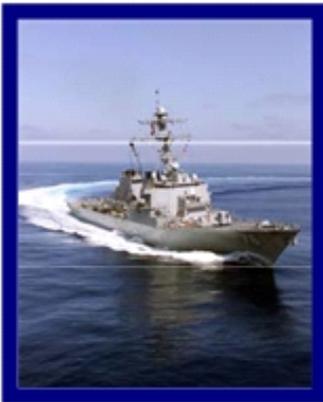


# Southeast Regional Maintenance Center



Product Families

Capabilities  
Manual

27 AUG 2020

## Code 900 Capabilities Manual Change Page

**910** – Removed MK109 slings from DDG's capability list. .

**920** – C925 added capability to weld high yield steel/stainless steel plate

**930** – C931 Diesel Engines, Deleted being able to overhaul Fuel Injectors. Updated the list of applicable OEM's in Notes.

- C932 Added basic MT30 capabilities

- C946 Removed Hot Flushing Water for hoses. No longer required.

**940** – No Updates.

**950** – C951 Added MK-110 to capabilities list.

**960** – No Updates

**970** – Under Hyperbaric Services - Changed Southeast Region Bends Watch to Recompression Facility.

- Added Feedback Cable replacement

- Added hub bearing replacement

**980** – Removed WTDMAT capability on LCS class ships.

# ***Southeast Regional Maintenance Center***

## ***Production Department Code 900***

### **Department Head C900**

Office : (904) 270-5126 ext 3352  
Cell Phone - (904) 813-4639

### **Deputy Dept. Head C900**

Office: (904) 270-5126 ext 3031  
Cell Phone - (757) 667-8893

### **Repair Officer C900**

Office: (904) 270-5126 ext 3315  
Cell Phone (904) 535-4754

## ***Product Family Supervisors (PFS)***

### **Services PF C910**

Office: (904) 270-5126 ext: 3211  
Cell Phone: (904) 300-4107

### **Hull PF C920**

Office: (904) 270-5126 ext: 5824  
Cell Phone: (904) 755-6957

### **Engine PF C930**

Office: (904) 270-5126 ext :3356  
Cell Phone: (904) 434-1301

### **Machine PF C940**

Office: (904) 270-5126 ext: 3349  
Cell Phone: (904) 307-0493

### **Combat Systems PF C950**

Office: (904) 270-5126 ext: 3115  
Cell Phone: (904) 400-3039

### **Production Control PF C960**

Office: (904) 270-5126 ext: 3133  
Cell Phone: (904) 654-3211

### **Diving PF C970**

Office: (904) 270-5126 ext : 3076  
Cell Phone: (904) 610-4419

### **LCS & MAT Group PF C980**

Office: (904)2780-5126 ext. 5040

# SHIPBOARD MAINTENANCE ACTION FORM (2-KILO)

THE 4790/2K DOCUMENTS A DEFERRED MAINTENANCE ACTION. **WITHOUT IT, WORK WILL NOT BE ENTERED IN THE CURRENT SHIP'S MAINTENANCE PROJECT (CSMP).** ALL DECISIONS ABOUT WHERE AND WHEN TO PLACE THE JOB AT A MAINTENANCE ACTIVITY ARE BASED ON THE 2K.

## CLARITY, ACCURACY, AND COMPLETENESS ARE ESSENTIAL.

ADD ALL INFORMATION YOU BELIEVE HELPFUL TO PLAN OR EXECUTE THE JOB IN BLOCK 35 OR ON A 4790/2L.

A Ship's Maintenance Action Form (SMAF) is submitted to document jobs for your CSMP. When filled out properly this form will determine how quickly the work can be placed at a maintenance activity and how easily it can be planned and executed. It may be filled out by hand. The form is submitted through your chain of command to ensure accuracy and completeness.

This section of the SERMC Capabilities and Assessments Manual discusses proper documentation of your work. It contains some tips on accuracy and details required to interpret the request. The reference used in preparing this section is the 3-M Manual, OPNAV 4790.4(series) and the sample SMAF, below.

Use the tips as guidance when completing a SMAF. There are always exceptions to the rules but, in general, proper documentation guarantees the job will reach a successful conclusion. As you go through the steps of filling out an effective SMAF, ask yourself two simple questions:

What information would someone outside my work center need to check out the job on the ship and plan it for a maintenance activity to execute?

Did I provide all this information?

**NOTE:** Additional required shop-specific information may be needed. Refer to the individual shop sections for requirements. We will be working with Sections I, II, IV, & V of the SMAF.

## **Section I – IDENTIFICATION**

**Blocks 1-3** these blocks form the **JOB CONTROL NUMBER (JCN)**. From day one the job will always be identified by this combination.

**Block 4** is the **ALLOWANCE PARTS LIST (APL)** or **ALLOWANCE EQUIPMENT LIST (AEL)** number. It is critical that this be accurate so the correct repair parts can be ordered. The APL number should be taken from the COSAL or SCLISIS (itemized parts list for component to be repaired) held on the ship and must identify the specific item requiring action. Unless the component and system are one and the same, this number must be for a component of the system, not for the system itself. Compare nameplate information with the ship's records.

**Blocks A & B** identifies the **SHIP'S NAME** and **HULL TYPE/NUMBER**.

# SHIPBOARD MAINTENANCE ACTION FORM (2-KILO)

**Block 5** is the **EQUIPMENT NOUN NAME**. Electronic equipment with A/N designators will use the A/N identifiers vice noun name (A/N SQR-5 for example).

**Blocks 6-9** are for diagnostic data analysis gathering. The blocks' choices of contents are listed in the 3-M Manual. Select the choice that best fits the circumstances for each.

**Block 13** should list exact **SERIAL** or **IDENTIFIER NUMBER** of item. For example, use B54545 (the serial number of equipment) or FM 3-151-2 (the valve number).

**Block 14** is the **EQUIPMENT IDENTIFICATION CODE (EIC)**, an alphanumeric identifier of the component, equipment, subsystem or system for which the maintenance is being reported. EICs are found in the EIC manual.

**Block 15** is the **SAFETY HAZARD** identification. Enter an "X" or the appropriate code located in the 3-M Manual. All jobs identified as a safety hazard must include a review by the ship's Safety Officer in command routing.

**Block 16** is the **EXACT LOCATION** of the component identified by deck, frame, or compartment number. Fantail or open bridge is acceptable. This is a must have!

**Block 17** is the **WHEN DISCOVERED DATE**. Enter the Julian date when the malfunction was discovered.

## Section II - DEFERRAL ACTION:

**Block 25** is the total number of **MAN-HOURS EXPENDED** by all personnel up to the time of deferral. It includes one hour for documentation purposes.

**Block 26** is the **DEFERRAL DATE**. Enter the Julian date the job was deferred (written).

**Block 27** is an estimate of how many **SHIP'S FORCE MAN-HOURS** are **REMAINING** to complete the job.

**Block 28** is the **DEADLINE DATE**. This must be the most accurate Julian date on the document. This tells the chain of command and the maintenance activity how much time they have to complete the job. Much time is spent between brokers and ship personnel negotiating a valid deadline date because unrealistic dates are initially provided. This is time the job could be progressing through channels on the way to the shop. Make it as accurate as possible.

# SHIPBOARD MAINTENANCE ACTION FORM (2-KILO)

## Section III – REMARKS / DESCRIPTION

**Block 35** is the heart of the document and is in two parts: the first states in detail what is wrong with the component and, if known, what caused the failure. The second part details what must be done to correct the problem. Separate the two statements with “XXX.” This two-part description applies to all 2Ks. If a 2L is used to illustrate some aspect of the job, mention it in this block and make sure it is available to the maintenance activity when requested. Also state if ship’s force personnel will deliver anything to the maintenance activity. If the job is written to document a casualty report (CASREP), include the CASREP date-time group. Everything up to this point has been generic. Other mandatory information is included in the individual shop sections. Planners who use your 2K to ship-check the job developed these requirements. Choose the heading and requirements that fit your job and use it to guide **Block 35**.

**Block 37** is the **CSPM SUMMARY** which is a condensed description of the problem stated in Block 35. This one line problem statement will appear on management reports. Be brief but accurate.

**Block 38** is the **FIRST CONTACT / MAINT. MAN** who is ideally the person filling out the 2K or an immediate supervisor knowledgeable in the specifics of the 2K.

