

# Southwest Regional Maintenance Center



## Product Families

### Capabilities Manual



**FEB 2011**

# COMBAT SYSTEMS PRODUCT FAMILY

**(Main Bldg - 3339)**

COMBAT SYSTEMS PRODUCT FAMILY MANAGER: Matt Hutnick (619) 247-8771  
COMBAT SYSTEMS PF PRODUCTION CONTROLLER: Mike Sanchez (619) 954-4483  
COMBAT SYSTEMS PF PRODUCTION CONTROLLER: Brad Thompson (619) 572-1222

**ELECTRONICS 2M (910A):**

NEMAIS WORK CENTER # - EXET71  
BUILDING NUMBER - 3339 Room 1-04 (First deck)  
PRODUCT LINE PHONE NUMBER - (619) 556-3095  
PRODUCT LINE SUPERVISOR - Cort Furuoka

● **STANDARD SERVICES**

2M BASIC FUNCTIONS	TROUBLESHOOT	REPAIR	TEST
CIRCUIT CARDS	×	×	×
CONNECTORS	×	×	×
FIBER OPTIC BASIC FUNCTIONS			
PIER SIDE CONNECTIVITY	×	×	×
FIBER OPTIC CABLES	×	×	×
JUNCTION BOXES	×	×	×
CONNECTORS (ST, SC, TERMINI)	×	×	×
LAN REPAIR			
CAT 5	×	×	×
NAVAL THERMAL IMAGERS	TROUBLESHOOT	REPAIR	ALIGN
K-90	×	×	×

**EXTERNAL COMMUNICATIONS REPAIR (910A):**

NEMAIS WORK CENTER #                      EXET75  
BUILDING NUMBER                              3339 RM 1-12 (First Deck)  
PRODUCT LINE PHONE NUMBER              (619) 556-3095  
PRODUCT LINE SUPERVISOR                  Cort Furuoka

● **STANDARD SERVICES**

HF/UHF SYSTEMS	OVERHAUL	REPAIR	ALIGN
URT-23 C/D/E HF TRANSMITTER	×	×	×
CU-2475	×		
SRA-43 RECEIVE COUPLER	×		
SRA-56/57/58		×	×
CU-937	×	×	×
URA-38	×	×	×
R-2368 HF RECEIVER		×	×
RF-601	×	×	×
AM-6691	×	×	
SSR-1 AM-6534	×		
SSR-1 AM-7317	×		
AS-3606	×		
RD-674		×	×
RD-390		×	×
RD-397		×	×

**CALIBRATION (910B):**

NEMAIS WORK CENTER # - CLRE71  
BUILDING NUMBER(S) - 463 NASNI, 116 NAVBASE SD  
CAL LAB ADMIN - 619-545-1885  
PRODUCTION CONTROL - 619-767-7970  
INDUCTION POINT (BLDG 116) - 619-556-4934 / 4933  
PRODUCT LINE PHONE NUMBER - 619-545-7913  
PRODUCT LINE SUPERVISOR - ATCS(AW/SW) Brian Edwards  
SWRCC CDO CELL - 619-726-5579

● STANDARD SERVICES

CALIBRATION BASIC FUNCTIONS	TEST	CAL	REPAIR	INSPECT
ELECTRICAL & ELECTRONIC	×	×	×	×
PHYSICAL & MECHANICAL	×	×	×	×
OPTICAL	×	×	×	×
DIMENSIONAL	×	×	×	×
ON-SITE	×	×		×

NOTES:

- AWR not required for calibration and/or repair of equipment.

**MCM SYSTEMS (910C):**

NEMAIS WORK CENTER # - EXET76  
BUILDING NUMBER(S) - 37  
PRODUCT LINE PHONE NUMBER - 619-556-9305  
PRODUCT LINE SUPERVISOR - MN1(SW) JerrySimpson

● STANDARD SERVICES

AN/SQQ-32 MINEHUNTING SONAR	TEST	INSPECT	REPAIR	REFURBISH
HULL WEDGE LOCK ASSEMBLY	×	×	×	×
STOW WEDGE LOCK ASSEMBLY	×	×	×	×
AN/SLO-48 MINE NEUTRALIZATION VEHICLE	TEST	INSPECT	REPAIR	REFURBISH
MNV CONDITION-BASED MAINTENANCE	×	×	×	×
PDU/CCU	×	×	×	
ELECTRONIC MANIFOLD	×	×	×	
MAIN HYDRAULIC HOSES	×	×	×	
MNV STORAGE (YARD PERIOD)	×	×		

## OUTSIDE ELECTRICAL/IC (920A):

NEMAIS WORK CENTER # - EEEW71

BUILDING NUMBER - 3278 (2<sup>nd</sup> Deck)

PRODUCT LINE PHONE NUMBER- (619) 556-3010

PRODUCT LINE SUPERVISOR - Anthony Ruiz

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

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

ELECTRICAL - BASIC FUNCTIONS	Inspect	Fabricate	Repair	Replace (Note 3)	Install	Test	Training	Ship to Shop	Ship- board
<b>Cable Repairs</b>									
Cable Banding Material	×	×	×	×	×				×
Cabling fabrication (up to THOF-400) (see note 1)	×	×	×	×					×
Cable tag fabrication		×						×	
Cable Jacket	×		×	×					
<b>Cableway Inspection and Reporting</b>									
Cableway Assessment	×								×
<b>A/C Equip. Controllers &amp; Contactors</b> (see note 2)	Inspect	Trouble Shoot	Repair	Replace	Install	Test	Training	Ship to Shop	Ship- board
	×	×	×			×		×	×
<b>Special Frequency Equipment</b>									
Helo Start Station Load Test & Certification (400) Hz	×					×			×
Helo Start Station Load Test & Certification (28 VDC)	×					×			×
<b>Valve Actuators</b>	Inspect	Trouble Shoot	Repair	Replace (Note 3)	Set	Test	Training	Ship to Shop	Ship- board
Remote electric (Nu-Torque, Limit torque, and Morpac)	×	×	×		×	×		×	×
<b>Other Electrical Equipment</b>									
Battery Charging Stations (Yellow Gear, Forklifts, Etc.)	×	×	×					×	×
Bus Transfer Devices (ABT & MBT)	×	×	×					×	×
Heating Elements (incl. Dehydrators)	×	×	×						×
Indication Circuits and Lights	×	×	×						×
Lights: Landing, Navigation, and Signaling (except where imbedded in deck)	×	×	×						×
Windshield wipers	×	×	×					×	
Solenoids	×	×	×	×					×
Switches and Interlocks	×	×	×						×
Visual Signaling Systems	×	×	×						×

Notes:

- 1) No more than one bulkhead penetration and 100 feet - or 200 feet within the space /compartment
- 2) Except Cranes and Hoists
- 3) Shop will assist Ships Force in the replacement of Ships Force procured equipment listed above.

**OUTSIDE ELECTRICAL/IC (920A):**

NEMAIS WORK CENTER # - EXEE72

BUILDING NUMBER - 3278 (2<sup>nd</sup> Deck)

PRODUCT LINE PHONE NUMBER - (619) 556-3010

PRODUCT LINE SUPERVISOR - EM1 Steven Gideon

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

IC - BASIC FUNCTIONS	Inspect	Trouble Shoot	Repair	Refurbish /Rebuild	Install	Test	Training	Ship to Shop	Ship-board
<b>Alarm Safety &amp; Warning Systems</b>									
Air Flow Alarm Circuits		×	×			×		×	
Bilge Level Indication & Alarm Circuits (Note 1)		×	×			×		×	
Fire & Flooding Alarm Systems		×	×			×		×	
General Alarm Circuits		×	×			×		×	
Magazine Sprinkler Activation Alarm System		×	×			×		×	
Valve Position Indicating System (CKT VS) (NON-MOV)		×	×			×		×	
Intrusion Alarm (CKT DA/DI)		×	×			×		×	
<b>Amplified &amp; Voice Communication Systems</b>									
Amplified MC Systems		×	×			×		×	
Call Signal Stations/ Sound-Powered Systems		×	×			×		×	
Intercom Systems		×	×			×		×	
Sound-Powered Phone Voice Amplifier		×	×			×		×	
<b>Telephone Systems &amp; Exchanges</b>									
IVCS Jack Boxes		×	×	×		×		×	
J dial phone systems		×	×	×		×		×	×
<b>Tank Level Indicator</b>									
Tank & Sump Level Indicating Circuits (see note 1)	×	×	×	×	×	×			×

Notes:

- 1) Maintenance Team must provide: Tank open & close, Cleaning, Gas Free, and scaffolding assistance in support of TLI work

IC - BASIC FUNCTIONS (continued)	Inspect	Trouble Shoot	Repair	Align	Install	Test	Training	Ship to Shop	Ship-board
<b>Interior Communication Equipment</b>									
Connectors & Plugs		×	×			×		×	
Interior Communication Switchboards		×	×			×		×	
<b>SGSI Stabilized Glide Slope Indicator</b>									
SGSI Overhaul (F-600 and F-300 only)	×	×	×	×		×		×	
Submarine Comm Equipment									
Portable Suitcase Unit (PSCU) connector		×	×			×		×	

Notes:

- 1) Test unit for full operational readiness and receive certification of unit from ASIR (Aeronautical Ships Installation Representative).
- 2) One-for-one swap with requesting ships (Rotatable Pool). Ship will schedule time and date for pick up and sets up swap transportation.
- 3) Ships force operational test when installed in system.

