson III
P4Y         initial         ditio         ditio         conado           PB2Y-3         Patrol bomber, 4-engine, lachano         clonado         clonado           PB4Y         Patrol bomber, 4-engine, lachano         clonado         clonado           PV         Patrol bomber, 4-engine, lachano         clonado         clonado           PV         Patrol bomber, 4-engine, lachano         clonado         clonado           FXC         C40         Tansport, multi-engine         Commado         commado           FXD-16         G40         Tansport, multi-engine         Commado         Skyrain	PBV			Vickers	Catalina	Catalina
PB2Y-3Patrol bomber, 4-engine, boatditioCoronadoCoronadoPB4YB-24Ritrol bomber, 4-engine, landplaneditoLiberatorLiberatorPVB-34Patrol bomber, 2-engine, landplaneVegaVenturaVenturaR5CC-46Transport, multi-engine ditoCurtissCommandoVenturaR4D-1,5 $\frac{2}{474}$ ditoititoDouglasSkytrainVenturaR4D-2,4 $\frac{Q}{49A}$ ditoditoSkytrainVenturaR4D-2,4 $\frac{Q}{49A}$ ditoditoSkytrainVenturaR4D-2,4 $\frac{Q}{49A}$ ditoditoSkytrainVenturaR4D-2,4 $\frac{Q}{49A}$ ditoditoSkytrainVenturaR4D-2,4 $\frac{Q}{49A}$ ditoditoSkytrainVenturaR4D-2,4 $\frac{Q}{49A}$ ditoLockhedSkytrainVenturaR4D-2,4 $\frac{Q}{49A}$ ditoMethodSkytrainVenturaR5DC-54ditoditoSkytrainVenturaR5DC-54ditoCouldsSkytrainVenturaS82AA.34ScoutobemberBrewsterBucancerBernudaS82AA.34GoutobemberGouglasButtoreVenturaS82AA.24ditoDouglasButtoreVenturaS82AA.24ditoMethoreHelliverVenturaS82AA.25ditoGoudaMethoreVenturaS8	PBY-5	OA-10	ditto	Consolidated	ditto	ditto
PB21-3         boat         auto         Coronado         Coronado           PB4Y         B-24         Patrol bomber, 4-engine, landplane         ditto         Liberator         Liberator           PV         B-34         Patrol bomber, 2-engine, landplane         Vega         Commando         Ventura           R5C         C-46         Transport, multi-engine         Curtiss         Commando         Ventura           R4D-1,5         C-47, 47,         ditto         Douglas         Skytrain         Ventura           R4D-2,4         C-49, 49A         ditto         ditto         Skytrain         Ventura           R4D-3         C-53         ditto         ditto         Skytrain         Ventura           R4D-3         C-54         ditto         ditto         Skytrain         Ventura           R5D         C-54         ditto         ditto         Skytrain         Ventura           R5D         C-60         ditto         Lockheed         Lokestar         Lokestar           R51         C-93         Transport (cargo), multi- engine         Budd         Ventura         Ventura           S12         A-34         Scout observation         Budd         Douglas         Douglas         Dauntles <td>P4Y</td> <td></td> <td>ditto</td> <td>ditto</td> <td>ditto</td> <td></td>	P4Y		ditto	ditto	ditto	
PFAYB-24 landplanelandtrLiberatorLiberatorPVB-34Patrol bomber, 2-engine, landplaneVergaVenturaVenturaR5CC-46Transport, multi-engineCurtissCommandoR4D-1,5 $\frac{C447}{47}$ 49AdittoDouglasSkytrainR4D-2,4 $\frac{C49}{49A}$ dittodittoSkytrooperR4D-3C-53dittodittoSkytrooperR5DC-54dittodittoSkytrooperR5DC-60dittoLockhededLodestarR5DC-60dittoLockhededBuccaneerBermudaSB2AA-34Scout bomberBrewsterBuccaneerBermudaSB2C77-AdittoCurtissHelldiverSB2CA-24dittoDouglasSuccaneerBermudaSB2DdittodittoSuccaneerSemudaSB2DdittodittoSuccaneerHelldiverSB2DdittodittoSuccaneerHelldiverSB2DdittodittoNaval Aircraft FactoryHelldiverSB4A-25dittoCurtissHelldiverSB2UiditoGendain Car& FoundryHelldiverHelldiverSNP-2Ar-26dittoCurtissHelloverSNP-4Ar-27dittoCurtissHelloverSB1Ar26dittoNorth AmericanFaconSB2Ar26dittoSuccaneerHellover	PB2Y-3			ditto	Coronado	Coronado
