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QUARTERMASTER FORCE PROVIDER COMPANY

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Quartermaster
Force Provider Company

Contents

Preface

This manual is a guide for commanders, supervisors, and other personnel concerned with the concepts and operation of Force Provider.

FM 24-424 provides insight, general data and operational information for the commanders, supervisors, and personnel assigned or attached to a QM FP company. It addresses the key aspects of performing the QM FP Company's critical wartime mission to "Provide FP Support" and accomplishing the unit's METL. The METL consists of 79 tasks categorized into the following four missions:

- Conduct strategic deployment
- Conduct FP operations
- Defend assigned area
- Conduct strategic redeployment

Detailed information concerning the METL, as well as collective and individual training, needed to do the unit's METL is available in ARTEP 42-424-30-MTP.

The primary audiences for FM 24-424 are RC QM FP company commanders and supervisors. The focus is on the organization of the FP Company, FP modules, responsibilities, deployment, redeployment, and operations.

The proponent for this publication is HQ TRADOC. Send comments and recommended changes directly to Commander, USACASCOM, Training Directorate, ATTN: ATCL-AQ, Fort Lee, VA 23801-1713.

Unless this publication states otherwise, masculine nouns or pronouns do not refer exclusively to men.

Introduction

Commanders must bear in mind the stressful effects of combat as they plan and conduct operations. The pressures that battlefield chaos and destruction placed on soldiers have always been very great. Unit discipline, realistic field training, deliberately fostered unit cohesion, and solid bonding between leader and led can reduce the effects of this stress in part, but nothing can get rid of it. The commander who understands this and protects his soldiers through strong, positive, and caring leadership, proper mental, physical and training preparation, and simple decisive plans will win (FM 100-5).

During Operation Desert Shield/Desert Storm, the Army realized that it could do more to improve the quality of life for the deployed soldier. Many soldiers were using makeshift and field expedient latrines and showers. The Army wanted to do a better job of providing for its soldiers; however, the equipment, plans, and doctrine to do so were not in place before the conflict. The Army recognized the importance of combating stress and sleep deprivation, while offsetting battle fatigue and conserving fighting strength. It then set up the FP program. The concept of FP was initially tested in Bosnia. Doctrine, training, and system requirements were then developed as a result of lessons learned to improve the quality of life for the deployed soldier.

An *Informational Overview* of FP Operations is available on CD-ROM (CD 101-12). It can be ordered through normal distribution at Joint Visual Information Activity, Tobyhanna Army Depot, PA, or from the CASCOM CD web site at http://www.cascom.army.mil/cgi-win/polyform.exe/cd-rom_catalog. Besides this FM, ARTEP 42-424-30 MTP has been developed and is available through normal distribution. T&EOs for unit training (Chapter 5, ARTEP 42-424-30 MTP) are also available ASAT program. The FP PM office at SSCOM, maintains a homepage at www.sscom.army.mil/pm-fp/index.html.

Chapter 1

FP Overview

SECTION I – INTRODUCTION TO THE FP CONCEPT

QM FP COMPANY

1-1. The QM Company (FP) and the FP module are separate entities joined together in the theater or other designated area of operation. The FP module is not organic to the QM FP Company and until requisitioned, is part of the AMC. The QM FP Company's organic assets can transport themselves, maintain organic equipment, defend against a Level I threat, and maintain communications.

FP TOE MISSION

1-2. FP was developed to improve the soldier's combat readiness. It provides the front-line soldier a brief rest from combat. The FP system helps in the areas of health, welfare, and morale of soldiers. It provides feeding, showering, and laundry support. It also provides areas for sleep, rest, and relaxation. Also, FP can be used as a theater reception and staging base when deployed to an underdeveloped or war-ravaged theater. It can also be used as a rest stop or base for reconstitution for soldiers and vehicles passing through as they deploy/redeploy. Besides its military missions, the QM FP Company and FP module may also be used to support humanitarian aid and disaster relief, as well as to NEO. Assistance to U.S. Civil Authorities will be IAW FM 100-19.

QM FP COMPANY EMPLOYMENT

1-3. The QM FP Company may be used to meet any of the missions stated above. When used for its primary mission, QM FP Company will normally be organized according to TOE 42424L000. A sample TOE is included in Appendix A. The unit will be issued FP module(s) from Army prepositioned stock and assigned to an appropriate element of a TAACOM, COSCOM, or DISCOM. In some instances, FP may be assigned to a JTF.

- **Theater Army Area Command.** When assigned to TAACOM, the FP mission most closely matches that of an ASG BSB, TOE 63636L. As alternatives, it could also be attached to an ASB or an S&S Battalion. Refer to FM 54-40.
- **Corps Support Command.** If assigned to COSCOM, FP may be attached to CSG, BSB, or CSB. Refer to FM 63-3.

- **Division Support Command.** In some instances, FP may be assigned to DISCOM in direct support to a particular division, or units in the divisional area. In this case, the MSB would be the most likely choice for FP attachment.

1-4. A QM FP Company may be employed on an area basis, serving soldiers in a geographical area; or it may be employed in support of a brigade-size element. In either case, FP will remain under the major command to which it is assigned. Depending on METT-T, a FP module could be located as far forward as the DSA. Theater command structure and FP mission for each deployment will determine exact assignment.

FP OPERATORS

1-5. Current RC QM FP Companies are manned as type B units. They provide a nucleus of officers and NCOs to provide the leadership and technical expertise needed to support deployment and operations. When deployed, over 400 additional personnel may be required to reach Level I staffing. These additional personnel may be drawn from military, nonmilitary, local nationals, or third-country nationals to support a six-module deployment. The requesting organization will determine if use of military personnel is the best method. If this is so, then they should request deployment of the QM FP companies through appropriate channels. If they decide LOGCAP support is the best method, they must prepare a SOW and coordinate with AMC for LOGCAP support.

1-6. Nonmilitary operators of a FP module that may be substituted for U.S. military personnel are DOD/DA civilians, LOGCAP contractor personnel, local nationals, and/or third country nationals. DOD civilians may operate MWR facilities as well as civilians employed by AAFES. The skills of nonmilitary operators should match, as close as possible, those of the MOSs designated in the TOE. FM 63-11 gives the Army's guidance for employing contractors on the battlefield. Three scenarios the QM FP Company can be manned and operated under are given below.

- **All Military.** An all-military staff can operate a module, or modules. Military personnel are detailed from AC/RC units in support of the QM FP Company in their operations.
- **Combination of Military and Nonmilitary.** A module or modules can be operated by any combination of military personnel and LOGCAP contractors, host nation support personnel and/or third country nationals. Contracted personnel will be supervised by the military command structure. The commander and the contracting/purchasing officer will need to work closely with the contractor to ensure that all items listed in the SOW are fulfilled. A translator or interpreter may be required for this type scenario. The contract may allow civilian augmentees to live within and receive subsistence from FP.

- **LOGCAP Personnel.** A module or modules can be operated entirely by LOGCAP contractors independent of any military command and control. The LOGCAP contractor will operate one to six FP modules under the general control of the MACOM. All TOE equipment, with the exception of weapons, will be required for operation. If not supplied by the contractor, equipment must be provided as GFE. The contractor must accept complete accountability for all GFE and perform operator and unit level maintenance IAW appropriate TMs. The contractor will also have the same dependencies as a military unit, unless otherwise specified in the SOW.

AVAILABILITY OF FP MODULE

1-7. All of the FP modules are available in support of contingencies throughout the world. A total of 36 FP modules are planned for requisition and use and are prepositioned on ships or in CONUS depots as Army prepositioned stock. Current distribution of modules is:

- 4 completed modules are stored at Sierra Army Depot
- 1 module earmarked for training is at Sierra Army Depot.
- 6-ISP#1 modules are stored on USNS Gordon.
- 2 modules are deployed in Bosnia.

1-8. AMC owns all of the FP modules. Once a module has been approved for deployment, AMC arranges transportation for the module and maintains ownership until hand receipt for the module is cleared to the FP Company Commander at the approved operating site. The commander is then responsible for the module or modules and is accountable for report of survey on all module equipment. AR 670-1 gives information on how to release and loan a FP module.

SECTION II – CAPABILITIES, LIMITATIONS, AND DEPENDENCIES

CAPABILITIES

1-9. A QM FP Company can operate one through six FP modules. Each FP module supports 550 soldiers/customers, plus the QM FP Company operator staff. When six modules are employed with a QM FP Company, it can support 3,300 soldiers/customers plus the required operator staff. The modules within a company may be joined or deployed near each other. However, the operation of each module will typically remain distinct. METT-T and the mission will determine the number of soldiers to be supported. When a QM FP Company and a single module are linked for operation, they will provide the following services and facilities to the tenant unit:

- Climate-controlled billeting for 550 tenant personnel and 44 billets for FP operators.
- Sanitary climate-controlled showers sufficient for 10-minute showers per person/per day.
- Twenty-four sanitary, climate-controlled latrines and four urinals.
- Food service, to include three cook-prepared meals daily (1,650 cook-prepared meals per day).
- Laundry services capable of laundering 200-pounds/per hour.
- MWR, medical, chaplain, and administrative support facilities and equipment.

LIMITATIONS

1-10. Usage of the FP System should be a well thought-out, deliberate effort. While the system offers attractive amenities for the deployed soldier/customer, the following limitations of the FP module and QM FP Company should be considered:

- **Size.** A single FP module requires 10 acres of land and extensive site preparation. The FP module is packaged in about 103 TRICONs, five 20-foot ISO containers, 27 trailer-mounted generators, and assorted other self-storing items. Set-up time for each module is about 10 to 12 days using 50 people. A sample shipping configuration is provided in Appendix B.
- **Mobility.** Because of its size, and land requirements, the FP system is not redeployable in the theater. Once set up, it cannot be relocated. Redeployment of the FP module will return it to CONUS for refurbishment.
- **Defensibility.** The QM FP Company can defend against a Level I threat.
- **Cost.** In 1998, the cost of the FP module employed with Active and/or Reserve Components is $51.50 per soldier/per day. This includes food, billeting, field services, supplies, and maintenance for module components. If used with the cold weather kit, the figure increases to $55.72 per soldier/per day. This estimate is subject to change as cost-saving improvements and modifications are made to the module. Refurbishment costs for a module are about $2.2 million, dependent on length of deployment and environmental conditions of the site.

DEPENDENCIES

1-11. **Transportation.** The FP module is heavily dependent upon transportation assets for movement from the prepositioned locations to the FP area of operations. Table 1-1 illustrates the transportation assets. The QM Company does not own the module, nor have the organic

equipment needed to transport it, but once on site, most of the module's equipment, and containers can be off-loaded with QM FP Company organic MHE.

Table 1-1. Transportation Assets Needed Table 3-1.

Airplane	C-130: 54 flights C-141: 24 flights C-17: 12 flights C-5: 9 flights
Road	35 tractor-trailer
Rail	13, 68-foot gondola cars 14, 89-foot flat cars

1-12. **Real Estate Acquisition.** The Theater of Operations real estate staff must acquire the necessary real estate for FP. The TOPNS real estate contact can be the USACE real estate specialist from CREST, MACOM, ACofS, Engineer staff, or NAVFAC real estate personnel. The site can be acquired either through host nation support or leasing. In some cases, real estate acquisition may determine the site selection. Each module requires 8 to 10 acres for set up. This does not include areas for parking, remote fuel sites and additional MWR open spaces. In a good location, it takes about 48 hours to prepare the site. Allow 72 hours to prepare a site in a fair location (uneven terrain, lots of brush/trees, partially stable soil, and poor drainage). For a poor location (rough/hilly terrain, dense vegetation, unstable soil and poor drainage), allow about 96 hours to prepare the site

1-13. **Engineering Assets.** Appropriate engineering units (normally Engineer Combat Battalion, Heavy TOE 05415L000) will be required for site survey, layout, and site preparation. Once FP is setup, engineering support will be required for RPMA, which may include prime power (TOE 05616L000), utilities maintenance (TOE 05530LH00), fire fighting (TOE 055410L000) and dust abatement. Actions of this nature should be coordinated with TAACOM or ASCC. Disposal of solid waste, including medical and food waste, must be arranged. This can be through incineration or haul-away by military or contract. A FP module can generate 20,000 gallons of graywater and 3,000 gallons of blackwater per day. Coordinate solid waste IAW CESP, or the ASCC's OPLAN, both, which are part of the logistics annex of the CINC's OPLAN.

1-14. **Logistical Support.** Maintenance support above unit level will be required from the supporting CSG for FP equipment. A Supply Company (DS) attached to the CSG ASG is required for Class I, II, III, IV, VI, and VII supply support. An Ammunition Supply Company

attached to supporting group will provide Class V support and a DS Maintenance Company is required for Class IX support.

1-15. **Area Support Medical Services.** The FP unit depends on the Area Support Medical Battalion, TOE 08455L000, for Level II unit and resident health service support.

1-16. **Chaplain.** The FP unit depends on resident unit ministry team for religious support.

1-17. **Medical.** The FP depends on Area Support Medical Battalion, TOE 08455L000 for Level II unit and resident health service support.

1-18. **Defense.** The FP unit depends on theater assets for defense against Level II/III threat.

1-19. **MWR.** MWR operations must be done by MWR personnel provided by the CFSC or from the pool of volunteer MWR specialists.

1-20. **Water.** The FP unit depends on Quartermaster Supply Company, TOE 42477L000 for potable water supply, (25,000-gallons/per day) if commercial sources are not available.

Chapter 2

QM FP Company

SECTION I – COMPANY HEADQUARTERS

UNIT ORGANIZATION

2-1. The QM FP Company, organized under TOE 42-424L000, is shown in Figure 2-1 and is available at Appendix A. At a Level I authorization the company operates up to six independent FP platoons/modules. Each module supports 550 soldiers. With modules joined, they support a brigade-size force of 3300 personnel. One platoon and platoon maintenance team are required for each module. Platoons may be joined or operate in independent areas.

