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THIS PAGE IS UNCLASSIFIED
OPERATION CROSSROADS
U.S.S. CATRON (APA 71)

TEST BAKER [U.J. 8]

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Director
Defense Atomic Support Agency
Washington, D.C. 20301

OPERATION CROSSROADS
DIRECTOR OF SHIP MATERIALS
JOINT TASK FORCE ONE

CONFIDENTIAL
Security Information

Dated 16 April 1949

By Authority
SECRET
JCS 1795/36

JCS 1795/36
Dated 16 April 1949

By
Authorised date
24 SEP 1953

CONFIDENTIAL
Security Information

XRD-1269

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11 1947
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14 XRD-126

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DEC 2 1965
REG NO.

GROUP 3
Decommissioned on 13 year interval.
Not automatically declassified.
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</table>
U.S.S. CATRON (APA 71)

SHIP CHARACTERISTICS

Building Yard: Consolidated Steel Corp.; Wilmington, California.

Commissioned: 28 November 1944.

HULL

Length Overall: 426 feet 0 inches.
Length on Waterline: 400 feet 0 inches.
Beam (extreme): 58 feet 0 inches.
Depth (molded to upper deck): 37 feet 0 inches.
Drafts at time of test: Fwd. 9 feet 10 inches.
Aft. 17 feet 1 inch.

Limiting displacement: 7,080 tons.
Displacement at time of test: 5,839 tons.

MAIN PROPULSION PLANT

Main Engines: Two sets of Westinghouse steam turbines, directly connected to Westinghouse main generators. Two main shaft motors.
Main Condensers: Two are installed in ship
Boilers: Two Babcock and Wilcox boilers are installed in ship. 450 psi gauge - 750° F.
Propellers: Two are installed.
Main Shafts: Two are installed in ship.
Ships Service Generators: Five are installed in ship.
Two - 250 KW. - 450 V. - A.C.
One - 150 KW. - 450 V. - A.C.
Two - 100 KW. - 120/240 V. - D.C.
I. Target Condition After Test.

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

<table>
<thead>
<tr>
<th>Before Test</th>
<th>Draft</th>
<th>Draft</th>
<th>List</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Forward 9' 10&quot;</td>
<td>Aft 17' 1&quot;</td>
<td>0°</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>After Test</th>
<th>Draft</th>
<th>Draft</th>
<th>List</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Forward 10' 0&quot;</td>
<td>Aft 18' 0&quot;</td>
<td>1/2° port</td>
</tr>
</tbody>
</table>

The shaft alley bilges and starboard shaft alley were flooded through the stern tubes. The after machinery space flooded from the starboard shaft alley through the bulkhead gland. The forward machinery space flooded through a broken 1/2" salt water cooling line to the main circulator lube oil cooler. The auxiliary machinery space flooded to a depth of about six feet through the starboard shaft gland from the forward machinery space.

(b) Structural damage.

HULL

No structural damage was observed.

MACHINERY

No comment.

ELECTRICAL

Not observed.

(c) Other damage.

HULL

Not observed.
MACHINERY

Machinery in the forward engine room and auxiliary machinery room was damaged by flooding. No other damage to machinery was found by a careful visual inspection.

ELECTRICAL

Flooding of equipment in the two machinery spaces was the only damage sustained by electrical equipment.

II. Forces Evidenced and Effects Noted.

(a) Heat.

HULL
None.

MACHINERY
No evidence.

ELECTRICAL
No effects of heat were noted.

(b) Fires and explosions.

HULL
None.

MACHINERY
No evidence.

ELECTRICAL
There were no fires nor explosions on the vessel.
(c) Shock.

**HULL**

Slight shock effect is indicated by shaking down of asbestos pipe insulation in the after machinery space. About 65% of the weather deck cargo hatch cover battens forward and 95% aft are dislodged. Two pontoon covers on the main deck cargo hatch are dislodged. No hatch battens or pontoons are damaged. This disarrangement may have been caused by rapid rolling of the ship.

