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TECHNICAL INSPECTION REPORT

Classification (~~Unrolled~~) (Changed to CONFIDENTIAL)
By Authority of Joint Chiefs of Staff Action of 15 April 1959
By [illegible] Date [illegible]
[illegible] AFSWP

366747

U.S.S. CARTERET (APA 70)

TEST ABLE

[redacted]

U. S. GOVERNMENT [illegible] DIRECTLY FROM DSC. [illegible] THROUGH

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Washington, D. C. 20301

OPERATION CROSSROADS

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BUREAU OF SHIPS GROUP

TECHNICAL INSPECTION REPORT

Classification (~~Cancelled~~) (Changed to CONFIDENTIAL)
By Authority of Joint Chiefs of Staff Action of 15 April 1944
By [illegible] Date 24 Apr 51
[illegible] U. A FSWP

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

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[illegible]. Forest,
Captain, U.S.N.

[redacted]

USS CARTERET (APA70)

Page 1 of 51 Pages

6 OPERATION CROSSROADS. U.S.S. CARTERET (APA70)
TEST ABLE (8)

GROUP-3
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1 JAN 1965

(9) Bureau of Ships Group technical inspection rept.

(14) XRD-67

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U.S.S. CARTERET (APA 70)

SHIP CHARACTERISTICS

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

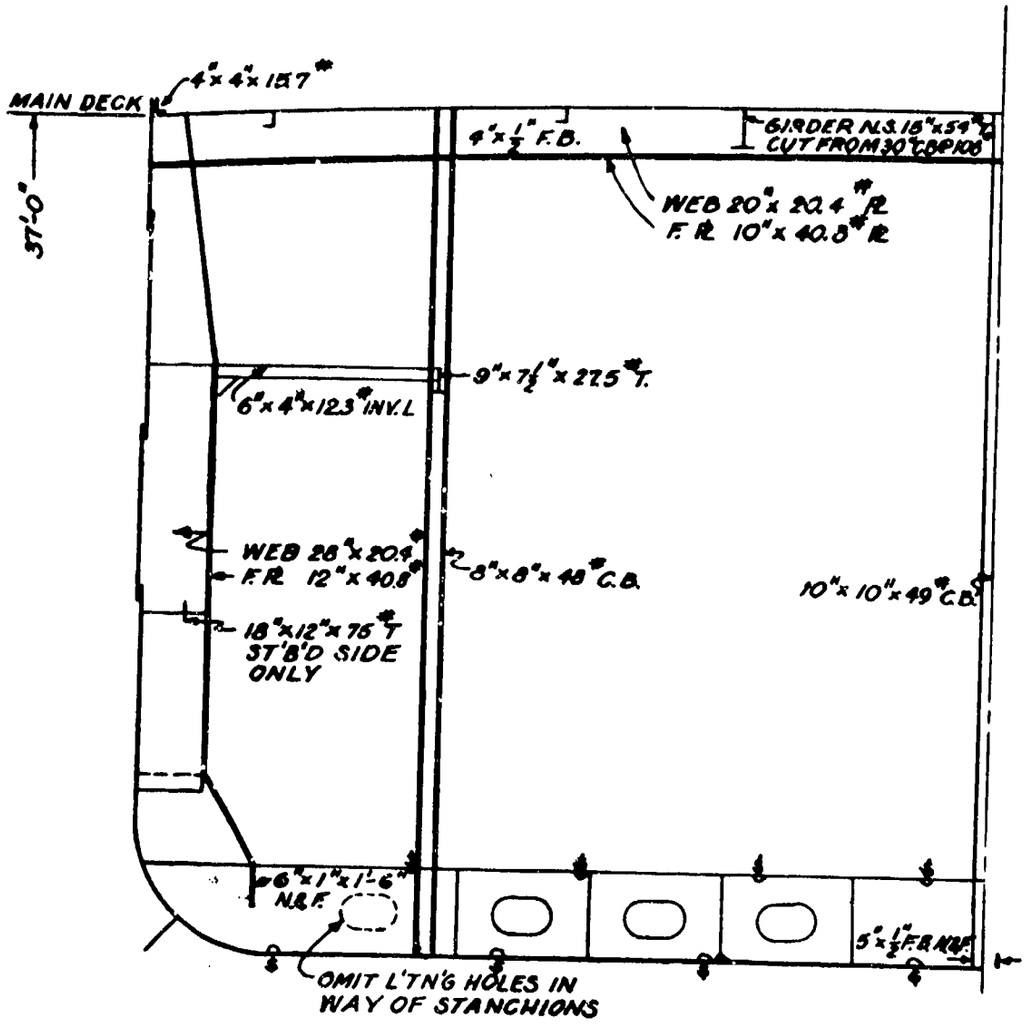
Commissioned: 3 December 1944.

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 0 inches.
Aft. 17 feet 0 inches.
Limiting displacement: 7,080 tons.
Displacement at time of test: 5,598 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.



FRAME 76 LOOKING AFT

MIDSHIP SECTION

TEST - A

SECRET

U.S.S. CARTERET (APA 70)

7519

TECHNICAL INSPECTION REPORT

OVERALL SUMMARY

I. Target Condition After Test.

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

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

(b) Structural damage.

HULL

Structural damage is light and is confined principally to dishing of exposed superstructure plating of 7 1/2 pounds or less.

MACHINERY

No comment.

ELECTRICAL

There was no significant damage to the main hull and only light superficial damage on starboard side of superstructure. The horn of a general announcing reproducer located at frame 65 port side of navigating bridge was damaged by a falling flag bag. Splinters from wooden movie booth struck and slightly dented the horn of a general announcing reproducer located at frame 106 port side on 02 level. The above reproducers remained operable.

(c) Other damage.

HULL

No comment.

MACHINERY

None.

ELECTRICAL

The main electric plant, ship propulsion, and electrical elements of ship control, fire control, and gunnery remained unchanged and operable except for damage to horns on two general announcing reproducers, rotor cups on wind intensity transmitter, three lighting fixtures and starboard pelorus.

II. Forces Evidenced and Effects Noted.

(a) Heat.

HULL

Paint on vertical surfaces is scorched and blistered. Radiation came from about 140 degrees relative and at an elevation of about 10 degrees. There is no scorching of deck paint. Unpainted packing cases are scorched considerably. Fire hose used for boat gripe chafing, manila line, and marline, burlap, and cardboard are badly scorched.

MACHINERY

No evidence.

ELECTRICAL

This ship was subjected to a wave of radiant heat approaching from the starboard quarter with sufficient intensity to scorch and blacken paint on vertical areas normal to direction of blast and ignite fires in Army Quartermaster gear displayed on fantail and frame 145 on starboard 01 deck for test. There was no damage to any electrical equipment as a result of these fires or radiant heat.

(b) Fires and explosions.

HULL

There were three fires. Two were in Army Quartermaster gear displayed on the fantail. A bundle of shoes, inflammable shoe waterproofing, and cellulose bags burned completely. Another bundle of field jackets and cotton undershirts is about 75 percent burned. Judging by evidence obtained from other bundles, the fires originated in crevasses of the stowage where the air blast could not fully cool the surfaces heated by the radiation. The third fire burned the boat gripes of the starboard davits.

