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TECHNICAL INSPECTION REPORT.

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Classification (Cancelled) (Changed to ~~JCS 1795/36 DATED 16~~ APRIL 1949
By Authority of JOINT CHIEFS OF STAFF Date 22 SEP 1953
By John H. Coyette

36675

(6) OPERATION CROSSROADS.

U.S.S. NIAGARA (APA 87).

(8)

TEST ABLE (U).

AD No.

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~~Director~~
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Washington, D. C. 20301

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F.X. Forest,
Captain, U.S.N.

SECRET

U.S.S. NIAGARA (APA87)

Page 1 of 42 Pages

CONFIDENTIAL

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U.S.S. NIAGARA (APA 87)

SHIP CHARACTERISTICS

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

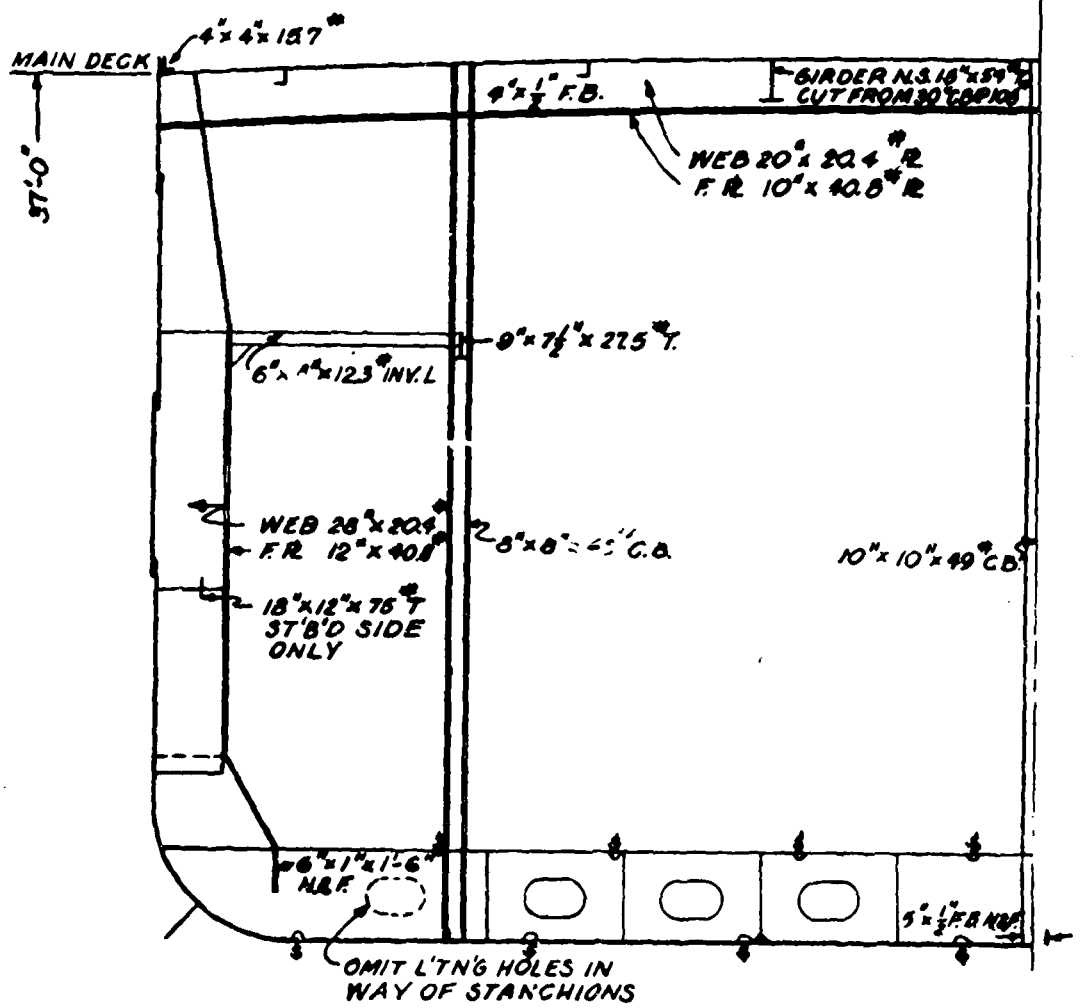
Commissioned: 29 March 1945.

HULL

Lengtn 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 3 inches.
Aft. 17 feet 0 inches.
Limiting displacement: 7,080 tons.
Displacement at time of test: 5,658 tons.

MAIN PROPULSION PLANT

Main Engines: Two sets of Westinghouse steam turbines, directly connected to Westinghouse main generators. Two main propulsion motors.
Main Condensers: Two are installed in ship.
Boilers: Two Babcock and Wilcox boilers are installed in ship. 465 psi gauge - 750° F.
Propellers: Two are installed in ship.
Main Shafts: Two are installed in ship.
Ships Service Generators: Five units are installed. Three - 250 KW. - 450 V. - A.C. and Two - 100 KW. - 120/240 V. - D.C.



FRAME 76 LOOKING AFT

MIDSHIP SECTION

TEST A

SECRET

U.S.S. NIAGARA (APA 87)

7543

TECHNICAL INSPECTION REPORT

OVERALL SUMMARY

I. Target Condition After Test.

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

There is no flooding,hence no change in drafts or list.

(b) Structural damage.

HULL

There is no major structural damage. The port flag bag is slightly dished.

MACHINERY

No comment.

ELECTRICAL

1. Structural damage was negligible. The port flag bag was slightly dished and approximately 10% of the hatch boards on upper deck of both cargo holds were dislodged and fell to deck below.

2. The above damage had no effect on any electrical equipment.

(c) Other damage.