**MACHINERY**

The CATRON received a moderate underwater shock which broke a small salt water cooling line in the forward engine room.

**ELECTRICAL**

No effects of shock were found in any electrical equipment.

(d) Pressure.

**HULL**

No effects noted.

**MACHINERY**

No evidence.

**ELECTRICAL**

No effects of pressure were noted in any electrical equipment.

(e) Effects peculiar to the Atomic Bomb.

**HULL**

None.
MACHINERY

An underwater shock of such magnitude as to cause damage at so great a distance from an explosion is apparently peculiar to the Atom Bomb.

ELECTRICAL

No effects, other than the high radioactivity, were found as being peculiar to the Atom Bomb.

III. Results of Test on Target.

(a) Effect on machinery, electrical, and ship control.

HULL

No comment.

MACHINERY

All machinery in the forward engine room and auxiliary machinery room is inoperable because of flooding. This could have been easily controlled if the crew had been aboard. In this case, it is not believed that the test would have had any effect on machinery or ship control. The steering gear is apparently undamaged.

NOTE: No machinery on this vessel was operated after Test A.

ELECTRICAL

Half of the electric propulsion would be lost through the flooding of the forward main motor and forward auxiliaries. Ship control would not be affected.

(b) Effect on gunnery and fire control.

HULL

None.
MACHINERY

No comment.

ELECTRICAL

There would be no effect on gunnery and fire control due to electrical damage.

(c) Effect on watertight integrity and stability.

HULL

Flooding occurred because of failure of a badly corroded salt water line and a leaky stern tube. This condition could have been corrected and the extensive flooding prevented had the ship been manned.

MACHINERY

No comment.

ELECTRICAL

There would be no effect on watertight integrity nor on stability due to electrical damage.

(d) Effect on personnel and habitability.

HULL

Except for the effects of radioactivity, it is considered that personnel and habitability would not have been affected by the test.

MACHINERY

It is not believed that the test would have had any effect on personnel or habitability except for possible effects of radioactivity.
ELECTRICAL

Electrical damage would have had no effect on personnel. The habitability of the ship would have been reduced by the flooding out of all evaporator pump motors.

(e) Effects on fighting efficiency.

HULL

Flooding of some engineering spaces reduced the fighting efficiency considerably but this would have been prevented had the ship been manned.

MACHINERY

The flooding reduced maximum speed to about 6 knots and left the ship without an evaporating plant. If the crew had been aboard, the flooding could have been easily controlled and the test would have had no effect on military efficiency as far as machinery is concerned.

ELECTRICAL

The fighting efficiency of the ship would have been greatly reduced due to the loss of one propulsion motor and auxiliaries.

IV. General Summary of Observers' Impressions and Conclusions.

HULL

No comment.

MACHINERY

The CATRON was outside the effective range of serious mechanical damage from this form of attack in Test B.

ELECTRICAL

The damage as found would have limited the effectiveness of

SECRET

U.S.S. CATRON (APA71)
the ship due to the loss of half of the propulsion. Had a ship's force been aboard at the time of the blast, the flooding would have been controlled and no damage to electrical shipment would have occurred.

The inspection furnishing the material for this report was made very quickly due to high radioactivity.

V. Preliminary Recommendation.

HULL

None.

MACHINERY

None.

ELECTRICAL

Although flooding of electrical gear occurred, the flooding would have been controlled under normal conditions; and therefore no recommendations are warranted.
TECHNICAL INSPECTION REPORT

SECTION I - HULL

GENERAL SUMMARY OF HULL DAMAGE

I. Target Condition After Test.

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

<table>
<thead>
<tr>
<th>Draft</th>
<th>Draft</th>
<th>List</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before Test</td>
<td>Forward 9' - 10&quot;</td>
<td>Aft 17' - 1&quot;</td>
</tr>
<tr>
<td>After Test</td>
<td>Forward 10' - 0&quot;</td>
<td>Aft 18' - 0&quot;</td>
</tr>
</tbody>
</table>

The shaft alley bilges and starboard shaft alley were flooded through the stern tubes. The after machinery space flooded from the starboard shaft alley through the bulkhead gland. The forward machinery space flooded through a broken 1/2" salt water cooling line to the main circulator lub oil cooler. The source of flooding in the auxiliary machinery space and S.D. Storeroom is unknown. This flooding probably came from the forward machinery space through the starboard shaft gland.

