

# **USS ARTHUR W RADFORD (DD-968)**

## **SEMAT II SHELL CONDITION ASSESSMENT SURVEY INTERIOR AREAS**

**01/28/02 TO 02/08/02**



**PREPARED BY  
SUPERVISOR OF SHIPBUILDING CONVERSION  
AND  
REPAIR  
PORTSMOUTH, VIRGINIA**



4646 WITCHDUCK ROAD  
VIRGINIA BEACH, VIRGINIA. 23455-6215  
PHONE: 757-490-5000  
FAX: 757-490-5027

11 JANUARY 2002  
Serial # 1697 BF-052

Q.E.D. Systems, Inc. was tasked by the Supervisor of Shipbuilding Conversion and Repair, USN (SPORT) Portsmouth, VA to conduct an Ultrasonic Thickness (U/T) Survey of specific locations on board USS ARTHUR W RADFORD (DD-968) during the period of 28 January 2002 – February 8 2002.

The survey was conducted by Francis J. (Joe) LaRock II.

Certified Level II on 21 DECEMBER 2001.

The instrument used was a Krautkramer Branson, Model DMS-2TC.

Serial Number:	00N3V8
Calibration Date:	22 February 2001
Probes Used:	TC 560 FH 2 E KBA 525

I have reviewed the results of the survey and approved of the findings. The discrepancies have been recorded on MAF's and are included in this report.

  
Francis J. LaRock  
Certified Level II  
9 MARCH 2001

# USS ARTHUR W RADFORD (DD-968)

## SHELL CONDITION ASSESSMENT SURVEY INTERIOR AREAS TABLE OF CONTENTS

➤ <u>GENERAL SUMMARY OF CONDITIONS FOUND</u>	4
➤ <u>SURVEY RESULTS</u>	7-5
➤ <u>LOWER REEL STOREROOM NO. 1 (6-488-3-A)</u>	8-12
➤ <u>AIR COMPRESSOR ROOM (6-464-3-Q)</u>	11-12
➤ <u>SHAFT ALLEY(6-346-0-Q)</u>	13-17
➤ <u>MAIN ENGINE ROOM NO.2 (5-300-0-E)</u>	18-26
➤ <u>AUXILIARY MACHINERY ROOM NO. 2 (5-260-01-E)</u>	27-35
➤ <u>AUXILIARY MACHINERY ROOM NO. 1 (5-220-0-E)</u>	36-42
➤ <u>MAIN ENGINE ROOM NO.1 (5-174-0-E)</u>	44-50
➤ <u>FORWARD PUMP ROOM / SEWAGE PLANT NO. 1 (5-138-0-Q)</u>	51-53
➤ <u>FORWARD EDUCTOR ROOM (5-34-0-Q)</u>	54-56
➤ <u>NO.3 GAS TURBINE GENERATOR ROOM (3-426-1-E)</u>	57-62
➤ <u>PASSAGE WAY (3-470-2-L)</u>	63-64
➤ <u>PASSAGE WAY (2-464-02-L)</u>	65-66
➤ <u>MATRIX</u>	67-73

**USS ARTHUR W RADFORD (DD-968)**  
**GENERAL SUMMARY OF CONDITIONS FOUND**

A SEMAT UNDERWATER HULL AND SUPPORTING STRUCTURE SURVEY OF INTERIOR AREAS WAS CONDUCTED ON BOARD **USS ARTHUR W RADFORD (DD-968)** FROM 01/28/02 TO 02/8/02 AT NAVAL STATION NORFOLK, NORFOLK, VIRGINIA.

THE SURVEY WAS CONDUCTED IN ACCORDANCE WITH HULL STRUCTURE MRC 1102 USING A DELMHORST BD 2100 MOISTURE METER AND A KRAUTKRAMER BRANSON MODEL DM2TC ULTRASONIC TEST INSTRUMENT SERIAL NO.00NV8 CALIBRATION DUE DATE 02/22/02. THE PROBES USED WERE KRAUTKRAMER BRANSON'S TC/560, FH2E AND KBA 525.

THE DETERIORATED STRINGERS IN **MAIN 1, MAIN 2, GENERATOR 3, THE THINNING TANKS IN AUXILIARY 1** AND THE **BUCKLED BULKHEADS / CORROSION IN SHAFT ALLEY** WERE THE MOST CRITICAL AREAS DISCOVERED.

HISTORIC AREAS OF CORROSION ON **(DD-963)** CLASS SHIPS WERE INSPECTED AND NOTED. THE SURVEY RESULTS SECTION CONTAINS A TABLE OF UNSATISFACTORY AREAS WITH THE (JSN'S) FROM THIS SURVEY AND (CSMP JSN'S) PREVIOUSLY SUBMITTED. A MATERIAL CONDITION ANALYSIS FORM (MCA) WAS SUBMITTED FOR AREAS WHERE NO WORK WAS REQUIRED. THE FINAL SECTION CONTAINS A (DD-963) CLASS STRUCTURAL MATRIX. THESE ARE SPACES LOCATED AT THE WATER LINE AND BELOW.

**USS ARTHUR W RADFORD (DD-968)**  
**UNSATISFACTORY AREAS**

LOCATION	AREA	RESULTS
(6-488-3-A) REEL STOREROOM (JSN-A013)	BILGE AND SHELL	DAMAGED LAGGING. CORROSION 200 SF OF BILGE AND SHELL DAMAGED LADDER
(6-464-3-Q) NO. 2 HPAC ROOM (JSN-A011)	BILGE AND SHELL	80 SF OF CORROSION, PAINT SEPARATION
(6-346-0-Q) SHAFT ALLEY (CSMP / JSN-P095)	BILGE AND SHELL	800 SF OF CORROSION AND PAINT SEPARATION
(5-300-01-E) MAIN ENGINE ROOM 2 (JSN-A148)	4 <sup>TH</sup> STRINGER FROM MARGIN PLATE BETWEEN WEB FRAMES (308-332)	DETERIORATED STRINGERS
(5-300-0-E) MAIN ENGINE ROOM 2 (JSN-A031)	STBD SIDE, MARGIN PLATE TO U/L BETWEEN BHD (300) AND FRAME (324)	200 SF OF RUST AND PAINT SEPARATION
(5-260-01-E) AUXILIARY MACHINERY ROOM NO. 2 (JSN-A030)	2 <sup>ND</sup> STRINGER FROM MARGIN PLATE 6" FWD OF WEB FRAME (280)	HOLED STRINGER
(5-260-01-E) AUXILIARY MACHINERY ROOM NO. 2 (JSN-A032)	1 <sup>ST</sup> AND 2 <sup>ND</sup> STRINGERS PORT SIDE BETWEEN BHD (260-300)	CORROSION IN BILGE AND ON SHELL
(5-260-01-E) AUXILIARY MACHINERY ROOM NO. 2 (CSMP/JSN-P122)	STBD SIDE SHELL AND MARGIN PLATE	CORROSION
(5-220-0-E) AUXILIARY MACHINERY ROOM NO.1 (JSN-A025)	STBD SIDE, L/L TANK TOP (6-220-3-F) TANK SIDE (6-220-1-F) APPROX 1' FWD OF BHD (260)	LOW U/T READINGS ON TANK TOP AND SIDE.
(5-220-0-E) AUXILIARY MACHINERY ROOM NO. 1 (JSN-A027)	U/L DECK 10' FWD OF BHD (260) UNDER WORK BENCH / STBD SIDE L/L FOUNDATION FOR HALON BOTTLE STORAGE	APPROXIMATELY 3 SF OF U/L DECK DETERIORATED / FOUNDATION FOR HALON BOTTLE STORAGE IS DETERIORATED
(5-174-0-E) MAIN ENGINE ROOM NO. 1 (JSN-A024)	STBD SIDE, FROM MARGIN PLATE TO U/L DECK BETWEEN FRAME (204) AND BHD (220)	APPROXIMATELY 150 SF OF SCATTERED AREAS OF CORROSION.
(5-174-0-E) MAIN ENGINE ROOM NO. 1 (CSMP/JSN-P104)	STBD SIDE, VERTICAL STIFFENERS AND STRINGERS FROM FR'S (178-196)	APPROXIMATELY 20 LF OF DETERIORATED STRINGER AND VERTICAL STIFFENERS
(5-138-0-Q) FORWARD PUMP ROOM/ SEWAGE PLANT NO. 1 (JSN-A033)	PORT AND STBD BILGE AND SHELL.	SATURATED LAGGING CORROSION IN BILGE AND ON SHELL APPROXIMATELY 300 SF
(5-34-0-Q) FORWARD EDUCTOR ROOM (JSN-A034)	ENTIRE SPACE	APPROXIMATELY 75 SF OF SURFACE RUST AND PAINT FAILURE
(4-28-0-T) ACCESS TRUNK (JSN-A034)	DECK	APPROXIMATELY 25 SF OF RUST
(3-470-2-L) PASSAGE WAY (JSN-A009)	BILGE AREA	30 SF OF CORROSION AND PAINT SEPARATION.

**USS ARTHUR W RADFORD (DD-968)**

**UNSATISFACTORY AREAS**

<b>LOCATION</b>	<b>AREA</b>	<b>RESULTS</b>
<b>(2-464-02-L) PASSAGE WAY (JSN-A010)</b>	DECK SURROUNDING ENTRANCE TO REEL STOREROOM	APPROXIMATELY 10 SF OF RUST AND PAINT SEPARATION.
<b>(3-426-1-E) GAS TURBINE GENERATOR ROOM NO. 3 (JSN-A123)</b>	<b>BETWEEN BHD (426) AND WEB FRAME (440)</b>	<b>1<sup>ST</sup> STRINGER FROM MARGIN PLATE IS SEVERELY DETERIORATED</b>

**USS ARTHUR W RADFORD (DD-968)**  
**SATISFACTORY AREAS**

<b>LOCATION</b>	<b>SPACE DESIGNATION</b>	<b>MCA SUBMITTED</b>
3-28-01-Q	SONAR EQUIPMENT ROOM 3	YES
3-58-1-M	W/P MAGAZINE NO.1	YES
3-58-2-M	W/P MAGAZINE NO.2	YES
3-62-01-M	5''/54 MAGAZINE NO.1	YES
3-76-1-M	POWDER MAGAZINE NO.1	YES
3-76-2-M	POWDER MAGAZINE NO.2	YES
3-127-0-Q	I/C ROOM NO.1	YES
3-127-2-L	PASSAGEWAY	YES
3-138-3-L	PASSAGEWAY	YES
3-138-6-L	PASSAGEWAY	YES
3-146-0-L	CREW BERTHING	YES
3-260-01-A	SUPPLY DEPARTMENT GENERAL STORES	YES
3-346-02-L	CREW BERTHING	YES
3-382-1-L	CREW W/R W/C SHOWER	YES
3-382-2-A	SUPPLY DEPARTMENT STOREROOM	YES
3-394-1-L	CREW BERTHING	YES
3-426-2-A	ORD EQUIP STOREROOM	YES
3-437-2-M	SMALL ARMS MAGAZINE	YES
3-482-0-M	5''/54 PROJECTILE MAGAZINE	YES
3-491-1-M	W/P MAGAZINE NO.3	YES
3-491-2-M	W/P MAGAZINE NO.4	YES
3-494-0-M	POWDER MAGAZINE NO.3	YES
4-34-0-Q	SONAR EQUIPMENT ROOM NO.4	YES
4-58-0-Q	DOMES EQUIPMENT ROOM	YES
5-94-0-C	TOMAHAWK COMPUTER ROOM	YES
5-118-0-C	VERTICAL LAUNCH CONTROL ROOM	YES
5-127-0-L	PASSAGE WAY	YES
6-28-0-T	DOMES ACCESS TRUNK	YES/U/A
6-464-4-A	STOREROOM	YES
6-482-2-A	STOREROOM	YES/U/A
6-506-0-E	STEERING GEAR ROOM	YES

# MATERIAL ASSESSMENT FORM

ITEM NUMBER		SHIP <b>USS A W RADFORD (DD-968)</b>				
SYSTEM SHELL & SUPPORTING STRUCTURE 110		ESWBS 11011	EIC A100	APL X-SYSTEMS	RIN N/L	
EQUIPMENT NAME HULL STRUCTURE 1102XY		IDENT/SERIAL N/A	LOCATION 6-488-3-A	WORK CENTER ERO4	JSN A013	
EQUIPMENT STATUS		PROBLEM STATUS		CATEGORY		EOC
1. SAT - SATISFACTORY <b>2. UNSAT - UNSATISFACTORY</b> 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD		1. C - CORRECTED 2. A - AWAITING PARTS 3. T - AWAITING TECH ASSIST* <b>4.S - SHIP'S FORCE</b> *UNCORRECTED PROBLEMS		1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY <b>3. H - HARDWARE</b> 4. D - DOWN 5. L - LIMITED		.9
TYPE AVAILABILITY	WHEN TO BE ACCOMPLISHED	STATUS	CAUSE		DEFERRAL REASON	
1. DEPOT 2. IMA 3. TECH ASSIST <b>4. SHIP'S FORCE</b> 5. SFWL	1. IMMEDIATELY 2. PRIOR TO NEXT UNDERWAY <b>3. PRIOR TO NEXT DEPLOYMENT</b> 4. DURING POST DEPLOYMENT AVAILABILITY	<b>1. OPERATIONAL</b> 2. NON-OPERATIONAL 3. REDUCED CAPABILITY 4. NOT APPLICABLE	1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN <b>7. NORMAL WEAR AND TEAR</b> 8. NOT APPLICABLE		<b>1. S/F BACKLOG/OPERATIONAL PRIORITY</b> 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE IN THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING 6. LACK OF FACILITIES/CAPABILITIES 7. NOT AUTHORIZED FOR S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 10. OTHER OR NOT APPLICABLE	
MAN HRS EXPENDED 2	MAN HRS REMAINING 200	COMPLETED ACTION TAKEN		S/F MANHOURS	PRIORITY	
<b>SAFETY HAZARD:</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAIVER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL		1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: REQUIRED PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 3-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION			1. MANDATORY 2. ESSENTIAL <b>3. HIGHLY DESIRABLE</b> 4. DESIRABLE	
<b>DISCREPANCY DESCRIPTION: PER SEMAT II UNDERWATER HULL ASSESSMENT: LOWER REEL STOREROOM (6-488-3-A)</b>						
APPROX 200 SF CORROSION AND HEAVY PAINT SEPARATION. APPROXIMATELY 80 SF OF DAMAGED LAGGING. BOTTOM TWO RUNGS OF LADDER HAVE CRACKED WELDS. LARGE AMOUNT OF SALT CRYSTALS IN BILGE AT BHD (506)						
<b>RECOMMENDED REPAIRS:</b>						
RECOMMEND SHIP'S FORCE REMOVE SALT CRYSTALS, REMOVE APPROXIMATELY 80 SF OF LAGGING, CLEAN ENTIRE BILGE AREA TO BARE METAL, PRIME AND PAINT APPROX 200 SF REPLACEMENT OF LAGGING IS NOT RECOMMENDED. REPAIR OR REPLACE LADDER						
SSPORT C221 POC: J. BRUCKNER (757) 396-4001 EXT , TPOC: J. LaROCK QED SYSTEMS INC (757) 490-5047						
<b>CSMP SUMMARY:</b> CORROSION IN BILGE, BROKEN LADDER RUNGS				TEST# MRC 1102/1		
<b>ROOT CAUSE/AMPLIFICATION:</b> H1				STEP# 1,2,3,4 & 5		
<b>SYSTEM LEVEL IMPACT:</b>						
PART NO.	NOMENCLATURE			QTY	NSN	COST
1						
2						
3						
4						
5						
6						
FIRST CONTACT ANDERSON	RATE HTC	SECOND CONTACT MILTON		RATE HT1	PHONE	
ASSESSOR / ACT / TECH ID# J. LaROCK/ T. WHITMORE QED SYSTEMS INC.			TD	TL	LOGISTICIAN	TSP

**USS ARTHUR W RADFORD (DD-968)**  
**LOWER REEL STOREROOM (6-488-3-A)**



LARGE AMOUNT OF SALT CRYSTALS IN BILGE AT BHD (506)  
AND SWASH BHD.



RIGGING GEAR STORED ON STRINGERS HAS DAMAGED LAGGING AND CAUSED  
CORROSION AND PAINT SEPARATION.

**USS ARTHUR W RADFORD (DD-968)**  
**LOWER REEL STOREROOM (6-488-3-A)**



ARROW INDICATES CRACKED WELD ON LADDER RUNG. NOTE CORROSION ON BHD (506)  
AND BILGE AREA.