**Block 39** is the **RATE** of first contact/maintenance person who is familiar with the scope of requested work.

**Block 40** is a **SECOND CONTACT** or **SUPERVISOR**. This person must be familiar with the scope of the requested work.

**Block 41** Choose and enter the appropriate **PRIORITY CODE**. (1 - Mandatory; 2 - Essential; 3 - Highly Desirable; 4 - Desirable) based on latest TYCOM guidance.

**Block 42** Select and enter the appropriate **TYPE AVAILABILITY (TA)** code. (1 - Depot; 2 - IMA; 3 - Fleet Technical Support (TYCOM or NAVSEA); 4 - S/F).

## Section V – SUPPLEMENTARY INFORMATION

**Block 47** is the place to list **Technical Manuals, Blueprints, Electronic Information Bulletins (EIBs)**, or other documents that may be useful to the activity providing assistance. They should be listed by title/number and indicate under “on board” if they are available on board or not. Ensure the document matches any completed machinery alterations (MACHALT) or other changes to the equipment.

**NOTE:** The importance of the need for accuracy and completeness of the completed SMAF cannot be over-emphasized. It should mean the same to anyone who reads it. Readiness, time, and money are casualties of a poorly written job. If you follow the guidelines listed success is guaranteed.

**Additional work center-specific information may be needed. Refer to the individual work center sections for requirements.**

**CODE 910 – SERVICES PRODUCT FAMILY**

**CODE 911 – WEIGHT TEST AND RIGGING**

**CODE 912 – CORROSION CONTROL**

**CODE 926 – RIB REPAIR**

# WEIGHT TEST AND RIGGING SHOP

WORK CENTER # - 911

## STANDARD SERVICES

	SERVICES	TRAINING	MANUFACTURE	WEIGHT TEST
<b>WEIGHT TEST AND RIGGING SHOP - BASIC FUNCTIONS</b>				
<b>WEIGHT TEST AND RIGGING SERVICES</b>				
Conduct visual inspections	x	x		
Conduct weight test (OHE and WHE)	x	x		
Provided rigging support	x			
Manufacture Weight Test Tags	x			
<b>WEIGHT TEST ITEMS</b>				
Accommodation Ladders				x
Antenna Lifting Strong backs				x
Small Boat Slings				x
Portable Chain Falls & Hoists				x
SLAD Davits				x
Single Arm Span wire Davits				x
Vest Davit				x
Deck Edge Safety Nets				x
Elevators (Assist)				x
Synthetic Lifelines			x	x
Kevlar Lifelines			x	x
J-Bar Davits				x
Leadsman Platforms				x
Lifting Cables & Pendants			x	x
Over-the-Side Handling Boom System				x
Ordnance Handling Equipment (OHE) (See Next Page)				x
Platforms				x
Shipboard Installed Chain Falls & Hoists				x
Slings				x
Stanchions				x
Trolleys & Trolley Rails				x
Vertical Ladders				x
Vertical Launch System (VLS) Handling Equipment				x
Weapons Handling Equipment				x
<b>Weight Test SAR Equipment</b>				<b>x</b>
Life Raft Harness			x	x

**Notes:**

1. All rigging support required 72 HRS advanced notice.
2. 911 does not conduct any personnel lifting.
3. 911 does not provide scaffolding for ships force.
4. Rigging through Ellison doors is not permitted by SERMC unless a waiver is signed by an E-7 or above from ship's force and documented in the package as so.
5. Minimum rigging requirements is 150 lbs.

# WEIGHT TEST AND RIGGING SHOP

WORK CENTER # - 911

## ORDINANCE HANDLING EQUIPMENT CAPABILITIES

LHD	LSD	LPD	CG	DDG	LCS
MK-85 MOD-0	MK-105	MK-126	MK-106	MK-52 BEAM	MK-52 MOD-1
MK-87 MOD-1	MK-86 MOD-1	MK-86 MOD- 0	MK-102	MK-105	MK-18 MOD-2
MK-100 MOD-1	MK-87 MOD-1	MK-105 LEGS ONLY	MK-169 SLING	MK-147	MK-105
MK-100 MOD-2	MK-92	MK-92	MK- 9 TORP TRAY	MK-86 MOD-1 SLING	MK-86 MOD-1
MK-86 MOD-1	MK-105 GR LGS	MK-105 GREEN	MK-105	MK-50 MOD-0	MK-87 MOD-1
MK-86 MOD-0	MK-86 MOD-0	MK-70 MOD-2	MK-166	MK-18 MOD-1	
MK-87 MOD-0	MK-123	MK-87	MK-147	MK-99	
MK-106 MOD-0		MK-109	MK-50	MK-106	
MK-123 MOD-0		ME DAVIT MT-22	MK-105	MK-102	
MK-105 PEND		ME DAVIT MT-21	MK-99	MK-9 LOADING TRAY	
MK 105 LEG			MK-151 SLING	ME DAVIT	
MK- 91 MOD-0			MK-18	MK-51 MOD-1	
				MK-169	
				MK-18 MOD-2	
				MK-86 MOD-0	
				MK87M1	
				MK-86 MOD-2 BEAM	
				MK-166	
				MK-176	
				MK151	
				MK 146	
				MT-22 SKIPBOX	
				MT-21 SKIPBOX	

## PAIN T & BLAST

WORK CENTER # - 912

### STANDARD SERVICES

Corrosion Control-Basic Functions (See note 1) (See note 4)	Ship Check	Interior	Exterior	Metal ID Tag	Ship To Shop	Training
Clean & Prepare Component Surface	(See note 2 and 3)			(See note 6)	(See note 5)	
Burn-off Operations(Prior to blast ops)				X	X	X
Anchor Blasting 2,500lbs.				X	X	
Strip Abrasive Blasting				X	X	
Protective Coatings Application						
> Electrostatic Powder Coating 009-32						
> Paint Application						
Doors (Excludes Joiner or Non- Watertight doors)	X	X	X	X	X	X
Hatches	X	X	X	X	X	X
Scuttles	X	X	X	X	X	X
Stanchions	X	X	X	X	X	X
Hand Wheels and valve handles	X	X	X	X	X	X
Sunshields (With NO Visible Damage)	X	X	X	X	X	X
RSL Lockers	X	X	X	X	X	X
Hand Rails	X	X	X	X	X	X
Hose Reels	X	X	X	X	X	X
P-100 Covers	X	X	X	X	X	X
J-Bar Davits	X		X	X	X	X
Davit Covers	X		X	X	X	X
Net Frames ( blast and powder coat only)	X		X	X	X	
Various Covers	X	X	X	X	X	X
Brackets	X	X	X	X	X	X
Debarkation Doors	X	X	X	X	X	X
Coupling Covers	X	X	X	X	X	X
Deck Plates (blast only)	X	X		X	X	X
Life Vest Lockers	X		X	X	X	X
Turtle Backs	X		X	X	X	X
Various Cages	X	X	X	X	X	X
Vent Screens	X	X	X	X	X	X
Turn Buckles	X		X	X	X	X
Chain Pipe Covers	X		X	X	X	X
Hawse Pipe Covers	X		X	X	X	X
Chock Covers	X		X	X	X	X
Tripod (.50 CAL)	X		X	X	X	X
Life Rails ( Excluding GRP)	X		X	X	X	X
Harpoon Clamps	X		X	X	X	X
Fuel Receivers Covers	X		X	X	X	X

**Notes:**

- 1) SERMC CODE 962 (PLANNING) will conduct a ship check of each item requested for Corrosion Control. Shop representatives will escort the ship checker to the items that need to be preserved. Items that require repair will be identified during the ship check and alternative recommendations will be provided. The ship check will also identify the degree of disassembly required for successful corrosion control during the ship check.
- 2) Items will only be accepted for **corrosion protection and not beautification**, i.e. lockers, mess deck chairs, table stands from mess decks, parking signs, fire extinguisher brackets and chains (All including anchor chains). Color must be identified during ship check or will result in **default color of haze gray**.
- 3) **Size/Weight Constraints:** Less than 10 feet in length and weight of 300lbs or less. Powder coat approximately 4FT X 6FT and weight of 300lbs or less. Items must have holes or attachments for hanging.
- 4) **Restrictions:** Engineering deck plate, plastic and rubber surfaces, weapons handling equipment that is subject to weight test cannot be blasted and painted. Glass, small or light weight or thin metal hand wheels, deck wrenches, accommodation ladder, joiner or non-watertight doors will not be accepted.
- 5) All PCMS, Caulking and glue are required to be removed prior to delivery of equipment.
- 6) When submitting multiple items under one JSN, all items under that JSN must be receiving the same processes and delivered at the same time.
- 7) A metal ID tag will be attached to each item along with a ship-to-shop tag with the following information