PVB-34 landplanelandplaneVegaVenturaVenturaVenturaR5CC46Transport, multi-engineCurtissCommandoR4D-1,5 $\frac{C}{47A}$ $\frac{47A}$ dittoDouglasSkytrainR4D-2,4 $\frac{C}{49}$ $\frac{47A}$ dittoDouglasSkytrooperR4D-3C-53dittodittoSkytrooperR5DC-54dittodittoSkytrooperR5DC-54dittoLockheedLodestarR5DC-60dittoLockheedLodestarRB-1C-93Transport (cargo), multi- engineBuddErruudaSB2AA.34Scout bomberBrewsterBuccaneerBermudaSB2AA.34Scout bomberDouglasErruudaSB2CA-24dittoDouglasErruudaSB2CA-24dittoDouglasErruudaSB1dittoSitto-Sitto-Sitto-SB2DiditoFaicchildHelldiverErruudaSB1A-25dittoCanadian Car & FoundryHelldiverSB2UiditoCurtissErruudaErruudaSB2UiditoCurtissHelldiverErruudaSB2UiditoCurtissHelldiverFaicoriSB4A-25dittoCurtissFaicoriFaicoriSB4A-111Trainer, advancedBecchKansasFaicoriSB7A174dittoNorth AmericanTexan<	PB4Y	B-24		ditto	Liberator	Liberator
R4D-1,5C-47, 47AdittoDouglasSkytrainR4D-2,4C-49, 49AdittodittoSkytrooperR4D-3C-53dittodittoSkytrooperR5DC-54dittoLockheedLodestarR5DC-60dittoLockheedLodestarRB-1C-93Tarsport (cargo), multi- engineBuddLodestarSB2AA-34Scout bomberBrewsterBuccaneerBermudaSBC77-AdittoCurtissHelldiverSBCA-24StootDouglasDouglasLodestarSBCA-24dittoDouglasBuntlessLotestarSBCA-24dittoDouglasDauntlessLotestarSBCA-24dittoDouglasLotestarLotestarSBCA-24dittoDouglasLotestarLotestarSBCA-24dittoDouglasLotestarLotestarSBDdittoCurtissHelldiverLotestarLotestarSBTA-25dittoCurtissVindicatorChesapeakeSBN-A-26ditoCurtissFalconLotestarSBN-A11Tariner, advancedBechKansaLotestarSNB-1AT-0dittoCurtissFalconLotestarSNB-1AT-0dittoCurtissFalconLotestarSND-1AT-0dittoNorth AmericanTaran ( Harvard I, IISNC </td <td>PV</td> <td>B-34</td> <td></td> <td>Vega</td> <td>Ventura</td> <td>Ventura</td>	PV	B-34		Vega	Ventura	Ventura
R4D-1.547A 47AdittoDouglasSkytranR4D-2.4 $\begin{array}{c} C-49,\\ 49A \\ 49A \end{array}dittodittoSkytrooperR4D-3<$	R5C	C-46	Transport, multi-engine	Curtiss	Commando	
R40-2,4 49A49AdittoduttoR4D-3C-53dittodittoSkytrooperR5DC-54dittodittoSkymasterR50C-60dittoLockheedLodestarLodestarRB-1C-93Transport (cargo), multi engineBuddLotestarBermudaSB2AA-34Scout bomberBrewsterBuccancerBermudaSBC77-AdittoCurtissHelldiverHelldiverSBC77-AdittoDouglasDauntessHelldiverSBDdittodittodittoHelldiverHelldiverSB2DdittodittoHelldiverHelldiverSBPA-25dittoFaicchildHelldiverSBNA-25dittoFaicchildHelldiverSBUdittoCurtissHelldiverHelldiverSBUdittoCurtissHelldiverHelldiverSBUdittoCurtissHelldiverHelldiverSBUdittoCurtissHelldiverHelldiverSBUdittoCurtissHelldiverHelldiverSBUA-25dittoCurtissHelldiverSBUMatchGout observationCurtissHelldiverSBUMatchSout observationCurtissHelldiverSNP-1AT-10GradomNorth AmericanTexanHarvard I, IISNPA1-6dittoNorth AmericanTexanHarvard I, II	R4D-1,5	-	ditto	Douglas	Skytrain	