**VALVE (920B):**

NEMAIS WORK CENTER # - MIM571

BUILDING NUMBER - 3278 (1<sup>st</sup> Deck)

PRODUCT LINE PHONE NUMBER - (619) 556-5167

PRODUCT LINE SUPERVISOR - Joe Manidis

● STANDARD SERVICES

SCBA Maintenance	Repair	Test	Certification	Ship to Shop
Harnesses	✘	✘	✘	✘ (Note 2)
Bottles		✘	✘	✘ (Note 1)

SCBA Charging stations	Repair	Pop Test	Ship to Shop
Charge station relief valves		✘	✘

MK32 SVTT	Repair	Test	Ship to Shop
Breech mechanism	✘	✘	✘

- 1) Ships Force will ensure that all SCBA bottles are emptied prior to pick up by shop.
- 2) Ships Force will ensure that SCBA are covered and protected from weather. Use of regulator housing cover is required.

● STANDARD SERVICES - Applies to all applicable classes of US Navy surface ships  
(Excluding Level 1, Nuclear, Steam systems & SubSafe Valves or Components)

**\*\*\*Ships Force to ensure the proper ALP is provided when brokering any valve repair job.\*\*\***

**\*\*\*Ships Sup will ensure the APL is with-in the shops capability (Contact Shop Product Line Supervisor)\*\*\***

VALVE REPAIR - BASIC FUNCTIONS	Repair	(see note 3) Remove/ Install	(see note 1) (see note 2) Test	(see note 2) Set	Training	(see note 2) Ship to Shop	Full Service
<b>Manifolds (Except Hydraulic)</b>							
All (Except Hydraulic)	✗	(see note 3)	✗	✗	✗	✗	
<b>Butterfly Valves</b>							
10" and Below (Except Bleed Air & Ventilation Valves)	✗	(see note 3)	✗	✗	✗	✗	
<b>Swing Check Valves</b>							
6" and Below	✗	(see note 3)	✗	✗	✗	✗	
<b>Diaphragm Control Valves (CLAVAL/HYTROL)</b>							
8" and Below (Excluding Diaphragm Control Valve Controllers)	✗	(see note 3)	✗	✗	✗	✗	
<b>Diaphragm Control Valves</b>							
(Red Heads/ Leslie)	✗	(see note 3)	✗	✗	✗	✗	
<b>Deluge Valves</b>							
All (Ship-To-Shop Only, "Roto-pool" assets may be available)	✗	(see note 3)	✗	✗	✗	✗	
<b>Marotta Valves / Manifolds</b>							
All	✗	(see note 3)	✗	✗	✗	✗	
<b>Pneumatic Systems (Except Nitrogen &amp; Hydraulic)</b>							
Air Start Valves (Only up to ambient temperature)	✗	(see note 3)	✗	✗	✗	✗	
Air Control Valves (Only up to ambient temperature)	✗	(see note 3)	✗	✗	✗	✗	
High Pressure Air Valves	✗	(see note 3)	✗	✗	✗	✗	
Low pressure Air Valves	✗	(see note 3)	✗	✗	✗	✗	
Reducing Valves & Manifolds	✗	(see note 3)	✗	✗	✗	✗	
Regulators	✗	(see note 3)	✗		✗	✗	
<b>Regulating Valves</b>							
Air & Water	✗	(see note 3)	✗		✗	✗	
Temperature Regulating Valves (Except testing of Sensing Element)		(see note 3)	✗		✗	✗	
<b>Relief Valves</b>							
All (Except Hydraulic, Nuclear, O <sub>2</sub> , N <sub>2</sub> & Steam Kettle Relief Valves)	✗	(see note 3)	✗	✗	✗	✗	
Steam Kettle Relief Valves		(see note 3)	✗	✗	✗		

Boiler safety Valves (Excludes setting)	✘	(see note 3)	✘		✘		
<b>VALVE REPAIR - BASIC FUNCTIONS (continued)</b>	Repair	(see note 3) Remove/ Install	(see note 1) (see note 2) Test	(see note 2) Set	Training	Ship to Shop	Full Service
<b>Fleet Valve Repair Assist</b>							
Shop facilities available for ship's force personnel to accomplish repairs, setting & testing up to 6000 PSIG					✘	✘	
Technical assistance for repairs if pop test fails					✘	✘	

Notes:

- 1) Leak test up to 6000 PSIG (Water) & 3500PSIG (Air); Vacuum Breakers, Reducing Valves & Regulators (Seat tightness only)
- 2) All systems except Hydraulic, Nuclear, O<sub>2</sub>, N<sub>2</sub>, Sub Safe and Level 1.
- 3) Ship-To-Shop all valves weighing less than 150 lbs; Cradle-To-Grave (R,R,R) for all valves weighing 150 lbs or more, if at pier side NAVSTA 32<sup>nd</sup> St. and NASNI (if at shipyards, ship & shipyard to make arrangements for removal, reinstallation & transportation)

**WEAPONS (920C):**

NEMAIS WORK CENTER # - EXES72

BUILDING NUMBER - 3278(1<sup>st</sup> Deck)

PRODUCT LINE PHONE NUMBER - (619) 556-3307

PRODUCT LINE SUPERVISOR - Tyrone Winston

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

ELECTRONIC WARFARE - BASIC FUNCTIONS	Inspect	Trouble Shoot	Repair/ Refurbish	Remove /Install	Test	Training	Ship to Shop	Full Service
<b>MK 137 SRBOC Launchers</b> <small>(see note 1, 2, 3)</small>								
MK 137 SRBOC Launchers	✘	✘	✘	✘ <small>(Note 3)</small>	✘	✘	✘ <small>(Note 3)</small>	✘ <small>(Note 3)</small>

Notes:

- 1) Individual AWR is required for each unit.
- 2) AWRs require the following information:  
 "MK 137 DECOY LAUNCHER #?? REQUIRES REFURBISHMENT DUE TO CORROSION AND NORMAL WEAR AND TEAR. XXX REQUEST SWRMC CODE 920C REFURBISH LAUNCHER." And enter a "2" in block 42 of AWR.
- 3) Ship force will arrange for crane services when ship in yards (other than NAVSTA)

## WEAPONS (920C):

NEMAIS WORK CENTER # - EXOR71

BUILDING NUMBER - 3278 (1<sup>st</sup> Deck)

PRODUCT LINE PHONE NUMBER - (619) 556-3307

PRODUCT LINE SUPERVISOR - Tyrone Winston

- STANDARD SERVICES - Applies to all applicable classes of US Navy surface ships  
(Except as noted)

GUN REFURBISHMENT - BASIC FUNCTIONS (see notes)	Inspect	(see note 5)	Remove Install	Test	Training	Ship to Shop	Full Service
		Repair					
MK38 Mod 1 25MM CHAIN GUNS(see note 6)							
Gun repair	×	×	×	×	×		×
Maintenance & Operation					×		
MK 45 5INCH LIGHT WEIGHT GUN (LWG)							
Bore-Scope & Star-Gauge	×						
MK 75 76MM GUN SYSTEM							
Bore-Scope & Star-Gauge	×						
MK 75 76MM/62CAL MOD GUN MOUNT							
Intermediate Maintenance Standards	×	×		×			
CIWS GUN & AMMO HANDLING SYSTEM (GAHS) (see note3)							
I Level Maintenance -Each system requires a separate 2-KILO, I.E.: MOUNT 21 OR MOUNT 22.	×	×	×	×	×	×	

### Notes:

- 1) Individual AWR is required for each process (removal, repair/overhaul, & installation) as directed by COMNAVSURFPAC message
- 2) Ship-To-Shop required for: CIWS 20MM GUN AND GUN AND AMMO HANDLING SYSTEM. Shop will assist Ships Force if unable to perform removal/Installation.
- 3) AWRS Require the following information:  
"CIWS MT REQUIRES OVERHAUL IAW DIRECTION XXX REQUEST SWRMC  
SHOP 920C PERFORM I-LEVEL OVERHAUL ON CIWS GUN AND AMMO HANDLING SYSTEM  
(GAHS) BLOCK\_\_, BASELINE\_\_
- 4) Shop 920C can assist on a case by case basis by providing one Technical Expert to assist ship's force personnel in re-installation and operational test of GAHS. Ship is required to provide a minimum of two ship's force personnel to complete installation and testing.
- 5) Code 920C offers full overhauls of MK 38 Mod 1 25 MM chain gun system to include mount sub-system. MK 38 Mod 2 chain gun systems overhaul for cannons only.