(example):

Ship's Name (DIXIE), Item Description (WTD), Work Center (EA02), Metal Tag Number (# 001, matching the ship checker manifest list), which process (BL: Blast, PC: Powder Coat, HG: Color HAZE GRAY) and number of pieces 003

[ON WTD'S THE TAC NUMBER WILL BE ON TAG AS WELL]

**METAL ID TAG EXAMPLE**

DIXIE  
HOSE REEL  
EA02 # 001  
FJ/HG  
003

## **RIB REPAIR**

WORK CENTER # - 926

### STANDARD SERVICES

<b>RIB Repair Shop- Basic Functions</b>	<b>Services</b>	<b>Repair</b>	<b>Training</b>
<b>RIB Services</b>			
Maintain RIB Loaner Pool	X	X	
Conduct Hull and Structural Surveys	X		
Conduct RIB Maintenance Training			X
Provide Transportation and Stowage Services	X		
Trouble Shooting Assistance With RIB	X		
Pre-deployment Inspections	X		
<b>RIB Repairs</b>			
Repair and Install Sponson	X	X	X
Replace Non-skid		X	X
Replace Electronic Equipment (VHF Radio, GPS and Whelan Unit)		X	X
Inspect and Repair Auxiliary Electrical Equipment		X	X
Inspect and Repair Steering System		X	X
Conduct Fiberglass Repairs		X	
Conduct Preservation		X	
<b>Small Boat Engine and Propulsion System Repairs</b>			
Conduct Engine Tune Up		X	X
Inspect and Repair Shafts and Propellers		X	X
Inspect and Repair Diesel Engine		X	X
Inspect and Repair Diesel Cooling System		X	X
Inspect and Repair Shafts and Propellers		X	X

#### Notes:

##### A: 2 KILO REQUIREMENTS

- 1: THE BOAT REPAIR FACILITY REQUIRES ONE JOB PER CRAFT; IDENTIFY THE WORK AS HULL, MECHANICAL, OR ELECTRICAL.
- 2: IDENTIFY THE EXTENT OF EACH TYPE OF WORK
- 3: JOB SHOULD INCLUDE HULL NUMBER FOR TRACKING PURPOSES IN BLOCK 35 OF THE 2K.
- 4: DETAIL ALL KNOWN MECHANICAL PROBLEMS AND ELECTRICAL PROBLEMS.
- 5: LOANER RIBS WILL BE ISSUED IAW WFMN 1.

**EXAMPLE OF BLOCK 35 FOR ROUTINE WORK:**

REQUEST SERMC BOAT REPAIR ASSESS AND REPAIR HULL, MECHANICAL AND ELECTRICAL SYSTEMS ON 7-METER RIB, HULL # 7M0000X. ENGINE HAS FAULTY WATER PUMP AND REQUIRES COMPLETE OVERHAUL. ELECTRICAL SYSTEM REQUIRES MINOR GROOM AND IDENTIFICATION OF CHARGING SYSTEM PROBLEM. HULL REQUIRES COMPLETE PRESERVATION AND PAINT. SHIP'S FORCE UNABLE TO IDENTIFY SOURCE OF SLOW LEAK IN SPONSON XXX CONDUCT ASSESSMENT AND/OR OVERHAUL. INSTALL SECURITY PACKAGE ALT 7MRB002C. LOUD GRINDING NOISE IN THE OUT DRIVE UNIT OF RIB HULL #7M0000X XXX REPAIR OR REPLACE OUT DRIVE AND COMPONENTS.

**Notes:**

- 1: ALL BOATS WILL BE ASSESSED FOR TOUCH-UP OR FULL PAINT AS NEEDED AFTER REPAIR.
- 2: PAINTING IS CONDUCTED BY SHOP 912.
- 3: WE REQUIRE REMOVAL OF SLINGS, CO2 BOTTLES, LIFE PRESERVERS, FLOATATION DEVICES, TOOL BAGS, MEDICAL KITS, BATTLE LANTERNS, MOORING LINES, ANCHORS, SAR EQUIPMENT, AND ANY OTHER SHIPS FORCE GEAR PRIOR TO DELIVERY OF CRAFT.
- 4: DD 1149 WILL BE UTILIZED FOR TEMPORARY CUSTODY TRANSFER. E-7 OR ABOVE REQUIRED FOR SIGNATURE.
- 5: WHEN SUBMITTING JOB IDENTIFY ANY KNOWN MECHANICAL PROBLEMS REQUIRING ATTENTION.
- 6: IN THE EVENT ENGINE BECOMES SALT WATER CONTAMINATED (FLOODING) SHIP'S FORCE MUST REFER TO NSTM 233 CHAPTER 233-6.17-18 (TREATMENT AFTER IMMERSION IN SEAWATER) AND FOLLOW PROCEDURE IN ORDER TO MINIMIZE ENGINE DAMAGE. IT IS IMPERATIVE TO FLUSH ENGINE WITHIN 24 HOURS.
- 7: WHEN DELIVERING THE RIB, SHIPS FORCE PERSONNEL ARE TO ENSURE THE SECURITY ARCH, EMERGENCY TILLER, MOBI, AND GPS ARE ONBOARD FOR INSPECTION AND REPAIR.

**B: ADDITIONAL INFORMATION**

- 1: LOANER RIB IS AVAILABLE ON A CASE-BY-CASE BASIS TO SUPPORT SHIPS UNDER WAY AND TRAINING REQUIREMENTS IAW WFMN 1.
- 2: WHEN DELIVERING THE RIB IT IS REQUIRED THAT SHIPS' FORCE REPRESENTATIVE IS PRESENT TO ANSWER QUESTIONS AND PROVIDE A P.O.C. (E-7 OR ABOVE)
- 3: BOAT REPAIR FACILITY WILL CONDUCT A PRE-DEPLOYMENT INSPECTION A MINIMUM OF 30 DAYS PRIOR TO DEPLOYMENT BUT WILL NOT CONDUCT GROOMS (TUNE-UP, OIL AND FILTER CHANGE).
- 4: ACTUAL SCOPE OF WORK AND COMPLETION DATES WILL DEPEND ON FINAL ASSESSMENT. ANY CHANGES WILL BE DISCUSSED AT THE WORK DEFINITION CONFERENCE (WDC).

**C: SHOP LIMITATIONS**

- 1: NO TURBOCHARGER, MARINE GEAR/TRANSMISSION OR FUEL INJECTION PUMP OVERHAUL CAPABILITY
- 2: NO OUT DRIVE OVERHAUL CAPABILITY (REMOVE AND REPLACE ONLY).
- 3: SHOP IS NOT CAPABLE OF REPAIRING ELECTRONIC EQUIPMENT SUCH AS GPS AND DEPTH SOUNDER UNITS

## **CODE 920 – CORROSION AND HULL PRODUCT FAMILY**

**CODE 922 - WATERTIGHT DOOR AND CLOSURE**

**CODE 924 – PIPE**

**CODE 925 – WELD / BRAZE**

**CODE 928 – SCBA SERVICES**

# WATERTIGHT DOOR AND CLOSURE SHOP

WORK CENTER # - 922

## STANDARD SERVICES

	SERVICES	TRAINING	REPAIRS	OVERHAUL
WATERTIGHT CLOSURES SHOP - BASIC FUNCTIONS				
<b>DOOR SERVICES</b>				
Conduct structural surveys of closure	X			
Conduct watertight door training	X	X		
Conduct basic PMS training with DCPOs	X	X		
<b>WATER TIGHT CLOSURES REPAIRS</b>				
Weld repair doors (ship to shop)			X	
Cut out and replace watertight door and frame assembly				X
Manufacture hinges for ship's force			X	
Doors (All Decks)			X	X
Hatches (All Decks)			X	X
Scuttles (All Decks)			X	X
Conduct repairs to Ellison doors (See Shop Limitations)			X	
Repair deck drains (unless hot work is required)			X	
Fire zone doors			X	
Conduct preservation on closures			X	X