(b) Structural damage.

No structural damage was observed.

(c) Other damage.

Not observed.

II. Forces Evidenced and Effects Noted.

(a) Heat.

None.
(b) Fires and Explosions.

None.

(c) Shock.

Slight shock effect is indicated by shaking down of asbestos pipe insulation in the after machinery space. About 65% of the weather deck cargo hatch cover battens forward and 95% aft are dislodged. Two pontoon covers on the main deck cargo hatch are dislodged. No hatch battens or pontoons are damaged. This disarrangement may have been caused by rapid rolling of the ship.

(d) Pressure.

No effects noted.

(e) Effects peculiar to the Atomic Bomb.

None.

III. Results of Test on Target.

(a) Effect on machinery, electrical, and ship control.

The steering engine is apparently undamaged. Machinery in the forward and auxiliary machinery spaces is inoperable as the result of flooding.

(b) Effect on gunnery and fire control.

None.

(c) Effect on watertight integrity and stability.

Flooding occurred because of a failure of a badly corroded salt water line and a leaky stern tube. This condition could have been corrected and the extensive flooding prevented had the ship been manned.
(d) Effect on personnel and habitability.

Except for the effects of radioactivity, it is considered that personnel and habitability would not have been affected by the test.

(e) Effect on fighting efficiency.

Flooding of some engineering spaces reduced the fighting efficiency considerably but this would have been prevented had the ship been manned.

IV. General Summary of Observers' Impressions and Conclusions.

No comment.

V. Preliminary Recommendations.

None.

VI. Instructions for loading the vessel specified the following:

<table>
<thead>
<tr>
<th>ITEM</th>
<th>LOADING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel oil</td>
<td>50%</td>
</tr>
<tr>
<td>Diesel oil</td>
<td>50%</td>
</tr>
<tr>
<td>Ammunition</td>
<td>50%</td>
</tr>
<tr>
<td>Potable and reserve feed water</td>
<td>95%</td>
</tr>
<tr>
<td>Salt water ballast</td>
<td>620 tons</td>
</tr>
</tbody>
</table>

Details of the actual quantities of the various items aboard are included in Report 7, Stability Inspection Report, submitted by the ship's force in accordance with "Instructions to Target Vessels for Tests and Observations by "Ships Force" issued by the Director of Ships Material. This report is available for inspection in the Bureau of Ships Crossroads Files.
DETAILED DESCRIPTION OF HULL DAMAGE

A. General Description of Hull Damage.

A 1/2 inch salt water line broke and permitted flooding of the forward machinery space. Other engineering spaces and a storeroom partially flooded due to progressive flooding and stern tube leakage. There is little other damage attributable to the test. General views of the exterior of the ship after test B are shown on pages 34 and 35.

B. Superstructure.

No damage.

C. Turrets, Guns and Directors.

No damage.

D. Torpedo Mounts, Depth Charge Gear.

Not applicable.

E. Weather Deck.

65% of the cargo hatch battens forward and 95%, aft, were dislodged and either scattered on the upper deck or dropped through to the main deck. No hatch battens are damaged. (photos 2961-9 & 2960-2; pages 37 and 36.

F. Exterior Hull.

A hole approximately 2 square inches in area is punched through the starboard shell in C-202L at frame 138 1/4, 6 inches below the main deck. A hole approximately 12 square inches in area is punched through the starboard shell at frame 75, 2 feet above the fire-room flat. This damage was probably caused by a tug during decontamination operations.
G. Interior Compartments (Above w.l.).

Two pontoon covers on the main deck cargo hatch are dislodged. No damage was observed.

H. Armor Decks and Miscellaneous Armor.

Not applicable.

