

DEPARTMENT OF THE ARMY SUPPLY BULLETIN

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NOTICE

This Supply Bulletin supersedes in its entirety any previous issues. The contents is devoted specifically to TOE Medical Units and Logistics Personnel information.

OVERVIEW

This Supply Bulletin is produced to assist the Logistics Personnel and the soldier in the field units in enhancing readiness with their equipment and within their Unit.

The feedback sheet below requests your proposals for improving the next edition of this Supply Bulletin. It also serves as a vehicle for submitting questions, problems and proposed solutions pertaining to non-medical equipment or ASIOE. The goal is to make future editions of this Supply Bulletin as informative and effective as possible.

CUSTOMER FEEDBACK For SB 8-75-S4 Dated 20 April 2005

Response From: _____

Telephone: _____ FAX: _____
E-mail: _____

FEEDBACK (Please provide any constructive criticism about this edition):

COMMENTS (Please submit any questions, problems or solutions pertaining to non-medical equipment or ASIOE):

Send this sheet with comments to:

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CHAPTER 1. MRI CONVERSION OVERVIEW

1-1. INTRODUCTION

a. The Medical Reengineering Initiative (MRI) is the Army Medical Department's (AMEDD) force design update, which is in direct support of Army transformation/modularity. The Corps and Echelon above Corps units will be restructured to conform to Future Army principles. Ten functional areas are affected, and hospitalization is one of those areas.

b. MRI converts the current Medical Force 2000 (MF2K) three-hospital configurations (General, Combat Support, and Field) to a one-hospital concept. The MRI structure has two, 248-bed variations, the Corps and Echelon Above Corps (EAC). Both variations have a Headquarters and Headquarters Detachment (HHD), and 84 and 164-bed Companies; however, only the Corps hospitals are split-based operational.

c. Also, unique to the Corps is the Early Entry Hospitalization Element (EEHE), a 44-bed company made mobile with organic assets. This EEHE is designed to break out of the 84-bed for provision of early entry capability and the ability to move with the fighting force.

d. The EEHE without the transportation requirements equates to the U.S. Army Reserve's Clinical Operation Equipment Set (COES).

e. Another important MRI force structure change is the removal of the minimal care capability from the MF2K hospitals. This capability is now provided in 120-bed Minimal Care Detachments.

f. The Hospital Optimization Standardization (HOSP) and Army Reserve Acceleration (AR ACCEL) Programs are resourcing strategies developed to accelerate the hospital conversion process and maximize limited resources. Execution of these programs is concurrent with MRI conversions.

1-2. HOSPITAL OPTIMIZATION STANDARDIZATION PROGRAM (HOSP)

a. HOSP is a FORSCOM program. The following actions must occur to convert to HOSP/MRI:

(1) Corps Conversions (Split-Based Operational) Requirements:

(a) Receive a new Class VIII 84-bed company from U.S. Army Medical Materiel Agency (USAMMA) (Table 1-1). The HHD and 84-bed Company will be retained at home station.

(b) Build a 164-bed company from their existent MF2K assets with the exception of one growth, Line Identification Number (LIN) M32074, M417-MMS Ortho Surg Aug (Table 1-2 highlights the 164-bed conversions). This also requires conversion of seven (7) MMS in the 164-bed company. Growth LINS equal the differences between the MF2K MTOE and the MRI MTOE.

(c) Pack the 164-bed Company and ship to Sierra Army Depot (SIAD), Herlong, CA, for storage.

(d) Class VIII Excess, to include LIN M48055 the M311-MMS Minimal Care, is to be transferred/disposed of as directed by the USAMMA and the MACOM.

b. EAC Conversions (Non Split-Based Operational) Requirements:

- (1) Receive Class VIII growth LINs from either Lateral Transfer or the USAMMA.
- (2) Build the 84-bed company from existent MF2K assets and receive growth LINs (Table 1-3).
- (3) Build a 164-bed company from existent MF2K assets and receive growth LINs (Table 1-4).
- (4) Pack the 164-bed Company and ship to SIAD for storage.
- (5) Class VIII Excess, to include LIN M48055 the M311-MMS Minimal Care, is to be transferred/disposed of as directed by USAMMA and the MACOM.

c. Minimal Care Detachment Activation Requirements:

- (1) Receive Class VIII and select non-medical ASIOE from the USAMMA (Table 1-5).
- (2) Retain at home station.

1-3. AR ACCEL

AR ACCEL and EEHE (without transportation)/COES are U.S. Army Reserve Programs.

a. The potential for up to five of the following critical elements requires consideration, coordination, conversion, and/or activation:

- Set
- (1) Hospital Unit, Base (HUB) Minimum Equipment Essential for Training (MEET)
 - (2) Hospital Unit, Surgical (HUS) MEET Set
 - (3) Reserve Component Hospital Decrement (RCHD) at SIAD and centrally managed by the USAMMA. This is the remainder of the hospital requirements minus the MEET authorizations, and EEHE/COES, if applicable.
 - (4) EEHE/COES
 - (5) Minimal Care Detachment

b. After MRI conversions (Table 1-6), the AR hospitals are to retain either one or two standardized MEET sets for their 84- and 164-bed companies, respectively, contingent upon whether they are split or single-stationed. The unit may also be authorized an EEHE/COES set (Table 1-7) at home station. The hospitals authorized the 84 and 164-bed company MEET sets and EEHE/COES also require additional LIN M73050, M308-MMS Triage/EMT and its Associated Support Items of Equipment (ASIOE), and LIN M72084, M523-MMS Medical Maintenance (84-bed) and its ASIOE. Upon mobilization, the unit will deploy with the authorized MEET set(s), COES if authorized, and RCHD.

c. MRI Conversion will be conducted at both the MEET and RCHD sites. The following actions will require integration at the applicable location(s):

(1) Corps Conversion (Split-Based Operational) Requirements:

- (a) Receive new 84-bed Medical Materiel Sets (MMS) (Table 1-1 in bold print).

(b) Receive growth LINS. Growth LINS equal the differences between the MF2K MTOE and the MRI MTOE.

(c) Build 164-bed MMS from existent MF2K sets (Table 1-2: Highlighted)

(2) EAC Conversion (not split-based operational) Requirements:

(a) Receive growth LINS

(b) 84 and 164-bed companies' requirement are shown in

Tables 1-3 and 1-4

(3) Minimal Care Detachment Activation Requirements:

(a) Receive Class VIII and select non-medical ASIOE from the USAMMA

(Table 1-5).

(b) Retain at home station

(4) EEHE/COES Requirements (when authorized):

(a) Issued to the unit at SIAD

(b) Transported to Warehouse Location

**TABLE 1-1. FORSCOM HOSP: MRI 84-BED
COMBAT SUPPORT HOSPITAL, CORPS**

**NOTE: 84-bed MMS (500-series Unit Assemblage Listings) are in bold print.
OTOE Requirements**

08960A000 84-Bed, Combat Support Hospital, Corps

LIN	NOMENCLATURE	ERC	MRI
A26852	Air Conditioner: 54000 BTU 208V-AC 3PH 50/60 HZ	B	3
A26852	Air Conditioner: 54000 BTU 208V-AC 3PH 50/60 HZ	A	23
A63297	Anesthesia Apparatus Field	A	2
A83433	Analyzer Defibrillator EKG	B	1
C05856	CAL & Verification Sys: Portable Battery OP Diagnostic	B	1
C13825	Container Cargo Reusable W/O -Mechanical Restraint	B	16
C19511	Coagulation Timer Unit: Plasma Semiautomatic Testing	A	1
C32671	Cleaner Ultrasonic: 120/230V 50/60CYC HZ	A	1
C50111	Cabinet Solution Warming:	A	1
C61523	Calibrator-Analyzer Hosp Equip: 12IN W X 12IN H X 9IN	B	1
D34883	Dolly Set Lift Transportable Shelter: 7 ½	A	12
D86072	Defibrillator Monitor Recorder: 120/230V 50/60HZ AC	A	5
D94348	Densitometer 9V Battery Portable	B	1
E02981	Electrosurgical Apparatus Mobile 115V 50/60HZ OR	A	2
E67355	Compressor - Dehydrator Dental Equipment:	A	8
F55485	Distribution System Elec: 120/208V 3PH 40AMP	A	9
F55621	Feeder System Electrical: 3PH 100 AMP	A	5
G60128	Genitourinary Cystoscopic Kit:	A	1
H00586	Heater Duct Type Portable 1200-00 BTUS	B	15
H00586	Heater Duct Type Portable 1200-00 BTUS	A	1
L44331	Light Surg Ceiling: 20/230V50/60HZ	A	2
L65295	Light Surgical Field: 110 VAC OR 24 VDC	A	15
M08417	MMS: Central Materiel Service: DEPMEDS	P	1
M08599	MMS: Intermediate Care Ward: DEPMEDS	A	3
M09576	MMS: Post OP/ICU Ward DEPMEDS:	P	2
M13428	MMS: Cent Mat Svc Spec Aug: 84 Bed CSH Co	A	1
M14517	MMS: Medical Supply: 84 Bed CSH CO	B	1
M23673	MES: Chemical Agent Patient Treatment:	B	2
M25865	MES: Chemical Agents Patient Decontamination:	B	1
M31824	MMS: Obstetrics Gynecology Clinic DEPMEDS:	A	1
M66558	Monitor PT Vital Sign W/Capnography	A	2
M72084	MMS: Medical Maintenance: 84 Bed CSH CO	A	1
M72423	MMS: Medical Service Clinic: 84 Bed CSH CO	A	1
M72868	MMS: Orthopedic Cast Clinic: DEPMEDS	A	1
M72936	MMS: Operating Room: DEPMEDS	P	1
M73175	MMS: X-Ray Low Capacity Portable DEPMEDS:	A	1
M73050	MMS: Triage/Emergency/Pre-OP: DEPMEDS	P	1

(continued) TABLE 1-1 FORSCOM HOSP: MRI 84-BED COMBAT SUPPORT HOSPITAL, CORPS			
OTOE Requirements			
08960A000 84-Bed, Combat Support Hospital, Corps			
LIN	NOMENCLATURE	ERC	MRI
M73254	MMS: Pharmacy: 84-Bed CSH Company	A	1
M73482	MMS: Laboratory (General): 84-Bed CSH Company	A	1
M73732	MMS: Laboratory (Liquid Bld Bank): 84-Bed CSH CO	A	1
M79195	Monitor PT Vital Sign W/Pulse Oximetry	A	20
M86675	MMS: X-Ray Radiographic DEPMEDS:	P	1
P40622	Oximeter Pulse: 120/230V 50/60HZ AC Or Battery	A	6
P60558	PANEL POWER DISTR: 60 HZ 400 AMP	A	5
R64126	Refrigerator Solid State BIO:	A	1
S01291	Shelter: Tactical Expandable Oneside	A	2
S01359	Shelter: Tactical Expandable Twoside	A	1
S39122	Sterilizer Surgical Dressing: Pressure Fuel Htd CRS	A	4
S56720	Simulator Medical Functions: Battery OP Port	B	1
S91263	Sink Unit Scrub Field Hospital CRS 30 Inch: DEPMEDS	A	3
T00029	Table Operating Field:	A	2
T00381	Thermoregulator: Patient Auto & Manual 115/220V 50/60	A	2
T00578	Table Operating Room Field:	A	1
T07421	Tachom Strob Centrifuge	B	1
T19033	Tank Fabric Collapsible, 3000 GAL	A	1
T47745	Tent: Extendable Modular 64LX20WMedical Forest	A	6
T47745	Tent: Extendable Modular 64LX20WMedical Forest	B	1
T47813	Tent: Extendable Modular 64LX20WSurgical Forest	A	2
T47813	Tent: Extendable Modular 64LX20WSurgical Forest	B	2
T60464	Sink Unit Surgical Scrub and Utensil Hospital Field: 110V	A	2
T60464	Sink Unit Surgical Scrub and Utensil Hospital Field: 110V	B	18
T61791	Tester Current Leakage:	B	1
T71619	Tent: Extendable Modular 16LX20WMedical Forest	B	3
T71755	Tent: Extendable Modular 16LX20WCentral Medical	B	1
T77263	Test Set Electronic Circuit-component: 115/230V	B	1
T90883	Test Set Electrosurgical Apparatus: 115/230V 50-60HZ	B	1
U89185	Utility Receptacle:	A	30
V99788	Ventilator, PMI	A	14
W45197	Tool Kit Medical Equipment Maintenance and Repair: Org	B	1
X90968	X-Ray Apparatus: Low Capacity Port	A	1
X92545	X-Ray Apparatus Radiographic Medical:	A	1
Z07692	Analyzer, Blood (ISTAT)	A	2
Z08425	Analyzer, Chemistry (PICCOLO)	A	2
Z16381	Analyzer Hematology (COULTER)	A	2
Z67207	Generator Set Ded Tm: 100KW 50/60HZ MTD ON	A	5
Z27500	Tester Infusion Pump	B	1

**TABLE 1-2. FORSCOM HOSP:
MRI 164-BED COMBAT SUPPORT HOSPITAL, CORPS**

NOTE: 164-bed MMS (700-series Unit Assemblage Listings) are in bold print. These will be built from current MF2K DEPMEDS Sets (300-series Unit Assemblage Listings)

OTOE Requirements

08948A000 164-Bed, Combat Support Hospital, Corps

LIN	NOMENCLATURE	ERC	MRI
A26852	Air Conditioner: 54000 BTU 208V-AC 3PH 50/60 HZ	B	3
A26852	Air Conditioner: 54000 BTU 208V-AC 3PH 50/60 HZ	A	38
A63297	Anesthesia Apparatus Field	A	4
A83433	Analyzer Defibrillator EKG	B	1
C05856	CAL & Verification Sys: Portable Battery OP Diagnostic	B	1
C13825	Container Cargo Reusable W/O -Mechanical Restraint	A	1
C13825	Container Cargo Reusable W/O -Mechanical Restraint	B	24
C14589	Calibrator Timer: 6.35CM H 15.24CM W 15.88CM D	B	1
C19151	Centrifuge Laboratory Refrigerated 120/230V 50/60HZ	A	1
C19511	Coagulation Timer Unit: Plasma Semiautomatic Testing	A	1
C32671	Cleaner Ultrasonic: 120/230V 50/60CYC HZ	A	2
C50111	Cabinet Solution Warming:	A	2
C61523	Calibrator-Analyzer Hosp Equip: 12IN W X 12IN H X 9IN	B	1
C83945	Chair and Stool Unit: Dental Operating Portable	A	1
D34883	Dolly Set Lift Transportable Shelter: 7½	B	2
D43836	DMS: Dental Hygiene COMMZ: DEPMEDS	A	1
D43882	DMS: Dental X-Ray: DEPMEDS	A	1
D65926	DMS General Dentistry Army and Navy: DEPMEDS	A	1
D86072	Defibrillator Monitor Recorder: 120/230V 50/60HZ AC	A	7
D94348	Densitometer 9V Battery Portable	B	1
E02981	Electrosurgical Apparatus Mobile 115V 50/60HZ OR	A	4
E67355	Compressor - Dehydrator Dental Equipment:	A	11
F55485	Distribution System Elec: 120/208V 3PH 40AMP	A	10
F55621	Feeder System Electrical: 3PH 100 AMP	A	10
F95601	Dental Operating and Dental Unit Field	A	1
F95778	Dental Supply Set Emergency Denture Repair:	A	1
G60128	Genitourinary Cystoscopic Kit:	A	1
H00586	Heater Duct Type Portable 1200-00 BTUS	B	26
L44331	Light Surg Ceiling: 20/230V50/60HZ	A	4
L63833	Light Set Dental Operating: 115V	A	2
L65295	Light Surgical Field: 110 VAC OR 24 VDC	A	15
M08417	MMS: Central Materiel Service: DEPMEDS	P	2

(continued) TABLE 1-2. FORSCOM HOSP:

MRI 164-BED COMBAT SUPPORT HOSPITAL, CORPS

NOTE: 164-bed MMS (700-series Unit Assemblage Listings) are in bold print. These will be built from current MF2K DEPMEDS Sets (300-series Unit Assemblage Listings)

OTOE Requirements**08948A000 164-Bed, Combat Support Hospital, Corps**

LIN	NOMENCLATURE	ERC	MRI
M08599	MMS: Intermediate Care Ward: DEPMEDS	A	7
M08849	MMS: LAB (LIQ BLD BNK): 164 Bed CSH CO	A	1
M08951	MMS: Central MAT SVC SPEC AUG: 164 BED CSH CO	A	1
M09576	MMS: Post OP/ICU Ward DEPMEDS:	P	2
M13275	MMS: LAB (General): 164 Bed CSH CO	A	1
M14585	MMS: Medical Supply: 164 Bed CSH Company	A	1
M23673	MES: Chemical Agent Patient Treatment:	B	3
M25865	MES: Chemical Agents Patient Decontamination:	B	2
M31824	MMS: Obstetrics Gynecology Clinic DEPMEDS:	A	1
M32074	MMS: Orthopedic Surgery Aug: DEPMEDS	A	1
M66558	Monitor PT Vital Sign W/Capnography	A	4
M72050	MMS: Physical Occupational Therapy: DEPMEDS	A	1
M72152	MMS: Medical Maintenance: 164 Bed CSH Company	A	1
M72300	MMS: X-Ray DEPMEDS:	P	1
M72355	MMS: Medical Service Clinic: 164 Bed CSH CO	A	1
M72868	MMS: Orthopedic Cast Clinic: DEPMEDS	A	1
M72936	MMS: Operating Room: DEPMEDS	P	2
M73050	MMS: Triage/Emergency/Pre-OP: DEPMEDS	P	1
M73175	MMS: X-Ray Low Capacity Portable DEPMEDS:	A	1
M73186	MMS: Pharmacy: 164 Bed CSH CO	A	1
M79195	Monitor PT Vital Sign W/Pulse Oximetry	A	20
P30693	Oscilloscope: Hand-Held	B	1
P40622	Oximeter Pulse: 120/230V 50/60HZ AC Or Battery	A	7
P60558	PANEL POWER DISTR: 60 HZ 400 AMP	A	5
R61868	Refrigerator Mechanical Commercial: Blood Bank	A	1
S01291	Shelter: Tactical Expandable Oneside	A	4
S01359	Shelter: Tactical Expandable Twoside	A	5
S39122	Sterilizer Surgical Dressing: Pressure Fuel Htd CRS	A	8
S56720	Simulator Medical Functions: Battery OP Port	B	1
S68035	Surgical Unit Arthroscopic Intra Articular 220V 50/60HZ:	A	1
S91263	Sink Unit Scrub Field Hospital CRS 30 Inch: DEPMEDS	A	5

(continued) TABLE 1-2. FORSCOM HOSP: MRI 164-BED COMBAT SUPPORT HOSPITAL, CORPS
 NOTE: 164-bed MMS (700-series Unit Assemblage Listings) are in bold print. These will be built from current MF2K DEPMEDS Sets (300-series Unit Assemblage Listings)
OTOE Requirements

