



## **USER'S LOGISTICS SUPPORT SUMMARY (ULSS)**



## **MINE RESISTANT AMBUSH PROTECTED (MRAP) VEHICLES**

DISTRIBUTION STATEMENT D: DISTRIBUTION AUTHORIZED TO THE DEPARTMENT OF DEFENSE AND DOD CONTRACTORS ONLY (CRITICAL TECHNOLOGY); OTHER REQUESTS FOR THIS DOCUMENT SHALL BE REFERRED TO THE COOPERATIVE ENGAGEMENT CAPABILITY PROGRAM MANAGER.

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## MINE RESISTANT AMBUSH PROTECTED (MRAP) VEHICLES

Approval Signature:

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*11/25/08*  
Date

Director  
Logistics Department  
Naval Facilities Expeditionary Logistics Center  
Port Hueneme, CA



## **FOREWORD**

This User's Logistics Support Summary (ULSS) provides the necessary logistics information and Points of Contact (POC) in support of the Mine Resistant Ambush Protected (MRAP) vehicle, primarily for the duration that the Program is under Contractor Logistics Support (CLS). It provides information and procedures to ensure that logistics support is readily available and accessible.

This ULSS is applicable to MRAP vehicles and advises the end-user of the plan to field and logistically support the MRAP vehicles.

This ULSS has been prepared under the direction of the Naval Facilities Expeditionary Logistics Center (NFELC), Code N43 Port Hueneme, CA 93043-4301 in accordance with Department of Defense (DoD) and Secretary of the Navy (SECNAV) 5000 Series Instructions.

This ULSS becomes effective upon issuance.

User comments or recommendations are solicited to enhance the usefulness of this document and should be submitted to:

Commanding Officer  
Naval Facilities Expeditionary Logistics Center  
1000 23rd Avenue, Code N43  
Port Hueneme, CA 93043-4301

Additional copies of this document may be obtained by writing to the above address or by telephoning the Integrated Logistics Support (ILS) Agent. The initial distribution of the ULSS is provided in the distribution list.

Key personnel responsible for implementing the MRAP vehicles are identified in Section 8 of this ULSS.

This document contains no classified material. Classified information required in defining and planning logistics support elements will be provided by direct reference to the appropriate documents as required. While authoritative in scope, this ULSS does not constitute or grant authority or approval for the modification, revocation, or addition to any contract or subcontract.





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## SECTION 1 SYSTEM EQUIPMENT

### 1.1 System Description

Mine Resistant Ambush Protected (MRAP) vehicles are armored vehicles with a blast resistant underbody designed to protect the crew from mine blasts, fragmentary and direct fire weapons. The MRAP vehicles are capable of sustained operations in a chaotic, high threat, non-linear battle space; reduce casualties and increase survivability.

The MRAP vehicles provide the Navy multiple mission-role platforms capable of mitigating the greatest casualty producing agents in the Global War on Terror (GWOT) Improvised Explosive Devices (IEDs), Rocket Propelled Grenades (RPGs), and Small Arms Fire (SAF). The MRAP vehicles mitigate the threat of fragmentation, blast overpressure, and acceleration resulting from mines and IEDs; provide a more survivable platform to protect the crew from SAF.

The MRAP vehicles consists of three categories: Category I (CAT I) vehicles support operations in an urban environment and other restricted/confined spaces; including mounted patrol, reconnaissance, communications, and command and control. Category II (CAT II) vehicles provide a reconfigurable vehicle which is capable of supporting multi-mission operations such as convoy lead, troop transport, explosive ordnance disposal, ambulance, and combat engineering. Category III (CAT III) vehicles are capable of performing mine/ IED clearance operations. The Navy will not procure any CAT III vehicles.

### 1.2 Administrative Information

The administrative information for the CAT I Cougar and the CAT II Joint Explosive Ordnance Disposal (EOD) Rapid Response Vehicle (JERRV) vehicles are provided in Table 1-1 and Table 1-2 respectively.

**Table 1-1. CAT I Cougar Administrative Information**

Characteristic	Cougar 4x4 Variant	LRIP 10 Variant
Nomenclature:	Mine Resistant Ambush Protected Cougar 4x4	Mine Resistant Ambush Protected Cougar 4x4
National Stock Number (NSN):	2355-01-552-5565	2355-01-564-3420
Item Designator (ID):	9650423 - 9650674	9650675 - 9650777 9650825 - 9650868
Equipment Category Code (ECC):	0646-11	0646-12
Equipment Identification Code (EIC):	UB10910	UB10910

**Table 1-1. CAT I Cougar Administrative Information (continued)**

<b>Characteristic</b>	<b>Cougar 4x4 Variant</b>	<b>LRIP 10 Variant</b>
Expanded Ship Work Breakdown Structure (ESWBS):	5737	5737
Unit of Issue (UI):	Each	Each

**Table 1-2. CAT II JERRV Administrative Information**

<b>Characteristic</b>	<b>Explosive Ordnance Disposal (EOD) Variant</b>	<b>Engineering Variant</b>	<b>LRIP 10 Variant</b>
Nomenclature:	Joint EOD Rapid Response Vehicle	Joint Engineering Rapid Response Vehicle	Joint EOD Rapid Response Vehicle
National Stock Number (NSN):	2355-01-529-2246	2320-01-532-2159	2355-01-564-3423
Item Designator (ID):	9650169 - 9650176	9649474 - 9649483 9650179 - 9650209 9650294 - 9650415	9650869 - 9650890, 9650980 - 9650981 9651180 - 9651189
Equipment Category Code (ECC):	0646-02	0646-01	0646-03
Equipment Identification Code (EIC):	UB10920	UB10930	UB10920
Expanded Ship Work Breakdown Structure (ESWBS):	5737	5737	5737
Unit of Issue (UI):	Each	Each	Each

**1.3 Physical Characteristics**

MRAP physical characteristics vehicles are provided in Table 1-3 and Table 1-4.

**Table 1-3. CAT I Cougar Physical Characteristics**

<b>Characteristics</b>	<b>Operational Configuration</b>	<b>Storage And Shipping Configuration</b>
Length:	249"	249"
Width:	104"	104"
Height:	122"	122"
Square:	180 sq. ft.	180 sq. ft.
Cube:	1422cu. ft.	1422cu. ft.
Weight:	38,000 lbs.	32,000 lbs.

**Table 1-4. CAT II JERRYV Physical Characteristics**

<b>Characteristics</b>	<b>Operational Configuration</b>	<b>Storage And Shipping Configuration</b>
Length:	296"	296"
Width:	103"	103"
Height:	123"	123"
Square:	212 sq. ft.	212 sq. ft.
Cube:	1857 cu. ft.	1857 cu. ft.
Weight:	52,000 lbs.	40,000 lbs.

**1.4 Petroleum, Oil, and Lubricants**

The estimated Petroleum, Oil, and Lubricants (POL) to support the MRAP vehicles are provided in Table 1-5. POL requirements are the same for both vehicles.

**Table 1-5. MRAP POL Requirements**

<b>Requirement</b>	<b>POL TYPE</b>	<b>Capacity</b>
Engine Oil	MIL-L-2104, DEO Multi-grade to API CH4 or CG4 Specifications 15W-40 (Ambient temperature 0° – 120°F or 18° – 50°C)	22 Quarts
Differentials	Gear Oil 85W – 120W	17 Pints
Wheel Hubs	Gear Oil 85W – 120W	2 Pints per hub
Transfer Case	29 Quarts Dexron® III ATF	29 Quarts
Fuel	1D or 2D diesel fuel (JP-8 can be used, but will cause reduced engine performance)	100 Gallons
Steering System	Dexron® III ATF	5 Quarts
Cooling System	50/50 Antifreeze	48 Quarts

**1.5 Government Furnished Equipment**

The estimated GFE to support each CAT I and CAT II vehicle are provided in Table 1-6.

**Table 1-6. Government Furnished Equipment**

<b>Equipment</b>	<b>Nomenclature</b>	<b>CAT I</b>	<b>CAT II</b>
Blue Force Tracker	Command, Control, Communications, Computers and Intelligence	✓	✓
Chameleon Jammer	Electronic Counter Measures (ECM)	✓	✓
MT-6352 Mounting Tray	Digital Racks	✓	✓
Falcon II AN/VRC-103	Multi-Band Vehicle Radio	✓	✓
AN/VRC-104	Multi-Band Vehicle Radio		✓
Falcon III AN/VRC-110	Multi-Band Vehicle Radio	✓	✓
TOCNET	Tactical Operations Center Intercommunication System	✓	✓
MCTAGS	Marine Corps Transparent Armor Gun Shield	✓	✓
OGPK	Objective Gunner Protection Kit	✓	✓
Duke	ECM	✓	
DAGR	Defense Advanced GPS Receiver	✓	



**Table 1-6. Government Furnished Equipment (continued)**

<b>Equipment</b>	<b>Nomenclature</b>	<b>CAT I</b>	<b>CAT II</b>
SAASM	Selective Availability/Anti-Spoofing Module	✓	✓
Light Kit	360 Degree Light Kit	✓	✓
2.1 Crew	Crew Vehicle Receiver Jammer	✓	
DVE	Driver Vision Enhancement	✓	✓
PDU	Power Distribution Unit	✓	✓



**SECTION 2**  
**TECHNICAL ASSISTANCE**

**2.1 Points of Contact**

Points of Contact (POC) and requests for technical assistance will be managed via the Help Desk at <http://www.anchordesk.navy.mil>. The request will be coordinated by the NFELC Expeditionary Support Desk representative who will route the requirements to the appropriate Subject Matter Expert (SME) for an expeditious response. For any questions regarding Navy MRAP logistics support, POCs are listed in Table 2-1.

**Table 2-1. Points of Contact**

<b>Name</b>	<b>Function</b>	<b>Phone</b>	<b>Email</b>
Barks, Regan	Configuration Manager	805 982-4778	<a href="mailto:regan.barks@navy.mil">regan.barks@navy.mil</a>
Blackburn, Deborah	MRAP ILS Manager	228 871-2413	<a href="mailto:deborah.blackburn@navy.mil">deborah.blackburn@navy.mil</a>
Castaneda, Sergio	Provisioning/Supply Support	805 982-6574	<a href="mailto:sergio.castaneda@navy.mil">sergio.castaneda@navy.mil</a>
Hildebrandt, Mike	Tactical/Commodity Manager	805 982-1922	<a href="mailto:michael.hildebrandt@navy.mil">michael.hildebrandt@navy.mil</a>
Osterberg, Barbara	Technical Manuals	805 982-5261	<a href="mailto:barbara.osterberg.@navy.mil">barbara.osterberg.@navy.mil</a>
Peters, Kaleena	MRAP Engineer	229 639-8556	<a href="mailto:kaleena.peters@usmc.mil">kaleena.peters@usmc.mil</a>
Quilantang, Art	Configuration Data Manager	805 982-1937	<a href="mailto:art.quilantang@navy.mil">art.quilantang@navy.mil</a>
Rice, Dennis	Navy GFE Manager	805 982-1894	<a href="mailto:dennis.c.rice@navy.mil">dennis.c.rice@navy.mil</a>
Thomas, Claude	MRAP Engineer	540 288-5779	<a href="mailto:claudethomas@usmc.mil">claudethomas@usmc.mil</a>
Wagner, Skip	NFELC CESE Manager	805-982-4395	<a href="mailto:albert.wagner@navy.mil">albert.wagner@navy.mil</a>

## **2.2 Web Sites**

There are numerous forms and documents available for use or download on the Internet. Most sites require a Public Key Infrastructure (PKI) certification and some require passwords for access.

Office of the Chief of Naval Operations (OPNAV) 4790/CK form is available at the following URLs:

### **NOTE:**

The fillable form may only be opened using Adobe Acrobat Reader. Using the full version of Adobe will lock up your computer. You can download Adobe Acrobat Reader at [www.adobe.com](http://www.adobe.com).

[U.S. Military: DoD Form OPNAV-4790-CK](#), Fillable, Savable, Version ITAOP-A (pdf.zip)

[U.S. Military: DoD Form OPNAV-4790-CK](#), Fillable, Savable, Version ITAOP-B (pdf.zip)

[U.S. Military: DoD Form OPNAV-4790-CK](#), Fillable, Savable, Version ITAOP-C (pdf.zip)

The Ships Maintenance and Material Management System (3-M) Manual, OPNAVINST 4790.4 is now a web-based application. The application located at URL: <https://www.nde.navy.mil/> requires both a PKI certificate and password.

The Provisioning, Allowance, and Fitting-Out Support (PAFOS) manual is on the Internet at the URL for the Naval Sea Logistics Center (NAVSEALOGCEN) at Mechanicsburg, Pennsylvania. This site requires a PKI certification for access.

<http://www.nslc.navsea.navy.mil/index.nsf/publicALL?OpenView>.

## SECTION 3 MAINTENANCE PLANNING

### 3.1 Maintenance Concept

The MRAP maintenance concept consists of all actions necessary to sustain operational capability. Using activities will conduct preventive (scheduled) and corrective, (unscheduled) maintenance. The MRAP vehicles will be maintained at the organizational (Operator, Crew Level), intermediate (Field Level) and depot (Sustainment Level) of maintenance.

The initial maintenance concept for organizational and intermediate level repair will be implemented by using Commercial Off-The-Shelf (COTS) manuals and the support of Original Equipment Manufacturer (OEM) Field Service Representatives (FSR).

The OEM FSRs will perform Intermediate level (I-Level) maintenance at the Regional Support Activity (RSA) sites. I-level maintenance personnel will remove, replace and repair engine turbochargers, starters, alternators, air compressors, oil pumps, filters, external oil lines, oil pan, and water pumps. They will also remove and replace complete engine assemblies, front and rear seals, valve covers, brake assemblies, intake and exhaust manifolds, and replace fuel pumps, alternators, starters, water pumps, transmissions, and differentials. OEM FSRs are not authorized to overhaul/repair or rebuild engines or differentials. These items have been classified Non-Repairable Assemblies (NRA) at the organizational and intermediate levels for the chassis and shall be replaced as assemblies. Using activities are only authorized to remove and replace these items. Repair and overhaul of these assets will be accomplished through Depot Level (D-Level) maintenance only.

#### NOTE

Prior to accomplishing any repair verify the component or part warranty. See Section 10.1 for warranty guidance and Section 2.1 for technical assistance in processing the warranty.

The Logistics Joint Program Office (JPO) has established RSAs in theater to support all units (USMC, USA, USN, USAF and USSOCOM) in their Area of Responsibility (AOR) and provide GFE installation, deprocessing, hand-off to units, component replacement and repair, and Battle Damage Assessment Report (BDAR). In Operation Iraqi Freedom (OIF), Minor sustainment maintenance and Battle Damage Assessment and Repair (BDAR) will take place at the RSAs. See APPENDIX B TableB-6 for BDAR list. In OEF, the MRAP maintenance support plan is to have ManTech provide sustainment level maintenance, vehicle deprocessing, and “back-up” AECOM as required/requested by Joint Logistics Integrator (JLI) intermediate level maintenance support. AECOM is to provide intermediate level maintenance at MRAP Forward Operating Bases (FOBs). Parts packages are initially provided to the units, and requisitioned through standard supply system by the MRAP JLI/AECOM. ManTech does not purchase and manage parts for MRAP vehicles, only for Route Clearance Vehicles [Vehicle fleet includes the Buffalo, Interim Vehicle Mounted Mine Detector (IVMMD) and RG31].

