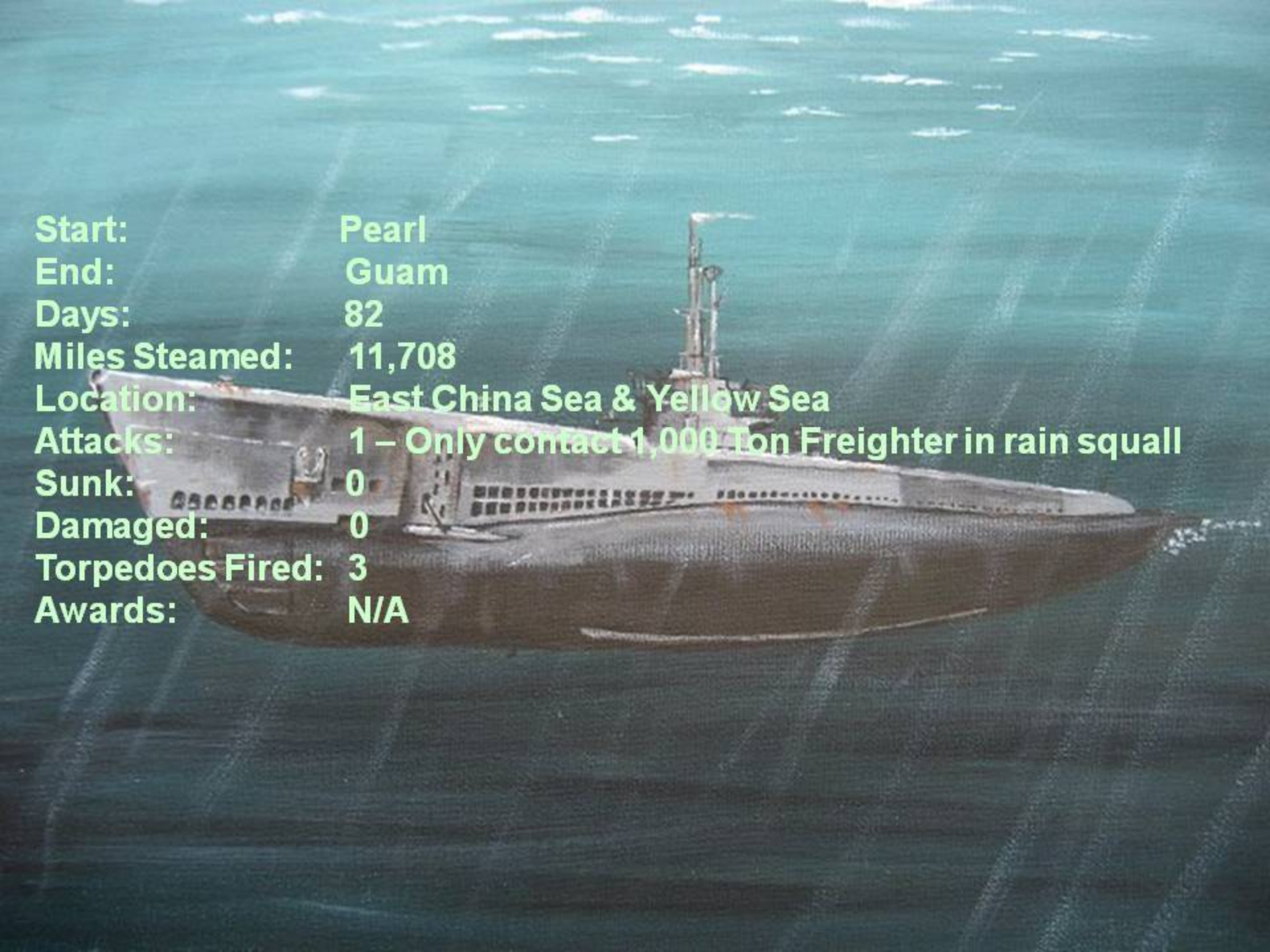




USS BANG (SS 385)
Fifth War Patrol
1/2/45 - 2/24/45

A photograph of a submarine on the surface of the ocean. The submarine is dark-colored with a white conning tower and various antennas and sensors on top. It is moving from left to right, leaving a white wake behind it. The water is a deep blue-green color with some whitecaps.

Start:	Pearl
End:	Guam
Days:	82
Miles Steamed:	11,708
Location:	East China Sea & Yellow Sea
Attacks:	1 – Only contact 1,000 Ton Freighter in rain squall
Sunk:	0
Damaged:	0
Torpedoes Fired:	3
Awards:	N/A

SS385/A16
Serial (01-45)

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U.S.S. BANG (SS385)
Care of Fleet Post Office
San Francisco, California

~~C O N F I D E N T I A L~~
DECLASSIFIED

24 February 1945.

From: The Commanding Officer.
To: The Commander in Chief, U.S. Fleet.
Via: (1) The Commander Submarine Division 202.
(2) The Commander Submarine Squadron 20.
(3) The Commander Submarine Force, U.S. PACIFIC Fleet.
(4) The Commander in Chief, U.S. PACIFIC Fleet.
Subject: U.S.S. BANG (SS385) - Report of FIFTH War Patrol.
Enclosures: (A) Subject Report.
(B) Track Chart (ComSubsPac only).

1. Enclosure (A), covering the FIFTH War Patrol of this vessel conducted in the East China Sea and Yellow Sea area during the period 2 January 1945 to 24 February 1945 is forwarded herewith.

A. H. Gallaher
A. H. GALLAHER.

DECLASSIFIED-ART. 6145, COMNAVINST 5510.1C

BY OP-0989C DATE 5/23/77

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Subject: U.S.S. BANG (SS385) - Report of FIFTH War Patrol.

