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5224/A16-3
Serial (03)

U.S.S. COD (SS224)
c/o Fleet Post Office,
San Francisco, California.

DECLASSIFIED

25 August 1944

From: The Commanding Officer.
To: The Commander in Chief, United States Fleet.
Via: (Official Channels)

Subject: U.S.S. COD (SS224), Report of War Patrol No. 4.

Enclosure: (A) Subject Report.
 (B) Track Charts (for Task Force Commander only).

1. Enclosure (A), covering the fourth war patrol
of this vessel conducted in MANILA and CELEBES areas during the
period 3 July 1944 to 25 August 1944 is forwarded herewith.

J A Adkins
J. A. ADKINS.

DECLASSIFIED-ART. 0445, OPNAVINST 5510.1C
BY OP-0989C DATE 5/25/72

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(A) PROLOGUE

Returned FROM ATLANTIC, A. from 3rd war patrol 1 June 1944. Refit by SubDiv 162 Relief Crew and ORION. Comdr. J. C. DEMPSEY, USN., Commanding Officer, detached 15 June 1944. Five days' practice approaches and torpedo firing. Departure delayed by material casualty.

(B) NARRATIVE

3 July 1944

- 1310 Underway from alongside ORION in accordance with CTG 71.1 Secret Op. Ord. assigning patrol area west of VERDE ISLAND PASSAGE.
Conducted deep dive and training exercise with CABRILLA and HORNET.
- 2320 Made rendezvous with CABRILLA and SANDANCE; enroute SOUTH GULF.

4 July 1944

- 3 training dives. Submerged approach on CABRILLA Radar tracking drill. Passed GUNNEL and LUSKAL-LUNG southbound.
- 1517 SD picked up friendly PBY at 12 miles. A/C Contact #1.

5 July 1944

- 7 training dives. Submerged approach and submerged radar approach on CABRILLA. Passed NAMAI southbound. Talked to CABRILLA by hand-keying.

6 July 1944

- 0622 SD contact, friendly NIGHTHAWK at 7 miles. A/C **Contact #2.**
- 0812 Roored alongside SANDANCE in northern part of SOUTH GULF; commenced fueling from SANDANCE. CABRILLA left.
- 1006 Underway; calibrated sound heads on SANDANCE.
- 1053 Anchored. SANDANCE left. Conducted drills in hand diving.
- 1140 Underway for Lombok Strait via bombing restriction lane. 2 training dives. Due to suspected enemy submarine activity in vicinity of bombing restriction lane, CABRILLA thought it best to forego training services to each other and to proceed independently to LOMBOK. Set rendezvous north of LOMBOK, so that CABRILLA and COD may more effectively cover MAKASSAR on route north.
- 2055 SJ radar interference, believed to be HORNET southbound.

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7 July 1944

3 training dives. 1 battle problem.

0407 SJ radar interference; no pip. Exchanged calls by handkeying with CABRILLA.

8 July 1944

4 training dives. 1 battle problem. Exchanged calls by hand-keying with CABRILLA.

9 July 1944

0546 Dived.

0648 Surfaced.

0815 Stopped #1 main engine because of knock. Discovered #4 conn rod bearing burned out; crank-pin journal badly scored. Pulled unit; disconnected conn rod; blocked up piston; continued using engine on 15 units.

1155 Raised BALI PEAK.

1411 Submerged to close strait.

1848 Surfaced. Radar had short contact with SJ interference bearing 233T, range 7,900 yards. Could not get answer by hand-keying. Possibly CABRILLA or JACK surfacing.

1955 SJ interference from NUSA BEAR and from SW tip of LOMBOK ISLAND. Lights observed on hill on NUSA BEAR.

2025 Entered Strait.

2050 Radar contact 017T, 11,120 yards. Contact #1. This contact was at first circling, then came to a zig zag patrol course of 300 to 350 T, speed 8 knots, constant helm. Ran with him for a while, closed to 5600 yards, made tubes ready, got a look at him, and went around his stern. He appeared to be a patrol craft of about PC size.

2128 Moonrise - very bright.

10 July 1944

In JAVA SEA.

0502 Raised SENALA ISLAND. Our rendezvous with CABRILLA is off this spot at 0600.

0547 Sailboat contact. Contact #2. Ran around in twilight.

0558 Exchanged signals by hand-keying with CABRILLA.

0608 Submerged.

0702 Surfaced.

0730 Sighted CABRILLA: closed; used line-throwing gun to pass over track chart for coverage of MAKASSAR STRAIT, with rendezvous for tomorrow. CABRILLA opened to westward.

0831 SD contact 6 miles, submerged. Plane not sighted. Could have been CABRILLA. A/C Contact #3.

1104 Surfaced.

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10 July 1944 (Cont.)

1240 Finished decoding PADDLE message (badly garbled) telling of a convoy with radar or D/F equipment on uncertain course, speed 10, north of CELEBES at 0330 H, this morning. We may have a chance at this convoy if it is headed for BALIKPAPAN. At 3 engine speed. Continued on track up MAKASSAR STRAIT.

11 July 1944

0125 SJ landfall on CAPE MANDAR.

0348 Sighted sailboat. Contact #3. Set course up west coast of CELEBES about 5 miles off beach. Could see beach plainly from bridge in moonlight. Numerous sailboats in sight, but nothing larger.

0419 Observed steady white light about half-way up mountain on CELEBES coast.

0532 Sighted sailboat. Contact #4.

0539 Sighted sailboat. Contact #5.

0541 Radar contact on sailboat. Contact #6.

0543 Sight and radar contact on sailboat. Contact #7.

0610 Sunrise. Had 5 sailboats in sight. Contact #8. Opened coast off CAPE ILLIAM.

0845 Sighted sailboat. Contact #9.

0855 At rendezvous for CAERILLA. Dived.

0958 Surfaced. Waiting for CAERILLA.

1053 Sighted sailboat. Contact #10.

1112 No CAERILLA; having waited the appointed time, left rendezvous; set course for 100 fathom curve NE of BALIKPAPAN, where it runs 12 miles off beach.

1609 Sighted sailboat. Contact #11.

1801 Sighted sailboat. Contact #12.

2036 Left BALIKPAPAN area; headed for middle of MAKASSAR STRAIT off MANGALIAT.

12 July 1944

In MAKASSAR STRAIT as before.

0041 Phantom pip on SJ. Probably atmospheric.

0440 Cleared MAKASSAR STRAIT. Headed north, intending to arrive off minefield at TALIMAN by afternoon.

0627 Forced down by plane. A/C Contact #5. Visual contact, close aboard.

0729 Surfaced.

0740 Forced down by plane. A/C Contact #6. Visual contact, close aboard.

0845 While at 50 feet making SD search preparatory to surfacing, picked up radar interference.

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12 July 1944 (Cont.)

- 0959 Plane sighted in periscope. A/C Contact #7.
1719 Surfaced. Had given up idea of patrol off TARAKAN; set course for SIBUTU PASSAGE.

13 July 1944

- Enroute SIBUTU as before.
0501 Submerged in middle of SIBUTU PASSAGE, between PAUK MATA and SIDUTU LSL ID. Periscope patrol. Rain for 2 hours in morning, but had land on both sides in plain sight during remainder of day and had excellent listening conditions. No contacts.
1900 Surfaced. Stood on through SIBUTU PASSAGE and west of PEILI ISL. 3 contacts on sailboats, #13, #14, & #15.
2034 Two bright lights from direction of ALFIELD POINT, BORNEO.

14 July 1944

- Enroute area in SULU SEA.
1341 Passed oil drum.
1430 Passed water-logged derelict sailboat, about 12' long with an 8' mast.
1533 Submerged for trim and BT card.
1546 Surfaced.
2003 Standing up CUYO EAST PASS. Transited this pass and APC EAST PASS with despatch during darkness, rain squalls, and poor visibility due to excellent work by Navigator Lt. Comdr. H. BISSELL, Jr., and radar operators of all three cruising sections.

15 July 1944

- Enroute as before.
0333 Discovered hole in elbow to #3 muffler. Noise and sparks.
0455 Submerged in APC EAST PASS between DISCOVERY BAN and DOIGON POINT. Stood up toward CAPE CALAVITE. No contacts.
1400 While routineing torpedoes, discovered a leak in the HP lead to the starting valve on MK 23 torpedo in tube #9. Reloaded tube. Commenced work on torpedo. Connection was soft-soldered and torpedo was loaded in tube by 1700 the following day. A makeshift repair but a very commendable piece of work by KELLY, William F., TM1c, USN.

16 July 1944

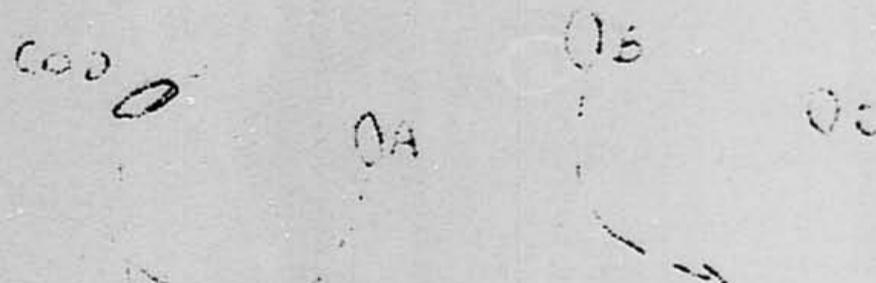
- Patrolling as before. No contacts.
0400 Stood out to westward toward spot for days patrol, west of BUSUANGA.
ATTACK #1
0510 Visual, followed by radar, contact at 11,000 yards, of three ships bearing 265 T. Contact #16.

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16 July 1944 (Cont.)

Beginning of twilight. Stood off and commenced end around. Targets moving to southward. Tracked targets by high periscope at full power. Base course 210 T, speed 8. In hurry to get ahead of targets before arrival of expected air cover.

- 0738 SD contact, 24 miles, closing. A/C Contact #8. We were almost ahead of targets now and there were no whitecaps. Submerged. Commenced approach. Target group consisted of 3 similar MFM steamers of about 2000 T. Similar to KEIZAN MARU, p. 143 of ONI 208-J revised, except that funnels were about 10' higher than shown in picture. Formation as follows:



- 0910 Fired 3 torpedoes at A and 3 at B. 87.2 to 99 track. Gyro angles 23.2 to 35. Average torpedo run 1600. B turned away. A turned toward in a wide circle.
- 0912 Fired 4 stern tubes at A and went deep.
- 0914 Received first of 14 depth charges.
Damage: Leak in circulating water sea valve #1 and #2 main engines. Leak in head outboard discharge valve. Squeal in #1 main motor. Ground in bow planes. Starboard sound training motor disarranged. Eight cables pushed in in control room. Starboard sound shaft universal joint loosened.
- 1035 Secured from depth charge. Reloaded.
- 1057 All clear by periscope.
- 1129 Surfaced. Smoke of 3 targets was in sight to SW. Commenced end around. Decided to shoot by night and use 4' depth settings or less.

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16 July 1944 (Cont.)

- 1405 Squeal in #1 motor increased in intensity and became a clattering sound. Stopped starboard shaft.
- 1422 Submerged to determine cause of noise in #1 motor. At 2/3 speed on port shaft at 100 feet. Working on #1 main motor, cleared round in bow planes, converted #4 fuel ballast tank to main ballast tank on this dive. Firing data was not too complete and approach was none too polished, but analysis of torpedo firing with available data showed that two hits should have been obtained on first target. Main motor trouble located in after bearing. Lifted, scraped, replaced.
- 1855 Surfaced. Headed on last bearing of targets on 3 engines and charging batteries on 4th.
- ATTACK #2
- 2307 SJ contact ahead bearing 216 T, 10,000 yards. Contact #17. Commenced tracking - it was our target group.

17 July 1944

Tracking targets as before.

We tracked these targets very carefully for 2 hours. Speed 8 knots (same as during previous attack) zigging mildly between 195 T and 240 T on 12 minute legs. Formation the same as before.

C.O. was determined to make this one very deliberately. Decided to shoot one target at a time, no divided fire. We worked up to port bow of formation, set torpedo depths at 3 feet (light, easy swells, no whitecaps) slowed to 10 knots, turned in to attack course, kept bow pointed at target, swung left slowly, opened outer doors and at

- 0015 Fired 3 on an 80° port track, torpedo run 1500, 3' depth setting, spread 1 1/3°, gyro angles almost 0°. This was a very careful attack, with TDC checking right on in range and bearing. C.O. watched the wakes of two torpedoes pass directly under the target. Recorded data checked very well on subsequent analysis of this attack. Target made no move. CO turned right and started pulling out on 3 generators from a range of 1100 yards. Would not use the engine with the sparking muffler. The escort started smoking heavily and chasing. At three generators we had the speed advantage on him. He fired a few rounds, the closest one hitting the water with a pink detonation about 30-50 yards on our port side (exactly on in range). His last shot was a shrapnel

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17 July 1944 (Cont.)

burst, yellow, about 300 feet high, short and to the right, about 300 yards on our starboard quarter. I found that if I ordered "clear the bridge" at the time of the gun flash, the lookouts would be in the conning tower by the time the shells burst. Altered course with 5° rudder at time of each

burst, chasing splashes.

0037 Escort went back to join other Marus. Commenced reload.

0127 Took northwesterly course along edge of DANGEROUS GROUP.

0136 Sent radio message to IAPON on 2800 Kcs. in aircraft contact code, classifying targets as 3 small merchant vessels, giving position, course, speed, and information that 3 foot torpedoes had been under target. Completed transmission by 0127, and obtained receipt. The decision to not pursue this target group further was a hard one to make. With the failure to obtain a hit with each torpedo fired, the Commanding Officer had become more and more anxious to destroy these small targets. The targets were still available even though thoroughly alerted. However, the approach just completed could not be bettered. Continuous TBT bearings and SJ ranges every 20 yards had been fed into TDC which had not been touched for 2 minutes prior to firing.

The only improvement in tactics that could be employed in subsequent attacks would be to decrease depth setting of torpedoes. Had two full nests of torpedoes left, plus one more, and felt that more damage could be inflicted on enemy by looking for larger targets.

It is felt that the MK 23 torpedoes with the 16-1 warheads ran deep during this attack. Record books show rudder throws of 2° up and 4° down.

0525 Submerged. Checked one torpedo for proper horizontal rudder throws and found in accordance with record book. Continuous periscope search.

1058 Surfaced. Commenced welding a patch over elbow on #3 muffler. This work continued until completed at 1520 with only one interruption, due to SD contact at 24 miles at 1232. A/C Contact #9. Credit for stopping the noise, and ingeniously quenching the sparking is due to Lt. Comdr. E. BISCHI, Jr.; Ensign Franklin S. KIBBELL, USN.; SLIM, James C., Chief (AA), USN.; and HUSTER, Robert J. MC, US.

2144 Decided to shift station to vicinity of CABIA ISLAND. Came to course 060 T at 3 engine speed.

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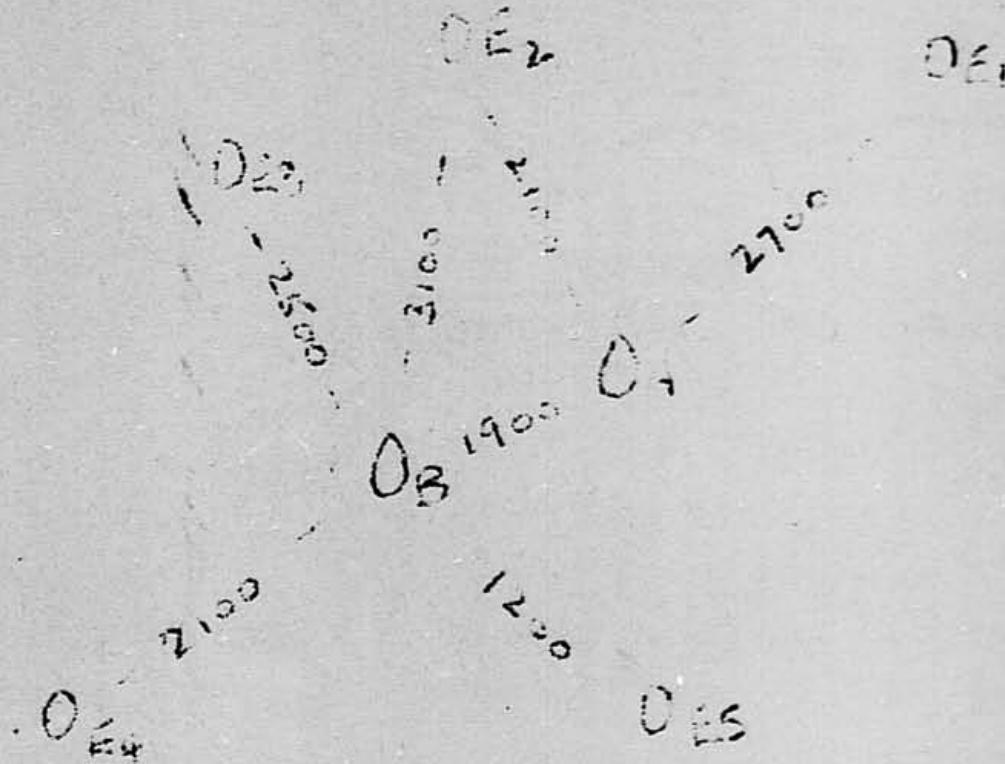
17 July 1944 (Cont.)

ATTACK #3

2154 SJ contact bearing 082 T, 23,400 yards. Contact #18. Went to 4 engine speed, and commenced tracking.

2205 Stopped; then reversed course as it became evident that target was on westerly course, instead of easterly, as had been at first supposed. Could not get more than 17.4 knots at 100% power.

Target group was making 19 knots on mean course of 240 T to 270 T. There were 2 large ships and five escorts in the formation, arranged as follows:



COD was up ahead on starboard bow of formation, trying to stay in front, tracking target A. Targets could barely be seen as haze spots from bridge, and their characteristics could not be distinguished.

- 2233 Target zigged left to course 235 T, putting us 4500 yards off starboard track. Shifted to escort E1 as target, came left to course 170 T for 115° track.
- 2237 Submerged to radar depth.
- 2239 Tracking of escort E1 showed that he had zigged back to right, headed toward us. Swung left to cut down gyro angles.
- 2239:50 From 40' depth, fired 6 bow tubes at escort, track 14-22 starboard. Depth setting 3'. Torpedo runs 2000-1700. Spread $\frac{1}{2}$. Started deep.

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17 July 1944 (Cont.)

- 2243:10 Heard one explosion, 3 minutes 20 seconds after firing first torpedo. This could have been a hit on a trailing escort.
2245:11 Two explosions.
2246:28 One explosion.
2246:54 One explosion. These last four could have been end-of-run explosions or random depth-charging.
2323 Surfaced. All clear by radar and sight, although both JP and QB could still hear targets. Set course for CABRA ISLAND at 1 engine speed. Analysis of this firing shows that firing was commenced too soon and that ship's head was swinging during firing. Rerun of problem on TDC however shows at least one hit on target.
2344 Discovered ground in #1 HP Air Compressor. Torpedo in tube #9 was flooded. (After nest had been made ready except for opening after doors.) Two gallons water removed from afterbody and $\frac{1}{2}$ cup from gyro. Same torpedo that had leaky HP lead to reducer. Gave treatment.