08948A000 164-Bed, Combat Support Hospital, Corps

LIN	NOMENCLATURE	ERC	MRI
S91263	Sink Unit Scrub Field Hospital CRS 30 Inch: DEPMEDS	B	3
T00029	Table Operating Field:	A	4
T00381	Thermoregulator: Patient Auto & Manual 115/220V 50/60	A	4
T00578	Table Operating Room Field:	A	1
T07421	Tachom Strob Centrifu	B	1
T19033	Tank Fabric Collapsible, 3000 GAL	A	6
T47745	Tent: Extendable Modular 64LX20WMedical Forest	A	12
T47745	Tent: Extendable Modular 64LX20WMedical Forest	B	1
T47813	Tent: Extendable Modular 64LX20WSurgical Forest	A	1
T47813	Tent: Extendable Modular 64LX20WSurgical Forest	B	2
T60464	Sink Unit Surgical Scrub and Utensil Hospital Field: 110V	B	26
T61791	Tester Current Leakage:	B	1
T71619	Tent: Extendable Modular 16LX20WMedical Forest	B	5
T71755	Tent: Extendable Modular 16LX20WCentral Medical	B	2
T77263	Test Set Electronic Circuit-component: 115/230V	B	1
T90883	Test Set Electrosurgical Apparatus: 115/230V 50-60HZ	B	1
U89185	Utility Receptacle	A	50
V99788	Ventilator, PMI	A	14
W45197	Tool Kit Medical Equipment Maintenance and Repair: Org	B	1
X37050	X-Ray Apparatus Field Dental:	A	1
X90968	X-Ray Apparatus: Low Capacity Port	A	1
X92158	X-Ray Apparatus: High Capacity Radiographic and	A	1
Z07692	Analyzer, Blood, (ISTAT)	A	2
Z08425	Analyzer, Chemistry (PICCOLO)	A	2
Z16381	Analyzer Hematology (COULTER)	A	2
Z27500	Tester: Infusion Pump	B	1
Z67207	Generator Set Ded Tm: 100KW 50/60HZ MTD ON	A	8

**TABLE 1-3. FORSCOM HOSP, MRI 84-BED
COMBAT SUPPORT HOSPITAL, EAC, MRI EAC 84-BED Co (08858A000)
With Class VIII and Select Nonmed ASIOE**

OTOE Requirements**08858A000 84-Bed, Combat Support Hospital, NSB**

LIN	NOMENCLATURE	ERC	MRI
A26852	Air Conditioner: 54000 BTU 208V-AC 3PH 50/60 HZ	A	30
A63297	Anesthesia Apparatus Field	A	2
A83433	Analyzer Defibrillator EKG	B	1
C05856	CAL & Verification Sys: Portable Battery OP Diagnostic	B	1
C13825	Container Cargo Reusable W/O -Mechanical Restraint	A	2
C13825	Container Cargo Reusable W/O -Mechanical Restraint	B	17
C14589	Calibrator Timer: 6.35CM H 15.24CM W 15.88CM D	B	1
C19151	Centrifuge Laboratory Refrigerated 120/230V 50/60HZ	A	1
C19511	Coagulation Timer Unit: Plasma Semiautomatic Testing	A	1
C32671	Cleaner Ultrasonic: 120/230V 50/60CYC HZ	A	1
C50111	Cabinet Solution Warming:	A	1
C61523	Calibrator-Analyzer Hosp Equip: 12IN W X 12IN H X 9IN	B	1
D34883	Dolly Set Lift Transportable Shelter: 7 ½	B	4
D86072	Defibrillator Monitor Recorder: 120/230V 50/60HZ AC	A	6
D94348	Densitometer 9V Battery Portable	B	1
E02981	Electrosurgical Apparatus Mobile 115V 50/60HZ OR	A	2
E67355	Compressor -Dehydrator Dental Equipment:	A	8
F55485	Distribution System Elec: 120/208V 3PH 40AMP	A	16
F55621	Feeder System Electrical: 3PH 100 AMP	A	16
G60128	Genitourinary Cystoscopic Kit:	A	1
H00586	Heater Duct Type Portable 1200-00 BTUS	B	19
L44331	Light Surg Ceiling: 20/230V50/60HZ	A	2
L65295	Light Surgical Field: 110 VAC OR 24 VDC	A	7
L65295	Light Surgical Field: 110 VAC OR 24 VDC	B	8
M08417	MMS: Central Materiel Service: DEPMEDS	P	1
M08485	MMS: Central Materiel Service Special Aug:	A	1
M08599	MMS: Intermediate Care Ward: DEPMEDS	A	3
M09018	MMS: Medical Supply Combat Hospital: MF2K	B	1
M09099	MMS: MED SVC Clinic COMMZ AUG: DEPMEDS	A	1
M09166	MMS: Laboratory Liquid Blood Bank:	A	1
M09349	MMS: Medical Maintenance Aug Army DEPMEDS:	A	1
M09576	MMS: Post OP/ICU Ward DEPMEDS:	P	2
M23673	MES: Chemical Agent Patient Treatment:	B	5
M25865	MES: Chemical Agents Patient Decontamination:	B	3
M31824	MMS: Obstetrics Gynecology Clinic DEPMEDS:	A	1
M38443	Meter Foot Candle	B	1
M47987	MMS: Medical Maintenance: DEPMEDS	B	1
M48987	MMS: Laboratory (Microbiology) Aug MF2K/M403:	A	1
M66558	Monitor PT Vital Sign W/Capnography	A	2
M72050	MMS: Physical Occupational Therapy: DEPMEDS	A	1
M72300	MMS: X-Ray DEPMEDS:	P	1
M72428	MMS: Medical Services Clinic: DEPMEDS	A	1
M72800	MMS: Physical Therapy COMMZ Aug: DEPMEDS	A	1

(continued) TABLE 1-3 FORSCOM HOSP: MRI 84-BED COMBAT SUPPORT HOSPITAL, EAC
MRI EAC 84-BED Co (08858A000) with Class VIII and select nonmed ASIOE

OTOE Requirements
08858A000 84-Bed, Combat Support Hospital, NSB

LIN	NOMENCLATURE	ERC	MRI
M72868	MMS: Orthopedic Cast Clinic: DEPMEDS	A	1
M72936	MMS: Operating Room: DEPMEDS	P	1
M73050	MMS: Triage/Emergency/Pre-OP: DEPMEDS	P	1
M73118	MMS: Pharmacy: DEPMEDS	A	1
M73175	MMS: X-Ray Low Capacity Portable DEPMEDS:	A	1
P40622	Oximeter Pulse: 120/230V 50/60HZ AC Or Battery	A	6
S01359	Shelter: Tactical Expandable Twoside	B	3
S33399	Sanitation Center: Food	B	1
S39122	Sterilizer Surgical Dressing: Pressure Fuel Htd CRS	A	5
S56720	Simulator Medical Functions: Battery OP Port	B	1
S91263	Sink Unit Scrub Field Hospital CRS 30 Inch: DEPMEDS	A	7
S91263	Sink Unit Scrub Field Hospital CRS 30 Inch: DEPMEDS	B	1
T00029	Table Operating Field:	A	2
T00381	Thermoregulator: Patient Auto & Manual 115/220V 50/60	A	2
T00578	Table Operating Room Field:	A	1
T07421	Tachom Strob Centrifu	B	1
T19033	Tank Fabric Collapsible, 3000 GAL	A	3
T47745	Tent: Extendable Modular 64LX20WMedical Forest	A	7
T47745	Tent: Extendable Modular 64LX20WMedical Forest	B	2
T47813	Tent: Extendable Modular 64LX20WSurgical Forest	A	1
T47813	Tent: Extendable Modular 64LX20WSurgical Forest	B	1
T60464	Sink Unit Surgical Scrub and Utensil Hospital Field: 110V	B	18
T61791	Tester Current Leakage:	B	1
T71619	Tent: Extendable Modular 16LX20WMedical Forest	A	5
T71755	Tent: Extendable Modular 16LX20WCentral Medical	B	1
T77263	Test Set Electronic Circuit-component: 115/230V	B	1
T90883	Test Set Electrosurgical Apparatus: 115/230V 50-60HZ	B	1
U89185	Utility Receptacle:	A	50
V99788	Ventilator, PMI	A	14
W45197	Tool Kit Medical Equipment Maintenance and Repair: Org	B	1
X90968	X-Ray Apparatus: Low Capacity Port	A	2
X92158	X-Ray Apparatus: High Capacity Radiographic and	A	1
X92545	X-Ray Apparatus Radiographic Medical:	A	1
Z07692	Analyzer, Blood (ISTAT)	A	4
Z08425	Analyzer, Chemistry (PICCOLO)	A	4
Z16381	Analyzer Hematology (COULTER)	A	2
Z27500	Tester: Infusion Pump	B	1
Z67207	Generator Set Ded Tm: 100kw 50/60hz Mtd On	A	8

**TABLE 1-4. FORSCOM HOSP:
MRI 164-BED COMBAT SUPPORT HOSPITAL, EAC
OTOE Requirements**

08857A000 164-Bed, Combat Support Hospital, NSB

LIN	NOMENCLATURE	EAC	MRI
A26852	Air Conditioner: 54000 BTU 208V-AC 3PH 50/60 HZ	A	28
A63297	Anesthesia Apparatus Field	A	4
C13825	Container Cargo Reusable W/O -Mechanical Restraint	B	16
C32671	Cleaner Ultrasonic: 120/230V 50/60CYC HZ	A	2
C50111	Cabinet Solution Warming:	A	2
C83945	Chair and Stool Unit: Dental Operating Portable	A	2
D43836	DMS: Dental Hygiene COMMZ: DEPMEDS	A	1
D43882	DMS: Dental X-Ray: DEPMEDS	A	1
D65926	DMS General Dentistry Army and Navy: DEPMEDS	A	1
D86072	Defibrillator Monitor Recorder: 120/230V 50/60HZ AC	A	4
E02981	Electrosurgical Apparatus Mobile 115V 50/60HZ OR	A	4
E67355	Compressor -Dehydrator Dental Equipment:	A	8
F95601	Dental Operating and Treatment Unit Field	A	2
F95778	Dental Supply Set Emergency Denture Repair:	A	1
H00586	Heater Duct Type Portable 1200-00 BTUS	B	16
L44331	Light Surg Ceiling: 20/230V50/60HZ	A	4
L63833	Light Set Dental Operating: 115V	A	2
L65295	Light Surgical Field: 110 VAC OR 24 VDC	A	8
M08417	MMS: Central Materiel Service: DEPMEDS	P	2
M08599	MMS: Intermediate Care Ward: DEPMEDS	A	7
M09576	MMS: Post OP/ICU Ward DEPMEDS:	P	2
M32074	MMS: Orthopedic Surgery Aug: DEPMEDS	A	1
M66558	Monitor PT Vital Sign W/Capnography	A	4
M72936	MMS: Operating Room: DEPMEDS	P	2
M79195	Monitor PT Vital Sign W/Pulse Oximetry	A	16
P40622	Oximeter Pulse: 120/230V 50/60HZ AC Or Battery	A	6
S01291	Shelter: Tactical Expandable Oneside	A	2
S01359	Shelter: Tactical Expandable Twoside	A	2
S39122	Sterilizer Surgical Dressing: Pressure Fuel Htd CRS	A	8
S68035	Surgical Unit Arthroscopic Intra Articular 220V 50/60HZ:	A	1
S91263	Sink Unit Scrub Field Hospital CRS 30 Inch: DEPMEDS	A	4
T00029	Table Operating Field:	A	4
T00381	Thermoregulator: Patient Auto & Manual 115/220V 50/60	A	4
T47745	Tent: Extendable Modular 64LX20WMedical Forest	A	10
T47813	Tent: Extendable Modular 64LX20WSurgical Forest	B	2
T60464	Sink Unit Surgical Scrub and Utensil Hospital Field: 110V	B	17
T71619	Tent: Extendable Modular 16LX20WMedical Forest	B	2
T71755	Tent: Extendable Modular 16LX20WCentral Medical	B	2
V99788	Ventilator, PMI	A	12
X37050	X-Ray Apparatus Field Dental	A	1

**TABLE 1-5. MRI 08949A000 Minimal Care Detachment
(Class VIII and Select Nonmedical ASIOE)**

OTOE Requirements 08949A000		Minimal Care Detachment		
LIN	NOMENCLATURE	ERC	MRI	
C13825	Container Cargo Reusable W/O -Mechanical Restraint	B	4	
F55485	Distribution System Elec: 120/208V 3PH 40AMP	B	3	
H00586	Heater Duct Type Portable 1200-00 BTUS	B	7	
M48055	MMS: Minimal Care Ward: DEPMEDS	A	6	
M72050	MMS: Physical Occupational Therapy: DEPMEDS	A	1	
R64126	Refrigerator Solid State BIO:	B	3	
T60464	Sink Unit Surgical Scrub and Utensil Hospital Field: 110V	B	7	
U89185	Utility Receptacle:	B	13	
V48578	Tent, GP Large, Complete	A	7	

TABLE 1-6. MRI MEET SET REQUIREMENTS (MMS ONLY)

Note: MRI 84- and 164-Bed MEET Sets are standardized with the exception of the Medical Maintenance. Each company will get the respective set.

LIN	NOMENCLATURE	MRI
M08417	MMS: Central Materiel Service: DEPMEDS	1
M08599	MMS: Intermediate Care Ward: DEPMEDS	1
M09576	MMS: Post OP/ICU Ward DEPMEDS:	1
M72936	MMS: Operating Room: DEPMEDS	1
M73050	MMS: Triage/Emergency/Pre-OP: DEPMEDS	1
M72084	MMS: Medical Maintenance: 84 Bed CSH CO	1
M72152	MMS: Medical Maintenance: 164 Bed CSH Company	1

TABLE 1-7. MRI 08547AA00 EARLY ENTRY HOSPITALIZATION ELEMENT (EEHE) WITHOUT TRANSPORTATION - ALSO KNOWN AS COES: CLASS VIII AND SELECT NONMED ASIOE OTOE REQUIREMENTS

08547AA00

Early Entry Hospital Element (44 Bed)

LIN	NOMENCLATURE	ERC	MRI
A26852	Air Conditioner: 54000 BTU 208V-AC 3PH 50/60 HZ	B	1
A26852	Air Conditioner: 54000 BTU 208V-AC 3PH 50/60 HZ	A	17
A63297	Anesthesia Apparatus Field	A	2
A83433	Analyzer Defibrillator EKG	B	1
C05856	CAL & Verification Sys: Portable Battery OP Diagnostic	B	1
C13825	Container Cargo Reusable W/O -Mechanical Restraint	B	10
C19511	Coagulation Timer Unit: Plasma Semiautomatic Testing	A	1
C32671	Cleaner Ultrasonic: 120/230V 50/60CYC HZ	A	1
C50111	Cabinet Solution Warming:	A	1
C61523	Calibrator-Analyzer Hosp Equip: 12IN W X 12IN H X 9IN	B	1
D34883	Dolly Set Lift Transportable Shelter: 7 ½	A	2
D86072	Defibrillator Monitor Recorder: 120/230V 50/60HZ AC	A	4
D94348	Densitometer 9V Battery Portable	B	1
E02981	Electrosurgical Apparatus Mobile 115V 50/60HZ OR	A	2
E67355	Compressor -Dehydrator Dental Equipment:	A	8
F55485	Distribution System Elec: 120/208V 3PH 40AMP	A	7
F55621	Feeder System Electrical: 3PH 100 AMP	A	5
G60128	Genitourinary Cystoscopic Kit:	A	1
H00586	Heater Duct Type Portable 1200-00 BTUS	B	11
H00586	Heater Duct Type Portable 1200-00 BTUS	A	1
L44331	Light Surg Ceiling: 20/230V50/60HZ	A	2
L65295	Light Surgical Field: 110 VAC OR 24 VDC	A	14
M08417	MMS: Central Materiel Service: DEPMEDS	P	1
M08599	MMS: Intermediate Care Ward: DEPMEDS	A	1
M09576	MMS: Post OP/ICU Ward DEPMEDS:	P	2
M13428	MMS: CENT MAT SVC SPEC AUG: 84 Bed CSH CO	A	1
M23673	MES: Chemical Agent Patient Treatment:	B	2
M25865	MES: Chemical Agents Patient Decontamination:	B	1
M66558	Monitor PT Vital Sign W/Capnography	A	2
M72084	MMS: Medical Maintenance: 84 Bed CSH CO	A	1
M72936	MMS: Operating Room: DEPMEDS	P	1
M73050	MMS: Triage/Emergency/Pre-OP: DEPMEDS	P	1
M73175	MMS: X-Ray Low Capacity Portable DEPMEDS:	A	1
M73254	MMS: Pharmacy: 84 Bed CSH Company	A	1
M73482	MMS: Laboratory (General): 84 Bed CSH Company	A	1
M73732	MMS: Laboratory (Liquid Bld Bank): 84 Bed CSH CO	A	1
M79195	Monitor PT Vital Sign W/Pulse Oximetry	A	20
P40622	Oximeter Pulse: 120/230V 50/60HZ AC Or Battery	A	6
P60558	Panel Power Distr: 60 HZ 400 AMP	A	4
R64126	Refrigerator Solid State BIO:	A	1
S01291	Shelter: Tactical Expandable Oneside	A	2
S01359	Shelter: Tactical Expandable Twoside	A	1
S39122	Sterilizer Surgical Dressing: Pressure Fuel Htd CRS	A	4
S56720	Simulator Medical Functions: Battery OP Port	B	1
S91263	Sink Unit Scrub Field Hospital CRS 30 Inch: DEPMEDS	A	3

(continued) TABLE 1-7. MRI 08547AA00 Early Entry Hospitalization Element (EEHE) Without Transportation- Also Known As COES: CLASS VIII And Select NONMED ASIOE OTOE Requirements

08547AA00 Early Entry Hospital Element (44 Bed)

LIN	NOMENCLATURE	ERC	MRI
T00029	Table Operating Field:	A	2
T00381	Thermoregulator: Patient Auto & Manual 115/220V 50/60	A	2
T07421	Tachom Strob Centrifu	B	1
T19033	Tank Fabric Collapsible, 3000 GAL	A	1
T47745	Tent: Extendable Modular 64LX20WMedical Forest	A	3
T47813	Tent: Extendable Modular 64LX20WSurgical Forest	A	2
T47813	Tent: Extendable Modular 64LX20WSurgical Forest	B	2
T60464	Sink Unit Surgical Scrub and Utensil Hospital Field: 110V	A	2
T60464	Sink Unit Surgical Scrub and Utensil Hospital Field: 110V	B	12
T60464	Sink Unit Surgical Scrub and Utensil Hospital Field: 110V	C	1
T61791	Tester Current Leakage:	B	1
T71619	Tent: Extendable Modular 16LX20WMedical Forest	B	3
T71755	Tent: Extendable Modular 16LX20WCentral Medical	B	1
T77263	Test Set Electronic Circuit-component: 115/230V	B	1
T90883	Test Set Electrosurgical Apparatus: 115/230V 50-60HZ	B	1
U89185	Utility Receptacle:	A	26
V99788	Ventilator, PMI	A	14
W45197	Tool Kit Medical Equipment Maintenance and Repair: Org	B	1
X90968	X-Ray Apparatus: Low Capacity Port	A	1
X92545	X-Ray Apparatus Radiographic Medical:	A	1
Z07692	Analyzer, Blood, (ISTAT)	A	2
Z08425	Analyzer, Chemistry (PICCOLO)	A	2
Z16381	Analyzer Hematology (COULTER)	A	2
Z27500	Tester Infusion Pump	1	1
Z67207	Generator Set Ded Tm: 100kw 50/60hz Mtd On	A	4