# MATERIAL ASSESSMENT FORM

<b>ITEM NUMBER</b>				<b>SHIP</b> <b>USS A W RADFORD (DD-968)</b>				
SYSTEM SHELL & SUPPORTING STRUCTURE 110		ESWS 11011	EIC A100	APL X-SYSTEMS		RIN N/L		
EQUIPMENT NAME HULL STRUCTURE 1102XY		IDENT/SERIAL N/A		LOCATION 6-464-3-Q	WORK CENTER ERO4	JSN A011		
EQUIPMENT STATUS		PROBLEM STATUS		CATEGORY			EOC	
1. SAT - SATISFACTORY <b>2. UNSAT - UNSATISFACTORY</b> 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD		1. C - CORRECTED 2. A - AWAITING PARTS 3. T - AWAITING TECH ASSIST* <b>4.S - SHIP'S FORCE</b> *UNCORRECTED PROBLEMS		1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY <b>3. H - HARDWARE</b> 4. D - DOWN 5. L - LIMITED			.9	
TYPE AVAILABILITY		WHEN TO BE ACCOMPLISHED	STATUS	CAUSE		DEFERRAL REASON		
1. DEPOT 2. IMA 3. TECH ASSIST <b>4. SHIP'S FORCE</b> 5. SFWL		1. IMMEDIATELY 2. PRIOR TO NEXT UNDERWAY <b>3. PIROR TO NEXT DEPLOYMENT</b> 4. DURING POST DEPLOYMENT AVAILABILITY	<b>1. OPERATIONAL</b> 2. NON-OPERATIONAL 3. REDUCED CAPABILITY 4. NOT APPLICABLE	1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN <b>7. NORMAL WEAR AND TEAR</b> 8. NOT APPLICABLE		<b>1. S/F BACKLOG/OPERATIONAL PRIORITY</b> 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE IN THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING 6. LACK OF FACILITIES/CAPABILITIES 7. NOT AUTHORIZED FOR S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 10. OTHER OR NOT APPLICABLE		
MAN HRS EXPENDED 2	MAN HRS REMAINING 100		COMPLETED ACTION TAKEN		S/F MANHOURS	PRIORITY		
<b>SAFETY HAZARD:</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAVIER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL			1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: REQUIRED PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 3-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION			1. MANDATORY 2. ESSENTIAL <b>3. HIGHLY DESIRABLE</b> 4. DESIRABLE		
<b>DISCREPANCY DESCRIPTION: PER SEMAT II UNDERWATER HULL ASSESSMENT: AIR COMPRESSOR ROOM (6-464-3-Q),</b> APPROXIMATELY 80 SF OF PAINT SEPARATION AND SURFACE RUST ON SHELL AND STRINGERS								
<b>RECOMMENDED REPAIRS:</b> RECOMMEND SHIPS FORCE CLEAN ENTIRE AREA TO BARE METAL, PRIME AND PAINT APPROXIMATELY 80 SF								
<b>SSPORT C221 POC: J. BRUCKNER (757) 396-4001 EXT , TPOC: J. LaROCK QED SYSTEMS INC (757) 490-5047</b>								
<b>CSMP SUMMARY:</b> RUST AND CORROSION IN BILGE					TEST# MRC 1102/1			
<b>ROOT CAUSE/AMPLIFICATION:</b> H1					STEP# 1,2,3,4 & 5			
<b>SYSTEM LEVEL IMPACT:</b>								
PART NO.	NOMENCLATURE			QTY	NSN	COST		
1								
2								
3								
4								
5								
6								
FIRST CONTACT <b>ANDERSON</b>	RATE HTC	SECOND CONTACT <b>MILTON</b>		RATE <b>HT1</b>	PHONE			
ASSESSOR / ACT / TECH ID# <b>J. LaROCK / T. WHITMORE QED SYSTEMS INC.</b>				TD	TL	LOGISTICIAN	TSP	

**USS ARTHUR W RADFORD (DD-968)**  
**AIR COMPRESSOR ROOM (6-464-3-Q)**



CORROSION ON SHELL PLATE AROUND OVBD DISCHARGE



CORROSION AND PAINT FAILURE ON SHELL CAUSED BY WATER TRAPPED IN STRINGER

# CSMP REVIEW

<b>ITEM NUMBER</b>				<b>SHIP</b> USS A W RADFORD (DD-968)			
<b>SYSTEM HULL DECKS</b>		<b>ESWBS</b> 10000	<b>EIC</b> U000000	<b>APL</b> X-SYSTEMS		<b>RIN</b> N/L	
<b>EQUIPMENT NAME</b> HULL STRUCTURE		<b>IDENT/SERIAL</b> SHAFT ALLEY		<b>LOCATION</b> 6-346-0-Q	<b>WORK CENTER</b> EAO4		<b>JSN</b> PO95
<b>EQUIPMENT STATUS</b>		<b>PROBLEM STATUS</b>		<b>CATEGORY</b>			<b>EOC</b>
1. SAT - SATISFACTORY 2. UNSAT - UNSATISFACTORY 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD		1. C - CORRECTED 2. A - AWAITING PARTS 3. T - AWAITING TECH ASSIST* 4. S - SHIP'S FORCE *UNCORRECTED PROBLEMS		1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY 3. H - HARDWARE 4. D - DOWN 5. L - LIMITED			
<b>TYPE AVAILABILITY</b>	<b>WHEN TO BE ACCOMPLISHED</b>	<b>STATUS</b>		<b>CAUSE</b>		<b>DEFERRAL REASON</b>	
1. DEPOT 2. IMA 3. TECH ASSIST 4. SHIP'S FORCE 5. SFWL  1	1. IMMEDIATELY 2. PRIOR TO NEXT UNDERWAY 3. <b>PIROR TO NEXT DEPLOYMENT</b> 4. DURING POST DEPLOYMENT AVAILABILITY  DEADLINE DATE: 2349	1. OPERATIONAL 2. NON-OPERATIONAL 3. REDUCED CAPABILITY 4. NOT APPLICABLE  3		1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN 7. <b>NORMAL WEAR AND TEAR</b> 8. NOT APPLICABLE  7		1. S/F BACKLOG/OPERATIONAL PRIORITY 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE IN THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING 6. <b>LACK OF FACILITIES/CAPABILITIES</b> 7. NOT AUTHORIZED FOR S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 10. OTHER OR NOT APPLICABLE  0	
<b>MAN HRS EXPENDED</b> 0001	<b>MAN HRS REMAINING</b> 0240		<b>COMPLETED ACTION TAKEN</b>		<b>S/F MANHOURS</b>	<b>PRIORITY</b>	
<b>SAFETY HAZARD:</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAIVER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL			1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: REQUIRED PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 3-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION			1. MANDATORY 2. ESSENTIAL 3. HIGHLY DESIRABLE 4. DESIRABLE	
<b>BLOCK 35 / REMARKS</b> PER SEMAT 1 -STBD SIDE <b>SHAFT ALLEY</b> IN COMPARTMENT (6-346-0-Q) REVEALED SEVERE RUST AND CORROSION WITH METAL LOSS ON SHELL PLATING (2) POCKETS OUTBOARD OF SHAFT (FR346 TO 366) AND POCKETS IN SHAFT ALLEY FR 354 TO 382. COATING IS DETERIORATED WITH RUST, BLISTERING, AND FLAKING THROUGHOUT APPROX 2 800 SF FT. XXX REPAIR ACTIVITY: PREPARE STBD SIDE BILGE AREA SURFACES REMOVING ALL RUST AND CORROSION TO A SSPC-SP11 CONDITION CONDUCT U/T READINGS ON THE SHELL PLATING, PRESERVE AREA USING APPROVED EPOXY PAINT SYSTEM IAW NSTM 631. DEADLINE DATE: 16 MAR 2003, RECOMMEND REPAIR DURING POST DEPLOYMENT AVAILABILITY. ASSESSED BY B. AINSLEY, POC J. BRUCKNER SPORT CODE 221, DSN 961-4001 COMM (757)396-4001 /ASSESS/SEMAT 1 /NORFOLK /D/UNSAT/TA/1/ / / */TECH/AINSLEY, B. /SPORT 221 / (757)396-4001/* 136131109 1 X147649 XSYSTEMITEMUK000000 1361 1361 17-MAR0302-JUL-03							
<b>CSMP SUMMARY:</b> SHAFT ALLEY DEFLCION LONGT BH						<b>TEST#</b>	
<b>ROOT CAUSE/AMPLIFICATION</b>						<b>STEP#</b>	
<b>SYSTEM LEVEL IMPACT:</b>							
<b>TECHNICIAN MARK APPROPRIATE BLOCKS:</b> 2-KILO IS:  <input checked="" type="checkbox"/> <b>VALID (NO CORRECTIONS)</b> <input type="checkbox"/> <b>REWRITE (VALID)</b> <input type="checkbox"/> <b>FOUND COMPLETE</b> <input type="checkbox"/> <b>COMPLETED BY SEMAT</b> <input type="checkbox"/> <b>CANCEL (WORK NOT REQUIRED)</b> <input type="checkbox"/> <b>NOT VALIDATED</b>				<b>UPLOAD VALIDATION INFORMATION / CORRECTIONS TO SNAP:</b>  <input type="checkbox"/> <b>YES</b>  <input type="checkbox"/> <b>NO</b>			
<b>FIRST CONTACT</b> J. WATERFIELD		<b>RATE</b> PENG	<b>SECOND CONTACT</b> J. WATERFIELD		<b>RATE</b> PENG	<b>PHONE</b>	
<b>BLUEPRINTS: TECH MANUALS, PLANS, ETC.</b>						<b>ON BRD YES NO</b>	
<b>ASSESSOR: J. LAROCK QED (757) 490-4057</b>				<b>TD</b>	<b>TL</b>	<b>LOGISTICIAN</b>	
<b>CODE</b>				<b>PAGE NO</b> 13			

**USS ARTHUR W RADFORD (DD-968)**  
**SHAFT ALLEY (6-346-0-Q)**  
**PORT SIDE**



BUCKLED SWASH BULKHEAD OUTBOARD OF PORT SHAFT  
APPROXIMATELY 15 FEET AFT OF BHD (346)



CORROSION ON SHELL OUTBOARD OF SHAFT

**USS ARTHUR W RADFORD (DD-968)**  
**SHAFT ALLEY (6-346-0-Q)**  
**PORT SIDE**



PORT SIDE LOOKING INBOARD AT SWASH BULKHEAD APPROXIMATELY  
10 FEET FORWARD OF BHD (346)

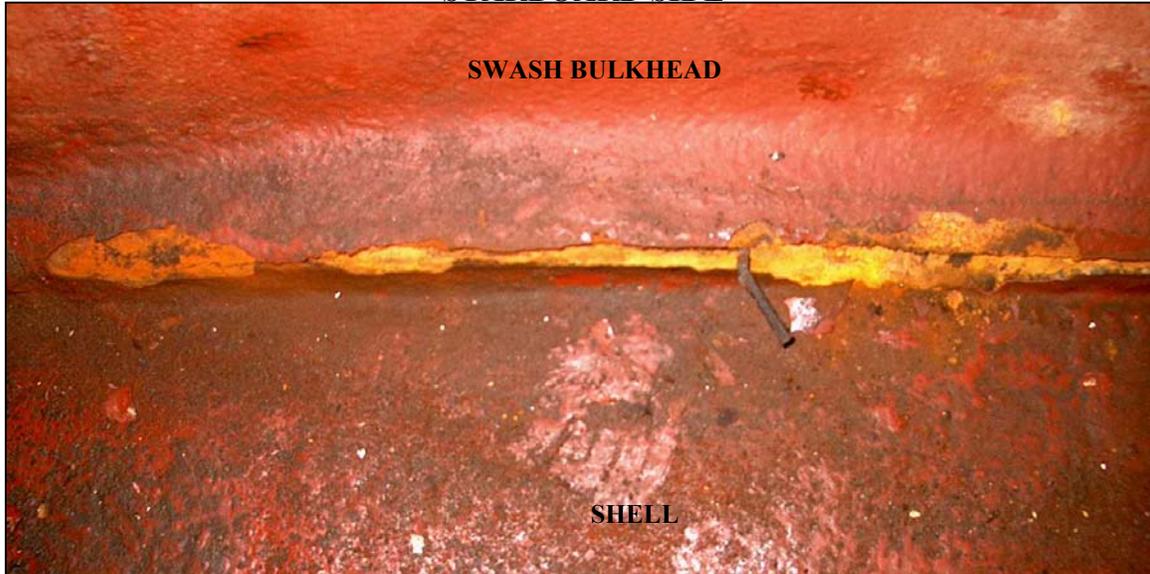


CORROSION ON SHELL; OUTBOARD OF PORT SHAFT.

**USS ARTHUR W RADFORD (DD-968)**

**SHAFT ALLEY (6-346-0-Q)**

**STARBOARD SIDE**



BUCKLED SWASH BULKHEAD OUTBOARD OF SHAFT APPROXIMATELY  
10 FEET AFT OF BHD (346)



DEBRIS, RUST AND HEAVY PAINT SCALING IN POCKET OUTBOARD OF  
STARBOARD SHAFT.

**USS ARTHUR W RADFORD (DD-968)**  
**SHAFT ALLEY (6-346-0-Q)**  
**STARBOARD SIDE**



HEAVY CORROSION UNDER SHAFT

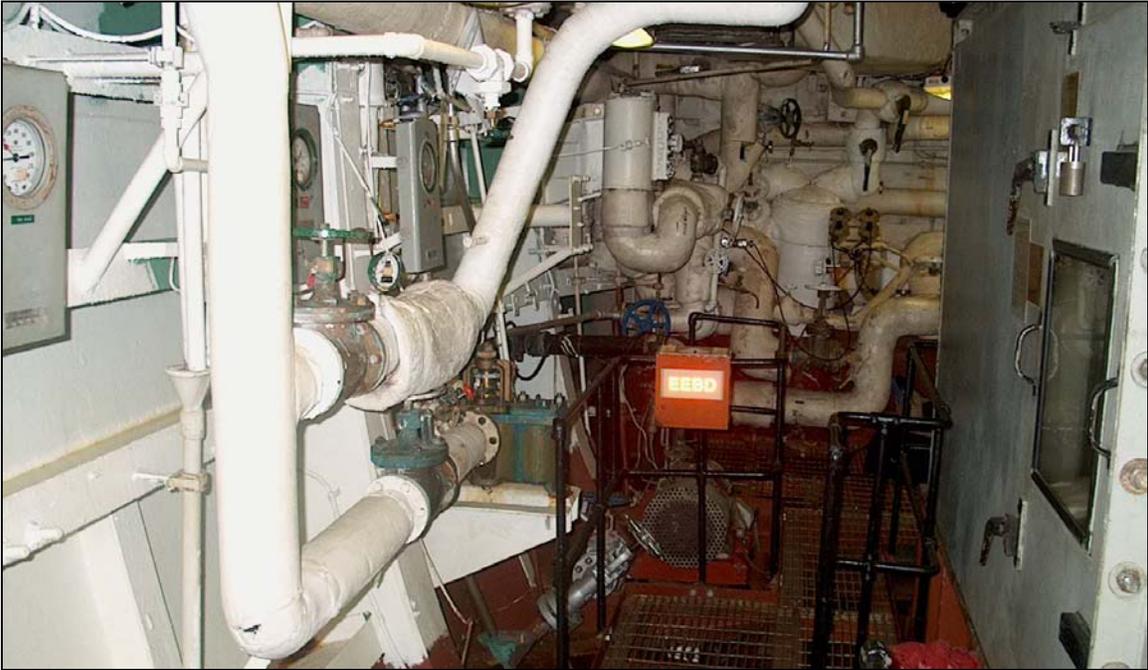


CORROSION ON SHELL AT FRAME (382)

# MATERIAL ASSESSMENT FORM

ITEM NUMBER		SHIP <b>USS A W RADFORD (DDG-968)</b>				
SYSTEM SHELL & SUPPORTING STRUCTURE 110		ESWS 11011	EIC A100	APL X-SYSTEMS	RIN N/L	
EQUIPMENT NAME HULL STRUCTURE 1102XY		IDENT/SERIAL N/A	LOCATION 5-300-0-E	WORK CENTER EMO2	JSN A148	
EQUIPMENT STATUS		PROBLEM STATUS		CATEGORY		EOC
1. SAT - SATISFACTORY <b>2. UNSAT - UNSATISFACTORY</b> 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD		1. C - CORRECTED 2. A - AWAITING PARTS <b>3. T - AWAITING TECH ASSIST*</b> 4. S - SHIP'S FORCE *UNCORRECTED PROBLEMS		1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY <b>3. H - HARDWARE</b> 4. D - DOWN 5. L - LIMITED		.9
TYPE AVAILABILITY	WHEN TO BE ACCOMPLISHED	STATUS	CAUSE		DEFERRAL REASON	
<b>1. DEPOT</b>  2. IMA  3. TECH ASSIST  4. SHIP'S FORCE  5. SFWL	1. IMMEDIATELY  2. PRIOR TO NEXT UNDERWAY  <b>3. PIROR TO NEXT DEPLOYMENT</b>  4. DURING POST DEPLOYMENT AVAILABILITY	<b>1. OPERATIONAL</b>  2. NON-OPERATIONAL  3. REDUCED CAPABILITY  4. NOT APPLICABLE	1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN <b>7. NORMAL WEAR AND TEAR</b> 8. NOT APPLICABLE		1. S/F BACKLOG/OPERATIONAL PRIORITY 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE IN THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING <b>6. LACK OF FACILITIES/CAPABILITIES</b> 7. NOT AUTHORIZED FOR S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 10. OTHER OR NOT APPLICABLE	
MAN HRS EXPENDED 2	MAN HRS REMAINING 300	COMPLETED ACTION TAKEN		S/F MANHOURS	PRIORITY	
<b>SAFETY HAZARD:</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAIVER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL		1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: REQUIRED PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 3-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION			1. MANDATORY 2. ESSENTIAL <b>3. HIGHLY DESIRABLE</b> 4. DESIRABLE	
<b>DISCREPANCY DESCRIPTION: PER SEMAT II UNDERWATER HULL ASSESSMENT: PORT SIDE, (5-300-0-E) MER 2</b>						
4 <sup>TH</sup> STRINGER FROM MARGIN PLATE IS HOLED IN SEVERAL PLACES FROM WEB FRAMES (308-332). CORROSION ON 3 <sup>RD</sup>						
STRINGER FROM MARGIN PLATE CAUSED BY TRAPPED WATER						
<b>RECOMMENDED REPAIRS:</b>						
RECOMMEND REPAIR ACTIVITY CUT OUT AND REPLACE APPROXIMATELY 30' FT OF 4 <sup>TH</sup> STRINGER FROM APPROXIMATELY 4' FWD OF WEB FRAME (308) TO WEB FRAME (332) 10 X 4 X 11.5# T-BEAM, PRIME AND PAINT AREAS DISTURBED BY REMOVALS AND REPAIRS.						
<b>SSPORT C221 POC: J. BRUCKNER (757) 396-4001 TPOC: J. LaROCK QED SYSTEMS INC. (757) 490-5047</b>						
<b>CSMP SUMMARY:</b>				<b>TEST#</b>		
4 <sup>TH</sup> STRINGER FROM MARGIN PLATE IS SEVERELY DETERIORATED.				MRC 1102/1		
<b>ROOT CAUSE/AMPLIFICATION:</b>				<b>STEP#</b>		
H1				1,2,3,4 & 5		
<b>SYSTEM LEVEL IMPACT:</b>						
PART NO.	NOMEMCLATURE			QTY	NSN	COST
1						
2						
3						
4						
5						
6						
FIRST CONTACT <b>ANDERSON</b>	RATE <b>HTC</b>	SECOND CONTACT <b>MILTON</b>		RATE <b>HT1</b>	PHONE	
ASSESSOR / ACT / TECH ID# <b>J. LaROCK/ T. WHITMORE QED SYSTEMS INC.</b>			TD	TL	LOGISTICIAN	TSP

**USS ARTHUR W RADFORD (DD-968)**  
**MAIN ENGINE ROOM NO. 2 (5-300-0-E)**  
**PORT SIDE**



LOOKING FWD FROM WEB FRAME (324) (CONDENSATE CORNER)  
4<sup>TH</sup> STRINGER FROM MARGIN PLATE IS SEVERELY DETERIORATED FROM WEB FRAME  
(308-332)



4<sup>TH</sup> STRINGER FROM MARGIN PLATE FWD OF WEB FRAME (308)

**USS ARTHUR W RADFORD (DD-968)**  
**MAIN ENGINE ROOM NO. 2 (5-300-0-E)**  
**PORT SIDE**



4<sup>TH</sup> STRINGER FROM MARGIN PLATE, AFT OF WEB FRAME (308).