# ENGINE PRODUCT FAMILY (Main Bldg - 3418)

ENGINE PRODUCT FAMILY MANAGER: Calvin Smith (619) 726-1825  
ENGINE PF PRODUCTION CONTROLLER: Larry Kennedy (619) 726-5752  
ENGINE PF PRODUCTION CONTROLLER: Scott Stahley (619) 666-1646

**EPF DIESEL ENGINE (930A):**

NEMAIS WORK CENTER # - MODE71

BUILDING NUMBER - 3418

PRODUCT LINE SUPERVISOR - ENC (SW) Trasher (619) 370-7029

PRODUCTION CHIEF - ENC(SW) Rosser (619) 718-0544

DIESEL ENGINEERING TECH - Victor Flowers (619) 726-0881

**STANDARD SERVICES**

DIESEL ENGINE - BASIC FUNCTIONS				
Engine Overhaul (On Ship Repair/Overhaul)				
Colt Pielstick PC 2.5 (LSD 41-48 APLs L665360267, L665360264, L665360265, L665360266) (LSD 49 -52 APLs L665360277, L665360278, L665360279, L665360280)	Overhaul	Repair	Replace	NOTE
Pistons, Connecting Rods, Liners	✘	✘	✘	
Main and Connecting Rod Bearings		✘	✘	
Cylinder Heads	✘	✘	✘	
Fuel Injection pumps (APL L013130011), and nozzles (APL L290090005)		✘	✘	
Lube Oil Systems		✘		
Waste Gate/Bypass Valves	✘	✘	✘	
Colt Pielstick PC 2.5 (LPD 17-20) APLs 66A040002V, 66A040003V, 66A040004V, 66A040005V	Overhaul	Repair	Replace	
Pistons, Connecting Rods, Liners	✘	✘	✘	
Main and Connecting Rod Bearings		✘	✘	
Cylinder Heads	✘	✘	✘	
Fuel Injection pumps (APL 01A30092), and nozzles (APL 29A030001)		✘	✘	
Lube Oil Systems		✘		
Waste Gate/Bypass Valves	✘	✘	✘	
Lube Oil Systems		✘		
Detroit Diesel 16V149 (FFG 7 Class) (667780010E)	Overhaul	Repair	Replace	
Pistons, Connecting Rods, Liners	✘	✘	✘	
Main and Connecting Rod Bearings		✘	✘	
Injectors (APL 29006005E)		✘	✘	
Scavenging Air Blower (APL 910050003E)	✘	✘	✘	
Turbochargers (APL 053990004E)		✘	✘	DLR
Exhaust System Alignment		✘		
Freshwater (APL 01930085E), Seawater, and Lube Oil Pumps			✘	
Front and Rear Gear Train, and Seals		✘	✘	
Engine to Generator Alignment		✘		

Start Air Compressor (APL 069990012E)		✘	✘	DLR
Lube Oil Systems		✘		
ALCO (251C) (LHA APL 664010028 and LHD APL 664010028A)	Overhaul	Repair	Replace	
Pistons, Connecting Rods, Liners	✘	✘	✘	
Main and Connecting Rod Bearings		✘	✘	
Turbocharger			✘	DLR
Fuel Injection Pumps (APL 018960245)			✘	
Nozzles	✘	✘	✘	
Freshwater, Seawater, and Lube Oil Pumps			✘	
Lube Oil Systems		✘		
EMD (CVN)	Overhaul	Repair	Replace	
Pistons, Connecting Rods, Liners	✘	✘	✘	
Main and Connecting Rod Bearings		✘	✘	
Fuel Injectors			✘	
Freshwater, Seawater, and Lube Oil Pumps			✘	
Lube Oil Systems		✘		
Caterpillar 3512/3508/3608 (FFG and LPD)	Overhaul	Repair	Replace	
Pistons, Connecting Rods, Liners	✘	✘	✘	
Main and Connecting Rod Bearings		✘	✘	
Fuel Injectors			✘	
Freshwater, Seawater, and Lube Oil Pumps			✘	
Turbochargers			✘	DLR
Start Air Compressor			✘	DLR
Lube Oil Systems		✘		
Component/Systems (Onboard Ship)	Overhaul	Repair	Replace	
Inspect Lube Oil System (General)		✘		
Engine Component Alignment		✘	✘	
Generator Pedestal Bearings and seals Inspection and Replace		✘	✘	
Vibration Damper Inspect and Replace	✘	✘	✘	
Isotta Fraschini Model 2894F01 (MCM)	Overhaul	Repair	Replace	
Pistons, Connecting Rods, Liners	✘	✘	✘	
Main and Connecting Rod Bearings		✘	✘	
Fuel Injection Nozzles	✘	✘	✘	
Freshwater, Seawater, and Lube Oil Pumps			✘	
Turbochargers			✘	DLR
Lube Oil Systems		✘		
Component/Systems (Onboard Ship)	Overhaul	Repair	Replace	

Inspect Lube Oil System (General)		✘		
Engine Component Alignment		✘	✘	
Engine to Gen. Clutches and couplings	✘	✘	✘	
<b>GOVERNOR / INJECTOR - BASIC FUNCTIONS</b>	Repair	Replace	Test	NOTE
Various Injectors, Pumps and Actuators				
Fuel Pumps (Alco, Colt Pielstick, Fairbanks Morse)	✘	✘	✘	Ship to Shop
Fuel Injection Pumps (Isotta Fraschini)		✘	✘	DLR
Steam System Servo Actuators	✘	✘	✘	Ship to Shop
Woodward Governors/ Actuators (EGB-2P, EGB-10P, EGB-13P, PG-PL, PG-PH, UG-5.7, UG-8, PGA)	✘	✘	✘	Ship to Shop
Troubleshoot, Test, and Repair Unit Injectors				
N-190 Injectors	✘	✘	✘	Ship to Shop
Troubleshoot, Test, and Replace Injector Nozzles				
Injection Nozzles (Colt Pielstick, Fairbanks Morse, Isota Franschini, Paxman, Alco)	✘	✘	✘	Ship to Shop

### EPF GAS TURBINE (930B):

NEMAIS WORK CENTER # - MOGT71

BUILDING NUMBER - 3418 RM1 (First Deck)

PRODUCT LINE PHONE NUMBER - (619) 556-2887 / (619) 556-2886

PRODUCT LINE SUPERVISOR- GSCS(SW) Edward Smith (619) 556-2887

PRODUCTION CHIEF - GSCS(SW) Smith

GS TURBINE ENGINEERING TECH - Jake Johnson (619) 726-5433

### ● STANDARD SERVICES

GAS TURBINES - BASIC FUNCTIONS	Inspect / Assist	Partner	Remove	Repair	Replace	Training
Rolls Royce/Allison 501 K17/K34 GTE						
Engine Assembly			✘		✘	
Engine Compressor Front/Rear Bearing and Seal Assembly			✘		✘	
Exhaust Flexible Joint Assembly (AT Module)	✘		✘		✘	
Gear High & Low Speed Bearings			✘		✘	
Open, Close Upper Compressor Casing	✘					
Power Take-Off (PTO) Shaft Assembly	✘		✘		✘	
Remove and Replace Turbine Combustion Liner			✘		✘	
Turbine Hot Sections	✘		✘		✘	
9130 / 9140 GTG RIMSS Engine Replacement			✘		✘	