I. Interior Compartments (below w.l.).

No known damage. Complete inspection could not be made because of flooding. A tabulation of locations and recordings of scratch gages installed in the machinery spaces is included as an appendix.

J. Underwater Hull.

No known damage.

K. Tanks.

No known damage. Complete inspection could not be made because of flooding.

L. Flooding.

The primary causes of flooding were a broken 1/2 inch cooling line and the stern tubes. Secondary causes were leaking shaft glands.

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<tr>
<th>Draft</th>
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<th>List</th>
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<tbody>
<tr>
<td>Before Test</td>
<td>fwd. 9' - 10''</td>
<td>Aft. 17' - 1''</td>
</tr>
<tr>
<td>After Test</td>
<td>fwd. 10' - 0''</td>
<td>Aft. 18' - 0''</td>
</tr>
</tbody>
</table>

The forward machinery space (photos 1930-9 and 10; pages 38 and 39) flooded to about 4 1/2 feet below the upper grating level from a broken 1/2 inch salt water cooling line to the lower deck.
main circulator lube oil cooler. The auxiliary machinery space and S.D. Storeroom, B-2-1AW, flooded to within 2 1/2 feet of the operating platform and overhead at the 2nd platform level from an unknown source but probably from the forward machinery space through the starboard shaft gland (photo 1930-11, page 40). The after machinery space had 2 inches of water which came through the starboard shaft gland. The shaft alley bilges were flooded through the stern tubes. The starboard alley had 3 inches of water on deck at the forward end.

All flooding could have been controlled by ships force.

M. Ventilation.
   No damage.

N. Ship Control.
   No damage.

O. Fire Control.
   No damage.

P. Ammunition Behavior.
   No damage.

Q. Ammunition Handling.
   No damage.

R. Strength.
   No damage.

S. Miscellaneous.
   No damage.
GENERAL SUMMARY OF MACHINERY DAMAGE

I. Target Condition After Test.

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

The forward engine room and the auxiliary machinery room were flooded to the outside water line. The water entered through a broken salt water cooling line in the engine room. This flooding could have been controlled if the crew had been aboard.

(b) Structural damage.

No comment.

(c) Other damage.

Machinery in the forward engine room and auxiliary machinery room was damaged by flooding. No other damage to machinery was found by a careful visual inspection.

II. Forces Evidenced and Effects Noted.

(a) Heat.

No evidence.

(b) Fires and explosions.

No evidence.

(c) Shock.

The CATRON received a moderate underwater shock which broke a small salt water cooling line in the forward engine room.
(d) Pressure.

No evidence.

(e) Any effects apparently peculiar to the atom bomb.

Any underwater shock of such magnitude as to cause damage at so great a distance from an explosion is apparently peculiar to the atom bomb.

III. Effects of Damage.

(a) Effect on machinery and ship control.

All machinery in the forward engine room and auxiliary machinery room is inoperable because of flooding. This could have been easily controlled if the crew had been aboard. In this case, it is not believed that the test would have had any effect on machinery or ship control.

Note: No machinery on this vessel was operated after Test A.

(b) Effect on gunnery and fire control.

No comment.

(c) Effect on watertight integrity and stability.

No comment.

(d) Effect on personnel and habitability.

It is not believed that the test would have had any effect on personnel or habitability except for possible effects of radioactivity.

(e) Total effect on fighting efficiency.
The flooding reduced maximum speed to about 6 knots and left the ship without an evaporating plant. If the crew had been aboard, the flooding could have been easily controlled and the test would have had no effect on military efficiency as far as machinery is concerned.

IV. General Summary.

The CATRON was outside the effective range of serious mechanical damage from this form of attack in Test B.

V. Preliminary Recommendations.

None.
DETAILED DESCRIPTION OF MACHINERY DAMAGE

A. General Description of Machinery Damage.

(a) Overall condition.

The forward engine room and auxiliary machinery room were flooded by water entering through a broken salt water cooling line in the lube oil cooler of the forward main circulating pump. Photo 1688-6, page 41 shows the broken line. The flooding could have been controlled if the crew had been aboard. Otherwise, the overall condition of the machinery was not changed by Test B. The main injection and overboard valves of #1 main condenser were open during the test.