### **3.1.1 Organizational [Operator Crew Level] Maintenance Capability**

O-Level tasks consist of Planned and/or Corrective Maintenance actions performed by the operating crews and will generally include:

- a. Preventive maintenance checks and services such as inspections, lubrication, cleaning, preserving, tightening, checking and topping off fluid levels, inspecting fittings and connectors, fuse replacement, and performing minor adjustments with common shop tools.
- b. Limited troubleshooting and repair.
- c. Monitoring and reporting system conditions.

Maintenance at this level will be conducted on-site by crewmembers, whether deployed or at home base. Approximately 90 percent of all malfunctions will be detectable and correctable at the organizational level.

### **3.1.2 Intermediate [Field Level] Maintenance**

I-Level is defined as maintenance tasks that are beyond the capability of the operating crews. Maintenance at this level will be performed by specially trained mechanics and technicians. Intermediate maintenance includes:

- a. Inspection/in-depth diagnosis, modification, replacement, adjustment, and limited repair or evacuation/disposal of principal end items and their selected repairable, components/subcomponents.
- b. Calibration and repair of Test, Measurement, and Diagnostic Equipment (TMDE), including fabrication of items, precision machining, and various methods of welding.

Maintenance at this level will be conducted in a semi-protected environment on-site whether deployed or at home base.

### **3.1.3 Depot [Sustainment Level] Maintenance**

D-Level maintenance tasks are to sustain equipment throughout its lifecycle by performing:

- a. Major repair, overhaul, or complete rebuild of parts, subassemblies, assemblies, or principal end items.
- b. Manufacturing parts and conducting required modifications, testing, calibrating, and reclaiming.
- c. Supports lower level maintenance by providing overflow maintenance services and performing on-site maintenance services including technical assistance when required.

Maintenance at this level is a multi commodity maintenance center, other services depots, commercial industrial facilities, OEM or a combination thereof to perform this level maintenance.

All Services will employ sustainment level maintenance in conjunction with the Depot Maintenance Inter-Service Support Agreement. Per the Joint Depot Maintenance Activities Group (JDMAG), JDMAG Letter, dated 11 Jan 08, DMI study 08-0003, USMC LOGCOM (Albany, GA & Barstow, CA) has been assigned the Depot Source of Repair (DSOR), responsible for the MRAP vehicles manufactured by Force Protection Industries, Inc., (FPII). It is estimated that Depot Maintenance at LOGCOM will not be stood up until Fall 2009.

### **3.2 Secondary Repairable Management**

Secondary repairable management in OIF is currently managed in Al Taqaddum (TQ), where parts are stored in warehouses. End users can turn-in secondary Repairables to the Repair In Place (RIP) facility located in TQ. A component level repair shop estimated to be in place summer 2009.

### **3.3 Field Service Representatives**

The FSRs may be located throughout Kuwait, Iraq, and Afghanistan and may be required to move from one site to another to support MRAP vehicles. In some cases, OEM FSRs will be embedded with Navy units at Continental United States (CONUS) home station training locations and Outside the Continental United States (OCONUS) FOBs. OEM FSRs will perform the majority of work for the Navy at the Intermediate level of maintenance. Reference Section C.12 of the Joint Service Statement of Work for the Family of Mine Resistant Ambush Protected Vehicles.

### **3.4 Maintenance and Material Management (3-M) System**

The 3-M system consists of the PMS and MDS. See Section 2.2 for access to or download of the Ship's 3-M Manual.

Due to the limited Internet connectivity/absence of the 3M system in theater, NECC units will capture maintenance history/parts usage data and material movement for MRAP assets through the use of an electronic 4790 2K/CK. Commanders need to document all maintenance actions to include maintenance actions performed by supporting maintenance activities. Furthermore, Commanders will capture configuration data, including the additions and deletes of MRAP assets to a unit's inventory

The MRAP piece of equipment will be identified by the United States Navy Registration Number (USN) when the maintenance person opens the work request (4790/2K), for preventive or corrective maintenance. [Double click Adobe icon] If the actual work is done by personnel from the RSA, the work request will be submitted as a completed action.



PDF 4790/2K

For vehicle movement between FOBs, the site 3M shall load MRAP equipment records into an electronic 4790CK [Double click Word icon].



Electronic 4790/CK

### **3.4.1 Naval Construction Forces (NCF) Units**

The following procedures apply to NCF Units:

- a. Maintenance Actions completed by Unit personnel: Record appropriate maintenance task (both preventative and corrective) on PDF version of 4790/2K. The unit will ensure that man hours spent are accurately recorded on the PDF 4790/2K. Parts requirements will be documented on the parts sheet of the PDF 4790/2K. Save the PDF 4790/2K and then email the file to the Logistics Cell at Al Taqqadum, Camp Morrell, or Camp Arifjan for input into MicroSNAP. Once the maintenance action is completed, the saved PDF 4790/2K will be filled out to show completion data, saved and emailed to the Logistics Cell. Print and place the completed PDF 4790/2K in the vehicle history jacket. Parts can be requisitioned and documented per the procedures outlined in Section 4 of this ULSS. All parts, whether NSN supported items or Commercial and Government Entity (CAGE) and Part number items, will be requisitioned in the Organizational Maintenance Management System (OMMS) module within MicroSNAP by the Logistics Cell personnel when they process the 4790/2K. All parts received by the unit will be received by Supply and then issued in order to record demand data for the parts.
- b. Maintenance Actions completed by supporting maintenance activity (FSR or Heavy Mobile Mechanic): Units shall record “all” maintenance actions, regardless of who performs it, on the 4790/2K. Use procedures established in country to get maintenance support from the RSA. Once the maintenance action is complete and the end user accepts the equipment, the end user will ensure a copy of the Equipment Repair Order (ERO) or FSR maintenance data form to extract data for the 4790/2K is received. Using the information from the supporting activities work order, document maintenance actions on the PDF version of 4790/2K and email 4790/2K to the Logistics Cell at Al Taqqadum, Camp Morrell or Camp Arifjan for input into MicroSNAP. Record each maintenance action as performed by “Type Commander (TYCOM) Support unit/Technical Assist” (Code 3) in block 42 of the 4790/2K. If the maintenance action is performed by a supporting maintenance activity, end users shall document that in the “Remarks” section in their closeout remarks. Unit personnel will capture any parts usage data from the supporting maintenance activity in the parts sheet of the PDF 4790/2K. Print a copy of the completed PDF 4790/2K and place in the history jacket for the vehicle.

### **3.4.2 Non-NCF Units**

The following procedures apply to non-NCF Units:

- a. Maintenance Actions completed by Unit personnel: Record appropriate maintenance task on PDF version of 4790/2K. Email 4790/2K to Home Unit for input into MicroSNAP. The procedures in 3.4.1.a apply in regards to man hours and repair parts. Parts can be requisitioned and documented per the procedures outlined in Section 4 of this ULSS.
- b. Maintenance Actions completed by supporting maintenance activity (FSR or Heavy Mobile Mechanic): Units shall record “all” maintenance actions, regardless of who performs it, on the 4790/2K. Use procedures established in country to get maintenance support from Regional Service Activity. Once the maintenance action is complete and



the end user accepts the equipment, the end user will ensure a copy of the ERO or FSR maintenance data form to extract data for the 4790/2K is received. Using information from the supported activities work order; document maintenance actions on PDF version of 4790/2K and email 4790/2K to Home Unit for input into MicroSNAP. Ensure each maintenance action is recorded as performed by "TYCOM Support unit (TSU)/Technical Assist" (Code 3) in block 42 of the 4790/2K. If the maintenance action is performed by a supporting maintenance activity, end users shall document that in the "Remarks" section in their close out remarks. Unit personnel will email information for any parts used by the supporting maintenance activity for the Home Unit to document in MicroSNAP. Parts obtained will be documented in the parts sheet of the PDF 4790/2K. Parts received will be submitted in OMMS and processed as Ready for Issue in the Supply Financial Management (SFM) module within MicroSNAP. All parts received by the unit will be received by Supply and then issued in order to record demand data for the parts.

NCF units will fill out and email an electronic 4790CK to Camp Morrell or Camp Arifjan for input into MicroSNAP. Non-NCF units will fill out and email 4790CK to Home Unit for input into MicroSNAP.

### **3.5 Planned Maintenance System**

Scheduled maintenance actions are performed in accordance with OPNAVINST 4790.4 series. Corrective maintenance procedures are contained in equipment technical manual.

#### **3.5.1 Maintenance Index Pages/Maintenance Requirement Cards**

PMS documentation (Maintenance Index Pages/Maintenance Requirement Cards (MIP/MRC), are provided to the end user quarterly on the Force Revision CD-ROM and SKED 3.1.

MIP/MRC 5737/B25 deck has been approved for use by NAVSEALOGCEN. This PMS deck applies to the JERRV CAT II and Cougar CAT I vehicle. The updated PMS documentation for Low Rate Initial Production (LRIP) 10 CAT I vehicles will be developed. All Navy users will observe that PMS documentation will take precedence over the preventive maintenance and service procedures provided within the equipment technical manuals.

#### **3.5.2 Technical Feedback Reports**

Recommended changes or revisions to the PMS package shall be submitted using the 3-M system's Technical Feedback Report, OPNAV Form 4790.7B or electronic submission in SKED 3.1 via the chain of command.

### **3.6 Maintenance Data System**

The MDS provides maintenance personnel with a means for reporting corrective maintenance action data that is used by supporting activities to improve system reliability, maintainability and logistics support. All maintenance actions at the job level, including documentation of all deferred maintenance actions and to report those maintenance actions that do not result in a configuration change will be recorded on a 4790/2K in MicroSNAP OMMS. Refer to

OPNAVINST 4790.4B series for detailed instructions concerning the use and preparation of the maintenance data reporting forms.

### **3.7 Source, Maintenance and Recoverability Coding (SM&R)**

SM&R coding is a specific method for documenting numerous decisions concerning maintenance significance, level of repair, range and depth of sparing and recoverability of assets. The SM&R code implements the maintenance philosophy by being applied to each item on a Provisioning Parts List (PPL), Allowance Parts List (APL) and Allowance Equipage List (AEL). Refer to Naval Supply Systems Command (NAVSUP) Publication NAVSUP P-719 for definitions of these SM&R codes.

### **3.8 Casualty Report/Situation Report (CASREP)/Casualty Correction**

The Maintenance Officer will ensure that CASREP and follow-on reports are submitted in accordance with COMFLTFORCOMINST 4790.3 (Joint Fleet Maintenance Manual).

## **SECTION 4**

### **SUPPLY SUPPORT**

#### **4.1 Supply Support Objective**

The supply support objective for the MRAP vehicles is to apply the standard Navy supply support and provisioning policies to provide timely and economical life cycle support. It is intended to use established Navy supply channels and retain the supply procedures in NAVSUP Publication P-437, Military Standard Requisitioning and Issue Procedures (MILSTRIP)/Military Standard Transaction Report and Accounting Procedures (MILSTRAP). NFELC provides the provisioning data which is used by the Naval Inventory Control Point (NAVICP) to develop an APL/ AEL for each MRAP vehicle configuration. The Weapon System File (WSF) is part of the Navy's official configuration database for ship and shore activities, from which the Consolidated Shipboard/Shore-Based Allowance List (COSAL/COSBAL) is abstracted.

##### **4.1.1 Allowance Parts Lists/Allowance Equipage Lists (APL/AEL)**

The APL is a standalone allowance document that finitely identifies a system or equipment and the spares, and special tools required for operation and maintenance, both corrective and preventive, for the system or equipment.

MRAP APL, 950006823, JERRV/MRAP Multipurpose Vehicle, has been developed by NFELC to support CAT I and II vehicles. A separate APL will be developed for the LRIP 10 configurations. The APLs will not be issued for outfitting until Contractor Logistics Support (CLS) has expired.

AELs establish allowances for items required to perform a specific operational function; needed for the performance of maintenance actions; or are needed for the safety and protection of personnel.

AEL, 2-99CES2227, MRAP Basic Issue Items (BII), have been developed by NFELC to support CAT I and II vehicles. BII are listed in Appendix B, Table B-4.

Detailed APL/AEL information is available in the PAFOS Manual. See Section 2.2 for access to the PAFOS manual.

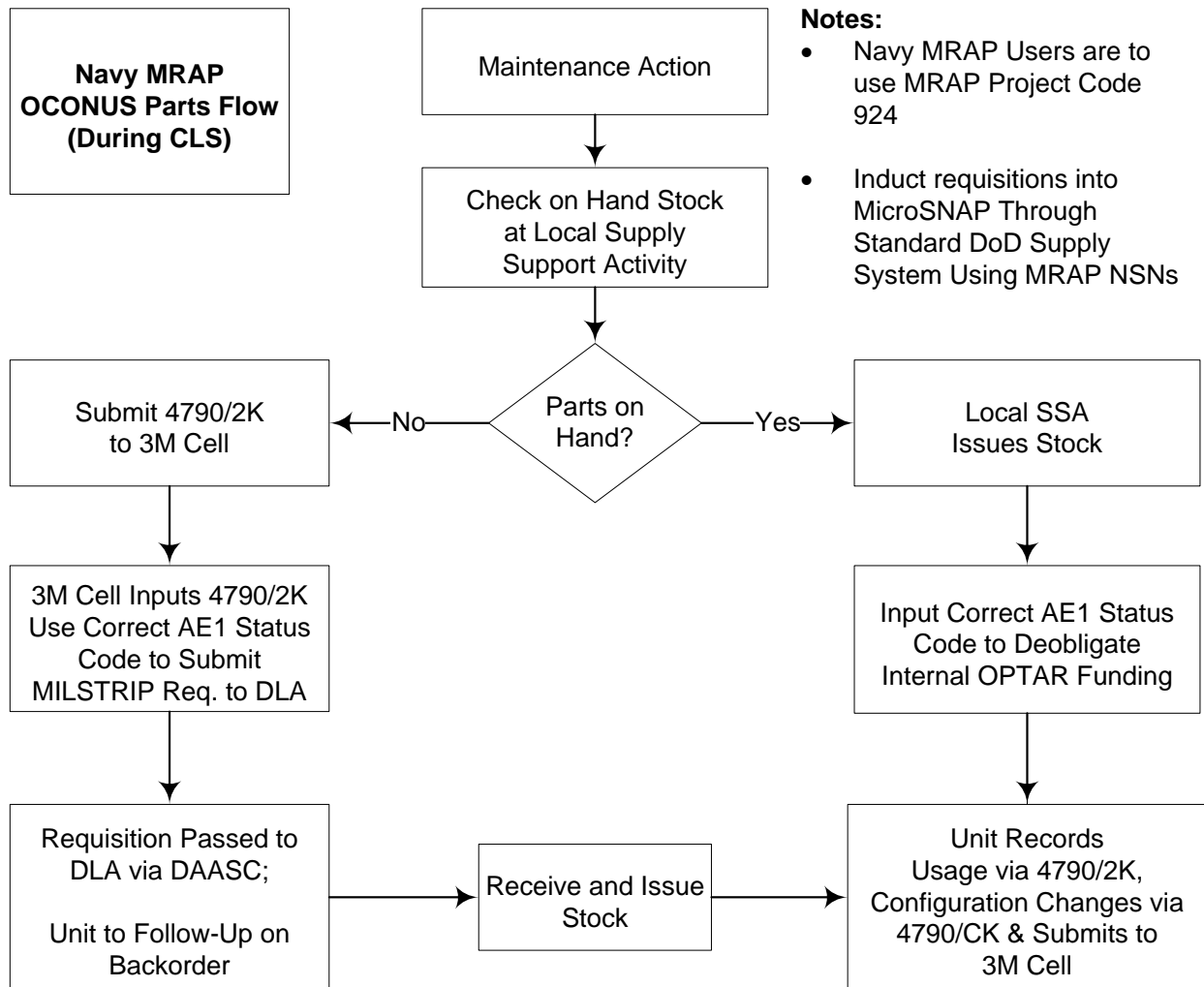
##### **4.1.2 Implementation of Supply Procedures**

All Navy requisitions for both NSN and non-NSN material will be submitted in accordance with standard MILSTRIP/MILSTRAP procedures contained in NAVSUP Publication P-437. All parts, whether NSN supported items or Cage and Part number items, will be requisitioned in the OMMS module within MicroSNAP by the Logistics Cell personnel when they process the 4790/2K. The RSAs in OIF will be the initial Source of Supply for all replenishment actions. In OEF, for intermediate level repair parts, the owning unit or AECOM is responsible for submitting Class IX requisitions through the standard supply system to their supporting Supply Support Activity (SSA).