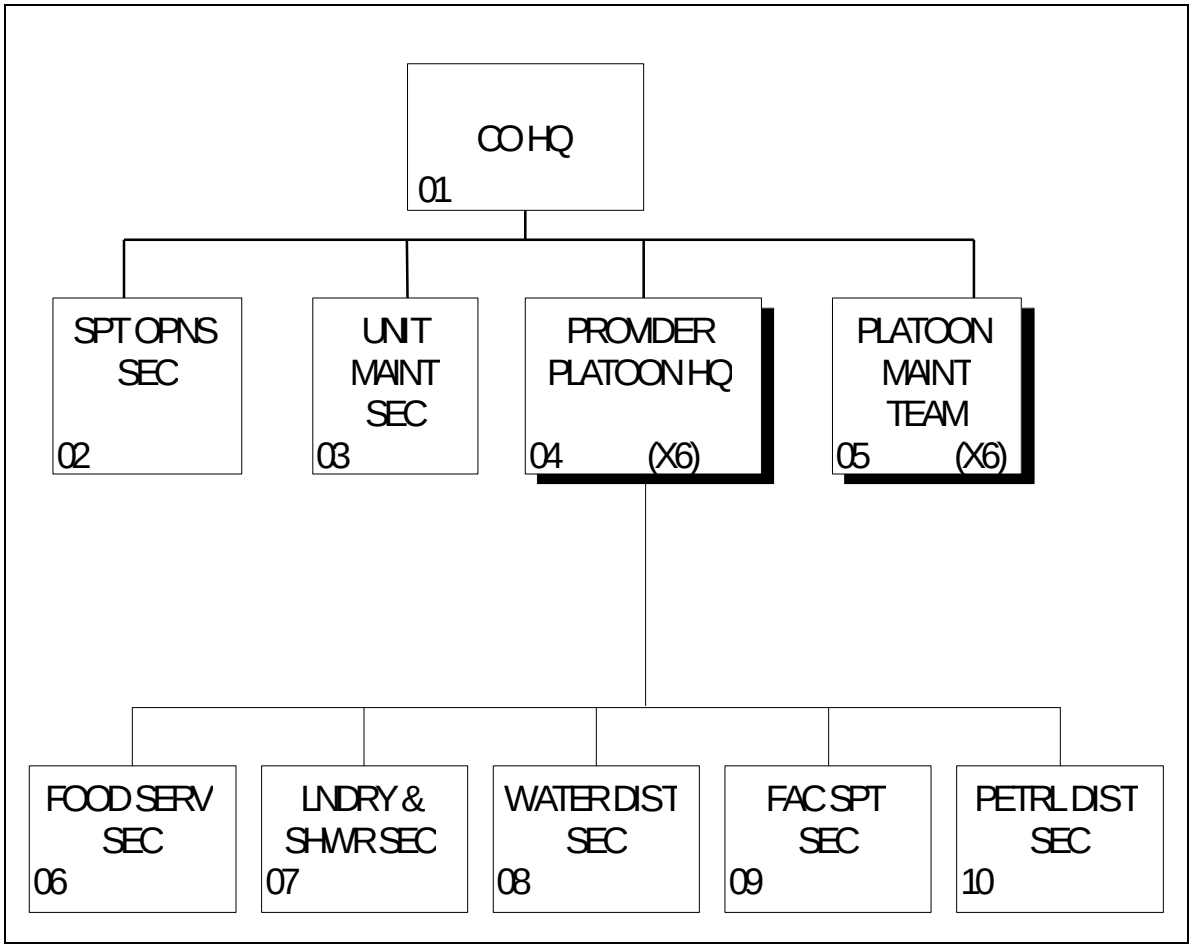


Figure 2-1. Organization of QM FP Company

COMPANY HEADQUARTERS SECTION

2-2. Company headquarters provides command and control, training, administrative, and logistical support required to conduct operations of one to six FP platoons and modules. The company commander (Major, 92A) is responsible for the QM FP Company's mission. Personnel assigned to this section and their duties are given in Table 2-1. Table 2-2 lists the equipment organic to the QM FP Company, Company Headquarters Section. Check your MTOE for actual authorizations. Configuration for modules is given in Appendix B.

Table 2-1. Company Headquarters Personnel

Position	Duties
Commander	Provides command and control for company, including one to six FP platoons and modules.
Executive Officer	Assists the commander in providing command and control. Coordinates the company's environmental protection stewardship program. Confirms program compliance through consultation and local environmental compliance officer. In charge of company during absence of commander.
First Sergeant	Serves as commander's primary noncommissioned assistant. Provides direct supervision of personnel in matters concerning administration, supply, communication, and defense. Represents company enlisted personnel. Provides career development counseling for enlisted soldiers. In charge of company during absence of commissioned officers..
NBC NCO	Assists in planning and applying NBC defense measures and decontamination plans for unit, including provider platoons. Monitors for appropriate handling of NBC-related hazardous materials.
Supply Sergeant	Prepares and maintains supply records. Requests, receives, and issues supplies. Maintains secure facilities to safeguard unit supplies and property. Prepares adjustment documents for lost, damaged, or destroyed property. Handles issue and turn-in of property to and from personnel. Assists personnel in supply matters. Supervises armorer and assistant supply specialists.
Assistant Supply Sergeant	Assists supply sergeant. Requests, receives, stores, and issues authorized supplies and equipment required for operation. Performs duties assigned by supply sergeant.
Armorer	Repairs and performs unit maintenance on unit's small arms. Keep records for weapons (AR 710-2 and DA Pam 710-2-1). Performs duties assigned by supply sergeant. Also light vehicle driver.
Supply Specialist	Assists supply sergeant. Requests, receives, stores, and issues authorized supplies and equipment required for operation. Performs duties assigned by supply sergeant. Also switchboard operator and light vehicle driver.
Vehicle Driver	Drives 1-1/4 ton cargo/troop truck (HMMWV) provided for commander's use. Performs vehicle operator maintenance. Also radio and switchboard operator.

Table 2-2. Company Headquarters Equipment

Equipment
Alarm Chemical Agent Automatic: XM22
Antenna Group: OE-254()/GRC
Cable Telephone: WD-1/Tt Dr-8 1/2 Km
Data Transfer Device: AN/CYZ 10
Digital Nonsecure Voice Terminal w/Digital Data Port: TA 1042a/
Inst Kit: Mk-2325/Vrc for An/Vrc-87/88/90 In HMMWV
Mask Chemical Biological: M4
Monitor, Chemical Agent
Pistol 9mm Automatic: M9
Pocket Radiac:
Power Supply: PP-6224/U
Radiac Set: AN/PDR-75
Radiac Set: AN/VDR-2
Radio Set: AN/VRC-90a
Reeling Machine Cable Hand: Rl-39
Rifle 5.56 MM: M16A2
Switchboard Telephone Manual: SB-22/PT
Telephone Set: TA-312/PT
Telephone Wire with Reel: MX-1089 1/G
Test Kit Mask Protective: M41
Trailer Cargo: LMTV w/Dropsides
Truck Cargo: 4x4 LMTV w/E
Truck Utility: Cargo/Troop Carrier 1-1/4 Ton 4x4 w/e (HMMWV)

SUPPORT OPERATIONS SECTION

2-3. The Support Operations Section exercises staff supervision over the supply, maintenance, and field service support operations, and advises the commander in these areas. This section is also the focal point for contracting and engineer support for up to six FP modules. Personnel assigned to this section and their duties are given in Table 2-3. Table 2-4 lists the equipment organic to the QM FP Company, Support Operations Section. Check your MTOE for actual authorizations. Configuration for modules is given in Appendix B.

Table 2-3. Support Operations Section Personnel

Position	Duties
Purchasing/ Contracting Officer	Provides local contracting and purchasing. Coordinates with contracting officer of MACOM for services and materials procured at higher echelons. Arranges for host nation support.
General Engineer Officer	Plans and coordinates site setup and supervises all engineer functions. Participates in site survey and selection.
Operations Sergeant	Supervises section operations. Advises on tasks involving FP procedures.
Chief Administrative NCO	Handles administration for section. Maintains personnel files. Prepares orders, reports, and operating procedures.
Preventive Medicine NCO	Coordinates medical support and tests water and other environmental factors.
Administrative Specialist	Assists Chief Administrative NCO with duties. Performs typing, filing and clerical duties. Performs duties assigned by Chief Administrative NCO.
Preventive Medicine Specialist	Assists Preventive Medicine NCO. Operates test equipment. Performs vector control. Also light vehicle driver.
Administrative Clerk	Assists Chief Administrative NCO with duties. Performs typing, filing, and clerical duties. Performs duties assigned by Chief Administrative NCO. Also light vehicle driver.

Table 2-4. Support Operations Section Equipment

Equipment
CABLE TELEPHONE: WD-1/TT DR-8 1/2 KM
DIGITAL NONSECURE VOICE TERMINAL W/DIGITAL DATA PORT: TA 1042A/
COMPARATOR COLOR: HYDROGEN ION RESIDUAL CHLORINE
LIGHTWEIGHT DIGITAL FACSIMILE: AN/UXC-7
REELING MACHINE CABLE HAND: RL-39
SPRAYER: PESTICIDE MANUALLY CARRIED DC
SPRAYER AND DUSTER: PESTICIDE MANUALLY CARRIED
TELEPHONE WIRE WITH REEL: MX-1089 1/G
TRUCK UTILITY: CARGO/TROOP CARRIER 1-1/4 TON 4X4 W/E (HMMWV)
TELEPHONE SET: TA-312/PT
TRAILER CARGO: 3/4-TON, 2-WHEEL W/E
WATER QUALITY CONTROL SET: PREVENTIVE
WATER TESTING KIT BACTERIOLOGICAL
WATER QUALITY ANALYSIS SET: PURIFICATION (WQAS-P)

UNIT MAINTENANCE SECTION

2-4. The Unit Maintenance Section provides unit level maintenance for all organic equipment except COMSEC and communications electronics security. Personnel assigned to this section and their duties are given in Table 2-5. Table 2-6 lists the equipment organic to the QM FP Company, Unit Maintenance Section. Check your MTOE for actual authorizations. Configuration for modules is given in Appendix B.

Table 2-5. Unit Maintenance Section Personnel

Position	Duties
Motor Sergeant	Plans, supervises, and directs unit maintenance of all organic equipment. Advises commander and staff on matters of maintenance and materiel readiness. Enforces safety/environmental protection procedures and security for all maintenance equipment and supplies, especially power tools and POLs. Confirms environmental protection program compliance, including spill prevention and contingency plans, through consultation with HQ Execution or Environmental Officer. Performs administrative duties.
Construction Equipment Repairer	Performs unit maintenance on construction equipment, including forklifts and front-end loader. Records maintenance on DA Form 2402. Maintains tools and test equipment. Supervises lower grade repairers.
Light Wheeled Vehicle Mechanic	Performs unit maintenance of the unit's organic vehicles and equipment. Maintains power-assisted brake systems, wheeled vehicle suspension systems, wheel/hub assemblies, mechanical and hydraulic steering systems, and wheeled vehicle crane/hoist/winch assemblies. Records maintenance on DA Form 2402. Maintains tools and test equipment.
Equipment Records/Parts Specialist	Assists motor sergeant in maintaining equipment maintenance records and schedules required by TAMMS. Maintains stock locator system and administers document control procedures. Performs manual or automated PLL and SSL. Requests, receives, and stores all repair parts and reference publications to support unit maintenance.

Table 2-6. Unit Maintenance Section Equipment

Equipment
CLEANER STEAM PRESSURE JET TRAILER-MOUNTED
CABLE TELEPHONE: WD-1/TT DR-8 1/2 KM
CHARGER BATTERY: PP—34/MSN

Table 2-6. Unit Maintenance Section Equipment (continued)

Equipment
COMP UNIT RCP: TRK 2 WHL PNEU TIRES GAS DRVN 5-CFM 175 PSI
GEN SET: DED SKID MTD 3-KW 60-HZ
HEATER: DUCT TYPE PORTABLE 1200-00 BTU
HOSE ASSY: NONMETALLIC FUEL/OIL HYDROCARBON USE BRASS FTGS
REELING MACHINE CABLE HAND: RL-39
TEST SET ELECTRONIC SYSTEMS: AN/PSM-80(V)2
TELEPHONE SET: TA-312/PT
TENT: FRAME TYPE MAINT MEDIUM LT METAL COTTON DUCK OD7
SHOP EQUIPMENT AUTO MAINT & REPAIR: OM COMMON NO. 1 LESS POWER
SHOP EQUIPMENT AUTO MAINT & REPAIR: ORG SUPPLY NO. 1 LESS POWER
TOOL KIT GENERAL MECHANICS: AUTOMOTIVE
TRAILER CARGO: LMTV W/DROP SIDES
TRUCK CARGO: LMTV W/E

PROVIDER PLATOON HEADQUARTERS

2-5. The Provider Platoon Headquarters is responsible for one FP module, its operations, and assigned personnel. It may or may not be co-located with Company Headquarters, depending on theater needs and number of modules employed. The Provider Platoon Headquarters personnel direct the set up, operation, and dismantling of the modules operational sites, MWR facilities, shelters and equipment for the modules, and administrative and operator billeting areas. Personnel assigned to this headquarters and their assigned duties are given Table 2-7.

2-6. Table 2-8 lists the equipment organic to the QM FP Company, Provider Platoon Headquarters Section. Check your MTOE for actual authorizations. Configuration for modules is given in Appendix B.

Table 2-7. Provider Platoon Headquarters Personnel

Position	Duties
Platoon Leader	Provides command and control for one FP module and personnel. Advises company commander on module operation. Responsible for overall operation of one FP module.

Table 2-7. Provider Platoon Headquarters Personnel (continued)

Position	Duties
Platoon Sergeant	Assists the platoon leader. Assumes duties of platoon leader during periods of absence. Advises platoon leader on operational, administrative, training, and defensive matters. Ensures that module operated safely coordinates with local environmental compliance officer to ensure conformance with all local environmental protection policies. Coordinates operation and responsibilities of sections within the platoon.
Supply/Billeting NCO	Controls billeting spaces and coordination. Communicates with supported units to arrange details for planned visits, such as exact number of soldiers by gender, arrival times, and dates. Ensures supported/tenant units are briefed on camp policies and services available. Orders, receives, stores, and issues supplies and equipment required for module operation. Ensures security for supplies. Supervises supply specialists.
MHE Operator	Operates forklifts/MHE during setup and operation. Performs operator maintenance and services on MHE equipment.
Supply Specialist	Assists with the duties of supply/billeting NCO. Orders, receives, stores, and issues supplies and equipment required for module operation. Also light vehicle driver for 1¼-ton cargo/troop truck (HMMWV) assigned to platoon leader. Also operates radio and switchboard. Operates forklift/MHE equipment.

Table 2-8. Provider Platoon Headquarters Equipment

Equipment
Cable Telephone: WD-1/TT DR-8 1/2 KM
Dolly Set Lift Transportable Shelter: 7-1/2-Ton
Digital NonSecure Voice Terminal w/Digital Data Port: TA 1042A/700
Inst Kit: Mk-2325/VRC for AN/VRC-87/88/90 In HMMWV
Lightweight Digital Facsimile: AN/UXC-7
Radiac Set: AN/VDR-2
Reeling Machine Cable Hand: Rl-39
Radio Set: AN/VRC-90A
Telephone Wire with Reel: Mx-1089 1/G
Truck Lift Fork: Dsl Drvn 10,000 Lb Cap 48-In Ctr Rough Terrain
Truck Lift Fork: Dsl Drvn 4,000-Lb Cap Rough Terrain

Table 2-8. Provider Platoon Headquarters Equipment (continued)

Equipment
Truck Utility: Cargo/Troop Carrier 1-1/4 Ton 4x4 w/E (HMMWV)
Switchboard Telephone Manual: SB-22/PT
Telephone Set: TA-312/PT
Trailer Cargo: ¾-Ton, 2 Wheel w/E
Alarm Chemical Agent Automatic: XM22
Data Transfer Device: AN/CYZ 10
Truck Cargo: 4x4 LMTV w/E
FP Module

PLATOON MAINTENANCE TEAM

2-7. The FP Platoon Maintenance Teams provide maintenance capability for the platoon's equipment, except COMSEC and communications electronics security. It provides maintenance support to the FP module. There will normally be as many platoon maintenance teams as provider platoons/FPs modules. Personnel assigned to this team and their duties are given in Table 2-9. Table 2-10 lists the equipment organic to the QM FP Company, Platoon Maintenance Team. Check your MTOE for actual authorizations. Configuration for module is given in Appendix B.

Table 2-9. Platoon Maintenance Team Personnel

Position	Duties
Senior Mechanic	Assists with duties of motor sergeant. Performs mechanic duties on light- and heavy-wheeled vehicles and supervises lower ranking soldiers in the maintenance section. Prepares daily work assignments, listing priorities, work areas, and cleanup assignments. Supervises BDAR and recovery operations. Enforces safety/environmental procedures and security for all maintenance equipment and supplies, especially power tools and POLs. Performs administrative duties.

Table 2-9. Platoon Maintenance Team Personnel (continued)

Position	Duties
Light-Wheeled Vehicle Mechanic	Performs unit maintenance of the unit's organic vehicles and equipment. Maintains power-assisted brake systems, wheeled vehicle suspension systems, wheel/hub assemblies, mechanical and hydraulic steering systems, and wheeled vehicle crane/hoist/winch assemblies. Records maintenance on DA Form 2404. Maintains tools and test equipment. Supervises lower grade mechanics.
QM & Chemical Equipment Repairer	Performs unit maintenance on Quartermaster equipment, including tents. Disassembles, inspects, and replaces equipment components as required. Performs lubrication and services. Records maintenance on DA Form 2404. Maintains tools and test equipment. Supervises lower grade repairers.
Heavy-Wheeled Vehicle Mechanic	Performs unit maintenance on heavy-wheeled vehicles and assists light-wheeled vehicle mechanics when required. Records maintenance on DA Form 2402. Supervises lower grade mechanics and provides technical guidance.
Construction Equipment Repairer	Performs unit maintenance on construction equipment, including forklifts and front-end loader. Records maintenance on DA Form 2404. Maintains tools and test equipment.