18 July 1944

- 0125 Commenced transmitting COD ONE on 8470 Kcs, telling of this task force. Completed transmission by 0130. Authenticated at 0141. VIXO answered immediately and no repeat groups were requested.
Underway enroute CABRA ISLAND in intermittent rain squalls with SJ watch set all day.

19 July 1944

- 0500 Submerged. Closed CABRA ISLAND to $5\frac{1}{2}$ miles and patrolled to westward of it. Heavy swells and whitecaps from SW. Had to use negative twice during periscope observations.
1724 Surfaced. Opened CABRA ISLAND.
2011 Stood up off western approaches to MANILA.

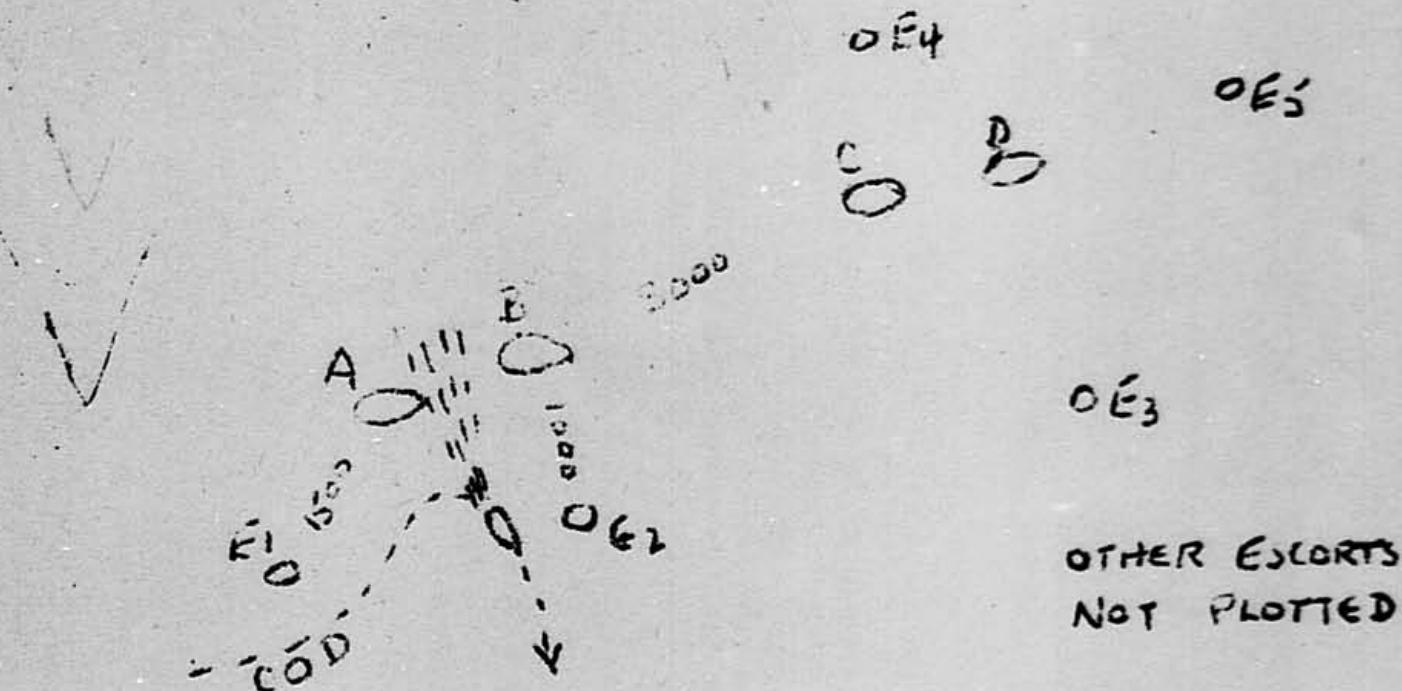
20 July 1944

- Patrolling as before, west of MANILA BAY. Dark, wind, rain, occasional lightning, heavy seas from SW.
ATTACK #4.
0258 SJ contact bearing 012 T, 21,000 yards. Contact #19. Commenced tracking. Target group consisted of 4 large pips with 5 or more escorts, standing down on a southerly course at 9 knots.
0336 Target group changed to easterly course, zigzagging between 075 T and 140 T, heading for MANILA.

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20 July 1944 (Cont.)

FORMATION:



Morning twilight at 0518. Sky was beginning to lighten in east by time COD had pulled up to beam of after group. Haze and rain. Picked target A and commenced maneuvering for stern tube shot.

- 0432 Commenced cutting in ahead of escort El who had pulled up toward target's beam. Closed target's track to 1100 yards, where we had target on our port beam and escort on our starboard quarter, turned right, slowed, and opened outer doors.
- 0444 Fired stern tubes at target A, 1350 torpedo run, 55 track, ship's head almost steady, gyro angles 189 $\frac{1}{2}$ to 195. Plot and TDC checked on course 105, speed 9. Depth setting 3 foot. OOD and JOOD caught glimpses of target during lulls in rain and during lightning flashes. Each estimated a ship of 4000-5000 tons.
- 0445 Ahead full, pulled clear of formation, crossing ahead of escort El.
- 0454 Submerged. Heard escorts pinging on about 17.6 Kcs. No counter attack.

Analysis of this attack shows that a 2 $\frac{1}{2}$ $^{\circ}$ spread was used between torpedoes 1 and 2 and that this was cut down to 1 $\frac{1}{2}$ $^{\circ}$ between subsequent torpedoes. This should have been consistent at about 2 $^{\circ}$, but, even so, 3 hits should have been obtained if the target was of length 300' or more. Radar bearings and ranges were used

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20 July 1944 (Cont.)

- to keep TDC set-up. TDC checked very well at time of firing. Recorded data checked well at analysis. It is felt that hits should and would have been obtained if sea conditions were not too bad for proper performance.
- 1252 Surfaced. Very heavy seas.
- 1404 Commenced transmitting COD TWO on 12705 Kcs. Completed transmitting at 1415. NPM answered first call-up and requested repeat of our call only. NPM authenticated at 1416.
- 1405 SD contact 23 miles. A/C Contact #10. This contact remained on the screen at various ranges for over an hour. Sky was overcast and cloudy with a few breaks in clouds near the sun.
- 1511 Contact had closed to 9 miles; submerged. Working on starboard sound training motor.
- 1823 Surfaced. Standing into APO EAST PASS in rain and heavy seas.

21 July 1944

Transitting APO EAST PASS.

0728 Submerged in CUY' ST PASS.

1822 Surfaced. Received orders to DARWIN.

22 July 1944

In SULU SEA. Passed through numerous rain squalls during day.

0658 Submerged. Fire control drill.

0811 Surfaced.

1107 and 1130 Passed through two large oil slicks in SULU SEA in Lat. 7-15 N., Long. 120-03 E.

1353 Sighted sailboat with square sail bearing 203 T. Contact #20. This was about 40 miles due north of PEARL BANK. Carefully avoided.

1632 Landfall by high periscope on DOC CAN ISLAND. Stood down slowly toward land until PEARL BANK LIGHT had been picked up by periscope.

1713 Submerged. Fire control drill.

1850 Surfaced. Stood down through passage between PEARL BANK and DOC CAN ISLAND. Maximum SJ range on PEARL BANK LIGHT was 14,000 yards.

2250 Stood through SIBUTU PASSAGE. There were no contacts of any sort throughout the night.

23 July 1944

IN CELEBES SEA. Numerous rain squalls.

0520 SJ interference on bearing about 165 T. Possibly PARGO.

0523 Submerged for BT card.

0608 Surfaced.

1252 Fire control drill.

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24 July 1944

Enroute in CELEBES SEA as before. Rain squalls.
0005 SJ landfall on SIAOE ISLAND.
0152 Passed through SIAOE PASSAGE.
0500 Submerged for BT card.
0556 Surfaced.
0602 SD contact 14 miles, closing. A/C Contact #11.
0603 Submerged. Fire control drill.
0948 Surfaced.
1001 SD contact 12 miles. A/C Contact #12. Submerged.
1808 Surfaced.

25 July 1944

In MOLUKKA PASSAGE.
0400 Discovered trim pump crankcase full of salt water
and oil.
0552 Raised LIFUMATOLA ISLAND.
0638 Submerged. Commenced isolating cooling coil
of trim pump. Decided to run submerged patrol
today off NE tip of LIFUMATOLA. Spent entire
day in attempting to close this point against
the current.
ATTACK #5.
1358 Sighted smoke bearing 168 T, about 20,000 yards.
Contact #21.
1400 Sighted float type plane "Pete" in vicinity of
smoke. A/C Contact #13. This plane was not
seen again.
1400 Commenced tracking smoke. We were not 8.5
miles off the NE tip of LIFUMATOLA. Assumed
target was going to round the point close aboard,
so set course to close the beach and head him
off. Smoke developed through the periscope into
a convoy of three AK's and four escorts, in the
following disposition:

○ E3 = SC?

E4 - SC? C ○

○ E2 = AM 13

B ○ ○ A

○ E1 = CHIDORI

All three AK's were MFM steamers, with raised 1,
2, & 3 islands, composite superstructures, counter
sterns, and high funnels. A & B had guns fore
and aft. C had a gun aft only. B, the largest,

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25 July 1944 (Cont'd)

was similar to MAREI MARU on p. 128 of ONI 208-J Revised, and A was similar to SAMARANG MARU on p. 130. No tentative identification of C could be made, as it had a large mast on the No. 1 island, an illustration of which can not be found.

COD was well off to starboard of formation with one torpedo forward. Intention was to pass just ahead or astern of the CHIDORI (E1) and fire at target B. Target group passed close to beach, however, and we could not get closer than 6000 yards to any ship.

All four escorts were pinging on about 18 Kcs.

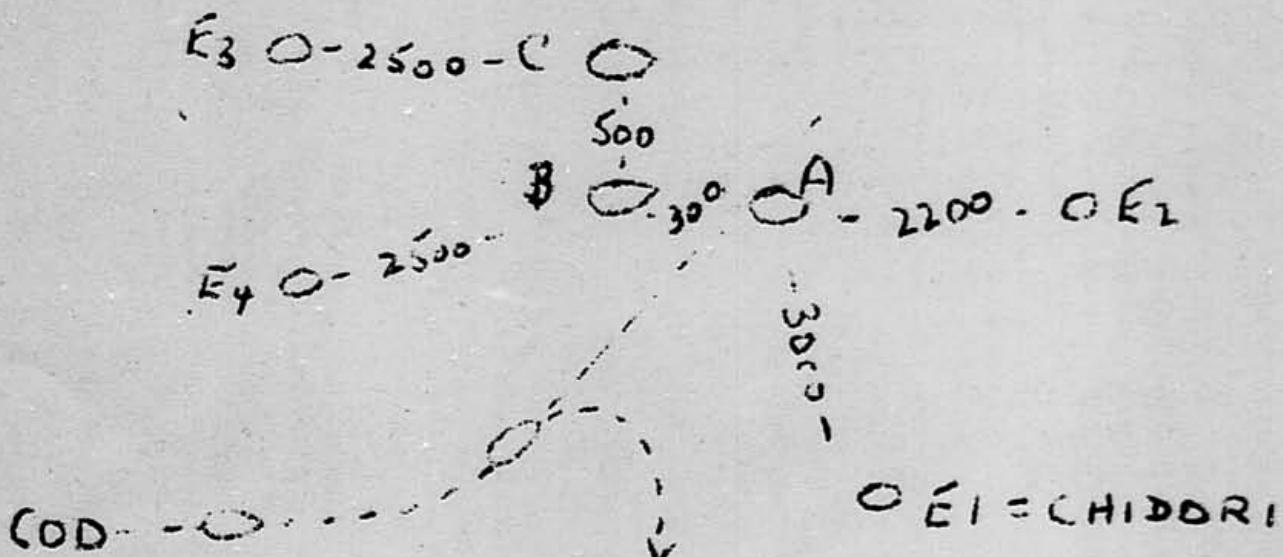
At one time when COD was making standard speed between looks, the CHIDORI shifted to hand keying, trained in our direction, and held key down. By the time we had slowed to 1/3 speed and had raised the periscope, he had resumed his regular pinging and turned back to rejoin his formation, showing us an 150° starboard angle on the bow. Range over 8,000.

Very good looks at the CHIDORI were obtained as the target group went by. The AM #13 was fairly well identified. Only the tops of the SCs were seen and their identification is questionable.

Target speed 8 knots. Course about 290 T.

- 1710 Smoke of targets disappeared.
1809 Surfaced. Chasing; charging batteries and air.
1930 Intercepted transmission in aircraft code on 2880 Kcs, apparently from wolf-pack off MANILA, distant about 1100 miles.
1943 SJ contact $233\frac{1}{2}$ T, 16,500 yards. Contact #22. Same target group. Bright moon in west. COD commenced trailing from astern at about 7,000 yards. Target formation:

MANGOLI ISL.



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25 July 1944 (Cont'd)

Base course 270 T, speed 7 3/4.

All escorts were patrolling stations. The CHIDORI on the starboard flank, in particular, would range out to about 5000 yards and then back, necessitating that we track him at times to be sure that he had not spotted us. The small escorts, E3 and E4 would sweep back and forth across the stern.

2132 Moonset. COD then closed the formation at one-generator speed and joined the screen, astern of the CHIDORI. 1½ minutes after a zig to the right COD swung left and at

2155 Fired torpedo at target B. 134.5 starboard track. Gyro 001 3/4, ship's head steady, torpedo run 3800. TBT bearings. Radar ranges. Two ships overlapping. Good set-up. Swung right and pulled clear on 2 generators, working up later to full speed on 4.

2157 2 minutes and 30 seconds after firing, explosion was heard below decks. Target turned on red mast-head light and flashed it vigorously. Target was tracked at speed $\frac{1}{2}$ knot by TDC. Radar target pip diminished in size. One escort commenced flashing a white light, either an all-around light, or one which was trained on COD. We did not reply.

2210 Observed 3 flashes of flame from direction of target.

2229 Radio heard tuning on 475 Kcs; no transmission.

2235 Set course for DARWIN.

2336 Lookout saw flash from direction of target.

All of the above adds up to a lot of circumstantial evidence from a ship that was very anxious to have a hit. No explosion was observed from the bridge, but a hit is claimed in ship similar to MAREI MARU on p. 128 of ONI 208-J Revised.

26 July 1944

In MOLUKKA SEA.

0435 Ran through patch of discolored water 8 miles off Southern tip of SANANA ISLAND, Lat. 2-25 S., Long. 126-11 E.

0605 Lookout sighted plane. A/C Contact #14. Submerged. This was just west of BURU ISLAND. Sky overcast.

0712 Surfaced.

0742 SD contact, 12 miles. A/C Contact #15. Submerged.

0852 Surfaced.

1005 SD contact, 16 miles, opening. A/C Contact #16. Pip faded out at 16½ miles.

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26 July 1944 (Cont'd)

1030 SD contact, 16 miles, closing. A/C Contact #17.

1034 Submerged.

1225 Surfaced.

1226 SD contact, 16 miles, opening. A/C Contact #18.

Faded out at 17 miles.

1335 SD contact 10 miles, closing. A/C Contact #19.

Submerged.

1440 At 65 feet sound operator heard loud noise which he identified as a torpedo. Went to 150'. Noise was not from within boat; probably fish.

1800 Surfaced.

2124 Commenced transmitting COD THREE on 8470 Kcs, giving time of arrival at Darwin and reporting last attack. Completed transmission by 2128.

VIXØ answered immediately and received at

2130. No repeat groups were requested. NPM

and Radio BELCONNEN also answered initial call-up.

27 July 1944

In BANDA SEA.

0058 Intercepted transmission in aircraft code on 2880 Kcs. from wolf-pack off Manila, giving position, distant 1200 miles. Strength four. Modulation excellent.

0838 Raised WETAR ISLAND.

1115 Raised GOENUNG API ISLAND.

1207 SD contact, 11 miles, closing. A/C Contact #20. Submerged.

1805 Surfaced.

2155 In passage between WETAR and ROMANG ISLANDS lookout sighted sailboat at 3100 yards. Avoided. Contact #23.

28 July 1944

0724 SD contact 13 miles, closing. A/C Contact #21. Submerged.

0825 Surfaced.

1225 SD contacts 19 and 20 miles. A/C Contact #22. Submerged. Fire control drill.

1413 Surfaced.

1648 Sighted float plane. A/C Contact #23. Submerged.

1741 Surfaced.

1826 #2 High Pressure Air Compressor out of commission due to failure of circulation water pump bearing.

2114 SJ radar interference. Probably BLUEFISH.

2244 Commenced transmitting COD FOUR on 8470 Kcs.

VIXØ answered initial call-up immediately. Heavy MCW jamming signals interferred with our reception of VIXØ, who was asking for repeats of certain

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28 July 1944 (Cont'd)

groups. Retransmitted. VIXØ received and authenticated at 2303. This message requested that complete circulating water pump for H. P. air compressor be delivered to DARWIN.

29 July 1944

0630 Raised MELVILLE ISLAND.
0652 Sighted HMAS M.L. 814, escort.
0805 Sighted BLUEFISH.
0840 Stood into DARWIN.
1058 Moored to Boom Jetty. Commenced loading 24 torpedoes, fuel, water, mail, and food. Section Base commenced welding patches on 2 main engine exhaust elbows. Made tentative plans with BLUEFISH for impromptu wolf-packing.

30 July 1944.

At DARWIN
1030 Shifted berth to Main Jetty.
1530 Transferred gunner's mate to Dispensary (gastritis).
1610 Captain John B. GRIGGS, U.S.N., ComSubRon 12, came on board. Received notification to OpOrd, assigning patrol area south and east of CELEBES.

31 July 1944

At DARWIN.
1810 Received H. P. Air Compressor parts.
1822 Underway in accordance with CTF 71 Secret Mailgram. Made trim dive. Made two night moonlight approaches surface and submerged on BLUEFISH. Acted as target for three runs by BLUEFISH.

1 August 1944

Underway as before in safety lane leaving DARWIN.
0225 Completed night training exercises with BLUEFISH.
0859 Made submerged approach on BLUEFISH and acted as target.
1644 Sighted plane. A/C Contact #24. Submerged.
1729 Surfaced. Set 4-generator speed.
1755 Exchanged calls with BLUEFISH. BLUEFISH suggested a wolf-pack on routes leading north from AMBON. Told BLUEFISH to proceed at best speed to patrol north from LIFUMATOLA ISLAND, and that COD was proceeding at four engines and would patrol east and south of same island.

2 August 1944

Underway as before on 4 main generators.
0713 SD contact 11 miles. A/C Contact #25. Submerged.
0802 Surfaced.

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2 August 1944 (Cont'd)

- 1129 SD contact 24 miles. A/C Contact #25. Contact closed to 23 miles, then opened and faded.
1445 SD contact 17 miles. A/C Contact #27. Contact faded at 14 miles; reappeared at 9 miles. Submerged.
1555 Surfaced.
1601 SD contact 12 miles. A/C Contact #28. Submerged.
1640 Surfaced.
1720 Raised BURU ISLAND.

