

R 170120Z APR 08 PSN 633647H29
FM PRESINSURV NORFOLK VA
TO RHMFIUU/COMDT COGARD WASHINGTON DC
INFO RHMFIUU/COMPACAREA COGARD ALAMEDA CA
RHMFIUU/COMCOGARD MLC PAC ALAMEDA CA
RHMFIUU/CNO WASHINGTON DC
RUCBCLF/COMUSFLTFORCOM NORFOLK VA
RHMFIUU/COMNAVSEASYS COM WASHINGTON DC
RHMFIUU/PEO SHIPS WASHINGTON DC
RHMFIUU/COMSPAWARSYS COM SAN DIEGO CA
RHMFIUU/NAVAIRWARCENACDIV LAKEHURST NJ
RHMFIUU/NAVSURFWARCEN SHIPSYSENGSTA PHILADELPHIA PA
RHMFIUU/COMOPTEVFOR NORFOLK VA
RHMFIUU/COMNAVSAFECEN NORFOLK VA
RHMFIUU/SUPSHIP GULF COAST MS
RHMFIUU/COMRMC NORFOLK VA
RHMFIUU/MIDLANT RMC NORFOLK VA
RHMFIUU/SOUTHWEST RMC SAN DIEGO CA
RUWDQAA/USCGC BERTHOLF
RHMFIUU/PRESINSURV NORFOLK VA

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UNCLAS

MSGID/GENADMIN,USMTF,2007/PRESINSURV NORFOLK VA//
SUBJ/INSURV REPORT FOR UNITED STATES COAST GUARD CUTTER (USCGC)
BERTHOLF (WMSL 750) ACCEPTANCE TRIAL (AT)//
REF/A/DOC/USCG AND USN MOU/26SEP2003//
REF/B/DOC/OPNAVINST 4700.8H/05DEC1990//
REF/C/DOC/INSURVINST 4730.1F/28FEB2008//
REF/D/DOC/USCG MEMORANDUM/11DEC2007//
NARR/ REF A IS THE MEMORANDUM OF UNDERSTANDING (MOU) BETWEEN THE
UNITED STATES COAST GUARD (USCG) AND THE UNITED STATES NAVY (USN)
CONCERNING THE USE OF THE NAVY BOARD OF INSPECTION AND SURVEY
(INSURV) TO ASSIST WITH USCG INTEGRATED DEEPWATER SYSTEM (IDS)
SURFACE ASSET TRIALS. REF B IS NAVY OPERATIONS POLICY ON TRIALS,
ACCEPTANCE, COMMISSIONING, FITTING OUT, SHAKE DOWN, AND POST-SHAKE
DOWN AVAILABILITY OF U.S. NAVAL SHIPS UNDERGOING CONSTRUCTION OR
CONVERSION. REF C IS INSURV POLICY FOR CONDUCTING MATERIAL
INSPECTIONS OF NAVY SURFACE SHIPS. REF D IS THE PROSPECTIVE
COMMANDING OFFICER (PCO), USCGC BERTHOLF (WMSL-750) LETTER OF
CONCERNS (LOC) ADDRESSING ACCEPTANCE TRIAL CONCERNS IN BERTHOLF.//
RMKS/1. THE BOARD OF INSPECTION AND SURVEY CONDUCTED AN ACCEPTANCE
TRIAL (AT) IN USCGC BERTHOLF (WMSL 750) AT PASCAGOULA, MS, DURING THE
PERIOD 07-11 APR 08. INSURV OBSERVED SHIPBOARD FIRE SUPPRESSION
WATER MIST SYSTEM ACTIVATION/COVERAGE CHECKS DURING 25-27 FEB 08.
A. USCGC BERTHOLF, LEAD SHIP IN THE NATIONAL SECURITY CUTTER (NSC)
SHIP CLASS, WAS FOUND TO BE A UNIQUE AND VERY CAPABLE PLATFORM WITH
GREAT POTENTIAL FOR FUTURE SERVICE IN THE USCG. THE BOARD RECOMMENDS
THE USCG COMMANDANT AUTHORIZE ACCEPTANCE AND DELIVERY OF THE SHIP
PROVIDED ALL STARRED DEFICIENCIES HAVE BEEN CORRECTED OR WAIVED PRIOR
TO ACCEPTANCE. 8 SINGLE STARRED ITEMS AND 78 PART ONE SAFETY
DEFICIENCIES EXISTED AND A TOTAL OF 2,816 ELECTRONIC TRIAL CARDS
(ETCS) WERE SCRIBED BY THE CLOSE OF THE TRIAL. FINAL ETC COUNT

INCLUDED 1,360 ROLL-OVER CARDS FROM THE PREVIOUS MACHINERY AND BUILDER TRIALS, A TESTAMENT TO THE SUPERB QUALITY ASSURANCE OVERSIGHT PROVIDED DURING SHIP CONSTRUCTION AND TESTING BY THE USCG PROJECT MANAGERS REPRESENTATIVE OFFICE (PMRO) AND THE NAVY SUPERVISOR OF SHIPBUILDING (SOS) GULF COAST.

B. THE BUILDER'S TRIAL COMPLETED 09 FEB 2008. SHIP DELIVERY TO THE USCG IS SCHEDULED FOR 30 APR 08. SHIP SAIL AWAY WILL OCCUR ON OR ABOUT 13 JUN 2008.

2. SENIOR MEMBER COMMENTS:

A. REF A CODIFIED USCG AND USN INTENT FOR INSURV TRIAL SUPPORT IN SURFACE IDS ASSETS. THE PRESIDENT, BOARD OF INSPECTION AND SURVEY CONDUCTS NAVY TRIALS AS AN INDEPENDENT VERIFICATION OF A SHIP'S READINESS FOR ACCEPTANCE/DELIVERY. INSURV ASSISTED THE USCG IN DETERMINING WHETHER NSC 1 SYSTEMS (AND BUILDER RESPONSIBLE EQUIPMENT) OPERATED SATISFACTORILY, AND IF ANY MATERIAL CONDITIONS LIMITED THE OPERATED SATISFACTORILY, AND IF ANY MATERIAL CONDITIONS LIMITED THE ABILITY OF THE SHIP TO CARRY OUT ASSIGNED MISSIONS. IN ORDER TO EVALUATE THE SHIP'S COMPLETENESS FOR ACCEPTANCE, THE BOARD USED INSPECTION CRITERIA FROM GENERAL SPECIFICATIONS FOR SHIP OVERHAUL, NAVAL SHIPS TECHNICAL MANUALS (NSTM - FOR USN SYSTEMS), ORIGINAL EQUIPMENT MANUFACTURER (OEM) TECHNICAL MANUALS, NSC 1 SHIP PERFORMANCE SPECIFICATIONS (SPS), SURFACE TECHNICAL SPECIFICATIONS (T-SPECS), SURFACE CUTTER CERTIFICATION MATRIX, AND OTHER APPLICABLE CONTRACT REQUIREMENTS. INSURV COMPLETED A THOROUGH MATERIAL EVALUATION OF THE SHIP ASSESSING COMPLIANCE TO MATERIAL CONDITION STANDARDS PER USCG REGULATIONS, CODE OF FEDERAL REGULATIONS (CFR), NAVAL AIR CERTIFICATION REQUIREMENTS, AMERICAN BUREAU OF SHIPPING (ABS) CERTIFICATION GUIDELINES, SAFETY OF LIFE AT SEA (SOLAS) RULES, MARINE INDUSTRY STANDARDS, AND NAVY SURFACE SHIP INSPECTION CRITERIA IDENTIFIED IN REFS B AND C.

B. THE IDS PROGRAM EXECUTIVE OFFICE, NSC PROJECT MANAGER, PMRO GULF COAST, SOS GULF COAST, NORTHROP GRUMMAN SHIP BUILDING (NGSB), AND SHIP'S FORCE, ALL TEAMED TO SAFELY PRESENT THE SHIP TO INSURV. ONE ABS SURVEYOR WAS PRESENT DURING THE TRIAL.