Table 2-10. Platoon Maintenance Team Equipment

Equipment
Cable Telephone: WD-1/TT DR-8½-KM
Multimeter Digital: AN/PSM-45
Reeling Machine Cable Hand: RI-39
Telephone Set: TA-312/PT
Tool Kit General Mechanics: Automotive
Tool Kit: Master Mechanics

SECTION II – FP PLATOON

2-8. The FP Platoon contains the personnel necessary to operate a FP module. One module is deployed with each Provider Platoon Headquarters. In addition to the platoon headquarters and maintenance team, a platoon consists of a food service section, a laundry and shower section, a water distribution section, a facilities support section and a petroleum distribution section. Section personnel and equipment are discussed below.

FOOD SERVICE SECTION

2-9. The Food Service Section provides three cook-prepared meals daily for maximum customer/tenant personnel and FP operators. Personnel assigned to this section and their duties are given in Table 2-11. Table 2-12 lists the equipment organic to the QM FP Company, Food Service Section. Check your MTOE for actual authorizations. Configuration for modules is given in Appendix B.

Table 2-11. Food Service Section Personnel

Position	Duties
Senior Food Operations Sergeant	Supervises cooks assigned to the platoon. Prepares production schedules. Prepares food ration requests. Assigns and inspects food service personnel. Supervises food preparation and service. Prepares SOP for food service personnel, including instruction sheets for headcounters. Records equipment shortages and maintains logbooks.
Senior First Cook	Assists and supervises food service operations in the absence of Senior Food Operations Sergeant. Supervises food preparation and service. Performs duties assigned by Senior Food Operations Sergeant. Responsible for ensuring kitchen and dining facilities are kept clean and in proper order. Inspects refrigerators, freezers, and food storage areas for cleanliness and proper temperature. Directs personnel in proper disposal of grease and food waste. Ensures food service areas are vector-free. Prepares more complex food items.
Cook	Prepares, cooks, and serves food according to recipes, cooking time and temperatures, and kitchen SOP. Cleans work area and utensils. Receives, inspects, and stores food items. Inspects refrigerators, freezers, and food storage areas for cleanliness and proper temperature. Sets up serving lines. Portions and serves food. Depending on grade, also performs operator level maintenance and PMCS on food service equipment. Cleans and sanitizes food service equipment and utensils. Disposes of grease and food waste as directed. Performs headcounting. Also light vehicle driver.

Table 2-12. Food Service Section Equipment

Equipment
Cable Telephone: WD-1/TT DR-8½-Km
Reeling Machine Cable Hand: RI-39
Telephone Set: TA-312/PT
Trailer Cargo: LMTV w/Drop Sides
Truck Cargo: 4x4 LMTV w/E

LAUNDRY AND SHOWER SECTION

2-10. The Laundry and Shower Section plans and coordinates internal logistics requirements to include the ability to provide shower support on the basis of one shower per soldier per day. The laundry system has the capability to launder up to 15 pounds of laundry per soldier within a three-day period. Personnel assigned to this section and their duties are given in Table 2-13. Table 2-14 lists equipment organic to the QM FP Company, Laundry and Shower Section. Check your MTOE for actual authorizations. Configuration for module is given in Appendix B.

Table 2-13. Laundry and Shower Section Personnel

Position	Duties
Senior Laundry NCO	Supervises section personnel. Directs section personnel in sanitary operation of laundry, shower, and latrine subsystems of FP. Coordinates potable water and waste water requirements with water distribution section personnel. Performs administrative duties.
Laundry NCO	Assists with duties of Senior Laundry NCO applicable to laundry subsystem. Determines and distributes laundry SOP. Supervises operation of laundry personnel and equipment.
Shower NCO	Assists with duties of Senior Laundry NCO applicable to shower subsystem. Determines and distributes shower SOP. Supervises operation of shower personnel and equipment.
Laundry Specialist	Operates laundry equipment. Performs operator PMCS and maintenance on laundry and latrine equipment. Performs duties assigned by Laundry NCO. Also drives light vehicles.
Shower Specialist	Operates shower equipment. Performs operator PMCS and maintenance on shower and latrine equipment. Performs duties assigned by Shower NCO.

Table 2-14. Laundry and Shower Section Equipment

Equipment
Cable Telephone: WD-1/TT Dr-8½-Km
Reeling Machine Cable Hand: Rl-39
Truck Cargo: MTV w/E
Telephone Set: TA-312/PT
Truck Cargo: 4x4 MTV w/E

WATER DISTRIBUTION SECTION

2-11. The Water Distribution section will provide about 80,000 gallons of treated water over a three-day period. The water distribution system, specific to the FP module, provides the section with the capability of storing, distributing and disposal of water for supported/tenant units. Personnel assigned to this section and their duties are given in Table 2-15. Table 2-16 lists the equipment organic to the QM FP Company Water Distribution Section. Check your MTOE for actual authorizations. Configuration for modules is given in Appendix B.

Table 2-15. Water Distribution Section Personnel

Position	Duties
Water Treatment Supervisor	Supervises installation and operation of FP water distribution, water storage, and water purification equipment. Supervises section personnel. Plans and coordinates water supply, receipt, and usage for one FP module. Confirms program compliance through consultation with local environmental compliance officer. Prepares written plans and reports applicable to water distribution.
Water Treatment NCO	Supervises water distribution section in the absence of Water Treatment Supervisor. Installs, operates, and performs operator maintenance on water distribution section equipment. Monitors water quality and residual chlorine levels, and makes adjustments as necessary. Assists lower grade Water Treatment Specialists. Performs duties assigned by Water Treatment Supervisor.
Water Treatment Specialist	Installs, operates, and performs operator maintenance on FP water distribution section equipment. Monitors water quality and residual chlorine levels. Performs duties assigned by Water Treatment Supervisor. Also drives light vehicles.

Table 2-16. Water Distribution Section Equipment

Equipment
Cable Telephone: Wd-1/Tt Dr-8½-Km
Comparator Color: Hydrogen Ion Residual Chlorine
Reeling Machine Cable Hand: Rl-39
Semitrailer Flat Bed: Breakbulk/Cont Transporter 22 ½-Ton
Tank Assy Fabric Collapsible: 3,000 Gal Water Semitrailer Mtd
Truck Tractor: MTV w/E
Truck Cargo: MTV w/E
Telephone Set: TA-312/PT
Truck Cargo: 5-Ton 6X6 LWB w/E

FACILITIES SUPPORT SECTION

2-12. The Facilities Support Section supervises and coordinates all lighting, climate control, power generation and distribution, and all facilities support for FP. Personnel assigned to this section and their duties are given in Table 2-17. Table 2-18 lists the equipment organic to the QM FP Company Facilities Support Section.

Table 2-17. Facilities Support Section Personnel

Position	Duties
Senior Utilities Equipment Repairer	Inspects installation and condition of FP utility systems. Applies DA principles in setting up maintenance priorities, allocating workloads, and parts substitutions. Controls requisition, storage, and inventory of shop stock, materials, special tools and required publications.
Interior Electrician	Performs maintenance of interior electrical systems and equipment throughout the FP module. Troubleshoots electrical systems to determine cause of malfunctions. Performs safety inspections on electrical systems and equipment to ensure circuits are not overloaded. Wires/rewires equipment for proper phase alignment and operation.
Utilities Equipment Repairer	Installs and maintains heating, refrigeration, and air conditioning equipment within the FP module. Determines category of maintenance and extent of repairs required. Inspects equipment for serviceability and determines proper disposition. Provides assistance and supervision to lower grade repairers. Performs tasks assigned by Senior Utilities Equipment Repairer.

Table 2-17. Facilities Support Section Personnel (continued)

Position	Duties
Power Generation Equipment Repairer	Troubleshoots and repairs power generation equipment. Repairs, overhauls, and rebuilds component assemblies. Determines cost of repairs and classifies unserviceable equipment for disposition when required. Performs complex tests and analysis to determine system operation. Assists lower grade repairers. At different grades, operates power generation equipment. Performs unit maintenance and services on equipment as outlined in applicable technical manuals. Performs repair by adjustment or replacement of faulty components. Monitors equipment for proper phase balancing and makes adjustments as necessary.
Plumber/Pipefitter	Installs hose and pipe systems, plumbing fixtures, and equipment. Joins all types of pipes and hoses. Determines location and route of systems and equipment. Performs preventive maintenance and services. Evaluates and repairs leaks. Fabricates hose/pipe sections and assemblies using bulk materials and component pieces.

Table 2-18. Facilities Support Section Equipment

Equipment
Cable Telephone: WD-1/TT DR-8 ½-Km
Multimeter Digital: AN/PSM-45
Reeling Machine Cable Hand: Rl-39
Tractor Wheeled: DSL 4x4 w/Excavator and Front Loader
Truck Utility: Cargo/Troop Carrier 1¼-Ton 4x4 w/E (HMMWV)
Telephone Set: TA-312/PT
Tool Kit General Mechanics: Automotive
Tool Kit Carpenters: Engineer Squad w/Chest
Tool Kit: Master Mechanics
Tool Kit Pipefitters: 1/8 -to 2-in Pipe
Tool Kit Plumbers: Field Maint and Repair of Plumbing
Tool Kit Service Refrigeration Unit: General Maintenance
Trailer Cargo: ¾-Ton 2-Wheel w/E
Truck Cargo: 4x4 LMTV w/E

PETROLEUM DISTRIBUTION SECTION

2-13. This section provides receipt, storage, and distribution of Class III in support of FP operations. Personnel assigned to this section and their duties are given in Table 2-19. Table 2-20 lists the equipment organic to the QM FP Company, Petroleum Distribution Section. Check your MTOE for actual authorizations. Configuration for modules is given in Appendix B.

Table 2-19. Petroleum Distribution Section Personnel

Position	Duties
Petroleum Supply Sergeant	Performs supervisory duties. Supervises section personnel. Controls, plans, and coordinates petroleum activities. Estimates requirements for personnel, equipment, user/organizational maintenance, and repair of petroleum distribution facilities. Initiates and supervises environmental protection stewardship programs, including spill prevention and contingency plans. Reviews, consolidates, and prepares technical, personnel, and administrative reports associated with POL activities in the company. Supervises unit level quality surveillance operations. Confirms program compliance through consultation and local environmental compliance officer.
Petroleum Heavy Vehicle Operator	Assigns duties, spot checks work adequacy, and instructs and supervises subordinates in work techniques and procedures. Assists in the setup and operation of the FP bulk fuel subsystem. Operates petroleum heavy vehicles for distribution of bulk fuels. Issues and dispenses bulk fuels. Performs petroleum accounting duties. Supervises and performs operator maintenance on assigned equipment. Ensures adherence to safety procedures and ensures keeping of efficient, clean, and safe working environment.
Fuel Handler	Assists in the setup and operation of the FP bulk fuel subsystem. Receives bulk and packaged bulk POL products from tankers and/or contractors. Maintains bulk fuel storage and distribution equipment. Dispenses bulk fuels and fuels vehicles and aircraft. Identifies fuel products. Performs accounting procedures. Ensures fuels are free of contaminants and water. Ensures POL storage is in compliance with safety and environmental protection stewardship programs, including spill prevention and contingency plans. Selects and submits samples of POL to laboratory for testing. Performs petroleum accountability duties. Operates equipment associated with petroleum storage and distribution systems. Fuels and defuels vehicles and stationary equipment. Takes emergency precautions to prevent harm to self, facilities, and environment in event of petroleum spillage or fire.
Petroleum Light Vehicle Operator	Assists in the setup and operation of the FP bulk fuel subsystem. Operates petroleum vehicles to deliver POL. Issues and dispenses bulk fuels. Performs operator maintenance and services on equipment assigned. Performs accounting duties. Takes emergency precautions to prevent harm to self, facilities and environment in event of petroleum spillage or fire.

Table 2-20. Petroleum Distribution Section Equipment

Equipment
Cleaner Steam Pressure Jet Trailer-Mounted
Cable Telephone: WD-1/TT DR-8½ Km
Comp Unit Rty: Air Trlr Mtd Dsl Drvn 2500 CFM 100 PSI
Gen Set: Ded Skid Mtd 3 KW 60 HZ
Reeling Machine Cable Hand: Rl-39
Semitrailer Tank: 5000-Gal Fuel-Dispensing Automotive W/E
Telephone Set: TA-312/PT
Tiedown Assy: Chain Type for Collapsible Fabric Drums
Truck Cargo: 4x4 MTV w/E
Truck Tractor: MTV w/E
Trailer Cargo: MTV w/Drop Sides
Truck Tank: POL MTV w/E

Chapter 3

FP Module

SECTION I – INTRODUCTION TO FP MODULE

GENERAL INFORMATION

3-1. A FP module is the basic building block for larger FP systems. One 550-person FP unit is termed a module. As many as six modules may be joined depending upon the mission. The major FP subsystems may also be rearranged to hold a particular terrain, mission, local utility support, or area constraint.

3-2. The FP module consists of existing and new CSS equipment. It is built around specific subsystems, some of which are only found in a FP module (containerized latrine, water, the all-electric kitchen, and the containerized batch laundry). Not all modules are identical. Throughout the production cycle of the planned 36 modules, modifications and improvements have been made to the module under production at that time. Module configurations are listed in Appendix B. A sample layout of the FP system is shown in Figure 3-1.

3-3. Aside from efficiency, a major factor in the design of the module was storage and ease of transportation. The system is packaged in about 100 TRICONs. Each TRICON's outside dimensions of are 8 by 8 by 6½ feet. It weighs under 10,000 pounds. Containerized latrines and batch laundry subsystems are housed and shipped in 20-foot containers. Modules are Army pre-positioned stock, available for deployment/placement, by air, land or sea, from either CONUS depots or pre-positioned ships.