R5DC-54dittodittoSkymasterR50C-60dittoLockheedLodestarLodestarRB-1C-93Transport (cargo), multi- engineBuddLodestarLodestarSB2AA-34Scout bomberBrewsterBuccaneerBermudaSB2C77-AdittoCurtissHelldiverSB2C77-AdittoDouglasLodestarSB2DdittoDouglasLodestarLodestarSB4A-25dittoFairchildHelldiverSB7A-25dittoKaval Aircraft FactoryHelldiverSB20LdittoCanadian Car & FoundryHelldiverSB7A-25dittoCanadian Car & FoundryHelldiverSB8A-25dittoCurtissHelldiverSB1A-25dittoCurtissHelldiverSB20IditoGurtissHelldiverSB1A-51dittoCurtissHelldiverSB20IditoGurtissHelldiverSB20IditoCurtissHelldiverSB20A-70dittoCurtissHelldiverSB20IditoCurtissHelldiverSB20IditoCurtissHelldiverSB20IditoCurtissSameSB20IditoMitoHelloverSB20IditoIditoMeradianSB20IditoIditoMeradianSB20IditoIdito	R4D-2,4		ditto	ditto		
R50C-60ditoLockheedLodestarLodestarRB-1C-93Transport (cargo), multi engineBuddSuddSB2AA-34Scout bomberBrewsterBuccaneerBermudaSBC77-AditoCurissHelldiverSB2CA7-AditoDouglasDauntlessSB2D-ditoDouglasLotestarSB2D-ditoditoLotestarSB2D-ditoGaradian Car & FactoryHelldiverSB1-ditoSaradian Car & FoundryHelldiverSB2U-ditoVought-SikorskyVindicatorChesapeakeSB2U-ditoCaradian Car & FoundryHelldiverHelldiverSB2U-ditoCurissLatestarLatestarSB4A-25ditoGaradian Car & FoundryHelldiverHelldiverSNB-10AT-11Trainer, advancedBeechKansasHarvard I, IISNB-20AT-6ditoNorth AmericanTexanHarvard I, IISND-20AT-6ditoNorth AmericanFalconHarvard I, IISND-20AT-6ditoCurissSagulLatestarSND-20AT-6ditoCurissSagulLatestarSND-20AT-6ditoNorth AmericanFalconHarvard I, IISND-20AT-6ditoCurissSagulLatestarSND-20JitoGutGar	R4D-3	C-53	ditto	ditto	Skytrooper	
RB-1C-93Transport (cargo), multi- engineBuddSB2AA-34Scout bomberBrewsterBuccaneerBermudaSBC7-AdittoCurtissHelldiverSB2CA-24dittoDouglasDauntlessSBD-dittoDouglas-SBD-dittoOuglas-SBD-dittoGarcer-SBD-dittoFairchildHelldiverSBTA-25dittoFairchildHelldiverSBN-dittoScorer-SB2D-dittoVought-SikorskyVindicatorChesapeakeSBN-dittoVought-SikorskyVindicatorChesapeakeSBN-dittoCurtissSNB-1A1-11Trainer, advancedBeechKarsa-SND-2A7-70dittoGutissFalcon-SND-2A1-60dittoNorth AmericanFalcon-SND-2A1-61dittoNorth AmericanFacan-SND-2A1-63dittoScoreSND-2A1-64dittoScoreSND-2A1-65dittoScoreSND-2A1-64dittoScoreSND-2A1-64dittoScoreSND-2A1-65dittoScoreSND-2A1-65<	R5D	C-54	ditto	ditto	Skymaster	
RR-1C-93 engineBuddSB2AA-34Scout bomberBrewsterBuccaneerBermudaSBC77-AdittoCurtissHelldiverSB2CA-24dittoDouglasDauntlessSBDdittoDouglasDauntlessSBDdittodittoHelldiverSB2DdittoGittoHelldiverSBFA-25dittoFairchildHelldiverSBNdittoFairchildHelldiverSB2UdittoVought-SikorskyVindicatorChesapeakeSBWA-25dittoCanadian Car & FoundryHelldiverSBVScout observationCurtissHelldiverSNB-1AT-11Trainer, advancedBeechKansasSNE-2AT-7dittoCurtissFalconSNDAT-6dittoNorth AmericanTexanHarvard I, IISNVBT-13, SOCdittoNorth AmericanSeagullSOCSout observationCurtissSeagullSeamewSNVBT-13, SOdittodittoMitatoSeamewTBDItoGittoGualasDevastatorTarponTBFdittoGittoGrummanAvengerTarpon	R50	C-60	ditto	Lockheed	Lodestar	Lodestar
SBC77-AdittoCurtissHelldiverSB2CA-24dittoDouglasDauntlessSBDdittoDouglasSB2CdittoSB2DdittoGanceHelldiverSBFA-25dittoFairchildHelldiverSBNdittoSaval Aircraft FactorySaval Aircraft FactoryHelldiverSB2UdittoVought-SikorskyVindicatorChesapeakeSBWA-25dittoCanadian Car & FoundryHelldiverSBVScout observationCurtissHelldiverSN-1AT-10Trainer, advancedBeechKansasSNFAT-6dittoCurtissHarvard I, IISNCdittoCurtissHarvard J, IISNIAT-6dittoSorth AmericanFalconSNJAT-6dittoSorth AmericanFalconSNVBT-13, 15dittoCurtissSeagullSOCLScout observationCurtissSeagullSOCScout observationCurtissSeagullSOCScout observationCurtissSeagullSOCLScout observationGuitoSeagullSOCLGittoMitoSeamewFBDLTopedo bomberDouglasDevastatorTBFLdittoGrummanAvengerTarponTBMLdittoGrummanAvengerMaronSOLLdittoGrumman	RB-1	C-93	· · · ·	Budd		