3 August 1944

- Underway as before on 4 main generators.
0030 Raised LIFUM TOLI ISLAND. Rounded this island and made sweep to westward along north coast of MANGOLI.
ATTACK #6
0141 Sighted ship bearing 271.5 T, range 13,000 yards. Contact #24. Commenced tracking.
0148 Battle stations. Target proved to be 1 medium AK or AP-AK escorted by a small escort vessel. Escort was to forward of target. Zigging on 4-12 minute log. Very bright moon low in west. Flat calm sea. 7 knots. Course 275 T. Target had raised 1, 2, & 3 islands, MFM sequence, a fairly heavy block superstructure, raked bow, short and fairly broad stack. Heavy masts. Estimated tonnage 4000-5000 tons. Vessel was similar in appearance to PALAU MARU (p. 40, ONI 208-J, revised) but with higher 1 and 3 islands; it was also similar to SINSEI MARU (p. 101) but without goal posts and with higher 1 and 3 islands. C. O.'s estimate is 1 AK or AP-AK, (EU) 4500 tons.

In view of the brightness of the moonlight it was considered by everyone on the bridge (except C. O.) that the most practicable method of attack would be by end-around and submerged attack from ahead. The C.O. felt that it would be feasible to sneak up on the port quarter of the target to about 3500 yards, making use of the land background. When this position has been reached COD slowed and waited for target to zig to left. Target, however, sighted COD at about this time, signalled to escort, and commenced turn to right to investigate. COD started turn to right, hoping that target was executing a routine zig. When target came completely around and headed for COD, COD turned left and submerged to periscope depth. Target showed zero angle on bow and speeded up. Escort came over to starboard side of target. COD pulled off target's track to starboard and completed making ready stern tubes. Fed periscope bearings and angles on bow into TDC, no ranges attempted in the moonlight.

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3 August 1944 (Cont'd)

0225 Fired 4, spread by periscope, gyro angles 163 to 178, track angles 57 to 72, torpedo runs averaged 500 yards. Heard and saw three hits, completely enveloping target in black smoke; swung periscope to escort who was showing a zero angle on bow, impossible to judge range in moonlight. Went deep and headed for beach, gradually changing course to east and northeast.

Escort dropped 4 depth charges and indulged in considerable gunfire (heard by sound). Loud and unmistakeable breaking up noises from direction of target. No pinging by escort who soon left area on bearing 334 T. Escort screws were only screws heard.

0304 All clear by periscope. Large oil slick where target had been. Target gone. Escort had left.

0320 Surfaced. Circled through oil slick, much debris, lifeboat, and Japs in water.

0358 Pit log rodmeter struck debris and was bent, preventing withdrawal. Jettisoned and installed spare. Set course for LIFUMATOLA.

0445 SJ interference from south, across LIFUMATOLA. Probably BLUEFISH.

0511 Rounded LIFUMATOLA ISLAND.

0524 SJ contact with BLUEFISH. Exchanged c 11s.

0527 Sighted BLUEFISH. Closed and ranged close aboard. Warned him by megaphone of sinking in area earlier in morning; told him to watch point at eastern end of LIFUMATOLA; and that COD would work to southward, near tip of SANANA ISLAND. The decision to leave BLUEFISH at this point was governed by consideration of fuel, which was a critical factor for BLUEFISH, but not for COD.

0545 After speaking BLUEFISH, while still ranged close aboard, C.O. BLUEFISH pointed aloft and cleared bridge. A/C Contact #29. Bluefish and COD submerged. Plane not sighted.

After submerging, the rain clouds, which had been obscuring the land and had thus permitted this conversation on the surface, cleared away, leaving COD submerged in plain sight of beach and on BLUEFISH's patrol spot. Commenced working off the land to the southward, submerged.

1247 Sighted float plane "PETE" and masts of two ships through periscope. Bearing 177 T, range 16,000 yards. A/C Contact #30. Contact #25. Drawing to west. Went to normal approach course, full speed. Targets disappeared on course about 240 T, speed 7-9 knots. Escorting plane stayed in sight, climbing and covering a wide area. Assumed targets (a) were going to round southern tip of SANANA and head southwest, in which case we could

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3 August 1944 (Cont.)

- surface and catch them, or (b) were going to work up the east coast of SANANA and round LIUMATOIA to the eastward, which would follow the precedent set by our last two convoys and in this case would take them right over BLUEFISH. Commenced opening land again.
- 1524 Sighted patrol plane "LILY", bearing 001 T. A/C Contact #31. This plane apparently was not connected with our two ships.
- 1559 Surfaced; set out after ships.
- 1624 Sighted plane "RUFFE" bearing 228 T, 40 miles. All clear on SD. A/C Contact #32.
- 1638 SD contact, 11 miles, closing. A/C Contact #33. Submerged.
- 1746 Surfaced; set out in pursuit of ships again.
- 2004 Rounded SANANA ISLAND. Decided to investigate possibility of ships standing through MANGOLI STRAIT, so accordingly set course up west coast of SANANA ISLAND.
- 2103 Received message from BLUEFISH on 2880 Kcs. voice that unless otherwise directed he would depart at 0100. Acknowledged. This would give our last contact plenty of time to reach BLUEFISH, in case the convoy went north.
- 2226 Off western entrance to MANGOLI STRAIT. All clear. Commenced working along southern shore of MANGOLI to westward at 4 generator speed.

4 August 1944

- 0157 Reversed course to eastward.
- 0459 Submerged west of MANGOLI STRAIT. 3 miles off beach. Poor visibility at times during day.
- 0701 Sighted plane "RUFFE" bearing 079 T. A/C Contact #34.
- 0759 JP contact bearing 190 T. Nothing on QB. Planed up; nothing by high periscope. Identified as pit log motor.
- 0917 Sighted float biplane bearing 168 T. A/C Contact #35.
- 0947 Sighted float biplane bearing 285 T. A/C Contact #36.
- 1208 Sighted 4-engine plane similar to "MAVIS" bearing 000 T. A/C Contact #37.
- 1821 Surfaced. Set course for southern entrance to GREYHOUND STRAIT.

5 August 1944

- 0102 Arrived off anchorage (just west of GREYHOUND STRAIT) enclosed by GREAT SILVER, LITTLE SILVER, and MISEPEI ISLANDS. Lowered sound head (to listen for shoal noises), slowed to 3 knots, and surveyed

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5 August 1944 (Cont.)

- anchorage from 1 mile south of reef. All clear by radar and binoculars in moonlight.
- 0137 Commenced patrolling south of anchorage.
- 0459 Set course for SALABANGKA ISLANDS north of KENDARI.
- 0540 Sighted plane bearing 095 T. A/C Contact #38. Submerged.
- 0648 Surfaced.
- 0858 SD contact 30 miles. A/C Contact #39. Faded.
- 0915 SD contact 12 miles. A/C Contact #40. Submerged.
- 1021 Surfaced.
- 1108 Raised CELEBES coast.
- 1128 Sighted 2 sailboats. Contact #26. Avoided.
- 1154 Sighted sailboat. Contact #27. Avoided.
- 1222 Commenced patrolling off SALABANGKA ISLANDS.

6 August 1944

- 0506 Submerged. Investigated anchorage at UMBELI ISLAND. All clear. Do not believe anchorage north of this island would be used by convoys. Commenced patrol NW of this island.
- 1424 Sighted small trawler bearing 262 T standing out of western end of SILBINGKA STRAIT via channel northwest of PAPIDO ISLAND. Contact #23. MFM with large bowsprit. After deck-house. Very similar to the typical SAN DIEGO tuna boat. Hoped he was leading out a convoy or going to meet one. Closed him and fell in astern. No pinging.
- 1530 Trawler disappeared to north.
- 1749 Surfaced. Ran search to north and west for trawler with no success. Returned to channel from which he had stood out.

7 August 1944

- 0451 Submerged off western entrance to SILBINGKA STRAIT. No contacts.
- 1824 Surfaced. Set course to patrol across GREYHOUND STRAIT.
- 1830 Gyro compass out of commission while pumping up low vacuum in south rotor. Back in commission at 2154.
- 2044 SJ contact bearing 024 T, 9400 yards. Contact #29. This target when first picked up was steaming on a westerly course then came to north, east, and south. Speed 6 knots. Pinging. Concluded he was the trawler which had been sighted yesterday, or another A/S vessel patrolling between SILBINGKA and GREYHOUND STRAIT. He

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7 August 1944 (Cont.)

eventually settled on base course about 175 T, heading for KENDARI. Chased him and closed to where he could be seen from bridge in bright moonlight. Appeared small. Small radar pip. Ceased tracking and let him go. JOOD wanted to shoot him. Perhaps he was right.

8 August 1944

0141 Broke off from target above. Decision not to shoot this target with torpedoes was governed by his small size and his peculiar actions when first sighted.

Set course for surface patrol across southern approaches to GREYHOUND STRAIT.

0538 Lookout sighted sailboat bearing 094 T. Contact #30. Avoided.

1430 Plankton.

9 August 1944

Patrolling east of KENDARI.

0826 Interference on SD radar.

0858 SD contact, 7 miles. A/C Contact #41.

0947 Surf. ced. Started working down toward BUTON PASSAGE.

1500 SD contact, 22 miles. A/C Contact #42. Faded.

1545 SD contact, 16 miles. A/C Contact #43. Faded at 17.5 miles.

1836 Flashing light on BUTON ISLAND.

1850 SJ contact bearing 225 T, 7500 yards. Contact #31. This contact was in the middle of the northern end of BUTON PASSAGE, making 6 knots, back and forth across the entrance. Ran around to westward.

1939 SJ contact bearing 106 T, 6650 yards. Contact #32. Following same tactics as above contact. To avoid being sighted we were forced over to the limit of the deep water, 2200 yards from the beach.

2016 SJ contact bearing 198 T, 5600 yards. Contact #33. Ran around this one to the eastward. BUTON PASSAGE is the best patrolled of any strait we have seen on this patrol.

2041 Followed shore of BUTON ISLAND and headed up to GULF of BONI.

10 August 1944

Patrolling across route from SALEHL STRAIT to TICRO STRAIT.

0547 Submerged for BT card.

0632 Surfaced.

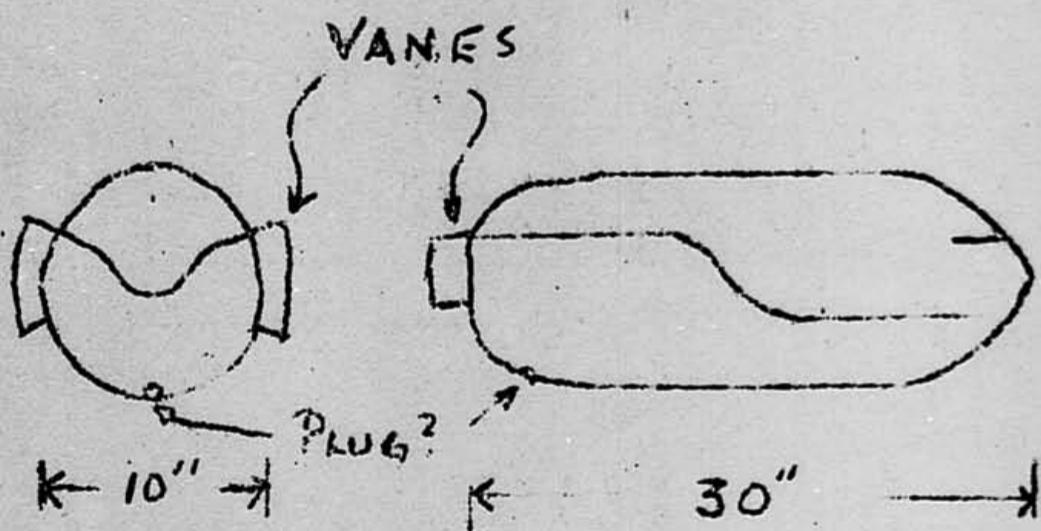
ATTACK #7

0930 High periscope sighted msts bearing 295 T, 20,000 yards. Contact #34. Worked around to

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10 August 1944 (Cont'd)

- position ahead of target. Course 072 T, speed 7.5 knots. Yawing, but apparently not zigging. MFM steamer, raised 1, 2, & 3 islands, block superstructure. Could not identify. Obtained prisoner who may be able to amplify through an interpreter, but C.O.'s estimate is small AK or naval auxiliary (EU), 2000 tons.
- 0942 SD contact, 20 miles. A/C Contact #44. Faded.
- 1018 SD contact, 30 miles. Land (KIBAENA ISLAND).
- 1039 Submerged ahead of target. Commenced approach.
- 1144 Fired 4 bow tubes, 92.5 to 99.5 track, 1400 yard torpedo run, gyro angles 004.5 to 011, spread by periscope. Saw and heard 3 hits. Target disappeared from sight almost at once, leaving a cloud of white smoke. Breaking up noises. Photographed smoke.
- 1156 Surfaced. Oil slick, much debris, boxes, 3 life rings painted in alternate red and white segments, and one notebook about 5" x 8" in water. There were about 24 objects floating in water which had the appearance of empty water-bombs. Sketch (from memory):



- They appeared to be made of sheet metal. All were avoided by COD. Flooded down and attempted to salvage notebook; it sank before being reached.
- 1159 SD contact 20 miles. A/C Contact #45. Closed, then opened to 22 miles and faded.
- While examining wreckage a head was noted popping up from a large floating box. Closed and found man inside. He was glad to be rescued; made him prisoner. Placed under care of PhM.
- 1306 Set course for SALEIER STRAIT having been pulled over to eastward. Resumed patrol.

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10 August 1944 (Cont'd)

0018 Submerged. Rigged #4 F.B.T. as ballast tank and
0028 flushed out.

0051 Surfaced. Patrolling as before.

ATTACK #8

2215 SJ contact 080 T, 10,000 yards. Contact #35.

Commenced tracking. Target was on base course
265 T, speed 9, heading for SALLIER STRAIT.

Zigging about 5° on either side. Engines aft.

Mast forward (observed while he was sinking
with bow out of water). No other identification
secured. C.O.'s estimate: Unidentified (UN).
About 4000 T. Officer at the periscope during
the shooting judged it was smaller.

2243 Started in for surface attack.

2252 Fired 4 bow tubes, 67.5 to 70 track, 359 to 002.5
gyro angle, average torpedo run 2100 yards.

Saw and heard one explosion at target's bow.

2257 Heard and felt a tremendous explosion which shook
the boat. Target showed flashes and flares,
turned to course 320, was tracked at 10 knots for
a few minutes, then slowed to 6, worked up to 8,
showered sparks from his stern, and commenced
zigging on base course 285. Target appeared to
be down by bow; this was later verified through
periscope.

2300 Commenced reload and end-around.

2356 Submerged. Radar and periscope approach.

11 August 1944

0019 Fired 4 bow tubes. Track angle 94 to 101.2.

Gyro angles 354 to 002 $\frac{1}{4}$. Spotted by periscope.
Average torpedo run 1100 yards. Heard and saw
one hit. Target was observed to sink by stern,
bow finally going under at 0040.

0025 Explosion.

0027 Explosion.

Commenced reload, and retuning after nest which
had been made ready. Torpedo in tube #8 had
gyro flooded and 8 gallons of water in afterbody.
Gave treatment. Subsequently, on 14 August,
this torpedo was heard by sound to run normally.

0138 Surfaced. Set course for southern tip of SALLIER
ISLAND.

0254 SJ contact bearing 172 T, 4050 yards. Contact
#36. Tracked at 2 knots. Assumed to be sail-
boat. Avoided.

0519 Submerged. Periscope patrol at southern tip of
SALLIER.

0738 Sighted sailboat bearing 308 T. Contact #37.
Avoided.

0956 Sighted two sailboats bearing 180 T. Contact
#38. Avoided.

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11 August 1944 (Cont'd)

- 1849 Surfaced. Set course up GULF of BONI to patrol routes from SALLEIER STRAIT to TIORO TRAIT.
2246 SJ contact bearing 082 T, 4900 yards. Contact #39. Sailboat. Went on by.

12 August 1944

- Patrolling in GULF of BONI.
0554 JOOD sighted unidentified monoplane, 8 miles. A/C contact #46. Submerged.
0701 Surfaced.
1554 Set course for eastern part of area.

13 August 1944

- 0735 Submerged for BT card.
0802 Surfaced.
0915 JOOD sighted possible periscope feather bearing 170 relative, 1000 yards. Evaded at full speed on surface. Contact #40.
GUN ATTACK #1
1341 Lookout sighted smoke bearing 256 T, 20,000 yards. Contact #41. Commenced tracking from ahead with high periscope. Base course 055. Zigging from 030 to 090. Heading for AMBON from vicinity of TUKANG BESSI ISLANDS (SE of CELEBES).
1509 Submerged ahead of target. Started approach. Target identified as a two-masted landing barge. Could make out only one gun, on bow, which was judged to be of about 20 mm size. Could not obtain ping range at stadiometer range of 2200 yards.
1639 Let target go by and set battle surface stations for 4" gun.
1633 Battle surface. TDC range 6000 yards. Initial radar range turned out to be 11,000 yards. Fired 22 rounds. Target zigged violently and smoked heavily from funnel (black smoke). Crossed target and scored 3 close overs, one in deflection, 1 possible hit.

At range about 9300, target fired a gun from stern. Splash 250 yards short. Gun estimated to be of 3"15 calibre from range and size of splash. Cleared deck. Target fired again. Put rudder 10° left and waited for fall of shot. Swing was well underway by time of splash. Splash 150 yards short, broad on starboard bow. Range 9130. Good shooting.

- 1644 Submerged. Followed target.

Analysis: Range error on surfacing indicated a mast-head height of about 55'. (We had used 30'.) Target speed worked out as 12-14 knots. As viewed from deck and bridge, target was a good-size ship, comparable to our LSTs. Long and narrow. Shallow bow, fitted with a ramp. Light high speed

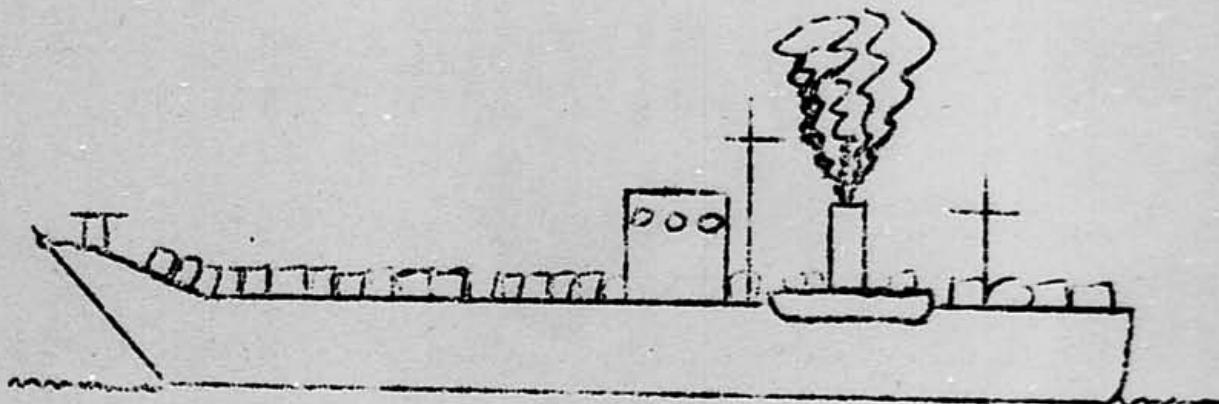
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13 August 1944 (Cont'd)

screws. Steam driven. Gray color. Bridge similar to that of a submarine. Two masts. Size and range of gun indicated a good-size ship. Observed heavy deck load. Enemy gun flashes were of a deep reddish tinge, rather than orange. Both splashes white. Decided to attack with torpedoes by moonlight.