3-4. A FP module contains 11 major functional areas, also known as FP module subsystems. In some cases, a subsystem may be located at more than one site, such as the latrine and shower; or may be large and dispersed, such as graywater collection. The major subsystems of a FP module are:

- Billeting TEMPER with ECU for heating and cooling
- Administrative facility
- Morale, welfare, and recreation facility
- Portable field shower assembly (12-head) or containerized shower (depending on the module)
- Containerized batch laundry
- Containerized latrine
- Food service subsystem (all electric)
- Bulk fuel storage and distribution system

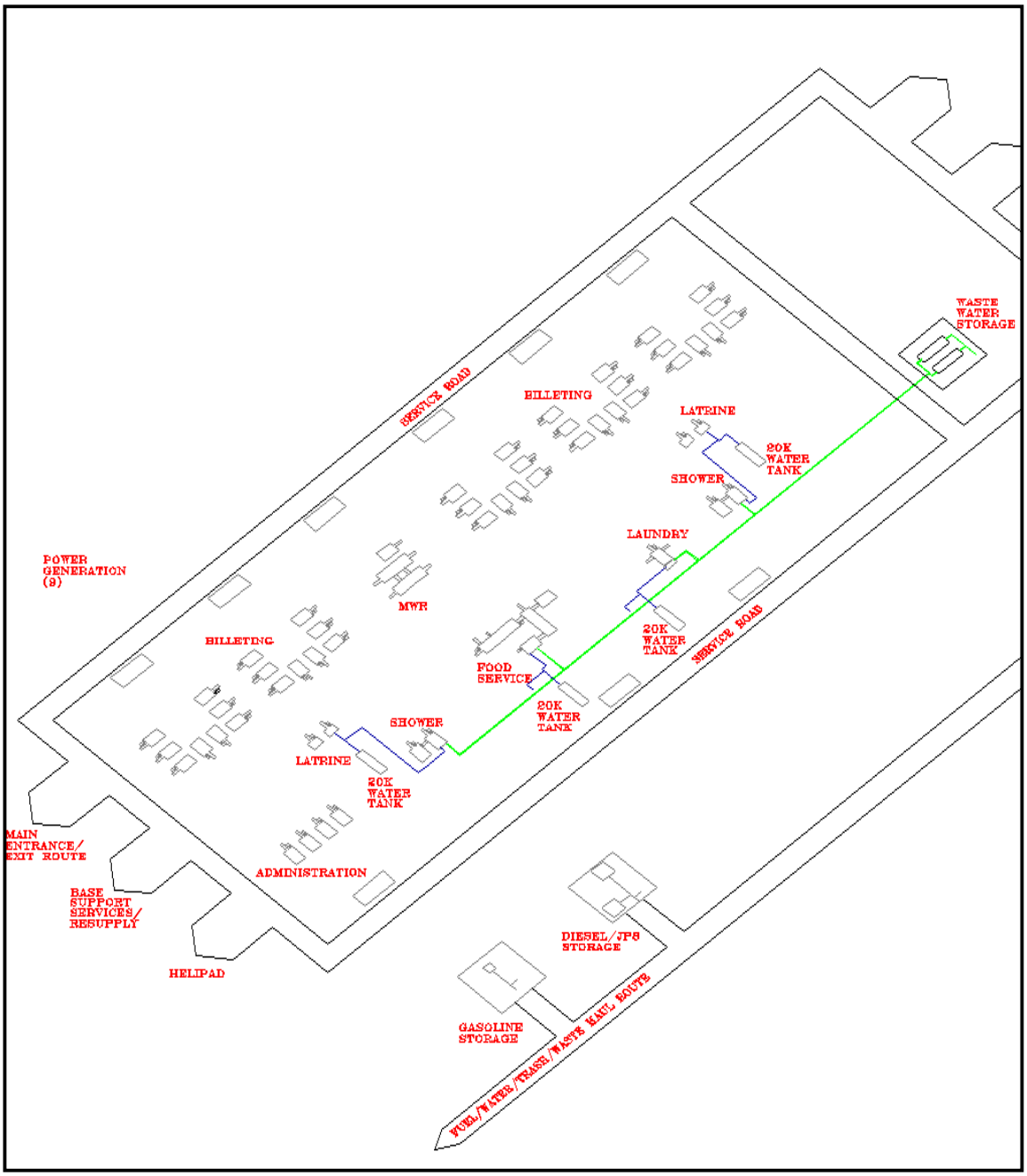


Figure 3-1. FP Module Layout

- Potable water storage and distribution system
- Graywater collection system
- PDISE

MAST

3-5. Current initiatives underway by the FP PM office include development of the Maintain, Account, Sustain and Train informational database system for FP. The MAST system will use AIT to support asset inventory by tagging durable and non-expendable components. The automated asset inventory will enhance the maintenance, accounting, sustaining, and training capabilities of FP modules, with specific emphasis on operator/camp manager requirements. It is being designed to interface with GCSS-Army database. (GCSS-Army web site: http://www.cascom.army.mil/automation/gcss-army_global_combat_support_system-army). Specific MAST capabilities will include the following:

- Enhance inventory speed and accuracy for both deployment and retrograde.
- Enhance maintenance by providing additional links and information resources for identification of FP validated substitutes and spare parts.
- Provide inventory management and operational status tracking.
- Provide technical and operational data for both the overall system and appropriate subsystems.
- Provide early data reporting to FP PM of maintenance and inventory status of retrograde material.

SECTION II – FP SUBSYSTEMS

TEMPER

3-6. The heart of the FP module is the TEMPER. It provides climate-controlled billeting and supports facilities for customer/tenant functions. The TEMPER is equipped with Bruce lights, convenience outlets, fabric flooring, heating and air-conditioning, as well as vestibules and bump-through doors. Each billet TEMPER is equipped with 15 cots and footlockers, chairs and cleaning supplies. TEMPERs are constructed in 8-foot sections. A 32-foot TEMPER has four 8-foot sections, and requires 11 soldiers to erect (leader and two soldiers per arch). Table 3-1 shows Tempers in a typical FP module:

Table 3-1. TEMPERs in a Typical FP Module

AREA	TEMPERS		
	32-foot	64-foot	96-foot
Customer Billeting	38		
Operator Billeting	6		
Administrative/Medical/MWR services	6		
MWR facility		2	
Chaplain facility	1		
Sanitation and preparation of food	2		
Dining facilities		1	1
CBL	1		
Field shower subsystem (2 each)	4		
Containerized shower subsystem	2		

3-7. ARTEP 42-424-30 MTP contains Crew Drills 42-2-D001, 42-2-D002 and 42-2-D003 for the set up, operation, and dismantling of the TEMPER. Available publications on the TEMPER and auxiliary equipment are:

- TM 5-4120-390-14
- TM 10-5419-200-12
- TM 9-6150-226-13
- TM 9-6150-226-23&P
- TM 10-8340-224-13
- TM 10-8340-224-23&P

ADMINISTRATIVE SUBSYSTEM

3-8. The administrative subsystem provides facilities for administrative support, medical support and chaplain services. The six 32-foot TEMPERs, which share a common area, are used for:

- **Administrative.** Provides space for the FP Company to control day-to-day operations of the module; includes tables and chairs.
- **Medical.** Provides a space for user unit or medical personnel and equipment to occupy in support of a particular FP mission; includes tables, chairs, cots, and a first aid kit.
- **Chaplain.** Provides space for user unit or chaplain personnel and equipment to occupy in support of a particular FP mission; includes tables, chairs and assorted religious items.

3-9. ARTEP 42-424-30 MTP contains Crew Drills 42-2-D001, 42-2-D002, and 42-2-D003 for the set up, operation, and dismantling of the TEMPER. Available publications on the TEMPER and auxiliary equipment are:

- TM 10-8340-224-13
- TM 10-8340-224-23&P
- TM 5-4120-390-14
- TM 10-5419-200-12.
- TM 9-6150-226-13
- TM 9-6150-226-23&P

MORALE, WELFARE AND RECREATION SUBSYSTEM

3-10. The MWR subsystem consists of two 64-foot TEMPERs and one 32-foot TEMPER, with ECUs and cleaning supplies to house MWR functions/services to support FP. These services may include finance, mail handling, telephones, barber shop, recreational facility, personnel services and a post exchange. Limited recreational equipment may be included, such as tennis tables, weights, and big-screen TV with VCR and satellite dish.

3-11. ARTEP 42-424-30 MTP contains Crew Drills 42-2-D001, 42-2-D002 and 42-2-D003 for the set up, operation, and dismantling of the TEMPER. Available publications on the TEMPER and auxiliary equipment are:

- TM 10-5419-200-12
- TM 10-8340-224-13
- TM 10-8340-224-23&P
- TM 9-6150-226-13
- TM 9-6150-226-23&P
- TM 5-4120-390-14

SHOWER SUBSYSTEM

3-12. The portable field shower assembly is familiar to most field service personnel. The housing facility for this shower is what makes it different from other standard setups. The shower is housed in a climate-controlled TEMPER joined by a vestibule to another TEMPER for use as a changing area. Eleven soldiers are required to erect the 32-foot TEMPERs (leader and 2 soldiers per arch). After the TEMPER has been erected, only three soldiers are required to set up the remainder of the facility. Figure 3-2 shows the major components of the shower subsystem.

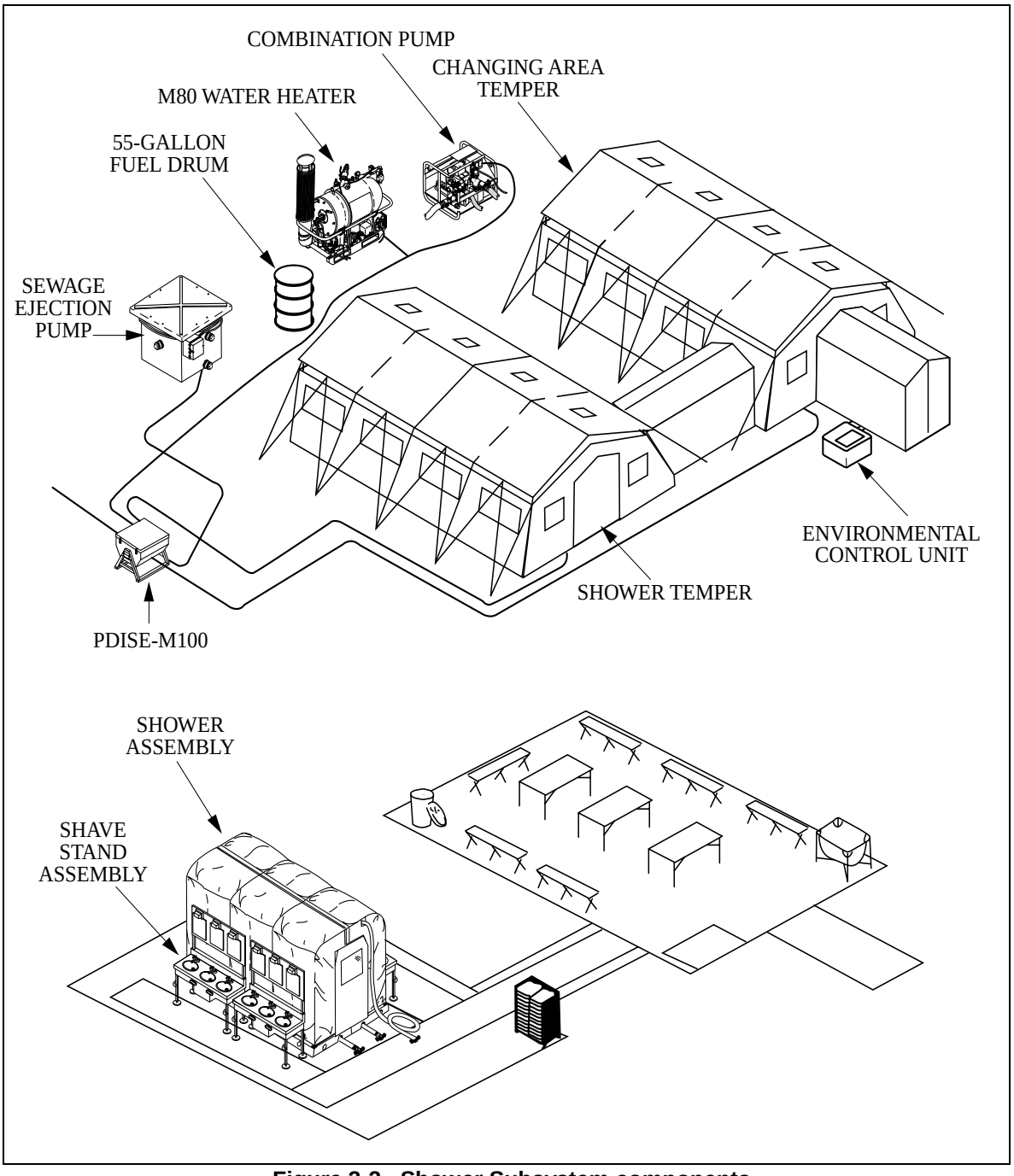


Figure 3-2. Shower Subsystem components.

3-13. A FP module contains two Shower Subsystems. Key components of each shower facility include:

- Two 32-footTEMPERS, vestibule and furniture
- Portable field shower assembly (12-head) with accessories
- Shave stand assemblies
- Combination pump with hoses and fittings
- M-80 Water heater
- SEP and hoses
- PDISE and cables
- ECU

3-14. ARTEP 42-424-30 MTP contains Crew Drills 42-2-D001, 42-2-D002, and 42-2-D003 for the setup, operation, and dismantling of the TEMPER. Crew Drills 42-2-D008 and 42-2-D009 are provided for the setup, maintenance, operation, and dismantling of the 12-head shower. Available publications on the shower subsystem and auxiliary equipment are:

- TM 10-4520-259-13&P
- TM 10-5419-200-12
- TM 10-8340-224-13
- TM 10-8340-224-23&P
- TM 5-4120-390-14
- TM-9-6150-226-13
- TO 35E35-4-1
- TO 35E35-3-1

CONTAINERIZED SHOWER

3-15. A containerized shower is being developed for future modules. It will house 12 private shower stalls, with separate water controls for each stall. A 32-foot TEMPER for shave stands and a changing area will be included in the subsystem.

CANTAINERIZED BATCH LAUNDRY

3-16. The containerized batch laundry subsystem consists of a 20-foot modified general cargo container and TEMPER. It houses two commercial-duty washers and dryers permanently mounted within the container. A modified end wall attaches to a standard 32-foot TEMPER for use as a workstation. A leader and two soldiers are required to set up the CBL. Eight additional soldiers are required to erect the TEMPER, position the M-80 water heater, and install the CBL exhaust fan. See Figure 3-3 for sample layout of the CBL facility.

3-17. A FP module contains one CBL. Major components of the CBL include:

- Modified general cargo container
- One 32-foot TEMPER with modified endwall
- M-80 water heater
- SEP and hoses
- PDISE and cables
- ECU

3-18. ARTEP 42-424-30 MTP contains Crew Drills 42-2-D0004 and 42-2-D005 for the set up, maintenance, and dismantling of the containerized batch laundry. Available publications on the CBL and auxiliary equipment are:

- Commercial Technical Instructions: Cissell 75-pound Laundry Dryer Owner's Manual (MAN354)
- FM 10-280
- Raytheon Unimac Microcomputer Controlled Free-Standing Washer/Extractor Technical Manual (P/N 230510)
- Raytheon Unimac WE-6 Microcomputer Programming Manual for UF Freestanding Models (P/N 230525)
- TM 10-3510-223-13&P
- TM 10-4520-259-13&P
- TM 10-5419-200-12
- TM 10-8340-224-13
- TM 10-8340-224-23&P
- TM 5-4120-390-14
- TM 55-8115-204-23&P
- TM 9-6150-226-13
- TM 9-6150-226-23&P