9130 / 9140 GTG Engine Shock mounts			×		×	
G/E LM2500 GT	Inspect / Assist	Partner	Remove	Repair	Replace	Training
Compressor VSV's Inner/Outer Bushings						
Compressor Rotor Blades, Stage 3-16					×	
C-Sump Lube Oil Nozzle					×	
Exhaust Flexible Joint Assembly				×	×	
1st Stage Power Turbine Nozzle Segments					×	
Gas Generator Assembly					×	
High Pressure Turbine Rotor Assembly			×		×	
High Pressure Turbine Stage 1 Nozzle Assembly					×	
High Speed Coupling Shafts					×	
HP Turbine Rotor 1st Stage Blades					×	
Number 3/5/6 Bearing & Stationary Seal Assembly					×	
Power Turbine Assembly					×	
Power Turbine Stator Cases			×		×	
Separate Gas Generator At Power Turbine					×	
Separate The Gas Gen At TMF/CRF Flanges					×	
Stage 1 Compressor Rotor Blade					×	
Stage 2 Compressor Rotor Blade					×	
Power Turbine Module Boot					×	
<b>Provide Inspections/Assistance</b>						
Conduct Compressor / Turbine Borescope Inspections	×					
Conduct Power Turbine Inspections (IAW GT Bulletin)	×					
Conduct Turbine Mid-Frame Anti Rotation Inspection	×					
<b>Miscellaneous Services</b>						
Balance & Trim G/E LM2500 (MGTI)		×				

Roto Table Pool Services For LM 2500 Air Inlet Duct Assembly(Sandblasting/PowderCoating/Repair)		×				
Training Equipment Available (Static Displays)						
Allison 501-K17 Gas Turbine Engine						×
Allison 501-K17 Reduction Gear Assembly						×
G/E First Stage Blade/Rotor Assembly						×
G/E LM2500 Gas Generator Assembly						×
G/E LM2500 High Speed Flexible Coupling Shaft Assembly						×
G/E LM2500 Power Turbine Assembly						×
Technical Assistance (Local Marine Gas Turbine Inspector)	×	×			×	×

**EPF SUPPORT SERVICES - WELDING SERVICES (930C):**

NEMAIS WORK CENTER # - WLW171

BUILDING NUMBER - 3418 (First Deck)

PRODUCT LINE PHONE NUMBER - (619) 556-5180

PRODUCT LINE SUPERVISOR - HTC(SW/EXW) Jacob (619)664-1888

● STANDARD SERVICES

<b>Welding - Basic Functions</b>
Gas Metal Arc (MIG) Welding (Greater Than 3/16 In) Alumn.
Gas Tungsten Arc (TIG) Welding
Shielded Metal Arc (SMA) Welding(Greater Than 3/16 In)
Portable MIG Welding (Non Ferrous) Alumn. Shipcheck dependent
Portable SMA Welding (Ferrous/Non Ferrous). Shipcheck dependent
Portable TIG Welding (Ferrous/Non Ferrous). Shipcheck dependent
<b>Weld Build-Up and Resurface (SWRMC Product Family Support):</b>
Misc.Welding/Oxy. Acetylene/Burning

● STANDARD SERVICES

WATERTIGHT DOOR BASIC FUNCTIONS	Repair
<b>Watertight/Air Tight Closures</b>	
Doors (All Decks) (Max size 48"X66") Non-Ballistic/Non-Armored	×
Hatches (All Decks) (Max size 30"X60")	×
Scuttles (All Decks) (Max size 25") Raised flush deck	×
WTD Fitting Training - 1 week onboard, 15 people max (Ship to supply any needed parts)	×
<b>Overhaul And Repair Structures</b>	
Brows and accommodation Ladders (Non-GRP)	×

**EPF SUPPORT SERVICES - FLEX HOSE SERVICES (930C):**

NEMAIS WORK CENTER # - PFFH71

BUILDING NUMBER - 3418 (First Deck)

PRODUCT LINE PHONE NUMBER - Tom Matyka (619) 726-5467

PRODUCT LINE SUPERVISOR - Quin Logan (619) 726-5872

**● 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		✘		
Hydrostatic Test (In Shop)				
Flex Hoses Up To 10,000 PSI				✘
Torpedo Tube Air Flasks To 2600 IAW PMS				✘
Flush - Hot Water (In Shop)				
Flexible Hoses (130 To 180 Degree F.)			✘	
Cut & Skive Flexible Hoses				
Hoses Up To 3 In (Machine)	✘			

**● STANDARD SERVICES**

BURNER BARRELS - BASIC FUNCTIONS	Overhaul	Repair	Replace	Hydrostatic Test
Racer Type	✘	✘		✘
Todd Type	✘	✘		✘
HX525 Type	✘	✘	✘	✘

NOTE:

Replacement of a HX525 type Burner Barrel is only authorized if the original Burner Barrel fails visual inspection or in-shop hydrostatic test performed by SWRMC personnel.

**EPF SUPPORT SERVICES - RIGGING SERVICES (930C):**

NEMAIS WORK CENTER # - WHR172

BUILDING NUMBER - 3418 (First Deck)

PRODUCT LINE PHONE NUMBER - (619) 556-5180

PRODUCT LINE SUPERVISOR - Quin Logan (619) 726-5872

**● STANDARD SERVICES**

RIGGING - BASIC FUNCTIONS	Manufacture	Rigging
<b>Manufacturing Services</b>		
Cres Flight Deck Safety Netting	✘	
Lifeboat Retaining Harness	✘	
Lifelines (Cres & Kevlar)	✘	
Pour Wire Rope Sockets	✘	
Swaging Wire Rope	✘	
Wire Hoisting Slings & Pennants	✘	
<b>Swagged Wire Rope Products (General Deck Service)</b>		
Slings And Pendants (1/4 In to 1 ½ In)	✘	
<b>Zinc Poured Products (General Deck Service)</b>		
Various (1/4 In to 1 ¾ In)	✘	
<b>Miscellaneous Wire Rope Products (General Deck Service)</b>		
Flight Deck Nets (CRES)	✘	
Fiege Fitting Lifelines (Various)	✘	
<b>Miscellaneous Services</b>		
Provide Rigging Services As Requested (10,000 Lb Limit)		✘

● **STANDARD SERVICES**

WEIGHT TEST - BASIC FUNCTIONS	Safety Tests & Servs	Wt. Test
<b>Weight Test</b>		
Accommodation Ladders		✘
Antenna Lifting Strong backs		✘
Boat Booms		✘
Boat Hoisting Fixtures		✘
Non Portable Chain Falls & Hoists		✘
Conveyors (Assist)		✘
Crescent Davits		✘
Vest Davit		✘
Deck Edge Safety Nets		✘
Elevators (Assist)		✘
Handrails & Lifelines		✘
J-Bar Davits		✘
Leadsman Platforms		✘
Lifting Cables & Pendants		✘
Over-the-Side Handling Boom System		✘
Ordnance Handling Equipment (OHE)		✘
Platforms		✘
Shipboard Installed Chain Falls & Hoists		✘
Slings		✘
Stanchions		✘

Trolleys & Trolley Rails		✘
Trunk Safety Nets		✘
Underway Refueling & Replenishment Stations (Assist)		✘
Vertical Ladders		✘
Vertical Launch System (VLS) Cranes and Handling Equipment		✘
Winches (Assist)		✘
Provide Miscellaneous Safety Tests & Services		
Manufacture Weight Test Tags	✘	

**GALLEY AND LAUNDRY ASSESSMENTS (930D):**

NEMAIS WORK CENTER # - MOHA71

BUILDING NUMBER - 3418 (Second Deck)

PRODUCT LINE PHONE NUMBER - (619) 556-0186/(619) 572-8433

PRODUCT LINE SUPERVISOR - Don VanDyke

[Donald.vandyke@navy.mil](mailto:Donald.vandyke@navy.mil)

[Donald.vandyke@ngc.com](mailto:Donald.vandyke@ngc.com)

SENIOR CONSULTING FIELD ENGINEER - Charles Parento

(619) 556-0186

[Charles.parento@navy.mil](mailto:Charles.parento@navy.mil)

[Charles.parento@ngc.com](mailto:Charles.parento@ngc.com)

NOTE:

Ship is to provide all parts required to repair equipment.