ARROW'S INDICATE HOLES IN 4<sup>TH</sup> STRINGER UP FROM MARGIN PLATE AND FOUNDATION FOR SALT WATER STRAINER, APPROXIMATELY 1' FWD OF WEB FRAME (316)

**USS ARTHUR W RADFORD (DD-968)**  
**MAIN ENGINE ROOM NO. 2 (5-300-0-E)**  
**PORT SIDE**



HALON BOTTLE STATION BETWEEN WEB FRAMES (324-332) 3 6X4 VERTICAL STIFFENERS ARE SEVERELY DETERIORATED OUTBOARD OF BOTTLES.



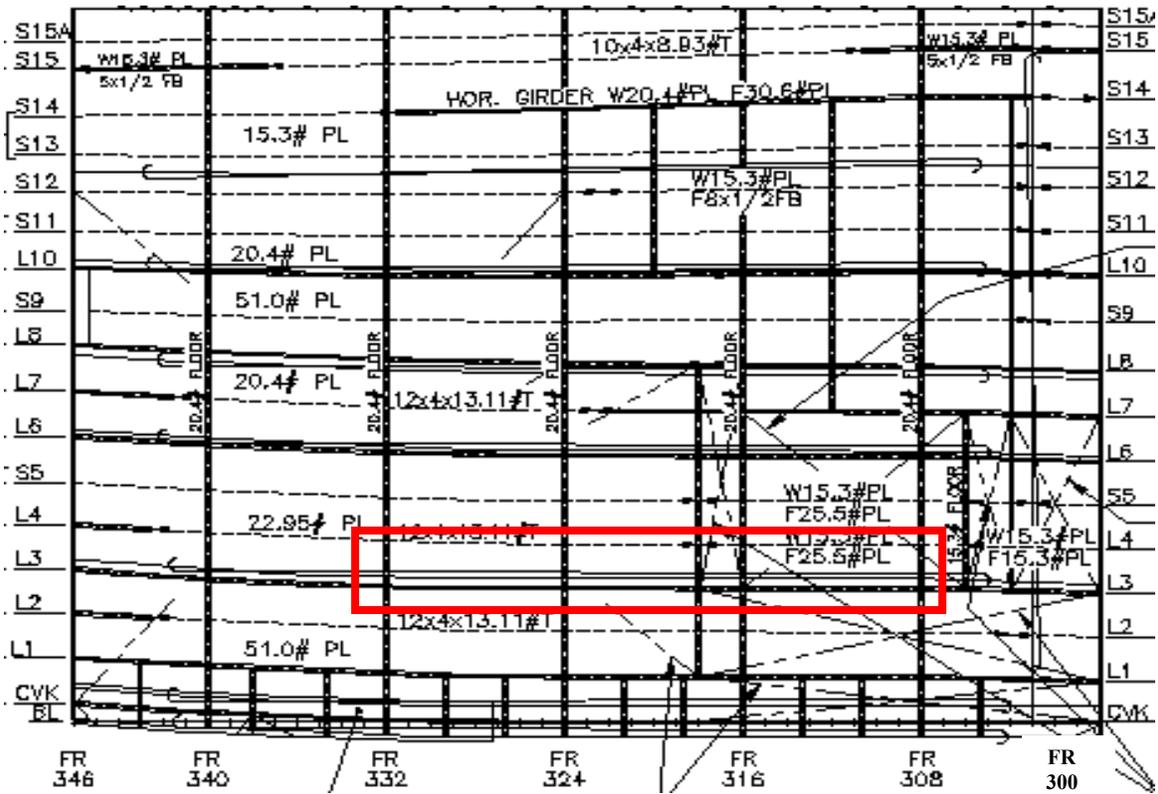
4<sup>TH</sup> STRINGER FROM MARGIN PLATE APPROXIMATELY 1' FWD OF WEB FRAME (332)  
ARROWS INDICATE DETERIORATION ON 6X4 VERTICAL STIFFENER.

**USS ARTHUR W RADFORD (DD-968)**  
**MAIN ENGINE ROOM NO. 2 (5-300-0-E)**  
**PORT SIDE**



3<sup>RD</sup> STRINGER FROM MARGIN PLATE SHOWING TRAPPED WATER AT WEB FRAME (308). THIS IS "CONDENSATE CORNER" A CRITICAL AREA OF CORROSION ON (DD-963) CLASS SHIPS

**USS ARTHUR W RADFORD (DD-968)**  
**MAIN ENGINE ROOM NO. 2 (5-300-0-E)**  
**PORT SIDE**



RED BOX INDICATES AREA WHERE CORROSION WAS FOUND.

# MATERIAL ASSESSMENT FORM

ITEM NUMBER		SHIP <b>USS A W RADFORD (DD-968)</b>				
SYSTEM SHELL & SUPPORTING STRUCTURE 110		ESWBS 11011	EIC A100	APL X-SYSTEMS	RIN N/L	
EQUIPMENT NAME HULL STRUCTURE 1102XY		IDENT/SERIAL N/A	LOCATION 5-300-0-E	WORK CENTER ERO4	JSN A031	
EQUIPMENT STATUS		PROBLEM STATUS		CATEGORY		EOC
1. SAT - SATISFACTORY <b>2. UNSAT - UNSATISFACTORY</b> 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD		1. C - CORRECTED 2. A - AWAITING PARTS 3. T - AWAITING TECH ASSIST* <b>4.S - SHIP'S FORCE</b> *UNCORRECTED PROBLEMS		1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY <b>3. H - HARDWARE</b> 4. D - DOWN 5. L - LIMITED		.9
TYPE AVAILABILITY	WHEN TO BE ACCOMPLISHED	STATUS	CAUSE	DEFERRAL REASON		
1. DEPOT 2. IMA 3. TECH ASSIST <b>4. SHIP'S FORCE</b> 5. SFWL	1. IMMEDIATELY 2. PRIOR TO NEXT UNDERWAY <b>3. PRIOR TO NEXT DEPLOYMENT</b> 4. DURING POST DEPLOYMENT AVAILABILITY	<b>1. OPERATIONAL</b> 2. NON-OPERATIONAL 3. REDUCED CAPABILITY 4. NOT APPLICABLE	1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN <b>7. NORMAL WEAR AND TEAR</b> 8. NOT APPLICABLE	<b>1. S/F BACKLOG/OPERATIONAL PRIORITY</b> 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE IN THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING 6. LACK OF FACILITIES/CAPABILITIES 7. NOT AUTHORIZED FOR S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 10. OTHER OR NOT APPLICABLE		
MAN HRS EXPENDED 2	MAN HRS REMAINING 200	COMPLETED ACTION TAKEN		S/F MANHOURS	PRIORITY	
<b>SAFETY HAZARD:</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAVIER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL		1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: REQUIRED PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 3-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION			1. MANDATORY 2. ESSENTIAL <b>3. HIGHLY DESIRABLE</b> 4. DESIRABLE	
<b>DISCREPANCY DESCRIPTION: PER SEMAT II UNDERWATER HULL ASSESSMENT: STARBOARD SIDE, (5-300-0-E) MER 2</b>						
2 <sup>ND</sup> STRINGER FROM MARGIN PLATE TO UPPER LEVEL BETWEEN BHD (300) AND WEB FRAME (324) INCLUDING SHELL AND 40 X 8 HORIZONTAL GIRDER HAS TRAPPED WATER, RUST AND PAINT SEPARATION. APPROXIMATELY 200 SF						
<b>RECOMMENDED REPAIRS:</b>						
RECOMMEND SHIPS FORCE CLEAN ENTIRE AREA TO BARE METAL, PRIME AND PAINT APPROXIMATELY 200 SF.						
<b>SSPORT C221 POC: J. BRUCKNER (757) 396-4001 EXT , TPOC: J. LaROCK QED SYSTEMS INC (757) 490-5047</b>						
<b>CSMP SUMMARY:</b>				TEST#		
STBD SIDE BILGE CORROSION.				MRC 1102/1		
<b>ROOT CAUSE/AMPLIFICATION:</b>				STEP#		
H1				1,2,3,4 & 5		
<b>SYSTEM LEVEL IMPACT:</b>						
PART NO.	NOMENCLATURE			QTY	NSN	COST
1						
2						
3						
4						
5						
6						
FIRST CONTACT <b>ANDERSON</b>	RATE <b>HTC</b>	SECOND CONTACT <b>MILTON</b>		RATE <b>HT1</b>	PHONE	
ASSESSOR / ACT / TECH ID# <b>J. LaROCK/ T. WHITMORE QED SYSTEMS INC.</b>			TD	TL	LOGISTICIAN	TSP

**USS ARTHUR W RADFORD (DD-968)**  
**MAIN ENGINE ROOM NO. 2 (5-300-0-E)**  
**STARBOARD SIDE**



TYPICAL VIEW OF 40 X 8 HORIZONTAL GIRDER THAT RUNS FROM BHD (300) TO WEB FRAME (332).



WATER TRAPPED IN STRINGER BELOW HORIZONTAL GIRDER

**USS ARTHUR W RADFORD (DD-968)**  
**MAIN ENGINE ROOM NO. 2 (5-300-0-E)**  
**STARBOARD SIDE**



FRAME (320) HAS NO PAINT ON FLANGE.



TYPICAL VIEW OF 1<sup>ST</sup> STRINGER FROM UPPER LEVEL DECK BETWEEN  
WEB FRAMES (308-316).

# MATERIAL ASSESSMENT FORM

ITEM NUMBER		SHIP <b>USS A W RADFORD (DDG-968)</b>				
SYSTEM SHELL & SUPPORTING STRUCTURE 110		ESWS 11011	EIC A100	APL X-SYSTEMS	RIN N/L	
EQUIPMENT NAME HULL STRUCTURE 1102XY		IDENT/SERIAL N/A	LOCATION 5-260-01-E	WORK CENTER ERO4	JSN A030	
EQUIPMENT STATUS		PROBLEM STATUS		CATEGORY		EOC
1. SAT - SATISFACTORY <b>2. UNSAT - UNSATISFACTORY</b> 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD		1. C - CORRECTED 2. A - AWAITING PARTS <b>3. T - AWAITING TECH ASSIST*</b> 4. S - SHIP'S FORCE *UNCORRECTED PROBLEMS		1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY <b>3. H - HARDWARE</b> 4. D - DOWN 5. L - LIMITED		.9
TYPE AVAILABILITY	WHEN TO BE ACCOMPLISHED	STATUS		CAUSE	DEFERRAL REASON	
1. DEPOT  <b>2. IMA</b>  3. TECH ASSIST  4. SHIP'S FORCE  5. SFWL	1. IMMEDIATELY  2. PRIOR TO NEXT UNDERWAY  <b>3. PIROR TO NEXT DEPLOYMENT</b>  4. DURING POST DEPLOYMENT AVAILABILITY	1. <b>OPERATIONAL</b>  2. NON-OPERATIONAL  3. REDUCED CAPABILITY  4. NOT APPLICABLE		1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN <b>7. NORMAL WEAR AND TEAR</b> 8. NOT APPLICABLE	1. S/F BACKLOG/OPERATIONAL PRIORITY 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE IN THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING <b>6. LACK OF FACILITIES/CAPABILITIES</b> 7. NOT AUTHORIZED FOR S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 10. OTHER OR NOT APPLICABLE	
MAN HRS EXPENDED 2	MAN HRS REMAINING 60	COMPLETED ACTION TAKEN		S/F MANHOURS	PRIORITY	
<b>SAFETY HAZARD:</b> 1. <b>SERIOUS - CORRECT AS SOON AS POSSIBLE</b> 2. <b>SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED</b> 3. <b>SERIOUS - WAVIER OF EQUIPMENT/SYSTEM</b> 4. <b>SAFETY ITEM - MINOR</b> 5. <b>COMBUSTIBLE MATERIAL</b>		1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: REQUIRED PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 3-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION			1. MANDATORY 2. ESSENTIAL <b>3. HIGHLY DESIRABLE</b> 4. DESIRABLE	
<b>DISCREPANCY DESCRIPTION: PER SEMAT II UNDERWATER HULL ASSESSMENT: PORT SIDE (4-260-1-E) AUX 2</b>						
2 <sup>ND</sup> STRINGER UP FROM MARGIN PLATE, APPROXIMATELY 6" FWD OF WEB FRAME (280) IS HOLED. APPROXIMATELY 1 SF						
<b>RECOMMENDED REPAIRS:</b>						
RECOMMEND REPAIR ACTIVITY CLEAN ENTIRE STRINGER TO BARE METAL, CUT OUT HOLED AREA APPROXIMATELY 1 SF AND PATCH WITH .250 MILD STEEL, PRESERVE AND PAINT TO MATCH.						
<b>SSPORT C221 POC: J. BRUCKNER (757) 396-4001 TPOC: J. LaROCK QED SYSTEMS INC. (757) 490-5047</b>						
<b>CSMP SUMMARY:</b> 2 <sup>ND</sup> STRINGER UP FROM MARGIN PLATE IS HOLED.				<b>TEST#</b> MRC 1102/1		
<b>ROOT CAUSE/AMPLIFICATION:</b> H1				<b>STEP#</b> 1,2,3,4 & 5		
<b>SYSTEM LEVEL IMPACT:</b>						
PART NO.	NOMEMCLATURE			QTY	NSN	COST
1						
2						
3						
4						
5						
6						
FIRST CONTACT <b>ANDERSON</b>	RATE <b>HTC</b>	SECOND CONTACT <b>MILTON</b>		RATE <b>HT1</b>	PHONE	
ASSESSOR / ACT / TECH ID# <b>C. SHORT / T. WHITMORE QED SYSTEMS INC.</b>			TD	TL	LOGISTICIAN	TSP

**USS ARTHUR W RADFORD (DD-968)**  
**AUXILIARY MACHINERY ROOM NO. 2 (5-260-01-E)**  
**PORT SIDE**



2<sup>ND</sup> STRINGER UP FROM MARGIN PLATE APPROXIMATELY 6" FWD OF WEB FRAME (280)  
IS HOLED.



CORROSION AND PAINT SEPARATION IN 1<sup>ST</sup> AND 2<sup>ND</sup> STRINGERS UP FROM MARGIN PLATE  
FROM BHD (300) TO BHD (260)

# MATERIAL ASSESSMENT FORM

ITEM NUMBER		SHIP <b>USS A W RADFORD (DD-968)</b>				
SYSTEM SHELL & SUPPORTING STRUCTURE 110		ESWBS 11011	EIC A100	APL X-SYSTEMS	RIN N/L	
EQUIPMENT NAME HULL STRUCTURE 1102XY		IDENT/SERIAL N/A	LOCATION 5-260-01-E	WORK CENTER ERO4	JSN A032	
EQUIPMENT STATUS		PROBLEM STATUS		CATEGORY		EOC
1. SAT - SATISFACTORY <b>2. UNSAT - UNSATISFACTORY</b> 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD		1. C - CORRECTED 2. A - AWAITING PARTS 3. T - AWAITING TECH ASSIST* <b>4.S - SHIP'S FORCE</b> *UNCORRECTED PROBLEMS		1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY <b>3. H - HARDWARE</b> 4. D - DOWN 5. L - LIMITED		.9
TYPE AVAILABILITY	WHEN TO BE ACCOMPLISHED	STATUS	CAUSE	DEFERRAL REASON		
1. DEPOT 2. IMA 3. TECH ASSIST <b>4. SHIP'S FORCE</b> 5. SFWL	1. IMMEDIATELY 2. PRIOR TO NEXT UNDERWAY <b>3. PIROR TO NEXT DEPLOYMENT</b> 4. DURING POST DEPLOYMENT AVAILABILITY	<b>1. OPERATIONAL</b> 2. NON-OPERATIONAL 3. REDUCED CAPABILITY 4. NOT APPLICABLE	1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN <b>7. NORMAL WEAR AND TEAR</b> 8. NOT APPLICABLE	<b>1. S/F BACKLOG/OPERATIONAL PRIORITY</b> 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE IN THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING 6. LACK OF FACILITIES/CAPABILITIES 7. NOT AUTHORIZED FOR S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 10. OTHER OR NOT APPLICABLE		
MAN HRS EXPENDED 2	MAN HRS REMAINING 200	COMPLETED ACTION TAKEN		S/F MANHOURS	PRIORITY	
<b>SAFETY HAZARD:</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAVIER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL		1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: REQUIRED PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 3-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION			1. MANDATORY 2. ESSENTIAL <b>3. HIGHLY DESIRABLE</b> 4. DESIRABLE	
<b>DISCREPANCY DESCRIPTION: PER SEMAT II UNDERWATER HULL ASSESSMENT: PORT SIDE SHELL AND TANK TOP (6-292-2-F)</b>						
(5-260-01-E) AUXILIARY MACHINERY ROOM NO.2 CORROSION AND STANDING WATER WAS FOUND IN ENTIRE BILGE AREA, 1 <sup>ST</sup> AND 2 <sup>ND</sup> STRINGERS PORT SIDE BETWEEN BHD (300) AND BHD (260). APPROXIMATELY 100 SF						
<b>RECOMMENDED REPAIRS:</b>						
RECOMMEND SHIPS FORCE CLEAN ENTIRE BILGE AREA, 1 <sup>ST</sup> AND 2 <sup>ND</sup> STRINGERS AND TANK TOP (6-292-2-F) APPROXIMATELY 100 SF TO BARE METAL, PRESERVE AND PAINT						
<b>SSPORT C221 POC: J. BRUCKNER (757) 396-4001 EXT , TPOC: J. LaROCK QED SYSTEMS INC (757) 490-5047</b>						
<b>CSMP SUMMARY:</b>				TEST#		
TANK TOP (6-292-2-F) AND PORT SIDE SHELL HAS CORROSION.				MRC 1102/1		
<b>ROOT CAUSE/AMPLIFICATION:</b>				STEP#		
H1				1,2,3,4 & 5		
<b>SYSTEM LEVEL IMPACT:</b>						
PART NO.	NOMENCLATURE			QTY	NSN	COST
1						
2						
3						
4						
5						
6						
FIRST CONTACT <b>ANDERSON</b>	RATE <b>HTC</b>	SECOND CONTACT <b>MILTON</b>		RATE <b>HT1</b>	PHONE	
ASSESSOR / ACT / TECH ID# <b>C. SHORT / T. WHITMORE QED SYSTEMS INC.</b>			TD	TL	LOGISTICIAN	TSP

**USS ARTHUR W RADFORD (DD-968)**  
**AUXILIARY MACHINERY ROOM NO. 2 (5-260-01-E)**  
**PORT SIDE**



ENTIRE BILGE AREA, 1<sup>ST</sup> AND 2<sup>ND</sup> STRINGERS HAVE STANDING WATER, CORROSION AND PAINT SEPARATION FROM BHD (300) TO BHD (260)



**USS ARTHUR W RADFORD (DD-968)**  
**AUXILIARY MACHINERY ROOM NO. 2 (5-260-01-E)**  
**PORT SIDE**



LOWER LEVEL INBOARD OF SHAFT AT BHD (300)



TANK TOP (6-292-2-F) AT BHD (300) HAS APPROXIMATELY 40 SF OF CORROSION AND PAINT SEPARATION.