TABLE 1-8. THE BREAKDOWN BY MMS AND LOCATION OF EACH SET IN A COMPO 3 MRI, CORPS CSH WITH ONE MEET SET

RESERVE CORP CSH, ONE 84-BED MEET NO COES/EEHE						
LIN	NOMENCLATURE	UA	AUTH.	84-BED MEET	84-BED RCD	164-BED RCD
D43836	MMS, DENTAL HYGENIST AUG	476	1			1
D43882	MMS, DENTAL CLINIC SUP & X-RAY	374	1			1
D65926	MMS, GENERAL DENTISTRY	370	1			1
M08417	MMS, CENTRAL MATERIAL SERVICE	302	3	1		2
M08599	MMS, INTMED CARE WARD	310	10	1	2	7
M08849	MMS, LAB LIQ BLD 164 CO	704	1			1
M08951	MMS, CMS SP AUG 164 BED	742	1			1
M09576	MMS, POST, OP/ICU WARD	309	4	1	1	2
M13275	MMS, LAB GEN 164 BED CO	703	1			1
M13428	MMS, CMS AUG CSH 84-BED	542	1		1	
M14517	MMS, MED SUPPLY CSH 84-BED	583	1		1	
M14585	MMS, MED SUP 164 BED CO	783	1			1
M31824	MMS, GYN CLINIC	316	2		1	1
M32074	MMS, ORTHO SURG AUG	417	1			1
M72050	MMS, PHYS/OCCPA THERAPY	312	1			1
M72084	MMS, MED MAINT CSH 84-BED	523	1	1		
M72152	MMS, MED MAINT CSH 164-BED	725	1			1
M72300	MMS, X-RAY (RAD & FLUORO)	307	1			1
M72355	MMS, MED SVC CL 164 BED	713	1			1
M72423	MMS, MED SVC CL CSH 84-BED	513	1		1	
M72868	MMS, ORTHO CAST CLINIC	314	2		1	1
M72936	MMS, OPERATING ROOM	301	3	1		2
M73050	MMS, TRIAGE/ EMT/PRE-OP	308	2	1		1
M73175	MMS, PORTABLE (LOW-CAP) X-RAY	334	2		1	1
M73186	MMS, PHARM 164 BED CO	706	1			1
M73254	MMS, PHARMACY CSH 84-BED	506	1		1	
M73482	MMS, LAB (GEN) CSH 84-BED	503	1		1	
M73732	MMS, LAB (LIQ BLOOD) CSH 84-BED	504	1		1	
M86675	MMS, X-RAY (RAD)	305	1		1	

TABLE 1-9. THE BREAKDOWN BY MMS AND LOCATION OF EACH SET IN A COMPO 3 MRI, CORPS CSH WITH A 164-BED MEET SET AND A COES/EEHE

Reserve CORP CSH, A 164-BED MEET & COES/EEHE								
LIN	NOMENCLATURE	UA	AUTH	164-BED MEET	164-BED COES/EEHE	164-BED RCD	84-BED COES/EEHE	84-BED RCD
D43836	MMS, DENTAL HYGENIST AUG	476	1			1		
D43882	MMS, DENTAL CLINIC SUP & X-RAY	374	1			1		
D65926	MMS, GENERAL DENTISTRY	370	1			1		
M08417	MMS, CENTRAL MATERIAL SERVICE	302	3	1		1	1	
M08599	MMS, INTMED CARE WARD	310	10	1		6	1	2
M08849	MMS, LAB LIQ BLD 164 CO	704	1			1		
M08951	MMS, CMS SP AUG 164 BED	742	1			1		
M09576	MMS, POST, OP/ICU WARD	309	4	1		1	2	
M13275	MMS, LAB GEN 164 BED CO	703	1			1		
M13428	MMS, CMS AUG CSH 84-BED	542	1				1	
M14517	MMS, MED SUPPLY CSH 84-BED	583	1					1
M14585	MMS, MED SUP 164 BED CO	783	1			1		
M31824	MMS, GYN CLINIC	316	2			1		1
M32074	MMS, ORTHO SURG AUG	417	1			1		
M72050	MMS, PHYS/OCCPA THERAPY	312	1			1		
M72084	MMS, MED MAINT CSH 84-BED	523	1				1	
M72152	MMS, MED MAINT CSH 164-BED	725	1	1				
M72300	MMS, X-RAY (RAD & FLUORO)	307	1			1		
M72355	MMS, MED SVC CL 164 BED	713	1			1		
M72423	MMS, MED SVC CL CSH 84-BED	513	1					1
M72868	MMS, ORTHO CAST CLINIC	314	2			1		1
M72936	MMS, OPERATING ROOM	301	3	1		1	1	
M73050	MMS, TRIAGE/ EMT/PRE-OP	308	2	1			1	
M73175	MMS, PORTABLE (LOW-CAP) X-RAY	334	2			1	1	
M73186	MMS, PHARM 164 BED CO	706	1			1		
M73254	MMS, PHARMACY CSH 84-BED	506	1				1	
M73482	MMS, LAB (GEN) CSH 84-BED	503	1				1	
M73732	MMS, LAB (LIQ BLOOD) CSH 84-BED	504	1				1	
M86675	MMS, X-RAY (RAD)	305	1				1	

TABLE 1-10. THE BREAKDOWN BY MMS AND LOCATION OF EACH SET IN A COMPO 3 MRI, CORPS CSH WITH TWO MEET SETS

RESERVE CORP CSH, TWO MEETS NO COES/EEHE							
LIN	Nomenclature	UA	Auth.	84-BED MEET	164-BED MEET	164-BED RCD	84-BED RCD
D43836	MMS, DENTAL HYGENIST AUG	476	1			1	
D43882	MMS, DENTAL CLINIC SUP & X-RAY	374	1			1	
D65926	MMS, GENERAL DENTISTRY	370	1			1	
M08417	MMS, CENTRAL MATERIAL SERVICE	302	3	1	1	1	
M08599	MMS, INTMED CARE WARD	310	10	1	1	6	2
M08849	MMS, LAB LIQ BLD 164 CO	704	1			1	
M08951	MMS, CMS SP AUG 164 BED	742	1			1	
M09576	MMS, POST, OP/ICU WARD	309	3	1	1	1	1
M13275	MMS, LAB GEN 164 BED CO	703	1			1	
M13428	MMS, CMS AUG CSH 84-BED	542	1				1
M14517	MMS, MED SUPPLY CSH 84-BED	583	1				1
M14585	MMS, MED SUP 164 BED CO	783	1			1	
M31824	MMS, GYN CLINIC	316	2			1	1
M32074	MMS, ORTHO SURG AUG	417	1			1	
M72050	MMS, PHYS/OCCPA THERAPY	312	1			1	
M72084	MMS, MED MAINT CSH 84-BED	523	1	1			
M72152	MMS, MED MAINT CSH 164-BED	725	1		1		
M72300	MMS, X-RAY (RAD & FLUORO)	307	1			1	
M72355	MMS, MED SVC CL 164 BED	713	1			1	
M72423	MMS, MED SVC CL CSH 84-BED	513	1				1
M72868	MMS, ORTHO CAST CLINIC	314	2			1	1
M72936	MMS, OPERATING ROOM	301	3	1	1	1	
M73050	MMS, TRIAGE/ EMT/PRE-OP	308	2	1	1		
M73175	MMS, PORTABLE (LOW-CAP) X-RAY	334	2			1	1
M73186	MMS, PHARM 164 BED CO	706	1			1	
M73254	MMS, PHARMACY CSH 84-BED	506	1				1
M73482	MMS, LAB (GEN) CSH 84-BED	503	1				1
M73732	MMS, LAB (LIQ BLOOD) CSH 84-BED	504	1				1
M86675	MMS, X-RAY (RAD)	305	1				1

TABLE 1-11. THE BREAKDOWN BY MMS AND LOCATION OF EACH SET IN A COMPO 3 MRI, CORPS CSH WITH TWO MEET SETS AND A COES/EEHE

RESERVE CORP CSH, TWO MEETS & A COES/EEHE									
LIN	NOMENCLATURE	UA	AUTH	84-BED MEET	164-BED MEET	164-BED COES/EEHE	164-BED RCD	84-BED COES/EEHE	84-BED RCD
D43836	MMS, DENTAL HYGENIST AUG	476	1				1		
D43882	MMS, DENTAL CLINIC SUP & X-RAY	374	1				1		
D65926	MMS, GENERAL DENTISTRY	370	1				1		
M08417	MMS, CENTRAL MATERIAL SERVICE	302	3	1	1	1			
M08599	MMS, INTMED CARE WARD	310	10	1	1		6	1	1
M08849	MMS, LAB LIQ BLD 164 CO	704	1				1		
M08951	MMS, CMS SP AUG 164 BED	742	1				1		
M09576	MMS, POST, OP/ICU WARD	309	4	1	1	1		1	
M13275	MMS, LAB GEN 164 BED CO	703	1				1		
M13428	MMS, CMS AUG CSH 84-BED	542	1					1	
M14517	MMS, MED SUPPLY CSH 84-BED	583	1						1
M14585	MMS, MED SUP 164 BED CO	783	1				1		
M31824	MMS, GYN CLINIC	316	2				1		1
M32074	MMS, ORTHO SURG AUG	417	1				1		
M72050	MMS, PHYS/OCCPA THERAPY	312	1				1		
M72084	MMS, MED MAINT CSH 84-BED	523	2	1				1	
M72152	MMS, MED MAINT CSH 164-BED	725	1		1				
M72300	MMS, X-RAY (RAD & FLUORO)	307	1				1		
M72355	MMS, MED SVC CL 164 BED	713	1				1		
M72423	MMS, MED SVC CL CSH 84-BED	513	1						1
M72868	MMS, ORTHO CAST CLINIC	314	2				1		1
M72936	MMS, OPERATING ROOM	301	3	1	1	1			
M73050	MMS, TRIAGE/ EMT/PRE-OP	308	3	1	1	1			
M73175	MMS, PORTABLE (LOW-CAP) X-RAY	334	2				1	1	
M73186	MMS, PHARM 164 BED CO	706	1				1		
M73254	MMS, PHARMACY CSH 84-BED	506	1					1	
M73482	MMS, LAB (GEN) CSH 84-BED	503	1					1	
M73732	MMS, LAB (LIQ BLOOD) CSH 84-BED	504	1					1	
M86675	MMS, X-RAY (RAD)	305	1					1	

TABLE 1-12. THE BREAKDOWN BY MMS AND LOCATION OF EACH SET IN A COMPO 3 MRI, ECHELON ABOVE CORPS (EAC) CSH WITH TWO MEET SETS

RESERVE EAC 2 MEET							
LIN	NOMENCLATURE	UA	AUTH.	84-BED MEET	164-BED MEET	164-BED RCD	84-BED RCD
D43836	MMS, DENTAL HYGENIST AUG	476	1			1	
D43882	MMS, DENTAL CLINIC SUP & X-RAY	374	1			1	
D65926	MMS, GENERAL DENTISTRY	370	1			1	
M08417	MMS, CENTRAL MATERIAL SERVICE	302	3	1	1	1	
M08485	MMS, CMS AUG	342	1				1
M08599	MMS, INTMED CARE WARD	310	10	1	1	6	2
M09018	MMS, MEDICAL SUPPLY	383	1				1
M09099	MMS, MED SVC CLINIC AUG	413	1				1
M09166	MMS, LAB (LIQ BLOOD)	304	1				1
M09349	MMS, MEDICAL MAINT AUG (ARMY)	324	1	1			
M09576	MMS, POST, OP/ICU WARD	309	4	1	1	1	1
M31824	MMS, GYN CLINIC	316	1				1
M32074	MMS, ORTHO SURG AUG	417	1			1	
M47987	MMS, MEDICAL MAINTENANCE	321	1	1			
M48987	MMS, LAB GEN AUG	403	1				1
M72050	MMS, PHYS/OCCPA THERAPY	312	1				1
M72300	MMS, X-RAY (RAD & FLUORO)	307	1				1
M72428	MMS, MED SVC CL	313	1				1
M72800	MMS, PHYSICAL THERAPY	412	1				1
M72868	MMS, ORTHO CAST CLINIC	314	1				1
M72936	MMS, OPERATING ROOM	301	3	1	1	1	
M73050	MMS, TRIAGE/ EMT/PRE-OP	308	1	1			
M73118	MMS, PHARMACY	306	1				1
M73175	MMS, PORTABLE (LOW-CAP) X-RAY	334	1				1
M73425	MMS, LAB (GEN)	303	1				1
M86675	MMS, X-RAY (RAD)	305	1				1

TABLE 1-13. THE BREAKDOWN BY MMS AND LOCATION OF EACH SET IN A COMPO 3 MRI, ECHELON ABOVE CORPS (EAC) CSH WITH ONE MEET SET

RESERVE EAC, ONE-84-BED MEET						
LIN	NOMENCLATURE	UA	AUTH.	84-BED MEET	164-BED RCD	84-BED RCD
D43836	MMS, DENTAL HYGENIST AUG	476	1		1	
D43882	MMS, DENTAL CLINIC SUP & X-RAY	374	1		1	
D65926	MMS, GENERAL DENTISTRY	370	1		1	
M08417	MMS, CENTRAL MATERIAL SERVICE	302	3	1	2	
M08485	CMS, SPECIAL AUG	342	1			1
M08599	MMS, INTMED CARE WARD	310	10	1	7	2
M09018	MED SUPPLY	383	1			1
M09099	MMS, MED SVC CLINIC AUG	413	1			1
M09166	BLOOD BANK (LAB, LIQUID)	304	1			1
M09349	MMS, MEDICAL MAINT AUG (ARMY)	324	1	1		
M09576	MMS, POST, OP/ICU WARD	309	4	1	2	1
M31824	MMS, GYN CLINIC	316	1			1
M32074	MMS, ORTHO SURG AUG	417	1		1	
M47987	MMS, MEDICAL MAINTENANCE	321	1	1		
M48987	MMS, LAB GEN AUG	403	1			1
M72050	MMS, PHYS/OCCPA THERAPY	312	1			1
M72300	MMS, X-RAY (RAD & FLUORO)	307	1			1
M72428	MED SERVICE CLINIC	313	1			1
M72800	MMS, PHYSICAL THERAPY	412	1			1
M72868	MMS, ORTHO CAST CLINIC	314	1			1
M72936	MMS, OPERATING ROOM	301	3	1	2	
M73050	MMS, TRIAGE/ EMT/PRE-OP	308	1	1		
M73118	PHARMACY	306	1			1
M73175	MMS, PORTABLE (LOW-CAP) X-RAY	334	1			1
M73425	LAB, GENERAL	303	1			1
M86675	MMS, X-RAY (RAD)	305	1			1

CHAPTER 2. FOOD SANITATION CENTER – SAFETY OF USE MESSAGE

2-1. INTRODUCTION

On August 10, 2004, TACOM issued a safety of use message to all units that use the Food Sanitation Center (FSC). The message addressed the possibility of dangerous levels of carbon dioxide and carbon monoxide inside the FSC if proper precautions are not taken.

2-2. DUPLICATION OF THE ORIGINAL "SAFETY OF USE" MESSAGE

Subject: Safety of Use Message (SOUM), TACOM control no. SOUM 04-018
Operational, Food Sanitation Center (FSC), LIN S33399, NSN 7360-01-277-2558

References: None

1. Distribution:

A. This is an Operational Safety of Use Message. MACOM commanders will retransmit this message to all subordinate commands/activities within 24 hours of receipt of this message and acknowledge receipt of this message within five working days to: CDR, TACOM, Warren MI, AMSTA-LC-LMIM, DSN 786-6096, Commercial (586) 574-6096 or DDN address: safetyofuse@tacom.army.mil.

B. MACOM commanders will also track and report compliance of this message for all subordinate commands/activities to: N/A

2. PROBLEM:

A. This message is for units that use the Food Sanitation Center (FSC), LIN S33399, NSN 7360-01-277-2558. The FSC provides proper sanitation of food preparation and serving equipment during field feeding operations. The FSC may be issued with either of two tents, the Modular General Purpose Tent System (MGPTS) Small, NSN 8340-04-456-3633 or the Tent, Extendable Modular, Personnel (TEMPER), Type VII, NSN 8340-01-185-2613.

B. Summary of problem. Technical testing of a new version of the FSC (now under development) indicates elevated levels of carbon dioxide and, more importantly, carbon monoxide gas within a closed MGPTS Small. These test results emphasize the importance of proper tent ventilation when using the FSC. This applies to users who operate the current version of the FSC (NSN 7360-01-277-2558) within either type of tent (MGPTS Small or TEMPER Type VII). The FSC Technical Manual (TM) 10-7360-211-13&P; Operator's, Unit, and Direct Support Maintenance Manual Including Repair Parts and Special Tools List for FSC, NSN 7360-01-227-2558, instructs users to open vents in the tents to provide ventilation and prevent accumulation of combustion by-products such as carbon monoxide. The TM 10-7360-211-13&P does not clearly define to the operator that tent vents include door, window, and roof vents.

3. User Actions:

A. Tasks/Inspection suspense date - Immediately upon receipt of this message.

B. Reporting compliance suspense date - N/A.

C. Inspection procedures - N/A

D. Correction procedures

(1) Commanders must not allow soldiers to sleep in tents that house the FSC due to the potential for carbon monoxide or carbon dioxide poisoning. Carbon monoxide poisoning can impede muscle coordination, worsen cardiovascular conditions, and produce fatigue, headache, weakness, confusion, disorientation, nausea, and dizziness. High levels can cause death. Carbon monoxide and carbon dioxide poisoning symptoms vary with concentration and are sometimes confused with the flu or food poisoning. Symptoms include: headaches, a feeling of an inability to breathe, increased pulse rate, sweating, restlessness, disorientation and visual distortion. Increased exposure may decrease mental performance and produce tremors, irritability and discomfort. High levels can cause death.

Commanders must maintain close watch over soldiers operating the FSC in tentage for the signs of carbon monoxide and carbon dioxide poisoning. Soldiers exhibiting those signs must be removed from the FSC and taken for immediate medical intervention and evaluation.

(2) Commanders operating FSC in Tent, Extendable Modular, Personnel (TEMPER) NSN 8340-01-185-2613 will provide fresh air intake for the soldiers and the burners by ensuring all doors, windows and screened roof openings are kept fully opened. When the prevailing environmental conditions (extreme cold, dust, etc.) do not allow for maximum ventilation, the minimum ventilation requirement is to ensure screened roof openings are kept fully opened while leaving at least two doors partially open to allow for fresh air intake. Do not obstruct tent vents with equipment, snow, dirt, or other debris.

(3) Commanders operating FSC in Modular General Purpose Tent System (MGPTS), Small, NSN 8340-01-456-3633 must ensure that the roof openings are always open and filled with blackout filters, and the tent doors and windows are kept open to provide adequate fresh air for the soldiers and the burners. When the prevailing environmental conditions (extreme cold, dust, etc.) do not allow for maximum ventilation, the minimum ventilation requirement is to keep all roof vents fully opened and at least two windows fully opened and one door partially opened. MGPTS roof vents alone do not provide adequate ventilation for safe operation of the FSC. Do not obstruct tent vents with equipment, snow, dirt, or other debris.

E. Parts required - N/A.

F. Requisitioning instructions - N/A.

G. Disposition of hazardous materiel - N/A

H. Category of maintenance - OPERATOR.

I. Technical References - Food Sanitation Center TM 10-7360-211-13&P, dated 30 May 1991

Unit Commanders, contact your local TACOM Logistic Assistance Representative (LAR) or your state surface maintenance manager upon receipt of this message for assistance.