For sustainment level repair parts (or intermediate level repair parts) needed at the RSAs, ManTech personnel will advise their supporting operators (JLI/AECOM) which parts are

required to repair their equipment. The unit/JLI is responsible for ordering the part in order to replenish the stock.

Navy users are to use MRAP Project Code 924 for requisitioning items in direct support of MRAP vehicles. Figure 4-1 presents the process flow for MRAP requisitions.



**Figure 4-1. MRAP Requisition Flow**

### 4.1.3 Interim Spares

All initial issue parts received by the unit will be received by Supply and then issued in order to record demand data for the parts. Initial/Interim spares are issued concurrent with the fielding of the MRAP vehicles and are listed in APPENDIX B. All MRAP vehicles' unique spares and items that are repairable are to be handled by the OEM (CAGE 1EFH8). The contractor will be responsible for supplying unique NSNs. Once the MRAP vehicles are no longer under CLS and APLs are available, the respective interim spares list will be removed from this ULSS.

The MRAP vehicle has now shifted to an Authorized Stock(age) List/Prescribed Load List (ASL/PLL) support system. The Supported Activities Supply System (SASSY) Management Unit (SMU), Supply Support Activity (SSA), or local supply activity will support the following Navy parts blocks for the CAT II 6×6 JERRV and MRAP Cougar 4×4 vehicle:

- a. 90-day Consumables + 1-year Forward Deployment Block (FDB) provided on a 1:25 parts block/vehicle ratio, referred to as a PLL.

The PLL consists of operational spares, bench stock and consumables such as, fuses, fan belts, filters, bulbs, etc.

- b. 1-year Maintenance Workshop Block (MWB) provided on a 1:25 parts block/vehicle ratio, referred to as an Authorized Support List (ASL)

The ASL consists of Class IX secondary items, reparable, bench stock and consumables, and spares. ASL is held on the stock record account of the supporting SSA.

#### **4.1.4 Consumables**

The organizational and intermediate unit/activity will be responsible for the maintenance of consumable material.

#### **4.1.5 Defense Logistics Agency (DLA) Managed Common Items**

The Navy is authorized to utilize DLA as the first Source of Supply (SOS) for common items. Standard Navy/DLA supply system support is identified in NAVSUP Publications P-437 and P-485.

#### **4.1.6 Unique Repair Parts**

The requesting units will submit requisitions through normal supply channels utilizing the applicable TYCOM directed Routing Identifier (RI) codes. Units will process their requisitions in accordance with applicable requirements and standards set forth in DoD 4140.1R, Uniform Material Movement and Issue Priority System (UMMIPS) as outlined Section III of the NAVSUP Publication P-485, Paragraphs 3045 thru 3051. Requisitioning requirements in any priority category should consider all applicable standards of the unit's Force Activity Designation, assignment of Priority Designation (PD) and Urgency of Need Designation (UND). All applicable Project Codes and Required Delivery Dates are discussed in the references addressed above. This includes processing time standards for CONUS/OCONUS requisitions including Not Operationally Ready (NOR), Anticipated Not Operationally Ready (ANOR) and CASREP requisitions. The "Supplementary Address" block will contain a reference to the MRAP vehicle.

Government credit card purchases can also be processed by the contractor. None of the CLS provisions (required delivery dates and negotiated unit price) will apply to a Government credit card purchase. The \$2500.00 per call purchase limitation applies.

#### **4.1.7 Repair Parts Support**

The MRAP vehicles will become part of the Civil Engineer Support Equipment (CESE) that will be identified in the Table of Allowance (TOA) by an Equipment Code (EC). A United States Navy (USN) or an Item Unique Identification (IUID) number will be assigned for tracking in Construction, Automotive and Specialized Equipment Management Information Systems (CASEMIS) and Configuration Data Management Database - Open Architecture (CDMD-OA). The data will be entered into the Construction Battalion's preventive maintenance program.

Activities acquiring spare and repair parts through other than the standard supply channels shall submit a Demand History Action (DHA), commonly called a dummy requisition, in accordance with NAVSUP Publication P-485. The DHA will create a demand history without actually requisitioning parts. The DHA allows NAVICP to track demand for parts even though they may be acquired by alternate methods, ultimately and simply ensuring parts availability.

#### **4.1.8 Repairable/Replacement Policy and Procedures (DD Form 1348-1 & OPNAV Form 4790/2K)**

The requisitions for repairable replacement items and turn-in of Not-Ready-For-Issue (NRFI), or defective items, are prepared and processed in accordance with MILSTRIP requirements (reference NAVSUP Publications P-437/P-485 and OPNAVINST 4614.1 Series). See Figure 4-1. A copy of the turn-in documentation, DD Form 1348-1, Release/Receipt Document is to accompany repairable NRFI items (reference NAVSUP Publications P-485/P-437). Two copies of the DD Form 1348-1 and one copy of OPNAV Form 4790/2K must be packed with the item being shipped and one copy of each must be forwarded to:

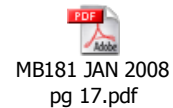
Commanding Officer  
Naval Facilities Expeditionary Logistics Center  
1000 23rd Avenue  
Port Hueneme, CA 93043-4301  
ATTN: NFELC (Code N43)  
Fax: 805-982-5806 (DSN: 551)

#### **4.2 Reporting Shipping Discrepancies (SF-364)**

Detailed procedures for reporting shipping or packing discrepancies in regards to repair parts may be found in NAVSUP P-485, paragraphs 4268-4273; NAVSUP P-437 and SECNAVINST 4355.18 (Reporting of Supply Discrepancies; end users can access this instruction at the URL <http://neds.daps.dla.mil/SECNAV.aspx>). End users should submit a Supply Discrepancy Report (SDR) on Standard Form (SF)-364. Procedures regarding shipping or packing discrepancies for 2C COG material issued locally from NFELC are prescribed in the Naval Facilities Engineering Command (NAVFAC) P-300, paragraph 2.14.3 (Management of Civil Engineering Support Equipment End users should send SDRs to the following address:

Commanding Officer  
Naval Facilities Expeditionary Logistics Center  
1000 23rd Avenue  
Port Hueneme, CA 93043-4301  
ATTN: NFELC (Code N442)

Double click on the Adobe PDF icon for additional guidance on use and submission of SF 364. This is an extract from the January 2008 NFELC Maintenance Bulletin.



#### **4.2.1 Reporting Quality Deficient Material Upon Issue (SF-368)**

Detailed procedures on the use, preparation and submission of Product Quality Deficiency Reports (PQDRs), SF-368, in regards to repair parts are contained in NAVSUP P-485, paragraph 4274; NAVSUP P-437 and SECNAVINST 4855.5 PQDR Program. Procedures on PQDR submission for 2C COG material issued locally from NFELC are prescribed in the NAVFAC P-300, paragraphs 2.14.4-2.14.6 and 2.14.9. End users should send PQDRs via the Chain of Command to the following address:

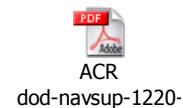
Commanding Officer  
Naval Facilities Expeditionary Logistics Center  
1000 23rd Avenue  
Port Hueneme, CA 93043-4301  
ATTN: NFELC (Code N442)

Commander, Navy Expeditionary Combat Command (COMNECC) Instruction 4400.1, paragraph 4206, section B, states, "NECC activities are encouraged to submit web-enabled electronic reports vice paper reports as much as possible. DoD PKI Client Certificates (obtained from the IT Department), and User IDs and passwords are required to access most of these systems." The website <http://www.nslcptsmh.navsea.navy.mil/pdrep/pdrep.htm> is currently available for PQDR and Product Data Reporting and Evaluation Program (PDREP). Deployed units can report PQDRs using the "EZ PQDR" link (currently at <https://199.208.242.174/spqdr/home.do>). If the command or unit uses PDREP for reporting PQDRs, the "EZ" program is not to be used.

#### **4.3 Allowance Change Requests (NAVSUP 1220-2)**

Allowance Change Requests (ACR) for authorized allowances shall be submitted directly to NFELC via the Chain of Command. For detailed procedures concerning the use of ACRs, refer to NAVSUP Publications P-437/P-485. This will only apply to MRAP if vehicles are assigned to a unit's TOA.

Double click the Adobe icon to access NAVSUP form 1220-2.







**SECTION 5**  
**TECHNICAL PUBLICATIONS & TECHNICAL DATA**

**5.1 Equipment Manuals**

The Navy will utilize technical manuals, operator manuals, and maintenance manuals that are associated with the MRAP vehicles. These include operator unit maintenance manuals such as “O” and “I” level maintenance manuals and Repair Parts and Special Tools Lists (RPSTL). Table 5-1 lists the MRAP technical manuals. Users can reference the following Marine Corps Logistics Command (MARCORLOGCOM) website for any updated parts manuals:  
<https://pubs.logcom.usmc.mil/mrap/default.asp>.

**Table 5-1. MRAP Technical Manuals**

<b>TM Number</b>	<b>Manual P/N</b>	<b>Title</b>
7610-LL-7A-0050		JERRV Technical Manuals
7610-LL-7B-0050	TM M-24 NO. 1001001 REV A	JERRV 6×6 Electrical Schematics
7610-LL-7C-0050	TM M-24 NO. 1000998 REV A	JERRV 6×6 Electrical Schematics Appendix B
7610-LL-7D-0050	TM M-24 NO. 1000998 REV B	JERRV 6×6 Maintenance Manual
7610-LL-7E-0050	TM OP-10 NO. 1000997 REV B	JERRV 6×6 Operators Manual
7610-LL-7F-0050	TM P-24 NO. 1000999 REV B	JERRV 6×6 Parts Manual
7610-LL-7G-0050	TM M-24 NO. 1000995 REV B	JERRV 4×4 Maintenance Manual
7610-LL-7H-0050	TM OP-10 NO. 1000994 REV B	JERRV 4×4 Operators Manual
7610-LL-7I-0050	TM P-24 NO. 1000996 REV B	JERRV 4×4 Parts Manual
7610-LL-7J-0050	TM M-24 NO. 1000995 REV B	JERRV 4×4 Electrical Schematics
7610-LL-7K-0050	TM M-24 NO. 1001001 REV A	JERRV 6×6 Maintenance Manual

**Table 5-1. MRAP Technical Manuals (continued)**

<b>TM Number</b>	<b>Manual P/N</b>	<b>Title</b>
7610-LL-7L-0050	TM OP-10 NO. 1001000 REV A	JERRV 6×6 Operators Manual
7610-LL-7M-0050	TM P-24 NO. 1001002 REV 2	JERRV 6×6 Parts Manual
7610-LL-L7N-0050	TM NO. 10001620	CAT I MRAP Operators Manual
7610-LL-L7P-0050	TM NO. 10001621	CAT I MRAP Maintenance Manual
7610-LL-L7Q-0050	TM NO. 10001622	CAT I MRAP Parts Manual
7610-LL-L7R-0050	TM NO. 10001623	CAT I MRAP Electrical Diagrams

## **5.2 Ordering Procedures for Technical Manuals**

COTS manuals are overpacked with each vehicle delivery. A Technical Manual Identification Number System (TMINS) number and a National Stock Number (NSN) will be assigned for lifecycle management. All MRAP Technical Manuals (TMs) will eventually be located in the Naval Logistics Library (NLL) website so end users will have access to additional TMs as required. End users can currently request TMs through the Navy Help Desk. See Section 2.1 for assistance.

The procedure described above also applies to Government Furnished Equipment (GFE) TMs. See Table 1-6 for GFE. Users can reference the following NECC website for GFE manuals: <https://www.fleetforces.navy.mil/necc/1ncd/N6/N61/Tactical%20Communications%20Library/Forms/AllItems.aspx>

## **5.3 Technical Manual Discrepancies**

Submit notice of discrepancies or suggested changes on a Technical Manual Deficiency Evaluation Report (TMDER), OPNAV Form 4790/66 via Naval Systems Data Support Activity (NSDSA).

## SECTION 6 SUPPORT EQUIPMENT

### 6.1 General

Requirements for Common and Special Tools will be filled from the P25 Allowance Kit 13 and Kit 14.

### 6.2 Special Purpose Tools

Special purpose tools required for the MRAP vehicles are listed in Table 6-1.

Special Tools, Special Purpose Test Equipment (SPTE), and General Purpose Test Equipment (GPTE) will initially be pushed in conjunction with CAT II JERRV and CAT I Cougar 4x4 vehicle fielding.

**Table 6-1. Special Purpose Tools**

NOMENCLATURE	NSN	P/N	CAT I	CAT II
Lifting Device Glass – Suction Cup				2
Sling, Chain 4-Part with Clevis and Hooks				2
Sling, Fiber				2
Sling, Chain – Automotive 2-Part				2
Sling, S-Line 6400 Lb Capacity				4
Power Pack Cradle Assembly				1
Leveler/Lifter, Engine Load				1
Cradle, Dressed Transmission				1
Cook Tech 2K Air conditioning Recharge Station		1002084	1	1
Bacharach Informant 2 Refrigerant Leak Detector		1002083	1	1
Deutsch HD-Field Service Kit		6000525	1	1
CAT-1U5470 Engine Pressure Group	4910-01-136-1058	6000046	1	1
Temperature Adaptor Group, 6V-9130		6000531	1	1
PLC Tractor Hardware Kit		1001167	1	1

Tool kits will be pushed in conjunction with MRAP vehicles fielding.

**6.3 Special Purpose Test Equipment**

The Special Purpose Test Equipment required for the MRAP vehicles are listed in Table 6-2.

**Table 6-2. Special Purpose Test Equipment**

<b>NOMENCLATURE</b>	<b>NSN</b>	<b>P/N</b>	<b>CAT I</b>	<b>CAT II</b>
Toughbook Computer		1002103	1	1
Desktop Computer		6000114	1	1
A/C Manifold Pressure Gauge Set, ROBINAIR Rob-48430 or Similar		1002082	1	

**6.4 Common Tools**

Requirements for Common and Special Tools will be filled from the P25 Allowance Kit 13.

**Table 6-3. Common Tools**

<b>NOMENCLATURE</b>	<b>NSN</b>	<b>P/N</b>	<b>CAT I</b>	<b>CAT II</b>
Cordless Drill		6000285	1	1
General Mechanics Tool Box/Metric		6000126	1	1

**6.5 General Purpose Test Equipment (GPTE)**

GPTE is defined as those common items of Test, Measurement, and Diagnostic Equipment resident in the Navy inventory. The MRAP vehicles technical manuals will contain a complete listing of GPTE. Table 6-4 lists MRAP GPTE.