### SHOP LIMITATIONS:

- Some closures have special weld requirements and are required to be ship checked prior to work induction.
- Counter balance and ballistic doors are not repaired at SERMC.
- Door services for MAFO doors is limited to inspection and testing IAW NSTM 600 Volume 1
- \* Door services for Ellison Doors is limited to inspection and timing adjustment IAW NSTM 600 Volume 1

### SHIP'S FORCE REQUIREMENTS:

- Removal of all PCMS.
- Removal of label plates and ensure ship to shop tag is installed

# WELD/BRAZE SHOP

WORK CENTER # - 925

## STANDARD SERVICES

	SERVICES	TRAINING	REPAIRS
WELD/BRAZE SHOP - BASIC FUNCTIONS			
<b>WELD/BRAZE SERVICES</b>			
Gas Metal Arc (MIG) Welding (Greater Than 3/16 In) Alumn.	x	x	
Gas Tungsten Arc (TIG) Welding	x	x	
High Yield Steel (HY80) and Stainless Steel Plate Welding	x		x
Shielded Metal Arc (SMA) Welding(Greater Than 3/16 In)	x	x	
Portable MIG Welding (Non Ferrous) Alumn. Shipcheck dependent	x	x	
Portable SMA Welding (Ferrous/Non Ferrous). Shipcheck dependent	x	x	
Portable TIG Welding (Ferrous/Non Ferrous). Shipcheck dependent	x	x	
Weld / Braze qualification program	x	x	
<b>METAL FABRICATION AND REPAIRS</b>			
Shear and form metal	x		x
Bending various metal	x		x
Notching, rolling, punching various metal	x		x
Sheetmetal fabrication (limited capability)	x		x
Pipe brazing and manufacturing	x		x
Lock-Ring Pipe up to 2 ¼ inch	x		

# SCBA SERVICES

WORK CENTER # - 928

## STANDARD SERVICES

SCBA SHOP- BASIC FUNCTIONS	Inspect	Test	Repair	Train
<b>PMS MIP 5519/016</b>				
PMS CHECK 5519/016 M1-R INSPECT, TEST AND CLEAN BREATHING APPARATUS	x	x		x
PMS CHECK 5519/016 M-2 INSPECT AIR CYLINDER PRESSURE	x			x
PMS CHECK 5519/016 S-1 REVIEW HYDROSTATIC DATE AND EXPIRATION DATE	x			x
PMS CHECK 5519/016 36M-1 PERFORM SCBA FUNCTIONAL FLOW TEST	x			x
PMS CHECK 5519/016 R-2 VISUALLY INSPECT AND REFILL AIR CYLINDER	x			x
PMS CHECK 5519/016 U-1 PREPARE AIR CYLINDER FOR HYDROSTATIC TEST	x			x
CONDUCT HYDROSTATIC TESTING OF SCBA CYLINDERS	x	x		
CONDUCT MINOR EPOXY RESIN REPAIRS TO CYLINDER GEL COATING IAW CGA PAMPHLET C-6.1	x	x	x	
INSPECT, REPAIR AND REPLACE CYLINDER VALVE SEATS IAW MFG. TECH MAN	x	x	x	
INSPECT, TEST, REPAIR REDUCER IAW MFG. TECH MAN	x	x	x	
INSPECT, TEST, REPAIR REGULATOR IAW MFG. TECH MAN	x	x	x	
PERFORM SCBA PACK AND CYLINDER INSPECTION AND REPAIR IAW ASA CHECK SHEET	x			x

**Note:** Maximum number of items are limited per each 2-Kilo.

1. Hydrostatic testing of SCBA bottles - Write 2-Kilo for bottles to be bundled as per Repair Locker (i.e. Repair 2 or Repair 5)
2. Testing of masks/breathing apparatus are limited to 25 per 2-Kilo.

## **CODE 930 – ENGINE PRODUCT FAMILY**

**CODE 931 – DIESEL ENGINE SERVICES**

**CODE 932 – GAS TURBINE REPAIR**

**CODE 946 – FLEX HOSE SERVICES**

**CODE 947 – HEAT EXCHANGER SERVICES**

**CODE 958 – OUTSIDE ELECTRICAL**

**CODE 958A – MOTOR REPAIR SERVICES**

# DIESEL ENGINE SERVICES

WORK CENTER # - 931

## STANDARD SERVICES

DIESEL ENGINE - BASIC FUNCTIONS	Overhaul	Repair/ Replace	Testing	Inspections
<b>Inspect and Repair Lube Oil Systems</b>				
Inspect Lube Oil Systems (General)				X
Lube Oil Systems.		X		
Set Simple Regulating/Relief Valves			X	
Set backlash and Change New/Rebuilt Attached pumps		X		
<b>Test and Repair:</b>				
Governors		X	X	X
Fuel Injectors (Pop Test)		X (1,2)	X (1,2)	
Fuel Pumps		X (1,2,3)	X (1,2,3)	X (1,2,3)
<b>Repair or Replace Engine Components</b>				
CYLINDER HEAD		X(1, 6)		X
CYLINDER LINER		X(1)		X
PEDESTAL BEARING		X(2)		X
VIBRATION DAMPER		X		X
<b>Miscellaneous:</b>				
P-100 Engine	X	X	X	X
EBAC Air Compressors/Engine	X	X	X	X
Emergency Power Portable Generators	X	X	X	X

**Notes:** (X# denotes only specific engine currently capable due to special tools availability, and/or personnel skillset presently onboard. No # denoted means Code 900 should be able to accomplish engines 1-6 in specific area listed)

1. COLT PIELSTIC PC2.5 (LSD), PC2.5 STC(LPD), **2.5V STC (LCS)**
2. FAIRBANKS MORSE 8 1/8
3. ALCO \*
4. CATERPILLARS \*
5. PAXMAN \*
6. ISOTTA-FRASCHINI \*

\* Case-by-cases repair request for following engine being developed: FAIRBANKS MORSE 8 1/8  
ALCO, CATERPILLARS, PAXMAN & ISOTTA-FRASCHINI.

\* Internal engine inspections are in conjunction with Code 200 DEIs.

# **GAS TURBINE REPAIR**

**WORK CENTER # - 932**

## **STANDARD SERVICES**

<b>GAS TURBINE- BASIC FUNCTIONS</b>	<b>Inspect/ Assist</b>	<b>Remove</b>	<b>Repair</b>	<b>Replace</b>	<b>Training</b>
Rolls Royce/Allison 501 K17/K34 GTG					
Engine Assembly		X		X	X
Engine Compressor Front/Rear Bearing Seal Assembly		X		X	X
Exhaust Flexible Joint Assembly (AT Module)		X		X	X
Gear High & Low Speed Bearings		X		X	X
Open, Close Upper Compressor Casing					
Power Take-Off (PTO) Shaft Assembly		X		X	X
Replace Turbine Combustion Liner		X		X	X
Turbine Hot Sections		X	X	X	X
9130/ 9140 GTG RIMSS Engine		X		X	X
9130/ 9140 GTG Engine Shock mounts		X		X	X
<b>G/E LM2500 GTM</b>	<b>Inspect/ Assist</b>	<b>Remove</b>	<b>Repair</b>	<b>Replace</b>	<b>Training</b>
Compressor VSV's Inner/Outer Bushing		X		X	X
Compressor Rotor Blades, Stage 3-16		X		X	X
C-Sump Lube Oil Nozzle		X		X	X
Exhaust Flexible Joint Assembly		X	X	X	X
1ST Stage Power Turbine Nozzle Segments		X	X	X	X
Gas Generator Assembly		X		X	X
High Pressure Turbine Rotor Assembly		X		X	X

# GAS TURBINE REPAIR

WORK CENTER # - 932

## STANDARD SERVICES

G/E LM2500 GTM (CON'T)	Inspect/ Assist	Remove	Repair	Replace	Training
High Pressure Turbine Stage 1 Nozzle Assembly		X		X	X
High Speed Coupling Shafts		X		X	X
HP Turbine Rotor 1st Stage Blades		X		X	X
Number 3/5/6 Bearing & Stationary Seal Assembly		X		X	X
Power Turbine Assembly		X		X	X
Power Turbine Stator Cases		X		X	X
Separate Gas Generator at Power Turbine				X	X
Separate the Gas Gen AT TMF/CRF Flanges				X	X
Stage 1 Compressor Rotor Blade		X	X	X	X
Stage 2 Compressor Rotor Blade		X	X	X	X
Power Turbine Module Boot		X		X	X
<b>Provide Inspection/Assistance</b>					
Conduct Power Turbine Inspection(IAW GT Bulletin)	X				X
Conduct Turbine Mid-Frame Anti Rotation Inspection	X				X
<b>Miscellaneous Services</b>					
Balance & Trim G/E LM2500 (MGTI)					
<b>Training Equipment Available (Static Displays)</b>					
Allison 501-K17 Gas Turbine Engine					X
G/E First Stage Blade/Rotor Assembly					X
G/E LM2500 Gas Generator Assembly					X
G/E LM2500 Power Turbine Assembly					X
<b>MT30 GTM</b>					
Accessory Gearbox Speed Pick-up (1)		X		X	
Fuel Nozzles (1)		X		X	

### Notes:

- 1) MT30 repairs will be addressed on a case by case basis with FTA consultation. Initial repairs will be limited to external part replacement.