There were no explosions.

MACHINERY

No evidence.

ELECTRICAL

Two small fires were started in Army Quartermaster gear displayed on fantail and frame 145 on starboard side 01 deck for test. There was no damage to any electrical equipment as a result of these fires.

(c) Shock.

HULL

There is no evidence of shock damage.

MACHINERY

No evidence.

ELECTRICAL

One lamp in sick bay area and two lamps in C.P.O. quarters

were broken, which was apparently due to shock being transmitted through hull of vessel as these lamps were located inside enclosures where no evidence of pressure was apparent.

(d) Pressure.

HULL

The pressure wave emanated from about 135 degrees Relative. 7 1/2 pound superstructure bulkheads are slightly dished. Such dishing is most pronounced in way of doors. Exposed items fabricated from sheet metal are badly dished and distorted. Plating heavier than 7 1/2 pounds is not damaged.

MACHINERY

No evidence.

ELECTRICAL

Blast pressure approaching from starboard quarter was sufficient to blow rotor cups off anemometer transmitter located on starboard yardarm of foremast, and dislodge starboard pelorus from its gimbal support.

(e) Effects peculiar to the Atomic Bomb.

HULL

None.

MACHINERY

None.

ELECTRICAL

Other than radioactivity, radiant heat, and blast pressure were the effects noted apparently peculiar to the atom bomb.

III. Results of Test on Target.

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

HULL

No effects as a result of hull damage.

MACHINERY

None.

ELECTRICAL

The main electric plant, ship propulsion and electrical elements of ship control were unaffected and remained operable except for the following:

(a) Two lamps in the C.P.O. quarters and one lamp in sick bay area was broken.

(b) The horns on two general announcing reproducers were damaged, the units remained operable.

(c) The rotor cups were blown off anemometer transmitter, (spare rotors are carried aboard ship and can easily be replaced.).

(d) The starboard pelorus was dislodged from its gimbals. The pelorus was undamaged and need only be reset for normal operation.

(b) Effect on gunnery and fire control.

HULL

No effects as a result of hull damage.

MACHINERY

No comment.

ELECTRICAL

None.

(c) Effect on watertight integrity and stability.

HULL

None.

MACHINERY

No comment.

ELECTRICAL

None.

(d) Effect on personnel and habitability.

HULL

Personnel directly exposed to the bomb probably would have suffered flash burns and injuries from radiation. The habitability of the ship is not affected.

MACHINERY

None.

ELECTRICAL

Other than radioactivity,exposed personnel would have suffered minor flash burns and bruises from heat and blast pressure. The habitability of this vessel has in no way impaired as a result of this test.

(e) Effect on fighting efficiency.

HULL

Not affected as a result of hull damage.

MACHINERY

None.

ELECTRICAL

The minor electrical damage on this ship would have no effect on the fighting efficiency of this vessel.

IV. General Summary of Observers' Impressions and Conclusions.

HULL

No comment.

MACHINERY

The CARTERET was outside the effective range of the explosion in Test A.

ELECTRICAL

This vessel was exposed to a flash of radiant heat followed by a blast pressure of moderate intensity. The electrical damage resulting from this test was essentially minor and could readily be repaired by the ship's force.

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

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.

Structural damage is light and is confined mainly to dishing of exposed superstructure plating of 7-1/2 pounds or less.

(c) Other damage.

No comment.

II. Forces Evidenced and Effects Noted.

(a) Heat.

Paint on vertical surfaces is scorched and blistered. Radiation came from about 140° relative and at an elevation of about 10°. There is no scorching of deck paint. Unpainted packing cases are scorched considerably. Fire hose used for boat gripe chafing, manila line, and marline, burlap, and cardboard are badly scorched.

(b) Fires and explosions.

There were three fires. Two were in Army Quartermaster gear displayed on the fantail. A bundle of shoes, inflammable shoe waterproofing, and cellulose bags burned completely. Another bundle of field jackets and cotton undershirts

is about 75 percent burned. Judging by evidence obtained from other bundles, the fires originated in crevasses of the stowage where the air blast could not fully cool the surfaces heated by the radiation. The third fire burned the boat gripes of the starboard davits.

There were no explosions.

(c) Shock.

There is no evidence of shock damage.

(d) Pressure.

The pressure wave emanated from about 135° relative. 7-1/2 pound superstructure bulkheads are slightly dished. Such dishing is most pronounced in way of doors. Exposed items fabricated from sheet metal are badly dished and distorted. Plating heavier than 7-1/2 pounds is not damaged.

(e) Effects apparently peculiar to the atom bomb.

None.

III. Effects of Damage.

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

No effects as a result of hull damage.

(b) Effect on gunnery and fire control.

No effects as a result of hull damage.

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

None.

(d) Effect on personnel and habitability.

Personnel directly exposed to the bomb probably would have suffered flash burns and injuries from radiation. The habitability of the ship is not affected.

(e) Effect on fighting efficiency.

Not affected as a result of hull damage.

IV. General Summary of Observers' Impressions and Conclusions.

No comment.

V. Preliminary General or Specific Recommendations of Inspection Group.

None.

VI. Instructions for Loading the Vessel Specified the Following:

ITEM	LOADING
Fuel Oil	10%
Diesel Oil	Not over 10 tons
Ammunition	10%
Potable and reserve feed water	95%
Salt water ballast	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.

(a) Overall condition of vessel.

Damage is light and includes heavy dishing of both flag bags, dishing of the starboard side of both stacks, slight dishing of two doors on the starboard side of the deck house and the disarrangement of upper deck cargo hatch battens. Paint was scorched and blistered by heat radiation. Fire destroyed quartermaster test material on deck and fire hoses used for boat gripe chafing gear on the main deck. Cordage is severely scorched. Photos. 87-23, 27; pages 36 and 35 , show general exterior of the ship after Test A.

(b) General areas of hull damage.

Damage is confined to top side areas directly exposed to the burst.

(c) Apparent causes of hull damage in each area.

Damage was caused by blast and heat radiation.

(d) Principal areas of flooding and sources.

None.

(e) Residual strength, bouyancy and effect of general condition of hull on operability.

The residual strength of the vessel is not impaired and the operability is not affected.

B. Superstructure.

(a) Description of damage.

Superstructure bulkheads are slightly dished.

This is particularly evident in way of the doors on the upper deck at frames 77 and 85, starboard. These doors are sprung but are still operable. Paint on exposed vertical structures is slightly scorched (Photos 1733-6,7; pages 37 and 38).

Both stacks are slightly dished on the after starboard sector.

Sheetmetal items are badly damaged. The port flag bag is torn loose at the bottom. The starboard flag bag is dished and distorted. (Photo 1733-10; page 38).

The cups are knocked off of the anemometer. The repeater in the starboard pelorus was jarred out of the gimbels. The piping railing around the top of the deck house is bent down. The top of the built in locker on the starboard side of the superstructure deck is dished and the doors are sprung. On the upper deck the door of the potato locker was torn from the hinges and blown in.

(b) Cause of damage in each area.

Damage in all cases was caused by blast.

(c) Evidences of fire in superstructure.

All line, hoses, and marline exposed to the heat are severely scorched. Six signal halyards are scorched beyond use. There were no fires in the superstructure.