4. Program sponsor (PS) actions: Initiate a change to TM 10-7360-211-13&P to include the definition of tent vents and additional information regarding MGPTS roof vent limitations for FSC burners.

5. Supply status: There are no supply concerns/requirements.

End of Message

2-3. TACOM CONTACT INFORMATION

Further information and assistance can be obtained from your local TACOM Logistics Assistance Representative (LAR). To locate your LAR:

a. Register as a user in the Army Electronic Product Support (AEPS) Database at: <HTTPS://AEPS.RIA.ARMY.MIL/AEPSPUBLIC.CFM>

b. Select your region on the map from the following link:
<https://aeps2.ria.army.mil/Services/Lars/Tacom/larmap/LARlocate/larmap.cfm>

c. After selecting your region POC information will be displayed.

CHAPTER 3. SAFETY OF USE MESSAGES (SOUM), GROUND PRECAUTIONARY MESSAGES (GPM) AND MAINTENANCE ADVISORY MESSAGES (MAM)

3-1. INTRODUCTION

a. Safety Of Use Messages (SOUM), Ground Precautionary Messages (GPM), and Maintenance Advisory Messages (MAM) are all means by which military units are notified of equipment issues. This is a message that MACOM commanders will immediately retransmit to all subordinate units, activities, or elements affected or concerned.

(1) **SAFETY-OF-USE MESSAGE (SOUM)** Any message that disseminates safety information from the program sponsor through the matrix support structure to the users in the field. The SOUM pertains to any defect or hazardous condition, actual or potential, where a high or medium safety risk condition has been determined in accordance with AR 385-16 that can cause death or serious injury to Army personnel or damage to Army equipment. It is classified into three sub-categories (dead line, technical, and operational).

(2) **GROUND PRECAUTIONARY MESSAGE (GPM)** Message pertaining to any defect or hazardous condition, actual or potential, where a medium or low safety risk condition has been determined in accordance with AR 385-16 that can cause injury to Army personnel or damage to Army equipment.

b. The following is a partial listing of Safety Of Use Messages SOUMs, GPM, and MAM issued by THE Tank-Automotive and Armaments Command (U.S. Army) TACOM for 1st QTR FY05. This information is provided for use and dissemination as deemed appropriate. Complete copies of all of the following messages and all messages issued by other agencies, are available on the Army Electronic Product Support (AEPS) web site. This site is password protected if you need to obtain a password go to the web address, read and accept the security warning/user agreement, click on "access request" and follow the instructions. You will normally receive your password within 24-48 hours. The web address is <https://aeps2.ria.army.mil/serviced.cfm>.

3-2. TACOM AND CECOM-ISSUED SOUMs 1st QTR FY05

a. SOUM TACOM Control No. SOUM-05-001, Technical, Towbar, Motor Vehicle, NSN 4910-00-433-7094, used on all 5-Ton Wreckers, and the one (1) 10-Ton Wrecker. A SOUM was previously issued on Motor Vehicle Towbars in 1992. All existing tow bars under NSN 4910-00-433-7094, PN 7551058, should have had a modification kit applied to them to correct design deficiencies causing a POTENTIALLY DANGEROUS situation. A recent fatality involving the use of an unmodified towbar made it evident that some of these unsafe tow bars are still in use today. This SOUM is being issued to reinstate the 1992 SOUM.

b. SOUM COMMUNICATIONS-ELECTRONICS COMMAND (CECOM) SOUM-2005-01; Field Deployable Environmental Control Unit (FDECU) Models FDECU-2, FDECU-3, FDECU-4 and FDECU-5 (NSN 4120-01-449-0459).

PROBLEM: It was reported that the Heater Assembly (P/N 9454066, NSN 4520-01-494-3852) of a FDECU overheated and a tent was filled with acrid smoke. Several soldiers had minor injury from smoke inhalation. The overheating of the Heater Assembly could cause possible death from smoke inhalation or potential fire.

The uncorrected Risk Assessment Code (RAC) assigned to this hazard is: Hazard Severity - I (Catastrophic), Hazard Probability - D (Remote).

USER ACTIONS: Unit maintainers must conduct an immediate inspection of the Electrical Heater Assembly in the FDECU by following the procedures cited in item no. 6, table 4-1 Unit Preventive Maintenance Checks and Services (PMCS) of the referenced TM. Especially check the wiring to ensure that insulation is not cracked/broken and/or in contact with the heater element. Confirm that the FDECU airflow is not being restricted (filters are clean, no kinked ducts, etc.).

The above procedures should be conducted monthly. In addition, as a one-time inspection, confirm that the over-temperature sensor is properly located at the top of the Electrical Heater Assembly (Figure 3-1), and the proper method of securing the heater wires (Figure 3-2).

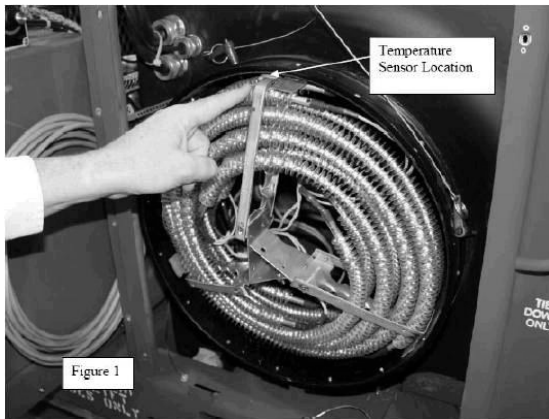


Figure 3-1. Temperature Sensor Location

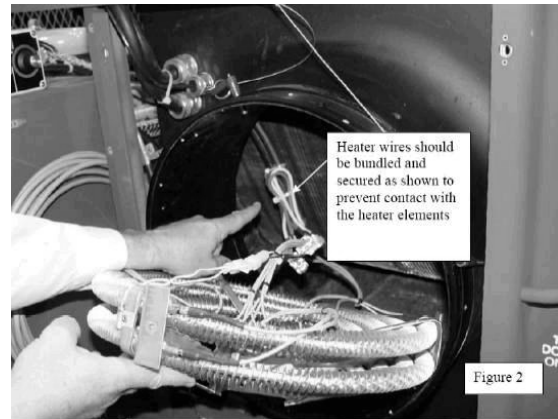


Figure 3-2. Heater Wires Securing

3-3. A LISTING OF TACOM-ISSUED GPMS 1st QTR FY05

a. TACOM CONTROL NO. GPM 05-001, M7 Forward Repair System (FRS), NSN 4940-01-463-7940.

PROBLEM: M7 Forward Repair System (FRS) door hinges rust causing hinge separation from door during opening and closing of left and right side doors. Doors may fall and endanger personnel if this situation occurs. FRS Units with serial numbers from 0001-0156 have plain steel hinges. All hardware and existing hinges need to be replaced with Type 304 stainless steel hinges on left and right side doors.

b. TACOM Control No. GPM 05- 002, Light Tactical Trailer (LTT), M1101, NSN 2330-01-387-5443, M1102, NSN 2330-01-387-5426, and Chassis, NSN 2330-01-387-5424

PROBLEM: GPM 02-020, alerted Light Tactical Trailer users of a tendency of the rivets used to secure the landing leg mounting bracket to pull out or shear. The potential failure of the rivets could result in personnel injury or damage to trailer tongue and cargo. This landing leg mounting bracket failure can occur more frequently if the precautions are not followed. GPM 03-004, instructed users to apply MWO 9-2330-392-20-2, which replaced the rivets with grade 8, 3/8 inch bolts, nuts and washers. New production LTTs have the landing leg mounting bracket welded to a triangular bottom plate and DO NOT require application of MWO 9-2330-392-20-2. Older trailers with rivets securing the u-shaped mount bracket, require MWO 9-2330-392-20-2 application. The data plate on the older trailers will have a serial number within the range of 00001-02000 and 02593-08597.

c. TACOM Control No. GPM 05-003; Stryker Family Vehicles

PROBLEM: During system level cold room testing that was a precursor to user training in Cold Region environment, the test vehicle experienced unacceptable air pressure losses in the brake system. Initially suspected in the air brake chambers, we later determined that other contributing system losses were significant under these extreme conditions. Fault isolating and stepping down the cold chamber in increments, we were able to determine that two efforts were needed in order to assure safe start up and operation of the brake system.

(1) Due to a presumed condensation in the air brake chamber, which caused pressure losses at temperatures below -30 F, a new air brake chamber may be necessary.

(2) Secondly, that under all cold regions temperatures, the system would require a warming procedure to ensure that internal brake system components are exhibiting the least air pressure loss (within system tolerances). Expect results if failure occurs.

The worst credible mishap associated with the unacceptable air pressure loss is the reduction of air pressure in the air brake subsystem during brake actuation (not complete loss of air pressure) in cold weather operations. Reference, Technical References Cold Region Service Bulletin 962-11, *TM 9-2320-311-10-1*, September 2004, Stryker Block Upgrade Configuration.

3-4. A PARTIAL LISTING OF TACOM-ISSUED MAMS 1ST QTR FY05

a. TACOM Control NO.MAM 05-001, Troop carrying capacity, All Vehicles Affected with Model Numbers; FMTVA0s:

Issue: Need to add as a reference *TB 9-639 (Passenger-Carrying Capacity Of Tactical And Administrative Vehicles Commonly Used To Transport Personnel)* to appendix A in *TM 9-2320-365-10*, *TM 9-2320-366-10*, *TM 9-2320-391-10*, and *TM 9-2320-392-10*. Add the following information to the Equipment Characteristics, Capabilities, and Features section in *TM 9-2320-365-10*, *TM 9-2320-366-10*, *TM 9-2320-391-10*, and *TM 9-2320-392-10*.

b. TACOM Control No. MAM-FY05-004, Re-chambered Cartridges Exhibiting Primer Indent for M16A2 Rifle, NSN 1005-01-128-9936, LIN R95035; M16A4 Rifle, NSN 1005-01-383-2872, LIN R97175; M4 Carbine, NSN 1005-01-231-0973, LIN R97234; and M4A1 Carbine, NSN 1005-01-382-0953, LIN C06935

Issue: Affected Weapons: All 5.56mm M16 Series Rifles and M4 Series Carbines. Reports from units deployed to Iraq indicate troops lock and load 5.56 mm cartridges in M16 rifles and M4 Carbines prior to operations. Upon completion of the operation, weapons are cleared and the loaded cartridge is ejected. The ejected cartridge is then reloaded back in to the magazine. Each time a cartridge is chambered in an M16 Series Rifle or M4 Series Carbine, a slight, but noticeable indentation is made on the primer. This is caused by contact of the free-floating firing pin against the cartridge primer as the bolt closes on a chambered round. This is normal operation of the weapon and does not result in any immediate degradation of the weapon and ammunition's performance. Repeated bolt closures on the same round could make the primer insensitive and potentially cause a misfire. A misfire is the failure of the cartridge to fire when the trigger is pulled. However, the rechambering of an indented round will NOT cause an accidental discharge. Testing was performed examining repeated chambering

of rounds on the M16 Series Rifle and M4 Series Carbine and tests resulted in no accidental discharges of the weapon. Although misfires can occur for numerous reasons including repeated chambering of the round, the likelihood of a misfire is remote and easily correctable by immediate action procedures.

c. TACOM Control No. MAM-05-006, M242 Automatic Gun, 1005-01-086-1400, and M242 Enhanced Automatic Gun, 1005-01-454-0396, G96797

Issue: Provide the proper Fault Isolation Procedure (FIP) for the M242 guns experiencing difficulty turning the safety handle from SAFE to FIRE. This will allow Unit maintainers to efficiently and effectively diagnose the source of the problem and replace only those components necessary. Inform fielded Units of unauthorized practice of welding the safety pawl, PN 12524384 and insure that users terminate this practice immediately. Maintainers must remove any altered safety pawls and troubleshoot their M242s in accordance with (IAW) the FIP below; installing only unaltered components as required, returning the weapon to fully functional status.

d. TACOM Control No. MAM-05-007, M134 7.62mm Machine Gun, 1005-00-903-0751.

Issue: Some firing pin spring retainer pins, item 15, figure 6, TM 9-1005-327-23&P, used in the M134 machine gun are defective. The flat machined into one side of the pin was out of tolerance. The flat was too shallow to positively seat the firing pin spring allowing the pin to drift out of the bolt body and jam the M134 machine gun. The firing pin spring retainer pins, PN 13001666, NSN 5315-01-493-4180, require inspection to assure serviceability.

e. TACOM Control No. MAM-05-008, M249 SAW, NSN 1005-01-127-7510, Gas Cylinder Assembly, NSN 1005-01-128-5492.

Issue: A quantity of 750 gas cylinder assemblies, NSN 1005-01-128-5492 were recently released for issue from New Cumberland Army Depot. The contractor reported to us that they are non-conforming for finish. These parts completed the phosphate process, but never received the final chrome finish on the inside bearing surface of the cylinder. Absence of the chrome plating on the interior surface of the cylinder will result in accelerated wear, galling and potential weapon slow down or stoppage. The contract number for identification of the parts, which are suspect, is DAAE20-03-C-0082. The date on the packaging will read M33-10/04. The part number is 9348345.

f. TACOM Control No. MAM-05-009, Repair of Improved Chemical Agent Monitor (ICAM), NSN: 6665-01-357-8502.

Issue: Many ICAMs that had been deployed to Southwest Asia (SWA) were found to have been shipped/stored in CONEX containers with prolonged high temperature exposure and no Preventive Maintenance Checks and Services (PMCS) performed. Two seals on the nozzle assembly have a tendency to release non-toxic gases under these conditions. During production, a process removes all surface impurities of the seal material. The long-term high temperature exposure causes some of the impurities at the core of the material to permeate to the surface and flow into the Drift Tube Module (DTM), adhering to the interior surfaces of the DTM and rendering it non-functional. The membrane can be affected by long-term high temperature storage. As a result, the material begins to cloud and loses its elasticity, which will affect the airflow of the system. Also, long-term high temp storage has caused complete permeation of the acetone source.

3-5. CONCLUSION

Safety Of Use Messages (SOUM), Ground Precautionary Messages (GPM), and Maintenance Advisory Messages (MAM) are issued on a regular basis and it is up to you, your unit, and your command to keep everyone informed. Check the web site (<https://aeps2.ria.army.mil/serviced.cfm>) often for the continued safety and protection of you and your fellow soldiers.

CHAPTER 4. ALASKA SHELTER FIELDING

4-1. INTRODUCTION

a. In December 2002, the Army Medical Department reviewed 4 tents to see which tent would best suit the Army medicine's needs. Army users evaluated four shelters: a modified TEMPER, the Alaska Shelters (which the Air Force uses for its medical shelter), BASE X (which the Marines use for a medical shelter) and GMA Cover Corp. Evaluators examined the different shelters engineering, ease of set up, and compatibility with the current DEPMEDS. After comparing the pros and cons of each shelter it was decided that the Alaska Shelter was the best shelter to be procured for the combat support hospitals.

b. The Alaska offers no substantial improvement when it comes to reducing shelter weight and packed size. The Alaska is quicker and straighter forward to set up. The Alaska shelter's domed; Quonset hut design also weathers elements better and provides greater working space inside the tent.



20' x 65' Alaska Shelter

4-2. TRAINING AND FIELDING PLAN

USAMMA will contact units and coordinate fielding and training of the Alaska shelters as funding and tents become available.

a. The initial fielding of the Alaska shelter will be to the three RTS-Medical sites and Camp Bullis. These four sites will be fielded enough of the Alaska shelters to facilitate training. New Equipment Training (NET) will be provided to these four sites at the time of fielding by the manufacturer.

b. Fielding of the Alaska shelter to active duty hospital units will start in late 2005. Alaska shelters will replace only the TEMPER in their 84 bed slice. CONUS units will receive training at the time of the fielding by the manufacturer. Training will be coordinated for OCONUS units when they are contacted about scheduling their fielding.

c. Reserve units will be fielded the Alaska shelter on an "as-needed" basis if the unit is deploying with their hospital. Reserve units will receive training and hands on experience during their annual training exercises at the RTS-Medical sites.

4-3. TYPES OF ALASKA SHELTERS

Current doctrine uses only 8-section TEMPER (20' x 64') and 2 section TEMPER (20' x 16') in the 84 bed slice of the combat support hospital. Because of the TEMPER's modular design units often use different configurations of TEMPER that differ from doctrine. The Alaska shelter is being fielded in two different sizes that meet the needs of current doctrine. The Alaska comes in two different sizes, a small (20'2" x 19.7') and a large (20'2" x 65'2"). Due to the design of the Alaska shelter it's not possible to configure different lengths as it is with TEMPER.

- a. Units will need to retain all electrical, lights, Bruce light straps, sub floors, and insulated floors from the TEMPER that is being replaced for use in the new Alaska shelter.
- b. Large Alaska shelter:
 - (1) Overall dimensions are 20'2" wide x 65'2" long.
 - (2) Has a door centered on each end wall canvas like the current TEMPER.
 - (3) There are 4 doors on each side of the tent. Doors are centered at 4', 28'9", 36'5", and 61'2".
 - (4) Vestibule adapters on both the end and side doors are 18" (NOTE: This differs from TEMPER where the sidewall adapters are 10")
- c. Small Alaska Shelter:
 - (1) Overall dimensions are 20'2" wide x 19'7" long.
 - (2) Has a door centered on each end wall canvas like the current TEMPER.
 - (3) Side door is located at 9'9"
 - (4) Vestibule adapters on both the end and side doors are 18" (NOTE: This differs from TEMPER where the sidewall adapters are 10")
- d. Both types of Alaska shelters are compatible with current DEPMEDS equipment to include vestibules and passageways.
- e. A new CP DEPMEDS liner has been designed that will work with both the Alaska shelter and TEMPER. All other CP DEPMEDS components are still compatible with the Alaska shelter.



20' x 65' Alaska Shelter

4-4. DISPOSITION OF REPLACED TEMPER

It is up to the unit to decide what to do with the TEMPER which is replaced by the Alaska shelters. The USAMMA will field the Alaska shelters but will not take back any TEMPER. Three possible options are:

- a. Swap out or retain the remaining TEMPER frames and canvas for replacement parts in the 164 bed slice.
- b. Laterally transfer the TEMPER parts to another unit that is in need of TEMPER canvas and frames.
- c. Local turn in of remaining TEMPER components to DRMO.

CHAPTER 5. FADING CSC DECALS

5-1. INTRODUCTION

All U.S. Army medical units that own and use MILVANs and expandable shelters in their operations must ensure that they meet the Convention for Safe Containers (CSC) requirements. Owing units must inspect and certify containers five (5) years from the date of manufacture, every thirty months thereafter, and when repaired after major damage. Certification involves a trained inspector verifying that a container meets all the CSC requirements and then applying a CSC decal (DD Form 2282) on to the container's data plate.

5-2. FADING DECALS

It has been documented that some batches of both 2006 (Yellow) and 2007 (Red/Pink) CSC decals have completely faded within a short time after application when exposed to sunlight and the elements. If an inspector has applied any CSC decals since mid 2004 it is highly recommended that they re-inspect the decals to look for evidence of fading.