(A) PROLOGUE

Arrived Pearl Harbor on 5 December 1944 from FOURTH War Patrol.
From 6 December 1944 to 1 January 1945, refit, training and loading.
Refit was conducted by Submarine Base, Pearl Harbor and Submarine Division
43 Relief Crew. Ready for sea 2 January 1945.

(B) NARRATIVE

12-12 January

1345W/2 Departed Pearl Harbor enroute Saipan in accordance with ComTaskForce
17's Operation Order No. 3-45. Normal cruising, training dives and
drills.

13 January

1251(K) Arrived Saipan; moored to U.S.S. FULTON. Received fuel and effected
minor voyage repairs.

14 January

Moored Saipan.

15 January

1014(K) Underway enroute area. This ship a unit of Wolfpack No. 23 consisting
of the SPADEFISH, BANG, ATULE and POMPOH. Commander G.W. Underwood,
USN., Commanding Officer U.S.S. SPADEFISH, Task Group Commander.

16-18 January

Enroute area. All times ITEM unless otherwise stated.

19 January

0200 Sighted white light on horizon; investigation revealed three white
lights forming a triangle, about 5000 yards between lights. One
radar pip in center of lights, not visible. Maximum range to pip
8000 yards. Considered that this might be a downed plane, or a
trap for our submarines. Maneuvered in vicinity until dawn.
0554 Submerged with range to pip 4000 yards and closed to investigate.
0610 Sighted small trawler (Ship Contact No. 1). Sea was too rough for
a gun fight. Opened out and at.
1006 Surfaced and proceeded to area.

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20 January

0650 Submerged.
1250 Surfaced.
1355 SJ radar contact on land at 90,000 yards; YAKU SHIMA.
1440 Submerged.
1830 Surfaced and proceeded through TOKARA KAIKYO.

21 January

0635 Submerged.
0743 Sighted submarine on surface; identified as friendly.
1317 Sighted another friendly submarine on surface.
1410 Sighted two planes (Plane Contact No. 1) distance 8 miles.
1824 Surfaced.

22 January

0545 Entered area.
0644 Submerged.
1827 Surfaced.

23 January - 8 February

Patrolling submerged during daylight. During the nights of 27-29 January sighted numerous small fishing boats each burning a dim white light.
0755/6 Sighted plane (Plane Contact No. 2) distance 6 miles.

9 February

SPADEFISH departed area. BANG assumed Task Group Command.
1508 Sighted plane (Plane Contact No. 3) distance 6 miles.

10 February

0712 Submerged. Visibility variable with numerous short snow squalls.
1318 JP and JK sound contact.
1319 Sighted small steamship coming out of a snow squall (Ship Contact No. 2), bearing 015° relative, range 2400 yards, angle on the bow 15°-20° starboard. Swung left for a stern tube shot, and at 1450 commenced firing 3 torpedoes for a 145° starboard track, gyro 180°, range 1250 yards. No hits. This target was not over 1000 tons, not loaded, and wallowing in the sea. Except for the fact that we had been 20 days on station with no contacts, I would not have fired with this poor set-up; very light draft, large track, and a

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Subject: U.S.S. BAWG (SS385) - Report of FIFTH War Patrol.

guess of 7 knots for target speed. However, I thought that with a four foot depth setting, firing down sea, I might get a lucky hit. Observed target to stay on a steady course until about 20 seconds after the torpedoes were timed to have crossed his track; he then swung left rapidly, gave me a 180° angle on the bow and belched smoke in his attempt to increase speed. Sea was too rough for a gun fight.

1525 Sighted a small sampan.
1705 Sighted another small sampan.

11 February

0704 Submerged.
1851 Surfaced.

12 February

0707 Submerged. Visibility good and sea calm for a change.
0835 JP sound contact, and sighted two masts on the horizon (Ship Contact No. 3). Commenced approach. Nearest range 14,000 yards; where, with 15 feet of periscope exposure, could see only single mast on each ship with top of bridge structure just forward of masts. Targets tracked at 15 knots and were making 165 turns. I believe these were DD's or DE's. When I found that I could not close the track, commenced opening out to surface and conduct an end around, but at.
0950 With 15 feet of periscope exposed sighted plane (Plane Contact No. 4), coming from direction of targets with a near zero angle on the bow. Went to 100 feet.
0958 JP sound contact bearing 300°T. Other targets were last seen bearing 130°T. Came to periscope depth, but had sound contact only until
1036 Sighted what appeared to be the top of a bridge structure on the horizon (Ship Contact No. 4). Commenced approach. Being coached on by sound, I found an escort ahead of this target. Range estimated at 10,000 yards, angle on the bow 15° starboard. At 6000 yards I became suspicious as to the size of these targets. At 3000 yards definitely identified the escort to be similar to our SC; and the target to be a broad flat bottomed craft of about 800 tons with a high stack and bridge structure, with one gun mount just forward of the bridge and another in the bow. At 1500 yards both zigged toward me, one giving a 10° starboard and the other a 10° port angle on the bow. Rigged for depth charge and silent running and sat on the bottom at 228 feet. I believe this was an anti-submarine patrol group. They were not pinging, but they milled around me for about a half hour before they opened out in the direction from which they

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had come.
1545 Came up to periscope depth. Nothing in sight.
1912 Surfaced.

13-18 February

Patrolling submerged during daylight.
Sighted planes as follows:
1005/15 Plane Contact No. 5, distance 8 miles.
1317/15 Plane Contact No. 6, distance 8 miles.
1555/15 Plane Contact No. 7, distance 8 miles.
0845/17 Plane Contact No. 8, distance 10 miles.