(d) Estimate of relative effectiveness against heat and blast.

Damage from blast was confined principally to plating weights of 7-1/2 pounds and less.

(e) Constructive criticism of superstructure design or construction, including important fittings and equipment.

No comment.

C. Turrets, Guns and Directors.

No damage.

D. Torpedo Mounts, Depth Charge Gear.

Not Applicable.

E. Weather Deck.

(a) General condition of deck and causes of damage.

No damage. Scratch gages installed between the main and upper decks recorded no relative movement.

One bundle of army shoes inflammable waterproofing, and cellulose bags exposed on the starboard side of the fantail was completely burned (photo 1733-8; page 40). Several cases of army test goods, consisting of waterproof jackets and undershirts, on the starboard side at frame 150 were partially burned (photo 1813-5; page 41). Wood boxes containing special test material were badly charred (photo 1733-9; page 42).

(b) Usability of deck in damaged condition.

Not Applicable.

(c) Condition of equipment and fittings.

Hatch battens of both cargo hatches are disarranged. Many have fallen to the main deck and some are scattered on the upper deck. Several battens are distorted but none are damaged beyond use (photo 1814-4; page 43).

Life rafts on the port side aft are displaced from their stowage.

Fire hose used as chaffing material on boat gripes of the starboard LCVP davits are badly scorched in one instance and entirely burned away in another. All line, hoses and marline exposed to the heat are badly scorched.

F. Exterior Hull.

No damage.

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

No 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.

No comment.

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.

None.

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.

None.

(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 CARTERET was outside the effective range of the explosion of Test A.

V. Preliminary Recommendations.

None.

DETAILED DESCRIPTION OF MACHINERY DAMAGE

A. General Description of Machinery Damage.

(a) Overall condition.

The overall condition of the machinery was not changed by Test A.

(b) Areas of major damage.

None.

(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 test had no effect on the overall condition of the machinery plant. Full operation was resumed immediately after the test.

B. Boilers.

Undamaged. Both boilers were steamed while the ship was underway after Test A. They functioned normally. Hydrostatic tests indicate no change in the tightness of the boilers.

HYDROSTATIC TEST DATA - BOILER #1

	Before Test A	After Test A
Initial Pressure	450 lb/sq.in.	450 lb/sq,in.
Time required for pressure to drop		
100 lb/sq.in.	20 minutes	20 minutes
200 lb/sq.in.	1 hr. 20 minutes	1 hour
300 lb/sq.in.	16 hrs 25 minutes	12 hours

C. Blowers.

Undamaged. All four blowers were operated at approximately half load after Test A. Performance was normal.

D. Fuel Oil Equipment.

Undamaged. All fuel oil equipment was used with boilers in operation after Test A. Performance was normal.

E. Boiler Feedwater Equipment.

All equipment was operated under service conditions, and functioned normally.

F. Main Propulsion Machinery.

Undamaged. All main turbines operated normally under service conditions after Test A.

G. Reduction Gears.

Not Applicable.

H. Shafting and Bearings.

All shafts were checked by dial indicator and inspected while shafts were in operation after Test A. Performance was normal.

I. Lubrication System.

Undamaged. All equipment was operated under service conditions after Test A. Performance was normal.

J. Condensers and Air Ejectors.

Undamaged. The condensers were operated under service conditions and held a vacuum of 28-1/2 inches after Test A.

K. Pumps.

Undamaged. All pumps were operated under service conditions after Test A. Performance was normal.

L. Auxiliary Generators (Turbines and Gears).

Undamaged. All generators were operated at rated load after Test A. Performance was normal.

M. Propellers.

Undamaged. The propellers were inspected from the surface of the water and checked while the ship was underway. Performance was normal.

N. Distilling Plant.

Undamaged. The distilling plant was placed in operation immediately after Test A. Performance was normal.

O. Refrigeration Plant.

The refrigeration plant was placed in operation immediately after Test A. Performance was normal.

P. Winches, Windlasses, and Capstans.

No damage. All equipment was operated under load after Test A.

Q. Steering Engine.

Undamaged. Both steering units were operated under service conditions after Test A.

R. Elevators, Ammunition Hoists, Etc..

Undamaged. All equipment was operated satisfactorily after Test A.

S. Ventilation (Machinery).

Undamaged. All ventilation machinery was operated after Test A. Performance was normal.

T. Compressed Air Plant.

Undamaged. The air compressor was operated at normal load after Test A.

U. Diesels (Generators and Boats).

Undamaged. The emergency diesel generator and the diesel fire pump were operated under service conditions after Test A. Performance was normal.

V. Piping Systems.

Undamaged. All piping was tested at designed pressure after Test A.

W. Miscellaneous.

Undamaged. Laundry, galley, and machine shop equipment were placed in operation immediately after Test A. Performance was normal.

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.

Drafts and list - not observed. Flooding - none.

(b) Structural damage.

There was no significant damage to the main hull and only light superficial damage on starboard side of superstructure. The horn of a general announcing reproducer located at frame 65 port, side of navigating bridge was damaged by a falling flag bag. Splinters from wooden movie booth struck and slightly dented the horn of a general announcing reproducer located at frame 106 port side on 02 level. The above reproducers remained operable.

(c) Other damage.

The main electric plant, ship propulsion and electrical elements of ship control, fire control and gunnery remained unchanged and operable except for damage to horns on two general announcing reproducers, rotor cups on wind intensity transmitter, three lighting fixtures and starboard pelorus.

II. Forces Evidenced and Effects Noted.

(a) Heat.

This ship was subjected to a wave of radiant heat approaching from the starboard quarter with sufficient intensity to scorch and blacken paint on vertical areas normal to direction of blast and ignite fires in Army Quartermaster gear displayed on fantail and frame 145 on starboard 01 deck for test. There was no damage to any electrical equipment as a result of these fires or radiant heat.

(b) **Fires and explosions.**

Two small fires were started in Army Quartermaster gear displayed on fantail and frame 145 on starboard side 01 deck for test. There was no damage to any electrical equipment as a result of these fires.

(c) Shock.

One lamp in sick bay area and two lamps in C.P.O. quarters were broken, which was apparently due to shock being transmitted through hull of vessel as these lamps were located inside enclosures where no evidence of pressure was apparent.

(d) Pressure.

Blast pressure approaching from starboard quarter was sufficient to blow rotor cups off anemometer transmitter located on starboard yardarm of foremast, and dislodge starboard pelorus from its gimbal support.

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

Other than radioactivity radiant heat and blast pressure were the effects noted apparently peculiar to the atom bomb.

III. Effects of Damage.

(a) Effect on propulsion and ship control.

The main electric plant, ship propulsion and electrical elements of ship control were unaffected and remained operable except for the following:

Two lamps in the C.P.O. quarters and one lamp in sick bay area was broken.

The horns on two general announcing reproducers were damaged, the units remained operable.

The rotor cups were blown off anemometer transmitter, (spare rotors are carried aboard ship and can easily be replaced).

The starboard pelorus was dislodged from its gimbals. The pelorus was undamaged and need only be reset for normal operation.

(b) Effect on gunnery and fire control.

None.

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

None.

(d) Effect on personnel and habitability.