**Table 6-4. General Purpose Test Equipment**

<b>NOMENCLATURE</b>	<b>NSN</b>	<b>P/N</b>	<b>CAT I</b>	<b>CAT II</b>
600 Amp Current Probe, Fluke 336	6625-01-460-7608	1002079	1	1
Multimeter Kit, Fluke 885 or equivalent		1002077	1	1

**6.6 Calibration**

Refer to ANSI/NCSL-Z540.1, Calibration and Measuring and Test Equipment – General Requirements, NAVSEAINST 4734.1B, NAVSEA Test, Measurement and Diagnostic Equipment (TMDE) and Calibration Programs and the Navy Metrology website at <https://metcal.corona.nmci.navy.mil> for guidance on calibration, measuring, test equipment, general requirements and the latest calibration directives and standards.

This site requires both a PKI certificate and password. The user will be prompted to register to get a user ID and Password on the first attempt to log into the site.



## **SECTION 7**

### **TRAINING**

#### **7.1 Training Concept**

The current training concept is for USMC Mobile Training Teams (MTTs) to provide New Equipment Training (NET) to Multi National Force-West (MNF-W) personnel at the RSA and fielding sites in-theater. The Logistics JPO has established an “MRAP University” at the Red River Army Depot (RRAD), TX to facilitate the cross-training of OEM FSRs/Instructors, Government Mechanics/Logistics Assistance Representatives (LARs), and War Fighter Instructor/Key Personnel training in support of CONUS training. The outcome is a Joint Consortium of FSRs that provides CONUS training on all MRAP vehicle variants. The MRAP University Training Support Package (TSP) is based on Government-approved Operator New Equipment Training (OPNET) and Field-Level Maintenance New Equipment Training (FLMNET) Programs of Instructions (POIs) which consists of classroom instruction, on-vehicle instruction, and day/night driving instruction.

The Navy training concept for the MRAP Cougar 4×4 vehicles is Operator and Maintainer NET and will focus on the operator/crew and maintenance tasks. The Joint MRAP NET TSP focuses on critical operator and maintainer tasks for all fielded MRAP Family of Vehicles (FoV) variants. Complete MRAP NET TSPs will be left with units for sustainment training, along with supplemental vehicle training videos. The Navy is currently working with the Marine Corps Liaison Officer (LNO) for current training of GFE in theater.

#### **7.2 Initial Operator and Maintenance Training Requirements**

OPNET is conducted at the hand-off sites after vehicle deprocessing and at unit-based training locations. Class size is 24 Operators (4 students to 1 instructor ratio) and is 4 days (40 hours). FLMNET is conducted at the unit’s maintenance location after vehicle deprocessing and at unit-based training locations. Class size is 12 Mechanics (4 students to 1 instructor ratio) and is 5 days (40 hours).

**FL000-AC-LOG-010**  
**0525-LP-107-9783**

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**7.2.1 Follow-On Training**

**Existing Courses:**

**CIN, Course Title:** S-710-0920, Convoy Security Element  
**Training Activity:** 20<sup>th</sup> Seabee Readiness Group  
**Location, UIC:** CBC Gulfport MS  
**Source:** Navy **Student Category:** ACDU

FY08		FY09		FY10		FY11		FY12		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	60		60		60		60		60	ATIR
	60		60		60		60		60	Output
	6.58		6.58		6.58		6.58		6.58	AOB
	6.58		6.58		6.58		6.58		6.58	Chargeable

**CIN, Course Title:** S-710-0920, Convoy Security Element  
**Training Activity:** 31st Seabee Readiness Group  
**Location, UIC:** NBVC, Port Hueneme CA  
**Source:** Navy **Student Category:** ACDU

FY08		FY09		FY10		FY11		FY12		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	60		60		60		60		60	ATIR
	60		60		60		60		60	Output
	6.58		6.58		6.58		6.58		6.58	AOB
	6.58		6.58		6.58		6.58		6.58	Chargeable

**7.2.2 Maintenance Training at Naval Construction Training Center, Gulfport, MS and Port Hueneme, CA**

To be defined.



## **SECTION 8**

### **MANPOWER AND PERSONNEL**

#### **8.1 Personnel Concept**

The MRAP FoV will be operated and maintained by personnel currently operating and maintaining similar vehicles within user units. There are no additional military personnel or new Navy Ratings required. Current requirements are:

- a. Operator/Crew: Non-Specific Military Occupational Field 13 (OF13).
- b. Maintainers: USN Construction Mechanic's  
Civilian Heavy Mobile Equipment Mechanics (5803, 5806)



**SECTION 9**  
**SOFTWARE SUPPORT**

**9.1 Software Support**

Commercial OEM software required to test, troubleshoot and accomplish maintenance actions is listed below in Table 9-1.

**Table 9-1. Software**

<b>NOMENCLATURE</b>	<b>NSN</b>	<b>P/N</b>	<b>CAT I</b>	<b>CAT II</b>
CAT C7 ET Software and Data Line		1002078	1	1
Allison Software and Data Line		1002093	1	1
Wabco Software and Data Line		1002092	1	1



## **SECTION 10**

### **WARRANTIES**

#### **10.1 Warranty**

OEM contractors warrant the material and workmanship to be of good quality and free of defects for a period of one (1) year from the date of acceptance by the Government. Spare parts are warranted for a period of ninety (90) days. The OEM will assist in the administration of third party OEM pass through warranties for the engine, transmission, axles, and other systems.

Double click on the Adobe icon for USMC Supply Instruction, SI 11202A-OD/1, 31 March 2008, Warranty Procedures for the Mine Resistant Armor Protected Family of Vehicles.



Warranty.pdf

See Section 3.1 for the maintenance concept and remove and replace authority. See Section 2.1 if additional assistance is required processing warranty requirements.



## **SECTION 11**

### **PACKAGING, HANDLING, STORAGE, AND TRANSPORTATION (PHS&T)**

#### **11.1 Packaging**

The MRAP FoV and associated components will be packaged for protection against corrosion, deterioration, and physical damage during shipment, handling, storage, and distribution, according to the requirements of MIL-STD 3003A and MIL-STD-2073-ID. The production contractor will propose appropriate PHS&T methods in accordance with best commercial practices. Any hazardous materials will be identified, marked, and packaged in accordance with current regulations and best commercial practices. Shipment of large components (i.e., engines and transmissions) will utilize reusable shipping containers for shipment to and from repair facilities.

#### **11.2 Marking**

All unit, intermediate, and shipping containers shall be marked in accordance with the requirements of MIL-STD-129.

#### **11.3 Handling**

The MRAP design provides convenience and safety to personnel handling during shipment. When packaged, each MRAP vehicle will be capable of being driven or towed off the delivery conveyance at the receiving unit site. Handling shall be accomplished in accordance with MCO 4450.14: Joint Service Manual, Storage, and Materials Handling. No particular handling equipment is expected to be required.

There are no special handling instructions for the MRAP vehicle system.

#### **11.4 Storage**

Storage shall be accomplished in accordance with MCO 4450.14. There are no special or unique storage requirements for the MRAP FoV. Spares and repair parts are to be stored in their packages in covered storage. Temperature limits for storage are -65° F to +160° F. If long-term storage time is expected, sensitive equipment should be held at the factory or the shipyard. Storage areas should be protected and humidity controlled.

#### **11.5 Transportation**

Standard Navy policy and procedures will apply to all shipments related to the MRAP vehicles. The urgency of need will dictate transportation priorities and methods. The selection of carriers for shipments of differing security classification may be found by consulting Chapter 226 of the Military Traffic Management Regulations (NAVSUP 4600.70).

**11.5.1 Transportability**

Transportation requirements for the MRAP vehicle are via land (trucking/rail), sea (commercial roll on/roll off shipping), and air (C-5, C-17). All slinging provisions, tie-downs, and shackles shall conform to MIL-STD-209.

**11.6 Hazardous Material**

Preservation, packaging, packing, and marking of Hazardous Materials (HAZMAT) shall conform to the requirements of MIL-STD-2073-1D.



## **SECTION 12**

### **FACILITIES**

#### **12.1 Facility Requirements**

An assessment is being conducted to determine Physical, Architectural, Mechanical, Electrical, Maintenance, Administrative, and Environmental impacts to facility requirements.

There is no impact to Training facilities.



## SECTION 13 FIELDING METHODOLOGY

### 13.1 General Fielding Plan

The MRAP vehicles will be distributed to active units based on each unit's Required Operational Capability and Projected Operational Environment (ROCPOE).

### 13.2 Method of Fielding

### 13.3 Fielding Process Responsibilities

A Navy Expeditionary Combat Command (NECC) Equipment Program Manager (EPM) will be responsible for ensuring all acceptance inspection and processing on the MRAP vehicles. The EPM will maintain MRAP vehicles' documentation and will provide copies of all delivery and deprocessing documentation to the Commodity Manager (CM) at NFELC. Copies of all delivery and deprocessing documentation must be provided to NFELC before MRAP vehicles are delivered to operating units.

End user unit supply officers will coordinate the fielding of the MRAP vehicles. The EPM will be responsible for the conduct of all acceptance inspection and processing.

- a. NECC
  1. Notify the receiving command of the quantity of MRAP vehicles and date shipment will arrive.
  2. Prior to distribution of the MRAP vehicles, ensure an adequate number of trained operators and mechanics exist at the gaining command. Coordinate pre-fielding training with NFELC.
- b. Receiving Command
  1. Complete all delivery related documentation (DD250, DD1149, 1342, and 4790CK) and forward to the Configuration Data Manager (CDM) at NFELC with serial number, quantity, date of receipt, and owning unit's Unit Identification Code (UIC) within 30 days upon arrival of the MRAP vehicles.
  2. Ensure the FSRs/intermediate maintenance activities perform an acceptance Limited Technical Inspection (LTI) per the deprocessing checklist. Double click on the MSEXCEL icon to access the MRAP Deprocessing Form. For help with the form contact the Help desk as detailed in Section 2.1.
  3. Inspect and inventory all MRAP vehicles for basic issue items, special tools, repair parts, and technical manuals. See APPENDIX B for Spares and BII lists. Report any discrepancies on a Quality Deficiency Report (QDR) in accordance with procedures contained in NAVFAC P-300. The receiving command shall provide a copy of the QDR to the NFELC Expeditionary Support Desk. See APPENDIX B for Spares, BII, Deprocessing Kit, and Battle Damage Assessment and Repair parts.



Deprocessing  
Checklist.xls

- c. Naval Facilities Expeditionary Logistics Center
  - 1. Provide deprocessing instructions as necessary.
  - 2. Input equipment records into CDMD-OA and CASEMIS.
  - 3. Coordinate pre-fielding training with NECC.
  - 4. Provide NECC with fielding updates.
  - 5. Coordinate resolution of discrepancy reports, i.e., PQDRs.
  - 6. Coordinate resolution of documented shortages, i.e., SDRs.

## SECTION 14

### ACTION REQUIRED TO PLACE EQUIPMENT IN-SERVICE

#### 14.1 Gaining Commands

Gaining commands shall comply with NFELC guidance for placing new equipment in-service.

#### 14.2 Acceptance Inspection

All MRAP vehicles are currently P-32 TOA and Area System Commander assets managed by NFELC. The gaining command must have a formal loan letter on file signed by NFELC for each MRAP vehicle. The maximum loan period is six months. After six months, an accessorial charge of 5.0% of the total value of the piece of equipment will be assessed.

Each end user activity and remote campsite must complete and submit an OPNAV 4790/CK form to report new equipment gains, losses, and equipment changes to the CDM. The CDM will update the CDMD-OA, which in turn updates the NAVICP WSF. The WSF is the Navy's official configuration database for ship and shore activities, from which the COSAL/COSBAL is abstracted.

Further information may be found in the Ships 3-M Manual, OPNAVINST 4790.4 series. See Section 2.2 for access to the 3-M manual.

Information may also be found in the PAFOS manual online on the Internet at the URL for the NAVSEALOGCEN at Mechanicsburg, Pennsylvania. See Section 2.2 for access to the PAFOS manual.

During the operating cycle, it is the unit's responsibility to report equipment/component or equipage changes detected or accomplished by the unit, Intermediate Maintenance Activity (IMA), or an Alteration Installation Team (AIT) to NFELC. Each receiving unit is required to conduct an acceptance inspection to verify that all components of each system have been received. Out-of-box failures should be inducted into the maintenance shop for warranty failures or repair, and a report to the command EPM. The command EPM should initiate contact with the MRAP Commodity Manager at NFELC for assistance in resolution of warranty matters. See Section 2.1 for assistance.

#### 14.3 Reporting Issue of Equipment

The gaining command must report the receipt and issue of the hardware in accordance with CASEMIS requirements provided by the fielding NFELC Commodity Manager's office. Units that fall under the 3-M system must also submit a 4790CK via CDMD-OA. See Section 2.2 for assistance.

#### 14.4 Security Requirements

The equipment is subject to pilferage; therefore, physical protection should be provided accordingly. The MRAP Joint Program Office has also published a MRAP Security Classification Guide. Double click on the Word document icon to access the document.



MRAP Security  
Classification Guide

#### **14.5 Deprocessing Form**

The MRAP vehicles must be de-processed immediately after receipt at the owning unit and prior to final acceptance of the MRAP vehicles. See Section 13.3b2 for access or Section 2.1 for assistance with the deprocessing form.

## SECTION 15

### CONFIGURATION MANAGEMENT AND CONFIGURATION DATA MANAGEMENT

#### 15.1 Configuration Management

End users can refer to MRAP-CMP-07001, Configuration Management Plan MRAP Vehicles (Navy) and MIL-HDBK-61A (Military Handbook Configuration Management Guidance) at the URL <http://assist.daps.dla.mil/quicksearch/> for configuration management guidelines.

##### 15.1.1 NFELC Configuration Change Authority

The Navy Configuration Control Board (CCB) is the NFELC Configuration Change Authority (CCA). End users are not authorized to make any configuration changes to the form, fit and function of MRAP vehicles without NAVFAC approval.

##### 15.1.2 Requests for Configuration Changes

End users must submit requests for configuration changes to NFELC via the Online Assist Request through the Navy Anchor Desk (<http://www.anchordesk.navy.mil/fleetsupport/request.nsf/request?OpenForm>). The In-Service Engineering Agent (ISEA) will review the change request and if an alteration is warranted will forward it to the CCA.

#### 15.2 NFELC Configuration Data Management

##### 15.2.1 Configuration Data Managers' Database-Open Architecture (CDMD-OA)

The Configuration Data Manager (CDM) at NFELC manages the CDMD-OA database to provide logistics support for MRAP vehicle equipment and components. For further guidance regarding CDMD-OA refer to the website at URL <https://www.nde.navy.mil/>.

CDMD-OA tracks the status and maintenance of naval equipment and related logistics items, such as drawings and manuals for ships and other naval activities. The system is the central data repository for ship configuration and associated logistics support information. CDMD-OA transmits configuration data to NAVICP WSF and transmits all supply and configuration data to the shipboard systems.

##### 15.2.2 NFELC Configuration Data Reporting

Each end user activity must complete and submit an OPNAV 4790/CK form to report new equipment gains, losses, and authorized equipment changes to the NFELC CDM.