HULL

Not observed.

MACHINERY

There is no damage to the machinery of this vessel, all of which has been operated since Test A.

ELECTRICAL

1. Close visual inspection revealed no damage to any electrical equipment or electrical elements of ship control, fire control and gunnery as a direct result of the bomb blast. Practically all of the above equipment has been operated since A day and in every case found satisfactory.

2. Secondary cable damage tue to fire in oil soaked fender located at frame 115 main deck port rendered one lighting receptacle, one telephone jack box and one-four gang push button inoperable.

II. Forces Evidenced and Effects Noted.

(a) Heat.

HULL

Manila line was slightly scorched. No paint was scorched by direct heat radiation.

MACHINERY

No evidence.

ELECTRICAL

1. Radiant heat coming from port quarter slightly scorched Army quartermaster gear displayed on forecastle and is believed to have started oil soaked fender smouldering on main deck at frame 115, port.

2. There was no damage to any electrical equipment as a result of heat other than secondary cable damage previously mentioned.

(b) Fires and explosion.

HULL

A fire started in an oil soaked fender made of cocoa matting

which was secured to the longitudinal bulkhead at frame 113, port, main deck. The fire ignited wooden shores stowed overhead and burned the paint from nearby areas on the bulkhead and upper deck. There were no explosions.

MACHINERY

No evidence.

ELECTRICAL

1. The small fire occurred on board this vessel as a direct result of the bomb. Resulting cable damage described in I (c) 2.

2. There were no explosions.

(c) Shock.

HULL

While there was no damage from shock, some of the sections of the upper deck cargo hatch covers were dislodged and fell into the space below.

MACHINERY

No evidence.

ELECTRICAL

There was no damage to any electrical equipment as a result of shock.

(d) Pressure.

HULL

The only damage caused by pressure was slight dishing of the port flag bag which was fabricated from sheet metal, and

breakage of several glasscovers over magazine sprinkling valves at weather deck operating stations.

MACHINERY

No evidence.

ELECTRICAL

1. The only evidence of pressure was dishing of port flag bag.

2. There was no electrical damage as a result of pressure.

(e) Effects peculiar to the Atomic Bomb.

HULL

None.

MACHINERY

None.

ELECTRICAL

Radioactivity and radiant heat were the only effect observed that are apparently peculiar to the Atom Bomb. Neither of these caused any material damage to electrical equipment.

III. Results of Test on Target.

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

HULL

Not observed.

MACHINERY

No comment.

ELECTRICAL

None.

(c) Effect on watertight integrity and stability.

HULL

None. There was no impairment of structural strength or seaworthiness.

MACHINERY

No comment.

ELECTRICAL

None.

(d) Effect on personnel and habitability.

HULL

Insofar as hull structure is concerned, there is no effect on habitability. Topside personnel might have suffered slight burns.

MACHINERY

None.

ELECTRICAL

1. Personnel manning exposed topside stations would probably have suffered minor flash burns and temporary blindness as a result of the radiant heat and light. Injuries resulting from the blast pressure wave would be relatively light, possibly a few bruises.

2. Other than the effect of radioactivity, habitability has in no way been affected by this test.

(e) Effect on fighting efficiency.

HULL

Damage to this ship was superficial, although there might have been some casualties among topside personnel, the vessel would have been able to fulfill its mission.

MACHINERY

None.

ELECTRICAL

The fighting efficiency of this vessel has not been reduced as a result of any electrical damage.

IV. General Summary of Observers' Impressions and Conclusions.

HULL

None.

MACHINERY

The NIAGARA was outside the effective range of the explosion during Test A.

ELECTRICAL

The location of this vessel in the target array was outside the effective range of the bomb. There was no electrical damage except for minor secondary damage due to fire previously mentioned. Had a crew been on board at time of blast, this fire would have been quickly extinguished and the resulting electrical damage nil.

V. Preliminary Recommendations.

HULL

None.

MACHINERY

None.

ELECTRICAL

None.

TECHNICAL INSPECTION REPORT

SECTION I - HULL

GENERAL SUMMARY OF HULL DAMAGE

I. Target Condition After Test.

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

There is no flooding, hence no change in drafts or list.

(b) Structural Damage.

There is no structural damage. The port flag bag is slightly dished.

(c) Other damage.

Not observed.

II. Forces Evidenced and Effects Noted.

(a) Heat.

Manilla line was slightly scorched. No paint was scorched by direct heat radiation.

(b) Fires and explosion.

A fire started in an oil soaked fender made of cocoa matting which was secured to the longitudinal bulkhead at frame 113, port, main deck. The fire ignited wooden shores stowed overhead and burned the paint from nearby areas on the bulkhead and upper deck. There were no explosions.

(c) Shock.

While there was no damage from shock, some of the sections of the upper deck cargo hatch covers were dislodged and fell into the space below.

(d) Pressure.

The only damage caused by pressure was slight dishing of the port flag bag which was fabricated from sheet metal, and breakage of several glass covers over magazine sprinkling valves at weather deck operating stations.

(e) Effects peculiar to the Atomic Bomb.

None.

III. Results of Test on Target.

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

Not observed.

(b) Effect on gunnery and fire control.

Not observed.

(c) Effect on watertight integrity and stability.

None. There was no impairment of structural strength or seaworthiness.

(d) Effect on personnel and habitability.

Insofar as hull structure is concerned, there is no effect on habitability. Topside personnel might have suffered slight burns.

(e) Effect on fighting efficiency.

Damage to this ship was superficial, although there might have been some casualties among topside personnel, the vessel would have been able to fulfill its mission.

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

None.

V. Preliminary Recommendations.

None.