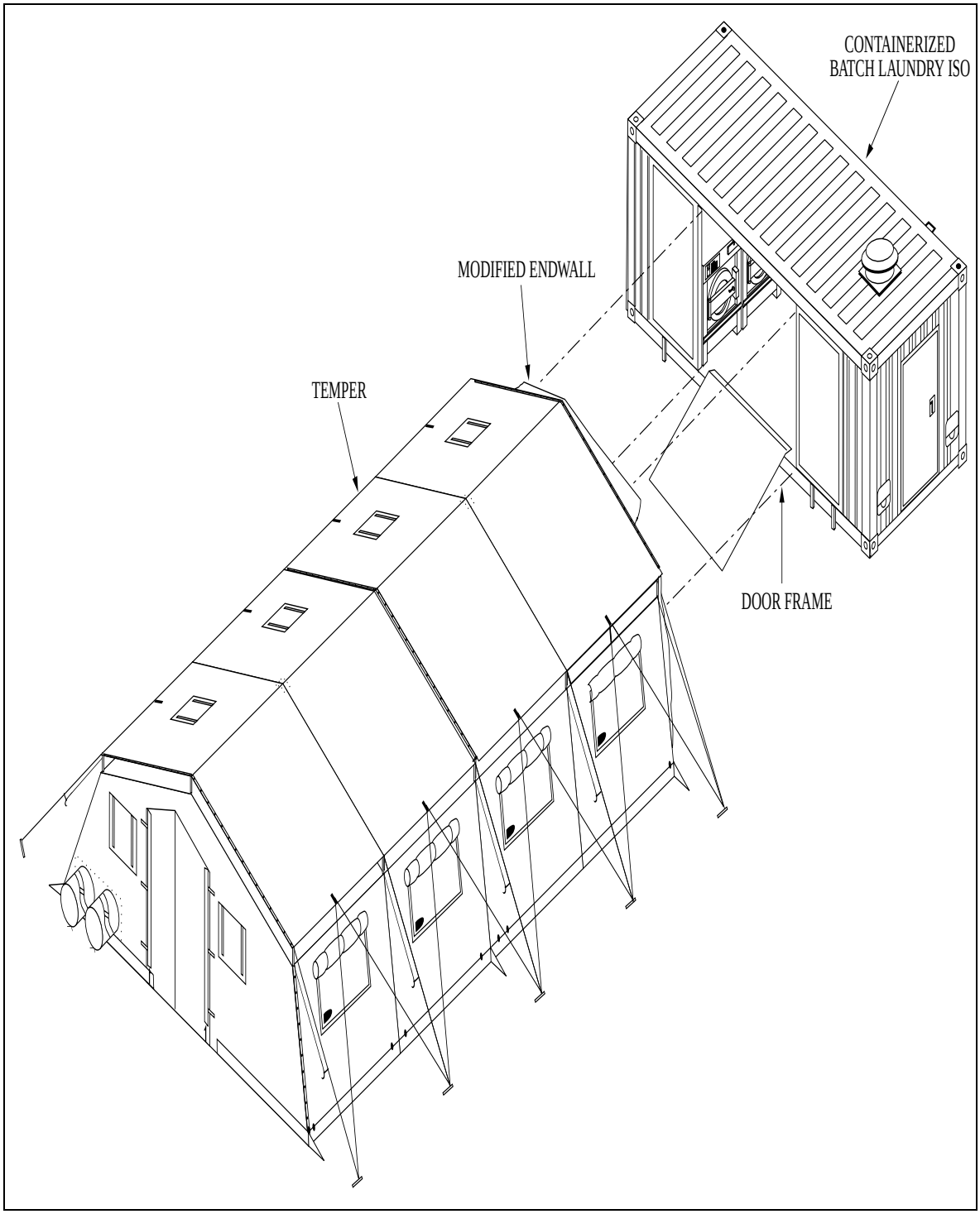


Figure 3-3. Containerized Batch Laundry Subsystem

CONTAINERIZED LATRINE

3-19. The containerized latrine is housed in a 20-foot modified general cargo container that includes all the equipment necessary to operate it. A double sink, three-person urinal, six toilets, a water heater, utility connectors (potable water, blackwater, and electrical), exhaust fan, and a circuit breaker panel are permanently installed within the container. The containerized latrine uses utility/service panels for easy connection and control of potable water, blackwater, and electrical power. Blackwater is contained in the main waste tank below the toilets and collected with the WWVT/T through the service panel. One containerized latrine is designed to support 150 personnel on a continuing basis. A leader and two soldiers are required to set up the latrine. Two additional soldiers are temporarily required to assist in the installation of the ECU. See Figure 3-4 for the containerized latrine subsystem.

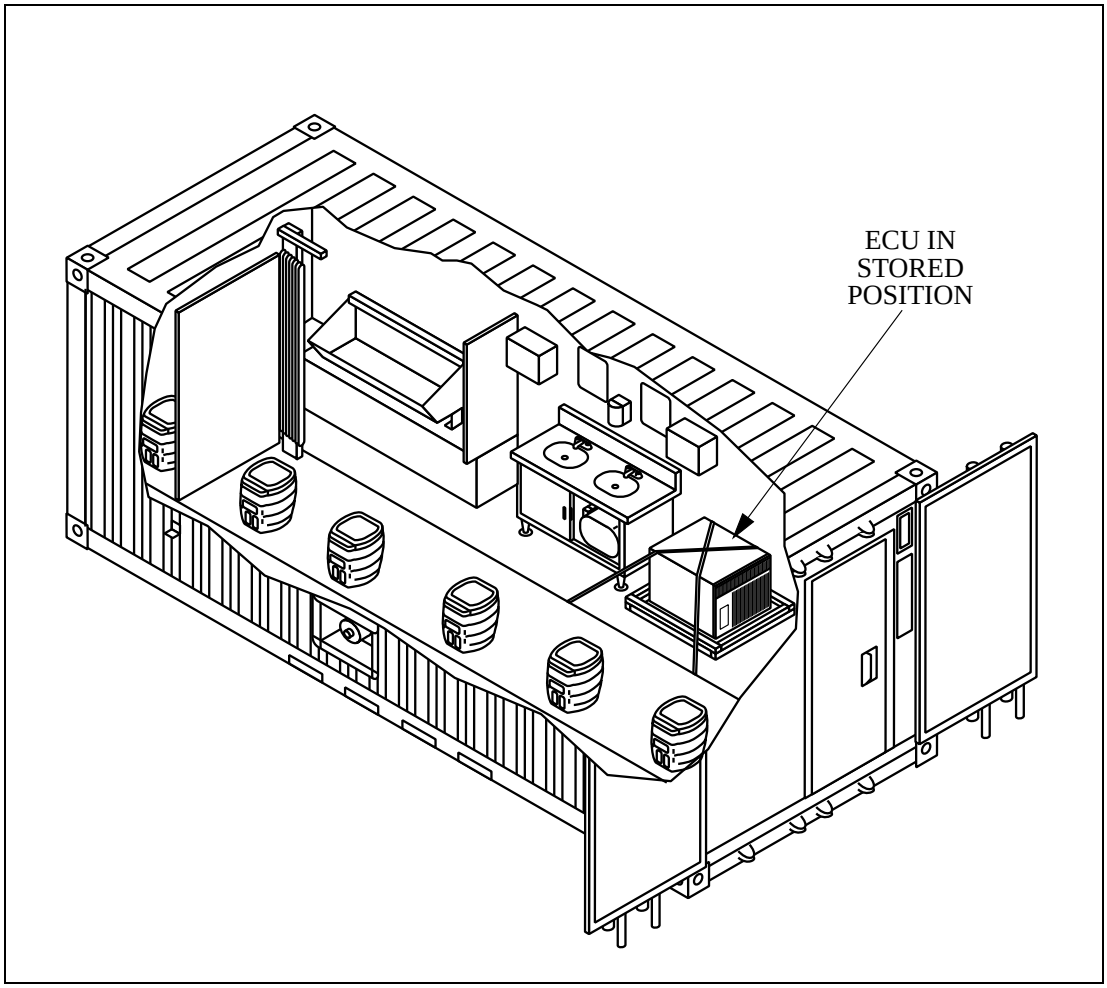


Figure 3-4. Containerized Latrine Subsystem

3-20. A FP module contains four containerized latrines within the subsystem. Key components of each containerized latrine include:

- Modified general cargo container
- ECU
- PDISE and cables
- Potable water system
- Blackwater system
- Optional use: 3K collapsible fabric storage tank and pump

3-21. ARTEP 42-424-30 MTP contains Crew Drills 42-2-0006, and 42-2-0007 for the set up and dismantling of the containerized latrine. Available publications on the CL and auxiliary equipment are:

- TM 10-5419-200-12
- TM 5-4120-390-14
- TM 5-5430-225-12&P
- TM 5-5430-227-12&P
- TM 55-8115-204-23&P
- TM 9-6150-226-13
- TM 9-6150-226-23P
- Commercial Technical Instructions: *Friedrich Room Air Conditioner Operating Guide* (920-003-02)
- *Friedrich Room Air Conditioner Installation Instructions* (920-036-00)
- *Zoeller Sump Pump* (Section: 6.10.020 FM 0447)
- *Atwood L.P.Gas Water Heater* (MPD 93756)
- *Thetford Toilet Owner's Manual* (Form No. 24836)

FOOD SERVICE SUBSYSTEM (ALL ELECTRIC)

3-22. The FP Food Service Subsystem consists of climate-controlled TEMPER facilities for dining, food preparation, kitchen and sanitation areas and the necessary equipment to provide three hot meals daily. The TEMPERs are joined together with vestibules and bump-through doors. A leader and 26 soldiers are required to set up the 96-foot dining TEMPER. The remaining TEMPERs will require two men per arch for erection. A Utilities Equipment Repairer, MOS 52C, is required to supervise and assist in erecting the 600 cubic-foot walk-in refrigerators, positioned outside the food preparation area. See Figure 3-5 for a sample layout of the food service subsystem.

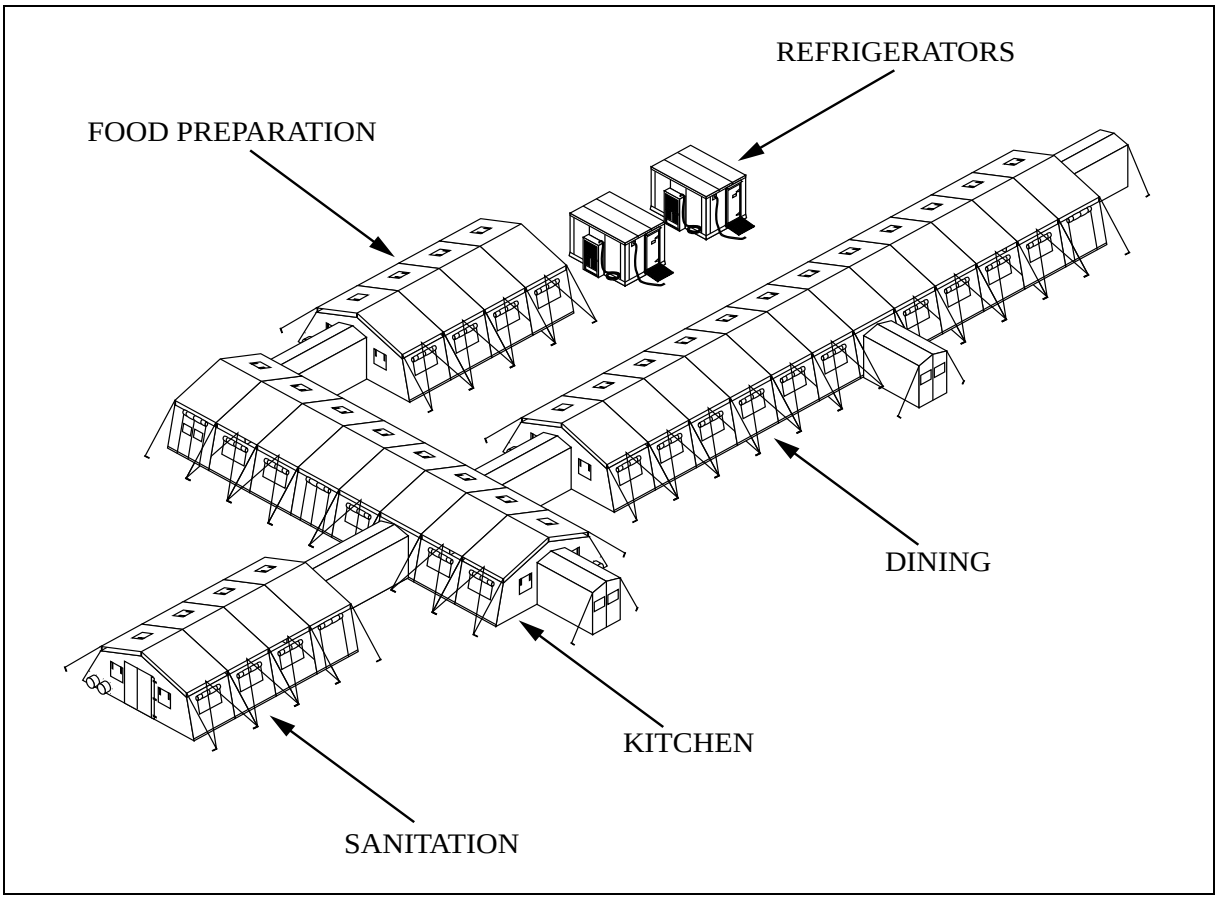


Figure 3-5. FP Food Service Subsystem (all electric)

3-23. A typical FP module contains one all-electric food service subsystem. Key Components of the food service subsystem include:

- 96-foot TEMPER for the dining area with furniture
- 64-foot TEMPER for the kitchen area
- 32-foot TEMPER for the sanitation area
- 32-foot TEMPER for the food preparation area
- Two 600-cubic foot walk-in refrigerators
- Graywater hoses and equipment
- Potable water hoses and equipment
- PDISE and cables
- ECUs
- M-80 water heater
- Grease trap

- Food Preparation equipment (major items are listed below):
  - 2 forced convection double ovens
  - 2 stand-mounted griddles
  - 2 floor-mounted, 30-gallon tilt braising pans
  - 2 floor-mounted, 20-gallon steam kettles
  - 2 floor-mounted, 5-pan opening steam tables, serving and sanitation equipment and accessories

3-24. ARTEP 42-424-30 MTP contains Crew Drills D-42-2-D0013 and 42-2-D0014 for the set-up, maintenance, and dismantling of the food service subsystem. Available publications on the food service subsystem are:

- TM 10-4520-259-13&P.
- TM 10-5419-200-12
- TM 10-8340-224-13
- TM 10-8340-224-23&P
- TM 5-4120-390-14
- TM 9-4110-241-13
- TM 9-6150-226-13
- TM 9-6150-226-23&P

BULK FUEL STORAGE AND DISTRIBUTION SUBSYSTEM

3-25. The petroleum storage and distribution subsystem provides JP-8/diesel fuel and MOGAS for FP operations. It consists of three separate functional areas/capabilities: Bulk JP-8/Diesel Fuel Storage and Distribution, Bulk Gasoline Storage and Distribution, and an optional JP-8/Diesel Fuel Storage and Distribution to support Army Prime Power. Organic equipment authorized to the FP Company includes a 5,000-gallon tanker and two 1,200 gallon-tank and pump units for refueling 500 gallon drums at each of the nine power generation clusters within the area of operations. The Petroleum Storage and Distribution Subsystem does not require electrical power generation for its operations. A drill leader and four soldiers are required for setup of the system. See Figure 3-6 for equipment within the subsystem. Major components of the subsystem are listed below.