No identification data for this craft on board.

Sketch (from memory):



Subsequently this ship was picked up by SJ radar at range of 22,000 yards, which apparently justified decision to use torpedoes.

- 1732 Surfaced; target out of sight on bearing 030 T; last course 020 T. Chased at 100% power.
1739 Smoke from target. Haze to northward.
1757 Sunset. Chased on last bearing for one hour. No contact. Commanded search from the flank, covering target's courses from north to east, speeds 12 to 14. COD speed 17. Intended to follow retiring search curve to target's 0039 circle and to then patrol across approaches to AMBON.
2143 SJ contact on target bearing 126 T, 22,000 yards. Contact 42. Tracked target and made end-around. Target speed 12.8 to 13.1 knots. Base course 065, zigging from 040 to 090.

14 August 1944

- 0134 Submerged to radar depth. 4 torpedoes forward, 4 aft. Maneuvered for stern tube shot.
0140 Moonrise. Moon was obscured; stayed at radar depth until after shooting.
0155 Fired 4 torpedoes. 120 to 136 track. Average torpedo run 1090 yards. Gyro angles 200.5 to 184. Radar ranges. Spread by periscope. Target had just zigged. Saw and heard 3 hits. Stern was blown off. Bow remained afloat,

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14 August 1944 (Cont'd)
smoking, until 0207 when it was seen to sink through periscope.

0201 Heavy explosion. Breaking up noises. Long-continued, rapid, persistent and extraordinary explosions from target, of varying intensities. Apparently ammunition in cargo.

0220 Surfaced. Circled spot of sinking. Propulsion on battery. Heard explosions continuing from sunken target. Debris, possible lifeboat, large oil slick on surface. Strong odor of fuel oil. Moonlight.

0233 Cleared area to southward, working to westward to round BURU ISLAND.

0526 Submerged in unrestricted bombing area. Routined torpedoes. Inspected engines. Periscope patrol.

1620 Surfaced. Wheats. Set course to patrol across pass between BURU and SAVANA ISLANDS.

1936 SJ contact bearing 001°, 6250 yards. Contact #43. Tracked on course 210 T, speed 5. Closed. Very small through binoculars. Avoided.

15 August 1944

0214 Set course for patrol across route from MANIPA STRAIT to LIFUM TOLA.

0244 SJ contact bearing 055 T, range 1250. Tracked at speed 0. Probably a log.

0541 Submerged for BT card.

0624 Surfaced.

0720 SD contact 7 miles, closing. A/C Contact #48.

0730 Submerged.

0832 At 50'. Interference on SD.

0930 Surfaced.

0933 and 0950 Interference on SD.

1222 Interference on SD, followed by SD contact 4 miles. A/C Contact #49. Submerged.

1334 Surfaced.

1414 SD contact, 6.5 miles. A/C contact #50. Submerged.

1534 Surfaced.

1700 Set course to northward, intending to round LIFUM/TOLA and work in northern part of area.

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15 August 1944 (Cont'd)

Analysis: If the contact is heading west for KENDARI (as first reported) or should head east for AMBON (which is a shorter run) we are too far behind to catch him. If he should be heading south (as once reported, and is run between positions would indicate) there is no probable destination other than DILLI or KOPENING. We will be able to overtake him only if he is headed in a southerly direction. Accordingly, set course for northern entrance to CMBII PASSAGE.

16 August 1944

- 0222 SJ interference bearing 150 T. Prob bly HKE. No sign ls received.
1019 SD contact, 10 miles, closing. A/C Contact #51. Submerged.
1126 Surfaced.
1145 High periscope sighted "EMILY" or MARTIN bomber bearing 075 T. Submerged.
1249 Surfaced.
2056 Commenced patrol back and forth between ALOR and WETAR ISLANDS. Noise and sparks from #2 M. E. muffler.

17 August 1944

- 0000 Set course for SALEIER STRIT area.
1525 Lookout sighted sailboat bearing 292 T. Contact #44. Avoided.
2035 SJ contact bearing 324 T, 6600 yds. Contact #45. Course 350, speed 3. Sailboat. Avoided.
2155 OOD and JOCD sighted a bright light bearing 358 T. Estimated range 8000 yards. Described as either a searchlight or flare. COD position: Lat. 6-17.0 S., Long. 121-50.5 E. Headed on bearing of light and ran for 6 miles. No contact.

18 August 1944

- 0210 Took up patrol across route from SALEIER STRIT to TIORO STRIT.
0602 Submerged for BT card.
0702 Sighted sailboat bearing 093 T. Contact #46. Sailboat on southwesterly course. OOD wanted to shoot this sailboat. Let him go by and get out of sight before surfacing. Would have done better to destroy it.
0932 At 50'. Interference on SD.
1020 Surfaced.
1443 High periscope sighted sailboat bearing 033 T. Contact #47. Avoided.
ATTCK #10
1631 Lookout sighted smoke bearing 312 T. Contact #48. Commenced tracking by high periscope. Northeasterly course. Speed 8.

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18 August 1944 (Cont'd)

- 1656 Lookout sighted sailboat bearing 000 T. Contact #49. From its appearance this was the same craft which had been sighted at 0702 (Contact #46). It was now 15 miles north (and cross-wind) of its position this morning. Lying to. COD made a run to eastward around this sailboat and then northeast to get ahead of smoke.
- Through the high periscope the smoking target could not be identified. A single tall funnel was sighted, elongated block superstructure, with an occasional glimpse of forecastle and bow. Target smoked continuously. Zigging from 050 to 070 at speed 8. Destination could be POMELAA or TIORO STRAIT.
- 1757 Sunset. As light began to fail in east, closed to track by radar.
- 1801 Interference on SD.
- 1930 Submerged to radar depth. Target not pinging. Fired 4 torpedoes forward. Started approach. When 1500 yards off track, target in sight through periscope, closing on an 80° starboard track, target turned on white light. Was about to go to periscope depth, when sound reported target's screws stopped. Stayed at radar depth and continued tracking. Target tracked on same course and speed for 3 sets of ranges and bearings.
- 2001 Fired 4 bow tubes. Track 57.7 to 61.2, gyro 338.7 to 342.2, average torpedo run 1595, radar ranges, periscope bearings, 1° divergent spread, off-set toward target's stern by 10°. No observed hits. No explosions heard. Target continued to track on same course and speed until torpedoes were due to hit. All torpedoes heard running normally by sound.
- 2002 Started deep.
- 2003 (Approx) Heard the rush of water usually accompanying an underwater explosion, but heard no explosion. Analysis: Recorded data checks very well. 2 hits should have been obtained if target had a length of 50 yards. If target was missed altogether (as seemed indicated at this stage of the proceedings) it was probably due to small size of target. C.O. believed that he had been drawn off to northward of SALEIER-TIORO direct route by a small heavy smoker.
- 2014 Two noises on JP, sounded like splashes.
- 2055 At periscope depth. Searchlight on port quarter.
- 2112 Surfaced. Radar picked up target, bearing thirty degrees to left of searchlight, range 5500. Target tracked as stopped. No radar pip on bearing of searchlight, but searchlight was not believed to be as far distant as the beach. This would indicate a rendezvous between our target and another vessel. Searchlight was turned on and off at

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18 August 1944 (Cont'd)

intervals. Target continued to plot as stopped.
No explanation. No damage claimed.
Torpedoes expended. Set course out of GULF OF
BONI.

19 August 1944

0053 OOD sighted a searchlight bearing 121 T. COD position: Lat. 5-49 S., Long. 121-39 E. Avoided. In conjunction with the light sighted at 2155 on 17 August, this could be taken to indicate some unexplained enemy activity off the western entrance to TIORO STRAIT.
0316 SJ contact bearing 198 T, 2250 yards. Contact #50. Sailboat. Avoided.
0525 Lookout sighted sailboat bearing 126 T, 1300 yards. Contact #51. Avoided.
0934 High periscope sighted sailboat bearing 142 T, 16,000 yards. Contact #52. Avoided.
1600 SD contact 10 miles, closed to 8.5. A/C Contact #53. Submerged.
1702 Surfaced.
2030 Entered OMBAI PASSAGE. Paralleled coast of ALOR at range of 6-7 miles. No contacts until fishing vessels in early morning. Sighted brush fires on TIMOR and large fire or volcano on southern point of PANTAR.

20 August 1944

0244, 0412, 0423 SJ contacts on sailboats. Contacts #53, #54, & #55. Avoided.
1651. OOD sighted plane, 5 miles. A/C Contact #54. Submerged.
1823 Surfaced.

21 August 1944

0405 Interference on SJ to southeast. Challenged by hand-keying at 0450 with no reply Possibly BLUE-GILL.
0605 Interference on SD.
0708 Commenced transmitting COD FIVE on 8470 Kcs. VIXØ answered initial call-up immediately. CW jamming by enemy, strength 3, not continuous, not effective. Repeated 6 groups. VIXØ received and authenticated at 0728. This message gave results of last 5 attacks and ETA FREMANTLE.

21-24 August 1944

Enroute FREMANTLE.

25 August 1944

Arrived FREMANTLE, W. A. Captain John B. GRIGGS, USN left the ship, to the regret of the entire ship's company.

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(C) WEATHER

No unusual conditions.

(D) (E) TIDAL INFORMATION
NAVIGATIONAL AIDS

No navigational aids or unusual currents were noted other than those covered in the sailing directions. While transiting OMBAI PASSAGE active volcano presumed to be DLAKI DLAMA on PANTAR ISLAND was observed from 35 miles distant. This was located on southern tip of island near TANJUNG BODO.

(F) SHIP CONTACTS

P - Periscope
R - Radar
SD - Surface Day
SN - Surface Night

No	Time Date	Lat. Long.	Type	Ihi- tial Range	Est. Cou- rse	Speed How	Con- tact- ed	Remarks
1	2050 7/9	08-46S 115-46E	PC	11,520	8	290- 350	R	Ran Around
2	0547 7/10	07-00S 116-23E	Sail	14,000	2	260	SD	Sub- merged
3	0348 7/11	03-23S 118-45E	Sail	6,750	1	135	SN	Avoided
4	0532 7/11	03-03S 118-43E	Sail	6,000	0	--	SN	Ignored
5	0539 7/11	03-03S 118-43E	Sail	3,250	0	--	SN	Ignored
6	0541 7/11	03-03S 118-43E	Sail	6,850	0	--	R	Ignored
7	0543 7/11	03-03S 118-43E	Sail	2,050	0	--	SN & R	Ignored
8	0546 7/11	03-03S 118-43E	Sail	8,000	0	--	SD	Ignored

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(F) SHIP CONTACTS (CONT.)

No	Date	Time	Lat.	Long.	Type	Ini- tial Range	Est. Cou- rse	Speed	How Con- tact- ed	Remarks
9	7/11	0845	02-20S	118-27E	Sail	12,000	1	270	SD	Avoided
10	7/11	1053	02-13S	118-25E	Sail	12,000	1	270	SD	Avoided
11	7/11	1609	01-16S	117-54E	Sail	10,000	2	270	P	Avoided
12	7/11	1814	00-58S	117-50E	Sail	14,000	1	270	SD	Avoided
13	7/13	1941	04-41.5N	119-43.5E	Sail	2,500	--	--	R	Ignored
14	7/13	2056	05-01.5N	119-34.7E	Sail	3,950	--	--	R	Ignored
15	7/13	2124	05-08.0N	119-32.5E	Sail	1,100	--	--	R	Ignored
16	7/16	0510	12-53.1N	119-43.0E	AKs	11,000	8	210	SN	Attack #1
17	7/16	2307	11-10.4N	118-21.9E	AKs	10,000	8	210	R	Attack #2
18	7/17	2154	12-23.7N	116-31.8E	2 Heavy vies 5 Escorts	23,900	19	270	R	Attack #3
19	7/20	0258	14-22.1N	119-26.7E	4 Large 5 or More Escorts	21,000	9	200	R	Attack #4
20	7/22	1353	06-40.0N	119-38.8E	Sail	18,000	0	--	P	Avoided
21	7/25	1358	01-41.0S	126-32.3E	3 AM 1 TB 2 SCs	20,000	8	345	P	Attack #5
22	7/25	1943	01-41.5S	126-01.7E	Same as #21	16,350	8	280	R	Attack #5

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(F) SHIP CONTACTS (CONT.)

No	Time Date	Lat. Long.	Type	Ini- tial Range	Est. Cou- rse	Speed	How Con- tact ed	Remarks
23	2155 7/27	07-41S 127-10E	Sail	3,100	4	140	SN	Avoided
24	0141 8/3	01-44.8S 126-25.7E	1 AK 1 SC	13,000	7	270	SN	Attack #6
25	1247 8/3	02-45.0S 126-36.7E	2 Unk.	16,000	9	240	P	Chased Without Success
26	1128 8/5	02-50.3S 122-52.9E	2 Sail	16,000	--	--	SD	Avoided
27	1154 8/5	02-53.0S 122-48.0E	1 Sail	16,000	--	--	SD	Avoided
28	1424 8/6	02-51.5S 122-24.5E	Traw- ler	10,000	7	030	P	Chased Without Success
29	2044 8/7	02-48.4S 122-55.1E	Traw- ler ?	8,100	6	270	R	Tracked & Let Go
30	0538 8/8	02-38.7S 123-08.8E	Sail	12,000	--	--	SD	Avoided
31	1850 8/9	05-11.2S 123-19.0E	Patrol Boat	7,500	6	310	R	Avoided
32	1939 8/9	05-15.1S 123-10.5E	Patrol Boat	6,650	6	300	R	Avoided
33	2016 8/9	05-26.3S 123-12.1E	Patrol Boat	5,600	?	?	R	Avoided
34	0930 8/10	05-25.0S 121-07.9E	AK	20,000	7.5	072	SD	Attack #7
35	2215 8/10	05-43.0S 120-47.8E	AO	10,000	9	265	R	Attack #8
36	0254 8/11	05-50.6S 120-45.3E	Sail	4,050	2	350	R	Avoided

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(F) SHIP CONTACTS (CONT.)

No	Time Date	Lat. Long.	Type	Ini- tial Range	Est. Cou- rse	How Con- tact- ed	Remarks
37	0738 8/11	06-35.5S 120-36.0E	Sail	--	--	P	Avoided
38	0956 8/11	06-36.0E 120-36.0E	Sail boats	2 3,500	--	P	Avoided
39	2246 8/11	05-38.7S 121-06.0E	Sail	4,900	--	R	Ignored
40	0915 8/13	06-20.8S 124-24.9E	Peris- cope ?	1,000	--	SD	Evaded
41	1341 8/13	05-42.6S 124-51.8E	Landing Barge	2,000	13 055	SD	Gun Attack #1
42	2143 8/13	04-34.3S 125-47.1E	Landing Barge	22,000	13 065	R	Attack #9
43	1936 8/14	03-35.0S 125-43.1E	Patrol	6,250	5 210	R	Avoided
44	1525 8/17	06-40.0S 122-55.0E	Sail	18,000	--	SD	Avoided
45	2035 8/17	06-25.0S 121-57.5E	Sail	6,600	3 350	R	Avoided
46	0702 8/18	05-28.2S 121-07.9E	Sail	10,000	3 235	P	Avoided
47	1443 8/18	05-16.0S 121-05.0E	Sail	20,000	--	SD	Avoided
48	1631 8/18	05-25.4S 121-02.6E	Smoking Unident.	20,000	8 050	SD	Attack #10
49	1656 8/18	05-13.0S 121-03.0E	Sail Same as #46	14,000	0 --	SD	Avoided
50	0316 8/19	06-17.3S 121-57.3E	Sail	2,250	--	R	Avoided

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(F) SHIP CONTACTS (CONT.)