Other than radioactivity, exposed personnel would have suffered minor flash burns and bruises from heat and blast pressure. The habitability of this vessel has in no way been impaired as a result of this test.

(e) Total effect on fighting efficiency.

The minor electrical damage on this ship would have no effect on the fighting efficiency of this vessel.

IV. General Summary of Observers' Impressions and Conclusions.

This vessel was exposed to a flash of radiant heat followed by a blast pressure of moderate intensity. The electrical damage resulting from this test was essentially minor and could readily be repaired by the ship's force.

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 electrical equipment remained unchanged and operable.

(b) Areas of major damage.

None.

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

No damage.

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

1. Ship's service generator plant.

Undamaged, operated satisfactorily.

2. Engine and boiler auxiliaries.

Undamaged, operated satisfactorily.

3. Electrical propulsion.

Undamaged, operated satisfactorily.

4. Communications.

Communications were generally undamaged and operable. Minor damage was sustained by starboard pelorus, wind intensity transmitter and two general announcing reproducers.

5. Fire control circuit.

Undamaged, operated satisfactorily.

6. Ventilation.

Undamaged, operated satisfactorily.

7. Lighting.

Other than three lamps broken, lighting was undamaged and operable.

(e) Types of equipment most affected.

No particular type of equipment was affected more than others. Minor damage to electrical equipment was due more to location than by type

B. Electric Propulsion Rotating Equipment.

Undamaged, operated satisfactorily.

C. Electric Propulsion Control Equipment.

Undamaged, operated satisfactorily.

D. Generators - Ships Service.

Undamaged, operated satisfactorily.

E. Generators - Emergency.

Undamaged, operated satisfactorily.

F. Switchboards, Distribu tion and Transfer Panels.

Undamaged, operated satisfactorily.

G. Wiring, Wiring Equipment and Wireways.

Undamaged, operated satisfactorily.

H. Transformers.

Undamaged, operated satisfactorily.

I. Submarine Propelling Batteries.

Not Applicable.

J. Portable Batteries.

Undamaged, operated satisfactorily.

K. Motors, Motor Generator Sets and Motor Controllers.

Undamaged, operated satisfactorily.

L. Lighting Equipment.

Other than for one (200 watt) lamp in sick bay and two (100 watt) lamps in C.P.O. quarters broken, lighting was undamaged and operable.

M. Searchlights.

Undamaged, operated satisfactorily.

N. Degaussing Equipment.

Undamaged, operated satisfactorily.

O. Gyro Compass Equipment.

The starboard pelorus repeater was dislodged from the gimbal support by blast pressure. The repeater was damaged and the entire system was operable.

P. Sound Powered Telephones.

Undamaged, operated satisfactorily.

Q. Ship's Service Telephones.

Not Applicable.

R. Announcing Systems.

The horn of a general announcing reproducer located at frame 65 port side of navigating bridge was damaged by a falling flag bag. Splinters from wooden movie booth struck and slightly dented the horn of another reproducer located at frame 106 port side of 02 level. The above reproducers were undamaged and the entire system was operable.

S. Telegraphs.

Undamaged, operated satisfactorily.

T. Indicating Systems.

The indicating systems were generally undamaged and operable. The rotor cups on the anemometer transmitter located on the starboard yardarm of foremast were blown off by blast pressure.

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

Undamaged, operated satisfactorily.

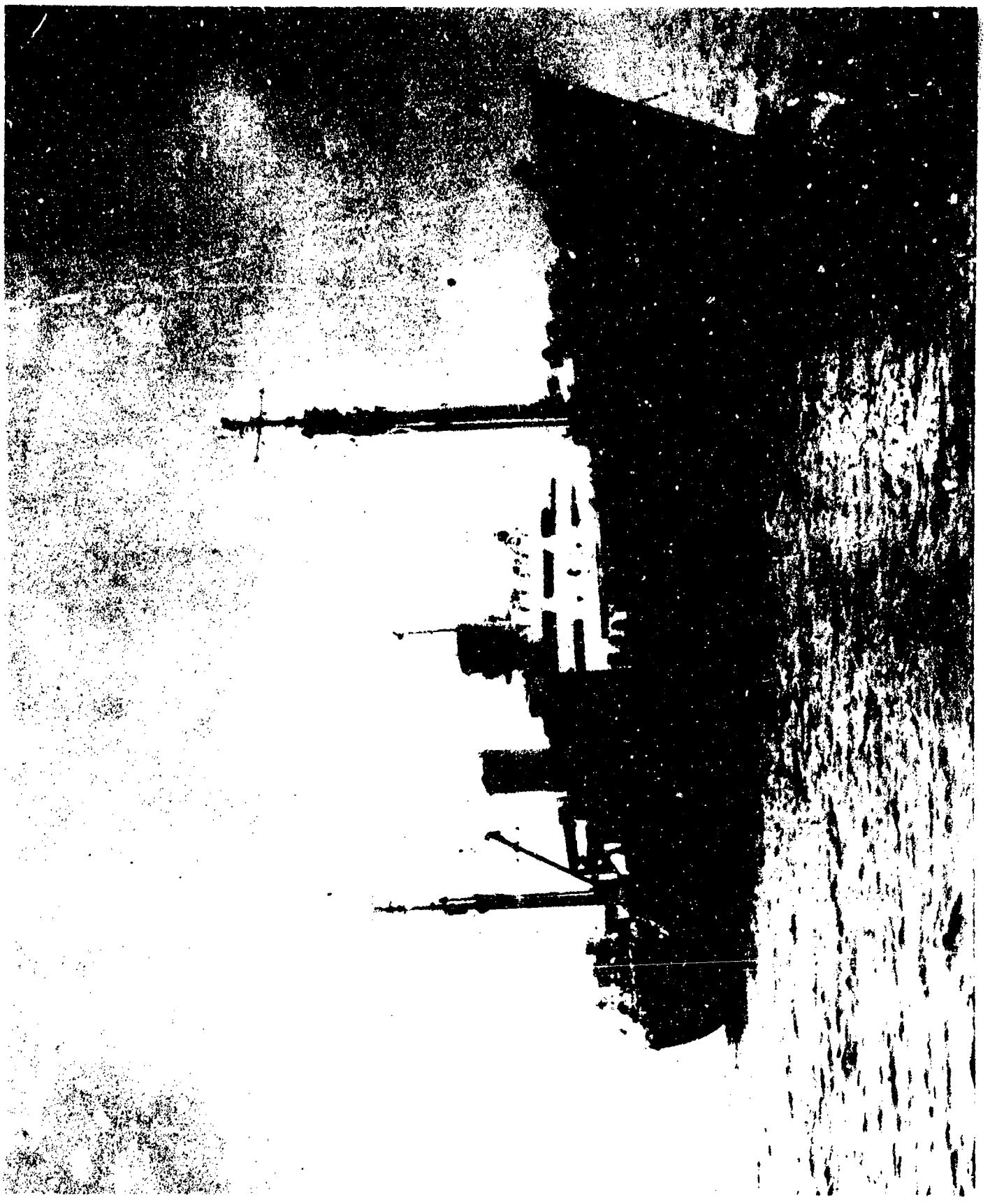
V. F.C. Switchboard.