3-26. Bulk JP-8/diesel fuel storage and distribution equipment consists of:

- FARE with 100-GPM pumping assembly and 100-GPM filter/separator and required hoses
- Two 10,000-gallon collapsible fabric tanks
- Two berm liner assemblies
- Various adapters
- Hoses
- Fuel spillage control equipment
- Nine 500-gallon drums for each power generation cluster

3-27. Bulk gasoline storage and distribution equipment consists of:

- Three 500-gallon collapsible fabric drums
- FARE with 100-GPM pump and 100-GPM filter/separator and required hoses
- Various adapters
- Two nozzle assemblies
- Hoses
- Fuel spillage control equipment
- Five-gallon fuel cans for transporting fuel to water chillers

3-28. The optional Bulk JP-8/Diesel Storage and Distribution equipment for Army Prime Power consists of:

- Two 10,000-gallon collapsible fabric tanks with berm liner assemblies
- 1 1/2-inch hoses and adapters for connection to Prime Power generation sets

3-29. ARTEP 42-424-30 MTP contains Crew Drills 42-2-D0010, 42-2-D0011, and 42-2-D0012 for the setup, operation, and dismantling of the bulk fuel storage and distribution subsystem. Available publications on the bulk fuel storage and distribution subsystem are:

- TM 10-5419-200-12
- TM 10-8110-201-14&P
- TM 5-6630-218-10
- TM 5-5430-210-12

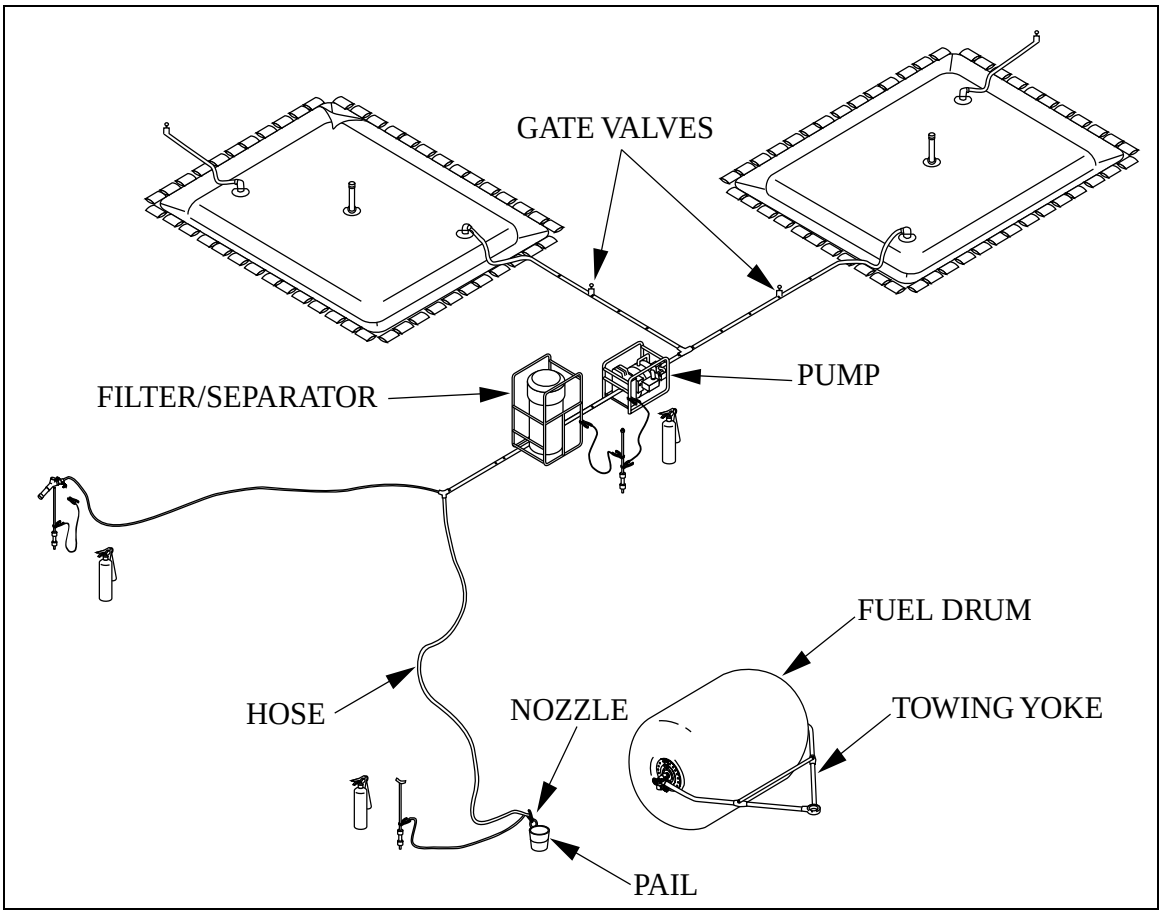


Figure 3-6. Fuel Storage and Distribution Equipment

POTABLE WATER DISTRIBUTION AND STORAGE SUBSYSTEM

3-30. The potable water distribution and storage subsystem consists of four 20,000-gallon storage and distribution sites, which provide potable water to the laundry, shower, food service, and latrine subsystems, and on occasion the medical facility. Also provided are four 400-gallon water tank trailers with water chillers to distribute water to other locations within the area of operations. A drill leader and four soldiers are required for setup of a water distribution site. After the storage tank is set up, two soldiers may be released. See Figure 3-7 for sample layout of the water distribution system.

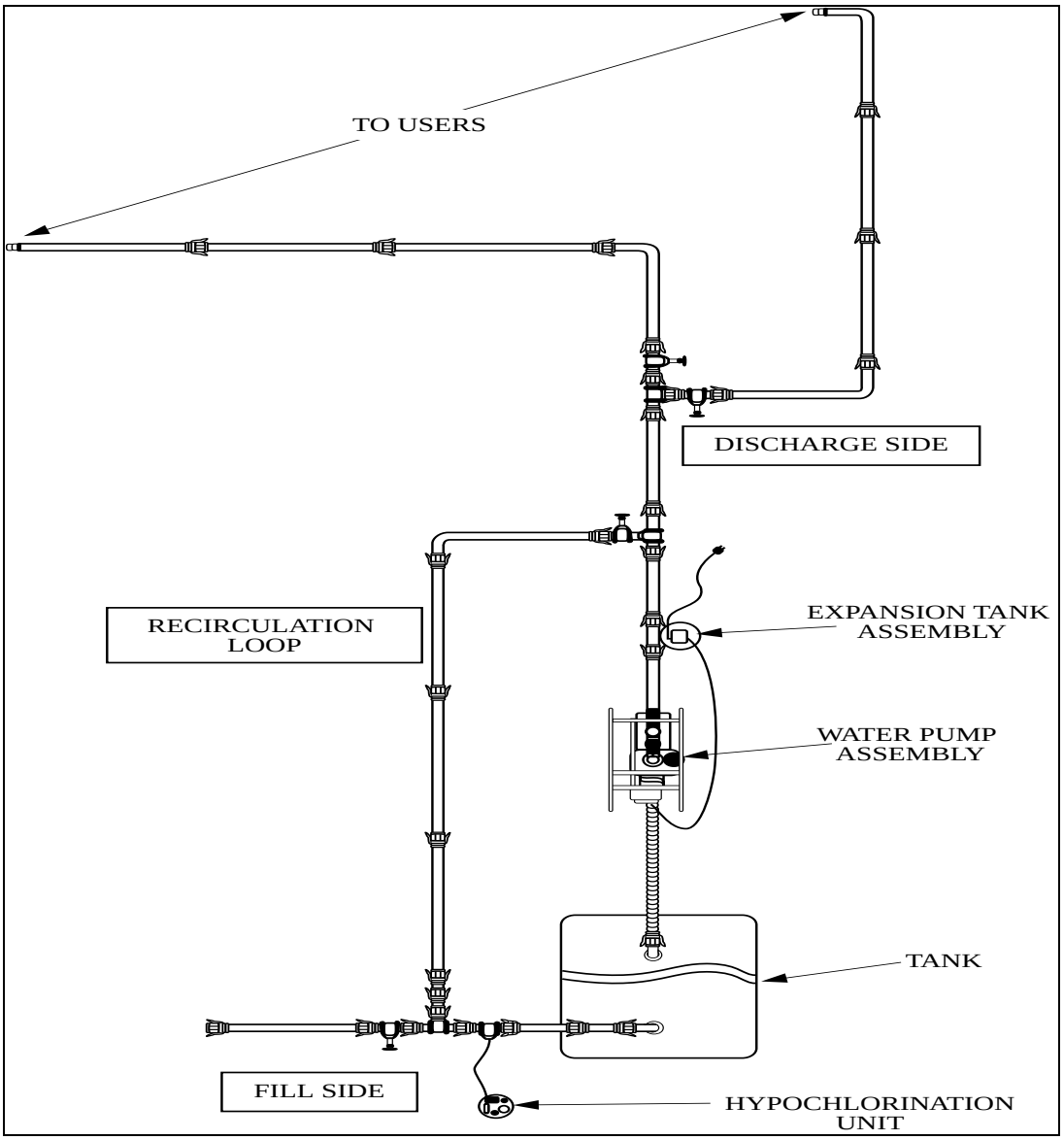


Figure 3-7. Potable Water Distribution and Storage Subsystem

3-31. A FP module contains one potable water distribution and storage subsystem. Major components of the subsystem are listed below

- Four 20,000-gallon collapsible fabric water tanks
- Discharge hose
- Electric water pump
- Pressure tank/switch assembly
- Valves, fittings, nozzle kits, and accessories

- Four 400-gallon water tank trailers with small mobile water chillers
- Four expansion tank assemblies
- Four hyperchlorination units

3-32. ARTEP 42-424-30 MTP contains Crew Drill 42-2-D0018, and 42-2-0019 for the setup, operation, and dismantling of the water storage and distribution subsystem. Available publications on the potable water distribution and storage subsystem are:

- TM 10-5419-200-12
- TM 9-6150-226-13
- TM 9-6150-226-1-23P
- TM 10-4130-237-14
- TM 10-4310-237-24P
- TM 10-6630-246-12&P
- TM 5-4610-228-13&P
- TM 5-5430-225-12&P
- TM 5-5430-226-12
- TM 5-5430-227-12&P
- TM 9-2330-267-14&P

GRAYWATER COLLECTION SUBSYSTEM

3-33. The Graywater Collection Subsystem collects, stores, and disperses graywater from the food service subsystem, containerized batch laundries and portable field shower assemblies. It consists of two 20,000-gallon collapsible fabric tanks for collection, PVC pipe, suction/discharge hoses, assorted fittings, and valves and connector kits to interface to subsystem's sewage ejection pumps. To move graywater off-site, a mobile tank and pump truck or two 125-GPM pumps can be used. An optional tank draining kit (with a 125-GPM pump) is available when graywater is pumped into a municipal sewer system or field-expedient disposal site. Four soldiers are required to set up the 20,000-gallon tanks. QM FP Company is not authorized appropriate personnel to setup, operate, and maintain the graywater subsystem. This is a responsibility of the engineering assets within the corps or area support group.

POWER GENERATION SUBSYSTEM

3-34. The Power Generation Subsystem can provide electrical power needed to operate a FP module. The system is divided into nine power generation clusters, strategically placed in support of one or more of the module subsystems. See Figures 3-8 for sample layout of a cluster. Each cluster contains:

- Three TQGs
- 500-gallon collapsible tank, and liner (maintained and operated by 77F personnel)
- Two junction boxes
- Four P-DISE
- Cables

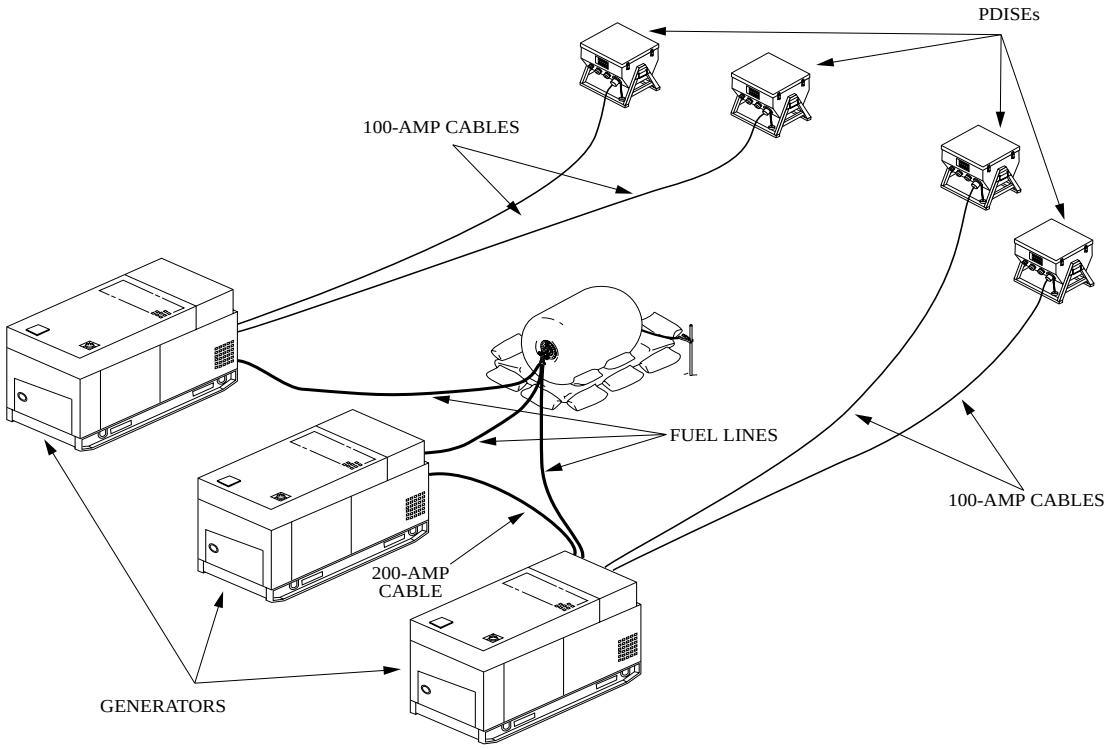
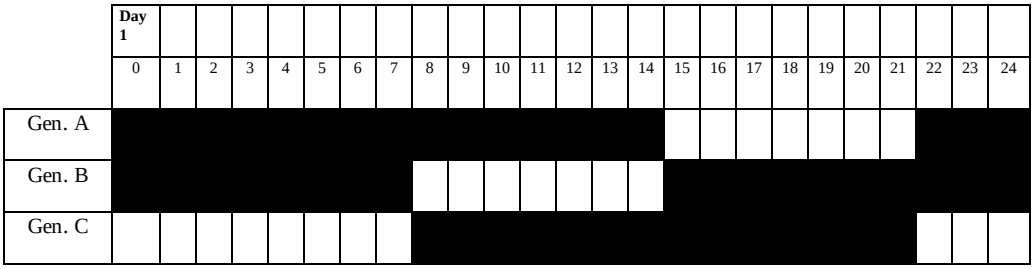


Figure 3-8. Layout of a Power Generation Cluster

3-35. The generators are operated on a two-on/one-off rotating duty cycle. See Table 3-2 for suggested schedule. At no time, will all three generators be operating simultaneously. When commercial power or Army Prime Power is available and used, a power distribution loop and step-down transformers are required and will be provided and maintained by the Prime Power Team. Two soldiers are required to lay out and install the PDISEs, junction boxes and cables. A forklift is required for positioning the TQGs. The 500-gallon drum with liner will be installed and operated by the petroleum and distribution section personnel.

Table 3-2. Power Generator Schedule.



3-36. ARTEP 42-424-30 MTP contains Crew Drill 42-2-D0015, 42-2-D0016, and 42-2- D0017 for the setup, operation, and dismantling of a power generation cluster. Available publications on the power generation subsystem are:

- TM 10-5419-200-12
- TM 9-6150-226-13
- TM 9-6150-226-23&P

OPTIONAL COLD WEATHWER KIT

3-37. The Cold Weather Kit is not standard equipment for the FP module. If operations are anticipated in temperatures below 32°F, then a cold weather kit needs to be requisitioned along with the module. Specific heaters and TEMPER components will need to be installed during setup. See Appendix C for a list of items contained in the Cold Weather Kit. Major components of the kit include:

- 96 ASH
- 64-foot TEMPERs for the water storage tanks
- Heat-traced hoses for the water distribution subsystem
- Insulated flooring for specific TEMPERs
- Additional TEMPER for WWVT/T
- Tools

Chapter 4

FP Environmental Guidance And Safety Procedures

SECTION I – ENVIRONMENTAL CONSIDERATIONS AND STEWARDSHIP

ENVIRONMENTAL RESPONSIBILITIES

4-1. The Army environmental vision is to be a national leader in environmental and natural resource stewardship for present and future generations. The definition of stewardship is to take care of property while also caring about the rights of others. Operations must be planned without harming the environment. Good environmental stewardship lets leaders take care of soldiers and also saves resources vital to combat readiness. The purpose of the environmental protection stewardship program is to standardize environmental protection compliance with federal, state, local, and host nation laws and regulations. FM 20-400 provides guidance and information on basic environmental protection stewardship. Noncompliance with the program may result in:

- Damage to the environment and to natural resources
- Endangerment of personnel health and safety
- Severe civil or military penalties

ENVIRONMENTAL PROTECTION STEWARDSHIP GOALS AND REQUIREMENTS

4-2. The Army no longer merely complies with the laws and regulations of environmental protection stewardship. It leads in environmental protection by setting goals and requirements for its leaders. The goals of the Army's environmental stewardship protection program are:

- **Compliance.** Ensure that all Army sites and operations attain and sustain 100 percent compliance with environmental laws and regulations in a climate of changing requirements. Army sites or operations will not be subject to a notice of violation or a fine for not following host nation, local, state, or federal environmental directives.
- **Prevention.** Adopt and use integrated management approaches in all Army mission areas to reduce the volume and toxicity of all categories of environmental pollution.
- **Conservation.** Conserve, protect, and enhance environmental and cultural resources entrusted to the Army's stewardship of future generations using all practical and available means consistent with the Army mission.