No	Time Date	Lat. Long.	Type	Ini- tial Range	Est. Speed rse	Cou-tact cd	How Con- Remarks
51	0525 8/19	06-29.0S 122-27.0E	Sail	1,300	--	--	SD Avoided
52	0934 8/19	06-51.7S 123-16.2E	Sail	16,000	--	--	SD Avoided
53	0244 8/20	09-04.9S 123-12.2E	Sail	9,000	--	--	R Avoided
54	0412 8/20	09-04.9S 123-12.2E	Sail	1,650	--	--	R Avoided
55	0423 8/20	09-05.0S 123-11.5E	Sail	1,650	--	--	R Avoided

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AIRCRAFT CONTACTS

CONTACT NUMBER	1	2	3	4
Date	7/4/44	7/6/44	7/10/44	7/10/44
S Time (Zone) -8	1517	0622	0931	1321
U Position: Lat.	28-54.3 S	21-42 S	06-39.2 S	06-10.3 S.
B Long.	112-57.8 E	114-16 E	116-34.2 E	116-48 E.
M Speed	16 Knots	16 Knots	13 Knots	16 Knots
A Base 000T		Base 090T	Base 024T	
R Course	C.H. 40°	C.H. 60°	C.H. 60°	355 T
I Trim	Surf.L.T.	Surf.L.T.	Surf.L.T.	Surf.L.T.
N Minutes Since Last				
E SD Radar Search	0	0	1 Min.	1 Min.
Number	1	1	1	1
A Type	PBY	OS2-4	Unk.	Land Bomber
I Probable Mission	Patrol	Patrol	Patrol	Patrol
R How Contacted	SD	SD	SD	Per.
C Initial Range	12 Miles	7 Miles	6 Miles	10 Miles
F Elevation Angle	2°	2°	Unk.	1°
T				
S/M Range & Relative Bearing of Plane When it Detected				
UNK.	UNK.	UNK.	UNK.	
C Sea: (State (Beau-fort)	3	4	1	1
O Direction (Rel)	045	045	045	045
N				
D Visibility (Miles)	7	9	12	12
I Height in				
T Clouds: (Ft.)	5000	10,000	25,000	--
I Percent				
O Overcast	8	4	3	--
N Bearing (Rel)	--	--	--	--
S Moon: (Angle)	--	--	--	--
I Percent				
O Illum.	--	--	--	--
N				

Type of S/M Camouflage on this Patrol - Mod. Haze Gray 32/3SS-B

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AIRCRAFT CONTACTS

CONTACT NUMBER	5	6	7	8
Date	7/12/44	7/12/44	7/12/44	7/16/44
Time (Zone) -8	0627	0740	0959	0738
Position: Lat.	01-29 N	01-31 N	01-33 N.	12-24.8 S.
Long.	119-31.2 E	119-27.9 E	119-27 E.	119-22 E.
Speed	16 Knots	15.5 Knots	2.2 Knots.	17 Knots.
Base	000T			
Course	C.H. 60°		000 T	270T
Trim	Surf.L.T.	Surf.L.T.	Per.	Surf.L.T.
Minutes Since Last			1 Hour	
SD Radar Search	1 Min.	0	15 Min.	1 Min.
Number	1	2	1	1
Type	Pete	Float	Rufe	Unk.
Probable Mission	Patrol	Patrol	Patrol	Patrol
How Contacted	Lookout	Lookout	Per.	SD
Initial Range	Est.	11 Mi.	10 Mi.	24 Mi.
Elevation Angle	3°	Unk.	3°	Unk.
Range & Relative Bearing of Plane When it Detected			10 Mi.	
S/M	UNK.	UNK.	351°	UNK.
Sea: (State (Beaufort)	0	0	0	S. & S.E.
Direction (Rel)	0	0	0	2
Visibility (Miles)	12	12	12	10
Clouds: (Ft.)	10,000	10,000	10,000	10,000
(Percent)				
Overcast	9	8	8	9
Bearing (Rel)	--	--	--	--
Moon: (Angle)	--	--	--	--
(Percent)				
Illum.	--	--	--	--

Type of S/M Camouflage on this patrol - Mod. Haze Gray 32/3SS-B

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AIRCRAFT CONTACTS

CONTACT NUMBER	9	10	11	12
Date	7/17/44	7/30/44	7/24/44	7/24/44
Time (Zone)	-8	1232	1426	0602
Position: Lat.	11-51 N.	13-44 N.	01-50.4N	01-40.5N.
Long.	117-30 E.	119-52 E	125-42.5E	125-48.4E.
Speed	5.5 Knots	10.6 Knots	14 Kts.	19 Kts.
Course	Base 315 T C.H. 60	150 T	166T	166T
Trim	Surf.L.T.	Surface	Surf.L.T.	Surf.L.T.
Minutes Since Last SD Radar Search	1 Min.	3	1 Min.	1 Min.
Number	1	3	1	1
Type	Unk.	Unk.	Jnk.	Unk.
Precable Mission	Patrol	--	Patrol	Patrol
How Contacted	SD	SD	SD	SD
Initial Range	24 Mi.	23 Mi.	14 Mi.	12 Mi.
Elevation Angle	Unk.	Not Seen.	Not Seen	Not Seen
Range & Relative Bearing of Plane When It Detected		Not Detect-ed.		
S/M	UNK.	UNK.	UNK.	UNK.
Sea: (State (Beaufort) (Direction (Rel)) SW #6 #1 #1				
Visibility (Miles)	15	7-8	5	5
Clouds: (Height in Ft. (Percent Overcast)	10,000	3,000	8,000	8,000
Moon: (Angle (Bearing (Rel))	--	Not Visible	--	--
Illum.	--	--	--	--

Type of S/M Camouflage on this patrol - Mod. Haze Gray 32/3SS-B

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AIRCRAFT CONTACTS

CONTACT NUMBER	13	14	15	16
Date	7/25/44	7/26/44	7/26/44	7/26/44
S. Time (Zone)	-8	1358	0605	0742
U. Position: Lat.	01-41 N	02-48 S	02-52S	02-50.2 S
B. Long:	126-32.3E	126-00 E	125-55E	125-29.3 E.
M. Speed	2 Knots	16.9 Kts.	16 Knots	15.8 Knots.
A. Course	150 T	C.H.60°	C.H.60°	C.H. 60°
I. Trim	Per.	Surf.L.T.	Surf.L.T.	Surf.L.T.
N. Minutes Since last SE Radar Search	Not Manned	1 Min.	0	1 Min.
E. Number	1	1	1	1
A. Type	Pete	Not Flt. Typ.	Unk.	Unk.
I. Probable Mission	Convoy Escort	Patrol	Patrol	Patrol
R. How Contacted	Per.	Lookout	SD	SD
C. Initial Range	9 Mi.	10-12 Mi.	12 Mi.	16 Mi.
R. Elevation Angle	2°	2°	Unk.	Unk.
A. Range & Relative Bearing of Plane	Not			
F. When It Detected	Detect- ed.	UNK.	UNK.	UNK.
T. S/M				
C. Sea: (State (Beau- fort))	2	1	1	2
O. Direction (Rel)	185°	190°	190°T	180°T
N. Visibility (Miles)	20	7	7	7
D. Height in Clouds: (Ft.)	12,000	10,000	10,000	7,000
I. Percent				
O. Overcast	2	10	10	4
N. Bearing (Rel)	Not	--	--	--
S. Moon: (Angle Percent Illum.)	Visible	--	--	--

Type of S/M Camouflage on this patrol - Mod. Haze Gray 32/3SS-B

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AIRCRAFT CONTACTS

CONTACT NUMBER	17	18	19	20
Date	7/26/44	7/26/44	7/26/44	7/27/44
S Time (Zone) -8	1030	1335	1335	1207
U Position: Lat.	02-50.4S	03-10.1S	03-10.1 S	06-58 S.
B M A R I N E	Long.	125-23.3E	125-23.2E	125-23.2 E. 126-18.2E
Speed	15.8 Knots 270T	13.5 Knots	13.5 Knots	13 Knots
Course	C.H. 60°	180T	180T	097T
Trim	Surf.L.T.	Surf.L.T.	Surf.L.T.	Surf.L.T.
Minutes Since Last SD Radar Search	1 Min.	0	1 Min.	1 Min.
Number	1	1	1	1
A Type	Unk.	Unk.	Unk.	Unk.
I Probable Mission	Patrol	Patrol	Patrol	Patrol
R How Contacted	SD	SD	SD	SD
C Initial Range	17 Mi.	16 Mi.	10 Mi.	11 Mi.
R When It Detected	UNK.	UNK.	UNK.	UNK.
E Elevation Angle	Unk.	Unk.	Unk.	Unk.
S Range & Relative Bearing of Plane				
M When It Detected				
T S/M	UNK.	UNK.	UNK.	UNK.
C Sea: (State (Beaufort))	2	2	2	2
O (Direction (Rel))	180°T	180T	180T	ESE
N Visibility (Miles)	7	7	7	10
I (Height in Ft.)	7,000	7,000	7,000	8,000
T Clouds: (Percent)				
I Overcast	4	4	4	7
O (Bearing (Rel))	--	--	--	--
S Moon: (Angle Percent)	--	--	--	--
M Illum.	--	--	--	--

Type of S/M Camouflage on this patrol - Mod. Haze Gray 32/3SS-B

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AIRCRAFT CONTACTS

CONTACT NUMBER 21 22 23 24

Date	7/28/44	7/28/44	7/28/44	8/1/44
S. Time (Zone) -8	0724	1227	1648	1644
U. Position: Lat.	09-38 S.	10-20.8S.	10-51S	9-21.8S
M. Long.	128-10.4E	128-35.1E	128-48.9E	127-56.6E
R. Speed	13.8 Knots	13.5 Kts.	13.5 Kts.	13.4 Kts.
N. Base	154T	154T	154T	154T
E. Course	C.H. 60°	C.H. 60°	C.H. 60°	334T
Trim	Surf. L.T.	Surf.L.T.	Surf.L.T.	Surf.L.T.
Minutes Since Last				
SD Radar Search	1 Min.	1 Min.	1	1 Min.

Number	1	2	1	1
A. Type	Unk.	Unk.	Float BiPlane	Land Type
I. Probable Mission	Patrol	Patrol	Patrol	Unk.
C. R. How Contacted	SD	SD	Lookout	Sighted
A. E. Initial Range	20 Mi.	19 Mi.	10-12 Mi.	10 Mi.
T. Elevation Angle	Unk.	Unk.	3°	2°
Range & Relative Bearing of Plane When It Detected			Believed Not	Believed Not
S/M	UNK.	UNK.	Detected	Detected

C. Sea: (fort)	1	2	1	1
O. (Direction Rel)	SE	SE	SE	SE
D. Visibility (Miles)	8	8	16	15
I. (Height in Ft.)	4,000	8,000	30,000	10,000
T. Clouds: (Percent)	9	6	1	5
O. Overcast	--	--	--	--
N. (Bearing Rel)	--	--	--	--
S. Moon: (Angle Percent Illum.)	--	--	--	--

Type of S/M Camouflage on this patrol - Mod. Haze Gray 32/35S-B

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AIRCRAFT CONTACTS

CONTACT NUMBER	25	26	27	28
Date	8/2/44	8/2/44	8/2/44	8/2/44
S. Time (Zone) -8	0713	1129	1445	1601
U. Position: Lat.	05-50 S	04-49.4 S.	03-56 S.	03-57 S.
B. Long.	126-04 E	125-54 E.	125-40 E	125-40 E.
M. Speed	17 Knots	17 Knots	17 Knots	17 Knots
R. Course	330T	354T	354 T	354T
I. Trim	Surf.L.T.	Surf.L.T.	Surf.Hy.	Surf.L.T.
N. Minutes Since Last SD Radar Search	2 Min.	1 Min.	2 Min.	2 Min.
E. Number	1	1	1	1
A. Type	Unk.	Unk.	Unk.	Unk.
I. Probable Mission	Patrol	Patrol	Unk.	Unk.
R. How Contacted	SD	SD	SD	SD
C. Initial Range	11 Mi.	24 Mi.	17 Mi.	12 Mi.
R. Elevation Angle	Unk.	Unk.	Unk.	Unk.
A. Range & Relative Bearing of Plane When It Detected			Not Believed	
F. S/M	UNK.	UNK.	Detected	UNK.
C. Sea: (State (Beaufort))				
O. (Direction (Rel))	2	2	2	2
N. (Direction (Rel))	E.	SxE	100	105
D. Visibility (Miles)	15	10	15	15
I. (Height in Ft.)			8,000	8,000
T. Clouds: (Percent Overcast)	3,000	5,000	19,000	19,000
I. (Bearing (Rel))	--	--	--	--
O. Moon: (Angle Illum.)	--	--	--	--

Type of S/N Camouflage on this patrol - Mod. Haze Gray 32/3SS-B

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AIRCRAFT CONTACTS

CONTACT NUMBER	29	30	31	32	
Date	8/2/44	8/3/44	8/3/44	8/3/44	
S U B M A R T N E	Zone (Zone) 8 Position: Lat. Long. Speed Course	0545 01-50.5S 126-34.3E s/s on 4 S.H.001	1247 02-45 S 126-36.7E 2 Kts. 150T	1524 02-03.5S 126-33 E 2.1 Kts. 180T	1624 02-05.2S 126-31 E 13.5 Kts. 228 T
T M S R O F T	Time Minutes Since Last SD Radar Search Surf. L.T. Not in Operation Per.	Surf. Hy. Not in Operation Per.	Per. Not in Operation Per.	Per. Operation 1 Min. Surf. Hy.	
A I R C R A F T	Number Type Probable Mission How Contacted Initial Range Elevation Angle Range & Relative Bearing of Plane When It Detected S/M	Unk. Unk. H By Bluefish Unk. Unk.	1 Pete Escort Per. 14,000 Yds. 2.5° A Unk.	1 Lily Patrol Per. 6 Mi. 6° Not Believed Detected 1° Unk.	
C O N D I T O N S	(State (Beaufort) (Direction (Rel)) Visibility (Miles) (Height in Clouds: (Ft.) (Percent Overcast (Bearing (Rel)) Moon: (Angle (Percent Illum.)	2 175 8 1,000 4,000 10 -- -- -- --	2 180 8 4,000 12,000 7 -- -- --	2 320 10 11,000 9 -- -- -- --	

Type of S/M Camouflage on this patrol - Mod. Haze Gray 32/3SS-B

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AIRCRAFT CONTACTS

CONTACT NUMBER	33	34	35	36
Date	8/3/44	8/4/44	8/4/44	8/4/44
S Time (Zone)	-8 1626	0701	0917	0947
U Position: Lat.	02-03 S.	02-03.7 S	01-59 S	02-00.6 S
B				
M Long.	126-31 E.	125-34.6 E.	125-32.3 E	125-29.5 E
A				
R Speed	13.5 Kts.	2 Kts.	2 Kts.	2 Kts.
I				
N Course	228 T	180T	270 T	270 T
E Trim	Surf. Hy.	Per.	Per.	Per.
Minutes Since Last SD Radar Search	Nct	Not	Not	Not
Operating	Operating	Operating	Operating	Operating
Number	1	1	1	1
A Type	Unk.	Rufe	Float BiPlane	Float BiPlane
I				
R Probable Mission	Patrol	Patrol	Patrol	Patrol
C				
R How Contacted	SD	Per.	Per.	Per.
A				
F Initial Range	11 Mi.	10 Mi.	6 Mi.	8 Mi.
T Elevation Angle	Unk.	1°	1°	1°
Range & Relative Bearing of Plane When It Detected	•	Believed	Not	Not
S/M	UNK.	Detected	Detected	Detected
C Sea: (State (Beaufort))	2	1	1	1
O (Direction (Rel))	310	135	130	130
N				
D Visibility (Miles)	9	6	4	8
I				
T Clouds: (Height in Ft.)	11,000	4,000	3,000	3,000
I				
O Percent Overcast	9	10	9	9
N (Bearing (Rel))	--	--	--	--
S Moon: (Angle Illum.)	--	--	--	--

Type S/M Camouflage on this patrol - Mod. Haze Gray 32/3SS-B

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AIRCRAFT CONTACTS

<u>CONTACT NUMBER</u>	<u>37</u>	<u>38</u>	<u>39</u>	<u>40</u>
<u>Date</u>	<u>8/4/44</u>	<u>8/5/44</u>	<u>8/5/44</u>	<u>8/5/44</u>
<u>S U B M A R I N E</u>	<u>Time (Zone) -8</u>	<u>1208</u>	<u>0540</u>	<u>0858</u>
	<u>Position: Lat.</u>	<u>02-03.4S</u>	<u>02-16.2S</u>	<u>02-39S</u>
	<u>Long.</u>	<u>125-27.3E</u>	<u>123-42.6E</u>	<u>123-08E</u>
	<u>123-07.8E.</u>			
<u>I N E</u>	<u>Speed</u>	<u>2 Knots</u>	<u>17 Knots</u>	<u>16 Knots</u>
	<u>Course</u>	<u>270T</u>	<u>237T</u>	<u>237T</u>
		<u>60Ft.</u>		
<u>A I R C R A F T</u>	<u>Trim</u>	<u>Sub.</u>	<u>Surf.L.T.</u>	<u>Surf.L.T.</u>
	<u>Minutes Since Last SD Radar Search</u>	<u>Not Operating</u>	<u>Not Operating</u>	<u>0</u>
				<u>0</u>
	<u>Number</u>	<u>1</u>	<u>1</u>	<u>1</u>
<u>C O N D I T I O N S</u>	<u>Type</u>	<u>Mavis</u>	<u>Unk.</u>	<u>Unk.</u>
	<u>Probable Mission</u>	<u>Patrol</u>	<u>Patrol</u>	<u>Patrol</u>
	<u>How Contacted</u>	<u>Per.</u>	<u>Lookout</u>	<u>SD</u>
	<u>Initial Range</u>	<u>7 Mi.</u>	<u>15 Mi.</u>	<u>30 Mi.</u>
	<u>Elevation Angle</u>	<u>2° - 3°</u>	<u>1°</u>	<u>Unk.</u>
	<u>Range & Relative Bearing of Plane</u>			<u>Unk.</u>
	<u>When It Detected S/M</u>	<u>Not Detected</u>	<u>Not Detected</u>	<u>Not Detected</u>
				<u>UNK.</u>
<u>C O N D I T I O N S</u>	<u>(State Sea: (Beaufort)</u>	<u>1</u>	<u>2</u>	<u>2</u>
	<u>(Direction Rel)</u>	<u>130</u>	<u>165</u>	<u>165</u>
	<u>Visibility (Miles)</u>	<u>5</u>	<u>15</u>	<u>10</u>
	<u>(Height in Clouds: (Ft.)</u>	<u>3,000</u>	<u>10,000</u>	<u>3,000</u>
	<u>(Percent Overcast)</u>	<u>9</u>	<u>10</u>	<u>10</u>
	<u>(Bearing (Rel)</u>	<u>--</u>	<u>--</u>	<u>--</u>
	<u>Moon: (Angle</u>	<u>--</u>	<u>--</u>	<u>--</u>
	<u>(Percent Illum.)</u>	<u>--</u>	<u>--</u>	<u>--</u>

Type S/M Camouflage on this patrol - Mod. Haze Gray 32/3SS-B

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AIRCRAFT CONTACTS

CONTACT NUMBER	41	42	43	44
Date	8/9/44	8/9/44	8/9/44	8/10/44
S Time (Zone)	0858	1500	1545	0942
J Position: Lat.	04-09.8S	04-11.5S.	04-50.4S.	05-25.3S.
M Long.	124-41.9E	124-08.7E	124-05.2E	121-09.9E.
R Speed	10 Knots	10 Knots	13 Knots	15.8 Knots
I Base 225T				
N Course	000T	C.H. 60°	225T	080T
E Trim	Surf.L.T.	Surf.L.T.	Surf.L.T.	Surf.L.T.
Minutes Since Last				
SD Radar Search	2 Min.	2 Min.	2 Min.	2 Min.
Number	1	1	1	1
A Type	Unk.	Unk.	Unk.	Unk.
I Probable Mission	Patrol	Patrol	Unk.	Patrol
R HCW Contacted	SD	SD	SD	SD
A Initial Range	7 Mi.	22 Mi.	16 Mi.	20 Mi.
F Elevation Angle	Unk.	Unk.	Unk.	Unk.
T Range & Relative				
Bearing of Plane				
When It Detected				
S/M	UNK.	UNK.	UNK.	UNK.
C Sea: (State(Beau- fort))	1	1	2	1
O (Direction(Rel))	135	145	145	090
N Visibility (Miles)	8 Mi.	12 Mi.	14 Mi.	17 Mi.
D (Height in Clouds: (Ft.)	4,000	5,000	6,000	7,000
I (Percent Overcast)	80	7	7	7
O (Bearing(Rel))	--	--	--	--
N Moon: (Angle Percent Illum.)	--	--	--	--