● STANDARD SERVICES

APC FIRE FIGHTING SYSTEMS - BASIC FUNCTIONS	Assess/Test	Technical Repair Support
APC MANUAL ACTIVATION DEVICES	✘	✘
NITROGEN AGENTS	✘	✘
AUDIBLE AND VISUAL ACTIVATION ALARMS IN SPACE AND CCS OR DAMAGE CONTROL CENTRAL	✘	✘
APC SYSTEM IN CONJUNCTION WITH THE VENTILATION SYSTEMS AND ALL ASSOCIATED SYSTEMS IAW TECHNICAL MANUAL OR PMS PROCEDURES	✘	✘

● STANDARD SERVICES

GAYLORD SYSTEMS - BASIC FUNCTIONS	Assess	Test	Technical Repair Support
GAYLORD CONTROL CABINET	✘	✘	✘
WASH DOWN SYSTEM	✘	✘	✘
WATER HEATERS ASSOCIATED WITH THE GAYLORD SYSTEM	✘	✘	✘
ALL ELECTRICAL CIRCUITS ASSOCIATED WITH THE GAYLORD SYSTEM (VENTILATION, FIRE DAMPERS, VENTILATOR DAMPER SWITCHES OF LOCAL AND REMOTE FIRE SWITCHES)	✘	✘	✘
PROVIDE THE SHIP WITH AIR FLOW DATA ON VENTILATORS	✘	✘	✘

● STANDARD SERVICES

FOOD SERVICE REFRIGERATION EQUIPMENT HERMETIC / SEMI HERMETIC REFRIGERATED COMPRESSOR UNITS	Assess	Test	Technical Repair Support
UNDER THE COUNTER REFRIGERATORS AND FREEZERS	×	×	×
ICE MACHINES	×	×	×
ICE CREAM MACHINES	×	×	×
COLD FOOD COUNTERS	×	×	×
SALAD BAR	×	×	×
BEVERAGE DISPENSERS	×	×	×
DRINKING WATER COOLERS (SCUTTLEBUTT)	×	×	×
WALK-IN REEFERS/THAW BOXES	×	×	×
SHIPS STORE CHILL AND FREEZE BOX DEFROST TIMERS AND HEATERS	×	×	×
MEDICAL REEFERS AND ALARM CIRCUITS	×	×	×

● STANDARD SERVICES

FOOD PREPARATION EQUIPMENT	Assess	Test	Technical Repair Support	Hydrotest
STEAM AND ELECTRIC KETTLES	×	×	×	×
CONVECTION OVENS	×	×	×	
FOOD WARMERS	×	×	×	
FOOD MIXERS	×	×	×	
SALAD BAR	×	×	×	
PRESSURE COOKERS	×	×	×	×
DOUGH PROOFERS	×	×	×	
BREAD SLICING MACHINES	×	×	×	
GRIDDLES	×	×	×	
DEEP FAT FRYERS (TO INCLUDE ALL SAFETY DEVICES SUCH AS (SHUNT TRIP CIRCUIT AND CALIBRATION OF CONTROL AND OVER TEMPERATURE THERMOSTATS)	×	×	×	
POTATO SHAPERS	×	×	×	
MEAT SLICERS	×	×	×	

NOTE:

Shop also performs technical assist to ship's force in the installation of small new food service equipment provided by ship.

● STANDARD SERVICES

INSTALLED FOOD SERVICE DISHWASHERS (INSINGER, JACKSON, KNIGHT, GENERAL ELECTRIC AND HOBART DISHWASHERS)	Assess	Test	Technical Repair Support
UNDER THE COUNTER DISHWASHERS	×	×	×

(ELECTRIC/STEAM)			
SCULLERY DISHWASHERS (ELECTRIC/STEAM)	×	×	×
HATCO BOOSTER HEATERS	×	×	×
STEAM BOOSTER HEATERS	×	×	×
OFFLOADER/UNLOADER	×	×	×
GARBAGE GRINDERS; AMERICAN DELPHI /HOBART/INSINGER/ SOMAT AND ASSOCIATED CONTROL OPERATED VALVES AND CONTROL PANELS	×	×	×

● **STANDARD SERVICES**

	Assess	Test / Calibrate	Technical Repair Support
<b>LAUNDRY EQUIPMENT</b>			
CISSELL, HOYT AND AJAX CLOTHES DRYER (ELECTRIC/STEAM)	×	×	×
EDRO HOYT, MILNOR AND WASCOMAT LAUNDRY WASHERS (INCLUDING PLC)	×	×	×
FORENTA, AJAX, NEW YORKER AND HOFFMAN LAUNDRY PRESS	×	×	×
CHICAGO AND SHARPER FINISH FLATWORK IRONERS	×	×	×
BARBERS CHAIR	×	×	×
SELF SERVE WASHERS AND DRYERS; MAYTAG/GE/WHIRLPOOL	×	×	×

	Assess	Test	Technical Repair Support
<b>FAN COIL ASSEMBLY</b>			
FAN COIL ASSEMBLYS IN HABITABILITY SPACES ONLY	×		×

CORROSION CONTROL  
PRODUCT FAMILY  
**(Main Bldg - 3338)**

CPF MANAGER: Terry Thompson (619) 250-9348  
CPF PRODUCTION CONTROLLER: Phillips Lyons (619) 726-5532

**RAST PRODUCT LINE (940A):**

NEMAIS WORK CENTER # - MORA71

BUILDING NUMBER - 3338

PRODUCT LINE PHONE NUMBER - (619) 556-8015

PRODUCT LINE SUPERVISOR - Genaro Munoz

940A works under cognizance of NAWC (Naval Air Warfare Center-Aircraft Division), Lakehurst, New Jersey Guidelines and has the capability to overhaul Rapid Securing Devices (RSD). We also provide space and assistance for ships to perform class "B" overhauls of RSD's (TLC).

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

RSD REPAIR - BASIC FUNCTIONS	Disassemble	Clean	Reassemble	Overhaul	Test (see note 3)	Rotatable Pool	Ship to Shop	Full Service
RSD (RAST) Rapid Securing Device								
RSD Overhaul (When notified by NAVICP)	✗	✗	✗	✗	✗		✗	✗

**● Assist ships to complete their own RSD class "B" overhauls. (Shop term for this is TLC)**

- Provide transportation to and from the pier when required.
- Provide space and tools for ship's force to perform TLC.
- Deliver and pick up applicable parts to and from SWRMC work assist shop as required.
- Provide technical manuals.
- Provide technical assistance through the process of overhauling an RSD.
- Ship's force personnel responsible for labor involved in TLC. 940A is assist only.
- 940A does not remove or replace RSD's on ships.
- RSD must be on the pier ready for pick up.
- 940A requires a minimum of 24 hours notice for transportation scheduling.
- Limited to fork lift and truck transportation only, ship is required to provide crane services as necessary.
- 940A is limited to replacing unusable parts only, ship is responsible for the procurement of needed replacement parts.
- 940A does not install upgrades (LRC's) on ship RSD's.
- Maximum two class "B" RSD's at one time in shop.
- Ship's force must supply at least 2 personnel to complete maintenance.
- They must be assigned to the job from start to finish.
- Ship's force personnel will work SWRMC 940A hours.
  - No cost orders are optional; ship's force personnel will be TAD to SWRMC until job complete.
  - Ships force personnel not on orders will be required to muster with 940A in morning and work until 940A working hours are complete. After 940A working hours, ship's force personnel are at the discretion of the ship requirements.
- Ship must provide 940A with the following names and phone numbers
  - "A" Division Officer and/or chief name and phone number
  - Chief Engineer name and phone number
  - Ships quarterdeck
  - Ships log room
  - Recall information for persons assigned to job

**CORROSION CONTROL PRODUCT LINE (940B):**

NEMAIS WORK CENTER # - PTAP71

BUILDING NUMBER - 123

PRODUCT LINE PHONE NUMBER - (619) 556-1194/3091

PRODUCT LINE SUPERVISOR - GSM1 Joe Herrera

● **STANDARD SERVICES - Applies to all applicable classes of US Navy ships**  
**(Excluding Level 1, Nuclear, & SubSafe Valves or Components)**