C. THE SHIP CLEARED FOR UNDERWAY OPERATIONS AT 1745 ON DAY TWO. THE BUILDER WAS CHALLENGED IN TRANSITIONING TO THE UNDERWAY PHASE DUE TO A CASUALTY TO THE MACHINERY CONTROL AND MONITORING SYSTEM (MCMS). SAILING WAS DELAYED APPROXIMATELY 2 HOURS TO TROUBLESHOOT MCMS STABILITY ISSUES AND ALTHOUGH THE CASUALTY APPEARED TO BE CORRECTED, CASUALTY SYSTEM DEGRADATIONS CONTINUED DURING THE UNDERWAY PHASE. THE FULL POWER RUN WAS CONDUCTED WITH THE MCMS OPERATING IN A WORK AROUND CONFIGURATION WHICH DEGRADED THE FULL POWER RUN SCORE (SEE THE MATERIAL PROPULSION SECTION OF THIS REPORT FOR DETAILS). THE SHIP PERFORMED WELL DURING DYNAMIC MANEUVERING DEMONSTRATIONS. THE QUICK REVERSAL AHEAD AND ASTERN, AND HIGH SPEED STEERING CHECKS WERE GRADED SATISFACTORY.

D. BERTHOLF WAS A NEAR COMPLETE SHIP. 393 OF 393 SPACES (INCLUDING WEATHER DECK AREAS AND THE HULL) WERE BUILDER AND GOVERNMENT INSPECTION COMPLETE. 195 OF 393 SPACES REQUIRE FINAL GOVERNMENT ACCEPTANCE PENDING COMPLETION OF DEFERRED WORK. IN GENERAL, BUILDER FIT, FINISH, AND CLEANLINESS ON THE MAIN DECK AND ABOVE WERE VERY GOOD AND IN MANY AREAS MET OR EXCEEDED NEW CONSTRUCTION TRIAL

EXPECTATIONS. FIT, FINISH, CLEANLINESS, AND STORAGE ON AND/OR BELOW THE SECOND DECK REQUIRED IMPROVEMENT IN: VARIOUS OUTLYING SPACES, HARD TO REACH POCKETS (BILGES ETC), AND THE MAIN MACHINERY ROOMS WHICH REQUIRED ADDITIONAL CLEANING. MESSING, BERTHING, SANITARY SPACES, FOOD PREPARATION AREAS, MEDICAL, SHIP'S GYM, AND SELF-SERVICE LAUNDRY ARE CAPABLE OF SUPPORTING CREW MOVE ABOARD WHICH IS SCHEDULED TO OCCUR ON OR ABOUT 01 MAY 2008.

E. BY REFS C AND D, THE PCO LOC TO PRESINSURV IDENTIFIED MATERIAL CONCERNS WITH CONSTRUCTION AND ACCEPTANCE OF BERTHOLF THAT MAY IMPACT THE ABILITY OF THE SHIP TO PERFORM PRIMARY AND SECONDARY MISSIONS. LOC SIGNIFICANT MATERIAL ISSUES, AND OTHER CONCERNS AND RECOMMENDATIONS IDENTIFIED BY INSURV, ARE ADDRESSED IN THIS REPORT. SUBSEQUENT TO PLANNED DELIVERY, THE SHIPBUILDER MATERIAL WARRANTY PERIOD FOR USCGC BERTHOLF EXPIRES ON OR ABOUT 30 APR 2009.

F. THE UNSTABLE SPERRY MACHINERY CONTROL MONITORING SYSTEM (MCMS) AND DEGRADED MTU PROPULSION SYSTEM INTERFACE CAUSED SYSTEM CRASHES, CONTROL AND MONITORING CONSOLE LOCK-UPS, AND RESULTED IN SYSTEMS BEING OPERATED IN AN INDEPENDENT WORK-AROUND CONFIGURATION DURING THE UNDERWAY PHASE. THIS CASUALTY REMOVED NORMAL PROPULSION MONITORING FROM THE MCMS INCLUDING PROPULSION DATA RECORDING FUNCTIONS. MCMS, A BACKBONE SYSTEM INTENDED TO REDUCE WATCH STANDERS, PROVIDES AUTOMATION IN THE OPERATION OF MAIN PROPULSION, BALLAST/DE-BALLAST, AUTOMATION IN THE OPERATION OF MAIN PROPULSION, BALLAST/DE-BALLAST, AFFF, FIREMAIN, CMWDS, ELECTRICAL DISTRIBUTION, POTABLE WATER, AND THE ENHANCED FIRE AND FLOODING DETECTION SYSTEMS. MCMS, A TROUBLED SYSTEM WITH REDUCED OPERATIONAL AVAILABILITY, POOR STABILITY, AND SYSTEM INTERFACE UNRELIABILITY, REQUIRES IMMEDIATE IMPROVEMENT (MCMS STABILITY IS A STARRED DEFICIENCY).

G. THE MACHINERY CONTROL SYSTEM FAILED TO MEET THE ALARM AND INDICATION REQUIREMENT ASSOCIATED WITH THE 60 HZ SWITCHBOARD 24 VOLT BATTERY BACKUP SYSTEM (UPS). SPECIFICALLY, THE FOLLOWING ALARM AND INDICATIONS WERE NOT PROVIDED: PLC IS ON BATTERY POWER, BATTERY IS LOW, AND SYSTEM FAULT.

H. SOFTWARE ISSUES WITH THE MCMS INHIBITED THE COMPLETION OF THE BALLAST/DEWATERING DEMONSTRATION. FURTHER MCMS ISSUES INADVERTENTLY ENERGIZED THE FWD AFFF STATION WHILE TESTING AFFF IN THE INCINERATOR ROOM. PMRO REPORTED THAT THE MOTOR OPERATED VALVE (MOV) FOR THE JP-5 AFFF OVERHEAD SPRINKLING OPENED TWICE, FLOODING THE JP-5 PUMP ROOM. DURING THE AT, INSURV OBSERVED THE INADVERTENT, UN-COMMANDED, ACTIVATION OF THE FIRE SUPPRESSION WATER MIST SYSTEM IN THE AUXILIARY MACHINERY ROOM (AMR) AND THE FORWARD MAIN MACHINERY ROOM (FMMR).

I. LINE SHAFT BEARING (LSB) MATERIAL READINESS WAS SERIOUSLY DEGRADED AND PLACED SUSTAINED OPERATIONS AT SEA IN JEOPARDY. 4 OF 4 LSBS LEAKED LUBE OIL (LO), 2 LSBS ON THE STBD SHAFT REQUIRED LO REPLENISHMENT DURING THE UNDERWAY PHASE. 2 OF 4 LSBS HAD SEA WATER (SW) CONTAMINATION WITH BOTTOM, SEDIMENT AND WATER (BS&W) TEST RESULTS INDICATING CONTAMINATION AT OR ABOVE THRESHOLDS, REQUIRING IMMEDIATE CORRECTIVE ACTION. OPEN AND INSPECT OF THE LSBS REVEALED: LO SEAL DISTORTION ON ALL LSBS (ALL LSB FWD AND AFT SEALS HAD BEEN REPLACED NEW PRIOR TO THE AT WHICH INDICATES POSSIBLE LSB MIS-ALIGNMENT CONCERNS), PACKING GLUE WAS NOT REMOVED FROM THE LO SEALS, PROPULSION SHAFTS WERE SCORED WHERE LSB JOURNALS MADE CONTACT,

AND SW CONTAMINATION WAS PRESENT IN THE STBD SHAFT LSB LO SUMPS (1 STARRED CARD ADDRESSES DEFICIENCIES OBSERVED FOR ALL 4 LSBS).

J. THE ELEVATOR ACCESS HAD SAFETY DEFICIENCIES. NO SAFETY DEVICE OR INTERLOCK WAS INSTALLED IN THE CARGO ELEVATOR DOORS TO PREVENT SOMEONE FROM OPENING THE DOOR AND FALLING INTO THE ELEVATOR SHAFT. LIMIT SWITCH DESIGN ON THE ELEVATOR ACCESS DOORS IS INADEQUATE. EACH ACCESS DOOR ASSEMBLY CONSISTS OF A 2 PART DOUBLE JOINER DOOR. LIMIT SWITCH IS ACTUATED BY ONLY 1 OF THE 2 DOOR SECTIONS. IT IS POSSIBLE TO BYPASS THE INTERLOCK AND OPERATE THE ELEVATOR WITH 1 OF THE 2 DOORS OPEN, PRESENTING A PERSONNEL SAFETY HAZARD.