(b) Areas of major damage.

Forward machinery room and auxiliary machinery room flooded.

(c) Primary causes of damage.

There was no primary damage. Secondary damage resulted from flooding.

(d) Effect of target test on overall operation of machinery plant.

Flooding could have been controlled, had personnel been aboard. In this case, it is not believed that the test would have had any effect on overall operation of the plant.

B. Boilers.

There was no apparent damage to the boilers except that to boiler #1 incident to the flooding of the forward engine room. Photo 1930-9 and 10; pages 38, and 39 shows the forward machinery space, including the front of boiler #1 prior to dewatering.
C. Blowers.
   No apparent damage.

D. Fuel Oil Equipment.
   No apparent damage.

E. Boiler Feedwater Equipment.
   No apparent damage.

F. Main Engines.
   No apparent damage.

G. Reduction Gears.
   Not applicable.

H. Shafting and Bearings.
   No apparent damage.

I. Lubrication System.
   No apparent damage.

J. Condensers and Air Ejectors.
   No apparent damage. No. 1 main condenser injection and overboard discharge valves were open during Test B.

K. Pumps.
   No apparent damage.

L. Auxiliary Generators.
   No apparent damage.
M. Propellers.

The propellers were not inspected. There is no reason to believe that they were damaged.

N. Distilling Plant.

No apparent damage.

O. Refrigerating Plant.

No apparent damage.

P. Winches, Windlasses and Capstans.

No apparent damage.

Q. Steering Engine.

No apparent damage.

R. Elevators, Ammunition Hoists, Etc.

No apparent damage.

S. Ventilation (Machinery).

No apparent damage.

T. Air Compressors.

No apparent damage.

U. Diesels.

No apparent damage.

V. Piping.
The salt water cooling line to the lube oil cooler of #1 main circulating pump, forward engine room, broke. This allowed water to enter the ship. The cooling line is taken off the main circulating system, the injection and overboard valves of which were open during this test. The forward engine room and auxiliary machinery room were flooded to the outside water line.

There was no other apparent damage to piping.

W. Miscellaneous.

No apparent damage.
GENERAL SUMMARY OF ELECTRICAL DAMAGE

I. Target Condition After Test.

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

The drafts and lists were not observed. The forward machinery space and the auxiliary machinery space were both flooded.

(b) Structural damage.

Not observed.

(c) Other damage.

Flooding of equipment in the two machinery spaces was the only damage sustained by electrical equipment.

II. Forces Evidenced and Effects Noted.

(a) Heat.

No effects of heat were noted.

(b) Fires and explosions.

There were no fires nor any explosions on the vessel.

(c) Shock.

No effects of shock were found in any electrical equipment.

(d) Pressure.

No effects of pressure were noted in any electrical equipment.
(e) Any effects apparently peculiar to the atom bomb.

No effects, other than the high radioactivity, were found as being peculiar to the atom bomb.

III. Effects of Damage.

(a) Effect on propulsion and ship control.

Half of the electric propulsion would be lost through the flooding of the forward main motor and forward auxiliaries. Ship control would not be affected.

(b) Effect on gunnery and fire control.

There would be no effect on gunnery and fire control due to electrical damage.

(c) Effect on watertight integrity and stability.

There would be no effect on watertight integrity nor on stability due to electrical damage.

(d) Effect on personnel and habitability.

Electrical damage would have had no effect on personnel. The habitability of the ship would have been reduced by the flooding out of all evaporator pump motors.

(e) Total effect on fighting efficiency.

The fighting efficiency of the ship would have been greatly reduced due to the loss of one propulsion motor and auxiliaries.

IV. General Summary of Observers’ Impressions and Conclusions.

The damage as found would have limited the effectiveness of the ship due to the loss of half of the propulsion.
Had a ship's force been aboard at the time of the blast, the flooding would have been controlled and no damage to electrical equipment would have occurred.

The inspection furnishing the material for this report was made very quickly due to high radioactivity.