19 February

0645 Submerged.
1857 Surfaced.
2230 Departed area.

20-21 February

Enroute Guam.
1403/21 Sighted plane (Plane Contact No. 9), distance 3 miles. Plane
appeared in a break in the clouds for a few seconds with a large
angle on the bow; tracked out by SD radar.

22 February

Enroute Guam.
1240 SD radar contact on plane (Plane Contact No. 10), distance 5 miles.
Submerged.
1311 Surfaced.

23 February

Enroute Guam.

24 February

Moored Guam.

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(C) WEATHER

Weather in the area was consistently cloudy with choppy seas and occasional snow and sleet.

(D) TIDAL INFORMATION

Currents in the area were generally unpredictable.

(E) NAVIGATIONAL AIDS

None sighted.

(F) SHIP CONTACTS

<u>NO.</u>	<u>TIME DATE</u>	<u>LAT. LONG</u>	<u>TYPE(S)</u>	<u>INITIAL RANGE (YARDS)</u>	<u>EST. COURSE SPEED</u>	<u>HOW CONT</u>	<u>REMARKS</u>
1.	0200(I) 19 Jan.	27°-15'N 135°-00'E	Small trawler	6,300	0	Radar	
2.	1318(I) 10 Feb.	36°-52'N 124°-01'E	Small steamship	2,400	185 7	Sound	
3.	0835(I) 12 Feb.	37°-41'N 123°-59'E	Two DD's	14,000	080 15	Periscope	
4.	0958(I) 12 Feb.	37°-43'N 123°-59'E	SC & patrol boat	10,000	110 10	Sound	

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(G) AIRCRAFT CONTACTS

CONTACT NO.	1	2	3	4	5	6
DATE	1/21	2/6	2/9	2/12	2/15	2/15
S ZONE						
U TIME	1410	0755	1508	0950	1005	1317
B L.T.	30-48N	33-58N	34-41N	37-44N	33-08N	33-05N
M LONG.	128-35E	123-59E	123-36E	123-59E	124-20E	124-26E
R SPEED	2.5	2.5	2.5	2.5	2.5	2.5
I COURSE	000	330	030	180	125	125
E TRIM	Per	Per	Per	Per	Per	Per
*MINUTES	0.0	0.0	0.0	0.0	0.0	0.0
NUMBER	2	1	1	1	1	1
A TYPE	Bomber	BETTY	NELL	Unk	OSCAR	BETTY
I PROBABLE						
R MISSION	Unk	Pat	Pat	Pat	Pat	Pat
C HOW						
R CONTACTED	Per	Per	Per	Per	Per	Per
A INITIAL						
F RANGE	8	6	6	7	8	8
T ELEVATION						
ANGLE	6	4	2	3	2	3
BEARING AND						
BEARING	ND	ND	ND	ND	ND	ND
SEA STATE:						
C (BEAUFORT)	3	3	4	2	3	3
O DIRECTION,						
N RELATIVE	330	000	300	030	000	000
D VISIBILITY,						
I MILES	20	20	30	12	15	15
T (CLOUDS)						
I HEIGHT FT.	1200	5000	3000	8000	10,000	10,000
O PERCENT						
N OVERCAST	90	100	80	60	50	60
S (MOON)						
BEARING (REL)	DAY	DAY	DAY	DAY	DAY	DAY

*Minutes since last SD radar search.

%Range and relative bearing of plane when it detected submarine.

Type camouflage this patrol - Light Grey.

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(G) AIRCRAFT CONTACTS (Continued)

CONTACT NO.	7	8	9	10
DATE	2/15	2/17	2/21	2/22
ZONE				
TIME	1555	0845	1403	1240
LAT.	32-58N	32-15N	25-55N	20-00N
LONG.	124-23E	125-55E	132-42E	134-32E
SPEED	2.5	2.5	18	18
COURSE	125	310	170	125
TRIM	Per	Per	Surf	Surf
*MINUTES	0.0	0.0	30 Sec	30 Sec
NUMBER	1	1	1	1
TYPE	HUPE	BETTY	Unk	Unk
PROBABLE				
MISSION	Pat	Pat	Pat	Pat
HOW				
CONTACTED	Per	Per	Lookout	SD
INITIAL				
RANGE	8	10	3	5
ELEVATION				
ANGLE	6	3	2	-
RANGE AND BEARING	ND	ND	ND	ND
SEA STATE:				
(BEAUFORT)	3	3	3	2
DIRECTION,				
RELATIVE	000	010	100	130
VISIBILITY,				
MILES	15	15	10	30
(CLOUDS)				
HEIGHT FT.	10,000	10,000	4,000	7,000
PERCENT				
OVERCAST	60	40	90	70
(MOON)				
BEARING (REL)	DAY	DAY	DAY	DAY

*Minutes since last SD radar search.

*Range and relative bearing of plane when it detected submarine.

Type camouflage this patrol - Light Grey.

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(H) ATTACK DATA

U.S.S. BANG (SS385)

TORPEDO ATTACK NO. 1.

PATROL NO. 5.

Time: 1326(I)

Date: 10 Feb. 1945

Lat: 36°-55'N

Long: 124°-01'E

TARGET DATA - DAMAGE INFLICTED

Description: One small unescorted freighter of about 1000 tons.

Ships Damaged: None.

Ships Sunk: None.

Target Draft: 4 feet

Course: 185°

Speed: 7

Range: 1250

OWN SHIP DATA

Speed: 3.0

Course: 333°

Depth: 64 feet

Angle: 0°

FIRE CONTROL AND TORPEDO DATA

Type Attack: Day submerged. Fired after quick set-up with guess at targets speed. Three torpedoes fired spread from aft forward by means of the offset knob on the TDC.

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ATTACK NO. 1.