K. MEDIUM PRESSURE AIR COMPRESSORS (MPACS) AND DEHYDRATOR RUN HOURS WERE EXCESSIVE FOR A NEW SHIP. THE DEHYDRATOR HIGH DEMAND FOR AIR REQUIRES 1 OF 2 MPACS TO RUN CONTINUOUSLY, WHEN NORMAL OPERATION WOULD BE TO OPERATE ON A DUTY CYCLE (ON - OFF) WITH 1 MACHINE IN LEAD AND THE OTHER IN LAG. THE PRESENCE OF OIL IN THE AIR SYSTEM WAS DETECTED AND THE ELECTRONICS DRY AIR MEMBRANE DEHYDRATOR FAILED DEW POINT CHECKS. THE MANUAL DRAIN VALVE OF THE DEHYDRATOR WAS EXPELLING OIL. THE DRY AIR MEMBRANE IS POSSIBLY DAMAGED AND MAY REQUIRE REPLACEMENT.

L. USCG ENGINEERING LOGISTICS CENTER ELECTRICAL PERSONNEL REPORTED MULTIPLE LOSSES OF ELECTRICAL POWER BECAUSE OF WATCH STANDERS INADVERTENTLY BRUSHING AGAINST SWBD CONTROLS. INSURV WITNESSED A LOSS OF SHIP'S POWER ON 3 OCCASIONS DURING THE TRIAL, SUPPOSEDLY ATTRIBUTED TO INADVERTENT TRIPPING AS STATED ABOVE. EACH SWBD FRONT SHOULD BE ASSESSED FOR APPROPRIATE PROTECTION AGAINST INADVERTENT OPERATION OF CONTROLS.

M. THE SHIP'S BOAT HOIST CONTROLLERS CONTAINED RECENT DESIGN ADDITIONS WHICH INCLUDE VARIABLE SPEED DRIVE UNITS. UNITS ARE ISOLATED FROM THE SHIP'S 60 HZ POWER SUPPLY BY THE ADDITION OF LARGE TRANSFORMERS. THIS SYSTEM HAS UNDERGONE SIGNIFICANT DESIGN CHANGES THROUGHOUT DEVELOPMENT. THE BOARD RECOMMENDS A POWER STUDY BE CONDUCTED TO EVALUATE THE ABILITY OF ISOLATION TRANSFORMERS TO ADEQUATELY REMOVE UNDESIRABLE HARMONICS CREATED BY THE VARIABLE SPEED DRIVES FROM THE SHIP'S 60 HZ DISTRIBUTION SYSTEM.

N. THE SHIP WAS FITTED OUT WITH ONE 400 HZ CONVERTER DEDICATED TO THE SHIP'S NAVIGATION AND COMBAT SYSTEMS. RECOMMEND A SECOND SOURCE OF 400 HZ POWER BE PROVIDED TO THESE VITAL SYSTEMS TO ENHANCE MISSION SUCCESS, SHOULD THE SOLE 400 HZ CONVERTER EXPERIENCE A CASUALTY.

O. DURING FIRE SUPPRESSION WATER MIST COVERAGE CHECKS IN FEB 08, COVERAGE IN THE AMR, FMMR, AND AMMR WERE INADEQUATE DUE TO NOZZLE PLACEMENT IN THE OVERHEADS. 3 OF 7 NOZZLE ORIFICES IN THE AMMR WERE OBSTRUCTED IN PROVIDING ADEQUATE MIST COVERAGE FOR THE DIESEL ENGINE. THE AMR NOZZLE LOCATED ABOVE NR-1S SWBD PANEL 4 AND THE FMMR NOZZLE LOCATED ABOVE THE DEGAUSSING SWBD SPRAYED DIRECTLY ON HIGH VOLTAGE EQUIPMENT.

P. CHEMICAL AND BIOLOGICAL AGENT DETECTION WAS NOT A CAPABILITY DESIGNED IN BERTHOLF. THE SHIP WAS NOT OUTFITTED WITH IMPROVED POINT DETECTION SYSTEM (IPDS), AN/KAS-1A, JOINT BIOLOGICAL POINT DETECTION SYSTEM (JBPDS), NOR BIOLOGICAL AGENT DETECTION DRY FILTER UNITS. THE SHIP WAS OUTFITTED WITH RADIACS. RECOMMEND INSTALLING AND OUTFITTING THE SHIP WITH CHEMICAL AND BIOLOGICAL DETECTION DEVICES BEFORE DEPLOYING INTO A CBR THREAT ENVIRONMENT.

Q. FWD AFFF STATION LOW DEMAND CONCENTRATE SAMPLE WAS 0% VICE THE REQUIRED 3.0 +/-0.5% (CORRECTED). FWD AFFF STATION TOOK AN EXCESS OF 2 MINUTES TO PROVIDE A FINISHED FOAM PRODUCT TO THE PORT FLIGHT DECK HOSE REEL.

R. ASTERN REFUELING RIG WAS NOT DEMONSTRATED. THE SHIP'S PRINT DID NOT PROVIDE RIGGING DETAIL TO ALLOW THE BUILDER TO RIG THE STATION. STATIC CHECKS WERE CONDUCTED ON THE STATION BY INSURV. FOR FUTURE TRIALS, INSURV DESIRES TO WITNESS THE ASTERN REFUELING RIG DEMONSTRATION (LAID-OUT).

S. TOWING SYSTEM RIG WAS NOT DEMONSTRATED. SHIP'S PRINT DID NOT PROVIDE RIGGING DETAIL TO ALLOW THE BUILDER TO RIG THE STATION. THE UNIQUE CONFIGURATION OF THE STERN AREA PRECLUDES THE TOW LINE TO BE RIGGED IAW U. S. NAVY TOW MANUAL. RECOMMEND THE BUILDER DEMO THE STATIC DISPLAY OF THE TOWING RIG AND PROVIDE SHI'S FORCE WITH AN APPROVED RIGGING PLAN FOR BOTH THEIR PRIMARY AND SECONDARY TOW RIG. FOR FUTURE TRIALS, INSURV DESIRES TO WITNESS THE TOWING SYSTEM RIG DEMONSTRATION (LAID-OUT).

T. COMBINED NGSB AND LOCKHEED MARTIN TEST PROCEDURES FOR NON-FIRING DETECT TO ENGAGE (DTE) DEMONSTRATIONS WERE COMPLETED USING SURFACE GUNNERY AND AIR WARFARE SELF-DEFENSE SYSTEMS. CIWS AND 57MM GUN ENGAGEMENTS ON SURFACE TARGETS AND CIWS ENGAGEMENT ON AIR TARGETS WERE SUCCESSFUL. HOWEVER, THE FOLLOWING SYSTEMS WERE DEGRADED: AN/SPQ-9B RADAR SYSTEM HAD SEVERAL CONSOLE AND REPEATER SWEEP FAULTS, TRS 3D AIR SEARCH RADAR HAD TIME SYNCHRONIZATION AND VIDEO PROCESSOR ISSUES, THE TACAN HAD A TRANSMITTER HARD FAIL FAULT, AND THE IFF TRACK DATA WAS NOT DISPLAYED.

U. THE MK 48 GUN WEAPON SYSTEM (GWS) DID NOT SUPPORT THE MEANS FOR ENGAGEMENT AND NEUTRALIZATION OF AIR TARGETS WITH MULTIFUNCTIONAL MUNITIONS FOR THE 57MM GWS IAW NSC 480 T-SPECS, PARA 1.2, BECAUSE THE MK 160 GUN FIRE CONTROL SYSTEM DOES NOT COMPUTE AND PROCESS Z AXIS INFORMATION FOR THE MK 48 CONFIGURATION.

V. SPRINKLING SYSTEM FOR THE 57MM AMMO MAGAZINE REQUIRED THE NR 5 FIRE PUMP BE ENERGIZED FIRST. THE LOCAL STATION START AND STOP BUTTONS (FOR NR 5 FIRE PUMP) WERE NOT LABELED. ONCE THE FIRE PUMP IS ACTIVATED AND PRESSURE IS VERIFIED, THE 3 WAY MANUAL CONTROL VALVE IS USED TO ACTIVATE SPRINKLING. ACTIVATION OF 57MM MAGAZINE SPRINKLER ALSO ACTIVATES THE SMALL ARMS MAGAZINE SPRINKLER, AND VICE VERSA. THE ABILITY OF INSTALLED DECK DRAINS IN BOTH OF THESE SPACES TO ADEQUATELY DEWATER AFTER SPRINKLING IS QUESTIONABLE.