VI. Instructions for Loading the Vessel Specified the Following:

ITEM	LOADING
Fuel oil.	10%
Diesel oil.	10 tons.
Ammunition.	10%
Potable and reserve feed water.	95%
Salt water ballast in fuel oil tanks:	1275 tons.

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 Ship's 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.

Damage is limited to the effects of a small fire in the port weather passageway and to slight effects of pressure which dished the port flag bag and broke glass covers. Photos, pages 33 and 34 show the exterior of the ship after the test.

B. Superstructure.

The port flag bag is slightly dished. The glass covers of several remote operating stations for the magazine sprinkling system are broken. There is no other damage.

C. Turrets, Guns, and Directors.

No damage.

D. Torpedo Mounts, Depth Charge Gear.

Not applicable.

E. Weather Deck.

Twenty-five sections of the forward cargo hatch cover and eight sections of the after hatch cover were dislodged and fell to the main deck. Two sections of the after hatch cover were found on the upper deck.

A fire started in an oil soaked woven matting fender secured to the bulkhead at frame 113 in the port main deck weather passageway. The fire ignited wood shores stowed overhead and burned paint from nearby areas on the bulkhead and upper deck. The bulkhead is slightly warped between frames 112 and 117. The upper deck is slightly warped between frames 108 and 120. (Photos 154-3, page 35.

F. Exterior Hull.

No damage.

G. Interior Compartments (above w.l.).

The port bulkhead of compartment B-204-L is scorched near the overhead between frames 112 and 117 as the result of the fire outside. Soot was blown down the Charlie Noble. There was no other damage.

H. Armor Decks and Miscellaneous Armor.

Not applicable.

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

No damage.

J. Underwater Hull.

No damage.

K. Tanks.

No damage.

L. Flooding.

None.

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.

The coverings of army quartermaster test equipment on the forecastle were scorched. Special clothing secured to the lifelines was burned. Other test specimens were scorched and burned. (Photo 154-2, page 36).

TECHNICAL INSPECTION REPORT

SECTION II - MACHINERY

GENERAL SUMMARY OF MACHINERY DAMAGE

I. Target Condition After Test.

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

No data taken by machinery group.

(b) Structural damage.

No comment.

(c) Other damage.

There is no damage to the machinery of this vessel, all of which has been operated since Test A.

II. Forces Evidenced and Effects Noted.

(a) Heat.

No evidence.

(b) Fires and explosions.

No evidence.

(c) Shock.

No evidence.

(d) Pressure.

No evidence.

(e) Effects apparently peculiar to the atom bomb.

None.

III. Effects of Damage.

(a) Effect on machinery and ship control.

No evidence.

(b) Effect on gunnery and fire control.

No comment.

(c) Effect on water-tight integrity and stability.

No comment.

(d) Effect on personnel and habitability.

None.

(e) Total effect on fighting efficiency.

None.

IV. General Summary.

The NIAGARA was outside the effective range of the explosion during Test A.

V. Preliminary Recommendation.

None.

DETAILED DESCRIPTION OF MACHINERY DAMAGE

A. General Description of Machinery Damage.

(a) Overall condition.

The overall condition of the machinery of this vessel was not changed by Test A. All machinery has been operated under service conditions since the test.

(b) Areas of major damage.

Not applicable.

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

Not applicable.

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

The Target Test had no effect on the operability of the machinery plant.

B. Boilers.

1. Undamaged. Both boilers have been operated under full steam pressure and no defects were found.

2. Neither boiler would hold a hydrostatic pressure for more than a few minutes before or after the test. Exact comparison of conditions before and after the test is thus impracticable, but the test had no appreciable effect on the tightness of the boilers.

C. Blowers.

Undamaged. All four blowers were tested in operation at 6" water pressure for a few minutes and then were run several hours in conjunction with their respective boilers. No defects were found.

D. Fuel Oil Equipment.

Undamaged. All fuel oil equipment was tested in operation and no defects were found.

E. Boiler Feedwater Equipment.

Undamaged. All feedwater equipment was tested in operation and no defects were found.

F. Main Propulsion Machinery.

1. Undamaged. Before steaming the turbines were jacked over and bridge gage readings were taken. There were no changes in bridge readings incident to Test A.

2. Both turbines were run at no load at 1000 to 1200 RPM for two hours. They were then both run at light load and 1500 RPM for a few minutes to turn both shafts over in the ahead and astern direction. No defects of any kind were found.

G. Reduction Gears.

Not applicable.

H. Shafting and Bearings.

Undamaged. Both shafts were turned in both directions by the motors and all bearings, stern tubes and bulkhead packing glands were inspected.

I. Lubrication System.

Undamaged. The lubrication system was tested in operation and no defects were found.

J. Condensers and Air Ejectors.

Undamaged. Both main condensers were tested in operation for about two hours and maintained a vacuum of 28". The

auxiliary condensers were tested in operation for a minimum of three days each at a vacuum of 28".

K. Pumps.

Undamaged. All pumps were tested in operation and no defects were found.

L. Auxiliary Generators (Turbines and Gears).

Undamaged. All turbo-generators have been tested in operation under load and no defects were found.

M. Propellers.

Undamaged. Both propellers have been inspected from the surface of the water and turned over. There were no defects apparent.

N. Distilling Plant.

Undamaged. Both evaporators were placed in operation immediately after Test A, and functioned normally.

O. Refrigeration Plant.

Undamaged. The refrigerating plant was placed in operation immediately after Test A, and functioned normally.

P. Winches, Windlasses, and Capstans.

1. Undamaged. Davit #4 has been out of commission due to a missing drive chain on the winch since some time before Test A. It was not damaged during the test.