Tubes Fired	7	8	10
Track Angle	146S	148S	152S
Gyro Angle	182	184	187
Depth Set (ft)	4	4	4
Power	High	High	High
Hit or Miss	Miss	Miss	Miss
Erratic	No	No	No
Mark Torpedo	14-3A	14-3A	14-3A
Serial No.	40751	64077	40282
Mark Exploder	6-5	6-5	6-5
Serial No.	26898	14299	26796
Actuation Set	CONTACT	CONTACT	CONTACT
Actuation Actual	-	-	-
Mark Warhead	16-1	16-1	16-1
Serial No.	16705	15202	19389
Explosive	TORPEX	TORPEX	TORPEX
Firing Interval	0	8	16
Type Spread	14L	0	1R

Sea Conditions Moderate Swell

Overboard Activity U.S. Submarine Base, Pearl Harbor.

REMARKS: Misses due to unknown control errors, or torpedoes under running the target.

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(I) MINES

No remarks.

(J) ANTI-SUBMARINE MEASURES AND EVASION TACTICS

The SC and patrol boat encountered on 11 February were probably conducting an anti-submarine patrol.

(K) MAJOR DEFECTS AND DAMAGE

ENGINEERING

(a) Main Generators:

1. Resistance readings dropped to 400,000 ohms on #2 main generator. This was discovered on 20 February. Further investigation revealed the low reading to be in the armature windings. Armature was cleaned as far as possible, with no result. Generator was then placed in an "emergency use only" status for the remainder of the patrol.
2. Excessive sparking appeared at the commutator of #1 main generator on 21 January. All brushes were renewed, correcting the sparking.
3. The commutator of #3 main generator was found to be scored in three places on 30 January. Scoring was apparently caused by foreign material which had disintegrated in the scoring. Generator was cleaned and replaced in service.
4. Excessive oil was found to be leaking into #1 and #3 main generators on 12 January. This recurrent casualty was caused by faulty oil seal rings, which were found to have been pitted, scratched and full of sand holes. Installation of new and carefully dressed down seal rings corrected the leakage.

(b) Main Motor Brushes:

1. Main motor brushes installed by the refit activity were the old, rivetted type. New type "USN" or "USNO" brushes were not available during refit and arrived too late for installation prior to departure on patrol. These brushes could not be drawn for spares. The expected trouble evidenced itself as follows:
 - Jan 10: #2 main motor, three brushes faulty.
 - Jan 23: #2 main motor, three brushes faulty. #4 main motor, 4 brushes faulty.
 - Feb 10: #2 main motor, four brushes faulty.
 - Feb 13: #4 main motor, three brushes faulty.
 - Feb 14: #1 main motor, three brushes faulty. #3 main motor, 3 brushes faulty.

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Each time this occurred, one shaft had to be put out of commission for a period of from two to four hours. Brush failure was accompanied by a characteristic whine and chatter in the affected motor. Failures were invariably on the trailing side of the brush rigging. It was noted that the contacts on some of the spare brushes received were as loose as the faulty brushes replaced.

(c) Main Engine Water Jackets:

1. During the period 15-30 January, cracks appeared in the water jackets of #3 and #4 units of #3 main engine, and #1, #5, and #8 units of #4 main engine. These cracks started from the injector and air starting check valve fittings, running vertically for a distance of from one to four inches, allowing a very considerable amount of water to leak out. Cylinder operation was normal in all other respects.

Size #40 holes were drilled in the jacket at the ends of the cracks, to prevent lengthening. Holes were plugged with lead foil plugs. A mixture of glycerine and glyptal was smeared over the crack, which sealed all but the largest one effectively. The largest crack was smeared liberally with the glycerine-glyptal mixture, and a layer of Consoco laid over the crack, the whole arrangement being secured with a band of copper bolted around the cylinder. All engines were kept in operation.

(d) Gyro Compass, Master:

1. On 28 January, a loud noise in the master gyro was traced to the oscillator motor, which failed entirely a few minutes afterward. Disassembly revealed the worm and pinion gears worn beyond repair, and the shaft from the motor snapped off. As the gears were worn only in one place, it was evident the casualty was caused by misalignment when the compass was overhauled. The mercury was found to be extremely dirty. Mercury was cleaned, and gyro reassembled without oscillator motor, after which it operated satisfactorily.
2. Follow-up motor on master gyro became erratic in operation, and finally inoperative on 13 February. It was replaced with a spare, and the trouble corrected.

(e) Hull Ventilation Booster Blower:

The control room ventilation booster blower in the supply ventilation line developed a full voltage ground on 8 January. At Saipan, a complete new blower was installed. Two days from Saipan, blower became very noisy, and bearings were replaced. Two days later the

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same condition occurred. Disassembly revealed the fan to be extremely out of balance. All attempts to balance the fan proved futile, with the result that this valuable asset to the health and comfort of the forward compartments was out of commission during the patrol.

(f) Vapor Distillers:

Discharge pressure of #1 vapor still reached 7" per square inch on 6 February. Temperature could not be raised above 140° without cutting down overflow to less than 12 gallons per hour. Still was disassembled, cleaned, and reassembled in 36 hours, due to the perseverance and skill of the members of the engineering force. Several glassy layers of scale were chipped off, apparently the residue from previous acid cleanings. After cleaning, still operated satisfactorily in all respects.

(g) Reduction Gears and Thrust Bearings:

1. The apparent noise level of the reduction gears increased markedly, continuing the trend of previous patrols. Noise level is now such that the term "silent running" has lost most of its meaning. The last sound test of the ship showed a 91 db. noise level at 60 turns.
2. When diving and changing speed, severe vibration of the starboard shaft is apparent, together with loud knocking noises from the vicinity of the thrust bearings and reduction gears. This condition also exists to a smaller degree in the port shaft.