W. ORIENTATION OF THE PILOT HOUSE AND BRIDGE WING SHIP CONTROL CONSOLES DID NOT ALLOW THE HELMSMAN TO REACH ALL CONTROL FUNCTION PANELS AND ALARM ACKNOWLEDGEMENT BUTTONS. THE TOP OF THE CONSOLE WAS PARALLEL TO THE DECK AND REQUIRED THE HELMSMAN TO LEAN OVER THE AFT END OF THE CONSOLE OR WALK AROUND TO THE FORWARD END TO REACH THE REQUIRED CONTROLS. RECOMMEND POSITIONING THE CONSOLE AT AN ANGLE SUCH THAT WATCHSTANDERS CAN MORE READILY ACCESS SHIP CONTROL FUNCTIONS, ALARMS, AND INDICATORS.

X. NO CAPABILITY TO SELECT BETWEEN THE MK-27 FIBER OPTIC AND THE MK-39 RING LASER GYROCOMPASSES EXISTED, NOR DID THE BRIDGE HAVE A SOURCE INDICATION OF HEADING DATA. ALTHOUGH GYROS WERE ENERGIZED FROM A VITAL DISTRIBUTION SYSTEM PER T-SPEC 426, BOTH WERE POWERED FROM THE SAME POWER PANEL. PROTECTIVE COVERS ON THE BACK OF BOTH

GYROS WERE SUSCEPTIBLE TO DAMAGE FROM PERSONNEL ACCIDENTALLY BUMPING INTO BACK CABLES.

Y. MAST HAD SIGNIFICANT SAFETY CONCERNS. NO NON-SKID ON MAST PLATFORMS AND YARDARM CLIMBER FOOT RAILS EXISTED. ALL CLIMBER SAFETY RAILS WERE PAINTED AND SHOULD BE BARE METAL. THE DESIGN OF THE INTERNAL MAST LADDER AND SAFETY RAIL SYSTEM WERE UNSAFE. THE RAIL HAD A 6-INCH GAP IN THE TOP 5 FT. CLIMBERS MUST DISENGAGE FROM THE RAIL PRIOR TO EXITING OR ENTERING THE MAST FROM THE TOP, BUT THERE WAS NO EXTERNAL HARD POINT TO LATCH ONTO WITH A SAFETY LANYARD PRIOR TO EXITING THE MAST. THIS PRESENTED A SAFETY HAZARD WHEREBY CLIMBERS COULD POTENTIALLY FALL 50 FT INTO THE MAST WHILE CLIMBING OUT THE LAST FEW STEPS.

Z. THE VCHT PUMP ROOM DID NOT HAVE HYDROGEN SULFIDE DETECTORS NOR LOSS OF VENTILATION AIRFLOW ALARMS INSTALLED IN THE SPACE. ALTHOUGH NOT REQUIRED IN SPS, INSURV RECOMMENDS INSTALLING THESE SAFETY FEATURES IN THE VCHT PUMP ROOM. THERE IS NO SUMP LOCATED UNDER THE VCHT TANK OR ANY SUCTION INSTALLED TO REMOVE WASTE FROM THE COAMING SURROUNDING THE TANK. IN THE EVENT OF A HAZARDOUS SPILL OR LEAK IN THE SPACE, THERE IS NO WARNING CAPABILITY TO IDENTIFY THE BUILD-UP OF HYDROGEN SULFIDE GAS AND NO MECHANICAL MEANS TO REMOVE THE WASTE.

AA. GARBAGE GRINDER VACUUM INTERFACE VALVES CYCLED CONSTANTLY DURING GALLEY OPERATIONS CAUSING A LOSS IN VCHT SYSTEM VACUUM COLLECTION OF SEWAGE, RESULTING IN WATER CLOSETS BECOMING INOPERABLE DURING GALLEY WASTE GARBAGE GRINDER OPERATION.

AB. 50 OF 70 WATERTIGHT CLOSURES (WTCS) INSPECTED WERE NOT WATERTIGHT. WTCS FAILED THE PMS KNIFE EDGE CHALK TEST.

3. SINGLE STARRED DEFICIENCIES:

A. PROPULSION:

-MCMS WAS UNSTABLE AND REQUIRED DEVIATIONS FROM DESIGN IN ORDER TO OPERATE THE PROPULSION PLANT AND SUPPORTING SHIP SYSTEMS.

-4 OF 4 LINE SHAFT BEARINGS HAD SIGNIFICANT DEFICIENCIES: 4 OF 4 LSBS HAD LO LEAKS (LO SEALS LEAKED), SCORED SHAFTS IN THE VICINITY OF LSB JOURNALS, AND 2 OF 4 LSBS HAD SW CONTAMINATION IN LO SUMPS.

B. AUXILIARIES:

-STBD ANCHOR WOULD NOT PROPERLY FREE FALL TO 45 FATHOMS. THE MECHANICAL BRAKE WAS MIS-ADJUSTED, THE WILDCAT BEARING AND ALL GREASE POINTS IN THE ANCHOR WINDLASS WERE UNDER-LUBRICATED.

C. DECK:

-MOORING CAPSTAN CONTROLLERS NR 2, 3, 4 AND 5 PLACED CAPSTAN OPERATORS IN THE MOORING LINE SNAPBACK DANGER ZONE. RECOMMEND INSTALLING UMBILICAL CORDS TO PORTABLE CONTROLLERS FOR LINE CAPSTAN OPERATOR SAFETY.

-BOTH PORT AND STBD GANTRY CRANE HOISTS WERE DESIGNED WITH SWIVEL HOOKS TO RAISE AND LOWER THE SHORT RANGE PROSECUTOR (SRP) AND THE LONG RANGE INTERCEPTOR (LRI). EACH SWIVEL HOOK HAD 2 INDIVIDUAL WIRE ROPES ATTACHED. WHILE LIFTING THE SHIP'S BOATS, THE WIRE ROPES IMMEDIATELY TWISTED AROUND EACH OTHER MAKING THE GANTRY CRANE HOIST INOPERABLE. THE WIRE ROPE REQUIRES REPLACEMENT WITH LEFT AND RIGHT LAY ROPE AND SWIVEL HOOKS NEED TO BE INSTALLED. THE CRANE SYSTEM REQUIRES WEIGHT TEST AND CERTIFICATION AFTER REPAIR.

D. WEAPONS:

-AMMO HOIST DROP TEST FAILED BECAUSE THE SAFETY BRAKE WAS INOP AND

WAS UNSAFE TO OPERATE UNDER LOAD.

E. ENVIRONMENTAL PROTECTION:

-INCINERATOR WAS INOP AND COULD NOT BE DEMONSTRATED.

F. AVIATION:

-SIGNIFICANT AVIATION DEFICIENCIES PRECLUDED AVIATION CERTIFICATION.

14 MAJOR DEFICIENCIES REQUIRE CORRECTION PRIOR TO FULL AVCERT BEING GRANTED (SEE THE AVIATION SECTION OF THIS REPORT FOR DETAILS).

4. DEMO RESULTS: SAT (0.80-1.00)/DEGRADED (0.60-0.79)/UNSAT (0.00-0.59):

-FULL POWER DEMO WAS DEGRADED (SCORE: 0.63). FULL POWER DEMO WAS CONDUCTED AT 100% FULL POWER AND WAS DEGRADED BECAUSE THE MCMS WAS NOT OPERATED IAW DESIGN SPECIFICATIONS. THE SYSTEM WAS OPERATED IN A REDUCED STATUS WORK-AROUND CONFIGURATION.

-QUICK REVERSAL ASTERN WAS SAT (SCORE: 0.96). QUICK REVERSAL WAS CONDUCTED FROM 100% FULL POWER AHEAD TO 100% FULL POWER ASTERN.

-QUICK REVERSAL AHEAD WAS SAT (SCORE: 0.96). QUICK REVERSAL WAS CONDUCTED FROM 100% FULL POWER ASTERN TO 100% FULL POWER AHEAD.

-STEERING DEMO WAS SAT (SCORE: 0.87).

-ANCHORING DEMO WAS DEGRADED (SCORE: 0.62). STBD ANCHOR WOULD NOT FREEFALL TO 45 FATHOMS. WINDLASS WAS UNDER LUBRICATED.

5. SIGNIFICANT MATERIAL DEFICIENCIES AND EQUIPMENT OPERATIONAL CAPABILITY (EOC) INCLUDE:

A. PROPULSION: DEGRADED (SCORE: 0.68):

-GTM INLET PLENUM HAD FOD.