**USS ARTHUR W RADFORD (DD-968)**  
**AUXILIARY MACHINERY ROOM NO. 2 (5-260-01-E)**  
**PORT SIDE**



CORROSION WAS FOUND ON LOWER PORTION OF BHD (260) BELOW THE SHAFT.



# CSMP REVIEW

<b>ITEM NUMBER</b>				<b>SHIP</b> USS A W RADFORD (DD-968)				
<b>SYSTEM STRUCTURAL</b>		<b>ESWBS</b> 11100	<b>EIC</b> U000000	<b>APL</b> X-SYSTEMS		<b>RIN</b> N/L		
<b>EQUIPMENT NAME</b> SHELL PLATING		<b>IDENT/SERIAL</b> N/A		<b>LOCATION</b> 5-260-1-E	<b>WORK CENTER</b> ER04		<b>JSN</b> P122	
<b>EQUIPMENT STATUS</b>		<b>PROBLEM STATUS</b>		<b>CATEGORY</b>			<b>EOC</b>	
1. SAT - SATISFACTORY 2. <b>UNSAT - UNSATISFACTORY</b> 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD		1. C - CORRECTED 2. A - AWAITING PARTS 3. <b>T - AWAITING TECH ASSIST*</b> 4. S - SHIP'S FORCE *UNCORRECTED PROBLEMS		1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY 3. <b>H - HARDWARE</b> 4. D - DOWN 5. L - LIMITED				
<b>TYPE/AVAILABILITY</b>	<b>WHEN TO BE ACCOMPLISHED</b>	<b>STATUS</b>	<b>CAUSE</b>		<b>DEFERRAL REASON</b>			
1. <b>DEPOT</b> 2. IMA 3. TECH ASSIST 4. SHIP'S FORCE 5. SFWL  <div style="text-align: center;">1</div>	1. IMMEDIATELY 2. PRIOR TO NEXT UNDERWAY 3. <b>PIOR TO NEXT DEPLOYMENT</b> 4. DURING POST DEPLOYMENT AVAILABILITY  DEADLINE DATE: 3032  <div style="text-align: center;">3</div>	1. <b>OPERATIONAL</b> 2. NON-OPERATIONAL 3. REDUCED CAPABILITY 4. NOT APPLICABLE  <div style="text-align: center;">3</div>	1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN 7. <b>NORMAL WEAR AND TEAR</b> 8. NOT APPLICABLE  <div style="text-align: center;">7</div>		1. S/F BACKLOG/OPERATIONAL PRIORITY 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE IN THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING 6. <b>LACK OF FACILITIES/CAPABILITIES</b> 7. NOT AUTHORIZED FOR S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 10. OTHER OR NOT APPLICABLE  <div style="text-align: center;">0</div>			
<b>MAN HRS EXPENDED</b>	<b>MAN HRS REMAINING</b> 0001	<b>COMPLETED ACTION TAKEN</b>		<b>S/F MANHOURS</b>	<b>PRIORITY</b>			
<b>SAFETY HAZARD:</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAIVER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL			1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: REQUIRED PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 3-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION		1. MANDATORY 2. ESSENTIAL 3. <b>HIGHLY DESIRABLE</b> 4. DESIRABLE			
PER SEMAT 1 – HULL STRUCTURE INSPECTION OF AUXILIARY MACHINERY ROOM NO. 2 (4-260-1-E) STBD SHELL PLATES WERE FOUND CORRODED BETWEEN FR 290 (6 INCHES UP) AND EXTENDS TO 12 INCHES OF THE ADJACENT MARGINAL PLATES. THE SHELL PLATES ARE FIRST FROM THE MARGINAL PLATE LEVEL. XXX REPAIR ACTIVITY, REMOVE CORROSION AND PRESERVE. DEADLINE DATE 1 FEB 2003, RECOMMEND REPAIR BEFORE ANY DEPLOYMENT. ASSESSED D. SMITH /R MANALANG, POC J. BRUCKNER, SPORT CODE 221, DSN 961-4001, COMM (757) 396-4001.*/ASSESS/SEMAT I /NOR FORLK /D/USAT/TA/0.9/1102/1 /1 /**/TECH/SMIT H/R. MANALA/SPORT 221 /(757)396-4001/*136131115 1 X147649 XSYSTEMITEMU000000 1361 1361 17-MAR-0302-JUL-03								
<b>CSMP SUMMARY: SHELL PLATE CORRODED</b>						<b>TEST#</b>		
<b>ROOT CAUSE/AMPLIFICATION</b>						<b>STEP#</b>		
<b>SYSTEM LEVEL IMPACT:</b>								
<b>TECHNICIAN MARK APPROPRIATE BLOCKS:</b> 2-KILO X _____ <b>VALID (NO CORRECTIONS)</b> _____ <b>REWRITE (VALID)</b> _____ <b>FOUND COMPLETE</b> _____ <b>COMPLETED BY SEMAT</b> _____ <b>CANCEL (WORK NOT REQUIRED)</b> _____ <b>NOT VALIDATED</b>				<b>UPLOAD VALIDATION INFORMATION / CORRECTIONS TO SNAP:</b>  _____ <b>YES</b>  _____ <b>NO</b>				
<b>FIRST CONTACT</b> DAVIS	<b>RATE</b> EN1	<b>SECOND CONTACT</b> MYERS		<b>RATE</b> EN2	<b>PHONE</b>			
<b>BLUEPRINTS: TECH MANUALS, PLANS, ETC.</b>						<b>ON BRD</b> YES NO		
<b>ASSESSOR: J. LAROCK QED (757) 490-5047</b>				<b>TD</b>	<b>TL</b>	<b>LOGISTICIAN</b>	<b>PAGE NO</b> 33	
<b>CODE</b>								

**USS ARTHUR W RADFORD (DD-968)**  
**AUXILIARY MACHINERY ROOM NO. 2 (5-260-01-E)**  
**STARBOARD SIDE**



1<sup>ST</sup> STRINGER UP FROM MARGIN PLATE HAS CORROSION AND STANDING WATER, FROM FRAME (270) TO BHD (300).



ENTIRE BILGE AREA HAS STANDING WATER FROM BHD (260) TO BHD (300)

**USS ARTHUR W RADFORD (DD-968)**  
**AUXILIARY MACHINERY ROOM NO. 2 (5-260-01-E)**  
**STARBOARD SIDE**



2<sup>ND</sup> STRINGER UP FROM MARGIN PLATE BETWEEN WEB FRAME (280) AND WEB FRAME (290) HAS STANDING WATER CAUSING SURFACE RUST AND PAINT SEPARATION.



BOTTOM VIEW OF 2<sup>ND</sup> STRINGER UP FROM MARGIN PLATE BETWEEN WEB FRAME (280) AND WEB FRAME (290) HAS PAINT FAILURE.

# MATERIAL ASSESSMENT FORM

ITEM NUMBER		SHIP <b>USS A W RADFORD (DDG-968)</b>				
SYSTEM SHELL & SUPPORTING STRUCTURE 110		ESWS 11011	EIC A100	APL X-SYSTEMS	RIN N/L	
EQUIPMENT NAME HULL STRUCTURE 1102XY		IDENT/SERIAL N/A		LOCATION 5-220-0-E	WORK CENTER ER04	JSN A025
EQUIPMENT STATUS		PROBLEM STATUS		CATEGORY		EOC
1. SAT - SATISFACTORY <b>2. UNSAT - UNSATISFACTORY</b> 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD		1. C - CORRECTED 2. A - AWAITING PARTS <b>3. T - AWAITING TECH ASSIST*</b> 4. S - SHIP'S FORCE *UNCORRECTED PROBLEMS		1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY <b>3. H - HARDWARE</b>		4. D - DOWN 5. L - LIMITED  .9
TYPE AVAILABILITY	WHEN TO BE ACCOMPLISHED	STATUS		CAUSE	DEFERRAL REASON	
<b>1. DEPOT</b>  2. IMA  3. TECH ASSIST  4. SHIP'S FORCE  5. SFWL	1. IMMEDIATELY  2. PRIOR TO NEXT UNDERWAY  <b>3. PIROR TO NEXT DEPLOYMENT</b>  4. DURING POST DEPLOYMENT AVAILABILITY	<b>1. OPERATIONAL</b>  2. NON-OPERATIONAL  3. REDUCED CAPABILITY  4. NOT APPLICABLE		1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN <b>7. NORMAL WEAR AND TEAR</b> 8. NOT APPLICABLE	1. S/F BACKLOG/OPERATIONAL PRIORITY 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE IN THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING <b>6. LACK OF FACILITIES/CAPABILITIES</b> 7. NOT AUTHORIZED FOR S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 10. OTHER OR NOT APPLICABLE	
MAN HRS EXPENDED 2	MAN HRS REMAINING 200	COMPLETED ACTION TAKEN		S/F MANHOURS	PRIORITY	
<b>SAFETY HAZARD:</b> 1. <b>SERIOUS - CORRECT AS SOON AS POSSIBLE</b> 2. <b>SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED</b> 3. <b>SERIOUS - WAIVER OF EQUIPMENT/SYSTEM</b> 4. <b>SAFETY ITEM - MINOR</b> 5. <b>COMBUSTIBLE MATERIAL</b>		1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: REQUIRED PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 3-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION			1. MANDATORY 2. ESSENTIAL <b>3. HIGHLY DESIRABLE</b> 4. DESIRABLE	
<b>DISCREPANCY DESCRIPTION: PER SEMAT II UNDERWATER HULL ASSESSMENT: STBD SIDE LOWER LEVEL (5-220-0-E) AUX 1</b>						
FO TANK TOP (6-220-3-F) HAS DEEP PITTING AND LOW U/T READINGS, APPROXIMATELY 1' FWD OF BHD (260). TANK SIDE (6-220-1-F) HAS LOW U/T READINGS WHERE IT MEETS TANK (6-220-3-F), APPROXIMATELY 3 FT FWD OF BHD (260)						
<b>RECOMMENDED REPAIRS:</b>						
RECOMMEND REPAIR ACTIVITY DRAIN AND GAS FREE TANKS (6-220-1-F) AND (6-220-3-F) CUT OUT APPROXIMATELY 3' X 1' OF TANK SIDE, REPLACE WITH .313 MILD STEEL, CUT OUT AND REPLACE APPROXIMATELY 2 SF OF TANK TOP REPLACE WITH .500 MILD STEEL. PERFORM NDT PRIME AND PAINT AREAS DISTURBED BY REMOVALS AND REPAIRS						
<b>SSPORT C221 POC: J. BRUCKNER (757) 396-4001 TPOC: J. LaROCK QED SYSTEMS INC. (757) 490-5047</b>						
<b>CSMP SUMMARY:</b> TANK TOP AND TANK SIDE ARE THINNING				TEST# MRC 1102/1		
<b>ROOT CAUSE/AMPLIFICATION:</b> H1				STEP# 1,2,3,4 & 5		
<b>SYSTEM LEVEL IMPACT:</b>						
PART NO.	NOMEMCLATURE			QTY	NSN	COST
1						
2						
3						
4						
5						
6						
FIRST CONTACT <b>ANDERSON</b>	RATE <b>HTC</b>	SECOND CONTACT <b>MILTON</b>		RATE <b>HT1</b>	PHONE	
ASSESSOR / ACT / TECH ID# <b>J. LaROCK/ T. WHITMORE QED SYSTEMS INC.</b>				TD	TL	LOGISTICIAN TSP

**USS ARTHUR W RADFORD (DD-968)**  
**AUXILIARY MACHINERY ROOM NO. 1 (5-220-0-E)**  
**STARBOARD SIDE / LOWER LEVEL**

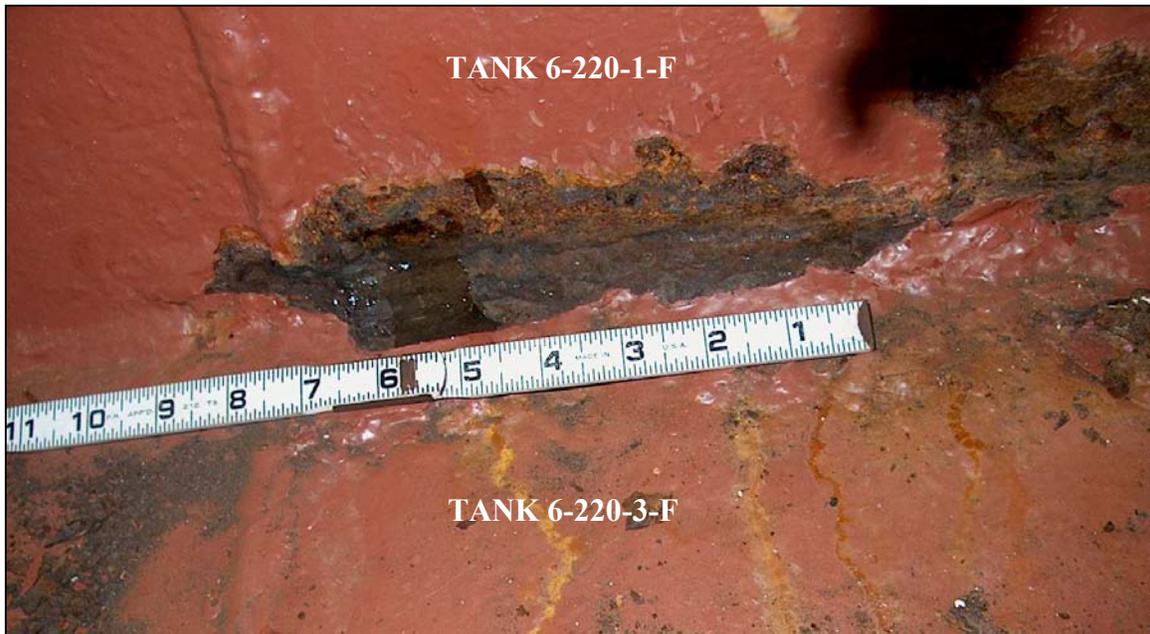
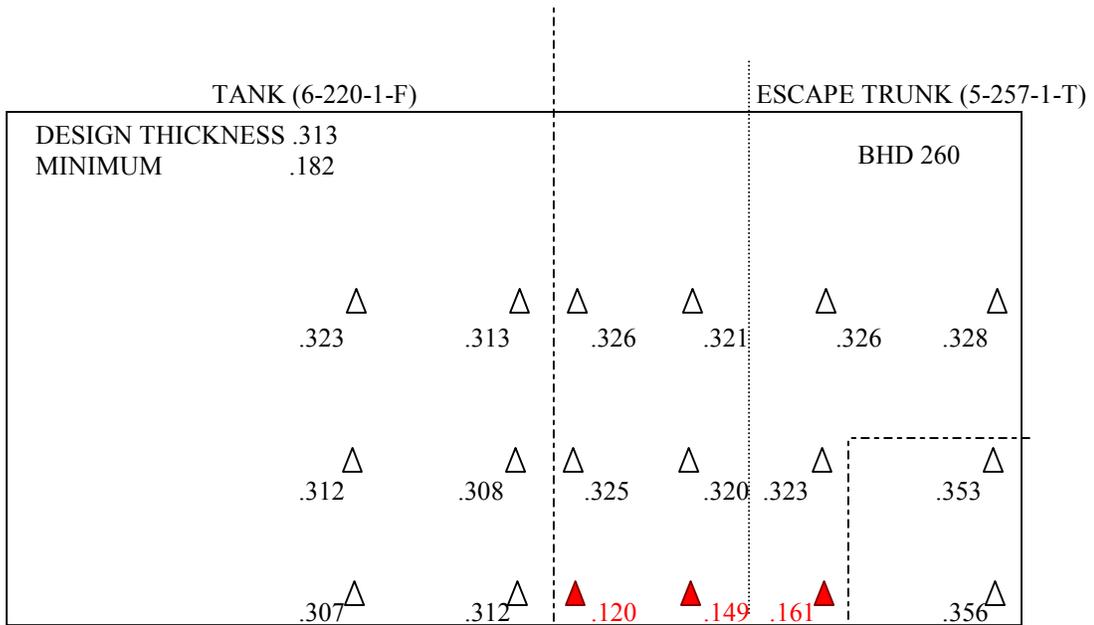


ARROWS INDICATE AREAS OF LOW U/T READINGS.