4-3. The requirements of the Army's environmental stewardship protection program are:

- **Appraisal.** Require an appraisal to determine their potential environmental impacts.
- **Training.** Require all key Army decision-makers and planners to attend NEPA training.
- **Restoration.** Ensure strict compliance with all spill and release reporting, timely resource requests and allocations, and clean-up requirements of all Army contaminated sites, as quickly as resources are made available to protect human health and the environment.
- **Environmental consideration**. Ensure that all available environmental and cultural resources are incorporated early in the mission decision-making and planning process.

RESPONSIBILITIES OF PERSONNEL

4-4. Each member of the QM FP Company must comply with the environmental protection stewardship program.

4-5. The QM FP Company Commander's responsibilities include:

- Comply with all applicable environmental protection laws and regulations.
- Know the NEPA, HM, HW, HAZCOM efforts, and spill contingencies.
- Set up the unit's HM/HW management policy.
- Ensure that personnel comply with the provisions, laws, and regulations outlined in the program.
- Appoint and ensure that the ECO, the HM/HW coordinator, and senior personnel have received appropriate training.
- Ensure that all personnel who may be exposed to HM or HW when performing their duties receive training about potential hazards and relevant precautions within 90 days of assignment.
- Ensure personnel receive annual refresher training about potential hazards and relevant precautions.
- Commit subordinate leaders to environmental protection.
- Analyze the influence of the mission on the environment.

4-6. The QM FP Company Executive Officer's responsibilities include:

- Serve as the unit's ECO.
- Serve as the commander's eyes and ears for environmental protection matters.
- Conduct periodic assessment of the unit's environmental protection program and the unit's level of compliance.
- Act as liaison between the unit and the higher headquarters responsible for managing environmental protection compliance

programs and that provides information on training requirements and certifications needed by unit personnel.
- Commit subordinate leaders to environmental protection.
- Analyze the influence of the environment on the mission.

4-7. The Maintenance Officer and/or Motor Sergeant's responsibilities include:

- Serve as the unit HM/HW coordinator.
- Serve as the unit spill coordinator.
- Maintain accountability for all HM and HW.
- Ensure that HM and HW are stored and disposed of properly.
- Ensure that HM and HW spills are immediately contained and reported to the fire department and to the ECO.
- Report inoperative treatment and collection facilities (oil/grease interceptors, floor drains, catch basins, waste tanks) to the ECO.

4-8. The Section Leaders and Noncommissioned Officers' responsibilities include:

- Environmental protection in day-to-day decisions.
- Ensure soldiers are aware of the Army's environmental protection ethic.
- Train soldiers to be good environmental protection stewards.
- Environmental protection.
- Identify environmental risks associated with the tasks they and their soldiers perform.
- Plan and conduct environmental sustainability actions and training.
- Protect the environment during training and other activities.
- Analyze the influence of the environment on the mission.
- Integrate environmental considerations into unit activities.
- Train peers and soldiers to identify the environmental effects of plans, actions, and mission.
- Counsel soldiers on the importance of protecting the environment and the results of not complying with environmental laws.
- Incorporate environmental considerations into AARs.
- Report spills of HM or HW immediately.
- Provide ideas through the chain of command concerning the improvement of the unit's environmental protection program.
- Support the Army recycling program.

4-9. Soldiers' responsibilities include:

- Follow the unit's environmental protection stewardship policies, unit SOPs, Army regulations, and environmental laws and regulations.
- Make environmentally sound decisions in day-to-day activities.
- Identify environmental risks in individual and team tasks.
- Report spills of HM or HW immediately.
- Provide ideas through the chain of command concerning the

improvement of the unit's environmental protection program.

- Support the Army recycling program.

UNIT-LEVEL ENVIRONMENTAL TRAINING PROGRAM

4-10. An effective environmental protection stewardship training program allows personnel to carry out their responsibilities without undue damage to the environment or to personnel safety. It is the responsibility of the Company Commander to ensure all personnel are trained on environmental hazards and the appropriate precautions for reducing or eliminating damage to the environment or risk to personnel.

4-11. All personnel should receive environmental awareness and protection training within 90 days of assignment and annually thereafter. All personnel will be trained to do their tasks in compliance with environmental laws and regulations. They must also respond properly to emergencies. All environmental protection and HM/HW training must be properly documented and kept on file in the operations/training office. Issues that should be addressed in the unit's environmental protection training program are:

- HM management
- HW management
- HAZCOM
- Pollution prevention
- HAZMIN
- Spill prevention and response
- Recycling program

ENVIRONMENTAL PROTECTION ISSUES

4-12. **Hazardous Material Requisitioning.** The HM/HW Coordinator will maintain an up-to-date list of all the unit's hazardous materials, corresponding manuals, and documents. The unit's inventory should be kept as small as possible to reduce potential for incident. The least amount of hazardous or potentially hazardous material needed to do the task should be requested.

4-13. **Hazardous Material Storage.** Storage of hazardous materials can create safety hazards and extended term storage may lead to environmental hazards. Hazardous materials should be stored in their original or approved containers. All containers must be clearly labeled with the appropriate MSDS information. An MSDS sheet should be kept in the appropriate hazard communications manuals. HM should be used on a first-in first-out basis. Surplus quantities of HM, which need an extended period of storage, should be turned in.

4-14. **Hazardous Material Turn-In.** Store all POL products with secondary containment. To stop spillage outside the immediate area, construct berms that can hold one and one-half times the volume of the largest container stored in the area. Store all HM and HW so that they are protected from the elements to maintain container integrity. Inspect all containers for

leaks and for incomplete, unreadable, or out-of-date labels weekly. Inspect HW weekly. Document results of the inspection on a log and make them accessible to federal, state, or local inspectors. Inspection logs should contain the following:

- Description of waste
- Location
- Quantity
- Date accumulation started
- End of 90-day period
- Date removed to DRMO or other agency
- Remarks (condition of containers)
- Inspector's printed name, signature, and date of inspection

4-15. DRMO can provide guidance for local turn in of HW and unused HMs. All HW awaiting turn-in should be documented using an accumulation log. The log will give the date the container was opened, date and quantity of each addition to the container, name of the person adding HW to the container, the date the container was filled or closed, and the date of turn-in to DRMO or other authorized agency. All turn-in documents for HM and HW and the accumulation logs for HW should be kept on file by the unit for two years.

4-16. **Hazardous Waste Accumulation.** Place all accumulation of HW on a nonpermeable bermed hardstand, label it, and locate it 50 feet or more from any building. Protect it from the elements. Used greases, solvents, brake fluids, hydraulic fluid, antifreeze are examples of substances that should be stored in separate containers. To safeguard against spills and prevent water from entering the containers, keep them (drums, cans, or tanks) closed except when depositing waste. If threaded caps on 55-gallon drums are missing, replace them through the PLL.

4-17. As a rule of thumb, enough headspace should be allowed in the containers to prevent overflow from the expansion. Table 4-1 gives the headspace.

Table 4-1 Headspace for Containers

Container	Headspace (Inch)
5-gal can	1½ to 2
55-gal can	3 to 4

4-18. To be accepted for turn-in, the waste material must be in a safe, nonleaking, durable container. Leaking containers can be overpacked in steel removable head drums. Leaking containers of liquids must be packed in absorbent material. A leaking 55-gallon drum may be over packed in an 85-gallon drum. The absorbent material must be able to soak up all of the

liquid contents of the drum; therefore, 6 inches of absorbent must be on the bottom and top of the interior container, with at least 2 inches along the sides. Leaking containers of nonliquid hazardous waste may not need to be over packed with absorbent material. Many liquids, such as battery acid, cannot be packed in steel containers.

4-19. **Spill Response.** A reportable spill is one that involves any amount of hazardous material which may harm the environment or personnel. The hazardous materials most commonly associated with FP are fuel, oil, hydraulic fluid, grease, solvent, graywater, and blackwater. While other potentially hazardous substances exist, these are the most prevalent and require planning to effectively manage.

4-20. In areas where HM are used or stored or where HW is stored, appropriate supplies, equipment, and personal protective items should be easily available to allow an immediate response to any spills or accidents. Refer to the MSDS for a specific product or contact the HW/HM section of the DRMO for guidance on the spill response items and equipment required to safely respond to a potential spill.

4-21. If a hazardous spill occurs, available or appropriate personnel should immediately take the following steps:

1. Ensure your safety and the safety of those around you before acting.
2. Evacuate the area, if necessary
3. Report the spill to your supervisor. Sound the alarm or give verbal warning. Have someone call the fire department if the spill is something you can not handle safely.
4. Extinguish smoking materials and all other sources of ignition.
5. Take personal precautions as detailed on the MSDS for the material spilled.
6. Stop the leak or flow, if possible (shut off valves, tip drums, plug holes).
7. Contain the spill by using absorbent material. Make dams to prevent materials from spreading or entering water or storm drains.
8. Clean up material with a nonsparking shovel or broom. Place the residue in a serviceable container with lid, marked “Hazardous Waste - Contaminated Absorbent.” Check with the ECO for proper disposal.
9. If the spill resulted from a leaky container, transfer the product to a serviceable container. Label the container as follows:
   a. For fuel, oil, or hydraulic fluid spills label the container “POL Spill Residue.”
   b. For flammable liquid spills, including solvents, paints, paint thinners, and alcohol, label the container “(name of liquid) Spill Residue–FLAMMABLE.”
   c. For acid spills, label the container “(name of acid) Spill Residue ACID”
10. Store the container in the HW area while awaiting turn-in.

11. Turn-in to DRMO or other authorized agency

SECTION II – SAFETY

PROMOTING SAFETY AWARENESS

4-22. Safety in the field is not all common sense. Soldiers should be encouraged to continually conduct their work safely and to assist others in working safely. Leaders must be the example. They must train soldiers in the techniques and procedures for working safely and avoiding unnecessary accidents or injury. ARs 385-10 and 385-40 gives information on the Army's safety program, and FM 21-11 outlines actions to take if an injury occurs.

4-23. The commander sets up procedures to identify all personnel performing safety in their job. He must also ensure that their job descriptions clearly show these responsibilities. All supervisors and soldiers will receive safety training. Supervisors should be trained to recognize and eliminate hazards and to develop other required skills to implement the Army's safety program to the working level. Soldiers will receive specialized job, safety, and health training. This training will include OSHA criteria and the hazards associated with any materials or operations in the workplace.

LIFTING HAZARDS

4-24. The setup, operation, and dismantling of the FP module is labor intensive. It requires personnel to do a large amount of lifting and bending. Many items associated with the module, such as the M80 water heaters or the SEP, weigh in excess of 400 pounds and require a forklift or a minimum of a 6-man lift to position. The erection of the TEMPERs require excessive amounts of bending and lifting. If done improperly, this may affect the health and safety of personnel. Supervisors should ensure all soldiers use proper lifting techniques and body mechanics when setting up, operating, and dismantling the FP module. Soldiers should be tasked in teams suitable to the lifting needs of the task.. Forklifts and other equipment should be used whenever possible to reduce the risk of personnel injury.

ELECTRICAL HAZARDS

4-25. Each FP subsystem or structure uses electrical power. Electricity in field conditions presents unusual safety hazards which must be managed to prevent personnel injury or death. To prevent electrical shock, each subsystem and structure should be thoroughly grounded using earth ground. The proper electrical grounding rods are given in the FP containers. Electrical system grounding should be inspected periodically to ensure proper grounding is constantly maintained for the electrical systems of all subsystems and structures.

4-26. Electrical cables should be inspected periodically for cuts, abrasions, and connectivity. Power should be removed from cut or abraded cables

and the cables should be repaired or replaced. Field conditions may require electrical cables to lay in mud or standing water. If possible, use sandbags and other nonconductive materials such as wood may be used to raise cables. If needed, cables may also be buried to help move equipment and personnel, and prevent damage or electrical shock.

4-27. A soldier should NEVER be allowed to work on electrical equipment with power applied. Soldiers should remove electrical power, disconnect the power source, if necessary, and tag out the power source until all repairs are complete. Soldiers should also be encouraged to use the buddy system whenever performing work on electrical equipment.

EXPOSURE TO HAZARDOUS MATERIALS OR WASTE

4-28. FP uses and generates hazardous material and waste which is dangerous to personnel. Personal protective equipment should be available for use.

4-29. FP uses a great amount of fuel to power the tactical generators and organic vehicles and equipment. Fuel is a personnel hazard in the form of contact, flammability, ingestion, and inhalation. It should always be handled with care. Fuel storage areas should be clearly marked and designated as "no smoking" areas. These markings should also be included in the languages of the host nation. Proper grounding procedures should be used whenever transferring fuel from one item to another. Fuel storage facilities or containers should always be properly grounded.

4-30. Fuel also presents a danger in the form of carbon monoxide. Expended fuel produces carbon monoxide gas which if breathed for a long time can cause injury or death. Ensure engine exhausts are appropriately vented into outside air. Also, ensure that soldiers are not permitted to work in unventilated areas where carbon monoxide gas may be present.

4-31. Wastewater generated from the operations of the 12-head shower and the containerized batch laundry are considered graywater. Graywater contains detergents, bleaches, and other substances which may be hazardous to personnel. It is a personnel hazard in the form of contact and ingestion. Every effort should be made to eliminate or reduce exposure to graywater. If soldiers must work with components containing graywater, appropriate personnel protective equipment should be worn. If a person comes in contact with graywater, he should thoroughly flush the soap and potable water.

4-32. The containerized latrine uses internal storage tanks to contain human wastes. Blackwater is a personnel hazard in the form of contact, ingestion, and inhalation. It is a hazardous waste. Soldiers who must work with items containing or contacting blackwater should wear appropriate personal protective equipment to reduce risk. If they come in contact with blackwater, they should thoroughly flush the exposed areas with soap and potable water. For extreme exposure, medical attention should be sought immediately after decontamination.

4-33. FP uses highly chlorinated water to sanitize the potable water subsystems before it is dismantled. Highly chlorinated water is toxic to

personnel. It should be considered hazardous waste. Highly chlorinated water presents a hazard to personnel in the form of contact, ingestion, and inhalation. Soldiers that work with items containing or contacting highly chlorinated water should wear appropriate personal protective equipment to eliminate or reduce risk. If a person comes in contact with highly chlorinated water, they should thoroughly flush the exposed areas with soap and potable water. For extreme exposure, medical attention should be sought immediately after decontamination.

Chapter 5

Deploying FP

SECTION I – PREPARATION FOR DEPLOYMENT

REQUESTING FP SUPPORT

5-1. A theater or task force wanting FP support must first know exactly what its requirements would be. It must also know how FP will be used; for example, rest and refit, base camp operations, intermediate staging base, evacuation or humanitarian aid. This results in a well-defined mission statement. Based on this mission statement, DA DCSLOG will determine the appropriateness of the request. If approved, DA DCSLOG makes the necessary arrangements to release FP module(s) from Army prepositioned stock. AMC will arrange transport of modules to theater SPOD. At the same time, the requesting organization will perform an analysis to determine the appropriate mode of operation. If full or partial operation by military personnel is the best method, the organization requests deployment of a QM FP Company(s) through the appropriate channels.