V. Any Preliminary General or Specific Recommendations of the Inspecting Group.

Although flooding of electrical gear occurred, the flooding would have been controlled under normal conditions; and therefore no recommendations are warranted.
DETAILED DESCRIPTION OF ELECTRICAL DAMAGE

A. General Description of Electrical Damage.

(a) Overall condition.

Except for flooding, there is no change in the condition of the electrical equipment.

(b) Areas of major damage.

Flooding occurred in the forward machinery space and in the auxiliary machinery space.

(c) Primary causes of damage in each area of major damage.

Flooding was the only cause of damage.

(d) Effect of target test on overall operation of electric plant.

1. Ship's service generator plant. - The flooding of the forward machinery space and the auxiliary machinery space would have put out the ship's service generators in those areas. The A.C. and D.C. ship's service generators in the after machinery space would not have been effected by the flooding.

2. Engine and boiler auxiliaries - All auxiliaries on the lower levels of the forward machinery space and the auxiliary machinery space would have been put out due to flooding.

3. Electrical propulsion - The forward main motor was flooded out.

4. Communications - No communication circuits except those running into the flooded areas were effected.

5. Fire control circuit - No change.

6. Ventilation - No change.
7. Lighting - No change except for equipment flooded out in lower levels of forward and auxiliary machinery spaces.

(e) Types of equipment most affected.

1. Switchboards and switch gear - Not affected.
2. Rotating machinery - Not affected except for flooding the two machinery spaces.
3. Motor controllers - Not affected except in areas of flooding.
4. Cables and supports - No affect except where immersed by flooding.

B. Electric Propulsion Rotating Equipment.

The forward main propulsion motor was flooded out. There was no visible damage to the after main propulsion motor, nor to either propulsion generator. No operating test of the equipment was possible.

C. Electric Propulsion Control Equipment.

Both of the main propulsion control panels were inspected and no damage found. No operating tests were possible.

D. Generators - Ships Service.

None of the five ship's service generator sets located in the three machinery spaces was found damaged on inspection. The loss of necessary auxiliaries by the flooding of the lower levels would have prevented operation of the machines in the forward and in the auxiliary machinery spaces. No operating tests were possible.

E. Generators - Emergency.

No damage was found by inspection of the machine. No operation was possible.
F. Switchboards, Distribution and Transfer Panels.

No damage was found by inspection of the forward and after ship's service switchboards, the emergency switchboard and the board in the after distribution center on main deck. Some breakers and distribution switches on these boards were tried and none were found damaged. No operation of any switchboard was possible. A few distribution panels on the vessel were inspected with no damage found.

G. Wiring, Wiring Equipment and Wireways.

Some wireways and wiring equipment throughout the ship were examined. No damage except flooding damage in the machinery spaces was found. No sign of movement of any wireway was found.

H. Transformers.

A few transformers throughout the ship were inspected. No damage was found.

I. Submarine Propelling Batteries.

This item does not apply to the vessel.

J. Portable Batteries.

A visual check of the batteries in the Diesel generator room showed no sign of damage. No other batteries were inspected.

K. Motors, Motor Generator Sets and Motor Controllers.

A check of representative motors and controllers throughout the vessel revealed no damage except where flooded out in the machinery spaces. The motors inspected included the steering motors and controllers and one cargo winch controller.
L. Lighting Equipment.

   No broken lamps or lighting equipment was observed on the inspection tour of the vessel.

M. Searchlights.

   No damage was revealed by a surface check of searchlights.

N. Degaussing Equipment.

   The ship's degaussing panel had no visible damage. There was no hull damage in the way of a degaussing coil run.

O. Gyro Compass Equipment.

   The master gyro compass and panels had no visible damage.

P. Sound Powered Telephones.

   Sound powered telephones were not observed, but there was no structural damage in locations where they would be found.

Q. Ship's Service Telephones.

   The sound powered telephones are the only telephones on the vessel.