CORROSION CONTROL - BASIC FUNCTIONS <small>(see note 1) (see note 4)</small>	Ship Check	Interior	Exterior	Metal ID Tag	Ship to Shop
Clean & Prepare Component Surfaces <small>(see note 2) (see note 3)</small>	<small>(see note 2)</small> <small>(see note 3)</small>			<small>(see note 6)</small>	<small>(see note 5)</small>
Burn-off Operations (Prior to blast ops)				✗	✗
Anchor Tooth Blasting				✗	✗
Strip Abrasive Blasting				✗	✗
Protective Coatings Application > Wire Spray Aluminum With High Temp Sealer MIL-STD 2138A > Electrostatic Powder Coating SI 009-32	<small>(see note 2)</small>				
Doors (Excludes Joiner or Non-Watertight Doors)	✗	✗	✗	✗	✗
Hatches	✗	✗	✗	✗	✗
Scuttles	✗	✗	✗	✗	✗
Stanchions	✗	✗	✗	✗	✗
Hand Wheels (Steam Valves)	✗	✗	✗	✗	✗
Sunshields (With NO Visible Damage)	✗	✗	✗	✗	✗
RSL Lockers	✗		✗	✗	✗
Hand Rails	✗	✗	✗	✗	✗
Hose Reels	✗	✗	✗	✗	✗
P-100 Covers	✗	✗	✗	✗	✗
J-Bar Davits	✗		✗	✗	✗
Davit Cover	✗		✗	✗	✗
Net Frames	✗		✗	✗	✗
Various Covers	✗	✗	✗	✗	✗
Brackets	✗	✗	✗	✗	✗
Debarkation Doors	✗	✗		✗	✗
Coupling Covers	✗	✗	✗	✗	✗
Deck Plates (Blast Only)	✗	✗		✗	✗
Life Vest Box	✗		✗	✗	✗
Turtle Backs	✗		✗	✗	✗
Various Cages	✗	✗	✗	✗	✗
Vent Screens (Weight Limit)	✗	✗	✗	✗	✗
Turn Buckles	✗		✗	✗	✗
Chain Pipe Covers	✗		✗	✗	✗
Hawse Pipe Covers	✗	✗	✗	✗	✗
Chock Covers	✗		✗	✗	✗
Tripod (50 Cal)	✗		✗	✗	✗
Life rails (Excluding GRP)	✗		✗	✗	✗
Harpoon Frames	✗		✗	✗	✗
Fuel Rec. Covers	✗		✗	✗	✗

Notes:

- 1) Existing PCMS must be removed prior to pick up from ship or delivery to shop.
- 2) 940B will conduct a ship check of each item requested for corrosion control at a scheduled date and time. The ship checker will identify the degree of disassembly required. Ship's work centers must have a representative present. Divisional representatives will escort the ship checker to the items. These items will be logged to the ship checkers manifest for tracking purposes.
- 3) Color must be identified during ship check or will result in **default color of haze gray.**
- 4) Size/Weight Constraints: **Less than 10 feet in length and weight of 400lbs or less.**
- 5) Ships force is to ensure that the items are disassembled to the smallest possible component and free of gaskets, seals, oil and grease IAW the instructions provided during the ship check.
- 6) A metal ID tag will be attached to each item with the following information (example): Ship's Name (R.REAGAN), Item Description (WTD), Work Center (VA02), 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**

R.REAGAN  
 HOSE REEL  
 VA02 # 001  
 FJ/HG  
 003

**ANTENNA PRODUCT LINE (940C):**

NEMAIS WORK CENTER # - EXEC71

BUILDING NUMBER - 3053

PRODUCT LINE PHONE NUMBER - (619) 556-2985/2986

PRODUCT LINE SUPERVISOR - John Fennessy

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

ANTENNA REPAIR - BASIC FUNCTIONS <small>(see notes 3-7)</small>	Inspect	Remove/ Replace	Trouble Shoot	Repair/ Refurbish Overhaul	Fabricate	Preserve/ Paint	Test	Ship to Shop	Full Service
<b>Inspect Antennas</b>									
Voltage Standing Wave Ratio Test (VSWR) -2Mhz - 1Ghz, Non-Multi Pin Connectors	✗						✗	✗	
Antenna Insulator Insulation Resistance Test -Required for All H.F. Whips	✗						✗	✗	
Ship check Antennas (Visual Inspection)	✗								
<b>Maintain Antennas</b>									
H.F. Antenna Feed Wires					✗			✗	
AS-2815 Gaskets					✗			✗	
Trussed Monopole & Other Spar/Wire Antennas (E.g. AS-2803/-2804/-2806) <small>(see note 1)</small>				✗				✗	
Discon/Discage Antennas <small>(see note 1)</small>				✗				✗	
Wire Rope Antennas (Custom fit)					✗	✗		✗	
Fiberglass Components (Resin Coat)				✗		✗		✗	
Radar Absorbent Material (PCMS)(Material Required)(Preferred Replacement by 940C or S/F)		✗						✗	
Corrosion Control/Painting Services						✗		✗	

Antenna Couplers (LWC 940C)								X	X	
Deck Boxes (LWC 940C)								X	X	
Antenna Controllers (LWC 940C)								X	X	
25MM Gun Mounts & Ammo Boxes (LWC 920C)								X	X	
Printer Components (LWC 940C)								X	X	
Rapid Securing devices (LWC 940A)								X	X	
Alidades & Binoculars (Big Eyes) (LWC 950B)								X	X	
Vertical Launch Systems (VLS) Hatches (LWC 920C)								X	X	
<b>Blasting &amp; Painting of Components</b>										
Media Blast Components (Small/Medium/Medium Large Size Limits)								X	X	
Pneumatic Spray Paint Components								X	X	
Pneumatic Tool / Hand-Sand Components								X	X	
Hazardous Material Pneumatic Tool Sanding -Required for Components with Zinc Chromate								X	X	
<b>Radar Antenna Repair</b>										
Side Lobe Suppressors (AS-3077/-3078/-3079)				X					X	
Radar IFF Antennas (AS-177) -Others are External Refurbishment Only				X					X	
Navigation Antenna (For WRN-6) Refurbish External Only; Replace for Upgrade/Repair	X			X					X	
<b>Radio Antenna Repair</b>										
AS-1735 /SRC UHF Antennas			X	X			X	X	X	
AS-3018/OE-82 Satcom Antennas			X	X			X	X	X	
AS-2867 (Birdcage) ESM Antennas				X			X	X	X	
Aluminum& Fiberglass HF Whip Antennas -I.E. AS-2537, -3770-, -3772, ETC.			X	X			X	X	X	
VHF/Cingars Whips -I.E. AS-1729, -4366, ETC.			X	X			X	X	X	
VHF & UHF 'Stovepipe' Antennas -I.E. AS-3226, -1018, -2809, -2810, ETC.			X	X			X	X	X	
Multi-Element 'Stovepipe' Antennas -I.E. AS-3020, -3021, -4163, ETC.			X	X			X	X	X	
HF, LF, MF, VHF& UHF Antennas -I.E. AS-390, NT-66095, AT-150, ETC.			X	X			X	X	X	
Satcom Antennas (No EHF) -I.E. AS-2815, ETC.			X	X			X	X	X	
ESM/ECM Antennas -I.E. AS-4293, -2811, -145, ETC.			X	X			X	X	X	
LWCA (Fan Wire Antenna) (Custom fit) See note 5			X		X	X			X	
Deck edge Antennas -I.E. AS-3202, ETC. (External Only)			X	X					X	
IFF Antennas AS-177			X	X			X		X	
SRA-43 Antennas and AVK Antennas (When the Controller Box is to be overhauled - I.E. AS-3606)				X (see note 2)					X	

Notes:

- 1) Requires tuning on ship by SPAWAR/SWRMC.
- 2) Controller Box requires 910A as LWC.
- 3) Only one antenna per 2-KILO, even if same type.
- 4) 940C will provide a truck to transport whips 15Ft or longer and larger items when ship is pier side at NAVSTA San Diego; when at yards or elsewhere, Ship's force will arrange for a 35Ft flatbed tractor/trailer to transport large items. Ship's force will schedule crane services for antenna removal and will deliver all smaller antennas.
- 5) A technician may come aboard as part of the job approval process for a "ship check". During the ship check we will require a ship's force point of contact. In order for this evolution to go smoothly, we ask that you assist us in the following ways:

- Run an aloft chit and have harnesses ready with safety personnel standing by to assist.
  - Compare the approved jobs with the list of antennas you desire to have overhauled.
  - **Do not remove the LWCA (fan wire) until we can make an accurate drawing for verification with the technical manual and/or SWRMC.**
- 6) On the day prior to antenna removal:
- Break loose all bolts (to ensure they are not seized) then re-tighten every other bolt and remove the ones not tightened.
  - Feed wires that are to be replaced: Disconnect feed wire from the shipboard connection point and leave it attached to the antenna.
  - For AS-3018's, ensure the ground plane is horizontal to the deck.  
Call 940C to verify removal times at 556-2985; we need to know when the crane will be there if we are picking up any whip antennas.
- 7) On the day of antenna removal:
- Run aloft chit well before crane is scheduled to arrive.
  - Have enough S/F personnel (with safety observers) ready to assist the crane riggers with antenna removal.
  - Have tools ready and a container to retain mounting hardware. **Do not bring any mounting hardware to 940C.** If you need your mounting hardware cleaned we can arrange for you to use one of our small media blasters.
  - A Senior Petty Officer (E-5 or above) shall accompany all of the small antennas. Someone accountable needs to verify and sign for what is delivered.