(h) Drum Type Controllers:

The drum type controllers were more than usually unreliable on this patrol. The trim pump controller was almost totally inoperative during the last ten days of the patrol during which time the drain pump was used for compensation. This condition might easily jeopardize the safety of the boat, since when going deep to escape depth charge attack the boat becomes heavy and depth control cannot be maintained without running at a speed far in excess of quietest running speed. With our noisy reduction gears this is a very serious consideration on this ship. #1 hydraulic controller was also extremely hard to operate due to tripping out. It is hoped that the drum type controller will be replaced during the next refit.

C & R

(a) High Pressure Air Compressors:

The third stage inter coolers of both high pressure air compressors cracked loose from the cooler twice during this patrol. Coolers were removed and rebrazed, and cracks in coolers repaired by silver soldering. This defect has been found every previous patrol.

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ORDNANCE

(a) Torpedo Data Computer:

On January 12, during routine operation of the TDC, a growling noise was heard in the lower part of the position keeper. Investigation revealed excessive sparking in the time motor. After a short period of further testing, the time motor failed entirely. Time motor at this time had 379 hours of operation. Testing revealed four open circuited and two short circuited coils in the armature.

As the allowance list provides for no spare armature or motor, decision was made to rewind the armature. Rewinding was possible only because the radio department had sufficient size 30 rewinding wire available. Rewinding was completed in seven and one half days, due to the perseverance and ability of Lt(jg) William E. Spengler, USNR., Radar Officer, and Russel D. Pankey, RT2c, USNR.

The TDC was then restored to normal operation.

As this motor is supposed to be replaced at 500 hours, and is absolutely essential to the operation of the TDC, it is recommended that a spare motor be placed on the allowance list.

(b) True-Rel SJ Bearing Transmitter:

The synchro transmitter unit of the SJ radar True-rel unit failed on 23 January. Inspection revealed worm and pinion gears worn beyond repair, due to poor alignment. The transmitter unit was of the heavy duty type, installed during the previous refit.

RADAR

Modulation Network:

Modulation Network in the SJ-1 radar transmitter failed 10 January, due to oil leakage. Replacement unit failed after a few hours use due to shorted choke coil (L1). Repairs and replacements were effected at Saipan.

(I) RADIO

On 9 January at 1300(Z) Saipan could not be contacted on either 4155 or 8310 kcs. This message was received by Kwajalein on 8470 kcs without trouble. On 19 January at 0500(Z) Radio Honolulu was called on 12705 kcs. A station, presumably enemy, answered up using Radio Honolulu's call and asked for several

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repetitions of V's. This station failed to authenticate. Radio Guam then answered up on this frequency but could not receive our transmission. We then shifted to 8470 kcs and got through without further trouble. On 19 February at 1530(Z) Radio Guam was called on both 4235 and 8470 kcs but strength five interference was encountered. After slightly lowering 8470 kcs in response to a procedure signal without success, we shifted to 12705 kcs and got the message off. The total time between the initial call up and the receipt was one hour and forty-five minutes.

At 0250(Z) on 21 February a message was sent to Radio Guam on 12705 kcs without any apparent transmission difficulties. However, a good deal of trouble arose and unnecessary time was spent on the air due to improper handling of authentication by the receiving station. We were asked to check the authentication of our transmission which was found to be correct. It was then necessary to send three requests to obtain authentication on same procedure signals sent out by the Guam operator. His authentication on the receipt was incorrect but was corrected after a challenge.

Fox Schedules were copied with a minimum of trouble. 6045 and 4515 kcs were used from surfacing time to 1700(Z) and 9090 kcs from then until diving. Reception on 9090 kcs during time of simultaneous keying of Radio Honolulu and Radio Guam was excellent. Daytime copying was mostly on 13655 kcs. No jamming was noted on these frequencies.

China Schedules were copied on 4155 kcs without difficulty. Two China messages on 17 February and one on 18 February failed to break.

The wolfpack frequencies were covered by Jap random keying which could normally be overcome by wolfpack signals. Some Jap stations appear to have a transmitter and receiver set on these frequencies in order to begin jamming messages as soon as a boat opens up.

(M) RADAR

SJ-1: There were some difficulties with this gear the first few days of patrol. These are as follows:

- (a) Changed erratic 0-300 VDC meter in control unit.
- (b) Replaced leaking modulation network in transmitter-receiver unit. Also 5D21 and various tubes in pulsing section.
- (c) Ghost echoes at 1450 yards and jittery sweep were found to be temporarily eliminated by detuning AFC unit.

As the FULTON was unable to effect repairs in time received from then a new Transmitter-Receiver unit. The following difficulties were encountered during the remainder of the patrol:

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- (a) Replaced horizontal centering and IF gain controls in Receiver-Indicator unit.
- (b) Installed new 721-A, crystal, and retuned RF assembly.
- (c) Adjusted the transmitter delay by means of the Pre-Knock due to the fact that the range step would not zeroize. Changed faulty tube in the range unit.
- (d) Tuned the standing wave ratio of the wave guide to eliminate the double moding effect of the pulling of the magnetron. On certain bearings, the wave guide base has the appearance of being replaced off center.

Maximum ranges obtained are 14,000 yards on a submarine and 90,000 yards on land.

SD-4: Aircraft were picked up from 20 to 30 miles. After retuning the RF section, land was picked up at 48 miles.

The major failures are listed below:

- (a) Replaced two RF tubes, defective because of arcing of the transmitter without proper loading of the antenna.
- (b) Replaced two defective tubes in IF strip. Sensitivity was increased to a great extent.
- (c) Installed two 8014-A oscillator tubes and retuned the RF lines. Tubes failed due to excessive hours.

ABK-7: This gear operated satisfactorily.