Type S/M Camouflage on this patrol - Mod. Haze Gray 32/3SS-B

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AIRCRAFT CONTACTS

CONTACT NUMBER	45	46	47	48
Date	8/10/44	8/12/44	8/12/44	8/15/44
S Time (Zone)	1159	0554	0809	0720
B Position: Lat.	05-14.5S.	05-24.9S	05-21.4S	02-26.8S.
M Long.	121-22.5E	121-03.9E	121-02.8E	126-45.4E
R Speed	13.5 Knots	14 Knots	14 Knots	13.6 Knots
N		333T	333T	240T
E Course	270 T	C.H. 60°	C.H. 60°	C.H. 60°
T Wind	Surf, L.T.	Surf.L.T.	Surf.L.T.	Surf.L.T.
I Minutes Since Last		Not		
R Radar Search	1 Min.	Operating	0	0
A Number	1	1	1	1
I Type	Unk.	Unk.	Unk.	Unk.
R Probable Mission	Patrol	Patrol	Patrol	Patrol
A How Contacted	SD	Lookout	SD	SD
F Initial Range	20 Mi.	8 Mi.	8 Mi.	7 Mi.
T Elevation Angle	Unk.	4°	Unk.	Unk.
R Range & Relative				
B Bearing of Plane				
W When it Detected				
S/M UNK.	UNK.	UNK.	UNK.	UNK.
C Sea: (State (Beau- fort))	1	2	2	2
O (Direction (Rel))	090	090	090	180
D Visibility (Miles)	17	8 Mi.	12 Mi.	12 Mi.
I Height in T Clouds: (Ft.)	7,000	2,000	12,000	3,000
I Percent				
O Overcast	3	1	1	2
N Bearing (Rel)	--	--	--	--
S Moon: (Angle Percent Full)	--	--	--	--

Type S/M Camouflage on this patrol - Mod. Haze Gray 32/3SS-B

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AIRCRAFT CONTACTS

<u>CONTACT NUMBER</u>	<u>49</u>	<u>50</u>	<u>51</u>	<u>52</u>	
<u>Date</u>	<u>8/15/44</u>	<u>8/15/44</u>	<u>8/16/44</u>	<u>8/16/44</u>	
S U B M A R I N E	<u>Time (Zone) -8</u> <u>Position:</u> Lat. <u>Long.</u>	<u>1222</u> <u>03-23.5S.</u> <u>126-45.5E.</u>	<u>1414</u> <u>02-23.5S.</u> <u>126-42.5E.</u>	<u>1019</u> <u>05-38.5S.</u> <u>125-11.8E.</u>	<u>1145</u> <u>05-43 S.</u> <u>125-12.9E.</u>
<u>Speed</u>	<u>13.5 Knots.</u>	<u>13.5 Knots.</u>	<u>16 Kts.</u>	<u>15.5 Kts.</u>	
	<u>240T</u>	<u>060T</u>		<u>160T</u>	
<u>Course</u>	<u>C.H. 60°</u>	<u>C.H. 60°</u>	<u>180T</u>	<u>C.H. 60°</u>	
<u>Trim</u>	<u>Surf.L.T.</u>	<u>Surf.L.T.</u>	<u>Surf.L.T.</u>	<u>Surf.L.T.</u>	
<u>Minutes Since Last SD Radar Search</u>	<u>1 Min.</u>	<u>1 Min.</u>	<u>1 Min.</u>	<u>1 Mih.</u>	
<u>Number</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	
A I R C R A F T	<u>Type</u> <u>Probable Mission</u> <u>How Contacted</u> <u>Initial Range</u> <u>Elevation Angle</u>	<u>Unk.</u> <u>Patrol</u> <u>SD</u> <u>4 Mi.</u> <u>Unk.</u>	<u>Unk.</u> <u>Patrol</u> <u>SD</u> <u>7 Mi.</u> <u>Unk.</u>	<u>Unk.</u> <u>Patrol</u> <u>SD</u> <u>10 Mi.</u> <u>Unk.</u>	<u>Emily</u> <u>High</u> <u>Per.</u> <u>8 Mi.</u> <u>1</u>
S/M	<u>Range & Relative Bearing of Plane When It Detected</u>	<u>UNK.</u>	<u>UNK.</u>	<u>UNK.</u>	<u>Not Detected</u>
C O N D I T I O N S	<u>(State (Beaufort))</u> <u>(Direction (Rel))</u> <u>Visibility (Miles)</u> <u>(Height in Clouds)</u> <u>(Percent Overcast)</u> <u>(Bearing (Rel))</u> <u>Moon: (Angle)</u> <u>(Percent Illum.)</u>	<u>2</u> <u>140</u> <u>12</u> <u>Ft.</u> <u>5,000</u> <u>3</u> <u>--</u> <u>--</u> <u>--</u>	<u>2</u> <u>138</u> <u>15</u> <u>7,000</u> <u>3</u> <u>--</u> <u>--</u> <u>--</u>	<u>2</u> <u>135</u> <u>15</u> <u>5,000</u> <u>4</u> <u>--</u> <u>--</u> <u>--</u>	<u>2</u> <u>135</u> <u>12</u> <u>5,000</u> <u>4</u> <u>--</u> <u>--</u> <u>--</u>

Type S/N: Camouflage on this patrol - Mod. Haze Gray 32/3SS-B

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AIRCRAFT CONTACTS

<u>CONTACT NUMBER</u>	<u>53</u>	<u>54</u>
<u>Date</u>	<u>8/19/44</u>	<u>8/20/44</u>
<u>S : Time (Zone)</u>	<u>-8</u>	<u>1600</u>
<u>U : Position</u>	<u>Lat.</u>	<u>07-27.4S.</u>
<u>B : Position</u>	<u>Long.</u>	<u>11-52.1S.</u>
<u>M : Position</u>	<u>Long.</u>	<u>124-45 E.</u>
<u>A : Position</u>	<u>Long.</u>	<u>121-39 E.</u>
<u>R : Speed</u>	<u>15.3 Knots.</u>	<u>15.3 Knots.</u>
<u>I : Course</u>	<u>140 T C.H. 60°</u>	<u>205 T C.H. 60°</u>
<u>N : Trim</u>	<u>Surf. L.T.</u>	<u>Surf. L.T.</u>
<u>E : Minutes Since Last</u>		
<u>SD Radar Search</u>	<u>1 Min.</u>	<u>1 Min.</u>
<u>Number</u>	<u>1</u>	<u>1</u>
<u>A : Type</u>	<u>Unk.</u>	<u>Monoplane Low Wing</u>
<u>I : Probable Mission</u>	<u>Unk.</u>	<u>Unk.</u>
<u>R : How Contacted</u>	<u>SD</u>	<u>Visual</u>
<u>C : Initial Range</u>	<u>10 Mi.</u>	<u>5 Mi.</u>
<u>F : Elevation Angle</u>	<u>Unk.</u>	<u>4°</u>
<u>T : Range & Relative</u>		
<u>R : Bearing of Plane</u>		
<u>A : When It Detected</u>		
<u>M : S/M</u>	<u>UNK.</u>	<u>UNK.</u>
<u>C : Sea:</u>	<u>{ State(Beau- fort) 1 Direction(Rel) 350</u>	<u>1 005</u>
<u>O : Visibility (Miles)</u>	<u>16</u>	<u>15</u>
<u>N : Height in</u>		
<u>D : Clouds:</u>	<u>(Ft. 1200 Percent Overcast 2)</u>	<u>1200 2</u>
<u>I : (Bearing(Rel))</u>	<u>--</u>	<u>--</u>
<u>T : Moon:</u>	<u>(Angle -- (Percent -- Illum. --)</u>	<u>--</u>

Type of S/M Camouflage on this patrol - Mod. Haze Gray 32/3SS-B

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(H) ATTACK DATA

U.S.S. CCD (SS224) TORPEDO ATTACK NO. 1A PATROL NO. 4

Time 0910 H Date 16 July 1944 Lat. 12-25.2 N.
Long. 119-19.8E.

Target Data - Damage Inflicted

Description:

The convoy consisted of two small AKs and one escort maru of about 2000(T). Similar to KEIZAN MARU, p. 143 of ONI 208-J Revised, except that funnels were about 10' higher than shown.

Ships Sunk: None

Ships Damaged
or Probably Sunk: None

Target Draft 10' Course 250 T Speed 8 Average Torp.
Run-#3,4,5 - 1500
#6,1,2 - 2100.

Own Ship Data

Speed 3 Course 134 T Depth 61' Angle 0

Fire Control and Torpedo Data

Submerged periscope using plot and TDC.

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(H) ATTACK DATA (CONT.)

Tubes Fired	No. 3	No. 4	No. 5	No. 6	No. 1	No. 2
Track Angle	96 $\frac{1}{2}$ S	95 3/4S	99S	87 $\frac{1}{4}$ S	92 $\frac{1}{2}$ S	93 $\frac{1}{2}$ S
Gyro Angle	34 $\frac{1}{2}$	32 3/4	35	23 $\frac{1}{4}$	28 $\frac{1}{2}$	29 $\frac{1}{2}$
Depth Set	6'	6'	6'	6'	6'	6'
Power	High	High	High	High	High	High
Hit or Miss	Miss	Miss	Miss	Miss	Miss	Miss
Erratic	No	No	No	No	No	No
Mark Torpedo	14-3A	14-3A	14-3A	23	23	14-3A
Serial No.	40506	40093	25948	52774	53162	40762
Mark Exploder	6-5	6-5	6-5	6-5	6-5	6-5
Serial No.	24982	17110	24988	17096	17143	17124
Actuation Set.	Contact	Contact	Contact	Contact	Contact	Contact
Mark Warhead	16-1	16-1	16-1	16-1	16	16-1
Serial No.	13739	13687	12635	11638	3012	13705
Explosive	TPX	TPX	TPX	TPX	TPX	TPX
Firing Interval	0	7	6	8	13	13
Type Spread	0	1 $\frac{1}{2}$	1 $\frac{1}{2}$	0	1	1
Sea Conditions	0 - Flat Calm					
Overhaul Activity	U.S.S. ORION					

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(H) ATTACK DATA (CONT.)

U.S.S. COD (SS224) TORPEDO ATTACK NO. 1B PATROL NO. 4

Time 0912 H Date 16 July 1944 Lat. 12-25.2N.
Long. 119-19.8E.

Target Data - Damage Inflicted

Description:

Same as for attack #1A with target being the escort maru.

Ships Sunk: None

Ships Damaged
or Probably Sunk: None

Target Draft 10' Course 050 T Speed 10 Average Torp.
Run - 1600.

Own Ship Data

Speed 3 Course 134 T Depth 61' Angle 0

Fire Control and Torpedo Data

Type Attack:

Submerged periscope swinging for stern tube
shot at escort who had turned toward after attack
#1A.

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(H) ATTACK DATA (CONT.)

Tubes Fired	No. 7	No. 8	No. 9	No. 10
Track Angles	3 S	5 S	8½ S	11 S
Gyro Angles	107	111	116½	122
Depth Set	6'	6'	6'	6'
Power	High	High	High	High
Hit or Miss	Miss	Miss	Miss	Miss
Erratic	No	No	No	No
Mk. Torpedo	23	23	23	23
Serial No.	33824	26899	49730	53204
Mk. Exploder	6-5	6-5	6-5	6-5
Serial No.	17101	17146	25021	24998
Actuation Set	Contact	Contact	Contact	Contact
Mk. Warhead	16-1	16-1	16-1	16-1
Serial No.	13699	13597	12636	13736
Explosive	TPX	TPX	TPX	TPX
Firing Interval	0	5	7	7
Type Spread	½	½	1½	1½
Sea Conditions	0 - Flt Calm			
Overhaul Activity	U.S.S. ORION			

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(H) ATTACK DATA (CONT.)

U.S.S. COD (SS224) TORPEDO ATTACK NO. 2 PATROL NO. 4

Time 0015 H Date 17 July 1944 Lat. 10-59 N.
Long. 118-17 E.

Target Data - Damage Inflicted

Description:

Same as Attack No. 1

Ships Sunk: None

Ships Damaged
or Probably Sunk: None

Damage Determined by: No Hits Observed.

Target Draft 10' Course 195 T Speed 8 Average Torp.
Run - 1500 to
1550 yards.

Own Ship Data

Speed 8.5 Course 294 $\frac{1}{2}$ T

Fire Control and Torpedo Data

Night surface radar attack on same convoy as
for attack #1. Radar ranges and T.B.T. bearings.

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(H) ATTACK DATA (CONT.)

Tubes Fired	No. 3	No. 4	No. 5
Track Angles	82 $\frac{1}{2}$ P	82 3/4 P	84 3/4 P
Gyro Angles	358	358 $\frac{1}{2}$	355 3/4
Depth Set	3'	3'	3'
Power	High	High	High
Hit or Miss	Miss	Miss	Miss
Erratic	Yes - Deep	Yes - Deep	No
Mark Torpedo	23	23	23
Serial No.	41675	49317	49403
Mark Exploder	6-5	6-5	6-5
Serial No.	25140	14439	14435
Actuation Set	Contact	Contact	Contact
Mark Warhead	16-1	16-1	16-1
Serial No.	13154	13581	13217
Explosive	TPX	TPX	TPX
Firing Interval	0	3	8
Type Spread	0	1 1/3 R	1 1/3 L
Sea Conditions	0 - Flat Calm		
Overhaul Activity	U.S.S. ORION		

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(H). ATTACK DATA (CONT.)

U.S.S. COD (SS224) TORPEDO ATTACK NO. 3 PATROL NO. 4

Time 2240 H Date 17 July 1944 Lat. 12-24 N.
Long. 116-32 E.

Target Data - Damage Inflicted

Description:

The target group consisted of seven ships, two very large units and five smaller ships which were presumed to be escorts from their distribution. The near escort appeared to be a large destroyer and the relative ranges from radar and size of pips indicate that all the escorts were destroyers. Radar tracked escorts with ease at 20,000 yards while the large units could be tracked in excess of 24,000 yards.

Ships Sunk: None

Ships Damaged
or Probably Sunk: One

Damage Determined by: Heard one timed hit for range which checked for trailing escort.

Target Draft 9' Course 270T Speed 19 Average
Torp. Run
2000-1700.

Own Ship Data

Speed 3 Course 148-135 T Depth 40' Angle 0

Fire Control and Torpedo Data

Type Attack: Night radar submerged using radar ranges and bearings.

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(H) ATTACK DATA (CONT.)

Tubes Fired	No. 3	No. 4	No. 5	No. 6	No. 1	No. 2
Track Angles	22	21	19 $\frac{1}{2}$	17.4	18	15
Gyro Angles	324	324	325	325.4	329	330
Depth Set	3'	3'	3'	3'	3'	3'
Power	High	High	High	High	High	High
Hit or Miss	Possible Miss Hit		Miss	Miss	Miss	Miss
Erratic	No	No	No	No	No	No
Mark Torpedo	Mk 23	Mk 23	Mk 23	Mk 23	Mk 23	Mk 23
Serial No.	41322	53075	53137	49718	49729	49369
Mark Exploder	6-5	6-5	6-5	6-5	6-5	6-5
Serial No.	17115	17152	17102	14277	24992	24999
Actuation Set	Contact	Contact	Contact	Contact	Contact	Contact
Mark Warhead	15	15	15	16-1	16-1	16-1
Serial No.	3727	1501	2157	13197	13741	13177
Explosive	TNT	TNT	TNT	TPX	TPX	TPX
Firing Interval	0	5	7 $\frac{1}{2}$	6 $\frac{1}{2}$	7 $\frac{1}{2}$	5
Type Spread	0	$\frac{1}{2}$ L	$\frac{1}{2}$ R	1 L	1 R	1 $\frac{1}{2}$ L
Sea Conditions	0 - Slight swell from west.					
Overhaul Activity	U.S.S. ORION.					

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(H) ATTACK DATA (CONT.)

U.S.S. COD (SS224) TORPEDO ATTACK NO. 4 PATROL NO. 4

Time 0445 H Date 20 July 1944 Lat. 14-23.2 N.
Long. 119-41.5 E.

Target Data - Damage Inflicted

Description:

The convoy was contacted on radar at 21,000 yards and tracked to firing point by radar only. Visibility was less than 1000 yards due to heavy rain and dark overhanging clouds. Target was sighted intermittently in lightning flashes. From these brief glimpses and radar contact range target was determined to be an AK of about 5000 tons.

Ships Sunk: None

Ships Damaged or
Probably Sunk: None

Damage Determined by: No Hits Observed.

Target Draft 20' Course 105 T Speed 9 Average Torp.
Run 1350-1400.

Own Ship Data

Speed 8 Course 145 $\frac{1}{2}$ - 148 T.

Fire Control and Torpedo Data

Type Attack: Night radar surface using radar ranges and bearings.

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(H) ATTACK DATA (CONT.)

Tubes Fired	No. 7	No. 8	No. 9	No. 10
Track Angles	49.9	53.5	53	58
Gyro Angles	189 $\frac{1}{2}$	192	190	195
Depth Set	3'	3'	3'	3'
Power	High	High	High	High
Hit or Miss	Miss	Miss	Miss	Miss
Erratic	No	No	No	No
Mk. Torpedo	23	23	23	23
Serial No.	59407	49751	46140	49506
Mk. Exploder	6-5	6-5	6-5	6-5
Serial No.	25146	25134	17143	24975
Actuation Set	Contact	Contact	Contact	Contact
Mk. Warhead	16-1	16-1	16-1	16-1
Serial No.	13723	13747	13682	13715
Explosive	TPX	TPX	TPX	TPX
Firing Interval	8 seconds			
Type Spread	1 $\frac{1}{4}$ L	1 $\frac{1}{4}$ R	2 $\frac{1}{2}$ L	2 $\frac{1}{2}$ R
Sea Conditions	Swell and White Caps - Force 4.			
Overhaul Activity	U.S.S. CFIION.			

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(H) ATTACK DATA (CONT.)

U.S.S. COD (SS224) TORPEDO ATTACK NO. 5 P TROL NO. 4

Time 2155 H Date 25 July 1944 Lat. 01-46.5 S.
Long. 125-33 E.

Target Data - Damage Inflicted

Description:

MFM AK, raised 1, 2, & 3 islands, composite superstructure, counter stern, high funnel. Guns fore and aft. Similar to MREI MARU on p. 128 of ONI 208-J Revised.

Ship Sunk:

Ship Damaged or
Probably Sunk: One

Damaged Determined by:

Heard and timed one hit on target. Later tracking of target gave speed of $\frac{1}{2}$ knot. Target turned on red mast-head light and flashed it vigorously. Radar pip diminished in size. Escort commenced firing a light. Observed flashes from target.

Target Draft 18' Course 295 T Speed 7 3/4 Average
Torp. Run
3800.

Own Ship Data

Speed 11.6 Course 249 $\frac{1}{2}$ T.

Fire Control and Torpedo Data

Type Attack: Night radar surface using TBT bearings and radar ranges.

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(H) ATTACK DATA (CONT.)

Tubes Fired	No. 3
Track Angle	134 $\frac{1}{2}$
Gyro Angle	001 3/4
Depth Set	3'
Power	High
Hir or Miss	Hit
Erratic	No
Mk Torpedo	23
Serial No.	53206
Mk. Exploder	6-5
Serial No.	17113
Actuation Set	Contact
Actuation Actual	Contact
Mk. Warhead	15
Serial No.	2131
Explosive	TNT-TPX Extendor
Firing Interval	0
Type Spread	0
Sea Conditions	0 - Flt Calm.
Overhaul Activity	U.S.S. ORION

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(H) ATTACK DATA (CONT.)

U.S.S. COD (SS224) TORPEDO ATTACK NO. 6 PATROL NO. 4

Time 0225 Date 3 August 1944 Lat. 01-45 S.
Long. 126-14 E.