#### Additional Information

- For overhaul of the tilt-whip mechanism (For HF Whip Antennas), contact your Combat Systems Port Engineer. The tilt mechanism is not part of the antenna.
- 940C cannot overhaul the following antennas if physically damaged, or if they fail initial VSWR tests: AS-3020/U, AS-3021/U, AS-2811/SRC, AS-4293/SRC, AS-2877/SRC, AS-390/SRC, AS-3018, AS-2809.
- We are currently not able to tune or align the AS-2188/U or AS-2189/U Antennas.
- Ground wires or bond straps are no longer manufactured by SWRMC; these items are under the cognizance of SIMCIP/STAN.

#### Time for Fan Wire Maintenance?

Annual LWCA (fan wire) maintenance, can be performed at SWRMC in Bldg 3338, call 556-2985. SWRMC will train your sailors on how to perform this maintenance. This can be a real plus if you have problems while deployed. Secondly, we will assist your crew and provide some parts and ordering information for the hazmat requires for the PMS. LWCA's are designed to last 7-10 years once they are overhauled. Taking advantage of this opportunity preserves the life of your fan wire and is significantly less expensive than a total replacement of your existing fan wire. Lastly, if Fan wire is required to be replaced contact shop before removing Fan wire to allow time to do an assessment while in place.

#### **LIFE RAFT PRODUCT LINE (940D):**

NEMAIS WORK CENTER # - MOSB72

BUILDING NUMBER - 3338

PRODUCT LINE PHONE NUMBER - (619) 556-8031

PRODUCT LINE SUPERVISOR - Scott Wood

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

	Inspect	Pack/ Re-Pack	Repair/ Replace	Replen	Remove /Install	Test	Trainin g	Ship to Shop	Full Service
<b>LIFE RAFT REPAIR - BASIC FUNCTIONS</b>									
<b>Life Rafts - Repair &amp; Certify</b> <small>(see note 2)</small>								<small>(see note 1)</small>	<small>(see note 1)</small>
Life Raft (Minor Patching: Tears Under 5") -Major Patching will be completed by RFD			✗				✗		✗
Pack, Label & Band Life Rafts		✗					✗		
<b>Survival Equipment - Maintain &amp; Provide</b>									
Strategic Contingency Pool (100 MK-7 Life Rafts and 40 MK-8 Life Rafts)				✗					
MK 7's (Small and Large), MK 8's (Large), Viking MK 8s (Large)				✗					
Survival Bags		✗							
Life Raft Container Repair			✗						
Update Ships Inventory in the Life Raft Database									
Emergency Abandon Ship Kits (Certify/Provide) <small>(see note 4)</small>		✗							
Air Charging Manifolds			✗						
Beacon & Interior Lights (Batteries)			✗						
Hydrostatic Release Device <small>(see note 3)</small>						✗		✗	
<b>High Pressure Air Cylinders &amp; Valves</b>									
Valves (Disassemble/Reassemble)	✗		✗						
High Pressure Air Cylinders (Certify (Shop 920C)) (Fill (Shop 940D))	✗			✗	✗	✗			

Notes:

- 1) 940D will arrange crane services (with ship's input) for the rafts to be removed and reinstalled and provide **installation training** as necessary. The ship must provide personnel to assist crane riggers and remove dunnage from the pier.
- 2) Life Raft Certification: Information needed on AWR/2-KILO -
  - o Specify the type (MK7(small and Large) MK8 (large) MK8 Viking (Large))
  - o Include the quantity/type/size
- 3) Hydrostatic Release Certification: Information needed on AWR/2-KILO -
  - o Specify the type(can type is being replaced by Thanner type)
  - o Include the quantity
- 4) Abandon Ship Bags will be re-certified using replacement pelican cases.

# MACHINE PRODUCT FAMILY

## Main Bldg - (61)

MACHINE PRODUCT FAMILY MANAGER

MPF PRODUCTION CONTROLLER Rich Hurst

(619) 520-7925

**INSIDE MACHINE PRODUCT LINE (950A):**

NEMAIS WORK CENTER # - MIM171

BUILDING NUMBER - 61

PRODUCT LINE PHONE NUMBER - (619) 556-2933

PRODUCT LINE SUPERVISOR - Bill Sipchen (619) 666-1852

● STANDARD SERVICES

INSIDE MACHINE - Basic Functions	Inspect	Fabricate	Repair
<b>Pump Repair/Manufacture (Internal Components):</b>			
✓ Flanged Couplings (Straight/Tapered)	✘	✘	✘
✓ Manufacture Mechanical Seal Stationary Housings	✘		✘
✓ Pump Wearing Rings	✘	✘	✘
✓ Re-Sleeve Motor End Bell Housings	✘		✘
✓ Shaft Sleeves	✘	✘	✘
✓ Shafts (Motor, Pumps, Etc)	✘	✘	✘
<b>Repair Valves:</b>			
✓ Flange Layout/Phonographic finish	✘	✘	✘
✓ Leslie Top Cap Assembly	✘	✘	✘
✓ Manufacture Steam Valve Seal Rings	✘	✘	
✓ Manufacture Straight & Step Backing Rings	✘	✘	✘
✓ Manufacture Valve Stems	✘	✘	
✓ Repair Satellite Valve Seat Surfaces	✘		✘
✓ Valve Seat Repair	✘	✘	✘
<b>Manufacture &amp; Repair Gears:</b>			
✓ Bevel Gears	✘	✘	
✓ External Splines	✘	✘	
✓ Spur Gears	✘	✘	
✓ Stub Tooth Gears	✘	✘	
<b>Heat Treatment Of Metals (Up to 8 x 8 x 12 In):</b>			
✓ Anneal Hardened Steel	✘	✘	
✓ Case Harden Metals	✘	✘	
✓ Harden Ferrous Metals	✘	✘	
✓ Heat Treat Non-Ferrous Metals	✘	✘	
✓ Normalize Ferrous Metals	✘	✘	
✓ Temper Hardened Steel	✘	✘	
✓ Test Hardness Of Metals	✘	✘	✘
<b>Sharpen &amp; Protect Tool Cutting Surfaces:</b>			
✓ Drill Bits	✘		✘
✓ Manufacture/Grind Shims & Spacers	✘	✘	✘
✓ Off-Hand Grinding - HSS Tool Cutters	✘		✘
<b>Automated Production/CNC Operations:</b>			
✓ 2D & 3D Development and Machining		✘	
✓ CNC Milling		✘	
✓ CNC Turning		✘	
✓ Develop CNC Programs		✘	
✓ Develop Written Procedures		✘	
✓ Program CNC Machines		✘	
✓ Set Up CNC Machines		✘	
<b>Precision Measurement:</b>			
✓ Measure Machine Parts To ± .0001"	✘	✘	✘
<b>Machine:</b>			

✓ Drilling (Up to 2" Diameter)	✗	✗	✗
✓ Grinding - Cylindrical	✗	✗	✗
✓ Grinding - Surface	✗	✗	✗
✓ Keyway Cutting - In-Shop	✗	✗	✗
✓ Repair Internal Threads	✗		✗
✓ Resurface Slip Rings & Commutators	✗		✗
<b>Deck Equipment:</b>			
✓ Manufacture Deck Drain Cover/Strainer Plates		✗	
✓ Manufacture Deck Drain Rings		✗	
✓ Manufacture Miscellaneous Accommodation Ladder Parts and Special Hardware		✗	
✓ Re-Machine Capstan Head Sealing Surface (Maximum 40 Inches Outside Diameter)	✗	✗	✗
✓ Re-Machine Roller Chocks Shafts	✗	✗	
<b>Engraving Services</b>			
✓ Laser engraving ( Max Size 24 x 36)	✗	✗	
✓ Photo engraving ( Max Size 24 x 36)	✗	✗	
✓ Plastic engraving ( Max Size 24 x 36)	✗	✗	

## ● SHOP LIMITATIONS

- ✗ Shop is not capable of precision fabrication of any size internal Splines.

