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**THIS PAGE IS UNCLASSIFIED**
BUREAU OF SHIPS GROUP
TECHNICAL INSPECTION REPORT.

OPERATION CROSSROADS.
U.S.S. PILOTFISH (SS386).

TEST BAKER.

U.S. GOVERNMENT AGENCIES MAY OBTAIN COPIES OF THIS REPORT DIRECTLY OF THE
DIRECTOR OF THE
DEFENSE ATOMIC SUPPORT AGENCY
WASHINGTON, D. C. 20301

BUREAU OF SHIPS GROUP TECHNICAL INSPECTION REPORT.

C. L. GAARTLAND
1947
16p.
XRD-117

CONFIDENTIAL

DIRECTOR OF SHIP MATERIAL
JOINT TASK FORCE ONE

CONFIDENTIAL

REG. NO. 3

GROUPS A, B, C, D
DECLASSIFIED AT 10 YEAR INTERVAL.
NO COMMERCIAL DISTRIBUTION.
U.S.S. PILOT FISH (SS386)

SHIP CHARACTERISTICS

Building Yard: Portsmouth Naval Shipyard.

Commissioned: 16 December 1943.

HULL

Heavy Hull Construction.
Length Overall: 311 feet 9 inches.
Length (between perpendiculars): 307 feet 0 inches.
Beam (extreme): 27 feet 3 inches.
Beam (molded): 27 feet 1 3/4 inches.
Drafts (at time of test): Submerged.
Standard Displacement: 1525 tons.
Displacement (at time of test): 2405 tons.

MAIN PROPULSION PLANT

Main Engines: Four Fairbanks-Morse, 10 cylinder, Type 38D8.
Auxiliary Engine: Fairbanks-Morse, 7 cylinder, Type 38D5.
Main Motors and Generators: Elliott.
Main Storage Battery: Exide.
Main Controls: Westinghouse.
Reduction Gears: Westinghouse.
Diesel Electric Drive.
TYPICAL SECT. AT FR. 69
LOOKING AFT

TYPICAL SECT. AT FR. 53
LOOKING FORD.

TEST B

SECRET

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U.S.S. PILOTFISH SS 386

2949
OVERALL SUMMARY

I. Target Condition After Test.

(a) Drafts after test; list; general areas of flooding, sources.

Shin is resting on bottom with an indeterminate amount of flooding. The hull is covered to about three quarters height with silt and coral.

(b) Structural damage.

In way of the after torpedo room the plating between frames is dished to a depth of about six inches. The superstructure and tank tops are dished in several locations and the superstructure plating has numerous tears and holes. See photograph on page 9. Complete examination is not possible. Superstructure has shifted to starboard about six inches amidships and one inch at the stern. This shift makes salvage connections inaccessible unless part of the deck is cut away.

(c) Other damage.

Unknown.

II. Forces Evidenced and Effects Noted.

(a) Heat.

No evidence.

(b) Fires and explosions.

No evidence.

(c) Shock.

Unknown.
(d) Pressure.

The "Coordinator's Report on Air Blast and Water Shock for tests Able and Baker" of 27 September indicates that the peak water pressures were over 7000 lbs. per square inch.

III. Results of Test on Target.

(a) Effect on propulsion and ship control.

Unknown.

(b) Effect on gunnery and fire control.

Unknown.

(c) Effect on watertight integrity and stability.

Unknown.

(d) Effect on personnel and habitability.

Unknown.

(e) Total effect on fighting efficiency.

Unknown.

IV. General Summary of Observer's Impressions and Conclusions.

The PILOTFISH was submerged for test Baker in 28 fathoms of water to a keel depth of approximately 56 feet, at a range of approximately 300 yards from the center of the burst. After test Baker she was found on the bottom with a starboard list of approximately 30 - 40 degrees. The deck is covered with silt to a depth of 3 - 18 inches. A few pieces of loose coral are resting on the deck. All information has been obtained from exploratory divers' reports. No further information is available. Based on damage observed by divers on SKIPJACK and APOGON, which were farther from the blast, it is considered likely
that all or nearly all compartments are flooded and that the tops of the ballast tanks are no longer tight. It is believed that a comparatively lengthy operation would be required to salvage this ship. See the photographic Section pages 9 to 16 for views of portions of the deck and superstructure taken by underwater photography.

V. Preliminary Recommendations.

None.
S-36-9. Section near after escape hatch showing caved-in decking and crack running thwartsips from salvage fitting to edge of deck.
S-36-8. Plating at edge of deck looking aft showing angle of submarine relative to ocean floor.

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USS PILOTFISH (SS386)
S-39-5. Port side vicinity frame #46 looking thru railing of bridge deck at gun point.
S-39-10. Forward portion of bridge showing netting and amplifier.

SECRET

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USS PILOTFISH (SS386)

29-89
MEMORANDUM FOR DEFENSE TECHNICAL INFORMATION CENTER
ATTENTION: OMI/Mr. William Bush (Security)

SUBJECT: Declassification of Reports

The Defense Special Weapons Agency has declassified the following reports:

✓AD-366588 XRD-203-Section 12✓
✓AD-366589 XRD-200-Section 9
✓AD-366590 XRD-204-Section 13
✓AD-366591 XRD-183
✓AD-366586 XRD-201-Section 10✓
✓AD-367487 XRD-131-Volume 2✓
✓AD-367516 XRD-143✓
✓AD-367493 XRD-142✓
✓AD-801410L XRD-138
✓AD-376831L XRD-83
✓AD-366759 XRD-80
✓AD-376830L XRD-79✓
✓AD-376828L XRD-76✓
✓AD-367464 XRD-106✓
✓AD-801404L XRD-105-Volume 1
✓AD-367459 XRD-100✓
Subject: Declassification of Reports

✓ AD-367491 ✓ XRD-134-Volume 2
✓ AD-367479 ✓ XRD-123
✓ AD-367478 ✓ XRD-122
✓ AD-367481 ✓ XRD-125
AD-367500 ✓ XRD-159-Volume 2
✓ AD-367499 ✓ XRD-160-Volume 3
✓ AD-367498 ✓ XRD-161-Volume 4
AD-367512 ✓ XRD-147
AD-367511 ✓ XRD-148
✓ AD-367465 ✓ XRD-107
AD-366733 ✓ XRD-43
✓ AD-367477 ✓ XRD-121
✓ AD-367476 ✓ XRD-120
✓ AD-367467 ✓ XRD-109-Volume 1
✓ AD-367475 ✓ XRD-119
✓ AD-367474 ✓ XRD-118
AD-367473 ✓ XRD-117
AD-367472 ✓ XRD-116
AD-367471 ✓ XRD-115
AD-367466 ✓ XRD-108
AD-801405L ✓ XRD-113
AD-367470 ✓ XRD-112
AD-367469 ✓ XRD-111
Subject: Declassification of Reports

AD-801406L ✓ XRD-114.

In addition, all of the cited reports are now approved for public release; distribution statement "A" now applies.

ARDITH JARRETT
Chief, Technical Resource Center