Undamaged, operated satisfactorily.

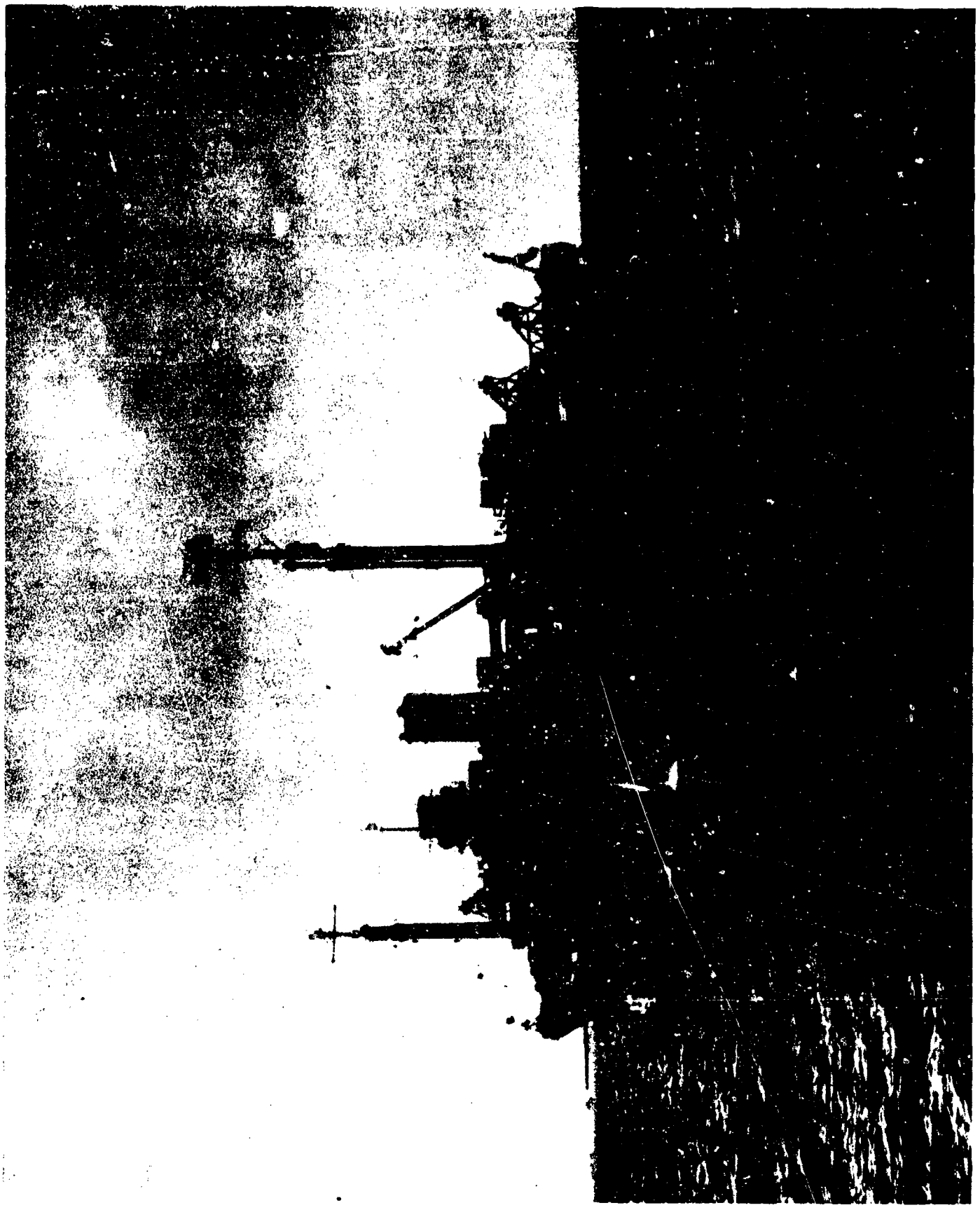
SECTION IV

PHOTOGRAPHS

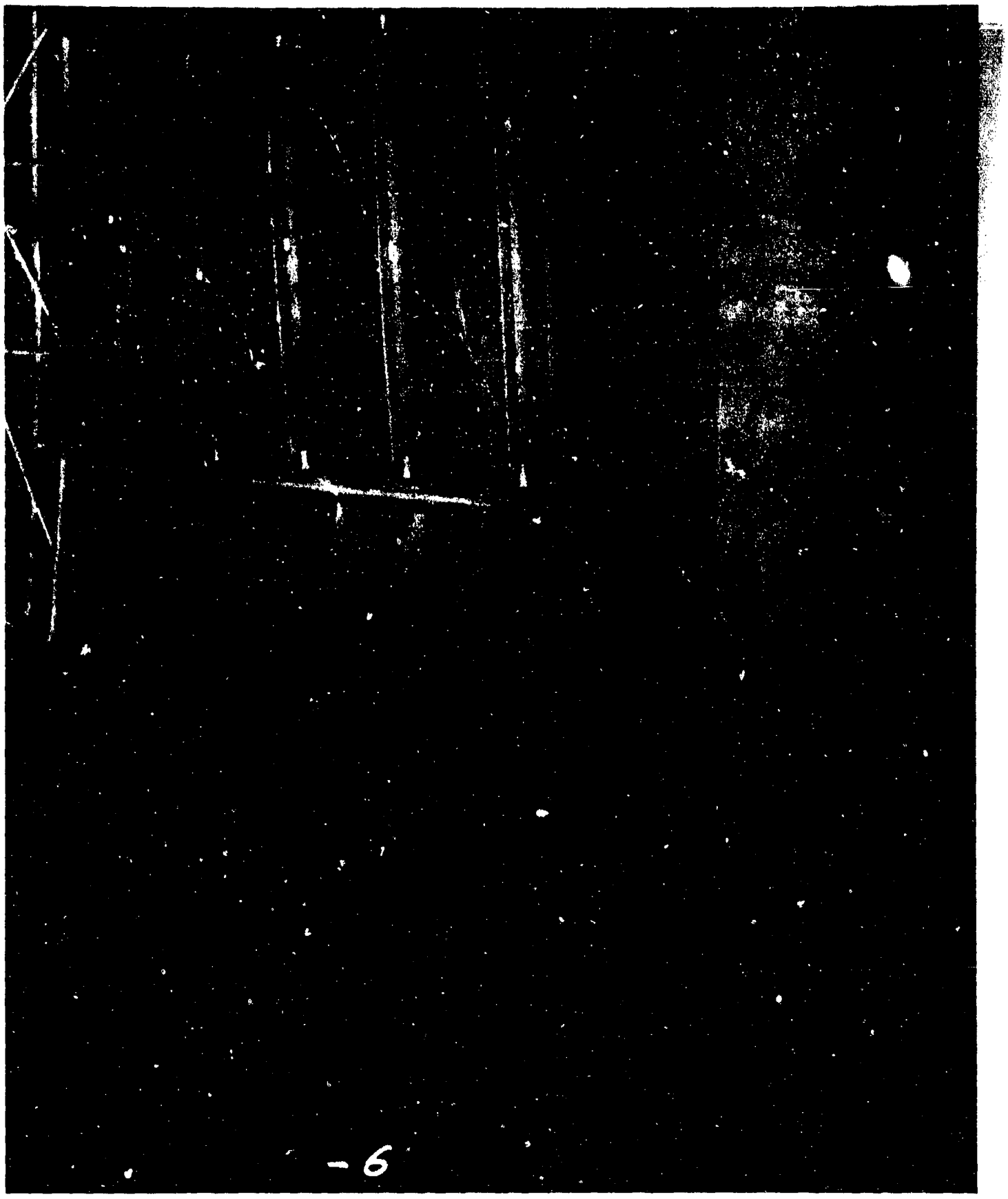
TEST ABLE



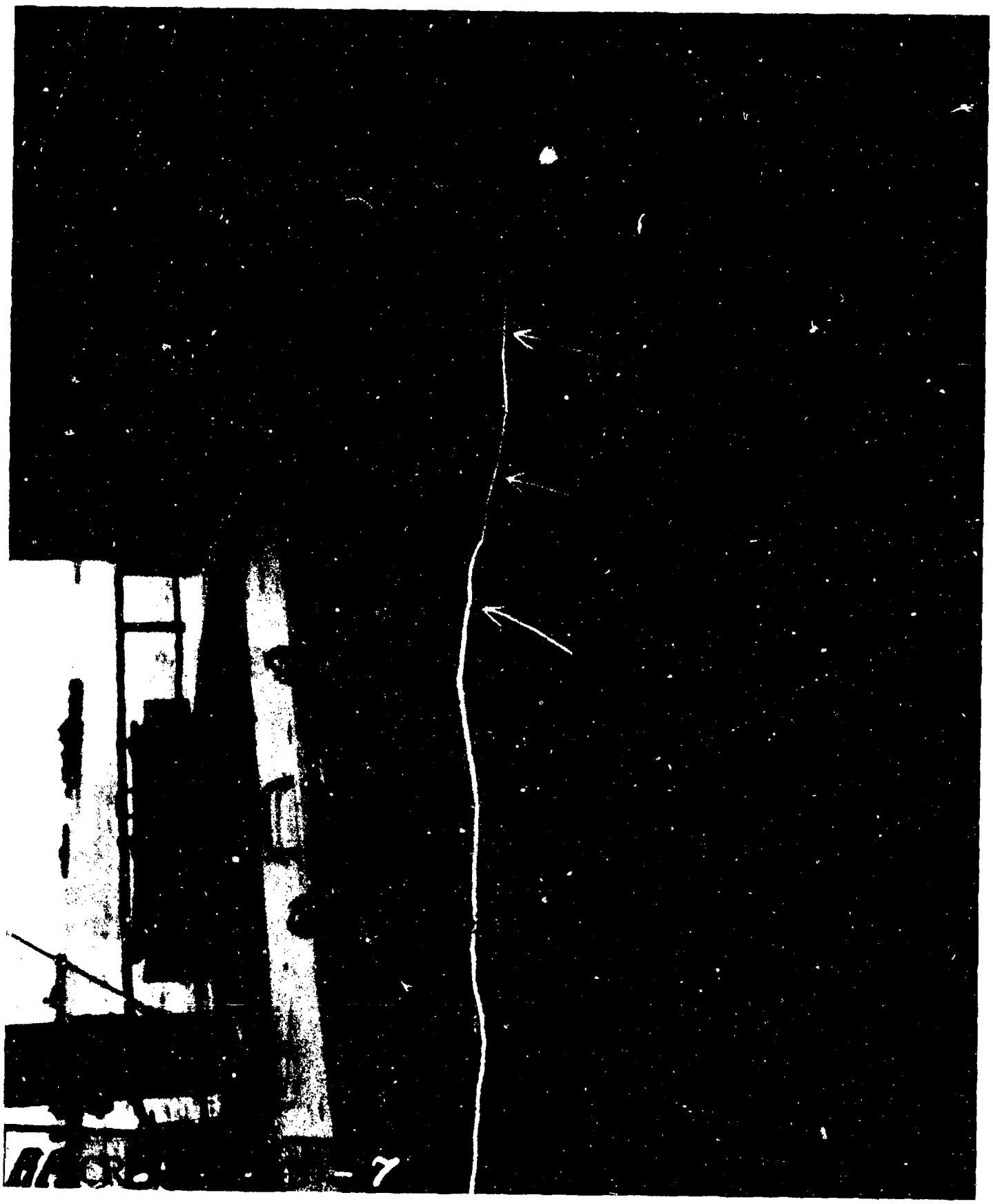