**APPENDIX A**  
**REFERENCES**

ANSI/NCSL-Z540.1	Calibration and Measuring and Test Equipment – General Requirements
COMFLTFORCOMINST 4790.3	Joint Fleet Maintenance Manual
DoD 4140.1R	Uniform Material Movement and Issue Priority System
MCO 4450.1114	Joint Service Manual and Material Handling
MIL-STD-129	Military Marking for Shipment and Storage
MIL-STD-2073-1D(i)	DoD Standard Practice for Military Packaging
MIL-STD-209K	(Interface Standard), Slings and Tie-Down, Provisions for Lifting and Tying Down of Military Equipment
MRAP-CMP-07001	Configuration Management Plan Mine Resistant Ambush Protected (MRAP) Vehicles
NAVFAC P-300	Management of Civil Engineering Support Equipment
NAVSEAINST 4734.1B	NAVSEA Test, Measurement and Diagnostic Equipment (TMDE) and Calibration Programs
NAVSUP P-485	Afloat Supply Procedures
NAVSUP P-437	Military Standard Requisitioning and Issue Procedures (MILSTRIP)/Military Standard Transaction Report and Accounting Procedures (MILSTRAP)
NAVSUP 4600-70	Military Traffic Management Regulation
OPNAVINST 4790.4 Series	Ships 3-M Manual
SECNAV 4355.18	Reporting of Supply Discrepancies
SECNAVISNT 4855.5	Product Quality Deficiency Program
SECNAV 5000.2C	Implementation of Mandatory Procedures for Major and Non-Major Defense Acquisition Programs and Major and Non-Major Information Technology Acquisition Programs

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**APPENDIX B**  
**MRAP SPARES AND SUPPORT ASSETS**

This Appendix includes Spares, Basic Issue Items, Deprocessing Kit, and Battle Damage Assessment and Repair parts for MRAP vehicles.

**Table B-1. JERRV Spares**

<b>FPII Part Number</b>	<b>NSN</b>	<b>Nomenclature</b>	<b>90-Day On Board Consumables</b>	<b>1-YR Forward Deployment</b>	<b>1-YR Maintenance Workshop</b>
1000043	2510-01-542-2719	Front Hanger, Left			1
1000044	2510-01-542-2714	Front Hanger, Right			1
1000170	6160-01-543-3251	Batt-Grp 6TI			4
1000171	5945-01-544-1921	Solenoid-24V 400A		1	3
1000179	5920-01-414-6983	Fuse, 5A Mini ATM	10	10	100
1000180		Fuse, 7.5A Mini ATM	10	10	100
1000182	5930-01-540-9463	Switch, Stop Light			3
1000188	6120-01-526-4310	Converter-DC/DC 40A			2
1000192	2520-01-503-3672	Shifter-Push Button			3
1000195	3040-01-541-2121	Pedal - Elec Accel			1
1000201	5340-01-541-2412	Mount, Transfer Isolator			4
1000202		Fan, Cooling 26 Inch			2
1000204	2930-01-543-6585	Shroud, Cooling Fan			1
1000208	5310-01-277-9733	Wheel Nut LH		10	10
1000209	5310-01-347-9672	Wheel Nut RH		10	10

**Table B-1. JERRV Spares (continued)**

<b>FPII Part Number</b>	<b>NSN</b>	<b>Nomenclature</b>	<b>90-Day On Board Consumables</b>	<b>1-YR Forward Deployment</b>	<b>1-YR Maintenance Workshop</b>
1000043	2510-01-542-2719	Front Hanger, Left			1
1000044	2510-01-542-2714	Front Hanger, Right			1
1000170	6160-01-543-3251	Batt-Grp 6TI			4
1000171	5945-01-544-1921	Solenoid-24V 400A		1	3
1000179	5920-01-414-6983	Fuse, 5A Mini ATM	10	10	100
1000180		Fuse, 7.5A Mini ATM	10	10	100
1000182	5930-01-540-9463	Switch, Stop Light			3
1000188	6120-01-526-4310	Converter-DC/DC 40A			2
1000192	2520-01-503-3672	Shifter-Push Button			3
1000195	3040-01-541-2121	Pedal - Elec Accel			1
1000201	5340-01-541-2412	Mount, Transfer Isolator			4
1000202		Fan, Cooling 26 Inch			2
1000204	2930-01-543-6585	Shroud, Cooling Fan			1
1000208	5310-01-277-9733	Wheel Nut LH		10	10
1000209	5310-01-347-9672	Wheel Nut RH		10	10
1000212	6685-01-546-4842	Gauge, Transmission Temperature			2
1000213	6685-01-546-4742	Gauge, Coolant Temperature			2

**Table B-1. JERRV Spares (continued)**

<b>FPII Part Number</b>	<b>NSN</b>	<b>Nomenclature</b>	<b>90-Day On Board Consumables</b>	<b>1-YR Forward Deployment</b>	<b>1-YR Maintenance Workshop</b>
1000215	6685-01-546-4974	Gauge, Secondary Air Pressure			1
1000225	6620-01-546-4942	Tachometer			1
1000226	6685-01-546-4739	Gauge, Oil Pressure			2
1000228	6625-01-546-4969	Voltmeter			2
1000360		Axle, Front Rear			1
1000361	2520-01-536-8750	Transmission			1
1000362	2590-01-535-6471	Transfer Case			1
1000363	2520-01-535-6156	Front Axle			1
1000364	2520-01-537-3978	Rear Axle Assy			1
1000365	2510-01-540-9309	Front Springs			1
1000366	2510-01-542-3389	Kit Rear Spring			1
1000394	4730-00-871-6729	Clamp, 0.21-0.78		10	10
1000395	5340-01-548-6376	Nut, Spring Clip			25
1000396	6350-01-544-8897	Kit, Horn			1
1000397	5330-01-540-8191	Gasket			2
1000398	5305-01-424-0075	Bolt, Yoke			25
1000399	5935-01-214-5259	Connector, M W/P 2 Way			5
1000400	5340-01-460-6706	Kit, Flywheel			2
1000401	3040-01-408-1012	Adaptor, Transmission			1
1000402	2815-01-242-4709	Adaptor, Engine			1
1000403	5340-01-541-0514	Clamp, Liner			2
1000404	5306-01-541-1273	Bolt, 1/4 – 20×1-1/4		25	100
1000407	4720-01-543-3839	Hose, CURVED			1
1000408	4720-01-543-5548	Hose, CURVED			1

**Table B-1. JERRV Spares (continued)**

<b>FPII Part Number</b>	<b>NSN</b>	<b>Nomenclature</b>	<b>90-Day On Board Consumables</b>	<b>1-YR Forward Deployment</b>	<b>1-YR Maintenance Workshop</b>
1000409	2910-01-540-8196	Sender - Fuel		1	3
1000410		Spacer - Shock			10
1000415	5325-01-548-6351	Grommet, Rubber			4
1000421	5340-01-540-7695	Clamp, 4		2	4
1000422	5930-01-502-3915	SW Disconnect			1
1000423	5930-01-546-4984	SW Limit			2
1000424	4730-01-541-1218	Clamp, Exhaust		2	2
1000425	2990-01-541-1222	Pipe, Exh Elbow			2
1000426	4730-01-543-5588	Clamp			10
1000427	4730-01-546-0254	Clamp		2	10
1000428	4720-01-543-5606	Hose, Fuel 1/4		10	25
1000429	6620-01-541-1561	Sender, Pressure			4
1000430	5306-01-541-1534	Bolt, Strap			100
1000434	4820-00-728-7467	Valve			2
1000437	5310-01-549-6554	Washer			100
1000442	5935-01-508-8355	Outlet, Weather			2
1000443	6150-01-545-7145	Outlet, 5-1			2
1000445	6230-01-509-7692	Light, Remote Spot		1	10
1000453	2815-01-541-2021	Air Restriction			1
1000454	5340-01-540-9592	Strap, Nylon		2	10
1000456	5306-01-544-1998	Bolt, 1/4 – 20×3/4		25	100
1000458	5306-01-550-0264	Bolt, 1/4 – 20×3		25	100
1000459	5306-01-544-6761	Bolt, 1/4 – 20×3/4		25	
1000460	5306-01-544-3621	Bolt, 1/4 – 20×3/4		10	
1000461	5306-01-542-3408	Bolt, 1/4 – 20×3-1/2			100

**Table B-1. JERRV Spares (continued)**

<b>FPII Part Number</b>	<b>NSN</b>	<b>Nomenclature</b>	<b>90-Day On Board Consumables</b>	<b>1-YR Forward Deployment</b>	<b>1-YR Maintenance Workshop</b>
1000462	5310-01-544-1995	Nut, Lock		25	100
1000463	5310-01-541-1269	Nut, 1/4 UNC			25
1000464	3040-01-542-3464	Cooler, T Case			1
1000468	4730-01-544-0153	Clamp, 356		2	4
1000470		Screw, #4 - 32			50
1000471		Nut, #4 - 40			50
1000472	2540-01-542-0899	Mirror Assy. RH		1	2
1000473	2540-01-542-0896	Mirror Assy. LH		1	2
1000474	2510-01-550-5689	Shocks		2	20
1000478	5310-01-541-1244	Washer, Flat 1/4		25	100
1000479	5310-01-544-6749	Washer, Lock 1/4		25	100
1000483	5306-01-541-1238	Bolt, 5/16 – 18×1		25	100
1000484	5306-01-544-4792	Bolt, 5/16 – 18×1.25		10	25
1000485	4730-01-550-1777	Bolt, 5/16 – 18×2.5		10	50
1000486	5310-01-541-1226	Nut, Lock		25	100
1000487	5306-01-544-8894	Clamp, Hose			5
1000488	4730-01-544-0189	Clamp, 5.5			5
1000489	4730-01-544-0193	Clamp, 6.25			5
1000494	4720-01-543-5613	Hose - Hump, Air/Air		1	4
1000495	4720-01-543-5627	Hose - Hump, Air/Air		1	4
1000496	5310-01-544-0160	Washer, Flat 5/16			25
1000497	5310-01-548-6395	Washer, Lock 5/16		25	100
1000499	5305-01-548-6401	Screw, #6×1/2		25	100

**Table B-1. JERRV Spares (continued)**

<b>FPII Part Number</b>	<b>NSN</b>	<b>Nomenclature</b>	<b>90-Day On Board Consumables</b>	<b>1-YR Forward Deployment</b>	<b>1-YR Maintenance Workshop</b>
1000508	5930-01-550-1482	Brake Switch, Service			3
1000512	2520-01-544-5537	ECU - 6 speed			2
1000513	2530-01-544-4796	ECU - Abs Cab 4			2
1000518	2590-01-550-2150	Filter kit 2 pcs	1		10
1000521	3030-01-537-9005	Belt, Fan Drive	1	1	10
1000526	5330-01-071-5727	Gasket - Power Strg			5
1000527	5330-01-540-9307	Kit, Steering Gear Seal			1
1000530	2530-01-540-7680	Element pwr str reservoir	1	1	5
1000531		U Joint Kits half round			4
1000532		U Joint Kits full round			4
1000533		Element - Air Dryer	1	1	10
1000534		Valve, Press Regulating			2
1000535		Valve, Solenoid 3 Way 24V			2
1000536	4810-01-544-4022	Valve, Pressure Protect			1
1000539	2530-01-544-8834	Governor, Air			2
1000540	4810-01-544-8835	Valve Inversion			2
1000542	4810-01-544-8839	Valve Pressure Release			2
1000543	4820-01-544-8841	Valve, Single Check			2
1000545	2940-01-544-1903	Air cleaner (element only)	2	2	10
1000548	2910-01-484-2122	Separator, Water	1	1	10



**Table B-1. JERRV Spares (continued)**

<b>FPII Part Number</b>	<b>NSN</b>	<b>Nomenclature</b>	<b>90-Day On Board Consumables</b>	<b>1-YR Forward Deployment</b>	<b>1-YR Maintenance Workshop</b>
1000552	5930-01-541-2186	Switch - 9/16 - 18			2
1000566	2530-01-537-3979	Wheel and tire run flat Assy		2	10
1000569	5305-01-548-6403	Screw, 6x3/4		25	100
1000570	2910-01-541-4826	Fuel Tank Assy Complete			2
1000571	5340-01-540-7696	Strap, 22			2
1000572	5310-01-542-3710	Washer, 3/8		25	100
1000573	5306-01-542-7721	Bolt, 3/8 – 16x1.25		10	100
1000574	5310-01-541-1249	Bolt, 3/8 – 16x1.5		25	100
1000575	5306-01-542-7738	Bolt, 3/8 – 16x2.25		10	10
1000576	5306-01-541-1568	Bolt, 3/8 – 16x6			25
1000577	5310-01-541-0522	Nut, Lock		25	100
1000578		Washer, 3/8 - 16		25	
1000586	4720-01-541-0702	Hose, Asm			2
1000589	4720-01-544-0125	Hose, Heater		10	10
1000590	5310-01-541-1566	Washer, Flat 3/8		25	100
1000591	5310-01-542-3459	Washer, Lock		25	100
1000592	5310-01-542-3445	Washer, Flat		25	100
1000593	2520-01-543-3735	Drive Shaft			1
1000594	2520-01-541-1535	Front Drive Shaft			1
1000668	4720-01-541-0783	Tube, 1/4 AIR GRN			50
1000670	4720-01-541-0787	Tube, 3/8 AIR GRN			50
1000671	4720-01-541-0800	Tube, 3/8 AIR ORG			50

**Table B-1. JERRV Spares (continued)**

<b>FPII Part Number</b>	<b>NSN</b>	<b>Nomenclature</b>	<b>90-Day On Board Consumables</b>	<b>1-YR Forward Deployment</b>	<b>1-YR Maintenance Workshop</b>
1000672	4720-01-541-0801	Tube, 3/8 AIR RED			50
1000673	4720-01-541-0806	Tube, 1/2 AIR GRN			50
1000674	4720-01-541-0810	Tube, 1/2 AIR RED			50
1000675	4720-01-541-0820	Tube, 1/2 AIR GRN			50
1000676	4720-01-541-0826	Tube, 5/8 AIR RED			50
1000677	4720-01-540-4236	Hose, 266-4			10
1000678	4710-01-541-0741	Hose, 266-4			50
1000679	4720-01-541-1553	Hose, 266-6			10
1000681	4720-01-540-9415	Hose, 266 SAE-10			10
1000682	4720-01-540-4251	Hose, Hydraulic			50
1000684	2520-01-541-1532	PROT, 1710 Slip			1
1000689	5306-01-541-1281	Bolt, 1/2 – 13×1.25		10	25
1000690	5306-01-541-1275	Bolt, 1/2 – 13×1.5		10	25
1000691	5306-01-541-1279	Bolt, 1/2 – 13×1.75		10	25
1000692	5306-01-543-3836	Bolt, 1/2			10
1000693	5310-01-541-1237	Nut, Lock1/2 - 13		25	100
1000694	5310-01-544-4159	Nut, 1/2 - 13		25	100
1000695	5310-01-543-6588	Nut, 1/2		25	100
1000696	5305-01-549-6541	Screw, #8 - 32			50
1000697	5310-01-548-6407	Nut, Cap		25	100
1000698	2530-01-541-4842	Valve, Quick Release			1

**Table B-1. JERRV Spares (continued)**

<b>FPII Part Number</b>	<b>NSN</b>	<b>Nomenclature</b>	<b>90-Day On Board Consumables</b>	<b>1-YR Forward Deployment</b>	<b>1-YR Maintenance Workshop</b>
1000699	4820-01-095-1697	Valve, Quick Release			1
1000700	2920-01-537-4207	Alt-200A			2
1000703	6145-01-541-3156	Cable, Batt Blk			2
1000704	6150-01-548-6183	Cable, Batt Blk			2
1000705	6150-01-548-6191	Cable, Batt Blk 2 GA			1
1000706	6150-01-544-1953	Cable, BATT Blk			2
1000707	6150-01-548-6200	Cable, BATT Blk			1
1000708	6145-01-541-3153	Cable, BATT Blk			2
1000709	6145-01-544-0692	Cable, BATT Blk			1
1000710	6150-01-548-6202	Cable, BATT Blk			1
1000711	6150-01-549-6536	Cable, BATT Blk			2
1000712	6145-01-541-3144	Cable, BATT RED			1
1000713	6145-01-544-1886	Cable, BATT RED			2
1000714	6150-01-548-6217	Cable, BATT RED			1
1000715	6150-01-548-6226	Cable, BATT RED 2 GA			1
1000716	6150-01-548-6367	Cable, BATT RED			2
1000717	6150-01-549-6539	Cable, BATT RED 2 GA			3
1000718	6145-01-544-0689	Cable, BATT RED			1