SB2CA-24dittoDouglasSBDdittoDouglasSB2DdittodittoSBFA-25dittoFairchildHelldiverSBN-dittoNaval Aircraft FactorySB2UdittoVought-SikorskyVindicatorChesapeakeSBWA-25dittoCanadian Car & FoundryHelldiverSBVA-25dittoCurissHelldiverSNB-1AT-11Trainer, advancedBeechKarsasSNB-2AT-7dittoCurtissFalconSNVMitodittoNorth AmericanFalconSNVMarcldittoNorth AmericanHarvard 1, IISNCScour observationCurtissFalconHarvard 1, IISNVMitodittoNorth AmericanSeagullLittorienSOCScour observationCurtissSeagullLittorienSeamewSD2KitoJonglasOuglasSeagullLittorienSNVMarclScour observationCurtissSeagullLittorienSOCKitoScour observationCurtissSeagullLittorienSO3CLittoMitodittoSeamewLittorienTBFdittoGutoGrummanAvengerTarponTBFMittoMittoStatern Aircraftdittoditto	SB2A	A-34	Scout bomber	Brewster	Buccaneer	Bermuda
SBDdittoDoublesSB2DdittodittoSBFA-25dittoFairchildHelldiverSBN $\frac{1}{100}$ Naval Aircraft FactoryNaval Aircraft FactorySB2UdittoVought-SikorskyVindicatorChesapeakeSBWA-25dittoVought-SikorskyNardatorSBV $\frac{1}{100}$ Canadian Car & FoundryHelldiverHelldiverSC-1Scout observationCurtissHelldiverHelldiverSNB-1AT-11Trainer, advancedBeechKansasHurard I, IISNCdittoCurtissFalconHarvard I, IISNVAT-6dittoNorth AmericanTexanHarvard I, IISNVBT-13, 15dittoVulteeValiantSeamewSO2CScout observationCurtissSeagullSeamewSO3CdittodittodittoSeamewTBDTorpedo bomberDouglasDevastatorTarponTBFdittodittoGrummanAvengerTarponTBMHotoMatonAitonMatonMatonHBMMittoMatonAvengerMatonHBMMittoKatonAitonMatonHBMMittoKatonMatonMatonHBMMittoKatonKatonMatonHBMMittoKatonMatonMatonHBMMittoKatonMatonMatonHBM </td <td>SBC</td> <td>77<b>-</b>A</td> <td>ditto</td> <td>Curtiss</td> <td>Helldiver</td> <td></td>	SBC	77 <b>-</b> A	ditto	Curtiss	Helldiver	
SB2DdittodittoSBFA-25dittoFairchildHelldiverSBN $1$ dittoNaval Aircraft FactoryNaval Aircraft FactorySB2UdittoVought-SikorskyVindicatorChesapeakeSBWA-25dittoCanadian Car & FoundryHelldiverSC-1Scout observationCurtissHelldiverSNB-1AT-11Trainer, advancedBeechKansasSNB-2AT-7dittoCurtissFalconSND-2AT-6dittoNorth AmericanFalconSNVMarceldittoCurtissFalconSNVBT-13, 15dittoVulteeValiantSOCCScout observationCurtissSeagullSOCScout observationCurtissSeagullSOCScout observationCurtissSeagullSDAJitodittodittoSeagullSDAMitodittodittoSeamewSDAMitoMitoMarcelJaponSDAMitoGrummanAvengerTaponTBDdittoGrummanAvengerTaponTBMdittoGrummanMarcelMarcel	SB2C	A-24	ditto	Douglas	Dauntless	
SBFA-25dittoFairchildHelldiverSBNittoNaval Aircraft Factory.SB2UdittoVough-SikorskyVindicatorChesapeakeSBWA-25dittoCanadian Car & FoundryHelldiverHelldiverSC-1Scout observationCurtissSNB-1AT-11Trainer, advancedBeechKansas.SNB-2AT-7dittoCurtissSNGititoCurtissFalconSNVAT-6dittoNorth AmericanTexanHarvard I, IISNVBT-13, 15dittoSout observationCurtissSeagullSOCScout observationCurtissSeagullSNVBT-13, 15dittoCurtissSeagull.SOCScout observationCurtissSeagullSD3CititodittodittoSeamew.TBDMitodittoMergerTarponTBFdittodittoGrummanAvengerTarponTBMititodittoEasten Aircraftdittoditto	SBD		ditto	Douglas		
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			ditto	Grumman		
TBV ditto Vultee	TBM				ditto	ditto
	TBV		ditto	Vultee		



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