TANK TOP (6-220-3-F) AND BHD (260), ARROW INDICATES LOW U/T READING

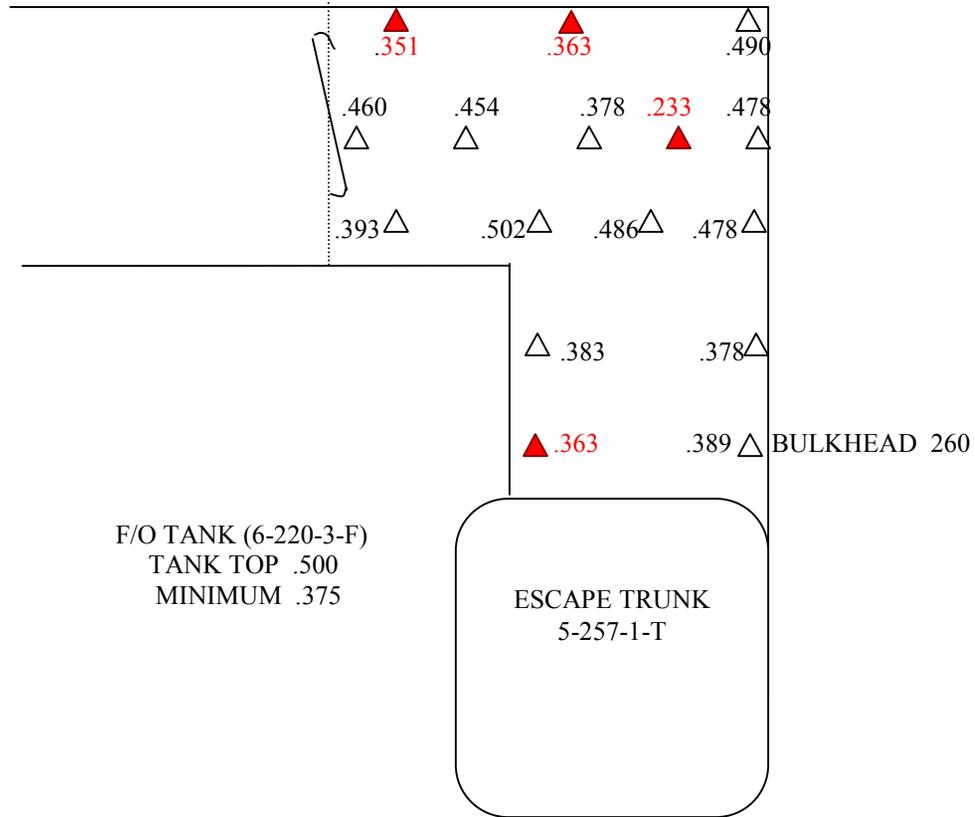
**USS ARTHUR W RADFORD (DD-968)**  
**AUXILIARY MACHINERY ROOM NO. 1 (5-220-0-E)**  
**STARBOARD SIDE / LOWER LEVEL**



DEEP PITTING AND DETERIORATED WELD SEAM AT THE JUNCTION OF TANK (6-220-1-F) AND TANK (6-220-30F). DRAWING AT TOP INDICATES LOW U/T READINGS IN THIS AREA..

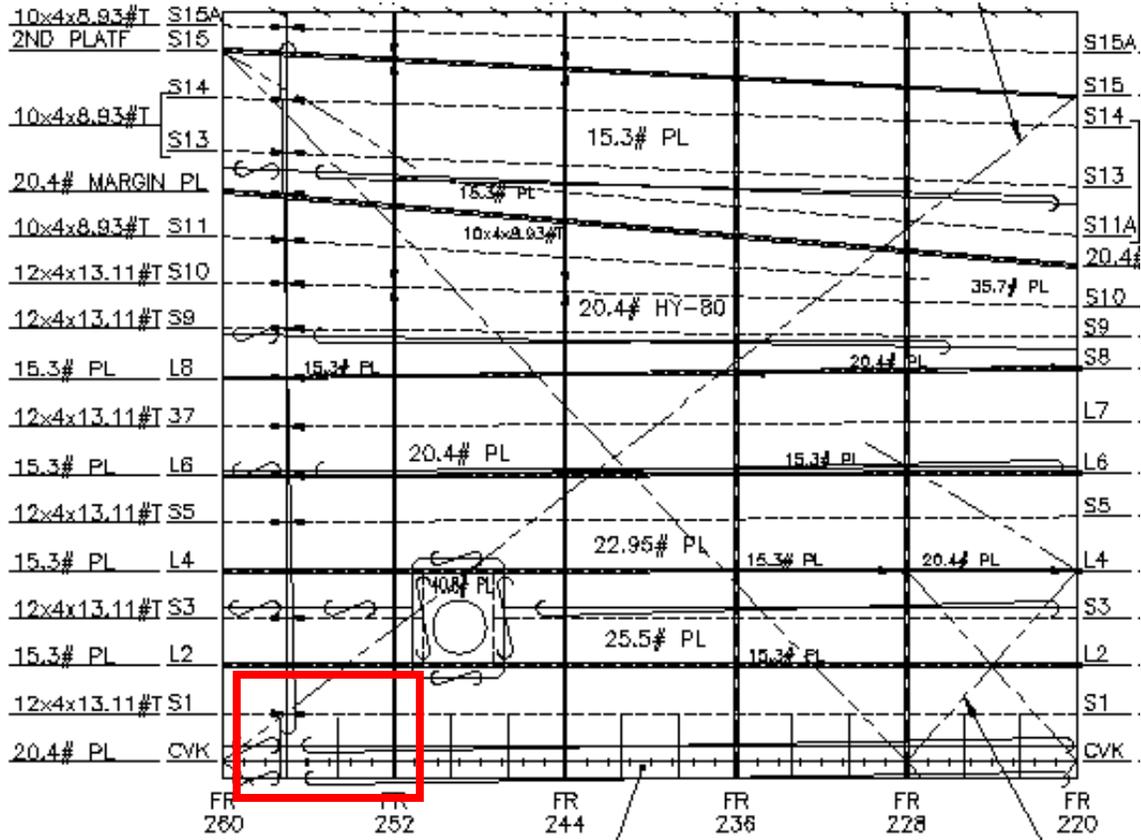
**USS ARTHUR W RADFORD (DD-968)**  
**AUXILIARY MACHINERY ROOM NO. 1 (5-220-0-E)**  
**STARBOARD SIDE / LOWER LEVEL**

TANK (6-220-1-F)



J.LaROCK / T.WHITMORE  
 QED SYSTEMS INC.  
 02/04/02

**USS ARTHUR W RADFORD (DD-968)  
 AUXILIARY MACHINERY ROOM NO. 1 (5-220-0-E)  
 STARBOARD SIDE / LOWER LEVEL**



RED BOX INDICATES AREA WHERE CORROSION WAS FOUND.

# MATERIAL ASSESSMENT FORM

ITEM NUMBER		SHIP <b>USS A W RADFORD (DD-968)</b>					
SYSTEM SHELL & SUPPORTING STRUCTURE 110		ESWBS 11011	EIC A100	APL X-SYSTEMS		RIN N/L	
EQUIPMENT NAME HULL STRUCTURE 1102XY		IDENT/SERIAL N/A		LOCATION 5-220-0-E	WORK CENTER ER04	JSN A027	
EQUIPMENT STATUS		PROBLEM STATUS		CATEGORY		EOC	
1. SAT - SATISFACTORY <b>2. UNSAT - UNSATISFACTORY</b> 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD		1. C - CORRECTED 2. A - AWAITING PARTS 3. T - AWAITING TECH ASSIST* <b>4.S - SHIP'S FORCE</b> *UNCORRECTED PROBLEMS		1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY <b>3. H - HARDWARE</b>		4. D - DOWN 5. L - LIMITED  .9	
TYPE/AVAILABILITY	WHEN TO BE ACCOMPLISHED	STATUS		CAUSE	DEFERRAL REASON		
1. DEPOT  <b>2. IMA</b>  3. TECH ASSIST  4. SHIP'S FORCE  5. SFWL	1. IMMEDIATELY  2. PRIOR TO NEXT UNDERWAY  <b>3. PRIOR TO NEXT DEPLOYMENT</b>  4. DURING POST DEPLOYMENT AVAILABILITY	<b>1. OPERATIONAL</b>  2. NON-OPERATIONAL  3. REDUCED CAPABILITY  4. NOT APPLICABLE		1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN <b>7. NORMAL WEAR AND TEAR</b> 8. NOT APPLICABLE	<b>1. S/F BACKLOG/OPERATIONAL PRIORITY</b> 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE IN THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING 6. LACK OF FACILITIES/CAPABILITIES 7. NOT AUTHORIZED FOR S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 10. OTHER OR NOT APPLICABLE		
MAN HRS EXPENDED 2	MAN HRS REMAINING 40	COMPLETED ACTION TAKEN		S/F MANHOURS	PRIORITY		
<b>SAFETY HAZARD:</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAVIER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL		1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: REQUIRED PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 3-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION			1. MANDATORY 2. ESSENTIAL <b>3. HIGHLY DESIRABLE</b> 4. DESIRABLE		
<b>DISCREPANCY DESCRIPTION: PER SEMAT II UNDERWATER HULL ASSESSMENT: STBD SIDE (5-220-0-E) AUX 1 UPPER LEVEL DECK</b>							
IS SEVERELY DETERIORATED APPROXIMATELY 10 FT FWD OF BHD (260) AND APPROXIMATELY 3 FT INBOARD OF TANK (6-220-1-F) UNDERNEATH WORKBENCH. STBD SIDE L/L FOUNDATION FOR HALON BOTTLE STORAGE IS SEVERELY DETERIORATED.							
<b>RECOMMENDED REPAIRS:</b>							
RECOMMEND IMA CUT OUT APPROXIMATELY 3 SF OF DECK, REPLACE WITH .250 MILD STEEL, CUT OUT AND REPLACE HALON BOTTLE FOUNDATION. PRIME AND PAINT AREA.							
<b>SSPORT C221 POC: J. BRUCKN ER (757) 396-4001 EXT , TPOC: J. LaROCK QED SYSTEMS INC (757) 490-5047</b>							
<b>CSMP SUMMARY:</b>					TEST#		
U/L DECK AND STBD SIDE HALON BOTTLE FOUNDATION IS DETERIORATED.					MRC 1102/1		
<b>ROOT CAUSE/AMPLIFICATION:</b>					STEP#		
H1					1,2,3,4 & 5		
<b>SYSTEM LEVEL IMPACT:</b>							
PART NO.	NOMEMCLATURE			QTY	NSN	COST	
1							
2							
3							
4							
5							
6							
FIRST CONTACT <b>ANDERSON</b>	RATE <b>HTC</b>	SECOND CONTACT <b>MILTON</b>		RATE <b>HT1</b>	PHONE		
ASSESSOR / ACT / TECH ID# <b>J. LaROCK/ T. WHITMORE QED SYSTEMS INC.</b>			TD	TL	LOGISTICIAN	TSP	

**USS ARTHUR W RADFORD (DD-968)**  
**AUXILIARY MACHINERY ROOM NO. 1 (5-220-0-E)**  
**STARBOARD SIDE**

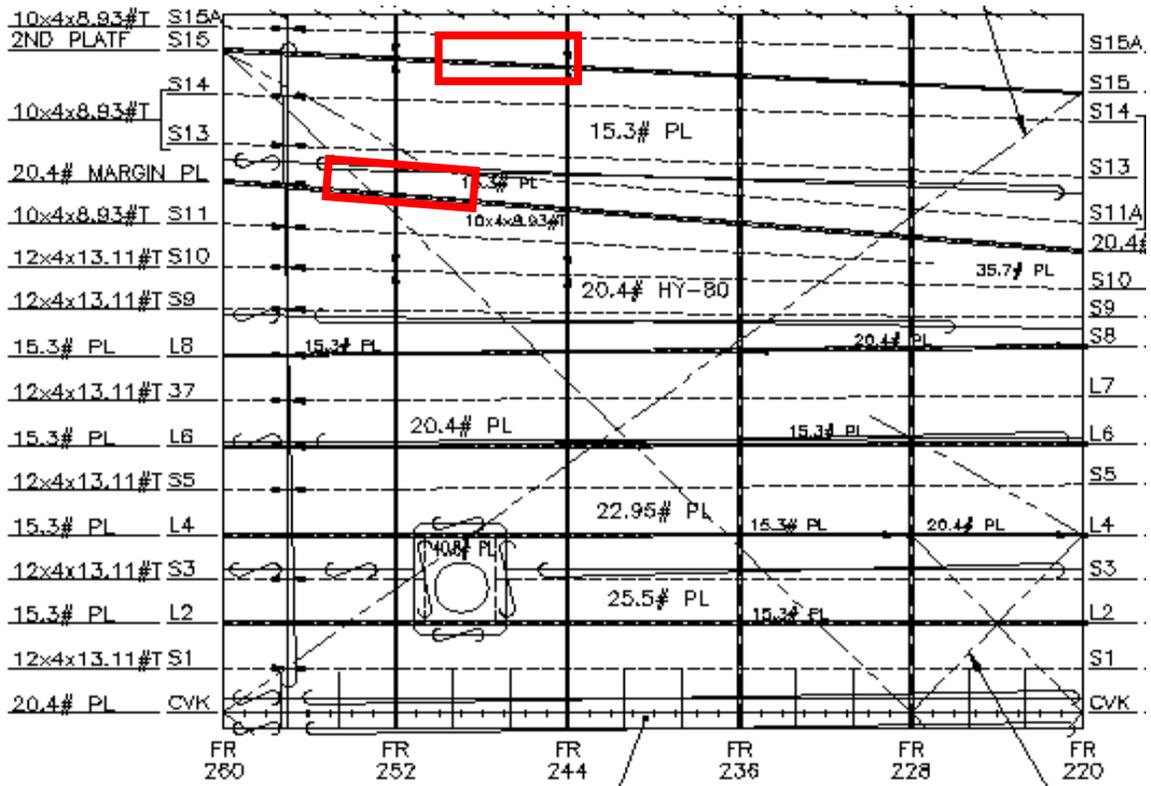


DETERIORATION OF UPPER LEVEL DECK APPROXIMATELY 10' FWD OF BHD (260) AND 3'  
INBOARD OF TANK (6-220-1-F)



HALON BOTTLE STORAGE FOUNDATION IS SEVERELY DETERIORATED.

**USS ARTHUR W RADFORD (DD-968)**  
**AUXILIARY MACHINERY ROOM NO. 1 (5-220-0-E)**  
**STARBOARD SIDE**

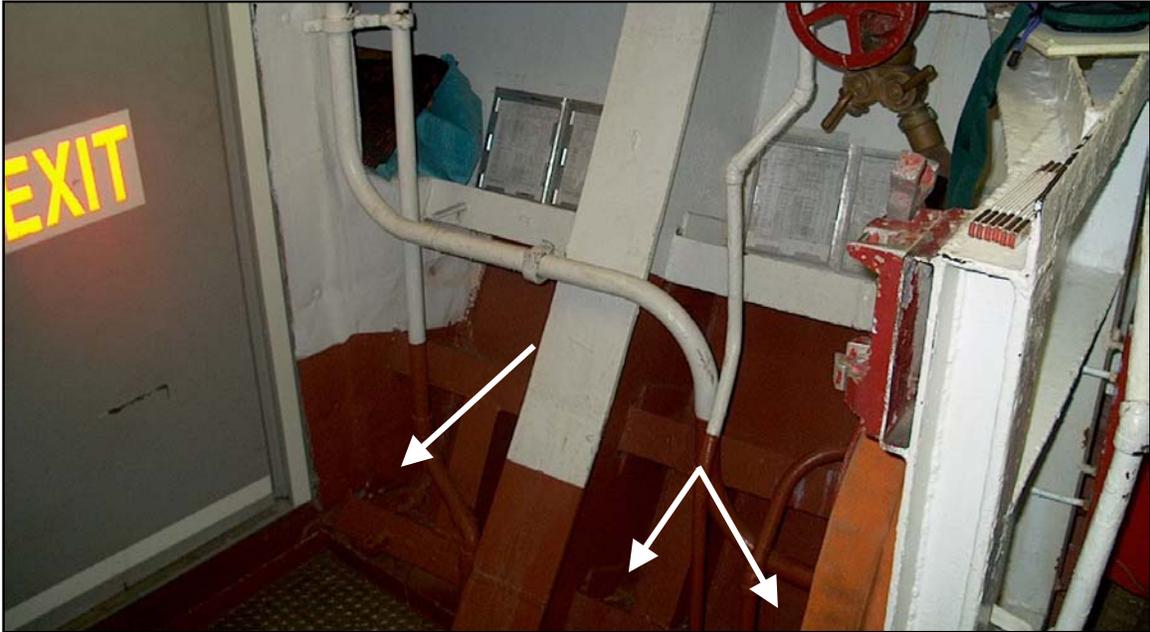


UPPER RED BOX INDICATES AREA OF DETERIORATION ON UPPER LEVEL DECK  
 LOWER RED BOX INDICATES AREA WHERE THE HALON BOTTLE STATION FOUNDATION IS SEVERELY DETERIORATED.