BN: The only failure experienced was that the 15-E transmitter tube became gaseous and ceased to oscillate. This was replaced and the set tuned by means of the OAP wavemeter.

APR-SPA: Very satisfactory operation.

(N) SOUND GEAR AND SOUND CONDITIONS

Sound gear performance was satisfactory. Sound conditions were bad due to high background noise caused by rough seas and shallow water, except for one calm day. On this instance, high speed screws were picked up at about 14,000 yards by the JP-1, and shortly thereafter by the JK. These screws were tracked out to approximately 23,000 yards.

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(O) DENSITY LAYERS

Date and Time (GCT)	Position	ISOTHERMAL to feet	NEGATIVE degrees	GRADIENT to feet	degrees
12 Feb. 0300	37°-43'N 123°-59'E	230	38	-	-
20 Feb. 0600	30°-21'N 129°-28'E	425	61	-	-

Daily dives to 100-120 feet showed isothermal with temperatures ranging from 38° in latitude 37°-43'N to 60° in latitude 31°-40'N.

(P) HEALTH, FOOD, AND HABITABILITY

Food was ample and well prepared. Health was very good in spite of the fact that the habitability of the boat was bad, especially in the forward battery and forward torpedo room due to the lack of the booster blower; and in the after battery and after torpedo room due to much condensation. It is suggested that the after torpedo room be better insulated, with additional cork on the overhead, and insulation under the linoleum on the deck.

(Q) PERSONNEL

Personnel was well above average and morale remained high despite the disappointment of a long fruitless patrol. The replacement personnel obtained from SubDiv 202 were of high caliber and quickly adapted themselves to submarine requirements.

Number of men on board during patrol	74
Number of men qualified at start of patrol	57
Number of men qualified at end of patrol	73
Number of unqualified men making first patrol	14
Number of men advanced in rating during patrol	2

(R) MILES STEAMER - FUEL USED

	<u>MILES</u>	<u>GALLONS</u>
Pearl to Saipan	3682	40,640
Saipan to Area	1971	21,595
In Area	4517	49,660
Area to Guam	1538	30,000

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(S) DURATION

Days Pearl to Saipan	11
Days Saipan to Area	7
Days in Area	29
Days Area to Guam	4
Days Submerged	31

(T) FACTORS OF ENDURANCE REMAINING

Torpedoes	19
Fuel	19,660 gallons
Provisions	16 days
Personnel	Indeterminate

Limiting factor this patrol - Orders from ComSubPac

(U) RADIO AND RADAR COUNTERMEASURES

No radio countermeasures were attempted by this vessel on this patrol.

The radar countermeasures taken consisted entirely of interception of Japanese radar signals by the APR intercept receiver. Upon completion of the refit at Pearl Harbor, received the new B type tuning units, covering a frequency range from 37 mc to 1000 mc., and a TN-4A unit covering the centimeter range. The B type units were found to be superior to the A series units both in range of reception and sensitivity. The incorporation of the automatic tuning feature made for easier operation. There was a great deal of distortion encountered when the drive motors were operated from the VHF motor generator, but this was overcome by the use of dry cells.

The TN-4 tuning unit was not of much use for interception. Although there was a coaxial cable supplied with the unit to be connected into the SJ wave guide, the attenuation of this cable prevented any weak signal from reaching the receiver. The mounted APR antenna was of no use. The fact that the SJ had to be secured during its operation was another reason for its disuse.

A continuous watch was kept on the surface.

The log of intercepts follow, all times ITEM:

CONFIDENTIAL

Subject: U.S.S. BANG (SS385) - Report of FIFTH War Patrol.

DATE TIME	SHIP POSITION	FREQUENCY IN MC	PRF CPS	PULSE WIDTH IN U SEC	ANTENNA ROTATION
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17 Jan 1900	23°-08'N 138°-53'E	66	Irregular	40	None
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Remarks: The pulse had the appearance of a noise modulated signal. The audio output sounded as if there was a definite pulse rate.

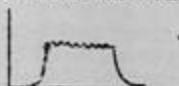
Sketch:



20 Jan 1845	29°-46'N 130°-33'E	148	450-500	12	Random Search
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Remarks: The station was weak but the pulse shape was good.

Sketch:



20 Jan 1845	29°-46'N 130°-33'E	155	950	10	Random Search
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Remarks: Same type as 1845, 20 Jan., but this station seemed to key the radar at intervals of about 2 minutes, staying on about 1 minute.

20 Jan 2100	29°-48'N 130°-12'E	159	450	8	Random Search
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Remarks: Same type as 1845, 20 Jan., but weaker.

20 Jan 2100	29°-48'N 130°-12'E	75	500	35-40	See Remarks
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Remarks: This radar was medium in strength. The rotation of the antenna seemed to be alternately fast and slow.

Sketch:



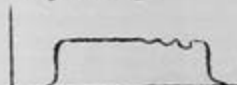
CONFIDENTIAL

Subject: U.S.S. BANG (SS385) - Report of FIFTH War Patrol.

DATE TIME	SHIP POSITION	FREQUENCY IN MC	PRF CPS	PULSE WIDTH IN U SEC	ANTENNA ROTATION
21 Jan 2215	31°-17'N 128°-28'E	99	750	20	0.3 rpm

Remarks: Quite weak except every 10 minutes he seemed to increase power and came in very strong.

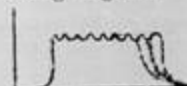
Sketch:



27 Jan 1900	32°-38'N 127°-24'E	75	450	30	None
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Remarks: Strong signal.