-GTM BLOW-IN DOOR GASKETS WERE TORN.

-GTM CONTROLLER HAD A FAULT WHICH PRECLUDED STARTING (CORRECTED).

-GTM FO SOLENOID QUICK TRIP VALVE WAS INOP (CORRECTED).

-NR 1 MPDE LEAKED LO AT THE TURBOCHARGER.

-2 OF 2 MAIN REDUCTION GEAR (MRG) CONTROL OIL PRESSURES WERE INCORRECTLY SET ON THE PLC (CORRECTED).

-2 OF 2 MRGS AND THE CROSS CONNECT GEAR LEAKED LO.

-NR 1 AND NR 2 SSDG EXPERIENCED JACKET WATER OVERHEAT DURING ASTERN OPERATION.

-2 OF 2 MRGS AND CROSS CONNECT GEAR LO LEVELS HAD SPURIOUS INDICATIONS ON NR 2 MCC.

-2 OF 2 STERN TUBE SEAL DUPLEX STRAINERS HAD HIGH DIFFERENTIAL PRESSURE.

-2 OF 4 LSBS FAILED BS&W TESTS. STBD FWD LSB HAD 0.4% BS&W. STBD AFT LSB HAD 0.16 BS&W.

-2 OF 2 OD BOX BRASS PLATES DID NOT HAVE DESIGN AHEAD AND DESIGN ASTERN BENCH MARKS.

-2 OF 2 CPP OIL HEAD TANKS HAD NO MEANS OF MONITORING OIL LEVELS.

-LO PURIFIER HAD POOLED LO ON THE FOUNDATION.

-2 OF 2 MRG CONTROL OIL DUPLEX STRAINERS HAD LO LEAKS.

-FS-V-011 RETURN BYPASS FUEL TANK 5-36-1-F HAD FUEL POOLED ON THE RELIEF VALVE ASSEMBLY.

-QUICK CLOSING VALVES REQUIRED A CROW'S FOOT WRENCH TO UNSEAT THE VALVE AFTER TRIPPING.

-FO SERVICE TANK RECIRC VALVE (FS-V-021) WAS INOP (CORRECTED).

-MGT FAILED TO START FROM REMOTE.

-WATER MIST SYSTEM INADVERTENTLY ACTIVATED IN THE AMR AND FMMR DURING FULL POWER DEMO.

-NR 1 AND NR 2 SSDGS TRIPPED OFF-LINE INADVERTENTLY CREATING LOAD SHED CONDITIONS.

-IN THE AMMR, PORT AND STBD LOWER LEVEL OUTBOARD OF THE MRG WERE MISSING VOID COVERS.

-IN THE AMMR, PORT AND STBD UPPER AND LOWER LEVELS HAD TEMPORARY SAFETY CHAINS.

-AFT MMR UPTAKE DECK GRATING WAS NOT SECURED.

-NR 2 SSDG HAD AN OIL LEAK AT THE LO SUPPLY FLEX HOSE ASSEMBLY.

B. AUXILIARIES: DEGRADED (SCORE: 0.76):

-NR 2B HPU HAD A HYDRAULIC OIL LEAK.

-STBD RUDDER POST UPPER SEAL WAS LEAKING HYDRAULIC OIL.

-OPERATOR PLATFORM WAS NOT INSTALLED TO INSPECT MECHANICAL BRAKE AND WILDCAT ASSEMBLIES FOR PORT AND STBD WINDLASSES.

- NO TEMPERATURE GAGE EXISTED FOR OIL TEMP ON BOTH THE PORT AND STBD ANCHOR WINDLASS HPU OIL COOLERS.

-NR 1A, 1B, AND 2B STEERING GEAR HPU RETURN FILTERS WERE CLOGGED (POPPET INDICATORS RAISED).

-COMPT 5-94-0-Q PORT AND STBD SIDE (STEERING GEAR VOIDS) HAD TRASH AND DIRT.

-PORT RUDDER POST FLANGE WAS WET AND SHOWED EVIDENCE OF THE SEAL LEAKING.

-LP AIR CONNECTION TO INFLATABLE SEAL VENT DRAIN LEAKED WATER.

-NR 2 REFRIGERANT PLANT OIL COOLER SEA WATER DISCHARGE PIPE AT THE END BELL WAS BROKEN OFF AND REPAIRED WITH EPOXY.

-NR 2 A/C PLANT CHILLED WATER FLOW SWITCH WAS SET AT 320 GPM AND FLOW WAS 260 GPM. FLOW SWITCH WAS BYPASSED TO ALLOW SYSTEM OPERATION.

-CHILLED WATER EXPANSION TANKS HAD NO RELIEF VALVES OR PRESSURE GAGES INSTALLED.

-NR 5 FIRE PUMP DISCHARGE MOV MECHANICAL VALVE POSITION INDICATOR INDICATED THE OPPOSITE OF THE ACTUAL VALVE POSITION.

-NR 3 SW COOLING PUMP SUCTION VALVE FAILED TO SHUT REMOTELY (CORRECTED).

-NR 2 SW COOLING PUMP SUCTION MOV MANUAL CONTROLLER PLASTIC CASE WAS CRACKED.

-NR 1 AND NR 2 POTABLE WATER PUMPS DID NOT OPERATE IN LEAD/LAG AS DESIGNED BECAUSE THE DETROIT SWITCHES WERE MISADJUSTED (CORRECTED).

-NR 1 AND NR 2 POTABLE WATER PUMPS HAD LEAKS ON BOTH SUCTION AND DISCHARGE FLANGES.

-HPU SHUTTLE VALVE WAS MISADJUSTED.

-BOW THRUSTER TRIPPED OFF LINE DURING SEA DETAIL (LEAVING PORT).

C. ELECTRICAL: DEGRADED (SCORE: 0.72):

-THERE WERE 4 ELECTRICAL CABLES DEAD-ENDED IN THE BOW THRUSTER PUMP ROOM. THEY WERE LABELED AS HOLD FOR RE-USE.

-NO FORMAL SOFTWARE LIBRARY EXISTED FOR REPLACEMENT PLC PROGRAMMING BY SHIP'S FORCE AND USCG ENGINEERING LOGISTICS PERSONNEL.

-NO FORMAL PROCESS EXISTED FOR APPROVING AND TRACKING SOFTWARE CHANGES OCCURRING WITHIN THE SHIP'S MACHINERY CONTROL SYSTEM.

-SHIP WAS OUTFITTED WITH BREAKERS DESIGNED FOR 40 DEG C ENVIRONMENTAL CONDITIONS VICE 50 DEG C AS PER THE SHIP'S DESIGN SPECIFICATIONS.

D. DAMAGE CONTROL: DEGRADED (SCORE: 0.75):

-4 OF 4 BALLASTING TANK AIR ESCAPE MESH SCREENS WERE PAINTED OVER (5-22-0-W, FWD AND AFT 5-16-0-W, AND 5-10-0-V) PREVENTING TANKS FROM

BREATHING WHILE FILLING TANKS.