## FLEX HOSE SERVICES

WORK CENTER # - 946

### STANDARD SERVICES

FLEX HOSE - BASIC FUNCTIONS	Cut & Skive	Fabricate	Flush	Hydrostatic Test
Special Purpose Hoses				
Diesel Engine Hoses	×	×	×	×
Gas Turbine (LM 2500) Hoses	×	×	×	×
Internally Reinforced Non-Collapsible Hoses	×	×	×	×
Magazine Sprinkler Hoses (PRP)	×	×	×	×
Steel Braid Hoses From -4 Thru -24	×	×	×	×
Rubber Hoses From -4 Thru -128	×	×	×	×
Hoses Up To 3 In (Machine)	×	×	×	×
Hydrostatic Test (In Shop)				
Flex Hoses Up To 10,000 PSI	×	×	×	×
Torpedo Tube Air Flasks To 2600 IAW PMS			×	×
High Pressure Air Compressor Coolers (air side)			×	×
Crimp Flexible Hoses				
Hoses Up To 2 In (Machine)		×	×	×

#### Notes:

- 1) All hoses are ship to shop.
- 2) All hoses must be free of hazardous liquids prior to delivery to the shop.
- 3) All hoses needs to have proper FME prior to delivery to the shop.
- 4) All hoses must have ship to shop tags attached prior to delivery to the shop
- 5) All hoses that fails hydro or visual inspection will not be returned to the ship and will be destroyed.
- 6) Shop does not manufacture the following types of hoses: Nitrogen service, Halon, Gas Service, and Metal with welded inserts.

## HEAT EXCHANGER SERVICES

WORK CENTER # - 947

### STANDARD SERVICES

HEAT EXCHANGER- BASIC FUNCTIONS	Cleaning	Repair	Testing	
Perform Miscellaneous Repairs on Heat Exchangers				
Coolers-Air	X (1,2)			
Coolers- Oil	X (1,2)			
Coolers- Water	X (1,2)			
Lube Oil Heaters	X (1,2)			
Replace Cooler Zincs		X		
Provide Cleaning Services				
Chemical	X			
Flushes- Water	X			
Lancing- Air	X			
Lancing- Water (In Shop)	X			
Lancing- Water (On Ship, Pumping Services Provided by Maint. Team)	X			
Troubleshoot, Repair and Test:				
Plug Miscellaneous Heat Exchanger Tubes		X	X	
Apply Polymeric Coating		X	X	
Hydrostatic Testing				
Pressure Vessel and Components			X	

**Notes:**

- 1) Ship Force is responsible for removing all interferences prior to cooler removal and cleaning onboard.
- 2) Ship Force is responsible for coordinating pumping services prior to cooler cleaning onboard.

**OUTSIDE ELECTRICAL**  
**WORK CENTER # - 958**

\*\*\* Aloft work to be coordinated by Ship Force and Ships Superintendent  
 (Aloft chit, man lift, scaffolding)\*\*\*

STANDARD SERVICES-Applies to all applicable classes of US Navy surface ship

ELECTRICAL- BASIC FUNCTIONS	Inspect	Fabricate	Repair	Replace (Note 3)	Install	Test	Training	Ship to Shop	Ship-Board
<b>Cable Repairs</b>									
Cable Banding Material	x	x	x	x	x		x		x
Cabling Fabrication(up to THOF-400) see note 1	x	x	x	x			x		x
Cable tag fabrication		x						x	
Cable Jacket	x		x	x			x		
<b>Cableway Inspection and Reporting</b>	Inspect								Ship- Board
Cableway Assessment	x								x
<b>A/C Equip, Controllers&amp; Contactors</b>	Inspect	Trouble shoot	Repair	Replace	Install	Test	Training	Ship to shop	Ship- Board
	x		x		x	x	x	x	x
<b>Valve Actuators</b>	Inspect	Trouble shoot	Repair	Replace	Set	Test	Training	Ship to shop	Ship- Board
Remote electrical (Nu Torque, Limit torque, and MORPAC)	x		x		x	x	x	x	x
<b>Other Electrical Equipment</b>	Inspect	Trouble Shoot	Repair	Replace (Note 3)	Set	Test	Training	Ship to Shop	Ship-Board
Battery Charging Stations (Yellow Gear, Forklifts, Etc.)	x		x		x	x	x	x	x
Bus Transfer Devices (ABT & MBT)	x		x				x	x	x
Heating Elements (incl. Dehydrators)	x		x				x		x
Indication Circuits and Lights	x		x				x		x
Lights: Landing, Navigation, and Signaling (except where imbedded in deck)	x		x				x		x
Windshield wipers	x		x				x	x	
Solenoids	x		x	x			x		x
Switches and Interlocks	x		x				x		x
Visual Signaling Systems	x		x				x		x
Impedance Testing (Note 1)						x			x

**Note:**

1. Impedance testing is required for all titanium piping seawater system components.

## MOTOR REPAIR SERVICES

WORK CENTER # - 958A

### STANDARD SERVICES

MOTOR REPAIR - BASIC FUNCTIONS	Cleaning Preserve Drying	Testing	Assembly And Disassembly	Inspections
<b>Prepare Motor for Reconditioning</b>				
Abrasive Blasting and Preparation	X			
Drying	X			
Disconnect motor leads and inspect controller for overload relay specification			X	
Check motor controller cable for insulation resistance and short		X		
<b>Inspect, Repair and Test AC Motors</b>				
Receipt Inspection				X
Electrical Test		X		
Disassemble Motor			X	
Fresh Water Wash Motor Stator			X	
Dry Motor Stator			X	
Install New Bearings			X	
Test Motors up to 150 HP (In Shop)		X		
Balance and Spin Test Motors Up to 250 lbs		X		
Field balancing		X		
<b>Test Run AC Motors (In Shop Unloaded)</b>				
Motors Up To 150 HP		X		

**Notes:** THE FOLLOWING ARE SHOP RESTRICTIONS. THESE REQUIREMENTS MUST BE COORDINATED THROUGH THE APPLICABLE SHIPSUP:

1. SHOP **958A** DOES NOT ROUTE TEMPORARY POWER TO ANY EQUIPMENT.
2. SHOP **958A** DOES NOT RECEIVE MOTORS THAT REQUIRE AN OUTSIDE CONTRACTOR TO REWIND MOTOR.