# CSMP REVIEW

<b>ITEM NUMBER</b>				<b>SHIP</b> USS A W RADFORD (DD-968)				
<b>SYSTEM STRUCTURAL</b>		<b>SWLIN</b> 11100	<b>EIC</b> U000000	<b>APL</b> X-SYSTEMS		<b>RIN</b> N/L		
<b>EQUIPMENT NAME</b> SHELL PLATINGS		<b>IDENT/SERIAL</b> N/A		<b>LOCATION</b> 5-174-0-E	<b>WORK CENTER</b> EMO1		<b>JSN</b> P104	
<b>EQUIPMENT STATUS</b>		<b>PROBLEM STATUS</b>		<b>CATEGORY</b>			<b>EOC</b>	
1. SAT - SATISFACTORY 2. <b>UNSAT - UNSATISFACTORY</b> 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD		1. C - CORRECTED 2. A - AWAITING PARTS 3. <b>T - AWAITING TECH ASSIST*</b> 4. S - SHIP'S FORCE *UNCORRECTED PROBLEMS		1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY 3. <b>H - HARDWARE</b> 4. D - DOWN 5. L - LIMITED				
<b>TYPE/AVAILABILITY</b>	<b>WHEN TO BE ACCOMPLISHED</b>	<b>STATUS</b>	<b>CAUSE</b>		<b>DEFERRAL REASON</b>			
1. <b>DEPOT</b> 2. IMA 3. TECH ASSIST 4. SHIP'S FORCE 5. SFWL  <div style="text-align: center;">1</div>	1. IMMEDIATELY 2. PRIOR TO NEXT UNDERWAY 3. <b>PIOR TO NEXT DEPLOYMENT</b> 4. DURING POST DEPLOYMENT AVAILABILITY  <div style="text-align: center;">3032</div>	1. <b>OPERATIONAL</b> 2. NON-OPERATIONAL 3. REDUCED CAPABILITY 4. NOT APPLICABLE  <div style="text-align: center;">3</div>	10. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN 7. <b>NORMAL WEAR AND TEAR</b> 8. NOT APPLICABLE  <div style="text-align: center;">1</div>		10. S/F BACKLOG/OPERATIONAL PRIORITY 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE IN THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING 6. <b>LACK OF FACILITIES/CAPABILITIES</b> 7. NOT AUTHORIZED FOR S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 0. OTHER OR NOT APPLICABLE  <div style="text-align: center;">0</div>			
<b>MAN HRS EXPENDED</b> 0001	<b>MAN HRS REMAINING</b> 0001	<b>COMPLETED ACTION TAKEN</b>		<b>S/F MANHOURS</b>	<b>PRIORITY</b>			
<b>SAFETY HAZARD:</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAIVER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL		1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: REQUIRED PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 3-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION			1. MANDATORY 2. ESSENTIAL 3. <b>HIGHLY DESIRABLE</b> 4. DESIRABLE  <div style="text-align: center;">4</div>			
<b>BLOCK 35 / REMARKS</b>								
PER SEMAT 1 – HULL STRUCTURE INSPECTION OF MAIN ENGINE ROOM NO. 1 (5-174-0-E), STRINGER AT THE STBD SIDE SHELL WAS FOUND HOLED AND DETERIORATED APPROXIMATELY 14" AT FRAME (196). THE HOLED STRINGER IS LOCATED FWD OF THE VERTICAL STIFFENER AT FRAME (196) AND RIGHT BELOW THE DECK PLATE GRATING./STRINGER AND VERTICAL STIFFENERS FROM FRAME (178) TO FIRE HOSE STATION AT DECK LEVEL AFT OF ESCAPE TRUNK APPROXIMATELY 10 FT OF (10 X 4 T-BEAM). XXX REPAIR ACTIVITY, CROP OUT DAMAGED AREAS, REPLACE WITH APPROXIMATELY 10 FT OF (10 X 4 T-BEAM). PRIME, PRESERVE AND PAINT. DEADLIINNE DATE: 1 FEB 2003, RECOMMEND REPAIR BEFORE ANY DEPLOYMENT, ASSESSED BY D. SMITH / R. MANALANG, POC J. BRUCKNER, SPORT CODE 221, DSN 961-4001, COMM (757) 396-4001, /ASSESS/SEMAT 1 /NORFOLK /D/UNSAT/TA/1/0.9/1102/1/1 /*/TECH/SMITH/R, MANALA/SPORT 221 /(757) 396-4001/* 136131115 1 X 147649 XSYSTEMU000000 1361								
<b>CSMP SUMMARY:</b>						<b>TEST#</b>		
<b>ROOT CAUSE/AMPLIFICATION</b>						<b>STEP#</b>		
<b>SYSTEM LEVEL IMPACT:</b>								
<b>TECHNICIAN MARK APPROPRIATE BLOCKS:</b> 2-KILO IS:  _____ VALID (NO CORRECTIONS) <u>XX</u> <b>REWRITE (VALID)</b> _____ FOUND COMPLETE _____ COMPLETED BY SEMAT _____ CANCEL (WORK NOT REQUIRED) _____ NOT VALIDATED				<b>UPLOAD VALIDATION INFORMATION / CORRECTIONS TO SNAP:</b>  _____ YES  _____ NO				
<b>FIRST CONTACT</b> OLDRICH	<b>RATE</b> GSM2	<b>SECOND CONTACT</b> PETRAGIL	<b>RATE</b> GSM2	<b>PHONE</b>				
<b>BLUEPRINTS: TECH MANUALS, PLANS, ETC.</b>							<b>ON BRD</b> YES NO	
<b>ASSESSOR:</b> J. LaROCK QED SYSTEMS INC. CODE				<b>TD</b>	<b>TL</b>	<b>LOGISTICIAN</b>	<b>PAGE NO</b> 44	

**USS ARTHUR W RADFORD (DD-968)**  
**MAIN ENGINE ROOM NO. 1 (5-174-0-E)**  
**STARBOARD SIDE / LOWER LEVEL**



DOOR TO ESCAPE TRUNK (5-174-1-T), ARROWS INDICATE LOCATION OF HOLED STRINGER AND VERTICAL STIFFENERS. (CSMP/JSN-P104)



HOLED STRINGER AT FRAME (178), DECK LEVEL AFT OF ESCAPE TRUNK

**USS ARTHUR W RADFORD (DD-968)**  
**MAIN ENGINE ROOM NO. 1 (5-174-0-E)**  
**STARBOARD SIDE / LOWER LEVEL**



HOLED VERTICAL STIFFENER APPROXIMATELY 3' AFT OF FRAME (178)



HOLED STRINGER FWD OF WEB FRAME (196) (CSMP / JSN-P104)



# MATERIAL ASSESSMENT FORM

ITEM NUMBER		SHIP <b>USS A W RADFORD (DD-968)</b>				
SYSTEM SHELL & SUPPORTING STRUCTURE 110		ESWS 11011	EIC A100	APL X-SYSTEMS	RIN N/L	
EQUIPMENT NAME HULL STRUCTURE 1102XY		IDENT/SERIAL N/A	LOCATION 5-174-0-E	WORK CENTER ERO4	JSN A024	
EQUIPMENT STATUS		PROBLEM STATUS	CATEGORY			EOC
1. SAT - SATISFACTORY <b>2. UNSAT - UNSATISFACTORY</b> 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD		1. C - CORRECTED 2. A - AWAITING PARTS 3. T - AWAITING TECH ASSIST* <b>4.S - SHIP'S FORCE</b> *UNCORRECTED PROBLEMS	1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY <b>3. H - HARDWARE</b> 4. D - DOWN 5. L - LIMITED			.9
TYPE AVAILABILITY	WHEN TO BE ACCOMPLISHED	STATUS	CAUSE		DEFERRAL REASON	
1. DEPOT 2. IMA 3. TECH ASSIST <b>4. SHIP'S FORCE</b> 5. SFWL	1. IMMEDIATELY 2. PRIOR TO NEXT UNDERWAY <b>3. PIROR TO NEXT DEPLOYMENT</b> 4. DURING POST DEPLOYMENT AVAILABILITY	<b>1. OPERATIONAL</b> 2. NON-OPERATIONAL 3. REDUCED CAPABILITY 4. NOT APPLICABLE	1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN <b>7. NORMAL WEAR AND TEAR</b> 8. NOT APPLICABLE		<b>1. S/F BACKLOG/OPERATIONAL PRIORITY</b> 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE IN THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING 6. LACK OF FACILITIES/CAPABILITIES 7. NOT AUTHORIZED FOR S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 10. OTHER OR NOT APPLICABLE	
MAN HRS EXPENDED 2	MAN HRS REMAINING 300	COMPLETED ACTION TAKEN		S/F MANHOURS	PRIORITY	
<b>SAFETY HAZARD:</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAIVER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL		1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: REQUIRED PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 3-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION			1. MANDATORY 2. ESSENTIAL <b>3. HIGHLY DESIRABLE</b> 4. DESIRABLE	
<b>DISCREPANCY DESCRIPTION: PER SEMAT II UNDERWATER HULL ASSESSMENT: MAIN ENGINE ROOM NO. 1 (5-174-0-E) STBD SIDE</b>						
APPROXIMATELY 100 SF OF RUST, PAINT SEPARATION FROM THE MARGIN PLATE UP APPROXIMATELY 12 FT BETWEEN BHD (220) TO FRAME (204). <b>PORT SIDE</b> , FROM BHD (220) TO BHD (174) HAS SCATTERED AREAS OF CORROSION FROM THE MARGIN PLATE TO THE MID-LEVEL DECK APPROX. 150 SQ. FEET						
<b>RECOMMENDED REPAIRS:</b> RECOMMEND SHIPS FORCE CLEAN AFFECTED AREAS TO BARE METAL, PRIME AND PAINT						
SSPORT C221 POC: J. BRUCKNER (757) 396-4001 EXT , TPOC: J. LaROCK QED SYSTEMS INC (757) 490-5047						
<b>CSMP SUMMARY:</b> PORT & STBD SIDES HAVE CORROSION.				TEST# MRC 1102/1		
<b>ROOT CAUSE/AMPLIFICATION:</b> H1				STEP# 1,2,3,4 & 5		
<b>SYSTEM LEVEL IMPACT:</b>						
PART NO.	NOMENCLATURE		QTY	NSN	COST	
1						
2						
3						
4						
5						
6						
FIRST CONTACT <b>ANDERSON</b>	RATE <b>HTC</b>	SECOND CONTACT <b>MILTON</b>	RATE <b>HT1</b>	PHONE		
ASSESSOR / ACT / TECH ID# <b>J. LaROCK / T. WHITMORE QED SYSTEMS INC.</b>			TD	TL	LOGISTICIAN TSP	

**USS ARTHUR W RADFORD (DD-968)**  
**MAIN ENGINE ROOM NO. 1 (5-174-0-E)**  
**STARBOARD SIDE / LOWER LEVEL**



CORROSION ON STRINGER OUTBOARD OF HALON BOTTLE STATION.



CORROSION ON STRINGER FWD OF BHD (220)

**USS ARTHUR W RADFORD (DD-968)**  
**MAIN ENGINE ROOM NO. 1 (5-174-0-E)**  
**PORT SIDE / LOWER LEVEL**



3<sup>RD</sup> STRINGER UP FROM MARGIN PLATE BETWEEN WEB FRAMES (212-204), HAS MILDEW AND CORROSION.



3<sup>RD</sup> STRINGER UP FROM MARGIN PLATE AT WEB FRAME (196)

# MATERIAL ASSESSMENT FORM

ITEM NUMBER		SHIP <b>USS A W RADFORD (DD-968)</b>				
SYSTEM SHELL & SUPPORTING STRUCTURE 110		ESWBS 11011	EIC A100	APL X-SYSTEMS	RIN N/L	
EQUIPMENT NAME HULL STRUCTURE 1102XY		IDENT/SERIAL N/A	LOCATION 5-138-1-L	WORK CENTER ERO4	JSN A033	
EQUIPMENT STATUS		PROBLEM STATUS		CATEGORY		EOC
1. SAT - SATISFACTORY <b>2. UNSAT - UNSATISFACTORY</b> 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD		1. C - CORRECTED 2. A - AWAITING PARTS 3. T - AWAITING TECH ASSIST* <b>4.S - SHIP'S FORCE</b> *UNCORRECTED PROBLEMS		1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY <b>3. H - HARDWARE</b> 4. D - DOWN 5. L - LIMITED		.9
TYPE AVAILABILITY	WHEN TO BE ACCOMPLISHED	STATUS	CAUSE		DEFERRAL REASON	
1. DEPOT 2. IMA 3. TECH ASSIST <b>4. SHIP'S FORCE</b> 5. SFWL	1. IMMEDIATELY 2. PRIOR TO NEXT UNDERWAY <b>3. PRIOR TO NEXT DEPLOYMENT</b> 4. DURING POST DEPLOYMENT AVAILABILITY	<b>1. OPERATIONAL</b> 2. NON-OPERATIONAL 3. REDUCED CAPABILITY 4. NOT APPLICABLE	1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN <b>7. NORMAL WEAR AND TEAR</b> 8. NOT APPLICABLE		<b>1. S/F BACKLOG/OPERATIONAL PRIORITY</b> 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE IN THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING 6. LACK OF FACILITIES/CAPABILITIES 7. NOT AUTHORIZED FOR S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 10. OTHER OR NOT APPLICABLE	
MAN HRS EXPENDED 2	MAN HRS REMAINING 200	COMPLETED ACTION TAKEN		S/F MANHOURS	PRIORITY	
<b>SAFETY HAZARD:</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAIVER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL		1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: REQUIRED PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 3-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION			1. MANDATORY 2. ESSENTIAL <b>3. HIGHLY DESIRABLE</b> 4. DESIRABLE	
<b>DISCREPANCY DESCRIPTION: PER SEMAT II UNDERWATER HULL ASSESSMENT: FORWARD PUMP ROOM &amp; SEWAGE PLANT NO. 1 (5-138-0-Q), HULL INSULATION IS TRAPPING WATER CAUSING CORROSION ON SHELL AND STRINGERS. WATER TRAPPED IN PORT AND STBD BILGE POCKETS IS CAUSING CORROSION.</b>						
<b>RECOMMENDED REPAIRS:</b> RECOMMEND SHIP'S FORCE REMOVE HULL INSULATION PORT AND STBD. APPROXIMATELY 300 SF REMOVE CORROSION FROM EXPOSED AREAS AND BILGES, PRIME AND PAINT WITH ANTI-SWEAT COATING.						
<b>SSPORT C221 POC: J. BRUCKNER (757) 396-4001 EXT , TPOC: J. LaROCK QED SYSTEMS INC (757) 490-5047</b>						
<b>CSMP SUMMARY:</b> SATURATED LAGGING, TRAPPED WATER CAUSING CORROSION.				TEST# MRC 1102/1		
<b>ROOT CAUSE/AMPLIFICATION:</b> H1				STEP# 1,2,3,4 & 5		
<b>SYSTEM LEVEL IMPACT:</b>						
PART NO.	NOMENCLATURE			QTY	NSN	COST
1						
2						
3						
4						
5						
6						
FIRST CONTACT <b>ANDERSON</b>	RATE <b>HTC</b>	SECOND CONTACT <b>MILTON</b>		RATE <b>HT1</b>	PHONE	
ASSESSOR / ACT / TECH ID# <b>J. LaROCK/ T. WHITMORE QED SYSTEMS INC.</b>			TD	TL	LOGISTICIAN	TSP

**USS ARTHUR W RADFORD (DD-968)**  
**FORWARD PUMP ROOM & SEWAGE PLANT NO. 1 (5-138-0-Q)**



WATER TRAPPED IN PORT SIDE BILGE POCKET BELOW RODMETER. NOTE CORROSION ON SHELL PLATE.



CORROSION ON SHELL PLATE OUTBOARD OF FRESH WATER PUMP NO. 1  
WEB FRAME (144) / PORT SIDE.

**USS ARTHUR W RADFORD (DD-968)**  
**FORWARD PUMP ROOM & SEWAGE PLANT NO. 1 (5-138-0-Q)**



CORROSION ON SHELL AND STRINGER, HIDDEN BENEATH SATURATED LAGGING. PORT SIDE 3' AFT OF BHD (138)



STARBOARD SIDE, 3' AFT OF BHD (138). PERMANENT REMOVAL OF LAGGING AND USE OF AN ANTI-SWEAT PAINT IS RECOMMENDED.