- AFT AFFF STATION LOW DEMAND WAS 1.6% VICE 3.0 +/-0.5% (CORRECTED).
 - INADEQUATE AFFF COVERAGE EXISTED TO PORT AND STBD MOUNTING PLATES OF BOTH MPDES IN AMMR.
 - INADEQUATE AFFF COVERAGE EXISTED DIRECTLY UNDER THE MGT ENCLOSURE IN FMMR.
 - WATER MIST VALVE (WM-V-006) COULD NOT BE OPERATED MANUALLY.
 - 3 OF 3 FM-200 LOCAL AUDIBLE ALARMS WERE NOT INSTALLED (HAZMAT STORAGE ROOM, PAINT LOCKER, AND FLAMMABLE LIQUID STORAGE).
 - 3 OF 3 FM-200 DAMPERS (HAZMAT STORAGE ROOM, PAINT LOCKER, AND FLAMMABLE LIQUID STORAGE) DID NOT AUTOMATICALLY RESET AND WERE NOT LABELED.
 - PRE-EXISTING FM-200 CYLINDER LOW PRESSURE ALARMS FOR HAZMAT STORAGE, PAINT LOCKER, AND FLAMMABLE LIQUID STORAGE WERE DISPLAYED ON MCMS CONSOLE PRIOR TO CONDUCTING FM-200 DEMONSTRATION. LOCAL FM-200 CYLINDER GAUGES INDICATED PROPER CYLINDER PRESSURES.
 - MCMS FAILED TO RECEIVE A RELEASED SIGNAL WHEN FM-200 DISCHARGED.
 - EXPLOSION-PROOF LIGHTING WAS NOT INSTALLED IN THE FOLLOWING SPACES: HAZMAT STORAGE, PAINT LOCKER, FLAMMABLE LIQUID STORAGE.
 - 4 OF 4 P-100 PUMP PRESSURE GAUGES WERE NOT CALIBRATED (CORRECTED).
 - BLOCK HEATERS AND 120V OUTLETS WERE NOT PROVIDED FOR 4 P-100 PUMPS TO AID IN COLD WEATHER STARTING. COAST GUARD P-100S ARE REQUIRED TO HAVE HEATERS INSTALLED UNDER THE BLOCK FOR COLD WEATHER OPERATIONS.
 - 1 OF 2 FILL HOSES WAS MISSING FROM BOTH FWD AND AFT INSTALLED ELECTRIC BREATHING AIR COMPRESSORS (EBACS).
 - FWD AND AFT INSTALLED EBAC FILL HOSES WERE MISSING HYDROSTATIC TESTING DATES.
 - 20 OF 28 REPAIR LOCKER SCBAS HAD LOW CYLINDER PRESSURES (CORRECTED).
 - 1 OF 2 EBACS WAS INOP BECAUSE THE SHROUD WAS DAMAGED.
 - CMWD ZONE 2 SOLENOID OPERATED VALVE (SOPV) WDCM-V-407 COULD NOT BE ACTIVATED REMOTELY FROM DCC.
 - CMWD ZONE 2 HAD DEAD ZONES NEAR THE MAST AND PILOT HOUSE.
 - CMWD ZONE 3 SOPV (WDCM-V-008) COULD NOT BE SECURED REMOTELY FROM DCC.
 - COLLECTIVE PROTECTIVE SYSTEM (CPS) NAVY STANDARD IMPINGEMENT FILTER AND CBR GAUGES WERE NOT CALIBRATED.
 - SEAWATER (SW) PIPING, SW REDUCING VALVE, AND SW QUICK CONNECTION WERE NOT INSTALLED FOR THE DECONTAMINATION (DECON) STATION REQUIRED PER NAVSEA DWG NR 804-5959203 REV A.
 - GALLEY AQUEOUS POTASSIUM CARBONATE (APC) CYLINDER WAS MISSING.
 - GALLEY APC SYSTEM ACTIVATION ALARM BELL/INDICATOR LIGHT WAS NOT INSTALLED AT THE ENTRANCE TO THE GALLEY NOR THE ALARM PROVIDED AT THE MCMS CONSOLE.
 - 2 OF 2 PORTABLE EXOTHERMIC CUTTING UNITS (PECUS) AND ACCESSORIES KITS WERE MISSING FROM INVENTORY.
 - 4 OF 4 PORTABLE BOX FANS WERE MISSING MOTOR TAMPER SEALS.
- E. DECK: DEGRADED (SCORE: 0.60):
- NO CONNECTION POINTS (BAXTER BOLTS) WERE INSTALLED IN THE DECK TO SAFELY SECURE AND UTILIZE THE SHIP'S BROW.
 - 4 OF 4 LIFE BOAT SLING ATTACHMENT SHACKLES WERE SCREW PIN VICE REQUIRED SAFETY ANCHOR SHACKLE (CORRECTED).
 - 4 OF 4 LRI BOAT SLING ATTACHMENT POINT SHACKLES WERE SCREW PIN VICE

REQUIRED SAFETY ANCHOR SHACKLE (CORRECTED).
-4 OF 4 SRP BOAT SLING ATTACHMENT POINT SHACKLES WERE SCREW PIN VICE
REQUIRED SAFETY ANCHOR SHACKLE (CORRECTED).
-LRI COLLAR/PONTOON WAS CRUSHED AT THE BOW.
-4 OF 4 KEEL BLOCKS DID NOT MAKE CONTACT WITH LRI KEEL IN THE STOWED
POSITION.
-4 OF 8 SIDE CHOCKS DID NOT MAKE CONTACT WITH THE SIDE OF THE LRI
BOAT HULL.
-4 OF 4 KEEL BLOCKS DID NOT MAKE CONTACT WITH THE SRP KEEL IN THE
STOWED POSITION.
-4 OF 8 KEEL SIDE CHOCKS DID NOT MAKE CONTACT WITH THE SIDE OF THE
SRP BOAT HULL.
-LRI BOAT COULD NOT BE PROPERLY GRIPED FOR SEA BECAUSE THE STERN
ATTACHMENT POINTS WERE MISSING FROM THE BOAT AND THE DECK.
-FUEL RISER WAS NOT INSTALLED IAW BUSHIPS DWG 805-2213794. RISER AND
CHECK VALVE WERE NOT INSTALLED ON THE LOCATING CURVE SPECIFIED IN THE
DRAWING NOR ANGLED CORRECTLY FOR PROPER ALIGNMENT AND HOOK-UP OF FUEL
HOSE.
-REMOVABLE LIFELINES ARE NOT INSTALLED AROUND STERN NOTCH FOR THE
SAFETY OF PERSONNEL WHILE WORKING IN THE CRADLE AREA.
-LIFELINES SURROUNDING THE LAUNCH AND RECOVERY SYSTEM ARE NOT
INSTALLED PER CFR. LINES ARE TO BE ARRANGED SUCH THAT THE SPACE FROM
THE DECK TO FIRST LINE IS NOT GREATER THAN 9-INCHES AND SPACING
BETWEEN LINES IS NOT GREATER THAN 15-INCHES.
-4 STEADYING LINE CLEATS WERE MISSING TO FACILITATE SAFE BOAT
HANDLING OF LRI/SRP DURING THE CRADLING/UNCRADLING OF SMALL BOATS.
-OPERATING INSTRUCTIONS AND SAFETY PRECAUTIONS WERE NOT POSTED ON THE
GANTRY CRANE.
-NO ACCESS LADDERS OR OTHER CONVEYANCE EXISTED TO PROVIDE EASY ACCESS
TO THE TOP OF THE GANTRY CRANE.
-AFT OUTBOARD STBD HOIST WAS EQUIPPED WITH 1/2-INCH IMPROVED PLOW
STEEL WIRE ROPE RIGHT AND LEFT LAY, AND THE REMAINING HOISTS WERE
EQUIPPED WITH 1/2-INCH CRESS WIRE ROPE RIGHT LAY.
-SWEDGED END FITTING ON HOIST WIRE ROPES DID NOT HAVE TEST LABEL
PLATES INSTALLED TO INDICATE THAT WIRE ROPES WERE TESTED AFTER
INSTALLATION OF THE FITTINGS.
-NO AMBER NIGHT LIGHTING WAS INSTALLED ON THE GANTRY CRANE.
-HOIST LIMIT SWITCHES WERE NOT SET FOR LIFTING A SPECIFIED BOAT.
F. OPERATIONS: SAT (SCORE: 0.86):
-NO REDUNDANT DISPLAY EXISTED TO CONTROL SURFACE AND AIR SEARCH RADAR
DATA IN THE EVENT OF A LOSS OF CG-C2 WORKSTATION.
-DURING DTE IFF, THE PC RADAR PROCESSOR (PCRP) VIDEO WAS NOT
INITIALLY AVAILABLE. SHIP'S FORCE HAD TO REBOOT AN/UPX-36, IFF PCRP
AND BOUNDARY COMPONENT (BC) TO RESTORE.
-DURING DTE, THE TRS-3D AIR SEARCH RADAR (ASR) VIDEO WAS NOT
DISPLAYED ON COP CONSOLES (CORRECTED), ALTITUDE INFORMATION WAS
INCONSISTENT, TRACKS REMAINED DISPLAYED AND LOST TRACKS CONTINUED TO
DR IN EXCESS OF 60 MIN.
-AN/UPX-36 IFF WAS DEGRADED BECAUSE ASR COULD NOT PROVIDE STANDALONE
TRACK DATA (TRACK VIDEO HAD TO BE CORRELATED BEFORE IFF DATA WAS
DISPLAYED).
-MK 53 DLS NULKA LAUNCHERS WERE NOT TESTED BECAUSE OF A LACK OF TEST

EQUIPMENT.