R. Announcing Systems.

   The M.C. amplifier panel in the I.C. room, was not damaged. No damaged speakers were observed on the inspection tour of the vessel. No operating test of the equipment was possible. There was no visible damage to the PAB "Beachmaster" set erected on the flying bridge.
S. Telegraphs.

Telegraphs were not observed in detail, but there is no structural damage in the bridge spaces nor in the machinery spaces to indicate possibility of damage.

T. Indicating Systems.

No detailed inspection of indicating systems was made, but there is no structural damage to indicate possibility of damage to indicating systems.


Visual inspection of the I.C. and A.C.O. combined switchboard showed no damage. No operating test was possible.

V. F.C. Switchboard.

There is no F.C. switchboard on the vessel.

W. Miscellaneous.

No comment.
SECTION IV

PHOTOGRAPHS

TEST BAKER
AA-CR-227-289-46. View from off port bow after Test B.
AB-CR-227-239-42. View from off starboard quarter after Test B.
AB-CR-76-1930-10. Flooding in forward machinery space.
APPENDIX

SHIPS MEASUREMENT DIAGRAM

TEST BAKER

SECRET U.S.S. CATRON (APA71)

Page 42 of 48 Pages
APPENDIX

SHIPS MEASUREMENT DATA

Four deflection scratch gages were installed in the after machinery space to record movement of the ships sides and of the main deck. A tabulation of gage locations and recordings is on page 41.
### DECK DEFLECTION GAGES

<table>
<thead>
<tr>
<th>FR. NO.</th>
<th>LOCATION</th>
<th>MAXIMUM DIST. OFF &amp; COMP.</th>
<th>MAXIMUM Permanent Dist. Expansion</th>
<th>EXP. COMP.</th>
<th>REMARKS</th>
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<tr>
<td>12</td>
<td>Alt. Br. Port 16&quot;</td>
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<td>None</td>
<td>None</td>
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<td>104</td>
<td>Exh. Rm. 3rd-deck</td>
<td>None</td>
<td>0-0-3/16</td>
<td>None</td>
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<td>105</td>
<td>Exh. Rm. 2nd-deck</td>
<td>None</td>
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</table>

**USS CATRON (APA-71)**

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REPORT # 5
COMMANDING OFFICERS REPORT

SECTION I

This command sustained the following damage from exploding of the atomic bomb, test Baker.

Metal hatch boards were lifted off beams and fell into both holds.

Forward engine room flooded about 6 feet. Evaporator room flooded about 9 feet.

Owing to short period permitted us at reboarding on 12 August 1946 no time for further examination was possible.
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
- AD-366589
- AD-366590
- AD-366591
- AD-366586
- AD-367487
- AD-367516
- AD-367493
- AD-801410
- AD-376831
- AD-366759
- AD-376830
- AD-376828
- AD-367464
- AD-801404
- AD-367459

XRD-203-Section 12
XRD-200-Section 9
XRD-204-Section 13
XRD-183
XRD-201-Section 10
XRD-131-Volume 2
XRD-143
XRD-142
XRD-138
XRD-83
XRD-80
XRD-79
XRD-76
XRD-106
XRD-105-Volume 1
XRD-100
Subject: Declassification of Reports

✓ AD-367517 XRD-141 ✓
AD-366762 XRD-84
AD-366760 XRD-81
AD-366761 XRD-82
AD-367501 XRD-158-Volume 1
AD-367507L XRD-152-Volume 4
✓ AD-367495 XRD-184 ✓
✓ AD-367485 XRD-129 ✓
✓ AD-367484 XRD-128 ✓
✓ AD-367483 XRD-127 ✓
AD-367482 XRD-126 ✓
AD-367488 XRD-132
AD-367480 XRD-124 ✓
AD-801409L XRD-135
AD-367490 XRD-136 ✓
AD-367492 XRD-137 ✓
AD-801411L XRD-139
AD-367518 XRD-140 ✓
AD-367515 XRD-144
AD-367514 XRD-145
AD-367468 XRD-110-Volume 2 ✓
AD-367513 XRD-146
AD-367497 XRD-162 ✓
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