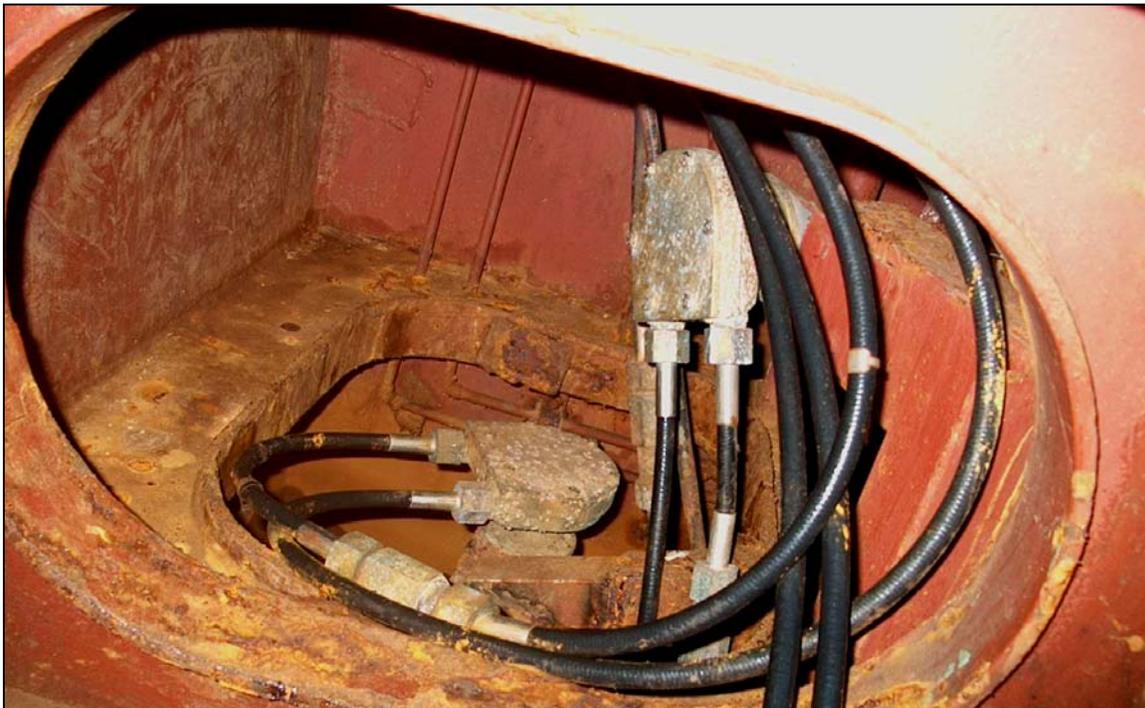
# MATERIAL ASSESSMENT FORM

ITEM NUMBER		SHIP <b>USS A W RADFORD (DD-968)</b>					
SYSTEM SHELL & SUPPORTING STRUCTURE 110		ESWBS 11011	EIC A100	APL X-SYSTEMS	RIN N/L		
EQUIPMENT NAME HULL STRUCTURE 1102XY		IDENT/SERIAL N/A	LOCATION 5-34-0-Q	WORK CENTER ERO4	JSN A034		
EQUIPMENT STATUS		PROBLEM STATUS	CATEGORY			EOC	
1. SAT - SATISFACTORY <b>2. UNSAT - UNSATISFACTORY</b> 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD		1. C - CORRECTED 2. A - AWAITING PARTS 3. T - AWAITING TECH ASSIST* <b>4.S - SHIP'S FORCE</b> *UNCORRECTED PROBLEMS	1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY <b>3. H - HARDWARE</b> 4. D - DOWN 5. L - LIMITED			.9	
TYPE AVAILABILITY	WHEN TO BE ACCOMPLISHED	STATUS	CAUSE		DEFERRAL REASON		
1. DEPOT 2. IMA 3. TECH ASSIST <b>4. SHIP'S FORCE</b> 5. SFWL	1. IMMEDIATELY 2. PRIOR TO NEXT UNDERWAY <b>3. PRIOR TO NEXT DEPLOYMENT</b> 4. DURING POST DEPLOYMENT AVAILABILITY	<b>1. OPERATIONAL</b> 2. NON-OPERATIONAL 3. REDUCED CAPABILITY 4. NOT APPLICABLE	1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN <b>7. NORMAL WEAR AND TEAR</b> 8. NOT APPLICABLE		<b>1. S/F BACKLOG/OPERATIONAL PRIORITY</b> 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE IN THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING 6. LACK OF FACILITIES/CAPABILITIES 7. NOT AUTHORIZED FOR S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 10. OTHER OR NOT APPLICABLE		
MAN HRS EXPENDED 1	MAN HRS REMAINING 100	COMPLETED ACTION TAKEN		S/F MANHOURS	PRIORITY		
<b>SAFETY HAZARD:</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAIVER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL		1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: REQUIRED PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 3-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION			1. MANDATORY 2. ESSENTIAL <b>3. HIGHLY DESIRABLE</b> 4. DESIRABLE		
<b>DISCREPANCY DESCRIPTION: PER SEMAT II UNDERWATER HULL ASSESSMENT: FORWARD EDUCTOR ROOM (5-34-0-Q)</b>							
APPROXIMATELY 75 SQ. FEET OF SURFACE RUST AND PAINT FAILURE. ACCESS TRUNK (4-28-0-T) HAS APPROX. 24 SQ FEET OF RUST ON DECK.							
<b>RECOMMENDED REPAIRS:</b> RECOMMEND SHIPS FORCE CLEAN AFFECTED AREAS TO BARE METAL PRIME AND PAINT. APPROX. 100 SQ FEET							
<b>SSPORT C221 POC: J. BRUCKNER (757) 396-4001 EXT , TPOC: J. LaROCK QED SYSTEMS INC (757) 490-5047</b>							
<b>CSMP SUMMARY:</b> CORROSION IN EDUCTOR SPACE AND ACCESS TRUNK.				TEST# MRC 1102/1			
<b>ROOT CAUSE/AMPLIFICATION:</b> H1				STEP# 1,2,3,4 & 5			
<b>SYSTEM LEVEL IMPACT:</b>							
PART NO.	NOMENCLATURE			QTY	NSN	COST	
1							
2							
3							
4							
5							
6							
FIRST CONTACT <b>ANDERSON</b>	RATE <b>HTC</b>	SECOND CONTACT <b>MILTON</b>		RATE <b>HT1</b>	PHONE		
ASSESSOR / ACT / TECH ID# <b>J. LaROCK/ C.SHORT QED SYSTEMS INC.</b>				TD	TL	LOGISTICIAN	TSP

**USS ARTHUR W RADFORD (DD-968)**  
**FORWARD EDUCTOR ROOM (5-34-0-Q)**



CORROSION IN EDUCTOR SPACE.



**USS ARTHUR W RADFORD (DD-968)**  
**ACCESS TRUNK (4-28-0-T)**



CORROSION ON DECK AT BOTTOM OF TRUNK (4-28-0-T)

# MATERIAL ASSESSMENT FORM

ITEM NUMBER		SHIP <b>USS A W RADFORD (DDG-968)</b>					
SYSTEM SHELL & SUPPORTING STRUCTURE 110		ESWS 11011	EIC A100	APL X-SYSTEMS	RIN N/L		
EQUIPMENT NAME HULL STRUCTURE 1102XY		IDENT/SERIAL N/A		LOCATION 3-426-1-E	WORK CENTER EMO2	JSN A123	
EQUIPMENT STATUS		PROBLEM STATUS		CATEGORY		EOC	
1. SAT - SATISFACTORY <b>2. UNSAT - UNSATISFACTORY</b> 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD		1. C - CORRECTED 2. A - AWAITING PARTS <b>3. T - AWAITING TECH ASSIST*</b> 4. S - SHIP'S FORCE *UNCORRECTED PROBLEMS		1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY <b>3. H - HARDWARE</b>		4. D - DOWN 5. L - LIMITED  .9	
TYPE AVAILABILITY	WHEN TO BE ACCOMPLISHED	STATUS		CAUSE	DEFERRAL REASON		
<b>1. DEPOT</b>  2. IMA  3. TECH ASSIST  4. SHIP'S FORCE  5. SFWL	1. IMMEDIATELY  2. PRIOR TO NEXT UNDERWAY  <b>3. PIROR TO NEXT DEPLOYMENT</b>  4. DURING POST DEPLOYMENT AVAILABILITY	<b>1. OPERATIONAL</b>  2. NON-OPERATIONAL  3. REDUCED CAPABILITY  4. NOT APPLICABLE		1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN <b>7. NORMAL WEAR AND TEAR</b> 0. NOT APPLICABLE	1. S/F BACKLOG/OPERATIONAL PRIORITY 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE IN THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING <b>6. LACK OF FACILITIES/CAPABILITIES</b> 7. NOT AUTHORIZED FOR S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 0. OTHER OR NOT APPLICABLE		
MAN HRS EXPENDED 2	MAN HRS REMAINING 400	COMPLETED ACTION TAKEN		S/F MANHOURS	PRIORITY		
<b>SAFETY HAZARD:</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAIVER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL		1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: REQUIRED PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 3-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION			1. MANDATORY 2. ESSENTIAL <b>3. HIGHLY DESIRABLE</b> 4. DESIRABLE		
<b>DISCREPANCY DESCRIPTION: PER SEMAT II UNDERWATER HULL ASSESSMENT:</b>							
NO.3 GAS TURBINE GENERATOR ROOM (3-426-1-E)							
FIRST STRINGER FROM MARGIN PLATE IS SEVERELY DETERIORATED FROM BHD (426) TO WEB FRAME (440)							
<b>RECOMMENDED REPAIRS:</b>							
RECOMMEND REPAIR ACTIVITY: CUT OUT AND REPLACE APPROXIMATELY 24 LINEAR FT OF (10X4 T-BEAM) PRIME AND PAINT							
AREAS DISTURBED BY REPAIRS.							
.							
<b>SSPORT C221 POC: J. BRUCKNER (757) 396-4001 TPOC: J. LaROCK QED SYSTEMS INC. (757) 490-5047</b>							
<b>CSMP SUMMARY:</b>					<b>TEST#</b>		
FIRST STRINGER FROM MARGIN PLATE IS SEVERELY DETERIORATED.					MRC 1102/1		
<b>ROOT CAUSE/AMPLIFICATION:</b>					<b>STEP#</b>		
H1					1,2,3,4 & 5		
<b>SYSTEM LEVEL IMPACT:</b>							
PART NO.	NOMEMCLATURE			QTY	NSN	COST	
1							
2							
3							
4							
5							
6							
FIRST CONTACT ANDERSON	RATE HTC	SECOND CONTACT MILTON		RATE HT1	PHONE		
ASSESSOR / ACT / TECH ID#			TD	TL	LOGISTICIAN	TSP	
J. LaROCK/ T. WHITMORE QED SYSTEMS INC.							

**USS ARTHUR W RADFORD (DD-968)**  
**NO. 3 GAS TURBINE GENERATOR ROOM (3-426-1-E)**

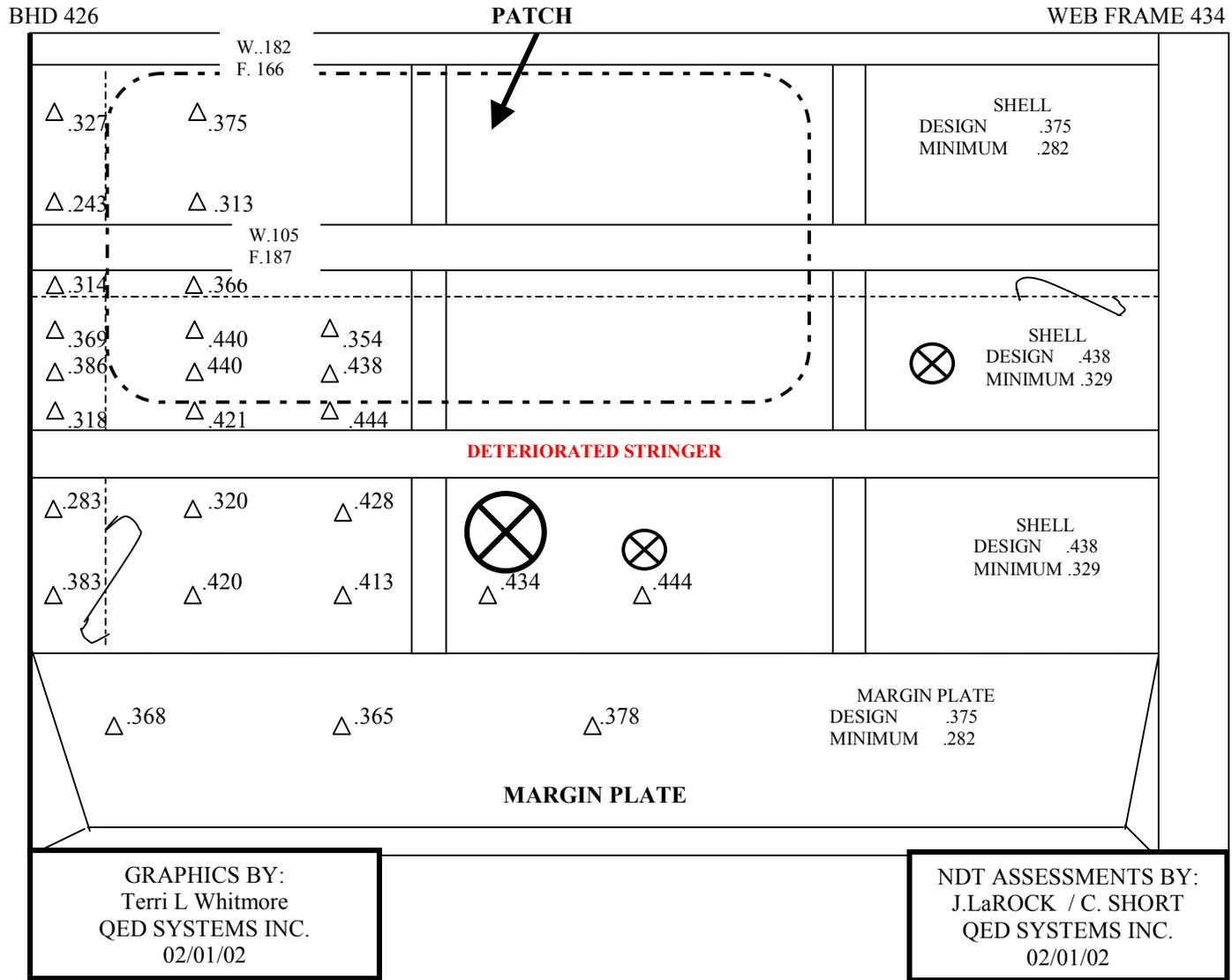


FIRST STRINGER FROM MARGIN PLATE AT BHD (426) IS HOLED.  
ENTIRE STRINGER FROM BHD (426) TO WEB FRAME (440) IS SEVERELY DETERIORATED  
THIS IS A HIGH CORROSION AREA ON THE (DD-963) CLASS

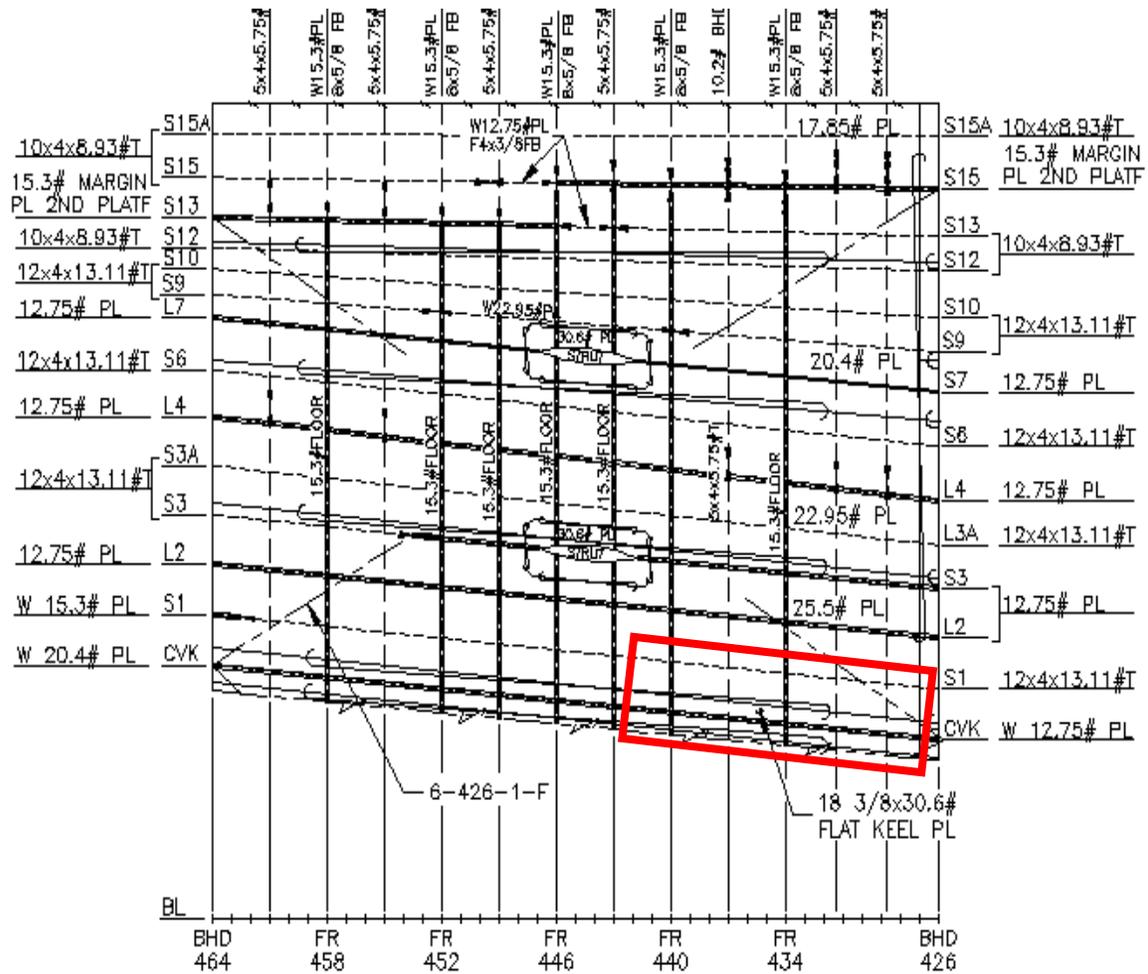


FIRST STRINGER FROM MARGIN PLATE FWD OF WEB FRAME (334)

**USS ARTHUR W RADFORD (DD-968)**  
**NO. 3 GAS TURBINE GENERATOR ROOM (3-426-1-E)**  
**LOWER LEVEL**



**USS ARTHUR W RADFORD (DD-968)**  
**NO. 3 GAS TURBINE GENERATOR ROOM (3-426-1-E)**  
**LOWER LEVEL**



RED BOX INDICATES AREA WHERE CORROSION WAS FOUND.