-PORT AND STBD SRBOC LAUNCHERS' SAFETY LINES WERE INSTALLED INCORRECTLY, POTENTIALLY ALLOWING PERSONNEL TO STAND IN FRONT OF THE LAUNCHER DURING CHAFF FIRING.

-AN/SLQ-32 ANTENNA REQUIRED A 1 +/-0.5 PSI CHARGE. WHEN THE CPS SYSTEM WAS DE-ENERGIZED, THE ANTENNA PRESSURE DROPPED TO 0 PSI.

-AN/URN-25 TACAN WAS DEGRADED DURING DTE BECAUSE OF A LOW LEVEL MODULATOR FAULT AND COULD ONLY BE OPERATED IN REDUCED POWER (CORRECTED). ADDITIONALLY, RANGE AND BEARING INFORMATION WAS SPORADIC.

-MAST DESIGN DOES NOT ALLOW THE CLIMBER TO REACH THE TACAN ANTENNA FOR MAINTENANCE. A PIER SIDE CRANE AND BASKET MUST BE USED TO PROVIDE PERSONNEL ACCESS.

G. WEAPONS: SAT (SCORE: 0.90):

-AMMO HOIST J-BAR DAVIT COULD NOT SAFELY BE STOWED BY PERSONNEL. A CRANE WAS NEEDED TO STOW DAVIT IN THE VERTICAL POSITION ON THE FWD DECKHOUSE BULKHEAD.

-1 OF 2 AMMO HOIST HATCH SAFETY STANCHION PINS DID NOT FULLY ENGAGE.

-NO TOXIC GAS EJECTION SYSTEM WAS INSTALLED IN THE 57MM GUN MOUNT. SYSTEM RELIES ON POSITIVE VENTILATION OF THE GUN MOUNT TO PREVENT TOXIC GASES FROM ENTERING THE GUN CONTROL ROOM AND 57MM AMMUNITION MAGAZINE. IN THE EVENT THAT POSITIVE PRESSURIZATION CANNOT BE SET OR MAINTAINED, TOXIC GASES COULD ENTER MANNED SPACES BELOW.

-57MM GUN SAFETY SWITCH IN GUN CONTROL ROOM WAS NOT READILY ACCESSIBLE (INSTALLED 6 FT ABOVE DECK).

-NO INTERIOR COMMUNICATION SYSTEMS WERE INSTALLED IN THE 57MM MAGAZINE. GUN CONTROL ROOM AND CIWS LOCAL AND REMOTE CONTROL STATIONS WERE NOT OUTFITTED WITH A HANDS FREE COMMUNICATION SYSTEM. 57MM GUN TOPSIDE SAFETY OBSERVER PHONE BOX WAS NOT WEATHERPROOF.

-CIWS BARBETTE DECK DRAIN PIPING TERMINATES AT AN OVER THE SIDE HULL PENETRATION. IN THE EVENT OF BURSTING OR LEAKING COOLING WATER SYSTEM HOSES, THE WATER AND ETHYLENE GLYCOL MIXTURE WOULD BE ALLOWED TO FLOW OVER THE SIDE.

H. NAVIGATION: SAT (SCORE: 0.83):

-MAGNETIC COMPASS WAS NOT CALIBRATED AND GYRO REPEATER BENCHMARKS WERE NOT INSTALLED.

-FATHOMETER DID NOT HAVE A DEPTH BENEATH THE KEEL LABEL PLATE.

-2 OF 2 DSC 500 VHF SECURE BRIDGE TO BRIDGE RADIOS, WHEN SELECTED TO CHANNEL 13, DEFAULTED TO LOW POWER WHEN HIGH POWER WAS SELECTED.

-2 OF 2 INSTALLED GPS UNITS (DGPS AND GPS) WERE NOT CAPABLE OF Y-MODE ENCRYPTED GPS DATA WHICH INCREASES SUSCEPTIBILITY TO JAMMING.

-SINGLE POINTS OF FAILURE EXIST IN CG-C2 LOCAL AREA NETWORK (LAN) SERVER WHICH WILL RESULT IN LOSS OF VITAL NAVIGATION INFORMATION (RADAR AND ELECTRONIC CHART DATA) TO OPERATORS.

-COMMAND DISPLAY AND CONTROL (COMDAC) COULD NOT PROPERLY DISTINGUISH BETWEEN THE OFFSET AND RAW DEPTH VALUES TRANSMITTED FROM SHALLOW AND DEEP WATER FATHOMETER DEPTH UNITS WHICH RESULTED IN COMDAC TOGGING BETWEEN THE 2 DEPTHS (1 OFFSET FOR THE SHIP'S PROPS AND 1 WITHOUT).

-DOPPLER SONAR VELOCITY LOG (DSVL) PROVIDED BOTH SPEED THROUGH THE WATER AND SPEED OVER GROUND TO ENHANCED DATA DISTRIBUTION UNIT (EDDU). HOWEVER, EDDU ONLY OUTPUTS SPEED THROUGH THE WATER RESULTING IN INVALID SPEED OVER GROUND INPUTS TO VOYAGE MANAGEMENT SYSTEM (VMS)

AND COMDAC.

AND COMDAC.

-CENTERLINE FIDDLE BOARD STBD RUDDER ANGLE INDICATOR (RAI) WAS INOP AND REMOTE SOUNDER DISPLAY FAULTED AND DID NOT SHOW SOUNDINGS OVER 500 FATHOMS.

-SPERRY DEEP WATER FATHOMETER DID NOT CONTINUOUSLY DISPLAY DEPTH READINGS DURING FULL POWER AND BOW THRUSTER OPERATIONS. DEEP WATER FATHOMETER AND DSVL DISPLAYED ERRATIC READINGS.

I. COMMUNICATIONS: SAT (SCORE: 0.98):

-95% OF TOPSIDE BONDING AND GROUNDING STRAPS INSPECTED WERE OF THE WRONG TYPE OR INCORRECTLY INSTALLED.

-A COMPLETE EMI/EMC ASSESSMENT WAS NOT CONDUCTED BECAUSE PERMISSION WAS NOT GRANTED TO TEST ON THE FULL RANGE OF FREQUENCIES REQUIRED.

-RADHAZ SIGNS AND WARNING PLACARDS WERE NOT INSTALLED.

-9 OF 18 UHF AND VHF RADIO COMM PLANS COULD BE MODIFIED ONLY VIA THE AUTOMATED COMMUNICATIONS RESOURCE MANAGER (ACRM). IF THE ACRM FAILS, ALL CURRENTLY PROGRAMMED FREQUENCIES WOULD STILL BE AVAILABLE TO SHIPBOARD USERS. HOWEVER, FLEXIBILITY TO CHANGE FREQUENCIES WOULD BE LOST ON 50% OF UHF AND VHF RADIOS.

-THE FOLLOWING SYSTEMS WERE NOT FULLY INSTALLED: SSR-1 AND OTCIXS.

J. INFORMATION SYSTEMS: NOT GRADED (SCORE: NG):

-5 OF 25 UPS UNITS FAILED TO HOLD CHARGE FOR 9 MINUTES.

-A FULL ASSESSMENT OF THE INFORMATION SYSTEMS ONBOARD WAS NOT CONDUCTED BECAUSE ONLY THE COMMON OPERATIONAL PICTURE SYSTEM WAS FULLY INSTALLED AND CERTIFIED. A THOROUGH REVIEW OF THE INSTALLED NETWORK WAS COMPLETED WITH NO MAJOR DISCREPANCIES NOTED.

-THE FOLLOWING SYSTEM INSTALLATIONS WERE NOT COMPLETE AND THEREFORE NOT GRADED: ADNS, LINK-11, NAVMACS, JWICS, SIPRNET, SENSITIVE BUT UNCLASSIFIED NETWORK. A FULL EVALUATION OF THESE SYSTEMS SHOULD OCCUR DURING THE FINAL CONTRACT TRIALS.

K. SUPPLY: DEGRADED (SCORE: 0.78):

-A JP-5 FILL AND TRANSFER PIPE WAS INSTALLED IN THE OVERHEAD ABOVE THE GRIDDLE IN THE GALLEY.

-4 OF 4 GREASE INTERCEPTOR HOOD (GIH) THERMOSTATIC FAIL-SAFE SWITCHES WERE NOT EASILY ACCESSIBLE. LIGHT FIXTURES WERE INSTALLED OVER GIH THERMOSTATIC FAIL-SAFE SWITCHES VICE QUICK ACCESS PANEL DOORS.