5-3. SOLUTION

New 2006 & 2007 CSC decals have been printed that will resist fading and are available upon request. Containers that have previously been inspected must have a DA Form 2404 on file showing that the container passed inspection. A new CSC decal may be placed on the container with the expiration date marked for 30 months from the date of last inspection.

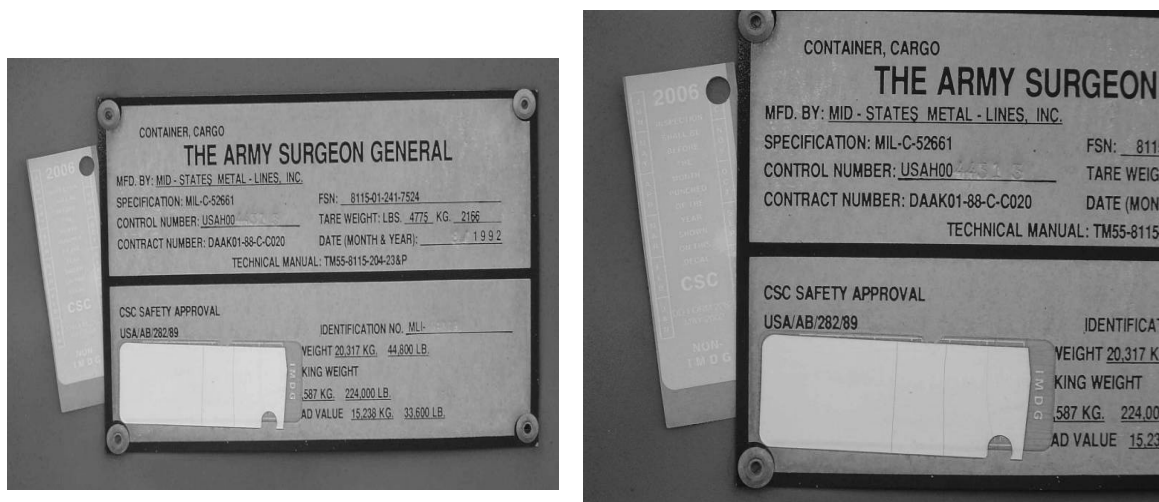


Figure 5-1. Faded 2006 CSC decal shown with new 2006 decal on side for reference

5-4. TRANSMITTAL REQUEST FOR REPLACEMENT (DD FORM 2282)

(EXAMPLE for Requesting Replacement DD Form 2282)

FAX TRANSMITTAL FORM

Date: (Current Date)

Total Number of Pages to Include Cover Sheet: 2

Classification: Unclassified

TO: Ms. Virginia Brown

PHONE: DSN 328-2435

ATTN: DD Forms 2282

FAX: DSN 328-3373

FROM:	(Requestor's Name) _____
LOCATION:	(Requestor's Location) _____
ATTN:	(Address) _____
PHONE:	(Requestor's commercial / DSN phone numbers) _____

Ms. Brown, I have completed the *AMMO-43 for Intermodal Dry Cargo Container / CSC Re-inspection Course* conducted by the U.S. Army Defense Ammunition Center and I am employed by the (Organization that employs the requester) located at (Location of the requester) and I would like to request replacement certification decals DD Form 2282.

Previously applied (2006/2007) certification decals have faded. I would appreciate your assistance in providing me with replacement (state the number and year of DD Form 2282 required). Thank you in advance for your assistance in this matter (Requestors Name and Title).

My Fed-Ex address is:

The Requestor's Address

ATTN:

DSN:

COMM:

CHAPTER 6. DOLLY SET (M1022A1) - CURRENT STATUS

6-1. INTRODUCTION

a. The M1022A1 dolly set is a Tank Automotive and Armaments Command (TACOM)-managed asset. TACOM is responsible for funding, fielding, training and sustaining the dolly set. TACOM is also responsible for resolving any major defects relating to warranty or faulty manufacturing.

b. The dolly set has had several mechanical problems since fielding. Problems include the hydraulic pump leaking, the cable assembly, and cracks to the frame structure. Cracks to the dolly set frame structure are the current and most significant cause of concern (Figure 6-1), and the reason for the high Non-Mission Capable (NMC) "dead-line" rate across the military. On 4 Feb 99, TACOM classified this deficiency as a Medium Category IIIC risk (minimal risk to humans).

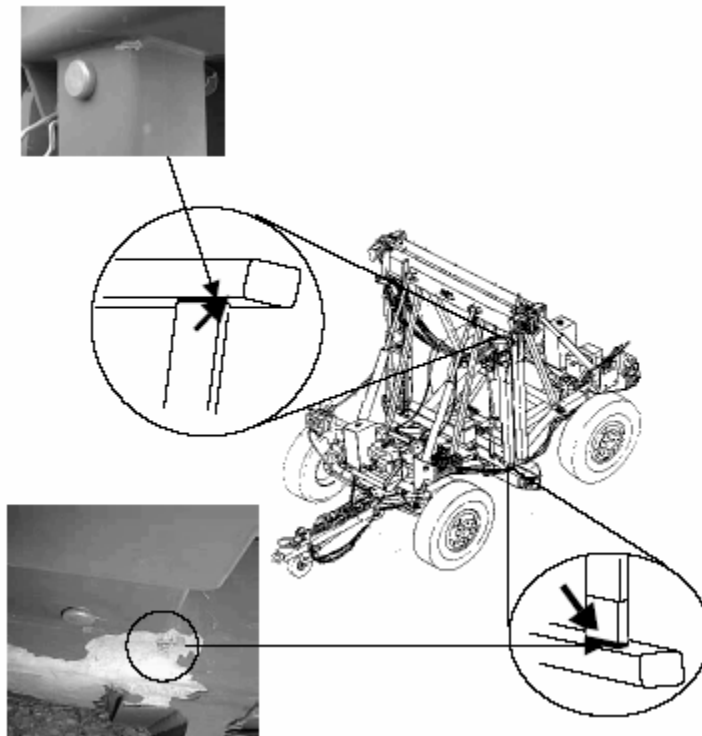


Figure 6-1. Illustration and location of cracks on the M1022 A-1 Dolly Set

6-2. UPDATED STATUS ON THE GPM, MWO, AND RETROFIT KITS

a. Many changes have occurred to the M1022A1 Dolly Set since the original fix. The present MWO is very labor intensive and requires application by a specialized contract team. Due to higher priority requirements, DA redirected funding to other efforts preventing the free issue to the entire M1022A1 fleet. Units that require the M1022A1 as mission essential have provided funds for MWO

application. To date TACOM has applied this Unit Funded MWO to 38 Dolly Sets including a few for the Space Command. However, TACOM is now in process of revising the MWO.

b. A contract has been awarded to develop this new MWO with validation and verification scheduled for mid-March 2005. It is estimated that MWO Kits will start to be issued to units mid-August 2005. These new kits will have all welded components applied during Kit production. The Kit can be easily installed at Unit (Field) level without specialty personnel. This new MWO Kit will be Trailer PM funded and free issued to the M1022A1 fleet.

c. POC DSN 786-5803 Trailer & Tactical Fleet Management Group, Light Utility Systems Team, Maintenance System Manager, CUCV/SUSV/Dolly Sets, AMSTA-LC-CHT, U.S. Army Tank-automotive and Armaments Command.

6-3. HISTORICAL ACCOUNT OF DOLLY SET GPM, MWO, AND RETROFIT KITS

a. TACOM has met several times with the manufacturer, Engineered Systems Company (ESCO), a Division of Datron Inc. On 14 Sep 99, a M1022A1 Dolly Set Program Review Meeting was held at ESCO with TACOM and Defense Contract Management Command (DCMC) participation.

b. TACOM agreed to do a statistical analysis on the data collected from the field on cracked welds to determine if there are any patterns associated with production dates, location, amount of usage, type of user, etc.

c. On 17 Feb 99 ESCO developed and demonstrated the installation of a bolt on reinforcement brackets to fix the defective materiel already delivered to the government. TACOM Ground Precautionary Message (GPM) TACOM-WRN control No. 99-01, M1022A1 Dolly Set NSN 2330-01-378-9997, LIN D34883, dated 25 March 1999. A Finite Element Analysis (FEA) of the brackets shows the brackets are not sufficient to resolve the crack issue.

d. A second meeting was held on 7 Oct 99 at TACOM with the vice president of ESCO, and engineers from both ESCO and the TACOM Research and Development Center (TARDEC). The information discovered during previous analysis proved to be insufficient, requiring an additional FEA to be conducted by TARDEC and ESCO engineers. This FEA continues to be conducted by the engineers from TARDEC and ESCO.

e. A scope of work for experimental measurement of operational parameters of the dolly set was performed at the Transportation Research Center at East Liberty, Ohio. This action was completed and subsequently in March 2000, a contract was awarded to Keweenaw Research Center (KRC), Houghton, MI, to evaluate the cause and develop a fix to the cracking problem. According to the TACOM Product Manager, on 05 Dec 00 KRC successfully demonstrated a fix for the frame weldment cracks that was accepted by TACOM Engineering, Logistic and Safety Offices. KRC provided a TACOM Drawing Package (TDP) and MWO instructions for installation. Independent government resources at Tobyhanna Army Depot are verifying the TDP and MWO Instructions. The effort is scheduled to complete in March 2002. TACOM plans to procure retrofit kits and apply them in the field soon after, depending on

funding availability and prioritization from DCSOPS. There is no projection when funding will be available to accomplish the retrofit project.

f. TACOM issued a new Ground Precautionary Message (GPM), TACOM Control No. GPM 03-014. The subject of this message rescinds the GPM, TACOM-WRN No. 99-01, DTG 251153Z MAR 99, and rescinds the LARSALL, which provided welding procedures for M1022A1 crack repairs.

g. The GPM 03-014 states that a reinforcement kit has been developed, successfully installed, and tested (see Modification Work Order, MWO 9-2330-390-35-1, dated 31 December 2002; Positioning Tube Reinforcement Kit, NSN 2510-01-497-9906, 19207, 57K4484, (\$3806.00)).

h. The MWO gives instructions to resolve the crack problems on the top and bottom beams of the front and rear structural frame. The MWO consists of a kit containing upper and lower vertical tubes, weld-on brackets for top and bottom beams and all necessary attaching hardware. The MWO requires the Dolly Set to be disassembled, and then the eight vertical steel tubes are cut from the upper and lower frames on both the front and rear Dollies. Eight new brackets are then welded in their place, and new vertical tubes are pinned to the brackets in place of the old tubes, thus eliminating a welded joint in this area. To provide lateral stability, new steel cables are also added between the upper beam and vertical tubes (Figure 6-2). Due to the complexity of welding and installation, a team contracted by TACOM/PM Trailers or a General Support (GS) Level Maintenance team approved and aided by TACOM/PM Trailers will complete the requirements of this MWO.

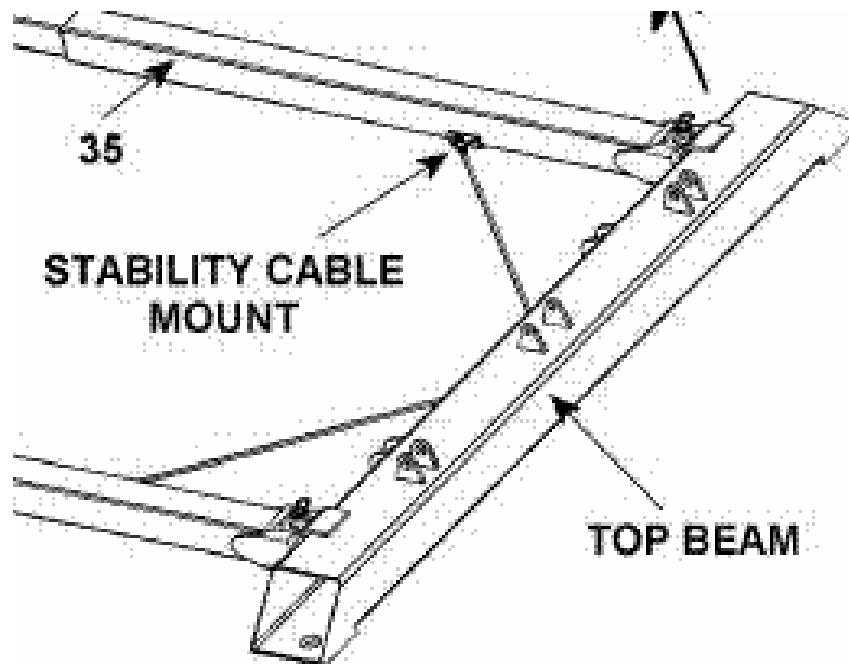


Figure 6-2. Steel cables added between the upper beam and vertical tubes

i. The requirement for this MWO is currently unfunded and will, in all likelihood, remain unfunded due to other higher priority requirements. The kits are \$3806.00 per set, plus installation. If the individual unit cannot fund this MWO, the

Dolly Set can be considered not repairable and the Maintenance Expenditure Limit (MEL) can be waived for turn-in. Disposition instructions are to turn in Dolly Sets "**as is**" complete to DRMS. The M1022A1's DEMIL Code "A" is being changed to DEMIL Code "F".

j. Questions regarding disposition can be addressed by contacting TACOM, DSN 786-5803 or Commercial 586-574-5803. Currently there are no plans to buy new and/or replacement Dolly Sets.

6-4. RECOMMENDATION

a. Do not turn in your M1022A1 Dolly Set NSN 2330-01-378-9997, LIN D34883, or M1022 Dolly Set NSN 2330-01-167-7262, LIN D34883, retain them. A RESET/RECAP program will start as soon as TACOM PM Trailer has the new MWO kits available.

b. POC DSN is 786-5803 Trailer & Tactical Fleet Management Group, Light Utility Systems Team, Maintenance System Manager, CUCV/SUSV/Dolly Sets, AMSTA-LC-CHT, U.S. Army Tank-automotive and Armaments Command.

CHAPTER 7. CECOM GENERATOR RESET PROGRAM

7-1. INTRODUCTION

The U.S. Army Communications and Electronics Command (CECOM) has a program in place to bring all generators deployed during Operation Iraqi Freedom (OIF) / Operation Enduring Freedom (OEF) up to a completely serviceable condition. Returning units will be contacted through Army G4 channels about getting their generators into the program. At the time of this printing the 100 kW generators are not on the reset list but are expected to be added.



Figure 7-1. 100 kW Generator



Figure 7-2. 10 kW Generator

7-2. MESSAGE ABOUT POWER GENERATION RESET PROGRAM

Information about this program went out to All Army Activities (ALARACT) via DMS and AUTODIN at the end of January 2005. The original message is reprinted as shown below:

SUBJECT: COMMUNICATIONS ELECTRONICS LIFE CYCLE MANAGEMENT CENTER (CE-LCMC) IMPLEMENTATION OF THE ARMY MATERIAL COMMAND (AMC) POWER GENERATION RESET PROGRAM

1. AS AMC'S EXECUTIVE AGENT, THE CE-LCMC WILL EXECUTE AN ARMY-WIDE PROGRAM TO RESET GENERATORS RETURNING FROM OPERATION IRAQI FREEDOM (OIF)-2/OPERATION ENDURING FREEDOM (OEF)-5 TO A COMPLETELY SERVICEABLE CONDITION WITH MEASURABLE (EXPECTED) LIFE.

2. THE RESET EFFORT WILL BE ACCOMPLISHED VIA A SPECIAL TEST, INSPECTION AND REPAIR (STIR) PROGRAM UTILIZING PROCEDURES PRESCRIBED IN EXISTING TECHNICAL MANUALS, COUPLED WITH ADDITIONAL SPECIAL MEASURES NEEDED TO COUNTER THE EFFECTS OF THE SEVERE ENVIRONMENTAL EXPOSURE, LIMITED PREVENTATIVE MAINTENANCE CHECKS AND SERVICES, AND HIGH OPERATING TEMPOS EXPERIENCED IN

SOUTHWEST ASIA. THESE MEASURES INCLUDE BUT ARE NOT LIMITED TO DEEP CLEANING, MANDATORY REPLACEMENT OF HIGH WEAR COMPONENTS, SPECIAL INSPECTIONS, FUEL TANK DRAINAGE AND CLEANING, ETC.

3. FOR MOST UNITS, THE RESET PROGRAM WILL BE IMPLEMENTED VIA A COMBINATION OF TWO MAINTENANCE TIERS: TIER 1, WHICH WILL COVER LESS COMPLEX TASKS AND BE PERFORMED ON-SITE, AND TIER 2, WHICH WILL ENTAIL MORE EXTENSIVE TASKS AND BE PERFORMED AT AN INDUSTRIAL FACILITY. THE APPROACH AND MIX WILL BE BASED ON THE RESULTS OF A TEST AND INSPECTION OF EACH GENERATOR AS WELL AS AN EVALUATION OF ON-SITE CAPABILITIES AND CAPACITY.

4. THE CE-LCMC GENERATOR RESET TEAM WILL BE CONTACTING RETURNING OIF-2/OEF-5 UNITS THROUGH G4 CHANNELS TO FORMULATE DETAILED PLANS FOR EACH REDEPLOYING UNIT.

5. POC PHONE IS DSN 992-1313

6. ONE VISION ONE MISSION - THE WARFIGHTER SIGNED MICHAEL R. MAZZUCCHI, MAJOR GENERAL, USA, COMMANDING AND PEO

7. EXPIRATION DATE CANNOT BE DETERMINED.

CHAPTER 8. POWER GENERATION INFORMATION

8-1. INTRODUCTION

a. Power generation is one of the most dangerous areas of operation in the hospital set up. It has the potential to cause death, or serious injury to personnel or damage equipment. Most people take power generation for granted, plug it in, and turn it on, everything works fine. This is true in most instances, but when power is lost everyone knows and the problem must be rectified quickly. This section will cover three areas of misconception:

- Hot Refueling,
- Grounding: generator to trailer, trailer to ground, and
- Radiator problems (over heating), cooling systems.

8-2. HOT REFUELING

Original guidance on hot refueling was that it's discouraged under any circumstances. Mission analysis of the Combat Support Hospital (CSH) showed that at times, it was necessary to be able to hot refuel generators. On October 28, 1998 the US Army Communications-Electronics Command (CECOM) issued guidance for the CSH to allow for hot refueling, if the mission required it. This does not, under any circumstances, relieve the operator of Preventive Maintenance Checks and Services (PMCS) requirements IAW the TM. The following is the current guidance on hot refueling:

a. Many MIL-STD Generators and Tactical Quiet Generators (TQG) can be safely refueled while the generator is in operation. There is even less risk if the generator is shut down prior to refueling. Hot refueling was originally discouraged for safety reasons and because during hot refueling PMCS procedures were often overlooked and lead to premature generator set failure.

b. The desired generator set refueling procedures are as written in the applicable generator TM. These procedures normally require the generator to be shut down and cooled, refueled carefully, and spills cleaned up.

c. There are field scenarios with operational and logistical considerations in which the desired refueling procedures do not make common sense and should be modified. These scenarios include:

(1) Operations where the load can be shut off for a few minutes, but not long enough for the generator to cool. In this situation, shut off the load and the generator, carefully refuel the generator, and clean the spill, restart the generator, and connect the load.

(2) Operations where shutting off the load and generator would put an undue burden on the field unit or impact mission accomplishment. In this situation, refuel the generator while running, taking care not to spill fuel, and clean up spilled fuel immediately.