## **CODE 940 – MACHINE PRODUCT FAMILY**

**CODE 941 – INSIDE MACHINE**

**CODE 942 – OUTSIDE MACHINE**

**CODE 943 – PUMP**

**CODE 944 – VALVE**

**CODE 945 – AIR CONDITIONING AND REFRIGERATION**

**CODE 948 – LOCKSMITH & ENGRAVING**

# INSIDE MACHINE SERVICES

WORK CENTER # - 941

Inside Machine - Basic Functions	Inspect	Manufacture	Repair	Machine	Training
<b>Pump/Motor Repair:</b>					
Couplings (Straight & Tapered)	X		X	X	X
Mechanical Seal Stationary Housing	X			X	X
Wearing Rings	X	X		X	X
Motor End-bells	X		X	X	X
Shaft Sleeves	X	X		X	X
Shaft (Pump & Motor)	X	X	X	X	X
Bearing Housings	X		X	X	X
<b>Valve Repair:</b>					
Flange Layout/Bolt Hole Transfer	X	X	X	X	X
Leslie Top Cap	X		X	X	X
Valve Stems	X	X	X	X	X
Valve Seat	X		X	X	X
Valve Disk	X		X	X	X
Phonographic Finishes	X		X	X	X
<b>Gears Manufacture &amp; Repair:</b>					
Bevel Gears	X	X	X	X	X
External Splines	X	X	X	X	X
Spur Gears	X	X	X	X	X
Stub Tooth Gears	X	X	X	X	X
<b>Heat Treatment of Metals: (up to 8" x 8" x 12")</b>					
Anneal Hardened Steel	X	X	X	X	X
Case Harden Metals	X	X	X	X	X
Harden Ferrous Metals	X	X	X	X	X
Heat Treat Non-Ferrous Metals	X	X	X	X	X
Normalize Ferrous Metals	X	X	X	X	X
Temper Hardened Steel	X	X	X	X	X
Test Hardness of Metals	X				X
<b>Cutting Tools Sharpening &amp; Protection:</b>					
Drill Bits	X			X	X
High Speed Steel Cutters	X			X	X
<b>Precision Machining to .0005"</b>					
Drill Press				X	X
Radial Arm Drill Press				X	X
Lathe (Manual & CNC)				X	X
Milling Machine (Horizontal & Vertical) (Manual & CNC)				X	X
Grinding (Surface & Pedestal)				X	X
Vertical Turret Lathe				X	X
Band Saw (Horizontal & Vertical)				X	X
Hydraulic Press (150 tons)				X	X
Electrical Discharge Machining (Disintegrator & Wire)				X	X

## OUTSIDE MACHINE SERVICES

WORK CENTER # - 942

Outside Machine - Basic Functions	Inspect	Install/Fit-up	Repair	Replace	Training
<b>Seals &amp; Sealing Surface:</b>					
Line Shaft Bearing Seals	X	X		X	X
Thrust Bearing Seals	X	X		X	X
Shaft Bulkhead Seals (Crane)	X	X		X	X
Stein Seals	X	X		X	X
Tri-Seals	X	X		X	X
Labyrinth Seals	X	X		X	X
<b>Resilient Mounts:</b>					
Auxiliary Equipment Mounts	X	X		X	X
Sound Mounts	X	X		X	X
<b>Portable Machining Operations:</b>					
Threaded Hole (Keenserts & Heli-coil)	X	X		X	X
Broken Bolt & Studs	X		X		X
<b>Deck Equipment:</b>					
Brake Drum & Cylinders	X	X	X	X	X
Retractable Chocks & Bits	X	X	X	X	X
Sliding Vertical Pad-eye	X	X	X	X	X
Winches/Wildcats	X	X	X	X	X
Mechanical Deck Equipment	X	X	X	X	X
<b>Miscellaneous Equipment:</b>					
Deck Drains	X	X	X	X	X
Mechanical Expansion Joints	X	X	X	X	X
Antenna Tilt Mechanisms	X	X	X	X	X
Reach Rod Assemblies	X	X	X	X	X
Valve Operator Assemblies (Teli-Flex, Uni-Flex)	X	X	X	X	X
Ship's Binocular Carriage	X	X	X	X	X
SQR-19 (Mechanical Components)	X	X	X	X	X
Reduction Gears	X	X	X	X	X
Gear Boxes	X	X	X	X	X
Lube Oil Purifier	X	X	X	X	X
Fuel Oil Purifier	X	X	X	X	X
Bridge window assembly	X	X		X	X
Fan coil assembly	X	X	X	X	X
SLAD (Mechanical Components)	X	X	X	X	X

## PUMP SERVICES

WORK CENTER # - 943

Pump Shop - Basic Functions	Inspect	Repair	Overhaul	Training
Firemain	X	X	X	X
Sea Water Service	X	X	X	X
Chill Water	X	X	X	X
Lube Oil Service (Electric & Attached)	X	X	X	X
Lube Oil Transfer	X	X	X	X
Fuel Oil Service	X	X	X	X
Fuel Oil Transfer	X	X	X	X
Controllable Reversible Pitch (Electric & Attached)	X	X	X	X
Potable Water	X	X	X	X
Reverse Osmosis	X	X	X	X
Brine	X	X	X	X
Bromine	X	X	X	X
Feed (Steam Plants)	X	X	X	X
Condensate (Steam Plants)	X	X	X	X
Main Feed Booster (Steam Plants)	X	X	X	X
Aegis Cooling	X	X	X	X
Gas Turbine Generator Sea Water Cooling	X	X	X	X
Bilge	X	X	X	X
Oily Water Separator	X	X	X	X
Diesel Cooling	X	X	X	X
Distillate	X	X	X	X
Drain	X	X	X	X
Condensate	X	X	X	X
Stripping	X	X	X	X

# VALVE SERVICES

WORK CENTER # - 944

Valve Shop - Basic Functions	Remove / Install	Repair	Test	Set	Training
			(Note 1)		
<b>Butterfly:</b>					
10" and Below (except Bleed Air & Ventilation valves)	X	Note 3	X	X	X
<b>Swing Check:</b>					
10" and Below	X	Note 3	X	X	X
<b>Diaphragm Control Valves(CLAVAL/HYTROL):</b>					
10" and Below (except Diaphragm Control Valve Controllers)	X	Note 3	X	X	X
<b>Gate:</b>					
10" and Below	X	Note 3	X	X	X
<b>Globe:</b>					
10" and Below	X	Note 3	X	X	X
<b>Ball:</b>					
6" and Below	X	Note 3	X	X	X
<b>Pneumatic Systems (except Nitrogen)</b>					
Air Start Valves (only up to ambient temperature)	X	Note 3/5			X
Air Control Valves (only up to ambient temperature)	X	Note 3/5			X
High Pressure Air Valves	X	Note 3/5	X	X	X
Low Pressure Air Valves	X	Note 3	X	X	X
Reducing Valves & Manifolds	X	Note 3/5	X	X	X
Regulators	X	Note 3/5	X		X
<b>Regulating Valves:</b>					
Air	X	Note 3/5	X		X
Water	X	Note 3	X		X
Temperature (except testing of sensing element)		Note 3	Note 4	Note 4	X
<b>Ballast Control Valves:</b>					
10" and Below	X	Note 3	X	X	X
<b>Relief Valves:</b>					
All (Note 2)	X	Note 3	X	X	X
Steam Kettle (electric only)	X	Note 3	X	X	X
Hot Water Heaters Safety (electric only)	X	Note 3	X	X	X
<b>Fleet Valve Repair Assist:</b>					
Facilities available to assist ship's force in the accomplishment of repairs, setting & testing up to 6000psig.					X
Assistance for repairs if relief valve testing fails.					X
<b>Manifolds:</b>					
All (except Hydraulic)	X	Note 3/5	X	X	X
<b>Boiler Propulsion Services:</b>					
Burner Barrel			X		X
DFT Spray Nozzle			X		X

**Notes:**

1. Leak test up to 6000psig (water) & 3500psig (air); Vacuum Breakers, Reducing Valves & Regulators (seat tightness only).
2. All systems except Hydraulic, Nuclear, Subsafe, O<sub>2</sub> & N<sub>2</sub>.
3. Ship-to-Shop all valves weighing less than 150lbs; Cradle-to-Grave (R,R,R) for all valves weighing 150lbs or more, if at pier side NAVSTA Mayport (if at shipyards, ship & shipyard to make arrangements for removal, reinstallation & transportation).
4. Must be accomplished during normal operating conditions within the appropriate system in order to set high/low limits.
5. Pneumatic reducing, manifolds or regulating valves without an electrical input.