-GALLEY GIH WASH DOWN SYSTEM WAS INOP.

-6 OF 6 SELF-SERVICE DRYERS WERE NOT PROVIDED DEDICATED EXHAUST VENTS ABOVE THE MAIN DECK.

-1 OF 3 GIH VENTILATION HOODS DID NOT MEET MINIMUM AIR FLOW VELOCITY REQUIREMENTS.

-3 OF 6 SELF-SERVICE DRYER SECONDARY LINT FILTERS WERE INSTALLED VERTICALLY VICE HORIZONTALLY, ALLOWING LINT TO FALL BACK INTO MACHINES CREATING A FIRE HAZARD.

-6 OF 6 SELF-SERVICE WASHERS AND DRYERS WERE NOT COSAL SUPPORTED.

L. HABITABILITY: DEGRADED (SCORE: 0.75):

-2 SURGE BUNKS WERE INSTALLED IN 2-36-3-L. WHEN PLACED IN THE DOWN POSITION, THE SURGE BUNKS RESTRICT EGRESS FROM THE SPACE TO 15 INCHES VICE THE REQUIRED 36 INCHES.

-COAMING IN SHOWER (1-28-4-L) HAD A HOLE THAT ALLOWED WATER INTRUSION INTO THE ADJACENT PASSAGEWAY.

M. NAVOSH: SAT (SCORE: 0.88):

-3 OF 3 PLUMBED EYEWASH STATIONS DID NOT HAVE THE ROOT VALVE LOCKED OPEN.

-NO PORTABLE EYEWASH STATIONS WERE PROVIDED IN MAIN OR AUXILIARY MACHINERY SPACES.

-NO SAFETY MARKINGS WERE OUTLINED ON THE DECK IN FRONT OF THE EQUIPMENT IN THE MECHANICAL/DC SHOP, BOS'N LOCKER, AND AVIATION WORKSHOP.

-DRILL PRESSES AND TABLE SAW WERE MISSING SAFETY GUARDS IN THE MECHANICAL/DC SHOP AND BOS'N LOCKER.

-OUTFITTING IN BATTLE DRESSING STATIONS (BDS) WAS NOT COMPLETE.

-NO SECURING BRACKETS FOR OXYGEN BOTTLES WERE INSTALLED IN SICK BAY OR AT BDS.

-NO EMERGENCY POTABLE WATER SOURCE WAS INSTALLED IN SICK BAY OR AT BDS.

-NO STERILIZER WAS INSTALLED IN SICK BAY.

N. VENTILATION: DEGRADED (SCORE: 0.78):

-19 OF 46 SANITARY SPACES HAD MEASURED AIRFLOW BELOW DESIGN SPECIFICATION.

SPECIFICATION.

-4 OF 10 OCCUPATIONAL HEALTH SPACES HAD MEASURED AIRFLOW BELOW DESIGN SPECIFICATION.

-7 OF 14 FAN ROOMS HAD CONDENSATION ON DUCTING THAT WAS POOLING ON THE DECK OR EQUIPMENT. THIS WILL LEAD TO ACCELERATED CORROSION OF DECKS AND FAN ROOM EQUIPMENT.

O. ENVIRONMENTAL PROTECTION: DEGRADED (SCORE: 0.72):

-A 3-WAY DIVERTER VALVE WAS NOT INSTALLED ON THE OIL/WATER SEPARATOR OIL DISCHARGE PIPING AS PER THE TECHNICAL MANUAL AND SYSTEM DRAWING.

A DIVERTER VALVE SHOULD BE INSTALLED AND PIPED FROM THE SEPARATOR TO THE WASTE OIL TANK AND OILY WASTE HOLDING TANK TO ALLOW FOR FLUSHING AND CLEANING THE SEPARATOR WITHOUT DISCHARGING WATER TO THE WASTE OIL TANK.

-WASTE OIL TRANSFER PUMP WAS MISSING THE STRAINER AND CHECK VALVE.

-STRAINER UPSTREAM OF NR 3 OILY WASTE TRANSFER PUMP WAS INSTALLED BACKWARDS.

-OIL/WATER SEPARATOR PUMP RELIEF VALVE WAS MISSING HYDROSTATIC TEST DATA.

-VCHT GAS SAMPLING VALVE DID NOT HAVE A LOCKING DEVICE.

-VCHT PUMP ROOM DEEP SINK WAS NOT PLUMBED TO THE VCHT SYSTEM.

-GREY WATER TANKS DID NOT HAVE WASHDOWN CAPABILITIES OR PLACARDS.

-VCHT NR 5 LIFT STATION HAD AN OVERFLOW THAT DISCHARGES INTO A BERTHING AREA.

P. AVIATION: DEGRADED (SCORE: 0.75):

-ROUTING OF THE JP-5 HOSE FROM THE REFUEL STATION TO THE FLIGHT DECK ENTAILS TRAILING THE HOSE OVER A FLIGHT DECK SAFETY NET FRAME, 5MC SPEAKER, AND THE FLIGHT DECK FLOOD LIGHT.

-NO SOUND POWER COMMUNICATION EXISTED BETWEEN THE JP-5 PUMP ROOM AND THE REFUELING STATION.

-NO SOUND POWER COMMUNICATION EXISTED BETWEEN THE AFFF STATIONS AND DC CENTRAL.

-FLIGHT DECK LANDING AREA WAS MISSING 3 TIE DOWNS SPECIFIED TO MEET THE 42-INCH ALTERNATING GRID SPACING REQUIREMENTS.

-FLIGHT DECK SAFETY NET LATCH ASSEMBLY DID NOT SECURELY LOCK THE

SAFETY NETS IN THE UP POSITION NOR COULD THE UP AND LOCKED POSITION BE VISUALLY VERIFIED.

-400HZ NO LOAD TRIP WAS NOT ENABLED.

-AIRCRAFT SHIP INTEGRATED SECURE TRAVERSE (ASIST) SYSTEM COMPONENT OPERATION COULD NOT BE TESTED/VERIFIED BECAUSE ASIST VLA MARKINGS WERE INCOMPLETE AND NOT CERTIFIED. NAVAIR HAS NOT DEFINED ASIST SYSTEM CERTIFICATION REQUIREMENTS AND DYNAMIC INTERFACE TESTING HAS NOT BEEN COMPLETED IN NSC 1.

-LACK OF SCUPPERS IN THE VICINITY OF THE PORT AND STBD OUTBOARD HANGAR CORNERS AND THE LOCATION OF THE EXISTING EXTERIOR DRAINS IN THESE AREAS WILL ALLOW EXCESSIVE POOLING.

-FLT DECK DELUGE TEST RESULTS WERE NOT PROVIDED.

-AN UNAUTHORIZED EPOXY TYPE MATERIAL IS BEING USED AS AN ADDITIONAL SEALER AROUND BOTH HANGAR DOOR SEALS AND THE ASIST TRACK ENTRY POINT.

-3 NITROGEN BOTTLE STOWAGE RACKS, 1 FOR THE ASIST SYSTEM AND 2 FOR AIRCRAFT SERVICING, WERE NOT INSTALLED IN THE HANGAR.

-HRS ECA ELECTRONICS ACCESS DOOR COULD NOT BE LOCKED IN THE FULLY OPEN POSITION (115 DEGREES MINIMUM REQUIRED).

-3 OF 3 AIRCRAFT FIRE FIGHTING PROXIMITY SUITS WERE MISSING.

-2 OF 2 400HZ CABLES WERE MISSING OPERATIONAL SPECIFICATION LABELS.

6. RDML M. KLEIN, USN, PRESINSURV, RDML R. RABAGO, USCG PE, CAPT B. BAFFER, USCG SURFACE PM, CAPT M. HAYCOCK, NSC PM, CAPT W. KREWSKY, PMRO GULF COAST, CAPT E. NAGLE, CG-4B, CAPT M. SULLIVAN, CGPACAREA (PR), CAPT P. STADT, PCO (WMSL 750), AND MR. R. SCHENK, NGSB VP AND GM USCG PROGRAMS, WERE PRESENT FOR THE TRIAL. CAPT T. D. HOLMAN, USN, WAS THE SENIOR INSPECTOR.

7. PRESIDENT, BOARD OF INSPECTION AND SURVEY, CONCURS WITH THE FINDINGS./

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