2. All other winches, windlasses, and capstans were tested in operation and no defects were found.

Q. Steering Engine.

Undamaged. The steering engine was tested from all three stations, from hardover to hardover. No defects were found.

R. Elevators, Ammunition Hoists, etc.

Undamaged. The gasoline hoists and two ammunition hoists were operated under full load conditions, and functioned normally.

S. Ventilation (Machinery).

Undamaged. The ventilation machinery was operated after test A, and functioned normally.

T. Compressed Air Plant.

Undamaged. The air compressor was operated after test A, and functioned normally.

U. Diesels (Generators and Boats).

1. Undamaged.

2. The two diesel fire pumps were operated for two hours each at pressures varying from 80 to 100 lbs/sq. in. No defects were found.

3. The emergency diesel generator was run for 2 1/2 hours at 3/4 load and no defects were found.

V. Piping Systems.

Undamaged. All piping has been tested in operation and no defects were found.

W. Miscellaneous.

Undamaged. Laundry, galley, and machine shop equipment were operated after test A, and functioned normally.

TECHNICAL INSPECTION REPORT

SECTION III - ELECTRICAL

GENERAL SUMMARY OF ELECTRICAL DAMAGE

I. Target Condition After Test.

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

1. Drafts after test - Not observed.

2. List - Not observed.

3. Flooding - None.

(b) Structural damage.

1. Structural damage was negligible. The port flag bag was slightly dished and approximately 10% of the hatch boards on upper deck of both cargo holds were dislodged and fell to deck below.

2. The above damage had no effect on any electrical equipment.

(c) Other damage.

1. Close visual inspection revealed no damage to any electrical equipment or electrical elements of ship control, fire control and gunnery as a direct result of the blast. Practically all of the above equipment has been operated since A day and in every case found satisfactory.

2. Secondary cable damage due to fire in oil soaked fender located at frame 115 main deck port rendered one lighting receptacle, one telephone jack box and one-four gang push button inoperable.

II. Forces Evidenced and Effects Noted.

(a) Heat.

1. Radiant heat coming from port quarter slightly scorched Army quartermaster gear displayed on forecastle and is believed to have started oil soaked fender smuldering on main deck at frame 115, port.

2. There was no damage to any electrical equipment as a result of heat other than secondary cable damage previously mentioned.

(b) Fires and explosions.

1. One small fire occurred on board this vessel as a direct result of the bomb. Resulting cable damage described in I(c)2.

2. There were no explosions.

(c) Shock.

There was no damage to any electrical equipment as a result of shock.

(d) Pressure.

1. The only evidence of pressure was dishing of port flag bag.

2. There was no electrical damage as a result of pressure.

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

Radioactivity and radiant heat were the only effect observed that are apparently peculiar to the atom bomb. Neither of these caused any material damage to electrical equipment.

III. Effects of Damage.

(a) Effect on propulsion and ship control.

No appreciable effect.

(b) Effect on gunnery and fire control.

None.

(c) Effect on water-tight integrity and stability.

Not observed.

(d) Effect on personnel and habitability.

1. Personnel manning exposed topside stations would probably have suffered minor flash burns and temporary blindness as a result of the radiant heat and light. Injuries resulting from the blast pressure wave would be relatively light, possibly a few bruises.

2. Other than the effect of radioactivity, habitability has in no way been affected by this test.

(e) Total effect on fighting efficiency.

The fighting efficiency of this vessel has not been redu ced as a result of any electrical damage.

IV. General Summary of Observers' Impressions and Conclusions.

The location of this vessel in the target array was outside the effective range of the bomb. There was no electrical damage except for minor secondary damage due to fire previously mentioned. Had a crew been on board at time of blast this fire would have been quickly extinguished and the resulting electrical damage nil.

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

None.

DETAILED DESCRIPTION OF ELECTRICAL DAMAGE

A. General Description of Electrical Damage.

(a) Overall condition.

The overall condition of the electrical equipment remained unchanged.

(b) Areas of major damage.

1. There was no area of major damage.

2. Minor secondary damage due to fire in oil soaked fender located on main deck at frame 115 port, damaged three local cable.

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

1. No areas of major damage.

2. Minor secondary damage at frame 115 port side of main deck due to fire in oil soaked fender.

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

1. Ship's service generator plant - No effect.

2. Engine and boiler auxiliaries - No effect.

3. Electric propulsion - No effect.

4. Communications - No effect.

5. Fire control circuit - No effect.

6. Ventilation - No effect.

7. Lighting - No effect.

(e) Types of equipment most affected.

There was no damage to any type of electrical equipment except for secondary cable damage due to fire.

B. Electric Propulsion Rotating Equipment.

No damage.

C. Electric Propulsion Control Equipment.

No damage.

D. Generators - Ships Service.

No damage.

E. Generators - Emergency.

No damage.

F. Switchboards, Distribution and Transfer Panels.

No damage.

G. Wiring, Wiring Equipment and Wireways.

Three cables supplying boom light receptacle, sound powered telephone jack box and four-gang E call push button located at quarterdeck were damaged by secondary fire. This fire originated in an oil soaked fender stowed on main deck at frame 115 portside, and is believed to have been ignited by radiant heat from bomb. Had a crew been on board at time of blast this fire could have been easily and quickly extinguished.

H. Transformers.

No damage.

I. Submarine Propelling Batteries.

Not Applicable.

J. Portable Batteries.

No damage.

K. Motors, Motor Generator Sets and Motor Controllers.

No damage.

L. Lighting Equipment.

Cable for boom light receptacle suffered secondary damage due to fire. This damage is described under Item G.

M. Searchlights.

No damage.

N. Degaussing Equipment.

No damage.

O. Gyro Compass Equipment.

No damage.