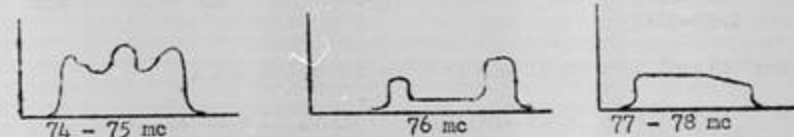
Sketch:



29 Jan 2400	32°-28'N 126°-00'E	75	450	37	None
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Remarks: The strength varied in pulse rate. The frequency covered a 4 mc band width and would have a varying pulse shape as the unit was tuned through its various frequencies.

Sketch:

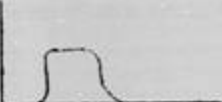


31 Jan 0300	33°-49'N 124°-02'E	70	450	20	None
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Remarks: This signal very weak.

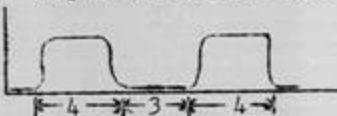
CONFIDENTIAL

Subject: U.S.S. BANG (SS385) - Report of FIFTH War Patrol.

DATE TIME	SHIP POSITION	FREQUENCY IN MC	PRF CPS	PULSE WIDTH IN U SEC	ANTENNA ROTATION
31 Jan 0300	33°-49'N 124°-02'E	160	500	7	1.25 rpm
Remarks: Medium strength.					
Sketch: 					
4 Feb 2100	34°-34'N 124°-12'E	Same intercept as 0300, 31 January.			
7 Feb 2145	33°-36'N 124°-17'E	160	500	See remarks	Irregular

Remarks: This radar believed to be the same as that of 0300, 31 January. The pulse shape was made up of two definite pulses with shape and time duration as shown by sketch. Signal varied in strength from weak to very strong.

Sketch:



11 Feb 0150	38°-02'N 123°-52'E	69	450	20	None
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Remarks: Signal so weak it was hard to determine data.

15 Feb 1000	34°-18'N 124°-09'E	Same intercept as 0300, 31 January.			
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18 Feb 0200	34°-09'N 124°-05'E	Same intercept as 0300, 31 January.			
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Remarks: This signal was very strong at this time as the gain of the receiver had to be reduced to 8 to bring the pulse out of saturation. The SJ had Saishu To at 85,000 yards.

18 Feb 2030	33°-48'N 124°-12'E	Same intercept as 0300, 31 January.			
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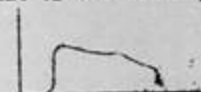
CONFIDENTIAL

Subject: U.S.S. BANG (SS385) - Report of FIFTH War Patrol.

DATE TIME	SHIP POSITION	FREQUENCY IN MC	PRF CPS	PULSE WIDTH IN U SED	ANTENNA ROTATION
20 Feb 0000	31°-01'N 128°-48'E	75	450	18	Random Rotation

Remarks: This signal was medium in strength but the pulse width was about half of that of the other 75 mc radars encountered so far.

Sketch:



20 Feb 1930	30°-13'N 129°-59'E	155	400	13	None
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Remarks: This signal was strong and steady.

Sketch:

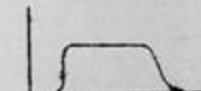


20 Feb 1930	30°-13'N 129°-59'E	Same intercept as 0300, 31 January.			
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20 Feb 1930	30°-13'N 129°-59'E	75	400	36	Irregular
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Remarks: This signal was weak when first picked up but reached saturation at 2000.

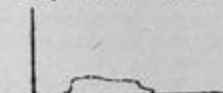
Sketch:



20 Feb 2030	30°-04'N 130°-13'E	390	400	12	Random Rotation
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Remarks: Very weak. This signal may be a harmonic of a 155 mc radar.

Sketch:



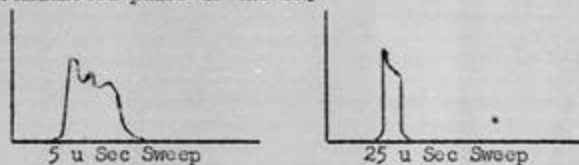
CONFIDENTIAL

Subject: U.S.S. BANG (SS385) - Report of FIFTH War Patrol.

DATE TIME	SHIP POSITION	FREQUENCY IN MC	PRF CPS	PULSE WIDTH IN U SEC	ANTENNA ROTATION
20 Feb 2030	30°-04'N 130°-13'E	145	400	3	Irregular Rotation

Remarks: This radar was very strong when passing Kuchino Shima. It is believed that the pulse width might even be narrower than it appeared on the SPA scope, as it causes the APR to oscillate, making the top of the pulse appear to be a damped sine wave. The appearance of this pulse is very similar to the transmitted pulse of the SJ.

Sketch:



20 Feb 2030	30°-04'N 130°-13'E	92	400	10	0.5 rpm
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Remarks: Medium strength.

Sketch:



20 Feb 2100	29°-59'N 130°-18'E	143	400	18	0.5 rpm
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Remarks: We were able to pick up this rather weak signal for only about 15 minutes.

Sketch:



20 Feb 2100	29°-59'N 130°-18'E	150	400	10	None
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Remarks: Quite strong.

Sketch:



CONFIDENTIAL

Subject: U.S.S. BANG (SS385) - Report of FIFTH War Patrol.

DATE TIME	SHIP POSITION	FREQUENCY IN MC	PRF CPS	PULSE WIDTH IN U SEC	ANTENNA ROTATION
21 Feb 0300	29°-12'N 131°-15'E	160	800	10	See Remarks

Remarks: This radar had a keying effect which may have been aircraft search. It would be barely recognizable above the grass on the scope and then suddenly increase in strength to saturation. The saturation times were irregular.

Sketch:



It has been noticed in the East China and Yellow Seas that the Japanese radars in this area has the appearance of turning off at about 0400 and returning at 0530 local times. This is especially noticeable of all of the 160 mc air search radars encountered.