## ● SHOP CHECKLIST/ REQUIREMENTS

### ➔ Machining Services

- Request for parts fabrication requires detailed drawings, from current NAVSHIP drawing, equipment technical repair manuals or from original equipment manufacturer's technical drawings that specifically identifies material, dimensions, tolerances, and heat treatment requirements.
- Parts that are to be manufactured as per 2 Limas have to be reviewed by the SWRMC Mechanical or Structural Engineering Tech for verification and generate a locally prepared drawing to establish quality evidence based upon good engineering practice.
- The machine shop is capable of producing intricate identical parts utilizing the capabilities of the computerized numerically controlled machines.

## MPF ENGRAVING (950A):

NEMAIS WORK CENTER # - ME1171

## ● ENGRAVING SHOP REQUIREMENTS

### ➔ Engraving Services

- Engraving services are available without the need for a separate JSN for each job. SWRMC has created annual work orders in NEMAIS to enable engraving services for all associated commands based upon each fiscal year.
- Shop requires a 7 day turn around, pending on number of items requested by ship and workload permitting.
- Requests for photo engraving service must be submitted on CD in either .jpeg or .gif format in the exact size, lettering and plate required or in hard copy form.
- The engraving shop is capable of producing intricate engravings utilizing the capabilities of the computerized numerically controlled machines.
- Schematics and system diagrams that have been copied from tech manuals will be accepted provided they are unclassified, clear and legible and the exact size required.

- Engraving products are available on the following media.
  - Plastic
  - Black aluminum
  - Black Brass
  - Brass
  - Aluminum (laser engraved)
  - Aluminum (photo)

**OUTSIDE MACHINE PRODUCT LINE (950B):**

NEMAIS WORK CENTER # - MOMB71

BUILDING NUMBER - 61

PRODUCT LINE PHONE NUMBER - (619) 556-2933

PRODUCT LINE SUPERVISOR - (619) 726-0516

**● STANDARD SERVICE**

Outside Machine - Basic Functions	Inspect	Install / Fit Up	Repair	Replace	Test	Overhaul
<b>Seals &amp; Sealing Surfaces</b>						
Line Shaft Bearing Seals			×	×		
Shaft Bulkhead Seals (Crane)			×	×		
Main Line Thrust Bearing Seals	×					
Stern Tube Seals			×	×	×	
<b>Resilient Mounts</b>						
Sound Mounts				×		
Auxiliary Equipment Mounts				×		
<b>Inspect, Repair &amp; Test</b>						
Aux Reduction Gears & Gear Boxes	×		×			
Retractable Chocks & Bits			×			
Deck Equipment			×			
<b>Perform Portable Machining Operations</b>						
Drilling, Tapping & Thread Repair	×		×			
Pressing	×		×			
Remove Broken Studs And Taps (Manual)	×		×			
<b>Towed Array Systems</b>						
SQR-19 (Hydrostatic-Mechanical Components Only)			×			
<b>Miscellaneous Equipment</b>						
Antenna Tilt Mechanism			×			×
Brake Drum & Cylinders			×	×		
Deck Drain			×			
Eductors			×			×
Fin Stabilizers			×			
Gauge Line		×	×			
Mechanical Deck Equipment			×			
Mechanical Expansion Joints	×		×			
Miscellaneous Fittings			×			
Reach Rod And Valve Operator			×			
Shaft Flexible Couplings			×	×		
Sliding Vertical Padeyes			×			×
Steering			×			
Valve Operators & Reach Rods			×			

Winches			X			
Troubleshoot, Repair & Align Optical Support Systems						
Ships Binocular Carriage	X		X			X
Hydraulic System, Valves & Components						
Hydraulic Pumps			X	X		
Hydraulic Actuators			X	X		X
Hydraulic Rams	X		X			
Hydraulic Control Valves			X	X		
Pneumatic System, Valves & Components						
Pneumatic Motors			X	X		X
Pneumatic Actuators			X	X		X
Pneumatic Control Valves			X	X		X
Projectile, Powder & Ammunition Hoists						
Electro-Hydraulic Type Hoist			X			X
Missile Handling Elevator			X			X
Torpedo Strike Down And Lift System			X			X
System Operability / Material Assessment						
Fin Stabilizer Hydraulics			X			
Anchor Windlass			X			
Weapons Elevator			X			
Vertical Package Conveyor			X			
Pallet Conveyor			X			
Dumbwaiter			X			

**OPTICAL REPAIR (950B):**

NEMAIS WORK CENTER # - OIMM71

BUILDING NUMBER - 76 (2nd Deck)

PRODUCT LINE PHONE NUMBER - (619) 556-2926

PRODUCT LINE SUPERVISOR -

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

Optical Repair Basic Functions	Align	Collimate	Focus	Repair	Overhaul
Stadimeters (hand held)	X			X	
Alidades	X		X	X	X
Ships Binoculars		X	X	X	X
Azimuth Circles	X			X	
Bearing Circles	X			X	
AN/AVS-6 NVG'S			X	X	
AN/PVS-4 NVG'S			X	X	
AN/PVS-5 NVG'S			X	X	
AN/PVS-7C NVG'S			X	X	
AN/PVS-8A NVG'S			X	X	
AN/PVS-18 NVG'S			X	X	
AN/PVS-20 NVG'S			X	X	
AN/TVS-5 NVG'S			X	X	

Note about night vision systems: Repairability of NODs are dependent on the material condition of the intensifier tube. If intensifier tube is faulty or the total repair cost is greater than or equal to 80% of a new night vision system, the NOD will be rejected back to the ship.

**AC&R, AIR COMPRESSOR PRODUCT LINE (950C):**

NEMAIS WORK CENTER # - REP771

BUILDING NUMBER - 61

PRODUCT LINE PHONE NUMBER - (619) 556-2933

PRODUCT LINE SUPERVISOR - Kelvin Vaden (619) 726-5749

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

Air Compressor - BASIC FUNCTIONS	Repair	Overhaul	Trouble shoot	Replace
Dresser-Rand HPAC Model 30NL30	✗	✗	✗	✗
Dresser-Rand HPAC 20NL-7 and 7E	✗	✗	✗	✗
Dresser-Rand HPAC 20NL11A thru 11G	✗	✗	✗	✗
Dresser-Rand HPAC 20NL12 and12A	✗	✗	✗	✗
Dresser-Rand LPAC STAR 200	✗	✗	✗	✗
Dresser-Rand LPAC NAXI 100-3 thru 4A/4B	✗	✗	✗	See note 1
RIX HPAC Model 5R5	✗	✗	✗	See note 1
RIX LPAC 2JS2B-150	✗	✗	✗	✗
RIX LPAC STAR 200	✗	✗	✗	See note 1
HP Air System	See note 2	✗	✗	✗
HP/LP Dehydrators, see note 3			✗	✗
MCM RIX MPAC	✗	✗	✗	✗

Notes:

- 1) For the air end only.
- 2) Compressed air system (piping, valves manifold)
- 3) Dehydrators are roto-pool units for type 1 only, all other are troubleshoot and repair.

950C does not overhaul deballast compressors. Deballast compressors are assessed by code 213A and repaired by the OEM.

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

AC&R Compressor - BASIC FUNCTIONS	Overhaul	Internal Valve Replace- ment	Shaft Seal Replace- ment	Capacity Control Replacement/ Repair	Flexible Coupling Replacement/ Repair	Oil Accumulator Bladder Replacement	Replace- ment/ Repair	Pressure Test and Vacuum Dehydration
CARRIER 5MH126	✗	✗	✗	✗	✗			
CARRIER 5MH40	✗	✗	✗	✗	✗			
CARRIER 5MH46	✗	✗	✗	✗	✗			
CARRIER 5MF40	✗	✗	✗	✗	✗			
CARRIER 5MF30	✗	✗	✗	✗	✗			
YORK FN32A	✗	✗	✗	✗	✗			
YORK 35 TON A/C RN62-12			✗			✗		
YORK 200 TON A/C			✗			✗		
YORK 300 TON A/C			✗			✗		
Thermostatic Expansion Valves							✗	

Evaporator Pressure Regulator								x	
Henry Packless Valve								x	
Reefer System									x
York .5 TON REFEFER FN22A	x	x	x	x	x				