**Table B-1. JERRV Spares (continued)**

<b>FPII Part Number</b>	<b>NSN</b>	<b>Nomenclature</b>	<b>90-Day On Board Consumables</b>	<b>1-YR Forward Deployment</b>	<b>1-YR Maintenance Workshop</b>
1000719	6145-01-544-1866	Cable, BATT RED			1
1000720	6150-01-548-6229	Cable, BATT RED			1
1000721	6150-01-548-6379	Cable, BATT RED			2
1000722	5310-01-548-6414	Washer, Flat 1/2		25	100
1000723	5310-01-543-6753	Washer, Lock 1/2		25	100
1000724	4810-01-544-8832	Valve, 24V Integral			1
1000733	5306-01-541-1552	Bolt, 5/8 - 11			25
1000734	5306-01-541-3374	Bolt, 5/8 - 11x2.00			25
1000737	5306-01-541-2410	Bolt, 5/8 - 11x4.5			10
1000739	5310-01-541-1194	Nut, Lock5/8 - 11			100
1000740	5310-01-541-1548	Nut, 5/8 - 11			10
1000741	5306-01-550-0268	Bolt, 10 - 24x3/4			100
1000742	6150-01-544-1982	Cable, BATT BLK			1
1000743	6150-01-548-6233	Cable, BATT RED			1
1000744	2530-01-242-4709	Valve, Brake			1
1000746	4730-01-544-0198	Elbow, Rubber		1	4
1000785	5360-01-540-1349	Spring, Parabolic			2
1000789	5330-01-542-3706	Seal, Block VEE			2
1000794	5360-01-542-2645	Spring, Parabolic			2
1000795	5360-01-542-2658	Spring, Parabolic			2

Table B-1. JERRV Spares (continued)

FPII Part Number	NSN	Nomenclature	90-Day On Board Consumables	1-YR Forward Deployment	1-YR Maintenance Workshop
1000803	2030-01-542-3406	Drag Link Assy			1
1000804	2530-01-535-6465	Steering Gear Assy			1
1000817	5306-01-541-2546	Bolt, 3/4 - 10×1.75		10	100
1000818	5310-01-541-2407	Nut, Lock3/4		10	100
1000819	5306-01-542-1335	Bolt, 3/4 16×3.50			10
1000821	5306-01-542-1364	BLT, 3/4 16×4			10
1000822	5306-01-542-1370	Bolt, 3/4 16×11			4
1000823	5315-01-540-9425	PIN, COTTER			25
1000824	2530-01-540-7648	Resv - Pwr Steering			1
1000825	5310-01-550-0269	Washer, 3/4 12 FWSAEB		25	100
1000826	5310-01-542-2787	Washer, 3/4 12FWSAEZ		25	100
1000828	2530-01-540-8253	Kit - Exh Brake			2
1000832	6110-01-548-6330	Panel, Crew 110V			1
1000833	5306-01-542-3431	Bolt, 7/8 - 14×4			10
1000834	5310-01-542-3423	Nut, Lock7/8 - 14			100
1000835	2530-01-542-3436	Button, Horn			1
1000842	4720-01-540-8189	Hose, Rubber			2
1000845	4720-01-543-6841	Hose, Silicone			5
1000847	4720-01-541-0910	Hose, 16HP/BLU			1
1000848	4720-01-541-0909	Hose, 16 HP/BLUE			1
1000853	4130-01-541-1258	Freon Comp		1	2
1000864		A/C Htr Comm Frt			1

**Table B-1. JERRV Spares (continued)**

<b>FPII Part Number</b>	<b>NSN</b>	<b>Nomenclature</b>	<b>90-Day On Board Consumables</b>	<b>1-YR Forward Deployment</b>	<b>1-YR Maintenance Workshop</b>
1000865		A/C HTR Com CR			1
1000866	4130-20-002-8475	Condenser - AC			2
1000867		PANEL, CONTROL			1
1000868	4130-01-483-5131	Receiver - Drier			2
1000869	4810-01-478-0411	Valve, Liquid Solenoid			2
1000870	5930-01-483-7587	Switch, Pressure			2
1000882		Cables, DRID HTR			2
1000889	4720-01-544-0163	Hose, ASM - AIR			2
1000890	4720-01-544-0164	Hose, ASM - AIR			4
1000895	6150-01-548-6307	Cable, RED & BLK			2
1000898	3950-01-547-8772	Winch - 10,500 lbs			1
1000899	6120-01-548-6345	Inverter, Outback			1
1000901	5306-01-542-1337	Bolt, 3/4×16×7.5			10
1000902	5310-01-542-1323	Nut, Lock 3/4 - 16		10	100
1000903	5310-01-542-1312	Washer, FLAT 3/4		25	100
1000904	2530-01-540-4291	Pitman Arm 10			1
1000907	2530-01-541-3163	Pump - PWR - Steering			1
1000910	4440-01-544-8888	Dryer - Air			1
1000911		Muffler, Catalyst C-7			1

**Table B-1. JERRYV Spares (continued)**

<b>FPII Part Number</b>	<b>NSN</b>	<b>Nomenclature</b>	<b>90-Day On Board Consumables</b>	<b>1-YR Forward Deployment</b>	<b>1-YR Maintenance Workshop</b>
1000912	5930-01-541-2195	Switch, NC (Low Range)			2
1000926	5305-01-540-1876	Screw, Cap 20MM×150 MM			10
1000927	5310-01-540-1920	Nut, LockTOP 20MM			25
1000936		Wheel Bearing Outer			2
1000940		Wheel Stud Mt14NLH			10
1000941		Wheel Stud RH			10
1000949	5930-01-529-2377	Switch			2
1000951	2590-01-535-6462	Eng/Trans Cat			1
1000956	6150-01-545-6869	Harness, Front Axle			20
1000960	5310-01-540-4226	Nut, HIGH 7/8 - 14			25
1000971	5310-01-540-1968	Washer, Auxiliary Aid			10
1000980	5310-01-540-1951	Nut, Lock10MM			25
1000981	5306-01-540-2122	Bolt, U 7/8 - 14×14		2	8
1001029	6220-01-548-6360	Rear Tail lites		1	10
1001032	5306-01-539-2412	Bolt			25
1001036	5310-01-544-6734	Nut, M6×1		25	100
1001037	4710-01-541-1219	Bolt, M8 1.25×20		25	100
1001038	5306-01-550-2085	Bolt, M8 1.25×21			25
1001039		Bolt, M8 1.25×22			25
1001040	5306-01-542-3451	Bolt, M8 1.25×80 MM			10

**Table B-1. JERRV Spares (continued)**

<b>FPII Part Number</b>	<b>NSN</b>	<b>Nomenclature</b>	<b>90-Day On Board Consumables</b>	<b>1-YR Forward Deployment</b>	<b>1-YR Maintenance Workshop</b>
1001041	5310-01-550-0272	Nut, M8×1.25		25	100
1001042	5310-01-550-0286	Nut Metric - 8×1.25		25	100
1001043	5310-01-550-0288	Washer, 8 MM		25	100
1001044	5310-01-548-6418	Washer, M8 BLK		25	100
1001045	5306-01-541-1286	Bolt, M10 1.50×35		10	25
1001046	5306-01-542-3443	Bolt, M10 1.50×100		25	100
1001047	5306-01-548-6422	Bolt, M12 1.75×35		25	100
1001049	5306-01-544-3622	Clamp, 5/8		2	10
1001050	5340-01-540-7684	Clamp, 3/4			5
1001051	5340-01-540-7687	Clamp, 1-1/2		2	10
1001052	5340-01-540-7690	Clamp, 1-3/4		2	5
1001053	5340-01-540-8447	Clamp, 2-3/4		2	10
1001059	5340-01-540-7693	Rear Drive Shaft			1
1001060	2520-01-543-3724	Driveshaft			1
1001604		Cable, BATT RED			2
1001066	5310-01-541-3364	Nut, 7/8 - 14 HI			25
1001067	5310-01-542-2552	Washer, FLAT		25	100
1001068		Axle, Rear Assy W/Booster			1
1001082	2815-01-537-4217	Engine Assy / Dressed			1
1001111		Washer, FLAT 5/16		25	100
1001140		Clamp		2	10
1001180	2930-01-507-1419	Water Pump			2



**Table B-1. JERRV Spares (continued)**

<b>FPII Part Number</b>	<b>NSN</b>	<b>Nomenclature</b>	<b>90-Day On Board Consumables</b>	<b>1-YR Forward Deployment</b>	<b>1-YR Maintenance Workshop</b>
1001181	6220-01-545-7153	16 Icon Tail Light		1	2
1001183		Gauge, Right Fuel			2
1001184		Gauge, Primary Air			2
1001185	6685-01-438-6660	Thermostat, Coolant			4
1001186	5365-01-529-2366	Seal, Pinion			4
1001187	2540-01-542-0902	Mirror Head w/convex		2	10
1001188	5310-01-540-1877	Washer, 20MM			25
1001189	5310-01-540-1927	Washer, 10MM			100
1001207	5330-00-164-8881	Seal, Input/Output			2
1001211	5330-01-313-4931	Seal, Output			2
1001212	5330-01-542-7782	Seal, Disconnect			2
1001242	4720-01-543-2871	Assy, Suction House			1
1001261	4720-01-543-2865	Hose, ASSM-PRESS SIDE			1
1001265	4720-01-543-2852	Hose, ASSM-PRESS SIDE			1
1001266	4720-01-543-2857	Hose, ASSM-PRESS SIDE			1
1001267	4720-01-543-2861	Hose, ASSM-PRESS SIDE			1
1001289	5330-01-540-7590	Kit, Output Shaft Seal			1
1001504		Nut, Lock		10	
1001505		Bolt, HH 1/2 - 13×1-1/4		10	
1001610		Nut, Self Locking			4

**Table B-1. JERRV Spares (continued)**

<b>FPII Part Number</b>	<b>NSN</b>	<b>Nomenclature</b>	<b>90-Day On Board Consumables</b>	<b>1-YR Forward Deployment</b>	<b>1-YR Maintenance Workshop</b>
1001611	2530-01-539-4756	Tie Rod ASM LH			2
1001612	2530-01-539-4459	Tie Rod ASM RH			2
1001613		Speedometer			1
2000108	2910-01-424-7315	Filter Oil	1	1	10
2000190		Filter Fuel	1	1	10
2000599		Hose, Air Assy 3/8×20 FT			2
2001903	5342-01-537-9036	Strut, Hatch Gas		4	10
2002024	5330-01-539-9479	SEAL, OIL			4
2002324	2995-01-536-8757	Starter		1	
2002349	4730-01-398-8329	Clamp, Hose CT 9410-B			10
2002363	4720-01-543-6844	Hose, 2-1/2 4 PLY ARA Rein			10
2002370	2930-01-543-8464	Radiator			1
3001429		Dome IT			10
3001817	5330-01-330-2891	Seal Drive Pinion			4
3001826	5330-01-277-0238	Seal Outer Shaft			4
3001827	2530-01-539-4079	ABS Senor			2
3001828	2530-01-526-0382	Brk Chamber LH			1
3001829	2530-01-539-4123	Brk Chamber RH			1
3001831	5330-01-504-2256	SEAL HUB			4
3001833	2530-01-426-2475	Brake Shoe Assy			12
3001866	5310-01-539-4082	Nut, PINION LOCK			2
3001944	2530-01-539-9436	Tie Rod Assembly			1

Table B-1. JERRV Spares (continued)

FPII Part Number	NSN	Nomenclature	90-Day On Board Consumables	1-YR Forward Deployment	1-YR Maintenance Workshop
3001988		Gasket, Pump			5
3003466		Gasket, Trunion Bearing			3
3003563		Seat, Driver			1
3007036		Motor, Wiper 24V		1	3
3003705		Arm, Wiper			4
3003716		Blades, Wiper	2	2	20
3006890		LED Lites Red		1	4
3006892		Lamp, Tail		1	4
3006893		Lamp, Front		1	4
3006625		Washer, FLAT M12		25	100
4000208		Control Intermittent Wiper			2
4000220	5310-01-540-1537	Washer			25
4000221	6220-01-550-2233	Light IR		1	4
4002773	2540-01-548-6207	Seat, Co-Driver			1
4002834		Windshield		1	2
4002835		Glass, Side			1
4002836		Glass, Rear			1
4002837		Drivers Glass		1	1
4002838		Co Drivers Glass		1	1
2001983		Container, 20 FT ISO		0.2	2

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Table B-2. Cougar ASL and PSL List

FPII Part Number	Nomenclature	NSN	CAT I Forward Deployment Block (FDB) (PLL) (1 Per 25 Veh)	CAT I PII DO006 Total Qty Order (23 Sets) C6F1
1001210	Wire Rope Assem. (Front Winch Cable)	6150-01-547-9268	1	23
1001235	Turn Signal Switch Kit	6220-01-540-5762	1	23
1001512	REMOTE CONTROL, HEAVY DUTY (winch)	2540-01-553-1659	1	23
1000594	Front Drive Shaft (Trans to T-case)	2520-01-541-1535	1	23
1000167	Surge Tank	2930-01-544-0144	1	23
3001828	Brk Chamber LH	2530-01-526-0382	1	23
3001829	Brk Chamber RH	2530-01-539-4123	1	23
1001613	SPEEDOMETER	6680-01-555-5007	1	23
1000907	Pump- PWR- Steering	2530-01-541-3163	1	23
10001748	WIPER MOTOR W/CONNECTOR	2540-01-555-5028	1	23
1000538	MODULATOR VALVE, Brake 24V	4810-01-544-4192	1	23
3001827	ABS Senor	2530-01-539-4079	1	23
1000530	Element pwr str resv	2530-01-540-7680	1	23
1000593	Drive Shaft (T-Case to Rear) 4x4	2520-01-543-3735	1	23
3001944	Tie Rod Assembly	2530-01-539-9436	1	23
3009153	LIGHT, REMOTE SPOT	6220-01-553-3160	1	23
3002963	COVER ASSY GO LIGHT	5340-01-553-1759	1	23
1001180	Water Pump	2930-01-507-1419	1	23
2002424	COUPLING, SILICONE RUBBER, turbo to pipe	4730-01-555-5015	1	23
1000192	Shifter-Push Button	2520-01-503-3672	1	23

**Table B-2. Cougar ASL and PSL List (continued)**

<b>FPII Part Number</b>	<b>Nomenclature</b>	<b>NSN</b>	<b>CAT I Forward Deployment Block (FDB) (PLL) (1 Per 25 Veh)</b>	<b>CAT I PII DO006 Total Qty Order (23 Sets) C6F1</b>
1000744	VALVE, BRAKE Treadle	2530-01-242-4709	2	46
1000197	Sw-Ign/Crank Toggle	2925-01-544-4794	2	46
1000824	Resv- Pwr Steering	2530-01-540-7648	2	46
1000978	Torque Arm Bushing Kit Hanger End	3120-01-542-2577	2	46
1000535	VALVE, SOLENOID 3 WAY 24V ABS	4810-01-553-1341	2	46
1000698	VALVE, QUICK RELEASE ABS	2530-01-541-4842	2	46
1001684	RELAY, SPDT 24V	5945-01-553-2186	2	46
10001822	Fuel sender, 10 gallon tank	6680-01-555-5035	2	46
10001750	Strap, Tank, Fuel, 10 gal	5340-01-555-5029	2	46
10001816	Regulator, Voltage	6110-01-555-5034	2	46
3013203	Window Assy, Rear, Door	2510-01-548-7045	2	46
2002324	Starter	2995-01-536-8757	2	46
1001060	DRIVESHAFT (T-Case to Center)	2520-01-543-3724	2	46
1000957	Harness, Front Axle (Co-Driver)	6150-01-545-6872	2	46
1000959	Harness, Rear Axle (Co-Driver)	6150-01-545-6880	2	46
1000956	HARNES, FRONT AXLE (Drivers)	6150-01-545-6869	2	46
1000172	HARNES, REAR AXLE (Drivers)	2590-01-555-5003	2	46
3001833	Brake Shoe Assy	2530-01-426-2475	2	46