(V) REMARKS

None.

SUBMARINE DIVISION TWO HUNDRED TWO

FB5-202/A16-3

Serial: 08

Care of Fleet Post Office,
San Francisco, California.
24 February 1945.

CONFIDENTIAL

FIRST ENDORSEMENT to:

CO BANG ltr. SS385/A16

Ser: (01-45) of 24 February 1945

Report of 5th War Patrol.

From: Commander Submarine Division TWO HUNDRED TWO.
To : The Commander-in-Chief, United States Fleet.
Via : (1) The Commander Submarine Squadron TWENTY.
(2) The Commander Submarine Force, Pacific Fleet.
(3) The Commander-in-Chief, United States Pacific Fleet.
Subject: U.S.S. BANG (SS385) - Report of War Patrol Number FIVE.

1. On her fifth war patrol the U.S.S. BANG was a member of a coordinated attack group which included the SPADEFISH, ATULE and POLPON. The Commanding Officer of the SPADEFISH was the Group Commander. The patrol was of fifty three days duration of which twenty eight were spent in the assigned East China Sea and Yellow Sea Area.

2. Despite thorough area coverage the BANG could close but one contact worthy of torpedo fire and seas were too rough for gun engagements. The encountering of but ten hostile aircraft is a further indication that the enemy has, at least temporarily, discontinued his traffic through these waters.

3. On submerged patrol the afternoon of 10 February, a small steamer of about 1000 tons was sighted coming out of a snow squall, initial range 2400 yards. The BANG fired three steam torpedoes on a large track shortly thereafter. Adequate time had not been available for correct solution of the attack problem and no hits resulted. With the present paucity of large targets the expenditure of three torpedoes on this attack is considered definitely warranted.

4. During the morning of 12 February the BANG was unable to close two DD's (or DE's) for a submerged attack. An enemy aircraft then intervened to prevent a possible surface end around. Shortly thereafter the BANG wisely and successfully evaded what appeared to be an anti submarine group consisting of an SC type patrol boat and a peculiarly interesting broad flat bottomed craft of about 800 tons, heavily armed.

5. The BANG arrived from patrol clean but in poor material condition. Her reduction gears are excessively noisy and necessary steps to silence them should be taken during a navy yard overhaul. This overhaul should follow her next patrol. Every facility of the Squadron is being directed to the successful accomplishment of this refit in the normal period. The generally poor condition of the engineering and electrical plants may, however, cause a short delay.

SUBMARINE DIVISION TWO HUNDRED TWO

FB9-202/116-3

Care of Fleet Post Office,
San Francisco, California
24 February 1945.

Serial: 08

CONFIDENTIAL

Subject: U.S.S. BANG (SS385) - Report of War Patrol Number FIVE.

6. Had the enemy the temerity to roam BANG territory that illustrious submarine would have hunted them forth and demolished them. The Division Commander regrets with the commanding officer, officers and crew that such was not the case. He congratulates them on the completion of an annoying patrol and welcomes them back most heartily to their own Squadron.

Rob Roy Mc Gregor
ROB ROY MC GREGOR.

SUBMARINE SQUADRON TWENTY

PC5-20/A16-3

Serial: (026)

Care of Fleet Post Office,
San Francisco, California.
28 February 1945.

CONFIDENTIAL

SECOND ENDORSEMENT to
OO BANG ltr. SS385/A16
Ser: (01-45) of 24 Feb. 1945.
Report of 5th War Patrol.

From: The Commander Submarine Squadron TWENTY.
To : The Commander-in-Chief, United States Fleet.
Via : (1) The Commander Submarine Force, Pacific Fleet.
(2) The Commander-in-Chief, United States Pacific Fleet.

Subject: U.S.S. BANG (SS385) - Report of War Patrol Number FIVE.

1. Forwarded, concurring in the remarks of Commander Submarine Division TWO HUNDRED TWO.

2. It is regretted that the BANG, through lack of ship contacts, was unable to repeat her previous brilliant performances. However, the commanding officer, officers and crew may take enduring satisfaction and just pride from the splendid record of 94,000 tons sunk and over 36,000 tons damaged in less than a year.

L. S. PARKS.

Serial 0446

Care of Fleet Post Office,
San Francisco, California,
9 March 1945.

CONFIDENTIAL

10 MAR 1945

THIRD ENDORSEMENT to
BANG Report of
Fifth War Patrol.

NOTE: THIS REPORT WILL BE
DESTROYED PRIOR TO
ENTERING PATROL AREA.

COMSUBSPAC. PATROL REPORT NO. 686
U.S.S. BANG - FIFTH WAR PATROL.

From: The Commander Submarine Force, Pacific Fleet.
To : The Commander in Chief, United States Fleet.
Via : The Commander in Chief, U.S. Pacific Fleet.

Subject: U.S.S. BANG (SS385) - Report of Fifth War Patrol
(2 January to 24 February 1945).

1. The fifth war patrol of the BANG, under the command of Commander A. R. Callahan, U.S. Navy, was conducted in the East China Sea - Yellow Sea areas. The BANG, U.S.S. SPADEFISH (SS411), U.S.S. ATULF (SS403), and U.S.S. PORTON (SS267) formed a coordinated attack group with the commanding officer of the SPADEFISH as the group commander.

2. Unfortunately during this patrol the BANG, with her splendid fighting record and despite thorough and aggressive area coverage, was afforded but one opportunity to inflict damage upon the enemy. This was a hurried attack on a small steamer, sighted coming out of a snow squall, and no hits were obtained.

3. Award of Submarine Combat Insignia for this patrol is not authorized.

J. H. BROWN, Jr.,
Deputy ComSubPac.

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E. L. HYATT, 2nd,
Flag Secretary.