P. Sound Powered Telephones.

Cable for one jack box and one four-gang E call push button suffered secondary damage due to fire. This damage is described under Item G.

Q. Ship's Service Telephones.

Not Applicable.

R. Announcing Systems.

No damage.

S. Telegraphs.

No damage.

T. Indicating Systems.

No damage.

U. I.C. and A.C.O. Switchboards.

No damage.

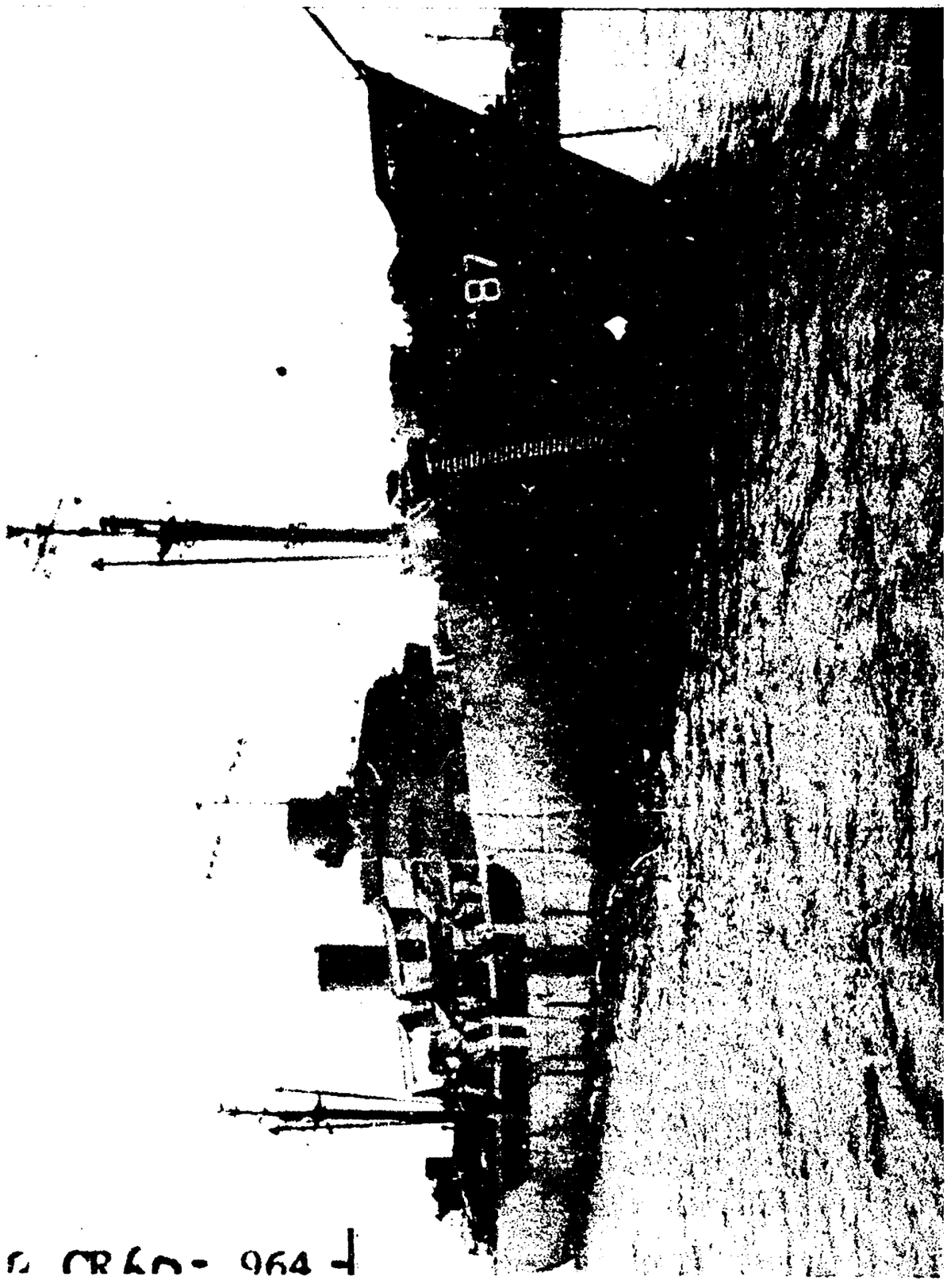
V. F.C. Switchboard.

No damage.