Target Data - Damage Inflicted

Description:

Ship was a raised 1, 2, 3, MFM type with fairly heavy block superstructure, raked bow, short and fairly broad stack, heavy masts, similar to PALAU MARU p. 40, ONI 208-J, Revised, but with higher 1 & 3 islands; also similar to SINSEI MARU (p.101) but without goalposts and with higher 1 and 3 islands.

Ship Sunk: One

Damage Determined by:

Observed two hits and heard three hits on target. Screws stopped and heavy breaking up noise was heard for three minutes after target was hit. Upon surfacing on the scene much debris and heavy oil slick was noted. Ten to fifteen survivors were seen near a small life boat.

Target Draft 20' Course 120 T Speed 9 Average Torp.
Run - 500 Yds.

Own Ship Data

Speed 2.5 Course 195 T Depth 64' Angle 6

Fire Control and Torpedo Data

Type Attack: Night radar submerged using periscope bearings.

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(H) ATTACK DATA (CONT.)

Tubes Fired	No. 7	No. 8	No. 9	No. 10
Track Angle	57 $\frac{1}{4}$	72 $\frac{1}{4}$	70 $\frac{1}{4}$	71
Gyro Angle	163° 20'	178° 20'	176° 20'	177
Depth Set	2'	2'	2'	2'
Power	High	High	High	High
Hit or Miss	Hit	Hit	Hit	Miss
Erratic	No	No	No	No
Mark Torpedo	23	23	23	23
Serial No.	41401	41182	41279	33857
Mark Exploder	6-4	6-4	6-4	6-4
Serial No.	8773	2955	8580	8305
Actuation Set	Contact	Contact	Contact	Contact
Actuation Actual	Contact	Contact	Contact	--
Mark Warhead	16-1	16	16	16
Serial No.	13660	8947	5365	3627
Explosive	TPX	TPX	TPX	TPX
Firing Interval	0	10	12	13
Type Spread	Divergent - By Periscope			
Sea Conditions	Flat Calm.			
Overhaul Activity	Naval Section Base, Navy #245,			

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(H) ATTACK DATA (CONT.)

U.S.S. COD (SS224) TORPEDO ATTACK NO. 7 PATROL NO. 4

Time 1144 H Date 10 August 1944 Lat. 05-14.8 S.
Long. 121-13.5 E.

Target Data - Damage Inflicted

Description:

Small AK or naval auxiliary (EU) 2000 T. MFM
raised 1, 2, & 3 islands, block superstructure.

Ships Sunk: One.

Damaged Determined by:

Observed and heard three hits at which time the target disappeared in a cloud of smoke. Surfaced in midst of large oil slick and much debris. Picked up the lone survivor.

Target Draft 10' Course 072 T Speed $7\frac{1}{2}$ Average
Torpedoes Run 1400.

Own Ship Data

Speed 2.5 Course 340 T Depth 60' Angle 0

Fire Control and Torpedo Data

Type Attack: Submerged periscope using plot and TDC.

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(H) ATTACK DATA (CONT.)

Tubes Fired	No. 3	No. 4	No. 5	No. 6
Track Angle	92 $\frac{1}{2}$	95	94 $\frac{1}{2}$	99 $\frac{1}{2}$
Gyro Angle	004 $\frac{1}{2}$	007	006 $\frac{1}{4}$	011
Depth Set	2'	2'	2'	2'
Power	High	High	High	High
Hit or Miss	Hit	Hit	Hit	Miss
Erratic	No	No	No	No
Mark Torpedo	14-3A	14-3A	14-3A	14-3A
Serial No.	40256	26818	25315	25810
Mark Exploder	6-5	6-5	6-5	6-5
Serial No.	13613	13560	13880	12233
Actuation Set	Contact	Contact	Contact	Contact
Actuation Actual	Contact	Contact	Contact	Miss
Mark Warhead	16-1	16	16	16-1
Serial No.	9589	10406	2991	11985
Explosive	TPX	TPX	TPX	TPX
Firing Interval	0	7 $\frac{1}{2}$	9	7
Type Spread	Divergent - Using Periscope			
Sea Conditions	Calm			
Overhaul Activity	Naval Section Base, Navy #245,			

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(H) ATTACK DATA (CONT.)

U.S.S. COD (SS224) TORPEDO ATTACK #8A PATROL NO. 4

Time 2252 H Date 10 August 1944 Lat. 05-43.5 S.
Long. 120-45.9 E.

Target Data - Damage Inflicted

Description: Unidentified engines aft ship.

Ships Sunk: None

Ships Damaged or
Probably Sunk: One

Damaged Determined by:

Saw and heard one hit on target. Observed target during subsequent tracking, well down by the bow making very large bow wave.

Target Draft 12' Course 265 T Speed 8.9 Average
Torp. Run 2100

Own Ship Data

Speed 4.7 Course 016 T

Fire Control and Torpedo Data

Type Attack: Night radar surface using TBT bearings and radar ranges.

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(H) ATTACK DATA (CONT.)

Tubes Fired	No. 3	No. 4	No. 5	No. 6
Track Angle	67 $\frac{1}{2}$	69 $\frac{1}{4}$	68	70
Gyro Angle	002 $\frac{1}{2}$	000	001	359
Depth Set	2'	2'	2'	2'
Power	High	High	High	High
Hit or Miss	Hit	Miss	Miss	Miss
Erratic	No	No	No	No
Mark Torpedo	14-3A	14-3A	14-3A	14-3A
Serial No.	40345	40431	23373	26235
Mark Exploder	6-4	6-5	6-5	6-5
Serial No.	8180	13441	17312	13572
Actuation Set	Contact	Contact	Contact	Contact
Actuation Actual	Contact	Miss	Miss	Miss
Mark Warhead	16-1	16-1	16-1	16-1
Serial No.	12561	12945	12946	13099
Explosive	TPX	TPX	TPX	TPX
Firing Interval	0	9	7 $\frac{1}{2}$	8
Type Spread	$\frac{1}{2}$	$\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$
Sea Conditions	Calm			
Overhaul Activity	Naval Section Base, Navy	245		

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(H) ATTACK DATA (CONT.)

U.S.S. COD (SS224) TORPEDO ATTACK NO. 8B PATROL NO. 4

Time 0019 H Date 11 August 1944 L t. 05-37.5 S.
Long. 120-36.6 E.

Target Data - Damage Inflicted

Description:

Same as Attack #8A.

Ships Sunk: One.

Damaged Determined by:

Observed and heard one hit on target amidships.
Screws stopped. Target was observed to sink through
periscope.

Target Draft 12' Course 275 T Speed 8 Average
Torp. Run 1100.

Own Ship Data

Speed 3.5 Course 195 T Depth 60' Angle 0

Fire Control and Torpedo Data

Type Attack: Night radar submerged using only periscope
bearings in final stages of attack.

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(H) ATTACK DATA (CONT.)

Tubes Fired	No. 3	No. 4	No. 5	No. 6
Track Angle	94	97 $\frac{1}{2}$	96 3/4	101 $\frac{1}{4}$
Gyro Angle	354	357 $\frac{1}{2}$	357 $\frac{1}{4}$	002 $\frac{1}{4}$
Depth Set	3'	3'	3'	3'
Power	High	High	High	High
Hit or Miss	Miss	Miss	Miss	Hit
Erratic	No	No	No	No
Mk. Torpedo	23	23	14-3A	23
Serial No.	49360	41010	40054	53203
Mark Exploder	6-5	6-5	6-4	6-5
Serial No.	13345	16971	6715	16994
Actuation Set	Contact	Contact	Contact	Contact
Actuation Actual	Miss	Miss	Miss	Contact
Mark Warhead	16-1	16-1	16-1	16-1
Serial No.	13658	9352	12938	11206
Explosive	TP	TPX	TPX	TPX
Firing Interval	0	10 $\frac{1}{2}$	9	10 $\frac{1}{2}$
Type Spread	Divergent - Periscope.			
Sea Conditions	Calm			
Overhaul Activity	Naval Section Base, Navy #245,			

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(H) ATTACK DATE (CONT.)

U.S.S. COD (SS224) TORPEDO ATTACK NO. 9 PATROL NO. 4

Time 0155 H Date 14 August 1944 Lat. 04-17 S.
Long. 126-46 E.

Target Data - Damage Inflicted

Description:

Large landing barge - See sketch in narrative.

Ships Sunk: One

Damaged Determined by:

Observed and heard three hits on target. Screws stopped and never started again. Observed target as it sank.

Target Draft 8' Course 090 T Speed 13.1 Average
Torp. Run
1000-1150.

Own Ship Data

Speed 3 Course 310 T Depth 40' Angle 0

Fire Control and Torpedo Data

Type Attack: Night radar submerged. Periscope bearings and radar ranges were introduced up to the time of firing.

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(H) ATTACK DATA (CONT.)

Tubes Fired	No. 7	No. 9	No. 10	No. 8
Track Angle	120	125 $\frac{1}{2}$	125 $\frac{1}{2}$	136
Gyro Angle	200 $\frac{1}{2}$	195	194 $\frac{1}{2}$	184
Depth Set	2'	2'	2'	2'
Power	High	High	High	High
Hit or Miss	Hit	Hit	Hit	Miss
Erratic	No	No	No	No
Mark Torpedo	23	23	23	23
Serial No.	41268	46146	26852	41225
Mark Exploder	6-4	6-5	6-4	6-5
Serial No.	18004	13452	1557	13549
Actuation Set	Contact	Contact	Contact	Contact
Actuation Actual	Contact	Contact	Contact	Miss
Mark Warhead	16-1	16-1	16-1	16-1
Serial No.	12117	13101	12127	12761
Explosive	TPX	TPX	TPX	TPX
Firing Interval	0	9	8	12
Type Spread	Divergent - Periscope bearings.			
Sea Conditions	Calm			
Overhaul Activity	Naval Section Base, Navy #245,			

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(H) ATTACK DATA (CONT.)

U.S.S. COD (SS224) TORPEDO ATTACK NO. 10 PATROL NO. 4

Time 2001 H Date 18 August 1944 Lat. 05-03.8 S.
Long. 121-21.8 E.

Target Data - Damage Inflicted

Description:

Unidentified; smoking heavily.

Ships Sunk: None

Ships Damaged or
Probably Sunk: None

Damaged Determined by: No Hits Observed.

Target Draft ? Course 060 T Speed 8 Average Torp.
Run - 1595.

Own Ship Data

Speed 2 Course 319 T Depth 40' Angle 0

Fire Control and Torpedo Data

Type Attack: Night radar submerged using radar ranges
and periscope bearings.

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(H) ATTACK DATA (CONT.)

Tubes Fired	No. 3	No. 4	No. 5	No. 6
Track Angle	59	57 3/4	61 $\frac{1}{4}$	58 $\frac{1}{4}$
Gyro Angle	339 $\frac{1}{2}$	338 3/4	342 $\frac{1}{4}$	339 $\frac{1}{4}$
Depth Set	2'	2'	2'	2'
Power	High	High	High	High
Hit or Miss	Miss	Miss	Miss	Miss
Erratic	No	No	No	No
Mark Torpedo	14-3A	14-3A	23	23
Serial No.	25327	26075	41211	53235
Mark Exploder	6-5	6-5	6-5	6-5
Serial No.	13458	13607	13375	17296
Actuation Set	Contact	Contact	Contact	Contact
Actuation Actual	No	No	No	No
Mark Warhead	16	16-1	16-1	16-1
Serial No.	4164	3556	9802	12433
Explosive	TPX	TPX	TPX	TPX
Firing Interval	0	10	12	10
Type Spread	0	1 L	1 R	2 L
Sea Conditions	Calm			
Overhaul Activity	Naval Section Base, Navy #245.			

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(H) ATTACK DATA (CONT.)

U.S.S. COD (SS224) GUN ATTACK NO. 1 PATROL NO. 4

Time 1633 H Date 13 August 1944 Lat. 05-28.1' S.
Long. 125-08.5' E.

Target Data - Damage Inflicted

Description:

Target was large amphibious vessel similar to our LSTs. See narrative for sketch.

Sunk: None

Damaged or Probably Sunk: None. Observed three close overs on in deflection; one possible hit.

Details of Action

Target's size had been underestimated as had been the range. No gun had been noted on stern but as evidenced by his return fire one was present.

Target commenced zigging radically after first round, with all firing being done at average range of 10,000 yards.

Expended 22 rounds of 4"50 caliber H.C. ammunition.

No difficulties were experienced with 4" gun.

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(I) MINES

No mines.

(J) ANTI-SUBM MINE MEASURES AND EVASIVE TACTICS

During depth charging on 16 July no pinging was heard. It is believed that A/S vessel placed first (and closest) depth charge pattern by his last observation of periscope. Went deep under sharp thermocline commencing at 150' and fish-tailed at 2/3 speed. A/S vessel crossed ahead several times, at which times we turned toward him. Otherwise tried to keep him astern.

On 3 August, in moonlight, a medium AK or AP-AK with one escort sighted COD on her port (unprotected) quarter at range of 3500 yards. This vessel signalled to her escort, reversed course, and attempted to ram. A poor tactic.

It is believed that sailboats are used for patrol in the GULF of BONI.

(K) MAJOR DEFECTS AND DAMAGE

C. & R.

On 13 July 1944, the after connecting rod bearing on the trim pump developed a squealing noise and on examination lower half the bearing developed to have wiped. Bearing was cleaned and scraped and given an all around clearance 007. No further trouble has been experienced. It is believed that on reassembling after the last refit proper clearances were not given to this bearing or that a piece of foreign matter clogged the oil rings. On July 25 lub oil cooling coil on the trim pump ruptured causing the crankcase to be flooded with salt water. The pump was torn down and both ends of the coil were plugged, crankcase and bearings flushed out and new oil and bearings put in. The pump has given more or less continuous operation without benefit of the cooling coil for the entire patrol and no abnormal heating has occurred. This is the second time this casualty has occurred aboard this vessel on war patrols and it is believed this was caused by faulty material in the cooling coil.

On 25 July 1944 a rag was sucked into No. 1 low pressure blower through the silencer and became caught in the propeller. No noticeable damage resulted after the rag was removed. This casualty would never have occurred had there been a strainer over this suction inlet of the blower. This will be remedied on this refit. This casualty will not occur again.

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(K) MAJOR DEFECTS AND DAMAGE (CONT.)

C.&R.(Cont.)

On 25 July 1944 during a routine ir charge the circulating water pressure on #2 high pressure air compressor dropped to 3 pounds. Investigation disclosed that the after ball bearing on the impeller shaft of the circulating water pump had deteriorated and the tachometer drive on the end of the shaft had sheered off. Since the proper bearing wasn't aboard, the shaft was turned down .031 and another bearing fitted. When installed, this jury rig operated satisfactorily. In Darwin a spare was received and installed.

Torpedo and Gunnery

Torpedo No. 46140 was found to have a high pressure air leak at the soldered connection to the starting connection. Flask pressure had dropped to 1600 psi. Removed afterbody and pulled the reducer body from bulkhead. The connection was resoldered by ship's force and torpedo reassembled. The connection gave way again at 2600 psi so the above process was repeated. The torpedo was charged to 2800 psi and no further leakage was noted.

Torpedo No. 46140 which had been loaded into #9 tube was found to have $2\frac{1}{2}$ gallons of water in afterbody after being submitted to 20# pressure for 30 minutes. Torpedo was given normal routine for flooded afterbody and reloaded into tube.

Torpedo No. 41225 was found to have eight gallons of water in afterbody after being submitted to 20# pressure for 45 minutes. Torpedo was given normal routine for flooded afterbody and reloaded into tube.

Engineering

#1 Main Engine

On 9 July while #1 M. E. was running at 75% K.W., 750 R.P.M. a knock developed and the engine was shut down for inspection.

Inspection showed bearing metal in the crankcase, #4 connecting rod bearing badly burned and the two halves separated by $3/4"$. The connecting rod was forced over against the crank pin web leaving a $3/8"$ space between #4 and #12 bearing shells.

Removal of the damaged parts showed all split pins in place, oil holes free, oil draining from the pistons and from the gap between the bearing halves. No. 4 upper

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(K) MAJOR DEFECTS AND DAMAGE (CONT.)

Engineering (Cont.)

bearing half was fused to the connecting rod, the bearing metal completely gone, and the bearing back pounded into the oil groove of the connecting rod.

The crankpin on the No. 4 side was scored to a depth of .035; the journal on No. 4 was scored to a depth of .069 in diameter. The piston and connecting rod showed no signs of damage.

No. 12 upper bearing half showed wear, cracking and some foreign metal on the forward upper side. Apparently a piece of foreign metal (possibly a split pin) had become lodged between the upper halves of bearings #4 and #12. This foreign metal caused a gouging effect between the upper halves of No. 4 and No. 12, overheating and distorting the metal. The source of the foreign metal could not be found though a thorough inspection was made.

No. 4 bearing was renewed during the last refit and at the time of the casualty the engine had a total of 230.2 hours of operation. Several crankcase inspections have been made since the refit, the last one being made on 5 July. At that time no signs of wear were found.

The ship's force was unable to repair the damaged journal; No. 4 unit was cut out; all burrs removed from the No. 12 side of the crankpin and a new brass-backed bearing installed. The engine was then put back in service at reduced power and operated satisfactorily for eight weeks.

#3 Main Engine Muffler

No. 3 main engine muffler ruptured due to electrolytic action, causing excessive noise and emission of sparks. For accessibility to repair the holes, it was necessary to cut a twelve by sixteen hole in the metal deck plating directly above the muffler elbow. The metal cut away was used as patching material. A patch was welded over a nine by three inch hole in the muffler elbow and bent down and spotted at the bottom. An attempt was made to weld a patch over the hole between the forward flange and the muffler, but due to the thickness of the flange metal this could not be done with the material available. The muffler was too thick to weld.

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(K) MAJOR DEFECTS AND DAMAGE (CONT.)

Engineering (Cont.)

In place of the above, the muffler by-pass line was cut away in such a manner that the water discharge quenches any sparks that may escape.

Subsequently No. 4 main muffler elbow ruptured due to electrolytic action and this was repaired in Darwin by welding a patch over the elbow.

Since that time No. 1 main muffler and No. 4 main muffler have developed additional holes.

It will be necessary to renew in all probability all four main mufflers and elbows during this refit. This is the second complete change of mufflers on this vessel in only four war patrols. It is believed that new design would be in order with a heavier gage metal used throughout and heavy reinforcements put in the elbows at the obvious weak points.

No. 1 Main Motor

No. 1 main motor gear end bearing developed a clattering noise while at deep submergence. The shaft was stopped and the bearing examined.

This examination showed wiping of the bottom half of the bearing. The journal adjacent to the bearing was heavily scored and burned and metal had carried over to the bearing causing the results above.

The cause of the casualty was shown to be the journal lifting bridge had not been properly cleared of the journal upon reassembly. One of the jacking studs was tight in the raised position. This bearing was inspected by the refit crew during the March refit and has not been inspected since.

The bearing was scraped and pressure on the wiped area was relieved slightly. All burrs and rough spots were stoned smooth on the journal and the lifting bridge adjusted. The motor was put back on load and performance was then normal.