# AIR CONDITIONING & REFRIGERATION SERVICES

WORK CENTER # - 945

A/C & R Shop - Basic Functions	Inspect	Install	Repair	Replace	Align	Overhaul
<b>A/C &amp; R Systems:</b>						
Centrifugal Compressor Mechanical Seal	X	X		X		
Reciprocating Compressor (York & Carrier)	X	X	X	X	X	X
Reciprocating Compressors Mechanical Seal	X	X		X		
Discharge Valves	X	X	X	X		X
Suction Valves	X	X	X	X		
Mechanical Capacity Control Systems	X	X	X	X	X	
Thermostatic Expansion Valves	X		X		X	X
Evaporator Pressure Regulators	X		X		X	X
Henry Pack Less Valves	X		X		X	X
<b>Dehydrators</b>						
HP Dehydrators (Freon Type or Desiccant)	X		X	X	X	X
LP Dehydrators (Freon Type or Desiccant)	X		X	X	X	X
<b>HP Air Compressors</b>						
Dresser-Rand HPAC Model 30NL30	X		X	X	X	X
Dresser-Rand HPAC Model 20NL-7 and 7E	X		X	X	X	X
Dresser-Rand HPAC Model 20NL11A thru 11G	X		X	X	X	X
Dresser-Rand HPAC Model 20NL12 and 12A	X		X	X	X	X
RIX HPAC Model 5R5 (air end only)	X		X	X	X	X
Worthington/Dresser-Rand Model 20NL 13/20	X		X	X	X	X
<b>MP Air Compressors</b>						
Sauer MPAC Model WP121L (LPD-17 and LCS Class)	X		X	X	X	X
<b>LP Air Compressors</b>						
Dresser-Rand LPAC NAXI 100-3 thru 4A/B (air end only)	X		X	X	X	X
RIX LPAC 2JS2B-150	X		X	X	X	X
RIX LPAC STAR 200	X		X	X	X	X
<b>Hydraulic Systems:</b>						
Actuators	X		X	X	X	X
Control Valves	X		X		X	X
Steering Gear Pumps	X		X	X	X	X
<b>Weight Handling Systems (SOT III):</b>						
Cargo Elevators	X				X	
Vertical Package Stores Conveyors	X				X	
Dumbwaiter	X				X	
Torpedo Strike Down and Lift System	X				X	
Weapons Elevators	X				X	
Boat Davits	X				X	
<b>Material Assessments:</b>						
Laundry & Galley	X		X	X	X	
Auxiliary	X		X	X	X	
Air	X		X	X	X	

# LOCKSMITH & ENGRAVING SERVICES

WORK CENTER # - 948

Key/Lock & Engraving - Basic Functions	Pick	Re-Key / Change Combo	Install	Duplicate	Forceful Entry
<b>Key &amp; Lock:</b>					
Doorknobs	X	X	X	X	X
Cam Locks	X	X	X	X	X
Best Locks	X	X	X	X	X
Interchangeable Core Locks	X	X	X	X	X
Padlocks	X			X	X
Flat Keys				X	
Sargent & Greenleaf (all models)		X	X		X
MAS Hamilton		X	X		X
Mosler 302 (Hand Change)		X	X		X
Mosler 402 (Key Change)		X	X		X
Simplex Pushbutton/Electronic Access Control		X	X		X
Mortise Cylinder			X		X
Rim Cylinder			X		X
Key-In-Knob			X		X
Fire Safes, Field Safes & File Cabinets		X	X		X
GSA Approved Vault Doors & Containers, Group 5 & 6		X	X		X
GSA Safe Re-Certification		X			
Lagard		X	X		
<b>Engraving:</b>	<b>Laser</b> (24" x 24" Max)		<b>Rotary</b> (24" x 24" Max)		<b>Brady</b> (10" Height Max)
Plastic	X		X		
Brass	X		X		
Black Brass	X		X		
Aluminum	X		X		
Anodized Aluminum	X		X		
Stainless Steel	X		X		
Wood	X		X		
Vinyl					X

**NOTES:**

1. Fiscal Year engraving work is routed and authorized through the Ship Superintendent on a FY20 Engraving Request.
2. Fiscal Year locksmith work is considered non-intrusive, and requested through the Ship Superintendent. Some examples of non-intrusive work include; combination changes (combination is known), manipulation (combination is not known), simplex door combination changes (mechanical, if combination is known), cipher door combination changes (electronic, if combination is known), and key duplication.

## **CODE 950 – COMBAT SYSTEMS PRODUCT FAMILY**

**CODE 951 – CIWS / 25MM**

**\*CIWS GAHS**

**\*MK38 25MM CHAIN GUNS**

**CODE 952 – ORDNANCE**

**\*SURFACE VESSEL TORPEDO TUBES**

**\*VERTICAL LAUNCH SYSTEM**

**CELL HATCH / DELUGE VALVE / DELUGE FLUSH/WATER TREATMENT**

**CODE 953 – 2M / GOLD DISK / FIBER**

**\*MINIATURE/MICRO-MINIATURE (2M) MODULE TEST & REPAIR (MTR)**

**\*GOLD DISK DEVELOPMENT**

**\*FIBER OPTIC REPAIR**

**CODE 954 – SRBOC REPAIR**

**CODE 957 – ANTENNA REPAIR**

**CODE 959C - LEVEL 1 GAUGE CALIBRATION**

# CLOSE-IN WEAPONS SYSTEM AND MK38 25MM

WORK CENTER # - 951

STANDARD SERVICES - Applies to all applicable classes of US Navy surface ships

Basic Functions	Inspect	Removal / Replace	Trouble shoot	Repair / Refurbish	Overhaul	Preserve / Paint	Test	Ship to Shop	Training
CODE 951 CIWS GAHS / 25MM CHAIN GUN									
CIWS GAHS Repair (See Note 1)	X	X	X	X	X	X	X	X	X
25MM CHAIN GUN MK-38 MOD 1 (See Note 2)		X		X	X	X	X	X	X
25MM CHAIN GUN MK-38 MOD 2 (M242 Cannon only)		X		X	X	X	X	X	X
LCS MK-110	X	X		X				X	

Notes:

1. CIWS GAHS Repair: See SERMC Waterfront Maint. Note 12
2. MK38 25MM Chain Gun Repair: See Waterfront Maint. Note 9

# ORDNANCE REPAIR SVTT / VLS

WORK CENTER # - 952

STANDARD SERVICES - Applies to all applicable classes of US Navy surface ships

Basic Functions	Inspect	Removal / Replace	Trouble shoot	Repair / Refurbish	Overhaul	Preserve/P aint	Test	Ship to Shop	Training
<b>CODE 952 ORDNANCE REPAIR</b>									
<b>SVTT REPAIR</b>									
SVTT Breech Mechanism (see Note 3)	X			X	X	X	X	X	X
SVTT R.A.C. (see Note 3)		X		X	X	X	X		X
<b>VERTICAL LAUNCH SYSTEM (VLS) Repair</b>									
VLS CELL HATCHES (see Note 4)									
VLS DELUGE WATER TREATMENT (see Note 5)				X					
VLS DELUGE VALVE			X	X	X		X	X	

**Notes:**

- 3. SVTT Repair: See SERMC Waterfront Maint. Note 14
- 4. VLS Cell Hatch Repair: See SERMC Waterfront Maint. Note 20
- 5. VLS Deluge Valve OVHL; Flush/Water Treatment: See SERMC Waterfront Maint. Note 18

## **2M REPAIR**

WORK CENTER # - 953

STANDARD SERVICES - Applies to all applicable classes of US Navy surface ships

Basic Functions	Inspect	Removal / Replace	Trouble shoot	Repair / Refurbish	Fabricate	Test	Ship to Shop	Full Service	Training
<b>CODE 953 2M / GOLD DISK / FIBER REPAIR</b>									
2M MTR Repair (see Note 6)	X		X	X		X	X		X
FIBER REPAIR	X	X	X	X	X	X	X	X	X

**Notes:**

6. Miniature/Micro-Miniature (2M) MTR Repair: See SERMC Waterfront Maint. Note 6.

## SRBOC REPAIR

WORK CENTER # - 954

STANDARD SERVICES - Applies to all applicable classes of US Navy surface ships

Basic Functions	Removal / Replace	Repair / Refurbish	Overhaul	Preserve / Paint	Test	Ship to Shop	Training
<b>CODE 954 SRBOC</b>							
MK-137 MODS 1,2, AND 4 SRBOC LAUNCHER Repair (see Note 7)	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>

Notes:

