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BUREAU OF SHIPS GROUP

TECHNICAL INSPECTION REPORT

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By John J. Degette Date 29 SEP 1953

(6) OPERATION CROSSROADS,  
U.S.S. YOG83,  
TEST BAKER <sup>(8)</sup> e U.S.

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

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OPERATION CROSSROADS

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GROUP 3  
Downgraded at 12 year intervals;  
Not automatically declassified.  
1 JAN 1965

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**BUREAU OF SHIPS GROUP  
TECHNICAL INSPECTION REPORT**

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

**APPROVED:**

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

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**USS YOG 83**

**Page 1 of 24 Pages**

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TABLE OF CONTENTS

	PAGE NO.
Overall Summary of Damage; - - - - -	3
Hull Technical Inspection Report (Section I) - - - - -	9
Machinery Technical Inspection Report (Section II) - - - - -	14
Electrical Technical Inspection Report (Section III) - - - - -	18
Photographic Section (Section IV) - - - - -	22

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USS YOG 83

TECHNICAL INSPECTION REPORT

OVERALL SUMMARY

I. Target Condition After Test.

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

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

(b) Structural damage.

HULL

No damage.

MACHINERY

No comment.

ELECTRICAL

Not observed.

(c) Other damage.

HULL

Not observed.

MACHINERY

Machinery was not inspected, as radioactivity after Test B limited the time personnel could remain aboard YOG 83 to less than 15 minutes per day. A very cursory examination disclosed no apparent damage to machinery. She was sunk by demolition charge after Test B.

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USS YOG 83

ELECTRICAL

Due to the intense radioactivity this vessel was not inspected by the Electrical Group. The Hull Group inspection report indicates no apparent structural damage. The lack of apparent structural damage indicates that electrically the vessel is in essentially the same condition as before Test B.

II. Forces evidenced and effects noted.

(a) Heat.

HULL

None.

MACHINERY

No evidence.

ELECTRICAL

Evidence of heat, if any, was not observed as inspection was not made.

(b) Fires and Explosions.

HULL

None.

MACHINERY

No evidence.

ELECTRICAL

Not observed.

(c) Shock.

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USS YOG83

HULL

None.

MACHINERY

I (c) above. No evidence from very cursory inspection. See

ELECTRICAL

Evidence of shock, if any, was not observed as no inspection was made by this group.

(d) Pressure.

HULL

None.

MACHINERY

I (c) above. No evidence from very cursory inspection. See

ELECTRICAL

Evidence of pressure, if any existed, was not noted as no inspection was made.

(e) Effects peculiar to the Atom Bomb.

HULL

None.

MACHINERY

High radioactivity.

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**ELECTRICAL**

It being impractical to inspect this vessel after Test B the only known effects apparently peculiar to the Atom bomb was the intense radioactivity.

**III. Results of Test on Target.**

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

**HULL**

Not observed.

**MACHINERY**

Unknown. See I (c) above. Believed to have been none except for radioactivity.

**ELECTRICAL**

Not known.

**(b) Effect on gunnery and fire control.**

**HULL**

Not observed.

**MACHINERY**

No comment.

**ELECTRICAL**

Not known.

**(c) Effect on watertight integrity and stability.**

**HULL**

None.

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**USS YOG88**



MACHINERY

No comment.

ELECTRICAL

Not known.

(d) Effect on personnel and habitability.

HULL

None, except for radioactivity which rendered the barge uninhabitable.

MACHINERY

The craft was made uninhabitable by radioactivity. All personnel would probably have been casualties either from direct effects of the explosion or from radioactivity.

ELECTRICAL

The only known effect on personnel and habitability would have been that due to the intense radioactivity. It is considered this would have been great.

(e) Effect on fighting efficiency.

HULL

Efficiency of the barge was unaffected structurally or mechanically.

MACHINERY

High radioactivity destroyed the usefulness of the craft.

ELECTRICAL

Not known.

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

HULL

No comment.

MACHINERY

YOG 83 is an outstanding example of the seriousness of the radiological aspects of this form of attack.

ELECTRICAL

None.

V. Preliminary General or Specific Recommendations of Inspection Group.

HULL

None.

MACHINERY

None.

ELECTRICAL

None.

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USS YOG83

TECHNICAL INSPECTION REPORT

SECTION I - HULL

GENERAL SUMMARY OF HULL DAMAGE

I. Target Condition After Test.

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

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

- (b) Structural damage.

No damage.

- (c) Other damage.

Not observed.

II. Forces Evidenced and Effects Noted.

- (a) Heat.

None.

- (b) Fires and explosions.

None.

- (c) Shock.

None.

- (d) Pressure.

None.

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U. S. S. YOG83

- (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.

- (d) Effect on personnel and habitability.

None, except for radioactivity which rendered the barge uninhabitable.

- (e) Effect on fighting efficiency.

Efficiency of the barge was unaffected structurally or mechanically.

### IV. General Summary of Observers Impressions and Conclusions.

No comment.

### V. Preliminary Recommendation.

None.

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U. S. S. YOG83

VI. Instructions for Loading the Vessel Specified the Following:

ITEM	LOADING
Fuel oil.	No special adjustment required. Except that no inflammable cargo shall be carried in tanks. Tanks may be ballasted with salt water to adjust trim, immersion and list.
Diesel oil.	
Ammunition.	
Potable and reserve feed water.	
Salt water ballast.	