High Pressure Air Compressor

Due to a line voltage ground on the bottom inter-pole of No. 1 high pressure air compressor, and unsuccessful attempts to remedy in place, the coil was removed and replaced with a spare coil.

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(K) MAJOR DEFECTS AND DAMAGE (CONT.)

The coil was found to be impregnated with salt water which had collected in the bottom of the motor casing. This water entered the motor from the pump room bilges when negative tank was vented inboard with a down bubble on the boat. Baffle will be installed.

Lower Fresh Water Gasket, #2 Main Engine

At 1106 on 5 August, the lower fresh water gasket on #12 unit of #2 main engine exhaust elbow water jumper carried away. The engine was stopped and the gasket renewed. The casualty was caused by deterioration of the gasket material. The engine was back in commission at 1313.

Fuel Line to Injector No. 13, No. 4 Main Engine

At 1752 on 13 August, a leak developed in the fuel line to the injector of No. 13 unit on No. 4 main engine. The line which had a faulty weld was renewed with a spare and the engine was back in commission at 1827.

D.R.A.I.

On 1 August 1944 the longitude indication of the D.R.A.I. failed completely. The latitude connection crank arm appeared to be rubbing against the driven disc of the latitude connection mechanism, and sufficient stock was filed off the back of this arm to insure clearance.

About 20 August 1944 the longitude indication failed again. When the D.R.A.I. had been removed from its case the mechanism was working properly. It is believed that the driven disc, which is spring loaded to provide friction against a driving wheel, was forced in a lateral direction along its shaft by a noticeable eccentricity in the disc and stuck there, even against the push of the spring. The slight shock of removing the mechanism from the case might easily have released the bind in the shaft of the disc.

It is recommended that the disc be trued upon its shaft and that the shaft be freed so that it is perfectly free to move in a lateral direction.

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(K) MAJOR DEFECTS AND DAMAGE (CONT.)

Master Gyro Compass

On 28 July 1944, #1 rectifier tube, type C6A, Serial #82549, failed after 7862 hours of operation.

On 13 August 1944 its replacement, type C6A, Serial #94044, failed after 363 hours of operation.

The circuits controlling the operation of the tubes have not been checked, but the tubes appear to function in a normal manner.

About 27 July 1944 the south rotor, serial #131-B, started losing vacuum. On 29 July 1944 the rotor was removed from the compass, a vacuum pumped, and all case screws tightened. The leak was slowed to approximately 1 inch per day but not stopped.

Vacuum was pumped subsequently on 7 August, 17 August, and 22 August, but no other work performed.

(L) RADIO

See narrative for details of transmission of COD scri ls, jamming encountered, and note of excellent servicing received from VIXØ, NPM and Radio BELCONNEN.

Radio reception was in general very good. 16150 Kcs. was valuable in the MNILA area during the day. 12630 Kcs. was at strength 4 with little or no jamming in M'KASSAR area in July. 9250 Kcs. was weak and frequently jammed out during all of July.

All signs were weak in the CELEBES area from 2000 GCT to 2400 GCT during August.

The frequencies recommended by VIXØ for transmitting were used with good results.

No material casualties.

It is recommended that VIXØ repeat messages to a greater extent, in lieu of transmitting his call over and over again. In particular, the time between 0900 GCT to 1200 GCT could be well utilised in sending contact reports and other items of an urgent nature in place of leaving them for the 1200 schedule.

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(M) RADAR

SD-2 (Twenty-five minutes lost during patrol.)

Failure of 8014A tubes occurred after 30 hours of operation. Failure was probably caused by the keying relay installed during the 1st refit. Relay was disconnected and keying was effected by turning up the variac, gradually impressing the voltage on the tubes. A stop was installed at the proper variac setting. Very effective detection resulted at an average range of about 15 miles.

Failure of condenser 255 occurred after more than a year of operation. Failure of one soldered AC lead occurred.

SJ-1 (No time lost during patrol.)

Performance was good. Magnetron was renewed after 1½ patrols due to low power output. The spare magnetron oscillated on two frequencies and was replaced after 30 hours of operation.

The superlative performance and reliability of the radar equipment is due in no small measure to the careful supervision of Lt.(jg) T. C. HURST, III, USN. and to the professional competence of John WALLACE, RPLC, USNR.

(N) SOUND GEAR AND SOUND CONDITIONS

Sound conditions south of LOMBOK STRAIT were only fair due to high noise level and a great variety of fish noises. Depth of water here is approximately 1400 fathoms. On 17 and 18 July observation of sound conditions around C. BRA ISLAND revealed only medium noise level. Fish noises were light during these two days. Depth of water here was 100 fathoms and ranges to land were from 20 to 140 miles, during observations.

On 27 July in the BANDU SEA enroute to DRAKE noise level was fairly low and sound ranges were estimated at 20,000 yards. On August 20 in the vicinity of OMBAI STRAIT sound conditions were observed to be very good. Normal fish noises and low noise level.

Listening ranges in vicinity of LIFUMATOLA ISLAND on two occasions observed to be approximately 22,000 yards.

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(N) SOUND GEAR AND SOUND CONDITIONS (CONT.)

Only sound gear casualties that occurred on this patrol were due to depth charging. During the depth charging on 16 July, several of the commutator bars on the starboard sound head training motor were sprung away from the shaft causing a high spot. The shafting to the training gears was misaligned to the extent that about eight teeth were sheared from the large gear and three from the small gear on the limit switch gear assembly. The heavy jars caused the fan to rub against the field coils and scrape insulation from these coils. The commutator bars were forced back and sanded down to correct size; this eliminated the sparking and knock. On 20 July the armature had to be removed and a cut taken on commutator and fan as the assembly was discovered to be slightly out of line. The motor was out of commission approximately ten hours.

(O) DENSITY LAYERS

Green- wich	GCT			Top & Bottom	Change	Pounds of Layer	Flooded
Date	Time	Lat.	Long.				
7/8/44	0700	13-38.5S.	115-05.7E.	None	0	3000	
7/8/44	2146	10-57.3S.	115-36 E.	140-300	-6	None	
7/9/44	0700	09-15 S.	115-42 E.	None	-10	None	
7/10/44	0131	06-39.2S.	116-34.2E	None	0	None	
7/10/44	2203	06-57 S.	116-22E.	215-240	-1	2500	
7/11/44	0055	02-20 S.	118-27 E.	120-280	-13	10,000	
7/12/44	2340	01-31 N.	119-27.9E.	140-170	-2	None	
7/13/44	2200	04-42 N.	119-42 E.	140-300	-1	1000	
7/14/44	2055	12-43 N.	120-42 E.	230-300	-5	None	
7/15/44	0000	12-22.2 N.	119-23 E.	200-300	-8	None	
7/16/44	2325	11-42 N.	117-46 E.	170-260	-3	None	
7/17/44	1537	12-23.5N.	116-26.8E.	200-330	-8	None	
7/18/44	2100	13-45 N.	119-30 E.	200-300	-5	None	
7/19/44	2055	14-24.9N.	119-41 E.	200-280	-5	3100	
7/21/44	2258	08-01 N.	120-14.3E.	140-300	-9	None	
7/22/44	2123	04-21 N.	120-34 E.	240-300	-2	None	
7/23/44	2100	02-55 N.	125-45 E.	160-300	-6	3000	
7/24/44	2238	01-48 S.	126-21 E.	200-240	-3	None	
7/25/44	2206	02-48 S.	126-00 E.	200-300	-3	2700	
7/27/44	0907	06-58 S.	126-18.2 E.	None	0	None	
7/27/44	2324	09-38 S.	128-10.4 E.	280-305	-1	None	
8/1/44	2314	05-50 S.	126-04 E.	None	0	None	
8/2/44	1820	01-45 S.	126-25 E.	240-305	-3	None	
8/2/44	2146	01-50.5 S.	126-34.3 E.	160-250	0	None	
8/3/44	2100	02-01 S.	125-31 E.	None	0	None	
8/4/44	2140	02-16.2S	123-42.6E.	None	0	None	

(O) DENSITY LAYERS (CONT.)

Green- wich Date	GCT Time	L.t.	Long.	Top & Bottom of Layer	Change Pounds Flooded
8/5/44	0115	02-40	S. 123-07.8E.	160-240	-3 None
8/5/44	2130	02-53	S. 122-24 E.	160-240	-4 None
8/6/44	2100	02-53	S. 122-28 E.	160-300	-7 None
8/8/44	2125	04-28.5	S. 124-44.2 E.	260-280	-6 None
8/9/44	0050	04-09.8S.	124-41.9E.	170-200	-1 None
8/9/44	2147	05-20.2S.	121-04.1 E.	100-300	-10 2000
8/10/44	2130	06-28	S. 120-41 E.	100-300	-7 None
8/11/44	0009	05-21.4	S. 121-02.8 E.	100-180	-5 None
8/11/44	2330	05-24.9S.	121-03.9E.	140-240	-6 None
8/12/44	2335	06-21	S. 124-00 E.	260-300	-1 None
8/13/44	2126	04-26	S. 126-29.8E.	260-300	-3 None
8/14/44	2141	02-27.5S.	126-45 E.	200-300	-5 None
8/14/44	2320	02-26.8S.	126-45.4E.	160-200	-3 None
8/15/44	0615	02-23.5	S. 126-42.5 E.	None	-2 None
8/15/44	0423	03-23.5	S. 126-45.5 E.	None	-2 None
8/16/44	0219	03-38.5S.	125-11.8 E.	None	0 None
8/17/44	2202	05-21.8	S. 121-04.5 E.	100-300	-12 7,000
8/18/44	1205	05-01.2	S. 121-16.8E.	90-300	-11 6,000
8/20/44	0851	11-52.1S.	121-39 E.	None	0 None

(P) HEALTH, FOOD, AND HABITABILITY

Health of crew excellent. One sick day (gastroenteritis), patient transferred at DAHWIN. One sick day (wound, traumatic, large finger, right hand); electrician's mate placed finger in belt drive of distiller.

Health of prisoner poor. When taken aboard on 10 August 1944 he was suffering from shock, abdominal pain, multiple contusions, internal hemorrhage, and nausea. He was treated with morphine, luminol, and applications of heat and was fed intravenously. Condition improved rapidly under care of pharmacist's mate, only a few contusions and slight feeling of apprehension remaining. For successfully nursing this prisoner of war back to health, great credit is due to LASKOWSKI, Walter E., CPhM(AA), USN.

Food excellent. Good cooks. Only 3 feedings of steak, how ver.

Habitability excellent.

(Q) PERSONNEL

Very aggressive.

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(R) MILES STEAMED - FUEL USED

FROM FRAMPTON to BARRIER	1493.5 Mi.	21,610 Gals.
NORTH of BARRIER	4222.2 "	55,255 "
BARRIER to DARWIN	479.6 "	5,165 "
DARWIN to BARRIER	495.1 "	6,075 "
NORTH of BARRIER	4276.5 "	60,490 "
BARRIER to FRAMPTON	1975.4 "	28,785 "

(S) DURATION

Days enroute to area	7
Days in area	18
Days enroute to and from Darwin	5
Days in area	18
Days enroute to FRAMPTON	6
Days submerged	12

(T) FACTORS OF ENDURANCE REMAINING

Torpedoes	Fuel	Provisions	Personnel
0	18,000 Gals.	15 Days.	30 Days.

Limiting factor this patrol: Torpedoes.

(U) REMARKS

(V) PERSONNEL

No. of men on board during patrol	- 74
No. of men qualified during patrol	- 13
No. of men advanced in rating during patrol	- 13
No. of qualified men on board at end of patrol	- 62

SUBMARINE SQUADRON SIXTEEN

FC5-16/FB5-161/A16-3
Serial (024)

Care of Fleet Post Office,
San Francisco, California.
30 August 1944.

FIRST ENDORSEMENT to:
USS COD War Patrol Report
No. 4 dated 30 August 1944.

C-O-N-F-I-D-E-N-T-I-A-L

From: Commander Submarine Squadron SIXTEEN (Administrative).
To : Commander-in-Chief, U. S. Fleet.
Via : (1) Commander Submarines, SEVENTH FLEET.
 (2) Commander, SEVENTH FLEET.
Subject: U.S.S. COD (SS224) - Report of Fourth War Patrol - Comments on.

1. The fourth war patrol of the U.S.S. COD, from 3 July to 25 August 1944, was of fifty four days duration of which thirty six days were spent in the area. Aggressiveness and good area coverage were much in evidence during this patrol.

2. Ten aggressive torpedo attacks and one gun attack were made on enemy shipping. Out of the first load of twenty-four torpedoes only one sure hit was made. Undoubtedly poor torpedo performance accounted for some of the misses. Out of the twenty four torpedoes loaded at Darwin eleven hits were made.

Attack No. 1 - A daylight submerged attack on an escorted convoy of three enemy ships after an end around chase. The first six torpedoes (Three at each of two AK's) were fired with fairly large gyro angles and comparatively long torpedo run. Both targets maneuvered to avoid and all torpedoes missed. The four torpedoes fired two minutes later at the escort ship were fired with large gyro angles and very small track angles and all missed.

Attack No. 2 - Following another end around on the same convoy Cod made a night surface attack with three torpedoes from an excellent position with depth setting three feet. All missed and counteraction by the escort prevented further attacks.

Attack No. 3 - A night submerged attack on two large ships with five escorts. Six torpedoes were fired with large gyro angles and small track angles at an escorting destroyer. One hit was heard, possibly on a trailing escort.

Attack No. 4 - A night surface attack on a convoy of four AK's and five escorts. Four stern tube torpedoes fired at an AK missed.

Attack No. 5 - A night surface attack on a convoy of three AK's and four escorts. One torpedo fired at an AK was heard to hit.

Attack No. 6 - A night submerged attack with four torpedoes on an AK or AP-AK with one escort. Three hits were seen.

G. W. PATTERSON, Jr.

H. S. O'LEARY

6. The Commanding Officer, Officers and Crew are congratulated for a highly aggressive patrol and the damage inflicted on the enemy.
5. The health and morale of the crew on return from patrol was excellent.

4. The COD will be refitted during the normal period. Number four journal on number one main engine will be ground down and an oversize bearing fitted. All main mufflers and elbows will be replaced with mufflers and elbows manufactured of 3/8" plate. IFF equipment will be installed this refit.

3. The successful use of hand keying of SJ radar for communication on two occasions is noteworthy.

- Attack No. 10 - A night submerged attack on an unidentified ship. Four torpedoes were fired and no hits were observed.

- Attack No. 9 - Following an ineffective gun attack, fired four torpedoes on a night submerged attack at a large landing craft. Three hits were seen and target sank.

- Attack No. 8B - After an end around, attacked the same target with four more torpedoes. One more hit was made and the target sank.

- Attack No. 8A - A night surface attack on an unidentified enemy ship with four torpedoes which produced one hit that did not damage the target sufficiently to stop him.

- Attack No. 7 - A day light submerged attack on a small AK or naval auxiliary with four torpedoes. Three hits were seen and the target sank immediately. One prisoner was picked up.

Subject: U.S.S. COD (SS224) - Report of Fourth War Patrol - Comments on.

C-O-N-F-I-D-E-N-T-I-A-L
Serial (024)
PC5-16/FB5-161/A16-3
Gare of Fleet Post Office,
San Francisco, California.
30 August 1944.

FE24-71/A16-3

UNITED STATES NAVY

12a/gr.

Serial: 01006

10 September 1944.

C-O-N-F-I-D-E-N-T-I-A-L

SECOND ENDORSEMENT to:
USS COD Conf. ltr. A16-3
Serial 03 dated 25 August
1944. Report of Fourth
War Patrol.

From: The Commander Submarines, SEVENTH FLEET.
To : The Commander-in-Chief, UNITED STATES FLEET.
Via : The Commander, SEVENTH FLEET.
Subject: U.S.S. COD (SS224) - Report of Fourth War Patrol -
Comment on.

1. The first phase of COD's Fourth War Patrol was conducted in the assigned area off MANILA. Following a reload at DARWIN another short patrol was conducted in FLORES and MOLUKKA SEAS. This was the first war patrol for the new Commanding Officer, Lieutenant Commander J. A. ADKINS, U.S.N., in command of a Fleet type submarine.

2. Both phases of the patrol were aggressively conducted. Surface running was judiciously employed whenever practicable, and night surface attacks were driven home to good firing ranges.

3. While poor torpedo depth performance or exploder failure may have accounted for the lack of results on attacks No. 2 and 4, it is considered that the misses on the other attacks in the first phase of the patrol were probably due to the use of large gyro angles, and in some cases, of unfavorable track angles. This is particularly true on attacks No. 1-B and 3. It is noted that small gyro angles and favorable track angles were employed during the second phase, and that forty-six percent hits were obtained.

4. This patrol is designated "successful" for the award of the Submarine Combat Insignia.

5. The Force Commander congratulates COD Commanding Officer, Officers, and Crew, on inflicting the following damage on the enemy:

23 SEP 1944

RECEIVED

1782

FE24-71/A16-3

UNITED STATES NAVY

12a/gr.

Serial: 01006

10 September 1944.

C-O-N-F-I-D-E-N-T-I-A-L

SECOND ENDORSEMENT to:
USS COD Conf. ltr. A16-3
Serial 03 dated 25 August
1944. Report of Fourth
War Patrol.

Subject: U.S.S. COD (SS224) - Report of Fourth War Patrol -
Comment on.

SUNK

1 - AK (Medium - EU) - - - - - 4,000 Tons (Attack No. 6)
1 - AK (Naval Auxiliary - EU) - - - 2,000 Tons (Attack No. 7)
1 - AK (Small - EU) - - - - - 2,000 Tons (Attack No. 8B)
1 - LSM (Auxiliary transport - EC) - - 1,000 Tons (Attack No. 9)

TOTAL - 9,000 Tons

DAMAGED

1 - AK (Medium - EU) - - - - - 1,400 Tons (Attack No. 5)

GRAND TOTAL - 13,000 Tons

ORIGINAL COPY

R. W. CHRISTIE.

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THIS REPORT WILL BE DESTROYED PRIOR
TO ENTRY INTO ENEMY CONTROLLED WATERS.

10 04245

P. F. STRAUB, JR.,
Flag Secretary.

Reg. No. 13830
R. S. No. 10 04245

UNITED STATES FLEET
COMMANDER SEVENTH FLEET

A16-3(F-3-4/whr)

Serial 02663

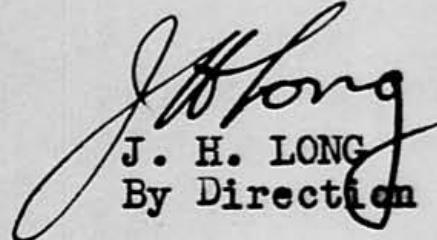
23 OCT 1944

CONFIDENTIAL

THIRD ENDORSEMENT to:
CO, U.S.S. COD Conf.
Ltr. A16-3 serial 03
dated 25 August 1944.

From: Commander Seventh Fleet.
To : Commander in Chief, United States Fleet.
Subject: U.S.S. COD (SS224) - Report of Fourth War
Patrol.

1. Forwarded.


J. H. LONG
By Direction