**Table B-2. Cougar ASL and PSL List (continued)**

FPII Part Number	Nomenclature	NSN	CAT I Forward Deployment Block (FDB) (PLL) (1 Per 25 Veh)	CAT I PII DO006 Total Qty Order (23 Sets) C6F1
1001181	Telltale, Dashboard 16 Icon	6220-01-545-7153	2	46
1000571	STRAP, 22" (Drivers fuel tank)	5340-01-540-7696	2	46
1000408	HOSE, CURVED, Radiator	4720-01-543-5548	2	46
1001063	CABLE, BATT BLK 2 GA	6150-01-553-2277	2	46
1001065	CABLE, BATT RED 2 GA	6150-01-553-2278	2	46
1000699	VALVE, QUICK RELEASE ABS	4820-01-095-1697	2	46
1000534	VALVE, PRESS REGULATING ABS	4810-01-544-8892	2	46
2002482	HOSE ASSY, REAR BOOSTER 29IN	4730-01-553-1973	2	46
1002756	Sender- Fuel (Drivers)	6680-01-555-5017	2	46
1000847	HOSE, Transmission inlet	4720-01-541-0910	2	46
1000586	HOSE, ASM, Compressor to Air Dryer	4720-01-541-0702	2	46
3001537	Trigger, ABS readout	2540-01-553-0812	2	46
1000912	SWITCH, NC (LOW RANGE), Axle hi-lo indicator	5930-01-541-2195	2	46
1000746	ELBOW, RUBBER, Air intake	4730-01-544-0198	2	46
10004305	KIT, HORN	6350-01-544-8897	2	46
1000542	VALVE PRESSURE RELEASE, ABS safety	4810-01-544-8839	2	46
1000548	Separator, Water, Filter	2910-01-484-2122	2	46

**Table B-2. Cougar ASL and PSL List (continued)**

<b>FPII Part Number</b>	<b>Nomenclature</b>	<b>NSN</b>	<b>CAT I Forward Deployment Block (FDB) (PLL) (1 Per 25 Veh)</b>	<b>CAT I PII DO006 Total Qty Order (23 Sets) C6F1</b>
2002761	BULB, H9 HALOGEN SPOTLIGHT, Go-Light, Top	6240-01-553-2231	2	46
1000212	Gauge, Transmission Temperature	6685-01-546-4842	2	46
1000213	Gauge, Coolant Temperature	6685-01-546-4742	2	46
1000215	Gauge, Secondary Air Pressure	6685-01-546-4974	2	46
1000226	Gauge, Oil Pressure	6685-01-546-4739	2	46
1000228	Voltmeter	6625-01-546-4969	2	46
1000704	Cbl-Batt Blk, Slave Receptacle	6150-01-548-6183	2	46
1000714	Cbl-Batt Red, Slave Receptacle	6150-01-548-6217	2	46
1001183	GAUGE, RIGHT FUEL	6680-01-555-5006	2	46
1001184	GAUGE, PRIMARY AIR	6620-01-555-5005	2	46
2003482	BATTERY	6140-01-553-3076	2	46
1000472	Mirror Assy. LH	2540-01-542-0899	3	69
1000473	Mirror Assy. RH	2540-01-542-0896	3	69
10001979	Kit, Spring, Front 4x4 & 6x6 (20 K)	5360-01-555-5036	4	92
10002018	Freon Comp	2590-01-555-5037	4	92
1000868	Receiver- Drier	4130-01-483-5131	4	92
3001174	NATO PLUG COMPL ASSY	4810-01-553-3080	4	92
1000889	HOSE, ASM-AIR, Radiator	4720-01-544-0163	4	92
1001683	Relay, SPST	5945-01-270-6969	4	92



**Table B-2. Cougar ASL and PSL List (continued)**

<b>FPII Part Number</b>	<b>Nomenclature</b>	<b>NSN</b>	<b>CAT I Forward Deployment Block (FDB) (PLL) (1 Per 25 Veh)</b>	<b>CAT I PII DO006 Total Qty Order (23 Sets) C6F1</b>
10003517	CABLE, RED & BLK, batt to batt	6150-01-548-6307	4	92
10001778	Kit, Spring, Rear 4x4	5360-01-555-5032	4	92
1000962	Chamber, Air BK, Diff Lock Actuator	2530-01-528-2290	4	92
3006889	LIGHT, BLACKOUT	6220-01-553-3126	4	92
1000182	SWITCH, STOP LIGHT	5930-01-540-9463	4	92
3307348	MOUNT-HEADLIGHT	5340-01-550-2230	4	92
3006890	LED Lites Red (Side Marker Light)	6220-01-482-6113	4	92
3006891	LED Lights, Yellow (Side Marker Light)	6210-01-550-2228	4	92
1000743	CABLE, BATT RED, Bat to Disconnect	6150-01-548-6233	4	92
1000742	CABLE, BATT BLK, Bat to disconnect	6150-01-544-1982	4	92
1001185	THERMOSTAT, COOLANT	6685-01-438-6660	4	92
1001611	Tie Rod ASM LH	2530-01-539-4756	5	115
1001612	Tie Rod ASM RH	2530-01-539-4459	5	115
2002420	COUPLING, SILICONE RUBBER, Intake Radiator	4730-01-555-5014	5	115
3013207	Windshield Assy	2510-01-548-7068	5	115
3013205	Window Assy, Driver Door	2510-01-548-7049	5	115
3013206	Window Assy, Co-Driver Door	2510-01-548-7063	5	115
4000221	Light IR	6220-01-550-2233	6	138
3006892	Lamp, Tail	6220-01-482-9850	6	138

**Table B-2. Cougar ASL and PSL List (continued)**

<b>FPII Part Number</b>	<b>Nomenclature</b>	<b>NSN</b>	<b>CAT I Forward Deployment Block (FDB) (PLL) (1 Per 25 Veh)</b>	<b>CAT I PII DO006 Total Qty Order (23 Sets) C6F1</b>
10000518	Arm, Wiper	2540-01-555-5020	6	138
3006893	Lamp, Front Turn Signal	6240-01-553-3141	6	138
10001765	Shocks	2510-01-555-5031	6	138
3006887	Headlight assembly	6220-01-550-2214	8	184
1001207	SEAL, INPUT/OUTPUT, T-case oil seal	5330-00-164-8881	10	230
3001826	SEAL OUTER SHAFT, Axle	5330-01-277-0238	10	230
1001211	SEAL, OUTPUT, T-case	5330-01-313-4931	10	230
3009089	Extinguisher Bottle, Fire (Crew)	4210-01-555-6711	10	230
3013201	Window Assy, Side	2510-01-548-7041	10	230
10002591	Wheel and Tire Assy (4x4 Front)	2530-01-555-5038	10	230
10001791	Wheel and Tire Assy (4x4 Rear)	2530-01-555-5033	10	230
1002305	WHEEL STUD HUB (CAT I 335 PCD HUB)	2530-01-553-2156	10	230
2007481	Brake Shoe Spring, Long Spring	5360-01-529-2357	12	276
2002456	Brake Shoe Spring, Return Short Spring	5360-01-529-2358	12	276
3001831	SEAL HUB	5330-01-504-2256	14	322
10001764-GD	BELT, FAN DRIVE (10-rib)	3030-01-555-5030	14	322
1002135	Fuse, 300 amp	5920-01-553-1724	15	345
2002736	FUSE, 10A	5920-01-414-6439	15	345

**Table B-2. Cougar ASL and PSL List (continued)**

<b>FPII Part Number</b>	<b>Nomenclature</b>	<b>NSN</b>	<b>CAT I Forward Deployment Block (FDB) (PLL) (1 Per 25 Veh)</b>	<b>CAT I PII DO006 Total Qty Order (23 Sets) C6F1</b>
1000201	MOUNT, TRANSFER ISOLATOR	5340-01-541-2412	16	368
1001702	Lamp, Sealed Beam, Hi-Lo	6220-01-553-1750	20	460
3003716	Blades, Wiper	2090-01-544-3986	20	460
1000533	Element-Air Dryer	2590-01-550-2157	25	575
1000518	Filter kit 2pcs, Transmission	2590-01-550-2150	25	575
1000763	ELEMENT, SAFETY (Inner Filter Air Cleaner)	2530-01-553-1414	25	575
2000190	Filter fuel	2910-01-553-1515	25	575
2000108	Filter Oil	2910-01-424-7315	25	575
1000545	Air cleaner (element only)	2940-01-544-1903	25	575

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**Table B-3. Validated Deprocessing Block**

<b>Item</b>	<b>Part Number</b>	<b>Valid Part Number</b>	<b>NSN</b>	<b>Qty</b>
Air cleaner (element only)	1000545	10001706	2940-01-544-1903	2
Arm, Wiper	10000518	10000518	#N/A	6
BATTERY	2003482	2003482	#N/A	4
BELT, FAN DRIVE (10-rib)	10001764	10008049	#N/A	6
Blades, Wiper	3003716	3003716	2090-01-544-3986	10
BULB, H9 HALOGEN SPOTLIGHT, Go-Light, Top	2002761	2002761	#N/A	6
Cover Assembly Go Light	3002963	10005448	#N/A	4
ELEMENT, SAFETY (Inner Filter Air Cleaner)	1000763	1000763	#N/A	2
Element-Air Dryer	1000533	1000533	2590-01-550-2157	2
Filter fuel	2000190	1000548	#N/A	4
Filter Oil	2000108	2000108	2910-01-424-7315	2
Fuel sender, 10 gallon tank	10001822	10001822	#N/A	2
FUSE, 10A	2002736	2002736	5920-01-414-6439	10
Fuse, 300 amp	1002135	10007410	#N/A	10
Gauge, Coolant Temperature	1000213	1000213	6685-01-546-4742	4
Gauge, Oil Pressure	1000226	1000226	6685-01-546-4739	4
GAUGE, PRIMARY AIR	1001184	1001184	#N/A	4
GAUGE, RIGHT FUEL	1001183	1001183	#N/A	4
Gauge, Secondary Air Pressure	1000215	1000215	6685-01-546-4974	4
Gauge, Transmission Temperature	1000212	1000212	6685-01-546-4842	4
Headlight assembly	3006887	3006887	6220-01-550-2214	6
Lamp, Front Turn Signal	3006893	10001836	#N/A	6
Lamp, Sealed Beam, Hi-Lo	1001702	1001702	#N/A	6
Lamp, Tail	3006892	10001837	6220-01-482-9850	6
LED Lights, Yellow (Side Marker Light)	3006891	10001839	6210-01-550-2228	6
LED Lites Red (Side Marker Light)	3006890	10001838	6220-01-482-6113	6
Light IR	4000221	4000221	6220-01-550-2233	6

**Table B-3. Validated Deprocessing Block (continued)**

<b>Item</b>	<b>Part Number</b>	<b>Valid Part Number</b>	<b>NSN</b>	<b>Qty</b>
LIGHT, BLACKOUT	3006889	3006889	#N/A	6
Mirror Assy. LH	1000473	1000473	2540-01-542-0896	4
Mirror Assy. RH	1000472	1000472	2540-01-542-0899	4
MOUNT-HEADLIGHT	3307348	3307348	#N/A	6
Regulator, Voltage	10001816	10001816	#N/A	2
Shifter-Push Button	1000192	1002754	2520-01-503-3672	2
Shocks	10001765	10001765	#N/A	4
SPEEDOMETER	1001613	1001613	#N/A	2
Starter	2002324	2002324	2995-01-536-8757	2
Strap, Tank, Fuel, 10 gal	10001750	10001750	#N/A	2
SWITCH, STOP LIGHT	1000182	1000182	5930-01-540-9463	4
Turn Signal Switch Kit	1001235	1001235	6220-01-540-5762	2
Voltmeter	1000228	1000228	6625-01-546-4969	4
Wheel and Tire Assy (4×4 Front)	10002591	10002591	#N/A	10
Wheel and Tire Assy (4×4 Rear)	10001791	10001791	#N/A	10
Wheel and Tire Assy (6×6 Front)	10002595	10002595	#N/A	10
Wheel and tire run flat Assy (6×6 Int & Rear)	1000566	1000566	2530-01-537-3979	10
Window Assy, Co-Driver Door	4003548	10003119	2510-01-548-7063	2
Window Assy, Driver Door	4003547	10003118	2510-01-548-7049	2
Window Assy, Rear, Door	4003546	10003116	2510-01-548-7045	2
Window Assy, Side	4003540	10003114	2510-01-548-7041	2
Windshield Assy	4003549	10002516	2510-01-548-7068	2
WIPER MOTOR W/CONNECTOR	10001748	10001748	#N/A	2

**Table B-4. MRAP 4×4 and 6×6 Basic Issue Items NSNs**

Part Number	Description	NSN
2000599	HOSE, AIR ASSY 3/8×20FT	4720-01-556-3037
10001516	WORKLIGHT	6230-01-558-4179
3009089	EXTINGUISHER, FIRE	4210-01-555-6711
3010422	GAUGE, INFLATION	2590-01-555-5022
2000759	GREASE GUN	4930-01-556-3086
10005471	SOCKET, 1 IN DRIVE	working
3002938	HAMMER, 16 OZ BALL PEEN	working
3002939	PLIER, SIDE CUTTER	working
10002683	WRENCH, ADJUSTABLE 18 IN	working
10002763	SET, SOCKET 15 PC 1/2 DR 12 PT	working
3002942	SCREWDRIVER, FLAT TIP 3/8×12	working
3002943	SCREWDRIVER, CROSS-TIP #4	working
3002944	SCREWDRIVER, CFLAT TIP 3/16×6	working
3002945	SCREWDRIVER, CROSS-TIP #2	working
3002946	SET, SOCKET 21 PC1/2 DR 12 PT MET	working
3002951	FITTING, 3/8×1/4 NPT MALE	4730-01-557-0442
3002953	KEY SET, SOCKET HEAD SCREW STD	working
3002954	KEY SET, SOCKET HEAD SCREW MET	working
3002955	CHOCK, RUBBER WHEEL	2540-01-552-0276
3003254	WRENCH, ADJUSTABLE 10 IN	working
3007532	WRENCH, ALLEN 12MM	working
3007539	JACK, BOTTLE 20 TON	P/N is cataloged as 5340-01-557-0396, but is listed as a clamp loop. Have forwarded info to be researched
3007544	KIT, HIGHWAY SAFETY	2590-01-556-3223
3007550	BAR, PRY 16 INCH	working
3007560	KIT, PIONEER	2590-01-556-3225
4003545	STRAP, CARGO TIEDOWN	5340-01-556-3271
4003615	ASSY, LUG WRENCH	5340-01-556-3272
4003616	SOCKET, 1 IN DR 1-5/16 IN	working
4007575	TOOL BAG, VEHICULAR	2590-01-556-3277
3007549	FUNNEL, FLEX NECK	working
4007585	CABLE, AUXILIARY WIRE ROPE SLING	2590-01-556-3291
4007586	BLOCK SNATCH	3940-01-556-3295
4007587	PAD, JACK	5340-01-556-3298