(3) If a continuous power supply is required for mission accomplishment to such an extent that prohibits PMCS, take two generator sets or a power plant and parallel the sets.

d. Whenever hot refueling can be avoided, the desired refueling procedures stated in paragraph b., above, shall be followed.

e. Whether the generator is refueled while shut-off or running, PMCS shall not be neglected. Failure to perform PMCS because the generator was never shut off could lead to catastrophic generator failure and adversely impact mission accomplishment.

8-3. GENERATOR GROUNDING PROCEDURES

a. Stray electric current within a Generator set or the power distribution system can injure or kill the operator and damage equipment. As a safety precaution power generation equipment must be grounded (Figure 8-1). Do not operate the generator set until the ground terminal stud is connected to a suitable ground. Electrical faults in the generator set, load lines, or load equipment can cause injury or electrocution from contact with an ungrounded system.

b. There are a number of PU495B/G 100kW generator sets (NSN 6115-01-134-0165) that do not have the generator properly grounded to the trailer (Figure 8-2). There is a misconception that since the generator is bolted to the trailer, it is properly grounded. This is not always true, some of these generators have been mounted to the trailer for over 15 years, bolts come loose and rust builds up between the trailer and the generator skids. A ground strap must go from the back side of the generator ground stud to the back side of the trailer ground stud, (Figure 8-3). *TM 9-6115-646-14&P* shows the grounding strap under Direct Support and General Support Maintenance instructions, *Section III Generator Set Subsection 5-5 Generator set Replacement* (Figure 8-3). The grounding strap can be installed without removing the generator from the trailer.

(1) You will need to remove the small filler panel next to the tool box; this allows access to the back side of the ground stud.

(2) Install the ground strap (Figure 8-4 item 1) to the ground stud back using the bolt holding the stud on.

(3) Run the strap between the filler panel and generator frame, using the trailer ground stud bolt (see Figure 8-3, Item 2) attach to the back of the trailer (see Figure 8-3, Item 4) ground stud (see Figure 8-3 item 3).

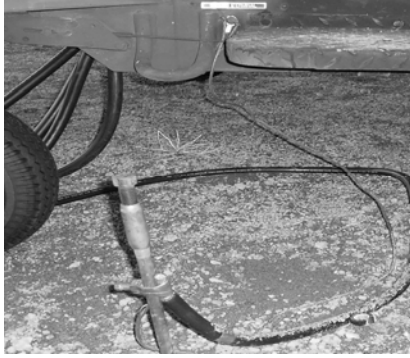


Figure 8-1. Correct Grounding



Figure 8-2. Generator improperly grounded

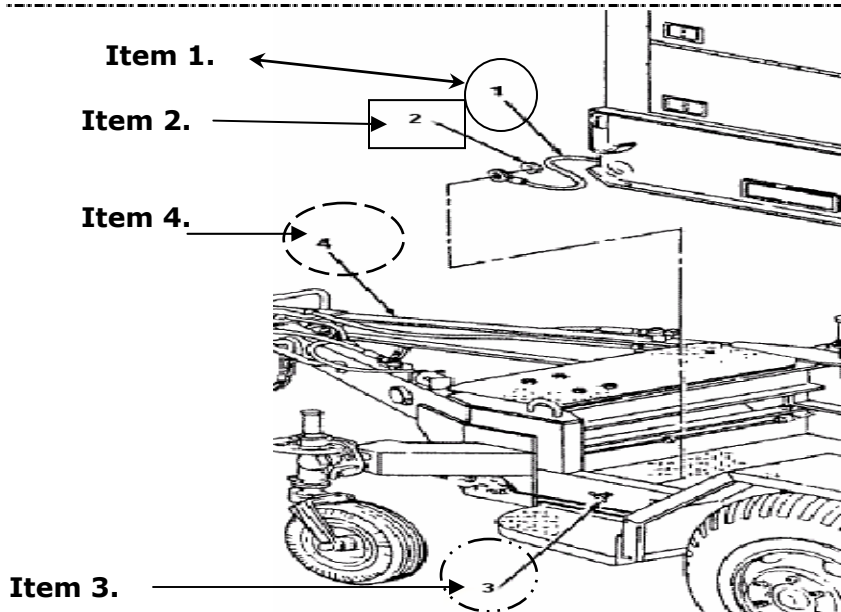


Figure 8-3. Installing Generator-to-Trailer Ground

8-4. THREE METHODS FOR GROUNDING

Grounding systems are only as good as the soil they are in. The soil type, moisture content, and soil temperature affect the efficiency of the grounding system. The best type of soil is fine soil granules with high moisture content, like clay. The worst is gravel, sand, and stone. If the soil is dry, you will have to use a salt-water mixture to improve the soil conductivity. The mixture (one pound salt for each gallon of water) will need to be added daily in very dry areas.

a. Grounding Rod Set (NSN 5975-00-878-3791) (Figure 8-4), three solid metal rods with a minimum diameter of 5/8 inch. Once connected, they will be driven to a depth of 8 feet leaving 1 foot exposed (Figure 8-5). Eight feet will normally reach the water table, if not you might have to use 3 rods driven in a triangular pattern. If you still do not get a good ground you will have to use more rods, if so place them in a star pattern, or straight line. When using multiple rods always connect all the rods together with the final rod being connected to the equipment to be grounded. Using a slide hammer (NSN 5120-01-013-1676) is the safest way to drive ground rod sets.

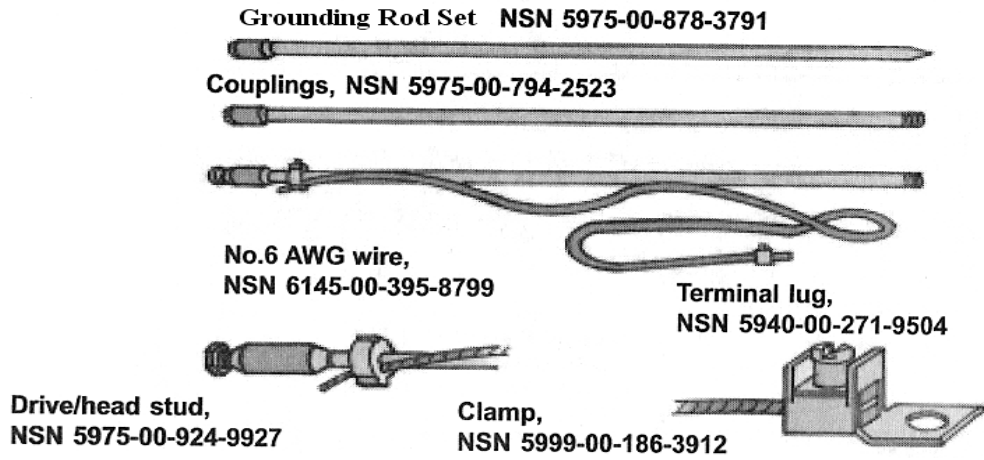


Figure 8-4. Ground Rod Set & Parts with NSN

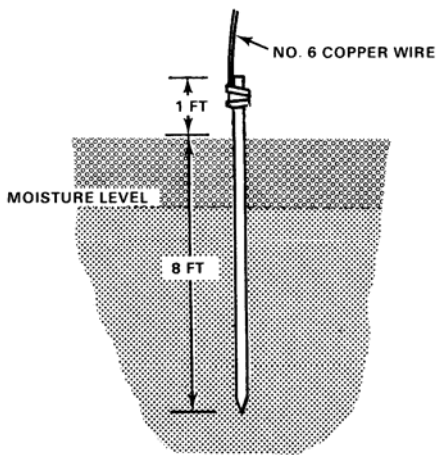


Figure 8-5. Typical Ground Rod

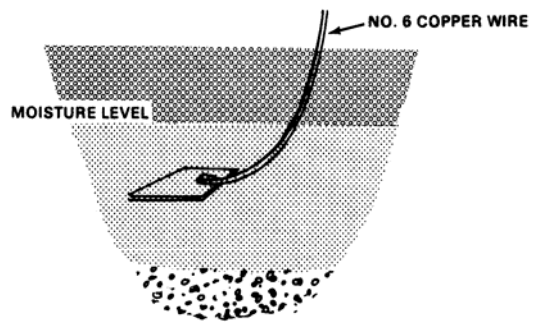


Figure 8-6. Typical Ground Plate

b. Grounding Plate (Figure 8-6) a clean bare metal plate at least ¼ inch thick with at least 3 square feet of surface contact with the ground, the larger the better for lower resistance. Grounding plates must be buried below the moisture level; the top of the plate should be about five (5) feet below the surface. It is easier to bury the plate vertically and still ensure good soil contact on both sides of the plate.

c. Grounding Pipes (Figure 8-7), use a clean, metallic pipe of 3/4 inch, eight feet in length, made of iron or steel. Must be galvanized or coated for corrosion protection. An alternate method for the grounding pipe is to bury it in a horizontal trench that is at least 2½ feet deep. The pipe must be placed below the moisture level.

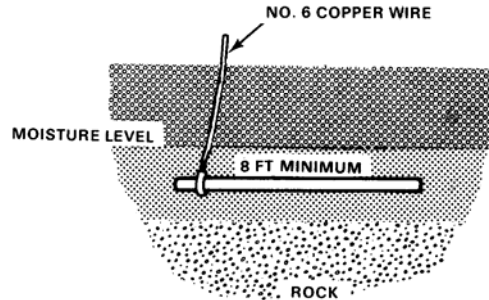


Figure 8-7. Grounding Pipe

8-5. GENERATOR OVERHEATING ISSUES

a. The United States Army Medical Materiel Agency (USAMMA) completed an investigation into the overheating problems of the DEPMEDS 100kW Generators issued to the DEPMEDS hospitals assigned to the Southwest Asia region. Two (2) generators had cooling system drained; the coolant sample was provided to Cashman equipment a Caterpillar Certified Full service Laboratory in Reno, NV, for fluid analysis and testing.

b. The report came back with the following: Glycol concentration is too strong, (target 50% - tested 74%) this interferes with heat transfer and may cause additive dropout. Inhibitor level is too low to provide corrosion/erosion protection (target 2000 - tested 115). An excessive amount of fine sand and scale were also detected in the coolant.

c. Once the systems were drained, the radiators were separated from the generators and the automatic shutter modulated control assembly (Figure 8-8) was removed from bottom of the radiator (Figure 8-9), then the radiator tops and bottoms were then removed.



Figure 8-8. Sludge on shutter control

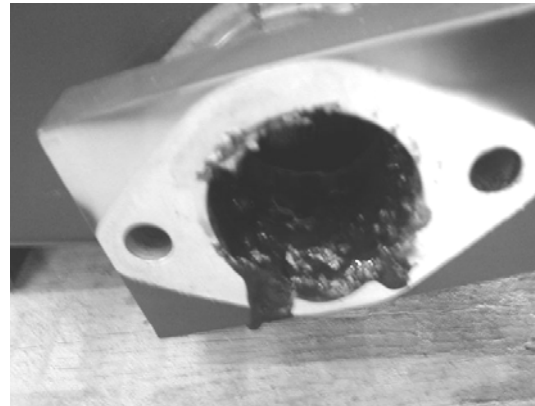


Figure 8-9. Sludge in drain assembly

d. The completed inspection revealed that both radiators were clogged 70% to 80% (Figures 8-10 & 8-11). The conclusion, neither of these two radiators would operate as designed, (keeping the engine at the proper temperature), in any climate.



Figure 8-10. Radiator

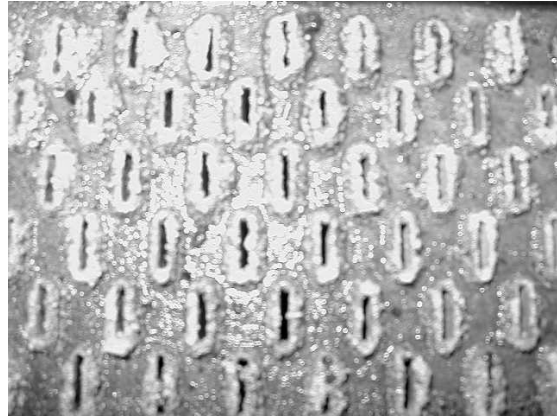


Figure 8-11. Inside Radiator

e. It is extremely important that unit personnel from end user to direct support maintenance keep a closer eye on the power generation and vehicle cooling systems.

1. The Operator and Organizational Maintenance Manual (TM 5-6115-600-12) references Table 3-2., Operator PMCS, item 4 & 17: Check for hoses and hose clamp for security and required coolant level; add as required (refer to paragraph 3-14 a & b).

a. Paragraph 3-14 Cooling System, General.

Check all hoses for cracks, cuts, signs of deterioration, and bulges (indicating the possibility of future rupture). Check all clamps for tightness and signs of corrosion. Inspect fan guard for loose sections and for overall secure ness. Check

Figure 8-12. Fan Belt Adjustment

DIMENSION A	
NEW BELTS	USED BELTS
1/2 TO 3/4 IN. (12.7 TO 19.1 MM)	7/8 IN. (22.2 MM)

***USED BELTS - OPERATED MORE THAN 30 MINUTES AT RATED SPEED**

radiator fan belt for proper tension as follows: apply approximately 25 pounds of force perpendicular to the alternator pulley, midway between the driver and driven pulley; belt deflection should be between 9/16 inch and 13/16 inch (Figure 8-12).

b. Radiator Coolant (Checks and Services):

(1) Check that the level of coolant is within 2 inches of the top of radiator

(2) Using an antifreeze solution tester, (NSN 6630-00-105-1418), check that antifreeze content is sufficient for the existing ambient temperature (refer TM to table 3-1). Add antifreeze as required.

(3) Fasten tag near radiator cap indicating type of coolant and level of protection.

2. *TM 5-6115-600-12*, Table 4-2, Organization PMCS:

a. **Item 5.** Radiator Shutter, Open shutter manually to make sure it operates freely. Clean vane bushing with compressed air.

b. **Item 12.** Radiator. Check for leaks and signs of corrosion. Check coolant level (see paragraph listed above)

c. **Item 25.** Radiator Shutter, Check for proper operation. Shutter should open and close automatically to maintain normal engine operation temperature (see *TM* paragraph 4-100, shown below in item (1), describing further instructions for the shutter assembly).

(1) Inspect. Inspect radiator shutter assembly (see Figure 8-13) for damaged or defective parts, cracking, peeling paint, rust, or scale. Inspect shutter vanes (see *TM* Figure 4-51) for evidence of binding, loose mounting, and damaged or defective bearings.

(2) Test

(a) While engine is cold, test shutter vane position by trying to insert card stock or match book cover between the vanes. If shutter is properly adjusted, card stock or match book cover will not fit between vanes. If match book cover can be inserted between vanes, the shutter must be adjusted.

(b) Test manual operation of shutter by operating the hand lever.

(c) Test operation of shutter assembly under power as follows:

(1) Start and operate engine until normal operating temperature (approximately 180°F) is reached.

(2) Restrict cooling air flow by partially closing air intake doors. Vary restriction and observe shutter. Shutter vanes should open and close to maintain engine at normal operating temperature. Shutter vanes full open position is approximately 70 (degrees) from vertical. Maximum cooling air flow attained between 60 and 70 (degrees).

(3) Remove restriction from air intake. Operate engine for five (5) minutes or until engine coolant temperature returns to normal operating range (approximately 185°F).

d. **Item 36.** Cooling System. Pressure test radiator cap and engine cooling system (see *TM* paragraph 4-99); normal pressure test is 4 to 7 PSI.

e. **Item 41.** Alternator and Fan Belts. Check fan belts for proper adjustment and general condition (see *TM* paragraph 3-9c see Figure 8-12).

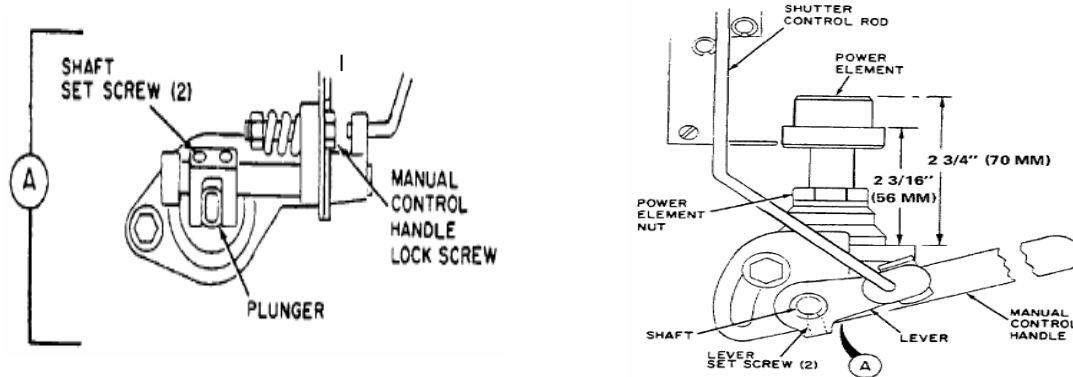


Figure 8-13. Shutter Control

8-6. RADIATOR ANTIFREEZE SOLUTIONS AND CLEANING COMPOUNDS

a. During scheduled maintenance services, or during climatic change service, test and inspect the cooling system.

1. Keep antifreeze (MIL-A-46153) in engine cooling systems for as long as the coolant meets the freeze point requirement, -50 degrees F (60% - 40% antifreeze and water mixture). Use an antifreeze solution tester, (NSN 6630-00-105-1418). Do not use commercial antifreeze in Army vehicles.

2. Test MIL-A-46153 antifreeze for reserve alkalinity (corrosion protection) and protection level using the test kit, (NSN 6630-01-011-5039). Do not test commercial brands of antifreeze and arctic-type antifreeze; change that type of antifreeze annually or sooner if it is contaminated.

3. Inspect for coolant cleanliness by withdrawing a small amount of coolant into a clean container. Look for excessive rust, foreign particles, and/or sediment.

b. Drain, clean, and flush any cooling system that is contaminated, despite coolant installation date. Detailed instructions for draining, cleaning, and flushing cooling systems are given in *TM 750-254* (Cooling Systems: Tactical Vehicles).

1. Flushing is forcing water by air pressure (no more than 5 psi) through water passages of the radiator core and/or engine block. The same equipment is used for all methods of flushing you will use a Flushing Gun (NSN 4910-00-449-6790). The gun uses both water pressure and air pressure to remove the old antifreeze from the cooling system. The intermittent application of air pressure causes turbulence in the water which aids the flushing action. Flushing may be accomplished by the following ways.

- (a) Direct flushing. Direct flushing is forcing water through the radiator core from top to bottom, as it flows in normal service. Continue flushing with constant water flow and short blasts of air until water runs clear.

- (b) Back flushing. Back flushing forces water through the radiator core from bottom to top. Back-flushing is recommended periodically and in particular

when anti-freeze solution is changed. Continue flushing with constant water flow and short blasts of air until water runs clear.

c. To determine how badly a radiator is clogged without removing it from the motor vehicle, test it with a flow tester (NSN 4910-00-075-2395). A flow tester indicates the exact amount of gallons of water per minute that will flow by gravity through the radiator. Checking this reading against the flow rate of a new radiator will indicate the extent of clogging. Once you have determined it is clogged you will need to clean it.