# MATERIAL ASSESSMENT FORM

ITEM NUMBER		SHIP <b>USS A W RADFORD (DD-968)</b>			
SYSTEM SHELL & SUPPORTING STRUCTURE 110	ESWBS 11011	EIC A100	APL X-SYSTEMS	RIN N/L	
EQUIPMENT NAME HULL STRUCTURE 1102XY	IDENT/SERIAL N/A	LOCATION 3-426-1-E	WORK CENTER ERO4	JSN A012	
EQUIPMENT STATUS	PROBLEM STATUS	CATEGORY			EOC
1. SAT - SATISFACTORY <b>2. UNSAT - UNSATISFACTORY</b> 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD	1. C - CORRECTED 2. A - AWAITING PARTS 3. T - AWAITING TECH ASSIST* <b>4.S - SHIP'S FORCE</b> *UNCORRECTED PROBLEMS	1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY <b>3. H - HARDWARE</b>			4. D - DOWN 5. L - LIMITED  .9
TYPE AVAILABILITY	WHEN TO BE ACCOMPLISHED	STATUS	CAUSE	DEFERRAL REASON	
1. DEPOT 2. IMA 3. TECH ASSIST <b>4. SHIP'S FORCE</b> 5. SFWL	1. IMMEDIATELY  2. PRIOR TO NEXT UNDERWAY  <b>3. PIROR TO NEXT DEPLOYMENT</b>  4. DURING POST DEPLOYMENT AVAILABILITY	<b>1. OPERATIONAL</b>  2. NON-OPERATIONAL  3. REDUCED CAPABILITY  4. NOT APPLICABLE	1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN <b>7. NORMAL WEAR AND TEAR</b> 8. NOT APPLICABLE	<b>1. S/F BACKLOG/OPERATIONAL PRIORITY</b> 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE IN THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING 6. LACK OF FACILITIES/CAPABILITIES 7. NOT AUTHORIZED FOR S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 10. OTHER OR NOT APPLICABLE	
MAN HRS EXPENDED 1	MAN HRS REMAINING 100	COMPLETED ACTION TAKEN		S/F MANHOURS	PRIORITY
<b>SAFETY HAZARD:</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAVIER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL		1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: REQUIRED PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 3-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION			1. MANDATORY 2. ESSENTIAL <b>3. HIGHLY DESIRABLE</b> 4. DESIRABLE
<b>DISCREPANCY DESCRIPTION: PER SEMAT II UNDERWATER HULL ASSESSMENT:</b>					
NO. 3 GAS TURBINE GENERATOR ROOM (3-426-1-E)					
UPPER LEVEL. CORROSION ON HORIZONTAL GIRDER AT UPPER DECK LEVEL AND FIRST STRINGER ABOVE. APPROXIMATELY 100 SF OF RUST AND HEAVY PAINT SEPARATION.					
<b>RECOMMENDED REPAIRS:</b> RECOMMEND SHIPS FORCE CLEAN ENTIRE AREA TO BARE METAL, PRIME AND PAINT APPROXIMATELY 100 SF					
<b>SSPORT C221 POC: J. BRUCKNER (757) 396-4001 EXT , TPOC: J. LaROCK QED SYSTEMS INC (757) 490-5047</b>					
<b>CSMP SUMMARY:</b> CORROSION ON UPPER LEVEL AT SHELL				TEST# MRC 1102/1	
<b>ROOT CAUSE/AMPLIFICATION:</b> H1				STEP# 1,2,3,4 & 5	
<b>SYSTEM LEVEL IMPACT:</b>					
PART NO.	NOMENCLATURE		QTY	NSN	COST
1					
2					
3					
4					
5					
6					
FIRST CONTACT <b>ANDERSON</b>	RATE HTC	SECOND CONTACT <b>MILTON</b>	RATE <b>HT1</b>	PHONE	
ASSESSOR / ACT / TECH ID# <b>J. LaROCK/ T. WHITMORE QED SYSTEMS INC.</b>			TD	LOGISTICIAN	TSP

**USS ARTHUR W RADFORD (DD-968)**  
**NO. 3 GAS TURBINE GENERATOR ROOM (3-426-1-E)**  
**UPPER LEVEL**



CORROSION ON HORIZONTAL GIRDER BETWEEN BHD (426) AND WEB FRAME (434)  
AT UPPER LEVEL DECK GRATING



CORROSION ON 1<sup>ST</sup> STRINGER FROM DECK PLATE AND SHELL LOOKING FWD AT BHD (426)

# MATERIAL ASSESSMENT FORM

ITEM NUMBER		SHIP <b>USS A W RADFORD (DD-968)</b>				
SYSTEM SHELL & SUPPORTING STRUCTURE 110		ESWBS 11011	EIC A100	APL X-SYSTEMS	RIN N/L	
EQUIPMENT NAME HULL STRUCTURE 1102XY		IDENT/SERIAL N/A	LOCATION 3-470-2-L	WORK CENTER ERO4	JSN A009	
EQUIPMENT STATUS		PROBLEM STATUS		CATEGORY		EOC
1. SAT - SATISFACTORY <b>2. UNSAT - UNSATISFACTORY</b> 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD		1. C - CORRECTED 2. A - AWAITING PARTS 3. T - AWAITING TECH ASSIST* <b>4.S - SHIP'S FORCE</b> *UNCORRECTED PROBLEMS		1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY <b>3. H - HARDWARE</b> 4. D - DOWN 5. L - LIMITED		.9
TYPE AVAILABILITY	WHEN TO BE ACCOMPLISHED	STATUS	CAUSE		DEFERRAL REASON	
1. DEPOT 2. IMA 3. TECH ASSIST <b>4. SHIP'S FORCE</b> 5. SFWL	1. IMMEDIATELY 2. PRIOR TO NEXT UNDERWAY <b>3. PIROR TO NEXT DEPLOYMENT</b> 4. DURING POST DEPLOYMENT AVAILABILITY	<b>1. OPERATIONAL</b> 2. NON-OPERATIONAL 3. REDUCED CAPABILITY 4. NOT APPLICABLE	1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN <b>7. NORMAL WEAR AND TEAR</b> 8. NOT APPLICABLE		<b>1. S/F BACKLOG/OPERATIONAL PRIORITY</b> 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE IN THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING 6. LACK OF FACILITIES/CAPABILITIES 7. NOT AUTHORIZED FOR S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 10. OTHER OR NOT APPLICABLE	
MAN HRS EXPENDED 1	MAN HRS REMAINING 60	COMPLETED ACTION TAKEN		S/F MANHOURS	PRIORITY	
<b>SAFETY HAZARD:</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAVIER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL		1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: REQUIRED PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 3-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION			1. MANDATORY 2. ESSENTIAL <b>3. HIGHLY DESIRABLE</b> 4. DESIRABLE	
<b>DISCREPANCY DESCRIPTION: PER SEMAT II UNDERWATER HULL ASSESSMENT: PASSAGE WAY (3-470-2-L) BILGE</b>						
AREA AFT OF CHEM. WAR. DEF. EQIP. STRM. (6-482-2-A) HAS APPROXIMATELY 30 SF OF CORROSION AND PAINT SEPARATION						
<b>RECOMMENDED REPAIRS:</b>						
RECOMMEND SHIPS FORCE CLEAN ENTIRE AREA TO BARE METAL PRIME AND PAINT APPROXIMATELY 30 SF						
SSPORT C221 POC: J. BRUCKNER (757) 396-4001 EXT , TPOC: J. LaROCK QED SYSTEMS INC (757) 490-5047						
<b>CSMP SUMMARY:</b>					TEST#	
CORROSION IN BILGE					MRC 1102/1	
<b>ROOT CAUSE/AMPLIFICATION:</b>					STEP#	
H1					1,2,3,4 & 5	
<b>SYSTEM LEVEL IMPACT:</b>						
PART NO.	NOMENCLATURE			QTY	NSN	COST
1						
2						
3						
4						
5						
6						
FIRST CONTACT ANDERSON	RATE HTC	SECOND CONTACT MILTON		RATE HT1	PHONE	
ASSESSOR / ACT / TECH ID#				TD	TL	LOGISTICIAN
J. LaROCK/ T. WHITMORE QED SYSTEMS INC.						TSP

**USS ARTHUR W RADFORD (DD-968)**  
**PASSAGE WAY (3-470-2-L)**



CORROSION ON SHELL AFT OF DOOR TO (6-482-2-A) CHEMICAL WARFARE DEFENSE  
EQUIPMENT STOREROOM

# MATERIAL ASSESSMENT FORM

ITEM NUMBER		SHIP <b>USS A W RADFORD (DD-968)</b>			
SYSTEM SHELL & SUPPORTING STRUCTURE 110		ESWBS 11011	EIC A100	APL X-SYSTEMS	RIN N/L
EQUIPMENT NAME HULL STRUCTURE 1102XY		IDENT/SERIAL N/A	LOCATION 2-464-02-L	WORK CENTER ERO4	JSN A010
EQUIPMENT STATUS		PROBLEM STATUS	CATEGORY		EOC
1. SAT - SATISFACTORY <b>2. UNSAT - UNSATISFACTORY</b> 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD		1. C - CORRECTED 2. A - AWAITING PARTS 3. T - AWAITING TECH ASSIST* <b>4.S - SHIP'S FORCE</b> *UNCORRECTED PROBLEMS	1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY <b>3. H - HARDWARE</b> 4. D - DOWN 5. L - LIMITED		.9
TYPE AVAILABILITY	WHEN TO BE ACCOMPLISHED	STATUS	CAUSE	DEFERRAL REASON	
1. DEPOT 2. IMA 3. TECH ASSIST <b>4. SHIP'S FORCE</b> 5. SFWL	1. IMMEDIATELY 2. PRIOR TO NEXT UNDERWAY <b>3. PIROR TO NEXT DEPLOYMENT</b> 4. DURING POST DEPLOYMENT AVAILABILITY	<b>1. OPERATIONAL</b> 2. NON-OPERATIONAL 3. REDUCED CAPABILITY 4. NOT APPLICABLE	1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN <b>7. NORMAL WEAR AND TEAR</b> 8. NOT APPLICABLE	<b>1. S/F BACKLOG/OPERATIONAL PRIORITY</b> 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE IN THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING 6. LACK OF FACILITIES/CAPABILITIES 7. NOT AUTHORIZED FOR S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 10. OTHER OR NOT APPLICABLE	
MAN HRS EXPENDED 1	MAN HRS REMAINING 20	COMPLETED ACTION TAKEN		S/F MANHOURS	PRIORITY
<b>SAFETY HAZARD:</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAVIER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL		1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: REQUIRED PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 3-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION		1. MANDATORY 2. ESSENTIAL <b>3. HIGHLY DESIRABLE</b> 4. DESIRABLE	
<b>DISCREPANCY DESCRIPTION: PER SEMAT II UNDERWATER HULL ASSESSMENT: PASSAGE WAY (2-464-02-L) DECK</b>					
SURROUNDING (WTH 2-504-1) ACCESS TO LOWER REEL STOREROOM HAS HEAVY RUST AND PAINT SEPARATION.					
APPROXIMATELY 10 SF. CAUSED BY WATER LEAKING FROM (WTH) ABOVE DECK.					
<b>RECOMMENDED REPAIRS:</b>					
RECOMMEND SHIPS FORCE CLEAN ENTIRE AREA INCLUDING LOWER PORTIONS OF BHD'S, PRIME AND PAINT					
APPROXIMATELY 10 SF					
<b>SSPORT C221 POC: J. BRUCKNER (757) 396-4001 EXT , TPOC: J. LaROCK QED SYSTEMS INC (757) 490-5047</b>					
<b>CSMP SUMMARY:</b>				TEST#	
CORROSION ON DECK SURROUNDING (WTH 2-504-1)				MRC 1102/1	
<b>ROOT CAUSE/AMPLIFICATION:</b>				STEP#	
H1				1,2,3,4 & 5	
<b>SYSTEM LEVEL IMPACT:</b>					
PART NO.	NOMENCLATURE		QTY	NSN	COST
1					
2					
3					
4					
5					
6					
FIRST CONTACT <b>ANDERSON</b>	RATE <b>HTC</b>	SECOND CONTACT <b>MILTON</b>	RATE <b>HT1</b>	PHONE	
ASSESSOR / ACT / TECH ID# <b>J. LaROCK/ T. WHITMORE QED SYSTEMS INC.</b>			TD	LOGISTICIAN	TSP

**USS ARTHUR W RADFORD (DD-968)**  
**PASSAGE WAY (2-464-02-L)**



CORROSION ON DECK SURROUNDING (WTH 2-504-1) ENTRANCE TO LOWER REEL  
STOREROOM (6-488-3-A)



## DD 963 CLASS STRUCTURAL ASSESSMENT MATRIX

SPACE NUMBER	SPACE ASSESSABLE	LAGGING ON BHD / SHELL	SPACE INSPECTED DURING SEMAT 1	HISTORICAL HOT SPOT	COMMENTS
2½ -10-0-A	N	N	N	N	SPACE NOT ASSESSABLE GAS FREE REQUIRED
2½ -20-0-A	N	N	N	N	SPACE NOT ASSESSABLE GAS FREE REQUIRED
3-28-01-Q	Y	Y	Y	N	SPACE 100% ASSESSABLE
3-58-1-M	Y	Y	Y	N	SPACE 100% ASSESSABLE
3-58-2-M	Y	Y	Y	N	SPACE 100% ASSESSABLE
3-62-01-M	Y	Y	Y	N	SPACE 100% ASSESSABLE
3-76-1-M	Y	Y	Y	N	SPACE 100% ASSESSABLE
3-76-2-M	Y	Y	Y	N	SPACE 100% ASSESSABLE
3-94-1-Q	N	N	N	N	GAS FREE REQUIRED
3-94-2-Q	N	N	N	N	GAS FREE REQUIRED

## DD 963 CLASS STRUCTURAL ASSESSMENT MATRIX

SPACE NUMBER	SPACE ASSESSABLE	LAGGING ON BHD / SHELL	SPACE INSPECTED DURING SEMAT 1	HISTORICAL HOT SPOTS	COMMENTS
3-127-0-Q	Y	Y	Y	N	SPACE 100% ASSESSABLE
3-127-2-L	Y	Y	Y	N	SPACE 100% ASSESSABLE
3-138-3-L	Y	Y	Y	N	SPACE 100% ASSESSABLE
3-138-6-L	Y	Y	Y	N	SPACE 100% ASSESSABLE
3-146-0-L	Y	Y	Y	N	SPACE 100% ASSESSABLE
3-260-01-A	Y	Y	Y	N	SPACE 100% ASSESSABLE
3-346-02-L	Y	Y	Y	N	SPACE 100% ASSESSABLE
3-382-2-A	Y	Y	Y	N	SPACE 100% ASSESSABLE
3-382-1-L	Y	Y	Y	N	SPACE 100% ASSESSABLE
3-394-1-L	Y	Y	Y	N	SPACE 100% ASSESSABLE

## DD 963 CLASS STRUCTURAL ASSESSMENT MATRIX

SPACE NUMBER	SPACE ASSESSABLE	LAGGING ON BHD / SHELL	SPACE INSPECTED DURING SEMAT 1	HISTORICAL HOT SPOTS	COMMENTS
3-426-1-E	Y	Y	Y	STBD SHELL AND BILGE AREA	SPACE 100% ASSESSABLE
3-426-2-A	Y	Y	Y	N	SPACE 100% ASSESSABLE
3-437-2-M	Y	Y	Y	N	SPACE 100% ASSESSABLE
3½-464-0-T	Y	N	Y	N	SPACE 100% ASSESSABLE
3-482-0-M	Y	Y	Y	N	SPACE 100 % ASSESSABLE
3-491-1-M	Y	Y	Y	N	SPACE 100 % ASSESSABLE
3-491-2-M	Y	Y	Y	N	SPACE 100% ASSESSABLE
3-494-0-M	Y	Y	Y	N	SPACE 100% ASSESSABLE
4-28-0-T	Y	N	Y	N	SPACE 100% ASSESSABLE
4-34-0-Q	Y	Y	Y	N	SPACE 100% ASSESSABLE
4-58-0-Q	Y	Y	Y	N	SPACE 100% ASSESSABLE

## DD 963 CLASS STRUCTURAL ASSESSMENT MATRIX

SPACE NUMBER	SPACE ASSESSABLE	LAGGING ON BHD / SHELL	SPACE INSPECTED DURING SEMAT 1	HISTORICAL HOT SPOTS	COMMENTS
5-E-0-V	N	N	N	N	GAS FREE REQUIRED
5-34-0-Q	Y	Y	Y	ENTIRE BILGE AREA	SPACE 100% ASSESSABLE
5-94-0-C	Y	Y	Y	N	SPACE 100% ASSESSABLE
5-118-0-C	Y	Y	Y	N	SPACE 100% ASSESSABLE
5-127-0-L	Y	Y	Y	N	SPACE 100% ASSESSABLE
5-138-0-Q	Y	Y	Y	FOUNDATIONS IN BILGE AREA, PITSWORD FR (144) PORT SIDE	SPACE 100% ASSESSABLE
5-154-3-V	N	N	N	N	GAS FREE REQUIRED
5-154-4-V	N	N	N	N	GAS FREE REQUIRED
5-174-0-E	Y	Y	Y	TANK TOP IN WAY OF ACOUSTIC TILES. LL STBD SIDE STIFFNERS FROM TANK TOP UP TO BOTTOM SIDE OF U/L GRATING.	SPACE 100% ASSESSABLE

## DD 963 CLASS STRUCTURAL ASSESSMENT MATRIX

SPACE NUMBER	SPACE ASSESSABLE	LAGGING ON BHD / SHELL	SPACE INSPECTED DURING SEMAT 1	HISTORICAL HOT SPOTS	COMMENTS
5-174-0-E	Y	Y	Y	EQUIPMENT FOUNDATIONS IN BILGE AREA. JOINT BETWEEN TANK TOP AND SHELL. LOWER PORTION OF ESCAPE TRUNK BHDS	SPACE 100% ASSESSABLE
5-220-0-E	Y	Y	Y	L/L TANK TOP. U/L UNDER A/C UNITS. EQUIPMENT FOUNDATIONS IN BILGE AREA. LOWER PORTION OF ESCAPE TRUNK BHDS	SPACE 100% ASSESSABLE
5-260-01-E	Y	Y	Y	LOWER PORTION OF ESCAPE TRUNK BHDS. FOUNDATIONS IN BILGE AREA. ENTIRE TANK TOP IN BILGE AREA. JOINT BETWEEN TANK TOP AND SHELL	SPACE 100% ASSESSABLE
5-300-0-E	Y	Y	Y	L/L PORT SIDE STIFFNERS FROM THE TANK TOP UP TO THE BOTTOM SIDE OF THE U/L GRATING. TANK TOP IN WAY OF ACOUSTIC TILES. EQUIPMENT FOUNDATIONS IN BILGE AREA. JOINT BETWEEN TANK TOP AND SHELL. LOWER PORTION OF ESCAPE TRUNK BHDS	SPACE 100% ASSESSABLE

## DD 963 CLASS STRUCTURAL ASSESSMENT MATRIX

SPACE NUMBER	SPACE ASSESSABLE	LAGGING ON BHD / SHELL	SPACE INSPECTED DURING SEMAT 1	HISTORICAL HOT SPOTS	COMMENTS
6-8-0-T	N	N	N	N	UNASSESSABLE
6½-11-0-V	N	N	N	N	GAS FREE REQUIRED
6-28-0-T	Y	N	Y	N	100% ASSESSABLE
6-34-0-V	N	N	N	N	GAS FREE REQUIRED
6-201-2-V	N	N	N	N	GAS FREE REQUIRED
6-300-3-V	N	N	N	N	GAS FREE REQUIRED
6-346-0-Q	Y	Y	Y	PAINT FAILURE CORROSION AND SATURATED INSULATION IN THE PARTIALLY ENCLOSED AREAS OUTBOARD OF SHAFTS	AREA 100% ASSESSABLE
6-379-2-V	N	N	N	N	GAS FREE REQUIRED
6-464-3-Q	Y	Y	Y	SHELL AND STIFFNERS AROUND H-PAC OVBD DISCHARGE	AREA 100% ASSESSABLE

## DD 963 CLASS STRUCTURAL ASSESSMENT MATRIX

SPACE NUMBER	SPACE ASSESSABLE	LAGGING ON BHD / SHELL	SPACE INSPECTED DURING SEMAT 1	HISTORICAL HOT SPOTS	COMMENTS
6-464-4-A	Y	Y	Y	N	AREA 100% ASSESSABLE
6-476-1-A	Y	Y	Y	N	AREA 100% ASSESSABLE
6-476-2-A	Y	Y	Y	N	AREA 100% ASSESSABLE
6-482-2-A	Y	Y	Y	N	AREA 100% ASSESSABLE
6-488-3-A	Y	Y	Y	N	AREA 100% ASSESSABLE
6-506-0-E	Y	Y	Y	N	AREA 100% ASSESSABLE