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**Table B-5. Navy 360 Degree Lighting Kit NSNs**

<b>CAGE</b>	<b>PART NUMBER</b>	<b>ITEM NAME</b>	<b>PRICE</b>	<b>FSC</b>	<b>NIIN</b>
1SC69	2202-100-002092	SPOT LIGHT ASSY	\$259.00	6230	015619772
1SC69	2202-100-002148	COOLING FAN ASSY	\$404.00	4140	015619847
1SC69	2202-300-001	HID SEARCHLIGHT	\$875.00	6220	015619764
1SC69	2202-800-001	“66” LIGHT BAR”	“\$3,713.00”	6220	015652245
1SC69	2202-900-001	24 INCH LIGHT BAR	“\$1,295.00”	6220	015619674
1SC69	2202-900-003	MASTER CONTROL BOX	\$745.00	6220	015619706
1SC69	2102-300-001	PA SYSTEM/SIREN	\$700.00	5965	015652262
1SC69	2202-800-002160	SWICH BOX BRACKET	\$10.41	5340	015652096
1SC69	2202-800-002161	SWICH BOX PLATE	\$5.18	5340	015652103
1SC69	2202-800-002162	LIGHT BAR BRACKET	\$32.36	5340	015652118
1SC69	2202-800-002163	SIREN BRACKET	\$7.40	5340	015652113
1SC69	2202-900-002311	BRACKET ASSEMBLY	\$54.11	5340	015652126
1SC69	2202-900-002313	GLARE CLIP	\$0.99	6210	015619827
1SC69	2202-900-002777	REMOTE BRACKET	\$114.66	5340	015652133
1SC69	2202-900-002871	“24” REAR BRACKET”	\$58.63	5340	015652138
1SC69	2202-9-00002004	“FUSE, BLADE 15A”	\$0.99	5920	015652271
1SC69	2202-9-00002006	“FUSE, BLADE 50A”	\$0.99	5920	015652272
1SC69	006-0025-001	FRONT MAIN HARNESS	\$151.71	6150	015652158
1SC69	006-0025-002	CURB SIDE HARNESS	\$177.41	6150	015652160
1SC69	006-0025-003	STREET HARNESS	\$148.68	6150	015652164
1SC69	006-0025-004	REAR POWER HARNESS	\$164.15	6150	015652175
1SC69	006-0025-005	BATTERY HARNESS	\$75.48	6150	015652177
1SC69	006-0025-006	F STREET HARNESS	\$128.77	6150	015652183
1SC69	006-0025-010	CTRL BOX HARNESS	\$120.96	6150	015652188
1SC69	006-0025-011	Y HARNESS	\$23.38	6150	015652191
1SC69	006-0025-012	R CURB HARNESS	\$128.43	6150	015652194
1SC69	006-0025-014	STREET RCL HARNESS	\$37.49	6150	015652197
1SC69	006-0025-036	CONTROL HARNESS	\$44.98	6150	015652199
1SC69	006-0025-037	POWER HARNESS	\$30.24	6150	015652200
1SC69	006-0028-023	JOYSTICK HARNESS	\$37.28	6150	015636226

**Table B-5. Navy 360 Degree Lighting Kit NSNs (continued)**

CAGE	PART NUMBER	ITEM NAME	PRICE	FSC	NIIN
1SC69	006-0028-024	SWITCH HARNESS	\$15.75	6150	015636258
1SC69	006-0028-025	HID/IR HARNESS	\$33.25	5930	015636261
1SC69	006-0039-002	SPEAKER MOD	\$1.31	6150	015652204
1SC69	006-0039-003	SPEAKER HARNESS	\$92.93	6150	015652208
1SC69	006-0039-004	POWER HARNESS	\$69.21	6150	015652210
1SC69	006-0039-005	PA SPEAKER HARNESS	\$0.61	6150	015652214
07610	RAM-D-101U	RAM GIMBLE MOUNT	\$68.21	5340	015652178
56501	3326	"CONNECTOR, CONDUIT"	\$111.05	5975	015652217
0BPN7	5458	SPLIT TUBING	\$20.09	4720	015652284
0BPN7	5460	SPLIT TUBING	\$30.38	4720	015652278
0BPN7	5463	"PLASTIC TUBING, 1'"	\$54.25	4720	015652501
0BPN7	9153	SILICONE SEALANT	\$46.80	6620	015652218
0BPN7	15477	"3/8" FLAT WASHER"	\$1.17	5310	015652556
0BPN7	25261	10 X 32 NYLOX NUT	\$0.05	5310	015652562
0BPN7	25304	3/8-16 LOCK NUT	\$0.41	5310	015652564
0BPN7	42395	"1/4" P-CLAMP"	\$0.74	5340	015652571
0BPN7	43223	RUBBER GROMMET	\$0.93	5325	015652647
0BPN7	43244	"GROMMET, RUBBER"	\$1.01	5325	015652650
0BPN7	43288	P-CLAMP	\$0.46	5340	015652582
0BPN7	43902	NYLON WIRE TIE	\$6.33	6620	015652341
0BPN7	53771	RIVET NUT	\$0.71	5310	015652506
0BPN7	54507	5/16 LOCK WASHER	\$0.03	5310	015652511
0BPN7	54606	"1/4" LOCK WASHER"	\$0.03	5310	015652516
0BPN7	63068	5/16 X 18 X 1 BOLT	\$0.09	5305	015652637
0BPN7	63128	GR 8 3/8 X 1 NCCS	\$0.12	5305	015652638
0BPN7	64044	5/16 X 18 NUT	\$0.07	5310	015652641
0BPN7	65010	BOLT	\$0.13	5305	015652327
0BPN7	68161	12MM WASHER	\$0.41	5310	015652331
0BPN7	70010	12MM NUT	\$0.32	5310	015652340
0BPN7	70108	12MM LOCK WASHER	\$0.13	5310	015652631

**Table B-5. Navy 360 Degree Lighting Kit NSNs (continued)**

<b>CAGE</b>	<b>PART NUMBER</b>	<b>ITEM NAME</b>	<b>PRICE</b>	<b>FSC</b>	<b>NIIN</b>
0BPN7	70133	12MM FLAT WASHER	\$0.63	5310	015652334
0BPN7	70317	BOLT	\$0.29	5305	015652555
0BPN7	70347	BOLT	\$0.45	5305	015652557
0BPN7	70349	BOLT	\$0.54	5305	015652560
0BPN7	70351	BOLT	\$0.63	5305	015652561
0BPN7	1222755	RUBBER GROMMET	\$1.07	5325	015652291
0BPN7	1222756	RUBBER GROMMET	\$2.87	5325	015652293
0BPN7	1227668	PAN HEAD MS	\$0.08	5305	015652301
26042	95076735	METAL CONDUIT	\$2.19	5975	015653020
1SC69	2102-400-900	LED REPLACEMENT	\$90.00	6210	015652277

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**Table B-6. FPII MRAP Battle Damage and Repair.**

FPII PART NUMBER	NOMENCLATURE	NSN	QTY CAT I (1 per 25 veh)	QTY CAT II (1 per 25 veh)
1000045	Center Hanger 6x6 rear	5340-01-542-2727	1	1
1000046	Rear Hanger Left 6x6	2510-01-542-2706	0	2
1000047	Rear Hanger Right 6x6	2510-01-542-2712	0	2
1000201	Mount, Transfer Isolator	5340-01-541-2412	16	16
1000402	Adaptor, Engine	2815-01-242-4709	2	2
1000465	Brkt, T-case mounting Outside	5340-01-541-2553	4	4
1000466	Brkt T-Case Intermediate Mounting	5340-01-541-2499	4	4
1000467	Brkt T-Case Mounting	5340-01-541-2408	4	4
1000571	Strap, 22" (Drivers fuel tank)	5340-01-540-7696	4	4
1000969	Cast Shackle	4030-01-540-1525	2	2
1001204	Hook Hoist Winch	4030-01-426-4537	2	2
3007629	Bumper, RH Section	2540-01-548-6334	1	1
4001374	Fender, Front Drivers Side	2510-01-550-1488	1	1
4001375	Fender, Front Co-Drivers Side	2510-01-550-1489	1	1
4002773	Seat, Co-Driver	2540-01-548-6207	1	1

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**APPENDIX C**  
**LIST OF ACRONYMS AND ABBREVIATIONS**

3-M Maintenance and Material Management System

**A**

ACR Allowance Change Report  
AEL Allowance Equipage List  
AIT Alteration Installation Team  
ANOR Anticipated Not Operationally Ready  
AOR Area of Responsibility  
APL Allowance Parts List  
ASL Authorized Stock(age) List

**B**

BDAR Battle Damage Assessment Report /  
Battle Damage Assessment and Repair  
BII Basic Issue Items

**C**

CAGE Commercial and Government Entity  
CASEMIS Construction Automotive and Specialized Equipment Management  
Information Systems  
CASREP Casualty Report/Situation Report  
CCA Configuration Change Authority  
CCB Configuration Control Board  
CDM Configuration Data Manager  
CDMD-OA Configuration Data Management Database - Open Architecture  
CESE Civil Engineer Support Equipment  
CLS Contractor Logistic Support  
CM Commodity Manager

CMP	Configuration Management Plan
COMNECC	Commander, Navy Expeditionary Combat Command
CONUS	Continental United States
COSAL/COSBAL	Consolidated Shipboard/Shore-Based Allowance List
COTS	Commercial Off-The-Shelf

**D**

D-Level	Depot Level
DHA	Demand History Action
DLA	Defense Logistics Agency
DoD	Department of Defense
DSOR	Depot Source of Repair

**E**

EC	Equipment Code
ECC	Equipment Category Code
ECM	Electronic Counter Measures
EIC	Equipment Identification Code
EOD	Explosive Ordnance Disposal
EPM	Equipment Program Manager
ERO	Equipment Repair Order
ESWBS	Expanded Ship Work Breakdown Structure

**F**

FDB	Forward Deployment Block
FLMNET	Field-Level Maintenance New Equipment Training
FOB	Forward Operating Base
FoV	Family of Vehicles
FPII	Force Protection Industries, Inc.
FSR	Field Service Representative



**G**

GFE Government Furnished Equipment  
GPTE General Purpose Test Equipment  
GWOT Global War on Terror

**H**

HAZMAT Hazardous Materials

**I**

I-Level Intermediate Level  
ID Item Designator  
IED Improvised Explosive Device  
ILS Integrated Logistic Support  
IMA Intermediate Maintenance Activity  
ISEA In-Service Engineering Agent  
IUID Item Unique Identification  
IVMMD Interim Vehicle Mounted Mine Detector

**J**

JDMAG Joint Depot Maintenance Activities Group  
JERRV Joint Explosive Ordnance Disposal Rapid Response Vehicle  
JLI Joint Logistics Integrator  
JPO Joint Program Office

**L**

LAR Logistics Assistance Representative  
LNO Liaison Officer  
LRIP Low Rate Initial Production  
LTI Limited Technical Inspection

**M**

MARCORLOGCOM	Marine Corps Logistics Command
MDS	Maintenance Data System
MILSTRAP	Military Standard Transaction Report and Accounting Procedures
MILSTRIP	Military Standard Requisitioning and Issue Procedures
MIP	Maintenance Index Page
MNF-W	Multi-National Force West
MRAP	Mine Resistant Ambush Protected
MRC	Maintenance Requirement Card
MTT	Mobile Training Team
MWB	Maintenance Workshop Block

**N**

NAVFAC	Naval Facilities Engineering Command
NAVICP	Naval Inventory Control Point
NAVSEALOGCEN	Naval Sea Logistics Center
NAVSUP	Naval Supply Systems Command
NCF	Naval Construction Forces
NECC	Navy Expeditionary Combat Command
NET	New Equipment Training
NFELC	Naval Facilities Expeditionary Logistics Center
NLL	Naval Logistics Library
NOR	Not Operationally Ready
NRA	Non-Repairable Assemblies
NRFI	Not-Ready-For-Issue
NSDSA	Naval Systems Data Support Activity
NSN	National Stock Number

**O**

O-Level	Organizational (Operator Crew) Level
OCONUS	Outside the Continental United States

OEF	Operation Enduring Freedom
OEM	Original Equipment Manufacturer
OIF	Operation Iraqi Freedom
OMMS	Organizational Maintenance Management System
OPNAV	Office of the Chief of Naval Operations
OPNET	Operator New Equipment Training

**P**

PAFOS	Provisioning, Allowance, and Fitting-Out Support
PD	Priority Designation
PDREP	Product Data Reporting and Evaluation Program
PHS&T	Packaging, Handling, Storage, & Transportation
PKI	Public Key Infrastructure (Certification)
PMS	Planned Maintenance System
PMS/CMS	Planned and/or Corrective Maintenance System
POC	Point(s) of Contact
POI	Program of Instruction
POL	Petroleum, Oil, and Lubricants
PPL	Provisioning Parts List
PQDR	Product Quality Deficiency Report
PSL	Primary Support List

**Q**

QDR	Quality Deficiency Report
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**R**

RI	Routing Identifier
RIP	Repair In Place
ROCPOE	Required Operational Capability and Projected Operational Environment
RPG	Rocket Propelled Grenade
RPSTL	Repair Parts and Special Tools Lists

RRAD Red River Army Depot  
RSA Regional Support Activity

**S**

SAASM Selective Availability/Anti-Spoofing Module  
SAF Small Arms Fire  
SASSY Supported Activities Supply System  
SDR Supply Discrepancy Report  
SECNAV Secretary of the Navy  
SECREP Secondary Reparables  
SF Standard Form  
SFM Supply Financial Management  
SM&R Source, Maintenance & Recoverability  
SME Subject Matter Expert  
SMU Supply Management Unit  
SNAP Shipboard Non-tactical Automated Processing  
SOS Source of Supply  
SPTE Special Purpose Test Equipment  
SSA Supply Support Activity  
STTE Special Tools and Test Equipment

**T**

TM Technical Manual  
TMDE Test, Measurement, and Diagnostic Equipment  
TMDER Technical Manual Deficiency Evaluation Report  
TMINS Technical Manual Identification Number System  
TOA Table of Allowance  
TQ Al Taqaddum  
TSP Training Support Package  
TSU TYCOM Support Unit  
TYCOM Type Commander

**U**

UI	Unit of Issue
UIC	Unit Identification Code
ULSS	User's Logistics Support Summary
UMMIPS	Uniform Material Movement and Issue Priority System
UND	Urgency of Need Designation
USN	United States Navy (Registration Number)

**W**

WSF	Weapon System File
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**APPENDIX D**  
**DISTRIBUTION LIST**

(1 copy unless otherwise specified)

Commanding Officer, 20<sup>th</sup> Seabee Readiness Group  
2401 Upper Nixon Avenue, Gulfport, MS 39501-5001

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1000 23<sup>rd</sup> Avenue, Port Hueneme, CA 93043-4301

Commanding Officer, Naval Facilities Expeditionary Center (Code N4),  
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Chief of Naval Education and Training, (Code T232, T234),  
250 Dallas Street, Pensacola, FL 32508-5220

Commanding Officer, Naval Construction Training Center,  
5510 CBC 8th Street, Gulfport, MS 39501-5003

Commanding Officer, Naval Construction Training Center,  
363 White House Way, Port Hueneme, CA 93043-4303

Commander Navy Expeditionary Combat Command (Code: N43A, N431,  
N4312, N4313, N432, N435, N436)  
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