7. SRBOC Repair: See SERMC Waterfront Maint. Note 13

**ANTENNA REPAIR**  
**WORK CENTER # - 957**

STANDARD SERVICES - Applies to all applicable classes of US Navy surface ships

Basic Functions	Trouble shoot	Repair / Refurbish	Overhaul	Fabricate	Preserve / Paint	Test	Ship to Shop	Training
<b>CODE 957 ANTENNA REPAIR</b>								
AS-2810/SRC, AS-1735/SRC, AS-2815/SSR1	X	X	X		X	X	X	
AS-1875/SRA, AS-3226/URC, NT-66095	X	X	X		X	X	X	
AS-177B/UPX, AS-4163/URC, AS-3077/SP	X	X	X		X	X	X	
AS-3078/SP, AS-3079/SP, AS-4293/SRC,	X	X	X		X	X	X	
AS-4489/SSQ, AS-2809/SRC, AS-2867/SSR	X	X	X		X	X	X	
OE-82 (pedestal and reflector only)		X	X		X		X	
(all see Note 8)								
<b>WHIP ANTENNAS</b>								
AS-2537, AS-3770, AS-3771	X	X	X		X	X	X	
AS-3772, AS-3773, AS-3371	X	X	X		X	X	X	
(all see Note 8)								
<b>HF FANWIRES</b>	X	X	X	X			X	X
(excl. LPD enclosed)								
<b>ANTENNA COUPLER</b>								
AN/URA-38 (See Note 8)	X	X	X		X	X	X	
CU-2475, CU-2544 (enclosure preservation only)					X		X	
<b>ANTENNA AMPLIFIER</b>								
AM-6534, AM-7317 (see Note 8)		X			X		X	

Notes:

8. Antenna Repair: See SERMC Waterfront Maint. Note 16.

# FCA1 GAUGE CALIBRATION

WORK CENTER # - 959C

STANDARD SERVICES - Only applies to Cyclone Class Patrol Craft (PC's) and Littoral Combat Ships (LCS)

Basic Functions	Calibrate
<b>CODE 959C LEVEL 1 GAUGE CALIBRATION</b>	
Level 1 Instrument Calibration (Note 1 & 2)	<b>X</b>

**Notes:**

1. Calibration will only be done on Shipboard Installed instruments.
2. Primary purpose of Code 959C is to support PC and LCS ships due to the fact that they do not have a Level 1 FCA onboard. Support to other platforms that do have a Level 1 FCA onboard will be done on a case by case basis at the discretion of the Production Controller.

## **CODE 970 – DIVERS PRODUCT FAMILY**

### **CODE 970 – DIVING SERVICES**

**\*STANDARD DIVING SERVICES**

**\*SUBMARINE DIVING SERVICES**

**\* HYPERBARIC AND NON-DIVING SERVICES**

**DIVING SERVICES**

WORK CENTER # - 970

PRODUCT FAMILY MANAGER PHONE # (904) 270-5126 ext: 3076 / CELL: (904) 610-4419

MASTER DIVER (904) 270-5126 ext: 3077

DIVING OFFICER (904) 838-0552

● **STANDARD DIVING SERVICES**

	INSPECTION/ PHOTOGRAPHY	INSTALL / REMOVE	SECURITY INSPECTIONS	POLISHING	REPLACEMENT / REPAIR	LIGHT RECOVERY	HUB SEAL REPAIR
PROPELLER/ CPP	x	x <sub>1</sub>		x	x <sub>1</sub>		x <sub>1</sub>
SALVAGE	x					x	
HULL	x		x		x		
ROPE GUARDS	x				x		
APU/SECONDARY SEAL	x				x <sub>1</sub>		
RODMETER/SEA VALVE	x	x			x		
ZINC	x				x		
PRAIRIE AIR CHECK VALVE	x	x			x		
FLY-AWAY CAPABILITES	x		x		x	x	x
COFFERDAM		x					
FIN STABILIZER	x				x <sub>1</sub>		
DIVER REQUAL							
BODY RECOVERY						x	
ICCP	x	x			x		
SONAR DOME	x		x		x		
WATERJET HOSE	x	x			x		
WATERJET CYLINDER	x	x			x1		
WATERJET FEEDBACK CABLE	x	x			x1		
WATERJET HUB BEARING	x	x			x1		
INERCEPTOR	x	x			x1		

Note 1: NAVSEA Support

● **SUBMAIRNE DIVING SERVICES - DIVING AUTHORIZED ONLY OUTSIDE RADIATION EXCLUSION AREAS.**

	INSPECTION/ PHOTOGRAPHY	INSTALL / REMOVE	SECURITY INSPECTIONS	POLISHING	REPLACEMENT / REPAIR	LIGHT RECOVERY
TORPEDO TUBE SHUTTER	x					
BLANK FLANGE		x				
COFFERDAM		x				
HULL FITTINGS	x	x			x	
MAIN BALLAST VENT VALVES	x	x			x	
SONAR DOME	x				x	
BALLAST TANKS	x					
HULL	x		x			

● **NONDIVING SERVICES**

	CORRDIN ATION	INSERVICE REPAIR/RFI UNITS	INERVIEW	PHYSICAL TRAINING
HULL CLEANING	x			
SONAR OPERATIONS	x			
APU		x		
DIVER CANDIDATE TESTING			x	x

● STANDARD HYPERBARIC SERVICES

	PRESSURE TESTS	TEATMENTS
DIVER CANDIDATES	×	
SOUTH EAST REGION BENDS WATCH		×
SONAR DOME DIVERS QUALS	×	
HYPERBARIC OXYGEN		×

**CODE 980 – LCS & MAT GROUP PRODUCT FAMILY**

**CODE 980 – LCS TEAM**

**\* LCS-1 CLASS PREVENTIVE MAINTENANCE SERVICES**

**CODE 916 – MAINTENANCE ASSIST TEAMS**

**\* SURFACE SHIP MAINTENANCE ASSIST TEAMS (MAT)**

**PMS SERVICES**  
**WORK CENTER # 980**

**STANDARD SERVICES – APPLIES TO LCS-1 CLASS SHIPS ONLY.**

Basic Functions	PMS
<b>CODE 980 PREVENTIVE MAINTENANCE SYSTEMS SERVICES</b>	
Preventive Maintenance (See Notes 1-2)	X

Notes:

1. Preventive maintenance are performed only on scheduled maintenance requirements, accepted by SERMC, denoted by a “+” sign in the applicable Maintenance Index Pages (MIPs).
2. A 2-kilo is required for each MIP included in a PMAV.

## SURFACE SHIPS MAINTENANCE ASSIST TEAMS (MAT)

**WORK CENTER # 916**

**STANDARD SERVICES – APPLIES TO ALL SHIPS WITH EXCEPTION OF LCS-1 CLASS, (See notes).**

Basic Functions	ASSESS	REPAIR	PMS	TRAINING
<b>DECK MAT (DMAT)</b>				
Boat davits, sliding pad eyes, J-bar davits, life lines.	X	X	X	X
<b>VALVE MAT (VMAT)</b>				
Main and secondary drainage components and remote operators.	X	X	X	X
<b>AUXILIARY MAT (AMAT)</b>				
Air-Conditioning and Refrigeration (AC&R), steering systems and anchor windlass.	X	X	X	X
<b>GUN MAT (GMAT)</b>				
MK 15 Close-In Weapon Systems (CIWS) and MK 38 25MM chain guns.	X	X	X	X
<b>WATERTIGHT DOOR MAT (WTDMAT)</b>				
Standard Navy watertight doors and fittings.	X	X	X	X
<b>ELECTRICAL MAT (ELMAT)</b>				
Circuit breakers and motor controllers.	X	X	X	X
<b>GALLEY AND LAUNDRY MAT (GLMAT)</b>				
Laundry and galley equipment.	X	X	X	X
<b>RIGID INFLATABLE BOAT MAT (RIBMAT)</b>				
Rigid inflatable boat and their support equipment.	X	X	X	X
<b>COMPRESSED AIR SYSTEMS MAT (AIRMAT)</b>				
Low pressure air systems, flasks and supporting components.	X	X	X	X

**Notes:**

1. MAT concept is to bring Regional Maintenance Center (RMC) assessment, repair and training capability and capacity on shipboard systems to establish a “Shop to Ship, Find-Fix Document” support effort at the shipboard level by employing RMC expertise in critical systems.
2. Conduct of all MAT visits will be governed by a Memorandum of Agreement (MOA) between SERMC and the ship CO. The MOA specifies SERMC and Ship responsibilities, assist visit schedule and required reports.