AA-CR-227-87-27. Starboard bow before Test A.



AA-CR-227-87-23. Port quarter before Test A.



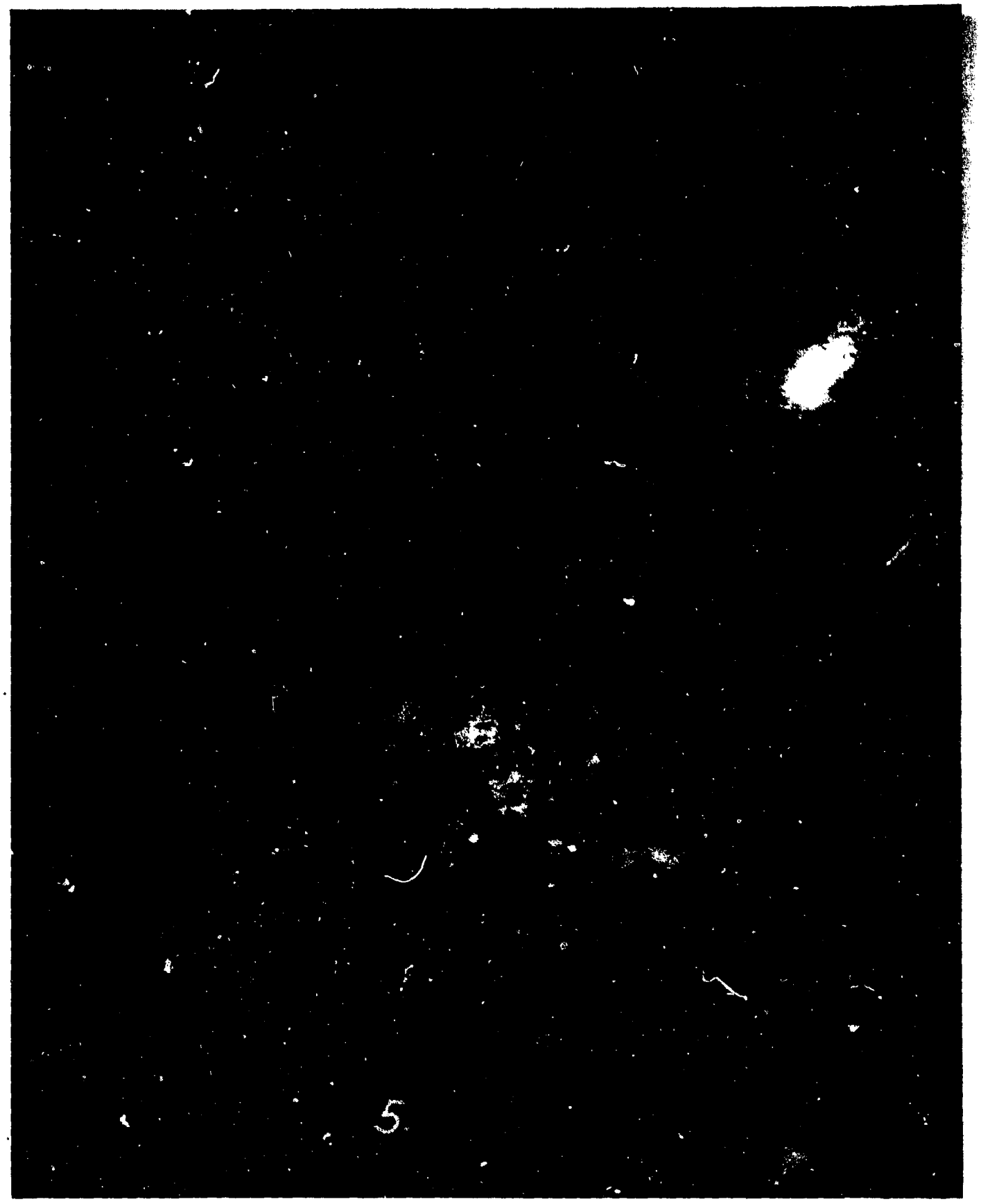
AA-CR-65-1733-6. Forward stack, starboard side showing blistered paint.