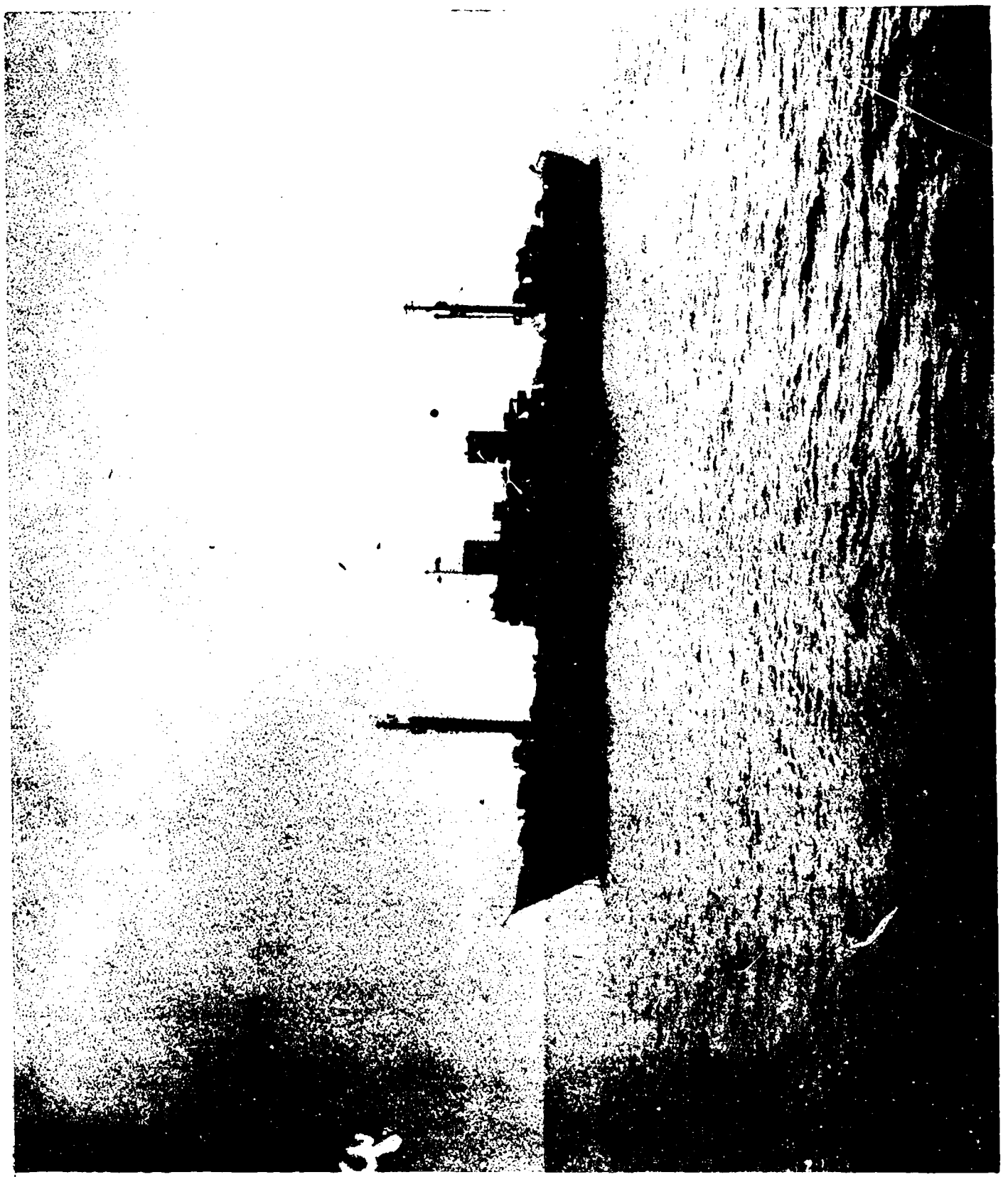
SECTION IV

PHOTOGRAPHS

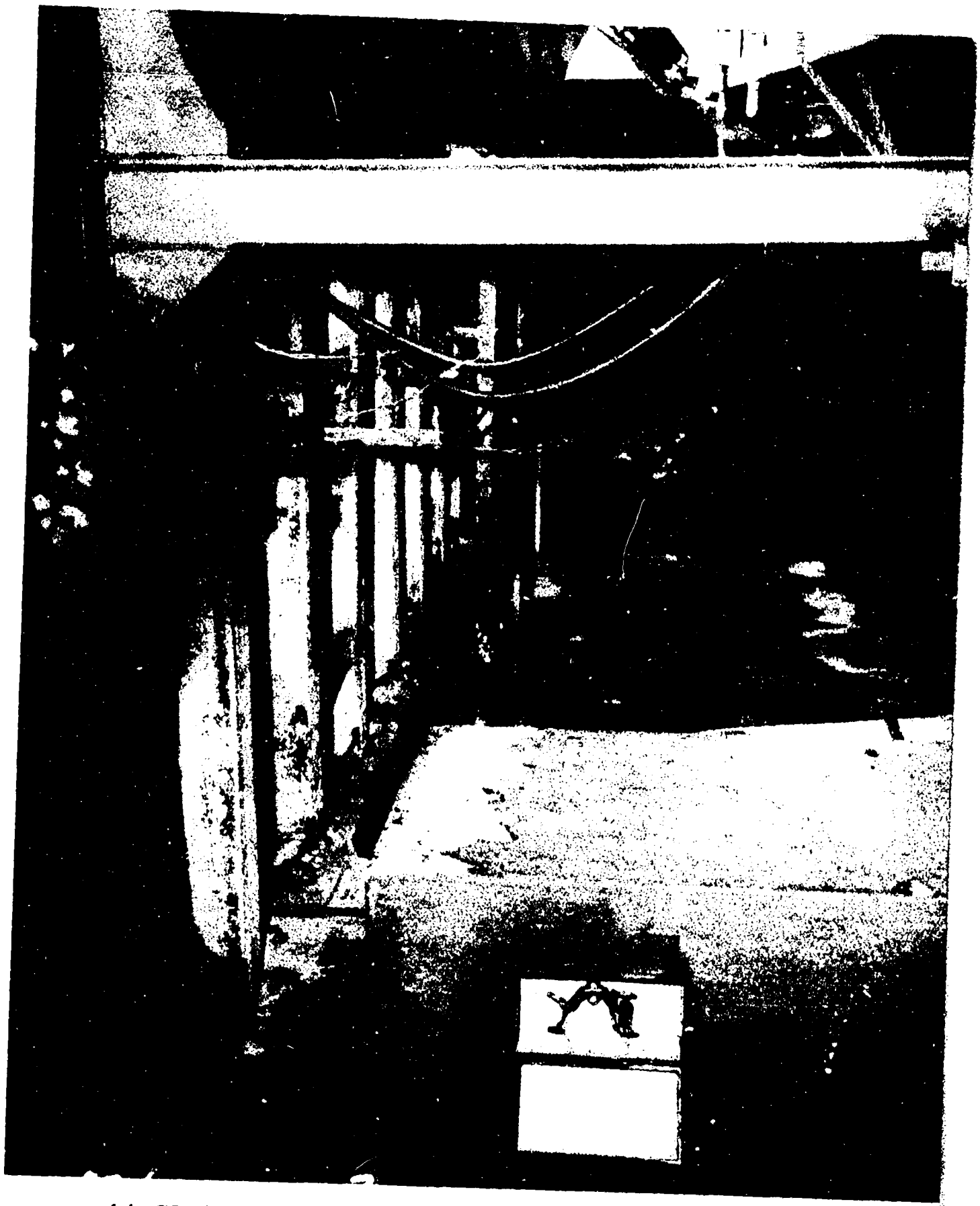
TEST ABLE



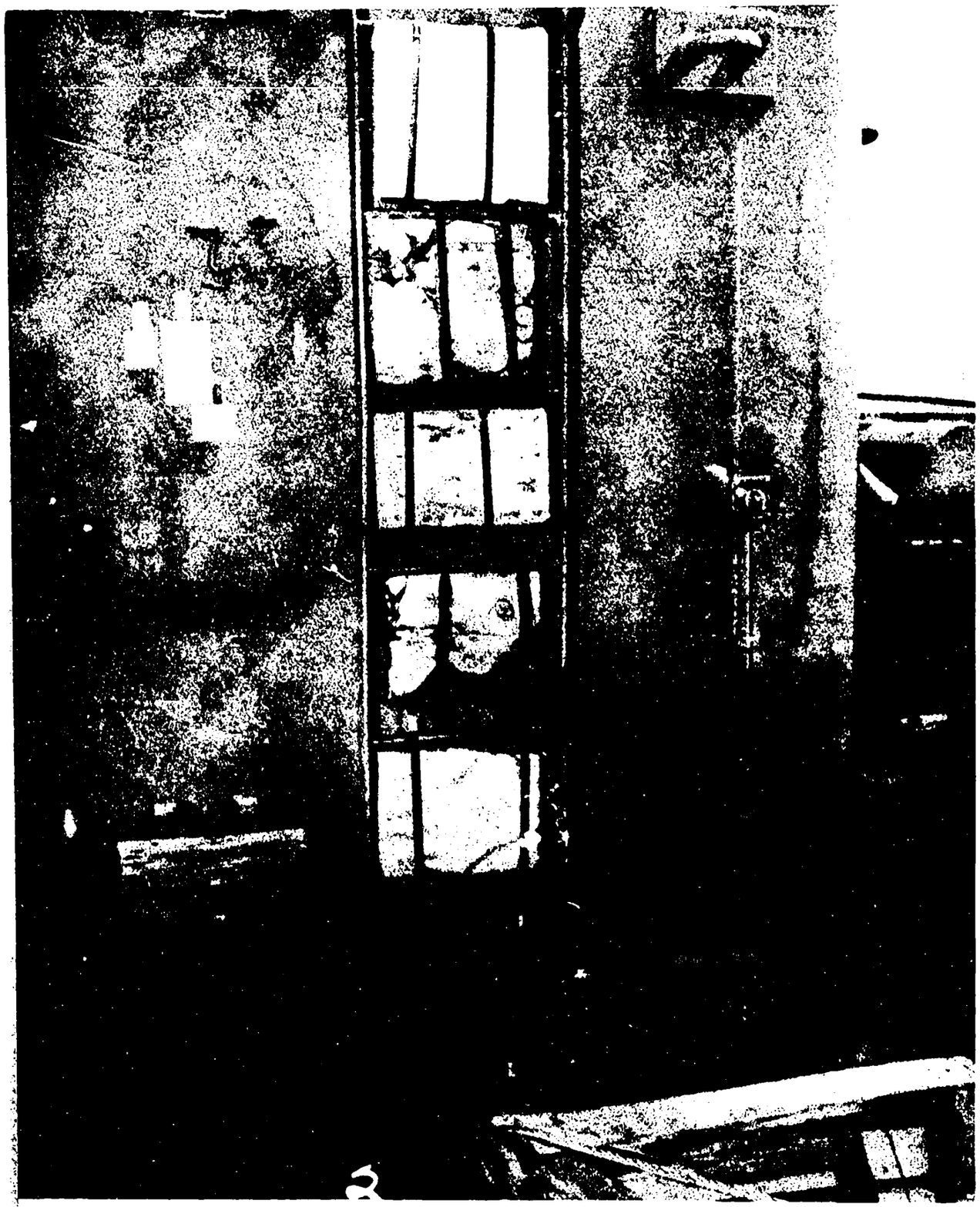
AA-CR-60-964-11. View from off starboard bow after Test A.



AA-CR-60-964-3. View from off port beam after Test A. Note smoke from fire at frame 113, port main deck weather passageway.



AA-CR-60-154-3. Damage from fire in port main deck weather passageway.



AA-CR-60-154-2. Scorched and burned test materials.

APPENDIX

COMMANDING OFFICERS REPORT

TEST ABLE

REPORT #11

COMMANDING OFFICERS REPORT

SECTION I

The NIAGARA (APA-87) was reboarded on Able plus one. All personnel were back on board that evening and the ship was back to normal operation by 2000. Detail inspection continued. As of this date all inspections and tests required of the ship's force for Operation Crossroads have been carried out and all reports accompany this letter. All equipment has been operated, hydrostatic tests applied to boilers, main engines turned over, navigational equipment and ground tackle tested. In general, the ship is an operable unit and is in as sound condition now as it was before the test. No permanent change in list, trim or draft occurred and all compartments were dry.