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 Test 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.

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**DETAILED DESCRIPTION OF HULL DAMAGE**

**A. General Description of Hull Damage.**

No damage.

**B. Superstructure.**

No damage.

**C. Turrets, Guns and Directors.**

No damage.

**D. Torpedo Mounts, Depth Charge Gear.**

Not applicable.

**E. Weather Deck.**

No damage.

**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.

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**U. S. S. YOG83**

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.  
Not applicable.

R. Strength.  
No damage.

S. Miscellaneous.  
No comment.

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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 comment.

- (b) Structural damage.

No comment.

- (c) Other damage.

Machinery was not inspected, as radioactivity after Test "B" limited the time personnel could remain aboard YOG 83 to less than 15 minutes per day. A very cursory examination disclosed no apparent damage to machinery. She was sunk by demolition charge after Test "B".

II. Forces Evidenced and Effects Noted.

- (a) Heat.

No evidence.

- (b) Fires and explosions.

No evidence.

- (c) Shock.

No evidence from very cursory inspection. See I (c)

above.

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U. S. S. YOG 83



(d) Pressure.

above. No evidence from very cursory inspection. See I (c)

(e) Any effects apparently peculiar to the Atom Bomb.

High radioactivity.

### III. Effects of Damage.

(a) Effect on machinery and ship control.

Unknown. See I (c) above. Believed to have been none except for radioactivity.

(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.

The craft was made uninhabitable by radioactivity. All personnel would probably have been casualties either from direct effects of the explosion or from radioactivity.

(e) Total effect on fighting efficiency.

High radioactivity destroyed the usefulness of the craft.

### 77. General Summary (Not over 6-8 lines) of Observers' Impressions and Conclusions.

YOG 83 is an outstanding example of the seriousness of the radiological aspects of this form of attack.

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U. S. S. YOG 83

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

None.

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**U. S. S. YOG 83**

**Page 16 of 24 Pages**

**DETAILED DESCRIPTION OF MACHINERY DAMAGE**

**NOTE:** The only items discussed below are those where damage occurred. All items omitted either received no damage or are not applicable.

There was no damage.

**SECRET**

**U. S. S. YOG 83**

**Page 17 of 24 Pages**

# 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 or list were not observed.

- (b) Structural damage.

Not observed.

- (c) Other damage.

Due to the intense radioactivity this vessel was not inspected by the Electrical Group. The Hull Group inspection report indicates no apparent structural damage. The lack of apparent structural damage indicates that electrically the vessel is in essentially the same condition as before Test "B".

#### II. Forces Evidenced and Effects Noted.

- (a) Heat.

Evidence of heat, if any, was not observed as inspection was not made.

- (b) Fires and explosions.

Not observed.

- (c) Shock.

Evidence of shock, if any, was not observed as no inspection was made by this group.

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U. S. S. YOG 83

(d) Pressure.

Evidence of pressure, if any existed, was not noted as no inspection was made.

(e) Effects apparently peculiar to the Atomic Bomb.

It being impractical to inspect this vessel after Test "B" the only known effects apparently peculiar to the Atom Bomb was the intense radioactivity.

III. Effects of Damage.

(a) Effect on electrical equipment and ship control.

Not known.

(b) Effect on gunnery and fire control.

Not known.

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

Not known.

(d) Effect on personnel and habitability.

The only known effect on personnel and habitability would have been that due to the intense radioactivity. It is considered this would have been great.

(e) Total effect on fighting efficiency.

Not known.

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

None.

SECRET

U. S. S. YOG 83

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

None.

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U. S. S. YOG 83

Page 20 of 24 Pages

DETAILED DESCRIPTION OF ELECTRICAL DAMAGE

NOTE: The only items discussed below are those where damage occurred. All items omitted either received no damage or are not applicable.

There was no inspection made.

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U. S. S. YOG 83

SECTION IV

PHOTOGRAPHS

TEST BAKER

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USS YOG 83

Page 22 of 24 Pages





AB-CR-227-283-26. View from starboard bow after Test B.

SECRET

Page 23 of 24 Pages

YOG-83

9191



AB-CR-227-230. View from port quarter after Test B.

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Page 24 of 24 Pages

YOG-8.

9191

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

TRC

18 April 1997

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 4	XRD-203-Section 12 ✓
X ——— AD-366589 ✓	XRD-200-Section 9 ✓
AD-366590 ✓	XRD-204-Section 13 ✓
AD-366591 ✓	XRD-183 ✓
✓✓AD-366586 ✓	XRD-201-Section 10 ✓
✓✓AD-367487 ✓	XRD-131-Volume 2 ✓
✓✓AD-367516 4	XRD-143 ✓
✓✓AD-367493 ✓	XRD-142 ✓
AD-801410L ✓	XRD-138 ✓
AD-376831L ✓	XRD-83 ✓
AD-366759 ✓	XRD-80 ✓
✓✓AD-376830L ✓	XRD-79 ✓
✓✓AD-376828L ✓	XRD-76 ✓
✓✓AD-367464 ✓	XRD-106 ✓
AD-801404L ✓	XRD-105-Volume 1 ✓
✓✓AD-367459 ✓	XRD-100 ✓

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18 April 1997

Subject: Declassification of Reports

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

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18 April 1997

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.**

*Arduith Jarrett*

ARDITH JARRETT  
Chief, Technical Resource Center