1. To clean a clogged system you will need an Engine Cooling Systems Cleaning Compound. There was a kit (MIL-C-10597), but this was canceled in 2003 with Technical Advisory Message (TAM) #105, Use of Alternative Cleaning Compound for Military Vehicles, Cooling System. MIL-C-10597 Engine Cooling System Cleaning Compound has been cancelled because of its toxicity to humans. Fleet Guard's "Restore" and "Restore Plus" can be used as an alternative for cleaning military vehicle cooling systems. A Tank-Automotive Research, Development and Engineering Center (TARDEC) study, conducted by Southwest Research Institute, found that the commercially available cleaning products, "Restore" and "Restore Plus" are equivalent to MIL-C-10597 cleaner and less hazardous to maintenance personnel.

2. The following national stock numbers are provided for the accepted commercial cleaning compounds identified above (Table 8-1).

PRODUCT NAME	PART NUMBER	CONTAINER SIZE	NATIONAL STOCK NO.
Restore	CC2610	1 Gallon	6850-01-506-1738
Restore	CC2611	5 Gallon	6850-01-506-1739
Restore	CC2612	55 Gallon	6850-01-506-1740
Restore Plus	CC2638	1 Gallon	6850-01-506-1744
Restore Plus	CC2637	55 Gallon	6850-01-506-1742

3. Restore is an alkaline-based cleaner effective for cleaning silicate gel, oil contamination and solder bloom. It is not an effective treatment for heavy rust and scale deposit. Restore Plus is an acid-based cleaner and is effective in removing scale, oil, and fuel fouling. It does not remove silicate residue/buildup. Both of these products must be used to remove all corrosion, scale, and deposits clogging the radiator. Use each cleaner separately and do not mix. When using Restore and Restore Plus follow the manufacturer's instructions found on the label and the instruction papers provided by Fleet Guard.

4. Do not use any of the cleaning compounds as a routine maintenance procedure. Use the compound only when necessary to clean heavily rusted or partially clogged cooling systems.

d. The following list shows commonly used equipment in keeping your generator/vehicle cooling system maintained (Table 8-2).

TABLE 8-2. COMMONLY USED COOLING SYSTEM ITEMS			
Nomenclature	NSN	QTY	Reference
Antifreeze, Ethylene Glycol, Inhibited, Heavy Duty, Single Package	6850-00-181-7929	1 Gal.	MIL-A-46153
	6850-00-181-7933	5 Gal	
	6850-00-181-7940	55 Gal. dr.	
Antifreeze, Arctic-type	6850-00-174-1806	55 Gal. dr.	MIL-A-11755
Antifreeze, Extender Additive	6850-01-160-3868	Quart	MIL-A-53009
Cleaning Compound w/ Conditioner for Engine Cooling System	See notes above		
Tester, Antifreeze/Battery	6630-00-105-1418	Each	
Test Kit, Reserve Alkalinity	6630-01-011-5039	Kit	
Stand, Radiator Test & Repair	4910-00-075-2395	Each	
Gun, Flushing Radiator	4910-00-449-6790	Each	

8-7. RECOMMENDATION

a. To keep generator and vehicles running you must maintain their cooling systems. This is done by using proper PMCS, at the correct intervals, following the latest TMs, TBs and safety messages that have been published.

b. To keep it safe, keep it grounded.

c. Some additional manuals that are good to keep around in addition to your specific equipment manuals are:

1. *TM 750-254*, Cooling Systems: Tactical Vehicles
2. *TB 750-651*, Use of Antifreeze Solutions, Antifreeze Extender, Cleaning Compound
3. *TC 11-6*, Grounding Techniques
4. *FM 5-424*, Theater of Operations Electrical Systems
5. *TB 43-0239*, Maintenance in the Desert

CHAPTER 9. PRODUCT QUALITY DEFICIENCY REPORT

9-1. INTRODUCTION

The Product Quality Deficiency Report (PQDR) is used to submit problems found with equipment. By submitting a PQDR deficiencies can be tracked and widespread problems can be identified and resolved. In order to initiate warranty claims or receive credit for defective products received a PQDR must be submitted.

9-2. SF 380 (REPORTING & PROCESSING MEDICAL MATERIEL COMPLAINTS/QUALITY IMPROVEMENT REPORT)

Standard Form 380 has been the method for submitting deficiency reports through the DOD supply chain. The SF 380 can also be submitted electronically simplifying the process.

a. The United States Army Medical Materiel Agency (USAMMA) homepage has a link and instruction for submitting an electronic SF 380 pertaining to medical materiel.

- (1) Go to <http://www.usamma.army.mil>
- (2) On the left hand side of the homepage is the link "DOD SF-380"

b. Once you have accessed this webpage you will see complete instructions and an additional link for submitting an electronic SF 380 for medical materiel.

9-4. NON-MEDICAL EQUIPMENT

a. Product Quality Deficiency Reports on non-medical equipment can be submitted through the U.S. Army Materiel Command (AMC) electronic support website.

- (1) Access the site at <https://aeps.ria.army.mil/>
- (2) "Accept" the notice on the homepage.
- (3) Select "Submit Quality Deficiency Reports"

b. Once you have accessed the AMC electronic quality deficiency report there are instructions on how to fill out the electronic QDR.

9-5. EXAMPLE

a. Using the electronic method of submitting quality deficiency reports ensures the correct agencies are notified of problems with their products and speeds up the process of replacing or crediting the end user for defective materiel received.

b. It has been noted that the TEMPER intermediate liner [Tent Liner, Intermediate Section, Temperate (NSN 8340-01-392-0924)] has problems with the black plastic straps being defective when removed from the box and during initial use. Several units have complained about this problem to the USAMMA. When the Defense Supply Center Philadelphia (DSCP) was contacted they were unaware of the defective strap problems. It seemed that very few QDRs had been received, and

there didn't appear to be an existing problem. DSCP stated that they were lead to believe this was an isolated incident. If units had submitted a QDR they would have received replacements or credit for the defective liners. DSCP would also be able to collect the data needed to show if the manufacturing process needed to be addressed or not.



Figure 9-1. Nomenclature Tag on Liner

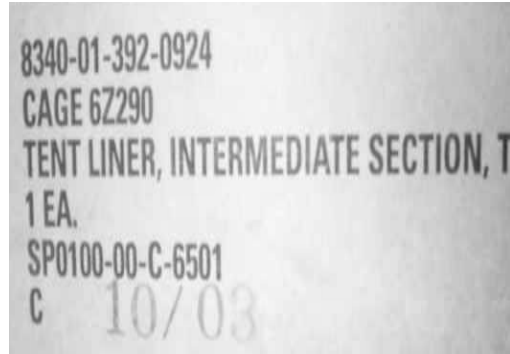


Figure 9-2. Nomenclature on Packaging



Figure 9-3. Broken Straps Out of Box



Figure 9-4. Broken Strap After First Use

c. To submit an electronic QDR on the TEMPER liners:

(1) Since the liner is a non-medical item, access the AMC electronic support site as described in paragraph 9-4, this chapter of the Supply Bulletin.

(2) Category codes are:

(a) Type I – Materiel or equipment which has been determined by use or tests to be harmful or defective to the extent that its use has or may cause death, injury, or illness.

(b) Type II – Materiel or equipment which is suspected of being harmful, defective, deteriorated, or otherwise unsuitable for use.

(3) Fill out all contact information.

(4) Contract Information – It is important to fill out all information on how the item was ordered and received.

(5) Manufacturer information can be found on the nomenclature tag (Figure 9-1) or by looking up the cage code on FED LOG (Figure 9-2).

d. After submitting an electronic QDR you should receive an automated response by email and be contacted about the QDR submitted within 7 days.

**CHAPTER 10. DEFENSE AUTOMATED VISUAL INFORMATION SYSTEM/
DEFENSE INSTRUCTIONAL TECHNOLOGY INFORMATION SYSTEM
(DAVIS/DITIS)**

10-1. INTRODUCTION

a. The Defense Automated Visual Information System/Defense Instructional Technology Information System (DAVIS/DITIS) site contains the searchable listings and descriptions for thousands of audiovisual (AV) productions and interactive multimedia instruction (IMI) products used by the Department of Defense (DoD).

b. AV productions and IMI products include videotapes, films and multimedia programs used to support operational, training, and internal information missions. You can search the DAVIS/DITIS by entering the word or words that describe the subject you are interested in. If you type in Sexual Harassment the returned results are 15 audiovisual productions and 7 interactive multimedia instructional products. You can reach Defense Visual Information (DVI) at their web site by visiting <http://dodimagery.afis.osd.mil/>, once there go to Central DoD Production Databases @ [DAVIS/DITIS](http://dodimagery.afis.osd.mil/). You can go straight to DAVIS/DITIS by going to the web at <http://afishp6.afis.osd.mil/dodimagery/davis/>

10-2. A LISTING OF DEPMEDS VIDEO AVAILABLE

a. 709583 - *DEPMEDS Water Distribution and Wastewater Collection Series*. Wherever the conflict, Deployable Medical Systems (DEPMEDS) will be there to provide the best possible combat medical care. Essential to the practical operation of the DEPMEDS installation are the water distribution and wastewater collection systems. This program demonstrates the performance of installation and operation of the water distribution and wastewater collection systems. The video discusses operator performance of Preventive Maintenance Checks and Services (PMCS) of hoses, pumps and water storage facilities.

b. 707934 - *DEPMEDS--UTILITIES—POWER*. This program reviews basic information about the electrical power generation and distribution systems that are critical components for the operations of the Deployable Medical Systems (DEPMEDS). Demonstrates installation and operating procedures for generator, power distribution panel, electrical feeder system, electrical distribution panel, electrical utility assembly, heater, air conditioner/heater, and associated components. Warnings, safety hazards and Preventive Maintenance Checks and Services (PMCS) are stressed.

c. 709908 - *DEPMEDS - MODULE PACKING FOR MOVEMENT*. This program provides proper procedures for packing, tie-down, blocking and bracing medical and non-medical components into ISO shelters and MILVANS. This video stresses the importance of reviewing standard operating procedures.

d. 707920 - *DEPMEDS - TENT EXTENDABLE MODULAR PERSONNEL (TEMPER)*. Tent Extendable Modular Personnel (TEMPER) is a component of the Deployable Medical Systems (DEPMEDS), a highly flexible and mobile medical treatment facility for soldiers in the field. This program identifies the components of the TEMPER, step-by-step operating procedures, assembling the TEMPER and

installing accessories. Also procedures for assembling and attaching the vestibule, disassembling and repacking the TEMPER, Preventive Maintenance Checks and Services (PMCS), and warnings and precautions associated with the temper are reviewed.

e. 707919 - *DEPMEDS M1022 DOLLY SET*. The Deployable Medical System (DEPMEDS) M1022 Dolly Set Lift Transportable Shelter is used for ground movement of hospital components. This program describes the components of the Dolly set, and demonstrates operating procedures pertinent to DEPMEDS. Video includes lowering and separating the Dolly set, attaching it to the shelter and raising it, connecting and disconnecting Dolly and prime mover, lowering Dolly and shelter, removing and reconnecting and raising the Dolly. Also stresses Preventive Maintenance Checks and Services (PMCS) warning and safety factors. The objective of DEPMEDS is to provide field medical care tailored to meet the demands of the battlefield.

f. 711227 & 711228 - *M1022A1 DOLLY SET TRAINING, PART 1 & 2* M1022A1 Dolly set coupling to an ISO shelter and it's transportability.

g. 707933 - *DEPMEDS SHELTER TACTICAL EXPANDABLE ISO*. THE Deployable Medical Systems (DEPMEDS) Shelter Tactical Expandable or ISO is a pre-sized transportable structure designed to provide a live-in or work-in capability. This program identifies the components and their proper use. Video explains step-by-step procedures for expanding the shelter, installing accessories, assembling and attaching the passageway and closing the shelter to return it to a transportable or storage configuration. Preventive Maintenance Checks and Services (PMCS) and safety factors associated with the shelter are illustrated.

h. 806565 - *DEPLOYABLE MEDICAL SYSTEMS (DEPMEDS) - SUPPORT TRAINING*. This group of thirteen CD-ROMs introduces the DEPMEDS concept of support functions such as water distribution, utilities, and the shelter and expandable ISO unit in addition to weapons safety and handling.

i. 806564 - *DEPLOYABLE MEDICAL SYSTEMS (DEPMEDS) - OPERATIONS*. Consisting of 16 CD-ROMs, depicts eleven functional areas within the DEPMEDS through the technology of a virtual walk. The virtual walk allows examination of the interior configuration of a functional area such as the operating room. Equipment relevant to the operation of this functional area can be selected along with the maintenance and operating manuals that provide guidance for adequate equipment performance.

10-3. A SMALL LISTING OF MEDICAL VIDEOS AVAILABLE

a. 707922 - *EXPERT FIELD MEDICAL BADGE*. This program provides army medical department personnel, who are eligible for the Expert Field Medical Badge (EFMB), with the approved specific requirements to take the EFMB test. Video points out how to compete successfully by performing in a combat environment. Test includes: general soldiers skills, Emergency Medical Treatment (EMT), map reading, evacuation, field hygiene and sanitation, Nuclear, Biological, and Chemical (NBC) warfare and physical fitness.

b. 708632 - *INTRODUCTION TO THE COMBAT LIFESAVER PROGRAM*. Program explains that a Combat Lifesaver (CL) is a non-medical combat soldier,

trained to provide advanced first aid to a casualty during those first crucial moments after being wounded. Points out that the CL'S primary mission is combat, and that they perform lifesaving tasks when their primary mission allows. Describes the equipment the CL'S carry and use, the wounds they treat, how they are trained and how the CL program was established.

c. 504442 - *ADVANCED COMBAT TRAUMA LIFE SUPPORT*. Simulation training for non-surgeon physicians based on Advanced Trauma Life Support Training. Field hospital and combat conditions are simulated. Five variations of a penetrating thoracic missile wound provide experience in clinical decision making through case simulation. The cases are of increasing difficulty.

10-4. A SMALL LISTING OF DRIVING & SAFETY VIDEOS AVAILABLE

a. 710939 - *FAMILY OF MEDIUM TACTICAL VEHICLE (FMTV) DRIVING TECHNIQUES*. Program shows proper driving and braking techniques over all types of terrain. It also demonstrates the operation of the central tire inflation system.

b. 710940 - *FAMILY OF MEDIUM TACTICAL VEHICLES (FMTV) - PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)*. The correct procedures for performing before, during and after Preventive Maintenance Checks and Services (PMCS) according to the vehicle operator's manual are demonstrated in this program.

c. 711373 - *SAFE OPERATION OF THE FMTV*. Program points out the need for proper PMCS, enhanced mobility characteristics, effects of centrifugal forces/speed, center of gravity/loads, evasive maneuvers and causes of accidents. Also has an interview with experienced drivers.

d. 708885 - *MACHINE SHOP SAFETY 1994*. Good shop safety, good housekeeping, hand tool safety and machine safety are discussed in this program. This video program stresses the importance of using correct tools and following proper safety techniques when utilizing machines such as the lathe, drill press and band saw.

e. 706034 - *MAINTENANCE SAFETY 1991*. This program emphasizes how to prevent maintenance accidents. The top causes of maintenance accidents are identified. These include: failure to follow procedures, insufficient or no unit training, incorrect lifting and failure to use lifting devices, shortcutting or disregarding established procedures, and poor supervision. Recreation of actual accidents taken from the files of the Army's Safety Center is presented.

f. 504501 - *ARE YOUR TIRES SAFE? AN OPERATORS GUIDE TO TIRE INSPECTION*. Videotape emphasizes tire inspection procedures for the CUCV, HMMWV, and HEMTT vehicles. Examples of different kinds of tire wear, damaged tires and proper Preventive Maintenance Checks and Services (PMCS) procedures are demonstrated.

10-5. THREE COMPUTER-BASED TRAINING (CBT) INTERACTIVE MULTIMEDIA INSTRUCTION (IMI) PRODUCTS

Not all CBTs are listed on the DAVIS/DITIS; sometimes you will have to go to the "Life Cycle Originator" to order. The CBTs also do not have normal PIN/ICN, so you will have to search by word or words that describe the subject you are looking for.

a. IMI NUMBER - PA #57 - *FORKLIFT TRAINING*. The purpose of this course is to provide personnel with a training tool to maintain the knowledge and skills to operate a forklift. This course will provide personnel with forklift safety; types of forklifts, maintenance, operation, and operating skills. This course was developed to fulfill training requirements of OSHA and DoD. Included are specific U.S. Air Force requirements that will assist with the development of your training. This course presents the key elements needed by personnel to know, understand, and implement driving a forklift properly and safely. This course is to be used every three years as required by AF regulation, followed by hands on training by your unit vehicle operations officer.

b. IMI NUMBER CD 55-18 - *M998 HIGH MOBILITY MULTIPURPOSE WHEELED VEHICLE (HMMWV) (CD 55-18) (777005474)*. This compact disk focuses on driver training on the M998 NMMWV. It is a highly interactive product that provides users information on such activities as use of lubrication orders, equipment inspection, and maintenance worksheets, utilization records, accident forms, use of technical manuals in carrying out Preventive Maintenance Checks and Services (PMCS), and various driving operations.

c. IMI NUMBER CD 55-21 - *M939 5-TON TACTICAL CARGO TRUCK (CD 55-21)*. This compact disk focuses on driver training on the M939 tactical cargo vehicle. It is a highly interactive product that provides users information on such activities as use of lubrication orders, equipment inspection, and maintenance worksheets, utilization records, accident forms, use of technical manuals in carrying out Preventive Maintenance Checks and Services, and various driving operations.

10-6. CONCLUSION

There is no reason for your unit to be without proper training and informational videos, CD-ROMs, and other visual information (AV) products. The DAVIS/DITIS site contains thousands of AV productions and IMI products used by the Department of Defense (DoD). All of these products are provided "FREE" for units, and individual training; all you have to do is request the material.

CHAPTER 11. ARMY OIL ANALYSIS PROGRAM

11-1. INTRODUCTION

Changes to the Army Oil Analysis Program (AOAP) were announced in September, 2004. These changes involved closing six laboratories and reducing the equipment that requires sampling in the program. Equipment authorized to the Combat Support Hospital is no longer required to be part of the Army Oil Analysis Program.

11-2. FURTHER INFORMATION

- a. There are now four equipment categories in the AOAP:
 - (1) Aeronautical equipment
 - (2) Ground combat equipment
 - (3) Locomotives
 - (4) Watercraft
- b. Equipment that is no longer part of the AOAP will now require oil changes in accordance with the appropriate Maintenance Advisories or Lubrication Order (LO).
- c. LOGSA will continue to review changes made to the AOAP and there is a potential for re-enrollment of some equipment.
- d. Units are encouraged to visit the LOGSA AOAP homepage for additional information (<https://weblog.logsa.army.mil/aoap/openpg.htm>). The PM, AOAP is in the process of updating the web-site. Further enrollment guidance will be published in *TB-43-0211*.
- e. A complete list of all Army equipment that is part of the AOAP can also be found on the LOGSA site at: <https://weblog.logsa.army.mil/aoap/ongoing.htm>
- f. PM, AOAP will revise unit monthly oil analysis reports to reflect the four remaining equipment categories only. LOGSA will reprogram the AOAP OASIS software so that customer units do not receive delinquency reports for components that have been removed from the AOAP. Some changes may reflect minor errors until all reviews have been made. This may temporally affect some Web based reports until updates are made to the AOAP web based application.

11-3. TACOM MAINTENANCE ADVISORY MESSAGE (MAM) 05-019

TACOM issued a MAM on March 8, 2005, with further guidance on hard-time oil change mileage and calendar intervals.