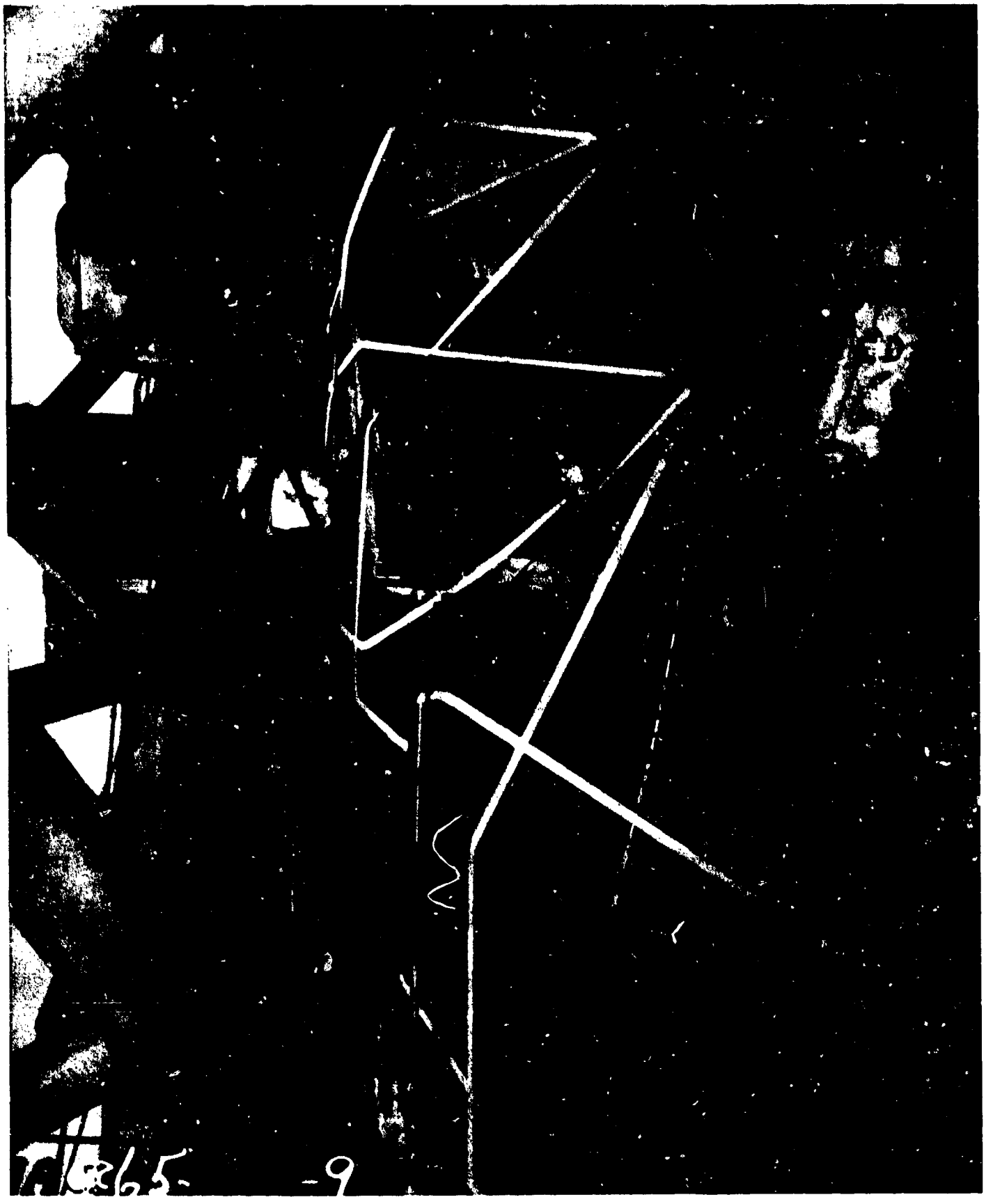
AA-CR-65-1733-7. Demarcation of paint blistering on inside of gun bulwark, top of house, starboard.

AA-CR-65-1733-10. Blast damage to starboard flag bag.