SECTION II

Evidence of high blast pressures and flash temperatures were noted, namely:

BLAST.

(a) Maximum roll 13° starboard, 11° port.

(b) 25 sections of number one cargo hatch covers and 8 sections of #2 cargo hatch covers were dislodged and fell to the main deck. 2 sections of number 2 cargo hatch covers were found lying on the weather deck starboard opposite the hatch.

(c) Aircraft stowed on the port side opposite #2 hatch showed slight evidence of blast pressures, the port side of the canopy being broken. However, in evaluating this damage due regard must be had to the fact that this plane was subjected to the full force of the water pressure applied by a salvage tug to extinguish a fire on the main deck directly beneath the port wing of this plane.

(d) Incinerator doors were blown open and ashes blown out on deck. Fire clay around door inside was slightly chipped. Soot from Charlie Noble was blown over galley ranges and a very fine film of soot was present in some portions of the firerooms. All the above indicates a down draft of pressure through number one and two stacks.

(e) Blast guages on the fantail indicate the ship was heading towards the ESE and the direct force of the blast was from the port quarter.

(f) The NIAGARA had on board a menagarie of animals. Rats in several cages were found dead. One goat and one pig had also died. The pig was billeted in the forward hold and the goat with two others was billeted in a gun tub on the port side of the signal bridge deck. The attention of the BURLESON personnel was called to the fact that the pig had fallen from the main to hold deck prior to the test and would probably die from the result of this fall. It is not the

opinion of this Commanding Officer that the goat died from the effects of the blast. There was no blast damage whatsoever in the vicinity of the gun tub nor in any of the superstructure.

(g) No side plating, bulkheads, or any part of the ship's structure was bulged or dented as the result of the blast. All canvas screens throughout the ship remained in place.

(h) Glass was broken in several weather deck remote control valve cover boxes.

HEAT.

(a) Fire started in Coco Fender lashed to bulkhead outside on main deck aft at frame 113. Fire spread upward along the bulkhead, ignited wooded shores in the overhead stowage. Paint was completely burned from the overhead above the shores and from the weather deck between frames 112 and 117. The fire was extinguished by the salvage party upon reentry. In the opinion of the Commanding Officer, the fire was caused by flash heat on the partially oil soaked fender but may have been caused by some ignited particle thrown from another ship. That the fender smouldered for some time before blazing is certain or the damage caused by the fire would have been considerably greater. The bulkhead between frames 112 and 117 was warped as was the weather deck between frames 108 and 120. The deck loaded plane above the burned area was undamaged from heat. The outer bulkhead in compartment B-204-L between frames 112 and 117 was slightly scorched near the overhead indicating the fiber glass insulation had been burned to some extent. The fire, plus salt water used in extinguishing the fire shorted out the call bell system to the port gangway station.

(b) Other evidences of heat which caused no damage whatsoever were:

(1) #3 20MM gun sight blistered.

(2) Army quartermaster gear on the forecastle was slightly scorched on the outboard side. Special clothing secured

to life lines were burned in several instances, particularly rubberized material.

(c) No below deck spaces other than Compartment B-204-L showed any evidence of heat, flash, or otherwise. All magazines were normal. Maximum temperatures registered were no higher than normal.

(d) Thermometers outside magazine trunks aft indicated a maximum of about 15° higher than normal.

SECTION III

Subject to the above remarks, some of which would have not been noted had damage experienced been more severe, the Commanding Officer feels that the efficiency of the ship has not been affected in the slightest degree and that should personnel have been aboard at the time of the test, other than a few bruises and probably flash burns, their efficiency also would not have been impaired. With personnel on board, the fire on the main deck would have been discovered and extinguished before any damage resulted. The blinding effect of the flash and the final injury to personnel due to radioactivity cannot be estimated by this officer.

Defense Special Weapons Agency
6801 Telegraph Road
Alexandria, Virginia 22310-3398

TRC

10 April 1997

MEMORANDUM FOR DEFENSE TECHNICAL INFORMATION CENTER
ATTENTION: OMI/Mr. William Bush

SUBJECT: Declassification of Reports

The Defense Special Weapons Agency (formerly Defense Nuclear Agency) Security Office has reviewed and declassified the following reports:

AD-366718	XRD-32-Volume 3
AD-366726	XRD-12-Volume 2
AD-366703	XRD-16-Volume 1
AD-366702	XRD-14-Volume 2
AD-376819L	XRD-17-Volume 2
AD-366704	XRD-18
AD-367451	XRD-19-Volume 1
AD-366705	XRD-20-Volume 2
AD-376028L	XRD-4
AD-366694	XRD-1
AD-473912	XRD-193
AD-473891	XRD-171
AD-473899	XRD-163
AD-473887	XRD-166
AD-473888	XRD-167
AD-473889	XRD-168

AD-366705 V

ST-A 28 JAN 80 made target

TRC 10 April 1997

SUBJECT: Declassification of Reports

AD-B197749	XRD-174
AD-473905	XRD-182
AD-366719	XRD-33 Volume 4
AD-366700	XRD-10
AD-366712	XRD-25 Volume 1
AD-376827L	XRD-75
AD-366756	XRD-73
AD-366757	XRD-74
AD-366755	XRD-72
AD-366754	XRD-71 On Previous letter
AD-366710	XRD-23 Volume 1
AD-366711	XRD-24 Volume 2
AD-366753	XRD-70
AD-366749	XRD-66
AD-366701	XRD-11
AD-366745	XRD-62.

All of the cited reports are now **approved for public release; distribution statement "A" applies.**

Ardith Jarrett

ARDITH JARRETT
Chief, Technical Resource Center

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KSC

Completed
22 may 2000
K.W