- a. The original message and vehicles covered can be viewed at <https://aeps.ria.army.mil/>
- b. As a result of AOAP Oil change interval data, the new engine oil change interval is 6,000 miles or annually, which ever comes first.

c. The M915 series of vehicles produced by Freightliner, which has a 10,000 mile or 12-month interval, will remain unchanged.

d. For transmissions, the new interval is a minimum of 12,000 miles or bi-annually (24 Months). Vehicle Lube Orders which currently have greater than 12,000 miles change intervals, will remain at the existing mileage interval; however, the calendar time interval will change to bi-annually (24 months).

e. Tactical wheeled vehicles under manufacturer warranty will follow intervals prescribed by the applicable warranty provisions or guidelines. Once the warranty expires, vehicles will conform to the interval requirement of 6,000 miles or annually.

f. Tactical wheeled vehicles operating in harsh or unusual conditions should follow their respective Technical Manual (TM)/Lubrication Orders (LO) guidance for oil/lube changes while operating under such conditions, and/or Field Manual (FM) 90-3, *Desert Operations*, dated 24 Aug 93.

g. All Tactical wheeled vehicles Technical Manuals lubrication instructions will be scheduled for update. Funding restrictions will delay many TM/LOs changes. In the meantime, users are encouraged to make pen and ink changes to their TMs reflecting the hard-time intervals specified above.

CHAPTER 12. EQUIPMENT ITEMS SUPPORT AND CONSUMABLES HANDBOOK

12-1. INTRODUCTION

The United States Army Medical Materiel Agency (USAMMA) Materiel Acquisition Directorate (MAD) Technology Support Division has developed manuals that will aid units in the identification of the start-up and re-supply consumable packages that are required to operate medical items of equipment issued by the USAMMA fielding teams.

12-2. SUPPORT AND CONSUMABLES HANDBOOK COMPONENTS

The Consumable Handbooks issued by the USAMMA (samples shown in Figure 11-1) contain the items by NSN, Nomenclature, Part Number, Quantity, Unit of Issue, Unit price, Total price, Manufacture, Shelf Life, Refrigerated Item, Ship Time, System Description, and the USAMMA Point of Contact. The Handbooks can be used to quickly identify shortage items at time of issue, during unit inventory and to re-supply the consumables.



Figure 11-1. Sample Covers of Handbooks

**12-3. ITEMS CONTAINED IN THE FORWARD SURGICAL TEAM (FST)
EQUIPMENT ITEMS SUPPORT AND CONSUMABLES HANDBOOK ISSUED BY
THE USAMMA**

TABLE OF CONTENTS

SECTION NO.	DEVICE	NSN	PAGE NO.
1	Anesthesia Apparatus, Drawover	(J) 6515-01-355-6479	1
2	Automatic Tourniquet	(L) 6515-01-481-0925	5
3	Blood Fluid Warmer Thermal Angel Kit	AWAITING NSN	9
4	Blood Chemistry Analyzer, i-Stat	(J) 6630-01-496-5195	17
5	Warmer/Infuser, Blood/Fluid	(J) 6515-01-465-2059	23
6	Centrifuge	(L) 6640-01-068-9612	27
7	Defibrillator, Monitor Recorder	(J) 6515-01-515-4197	29
8	Defibrillator/Monitor	(J) 6515-01-480-9614	37
9	Electrosurgical Apparatus, Force 2	(J) 6515-01-309-6647	41
10	Fixator, Hoffman II, External	(L) 6515-01-464-0077	45
11	Laryngoscope Blade	(D) 6515-00-616-5052	51
12	Surgical Head Light GoodLite	(L) 6515-01-227-3563	53
13	Surgical Headlight	(L) 6230-01-520-3474	55
14	Light Surgical Field Unit	(L) 6530-01-518-9854	59
15	Monitor Vital Signs	(J) 6515-01-432-2707	61
16	Nerve Stimulator, Peripheral	(J) 6515-01-397-5212	73
17	Table Operating Field	(L) 6530-01-321-5592	77
18	Otoscope & Ophthalmoscope Set	(D) 6515-00-550-7199	99
19	Oxygen Concentrator	(J) 6515-01-327-6798	101
20	Monitor Oxygen	(L) 6515-01-279-6450	103
21	Pump, Infusion, Alaris	(J) 6515-01-486-4310	107
22	Pump, Intravenous Infusion	(J) 6515-01-498-2252	109
23	Refrigerator, Solid-State, Biologicals	(J) 4110-01-451-2356	111
24	Suction Apparatus, Oropharyngeal Tracheal	(J) 6515-01-435-5350	113
25	Thermometer, Tympanic	(L) 6515-01-440-5976	117
26	Ultrasound, Portable 180 Sonosite	(J) 6525-01-496-4229	119
27	Ventilator Volume Portable	(J) 6530-01-464-0267	129
28	View box, RH Blood Typing	(L) 6630-01-491-4705	133
29	Warming Unit, Bair Hugger	(L) 6515-01-463-6823	135
30	Blanket Hypothermia, Chillbuster	(L) 6515-01-500-6087	139

12-4. OBTAINING THE CONSUMABLES HANDBOOK

The current version of the *Consumables Handbook* is available on the USAMMA website <http://www.usamma.army.mil>. Once there, click on TOE Field Equipment, on the left side, this will bring you to the Technology Support Division home page (<http://www.usamma.army.mil/TARA/index.htm>). Once there, just click on the box for Medical Equipment Handbooks.

12-5. EXAMPLE ENTRY

Here is an excerpt from the *Medical Materiel Set Operating Room Support and Consumables Handbook*, UA M301, Draft January 2005, on the Anesthesia Machine with Case. Each piece of equipment in the handbook has a brief overview of the equipment's capabilities and requirements, along with a consumables list, equipment POC, and training information.

Anesthesia Machine with Case (Excerpt from Consumables Handbook)ANESTHESIA MACHINE WITH CASE (TOC)

DRAEGER MEDICAL INC
 MODEL #: 4114179 NARKOMED M
 Manufacturer's PHONE: (215) 721-5400 FAX (215)
 721-5784
 Website: <http://www.draegermedical.com>

ACC "W" NSN 6515-01-435-4305
 ACC "J" NSN 6515-01-457-1840

UAs: M301

USAMMA POC:

Equipment Acquisition Division, 301-619-4060, DSN 343-4060

UNIT PRICE: \$39,767.15

System Description: The Narkomed M is a full-featured, state-of-the-art anesthesia machine that can be deployed in its transit containers virtually anywhere in the world by means of trucks, aircraft and ships. The system design minimizes the number of required components thereby minimizing assembly/disassembly time and reducing loss of components. The Narkomed M's modular architecture is extremely robust and flexible enough for use in a wide variety of military, mobile and space limited applications. Once assembled, the Narkomed M provides the clinician with an anesthesia system that incorporates the same high standards found in anesthesia systems within conventional operating rooms.

Special Features: A portable field anesthesia machine permitting use of closed (low flow), semi-closed and opened anesthesia techniques, 110/220 VAC, 50/60 HZ, with battery back-up to fully power all operations for a minimum of one hour;

The unit C/O: a carbon dioxide absorber, oxygen absorber, ventilator, and vaporizer has nitrous oxide capability and has an operational range of 40-61 PSI;

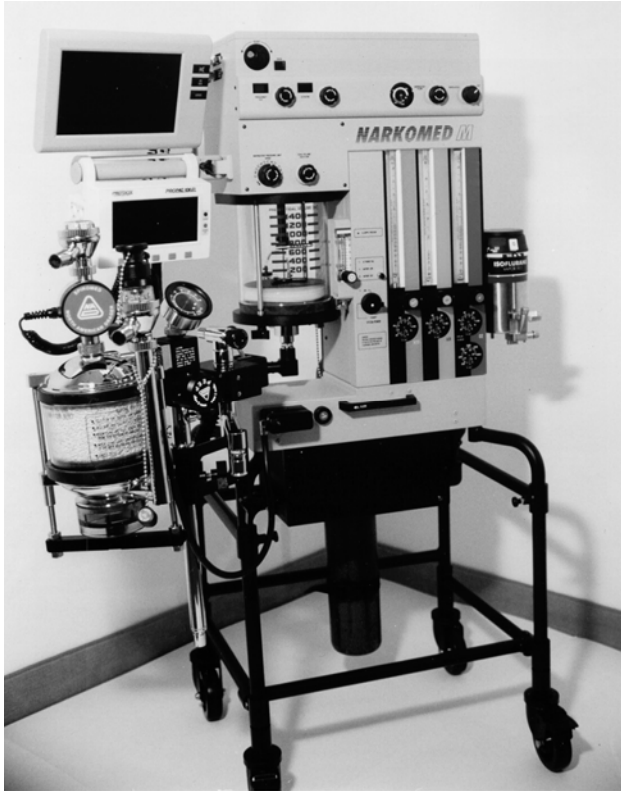
Accepts an oxygen concentrator (when available), air compressor, oxygen cylinder, pipeline oxygen, nitrous oxygen, nitrous oxide and other air sources;

Unit is adaptable to use in both active and passive gas scavenging systems and is supplied with gas pressure gauges, break-resistant flow meters, and an oxygen flush valve, monitoring capabilities:

Reference to exhaled volume, the vaporized has a min. cap. of 100 ML and the ventilator has a flow rate of 0-5-LPM, the unit is sterilizable IAW with DEPMEDS procedures.

REUSABLE ADULT/PEDIATRIC/INFANT MASK 1 EACH; REUSABLE ADULT/PEDIATRIC BREATHING CIRCUIT 1 EACH; USER MANUAL 2 EACH; MAINTENANCE MANUAL 2 EACH; REUSABLE CONTAINER 1 EACH

DRAEGER MEDICAL INC



ADVANTAGES

- 1) Deployable in 2 transit cases.
- 2) Minimal number of components minimizing assembly/disassembly time.
- 3) Small footprint (2.5 sq. ft).
- 4) Integrated ventilator.
- 5) 90-minute battery backup in event of power failure.
- 6) Vaporizer Tippable and spill proof.

CHARACTERISTICS

Dimensions	Height.	50"
	Width.	21"
	Depth	16"
Weight	250 lbs	
Container 1	102 lbs	
Container 2	105 lbs	
Cubic Feet	20	
Operating Temperature	10 to 35 C	
Operating Humidity	30 to 70 % RH	
Storage Temperature	-20 to 60 C	
Storage Humidity	10 to 90 % RH	
Power Requirements	100/240V AC, 50/60 Hz, 2.5 Amps, 300 Watts	
Battery Backup	Voltage 90 minutes	



The above photographs show the two (2) NARKOMED carrying cases (2 Ea) closed and stacked and then the cases opened.

NARKOMED M START-UP PACKAGE (REQUIRED)

NSN	NOMENCLATURE	PART NUMBER	QTY	UI	UNIT PRICE	TOTAL PRICE	MFG	SHELF LIFE, MONTHS	REFRIG Y/N	CONUS SHIP TIME, WEEKS	USAMMCE SHIP TIME, WEEKS	NOTES
6505013628311	SODA LIME CARTRIDGE	Soda Sorb Pre Pak	1	12 PG	\$59.12	\$59.12	Grace W R & Co.		N			
6515002998297	MASK ORONASAL LARGE ADULT	309-0388-800	2	EA	\$27.95	\$55.88	Sims Portex		N			
6515003021500	TUBE INHALER 32 "LG	211-9004-800	2	EA	\$57.95	\$115.90	Sims Portex		N			
6515003869708	HARNESS HEAD	216-1676-700	2	EA	\$57.24	\$114.48	Datex-Ohmeda		N			
6515008801832	ADAPTER RIGHT ANGLE ELBOW TRACHEAL	00-452	1	EA	\$12.91	\$12.91	Anesthesia Associates		N			
6515008801833	ADAPTER Y-PC TRACH	00-451	1	EA	\$34.93	\$34.93	Anesthesia Associates		N			
6515010308636	REBREATHING BAG GAS	211-2801-800	2	EA	\$25.35	\$50.70	Sims Portex		N			
6515010369070	MASK ORONASAL ADULT SIZE 5	16-20-15	2	EA	\$25.25	\$50.50	North Health Care		N			
6515010369071	MASK ORONASAL CHILD SIZE 2	16000	2	EA	\$33.65	\$67.30	Ambu		N			
6515011535920	ADAPTER RIGHT ANGLE ELBOW TRACHEAL	00-452P	2	EA	\$23.06	\$46.12	Anesthesia Associates		N			
6515013281901	TUBE ASSEMBLY	5021JX1M	3	20 PG	\$147.27	\$736.35	Vital Signs		N			
6515013935083	CONNECTOR TRACHEAL TUBE Y-PIECE CONN	19-004386	4	EA	\$36.15	\$144.60	Mercury Enterprises		N			
6515013968089	BREATHING CIRCUIT ANESTHESIA	370924	2	15 PG	\$114.30	\$571.50	Sims Portex		N			

NARKOMED M CONSUMABLES RESUPPLY

NSN	NOMENCLATURE	PART NUMBER	QTY	UI	UNIT PRICE	TOTAL PRICE	MFG	SHELF LIFE, MONTHS	REFRIG Y/N	CONUS SHIP TIME, WEEKS	USAMMCE SHIP TIME, WEEKS	NOTES
6505013628311	SODA LIME CARTRIDGE	Soda Sorb Pre Pak	1	12 PG	\$59.12	\$59.12	Grace W R & Co.		N			
6515002998297	MASK ORONASAL LARGE ADULT	309-0388-800	2	EA	\$27.95	\$55.88	Sims Portex		N			
6515003021500	TUBE INHALER 32 " LG	211-9004-800	2	EA	\$57.95	\$115.90	Sims Portex		N			
6515003869708	HARNESS HEAD	216-1676-700	2	EA	\$57.24	\$114.48	Datex-Ohmeda		N			
6515008801832	ADAPTER RIGHT ANGLE ELBOW TRACHEAL	00-452	1	EA	\$12.91	\$12.91	Anesthesia Associates		N			
6515008801833	ADAPTER Y-PC TRACH	00-451	1	EA	\$34.93	\$34.93	Anesthesia Associates		N			
6515010308636	REBREATHING BAG GAS	211-2801-800	2	EA	\$25.35	\$50.70	Sims Portex		N			
6515010369070	MASK ORONASAL ADULT SIZE 5	16-20-15	2	EA	\$25.25	\$50.50	North Health Care		N			
6515010369071	MASK ORONASAL CHILD SIZE 2	16000	2	EA	\$33.65	\$67.30	Ambu		N			
6515011535920	ADAPTER RIGHT ANGLE ELBOW TRACHEAL	00-452P	2	EA	\$23.06	\$46.12	Anesthesia Associates		N			
6515013281901	TUBE ASSEMBLY	5021JX1M	3	20 PG	\$147.27	\$2,650.86	Vital Signs		N			
6515013935083	CONNECTOR TRACHEAL TUBE Y-PIECE CONN	19-004386	4	EA	\$36.15	\$144.60	Mercury Enterprises		N			
6515013968089	BREATHING CIRCUIT ANESTHESIA	370924	2	15 PG	\$114.30	\$1,143.00	Sims Portex		N			
6515014917901	SENSOR OXYGEN MONITORING PLASTIC POLYMER	6850645	2	EA	\$176.00	\$176.00	Draeger Medical		N			

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2005 GLOSSARY FOR SB 8-75-S4

Abbreviation/Acronym

Definition

A

AEPS ----- Army Electronic Product Support
 AMEDD ----- Army Medical Department
 AMC ----- Army Materiel Command
 AOAP ----- Army Oil Analysis Program
 AR ----- Army Regulation or Army Reserve
 AR ACEL ----- Army Reserve Acceleration Program
 ASIOE ----- Associated Support Items of Equipment
 AV ----- Audio Visual

C

CBT ----- Computer Based Training
 CECOM ----- US Army Communications-Electronics Command
 COES ----- Clinical Operation Equipment Set
 CONUS ----- Continental United States
 CSC ----- Convention for Safe Containers
 CSH ----- Combat Support Hospital

D

DA ----- Department of the Army
 DAVIS ----- Defense Automated Visual Information System
 DCMC ----- Defense Contract Management Command
 DCSOP ----- Deputy Chief of Staff for Operations
 DD ----- Defense Department
 DEMIL ----- Demilitarization
 DEPMEDS ----- Deployable Medical Systems
 DITIS ----- Defense Instructional Technology Information System
 DOD ----- Department of Defense
 DOL ----- Directorate of Logistics
 DRMO ----- Defense Reutilization & Marketing Office
 DRMS ----- Defense Reutilization and Marketing Service
 DSCP ----- Defense Supply Center Philadelphia
 DSN ----- Defense Switched Network
 DVI ----- Defense Visual Information

E

EAC ----- Echelon Above Corps
 ECU ----- Environmental Control Unit
 EEHE ----- Early Entry Hospitalization Element
 ESCO ----- Engineered Systems Company

F

FDECU ----- Field Deployable Environmental Control Unit
 FEA ----- Finite Elements Analysis
 FIP ----- Fault Isolation Procedure
 FORSCOM ----- United States Army Forces Command
 FRS ----- Forward Repair System
 FSC ----- Food Sanitation Center

G

GPM-----Ground Precautionary Message
GS-----General Support

H

HHD-----Headquarters Detachment
HOSP-----Hospital Optimization Standardization Program
HUB-----Hospital Unit, Base
HUS-----Hospital Unit, Surgical

I

IAW-----In Accordance With
ICAM-----Improved Chemical Agent Monitor
IMI-----Interactive Multimedia Instruction
ISO-----International Standardization Organization

K

KW-----Kilowatts
KRC-----Keweenaw Research Center

L

LAR-----Logistical Assistance Representative
LIN-----Line Item Number
LO-----Lubrication Order
LOGSA-----Logistics Support Agency
LTT-----Light Tactical Trailer

M

MACOM-----Major Command
MAM-----Maintenance Advisory Message
MEET-----Minimum Equipment Essential for Training
MEL-----Maintenance Equipment Level
MF2K-----Medical Force 2000
MGPTS-----Modular General Purpose Tent System
MILVAN-----Military-Owned De-mountable Container
MMS-----Medical Materiel Sets

M

MRI-----Medical Reengineering Initiative
MTOE-----Modified Table Of Organization & Equipment
MWO-----Modification Work Order

N

NET-----New Equipment Training
NMC-----Non-Mission Capable
NSN-----National Stock Number

O

OCONUS-----Outside Continental United States
OEF-----Operation Enduring Freedom
OIF-----Operation Iraqi Freedom

P

PM-----Program Manager
PMCS-----Preventive Maintenance Checks and Services
POC-----Point of Contact
PQDR-----Product Quality Deficiency Report

Q

QDR-----Quality Deficiency Report

R

RGHD-----Reserve Component Hospital Decrement
RTS-MED-----Regional Training Site - Medical

S

SF-----Standard Form
SIAD-----Sierra Army Depot
SOUM-----Safety of Use Message
SWA-----South West Asia

T

TACOM-----Tank-Automotive and Armaments Command (US Army)
TARDEC-----TACOM Research and Development Center
TB-----Technical Bulletin
TDP-----TACOM Drawing Package
TEMPER-----Tent Extendable Modular Personnel
TM-----Technical Manual

U

USAMMA-----United States Army Medical Materiel Agency

By Order of the Secretary of the Army:

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