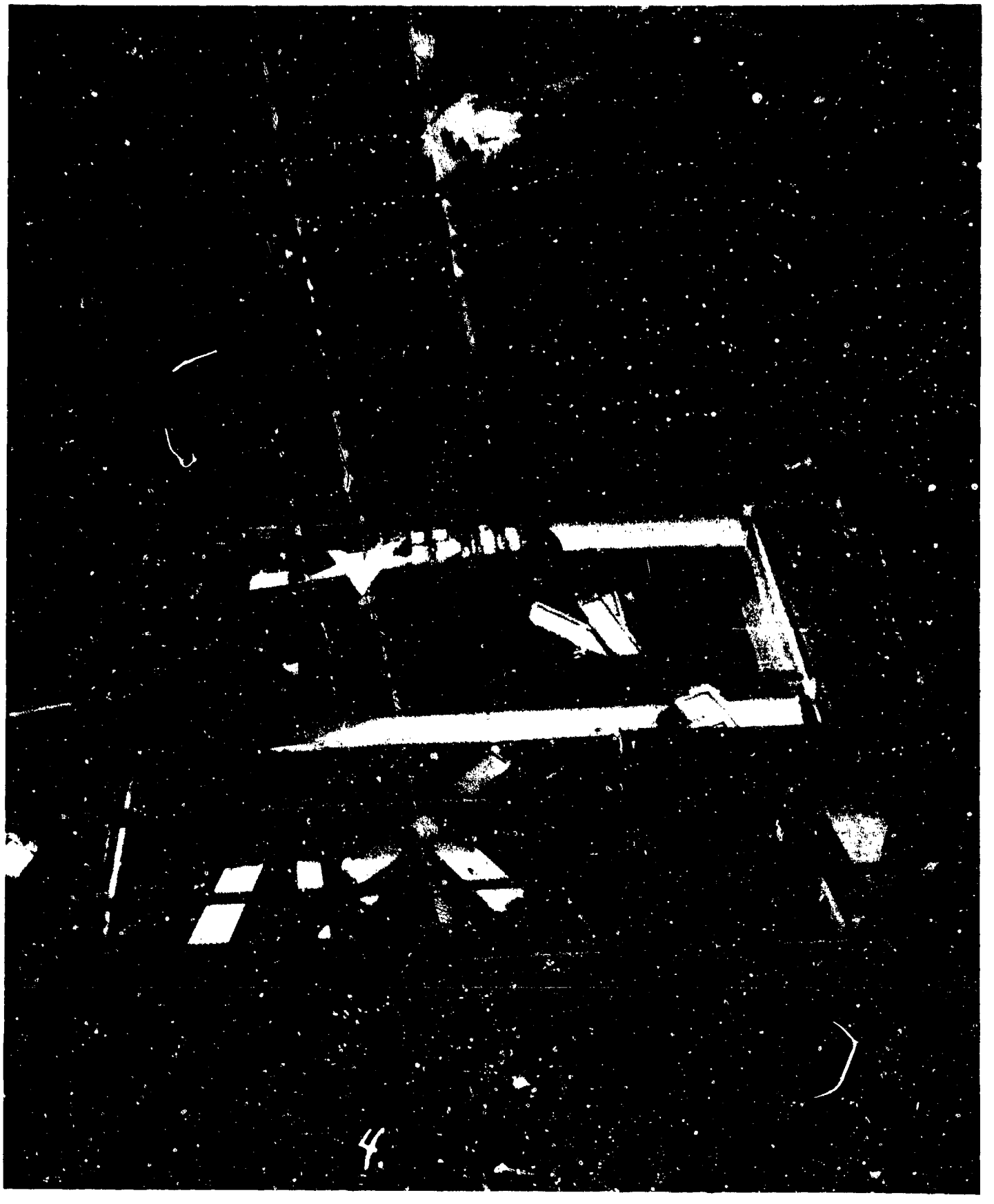
AA-CR-65-1733-8. Burned army test equipment on upper deck, frame 160, starboard.



AA-CR-79-1813-5. Burned army test equipment on upper deck, frame 150, starboard



AA-CR-65-1733-9. Charred boxes containing army test equipment on upper deck, frame 170.



AA-CR-79-1814-4. Displaced cover panels on after cargo hatch.

APPENDIX

COMMANDING OFFICERS REPORT

TEST ABLE

REPORT #11

COMMANDING OFFICERS REPORT

PART A. GENERAL SUMMARY

I. (a) Draft after test: 9 ft. forward, 16 ft. 6 in. aft. There was no list, and no flooding.

(b) There was no structural damage. One flag bag starboard side collapsed. The rail by the port flag bag was bent. The rail, starboard side by No. 2 stack, on which boards with army test material were secured, was bent. Both stacks slightly dished starboard side aft. One door starboard side by frame 78 on the upper deck was sprung. The door starboard side of frame 66 and 84 was sprung slightly.

(c) Operability:

O. K.

(d) Paint on the starboard side was scorched. Two small fires burned among army test gear on the fantail. There were no personnel casualties.

II. Forces evidenced and effects noted.

(a) Direction of heat from starboard side, from aft forward. Longitudinal extent, 3/4 length of the ship. Transverse extent, starboard side to midships. Extent of penetration: one layer of paint.

(b) Fires and Explosions:

There were two small fires in army test gear on the fantail. (One box of shoes, one bail of clothing.) Normal stowage is below decks. Cause of the ignition is thought to have been hot material thrown over from one of the ships which blew up. Nothing

to either side of either the bale or the box was burned. The fires were put out by the initial boarding party.

(c) Direction of shock:

From starboard aft to forward. No material damages except as noted in para. I (b).

(d) Direction of pressure was from the starboard quarter. Effects noted in para. I (b).

(e) No effects peculiar to the Atom Bomb except scorching of paint.

III. Results of Test on Target:

No effect.

IV. General Summary:

The ship suffered only very minor damage. Her efficiency was not effected.

V. There were no preliminary general or specific recommendations of the inspection group.

PART C. INSPECTION REPORT

SECTION A - HULL

A. General Description of Hull Damage.

(a) Overall condition of vessel.

Excellent.

B. Superstructure (Exclusive of gun-mounts).

(a) 1. Bridge Area:

See para. I (b) of Part A.

2. Midship deck house and stack.

Stacks were dished in about one (1) inch. (See para. I (b) of Part A.)

3. After deck house and tower.

No damage.

(b) Cause of damage was the pressure of the blast.

(c) There was no evidence of fire in the superstructure.

(d) No difference was noted in the relative effectiveness against heat and blast of various surfaces, thicknesses of plate, STS, MS, or aluminum structures.

(e) There are no constructive criticisms of superstructure design or construction.

C. Turrets, Guns, and Directors.

(a) No protected mounts on board.

(b) Unprotected mounts.

1. General condition:

As before.

2. Crew shelters not sufficient.

(c) Directors and Range-finders:

No change.

(d) Criticism:

Mounts should be enclosed. No damage was found to the weather deck, the exterior or underwater hull, the interior compartments above or below the waterline, the tanks, the ventilation, ship control, fire control, ammunition, ammunition handling facilities. The strength of the hull members was not impaired. There was no flooding.

SECTION B - MACHINERY

On 8 July 1946, this vessel was underway with all machinery operating. All machinery was found to operate as before, and no defects or damage was noted.

SECTION C - ELECTRICAL

Overall Condition. Excellent. No damage was noted.

SECTION D - ELECTRONICS

Overall Condition. - Unchanged. The only damage noted was a broken cathode ray tube in the SC-4 PPI.

Classification (~~Cancelled~~) (Changed to CONFIDENTIAL)
By Authority of JOINT CHIEFS OF STAFF ACTION OF 15 APRIL 1949
By [illegible] Date [illegible]
[illegible] U. APSWP

[redacted]

CONFIDENTIAL

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

TRC

9 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:

+ ST-A

AD-366748	XRD-65
AD-366747	XRD-64
AD-366746	XRD-63
AD-376826	XRD-60
AD-376824	XRD-58
AD-376825	XRD-59
AD-376823	XRD-57
AD-376822	XRD-56
AD-376821	XRD-55
AD-366743	XRD-54
AD-376820	XRD-53
AD-366742	XRD-52
AD-366741	XRD-51
AD-366740	XRD-50-Volume-2
AD-366739	XRD-49-Volume-1
AD-366738	XRD-48
AD-366737	XRD-47

TRC 9 April 1997

SUBJECT: Declassification of Reports

AD-366736	XRD-46
AD-366735	XRD-45
AD-366723	XRD-37
AD-366721	XRD-35
AD-366717	XRD-31-Volume-2
AD-366716	XRD-30-Volume-1
AD-366751	XRD-68-Volume-2
AD-366750	XRD-67-Volume-1
AD-366752	XRD-69
AD-366744	XRD-61.

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

Ardith Jarrett
ARDITH JARRETT
Chief, Technical Resource Center

Completed
1 mar 2000
B.W