HOME STATION ACTIVITIES

5-2. After orders are received to deploy, the Commander and the First Sergeant of the QM FP Company begin deployment alert and recall activities. Preparation for overseas movement will be done in order to bring the company to the appropriate strength and to complete necessary administrative tasks. Predeployment training will be carried out to ensure mastery of the tasks required to perform the unit's critical mission of "Providing FP Support."

5-3. Predeployment supply activities will be done to ensure that the company has enough supplies of food, fuel, water, ammunition, repair parts, and other needed items to sustain a nontactical road march from home station to the port of debarkation, and a tactical road march from the port of embarkation to the FP AO. Consideration should also be taken to acquire necessary items for the support of the FP Module(s). See Appendix D for the FP SSP. Besides the SSP, certain Class IV construction materials, such as soil, aggregate, lumber, fencing, and gabion wire may also be required, depending on the AO.

5-4. The company's publication library must be verified and updated to include the most recent copies of all required publications including TMs. The TMs included with pre-positioned FP modules and operational project stocks are updated only during COSIS cycles (30-month intervals), so an up-to-date library will be invaluable.

5-5. The commander will assign key personnel from the QM FP Company to deploy as soon as possible, as part of the AMC LSE advance quartering party. Key personnel include the contracting officer, the engineer officer, and the preventive medicine NCO. The contracting officer will coordinate with the MACOM contracting officer for nonmilitary services and materials. The engineer officer will begin the site selection process with the site selection team and supervise site preparation. The preventive medicine NCO will conduct surveillance of the area to determine sanitary conditions and medical requirements. The senior ranking company representative will lead the company personnel and will maintain communications with the company commander concerning advance quartering party activities and progress.

5-6. Planning and preparation for a nontactical road march from home station to the port(s) of embarkation will be done. The plan should include the route to be taken, time, fuel requirements, and other critical factors. Preparation for the nontactical road march begins with the performance of corrective maintenance, as necessary, on mission specific organic equipment. PMCS are also done on all organic vehicles and equipment in preparation for an extended deployment.

SECTION II –ADVANCE QUARTERING PARTY ACTIVITIES

SELECTION OF COMPANY ADVANCE QUARTERING PARTY MEMBERS

5-7. Key personnel and other members assigned by the company commander will travel to the theater or AO as part of the AMC LSE advance quartering party. Key personnel are the contracting officer, the engineer officer, and the preventive medicine NCO. The company commander may coordinate with the leader of the AMC LSE Advance Quartering Party to determine if other members of the company should be assigned duties as a member of the party. The senior ranking company representative will lead the company personnel and maintain communications with the company commander concerning advance quartering party activities and progress.

RESPONSIBILITIES OF THE ADVANCE QUARTERING PARTY

5-8. The AMC LSE advance quartering party is responsible to: (1) secure an appropriate site for the operation of a FP module(s); (2) supervise the physical preparation of the site(s) for setup of the module(s); (3) secure required nonmilitary support and resources for FP site preparation, setup, and operations; and (4) conduct surveillance to determine sanitary, environmental, and medical issues associated with the AO. Upon procurement of an operating site, the advance quartering party will occupy the area, secure the site, and direct site preparations. They must also perform guide functions, as required, to direct the main body to the operating site.

SELECTING A SITE FOR FP OPERATIONS

5-9. The site selection process is the responsibility of the AMC LSE advance quartering party and begins before the main body moves from home station. The advance quartering party must consider the mission, political considerations, and availability of appropriate resources into the selection decision. Host nation representation should be included in the selection process. FP deployment requires tons of equipment to be transported and thousands of hours of labor making it crucial that the operating site also be secure, safe, accessible, environmentally viable, and suitable for providing effective FP support. The site selection process is a joint effort typically consisting of the following team members:

- The Task Force or MACOM of the receiving theater, represented by the plans officer of the Rear Command Post.
- U.S. Army Corps of Engineers (USACE) Contingency Real Estate Acquisition Team (CREST), or equivalent assurance of site acquisition either through HNS or leasing
- Engineer Terrain Analysis Section of a Topographic Planning and Control Company, or equivalent, for terrain and soil analysis
- USACE Force Protection Specialist or equivalent
- The theater engineering unit (military or civilian) selected to perform the site preparation
- FP Company, represented by the contracting officer and engineering officer

5-10. Conversion factors and foreign units of measure to assist an OCONUS site selection are provided at Appendix E.

SITE SELECTION CONSIDERATIONS

5-11. **Mission.** Consider what units or groups FP will be supporting. Remember that FP operations will not relocate, so it is paramount that the module(s) be placed in an area that will provide convenient, long-term service to the units to be supported.

5-12. **Security.** The QM FP Company can defend against a Level I threat and requires assistance from tenant and/or theater assets for Level II/III threats. In determining the security level of the FP module(s), consider the METT-T and the units and organizations to be supported. A FP module will typically be located in the corps area and not farther forward than the division support area. A set of six FP modules will not be placed forward of the corps rear area. The security of supply routes and heavily traveled roadways in the FP AO should also be considered in the security assessment.

5-13. **Safety.** Safety hazards such as flooding, landslides, or avalanches may exist. Consider previous land uses and slope, such as landfills or other contaminated sites. Since FP consists mainly of tent structures, avoid high wind areas. Consider whether the current or previous occupants may have mined the area under consideration. Use satellite

imagery, ground inspection, and local knowledge to ensure the operating area is free of mines and unexploded ordnance.

5-14. **Geographical, Terrain, and Geological Considerations.** Careful selection reduces overall site work, climate control effort, and drainage requirements. In most cases, flat, gently sloping (7 percent maximum grade), featureless terrain is preferred. However, security or prevailing climate may favor a wooded area. Selecting a site with some vegetation will lessen erosion in a rainy or windy environment and reduce dust in a dry climate. Avoid the low points of valleys or other depressed areas where water may collect. Consider the total hydrology of the area including the water table throughout the time of the mission. Soil stabilization requirements should also be kept to a minimum to reduce the overall earthwork required.

- Terrain and soil analysis should be performed in two distinct phases. First, maps, aerial photos, climate records, and other available data should be used to extract and analyze basic terrain, weather, and climate factors. Second, these factors should be synthesized to predict their influence on site layout, installation of facilities, utilities, camouflage, and the operation and maintenance of the FP module(s).
- A ground reconnaissance should be done to verify all information collected. It is also needed to obtain data which would not otherwise be available. A site that appears suitable based on aerial mapping may be not suitable for use due to ground conditions or water table.

5-15. **Political Considerations.** Political factors, including national sentiment and visibility may also influence which sites are available for FP. In some cases, you may be denied use of an ideal site. Consider the impact that FP and the presence of U.S. soldiers will have on the community. When engaged in SASO, consider whether the site you select appears to benefit a particular group or faction more than another.

5-16. **Logistical Supportability.** Sustained FP operations require tons of consumable resources such as electrical power, fuel, and potable water. These resources may be available through theater resources or through HNS.

- **Electrical Power.** The preferred source of electrical power for FP operations is existing commercial power. To determine the compatibility of existing commercial power with the demands of FP operations, the following information must be researched:
  - Voltage, phase, and frequency of existing commercial power
  - Ability of the existing electrical utility to consistently meet the electrical power demands of FP operations over the projected timeframe
  - Predicted reliability and stability of the power source (outages and voltage fluctuations)
  - Cost of power lines and step-down transformers. FP requires

direct high voltage lines from substations with step down transformers. Simply tapping into low voltage service lines will not provide adequate power.

If commercial power is appropriate to support FP operations, still plan for diesel-powered generators to serve as backup or emergency power for critical subsystems.

- **Fuel Resources.** Consider where appropriate supplies of fuel may be obtained and the convenience and appropriateness of receiving fuel from available alternatives. Supplies of JP8 and MOGAS will need to meet Army fuel standards. Also, fuel consumption will be considerably higher if diesel-powered generators are to be used as the main source of electrical power generation.
- **Potable Water.** The average consumption of potable water per person can range from 20 to 35 gallons per day dependent on conditions. The preferred source of potable water to support FP operations is existing commercial water. Since FP has the capability to test and treat water, existing commercial water need only meet standards which certify its appropriateness as a water source. If an appropriate source of commercial water is not conveniently available, general water support may be utilized or engineering assets may be requested to evaluate the feasibility of drilling wells to extract ground water.

5-17. Effective lines of communication will be required. Existing lines of communication may be used, if available, and adequate to provide uninterrupted communication services to and from key elements.

5-18. Adequate roads to and from the FP AO will be needed to deliver materials and allow access to the FP site by tenant units. These roads should be adequate for travel by a variety of military and civilian vehicles. Consider the types of vehicles which will use the roads in and around the FP AO. The weights, heights, and turning radii of: the waste-water collection trailer, the water delivery truck, the fuel delivery truck, the tank and pump unit, the 4K and 10K forklifts, customer unit (tactical) vehicles, and fire-fighting and emergency vehicles.

5-19. Environmental protection impact, short term and long term, must be considered before erecting a facility the size of FP is erected, therefore, an environmental baseline survey must be completed before construction begins. Also, you must ensure that the site meets all applicable environmental laws and regulations, even if the local population does not. Seek environmental compliance program guidance through the chain of command to ensure that local environmental concerns are properly.

5-20. Approximately 70 percent of the potable water consumed will be returned as graywater or blackwater. Graywater and blackwater are hazardous waste and effects to personnel and the environment must be considered. Graywater will be stored using the graywater collection subsystem supplied as part of the FP module. Blackwater from the latrines will be stored in the holding tanks of the containerized latrines.

It will be collected for disposal using the WWVT/T. Disposal of graywater and blackwater will be considered in the Civil Engineering Support Plan for the theater in which FP is operating. Disposal options include the use of a host nation sewer system (first choice), local contractor haul to a commercial facility, government haul to a commercial facility, or lagoon/field-expedient method.

5-21. If the host nation sewer system or local contractor is selected, the persons responsible for the source of the wastewater must ensure it is safely and properly disposed. FP personnel must verify the integrity of the sewer system before allowing a contractor to dispose of wastewater. Periodic inspections should be done to ensure that wastewater disposal is IAW the environmental provisions of the disposal contract and other provisions. If a host nation sewer system is not available, then other choices must be found. Hauling wastewater to existing facilities is an option and a logistical issue. On-site collection, treatment, and release of wastewater is an engineering issue which should be done IAW FM 5-163, local directives, and host nation laws and regulations on waste disposal.

5-22. Solid waste must be collected and disposed of properly to keep the area sanitary land protect the environment. Solid wastes are non-hazardous items. They are usually disposed of in a CONUS landfill. The preferred method of disposal for solid waste is an existing landfill near the operating area. If an existing landfill is not available, engineering assets need to prepare an appropriate landfill. The ultimate fate or disposal of these items should be known prior to generating them. There may be special, local management procedures required prior to turn-in of these items. Consult the chain of command to determine specific requirements, and ensure that they are incorporated into the unit environmental program.

RECONNAISSANCE AND INFORMATION COLLECTION

5-23. To gather information about possible sites, site selection should be based on many sources of information. No one source of information should be relied upon exclusively, especially in parts of the world where topographic and climate data are not extensive. The main source of site selection information should be collected through the following types of reconnaissance conducted by the AMC LSE Advance Quartering Party.

5-24. **Reconnaissance Survey.** The main purpose of a reconnaissance survey is to find a site which best meet requirements considering general layout and work required. Reconnaissance operations vary with the operational environment; assigned mission; and the size, type, and composition of the reconnaissance element. An aerial, map, or ground reconnaissance is needed to determine potential FP sites. The general principles of engineering reconnaissance outlined in FM 5-170 give guidance on these surveys.

5-25. **Route Reconnaissance.** A route reconnaissance should be performed to determine the suitability of a specified route, limited to critical terrain data. It may be adequately recorded on a map overlay or sketch

and be supplemented by reports about various aspects of the terrain.

5-26. **Road Reconnaissance.** Road reconnaissance is done to determine the traffic capabilities of existing roads. It is also used to give more detailed information than is given by route reconnaissance. It may include enough information to develop work estimates for improving the road. DA Form 1248 should be used to record this information. Use maps and sketches, as necessary.

NONMILITARY RESOURCES AND SUPPORT

5-27. The FP unit depends on many assets, especially during deployment. Determine in-theater assets as early as possible. Coordinate needs well in advance of deployment. Set up communication channels with the logistics, transportation, and engineering elements early. This will greatly improve the chances of a successful deployment.

5-28. FP personnel are not directly responsible for real estate acquisition. However, they may have to deal with problems caused by poorly written contracts and support agreements. FP personnel should make sure all agreements, leases, and contracts are well reviewed by engineer and legal experts within the USACE district.

5-29. Purchase or lease agreements should be made final before even the start of the site being prepared. The earlier a site can be selected and prepared, the more efficiently the FP camp will be constructed. Leases or purchases arranged through MACOM should be completed before the start of any site preparation activities. HNS Agreements already exist in many nations throughout the world. An accurate and thorough survey of capabilities in the receiving theater will help for a successful deployment. HNS requirements will be directed by the MACOM.

5-30. Consider all levels of HNS. New construction should be avoided whenever possible. In many cases, expansion and rehabilitation of existing sites is adequate for FP use. An existing kitchen facility, for instance, could be outfitted and/or supplemented with FP cooking appliances to provide a better facility than using the TEMPER provided. The Army Corps of Engineers also maintains construction-contracting agencies that can assist with local construction. When existing facilities are proposed, ensure that these meet minimum shelter requirements. Theater Civil Engineering Support Plan and/or Annex D of the Operation Order will set minimum standards. Soldiers should not be billeted in or use sub-standard structures as a cost-saving measure.

SITE PLANNING AND PREPARATION

5-31. Site planning is the process of changing a prospective site into a workable layout for a FP module. Preparing a FP site will likely involve many personnel from several military and/or contract agencies. To avoid confusion and speed the collective effort, ensure that the tasks assigned to each organization are well defined. Define them in terms of scope, standards of work, and when work must be started and tasks completed. Monitor the progress of tasks. Correct problems immediately and

include changes in consideration of work completed.

5-32. **Baseline Environmental Survey.** The first step in the preparation process should be a baseline environmental survey. This survey will determine and document the existing conditions of the site. The reasons for the survey are twofold. First, it assesses the site's environmental state before FP use. This can then be used as evidence of the Army's environmental protection program. Second, it gives a to use to restore the site after it is not longer needed.

5-33. **Layout.** In most cases, the recommended site layout should be used. See Figure 5-1 for a typical FP module layout. Note that the recommended layout shows only organic FP subsystems and equipment. Consider what other resources, tentage, and equipment your site may need. Make necessary adjustments to the layout plan. These may include billets and spaces for firefighters, utility teams, MWR personnel, and hazardous waste accumulation areas. Deviations may be necessary to fit FP to a particular site or mission. When an alternative layout will be used, maintain minimum spacing and elevation relationships between subsystems. See Table 5-1 for minimum spacing requirements between subsystems. Engineer units have the necessary knowledge to develop alternate plans.

5-34. **Earthwork.** The supporting Combat Engineer Battalion, Heavy; US Air Force RED HORSE Squadron; Navy Mobile Construction Battalion (SeaBees); LOGCAP; or the theater of operations CCA can prepare the FP site. During site preparation, consider site restoration and environmental impact. Make every effort not to disturb the site more than absolutely needed. To gauge whether a site is "good," "fair," or "poor," use Table 5-2 to determine a baseline assessment. If your site does not fall entirely into one category, use your best judgment and experience to estimate site preparation time. If possible, cut and fill should be balanced on the site to facilitate site restoration. Depending on local conditions, dust abatement may be required during setup. Engineers have this capability and should be consulted, as necessary. Attempts should be made to minimize removal of existing grass and vegetation to reduce dust and erosion. Table 5-3 shows the estimated site preparation times for various Army engineering assets for three categories of existing site condition. This information is estimated and should be used only as an estimate. These estimates are for a standard FP module. If the current mission involves more equipment, space, or services, site preparation times will increase accordingly.

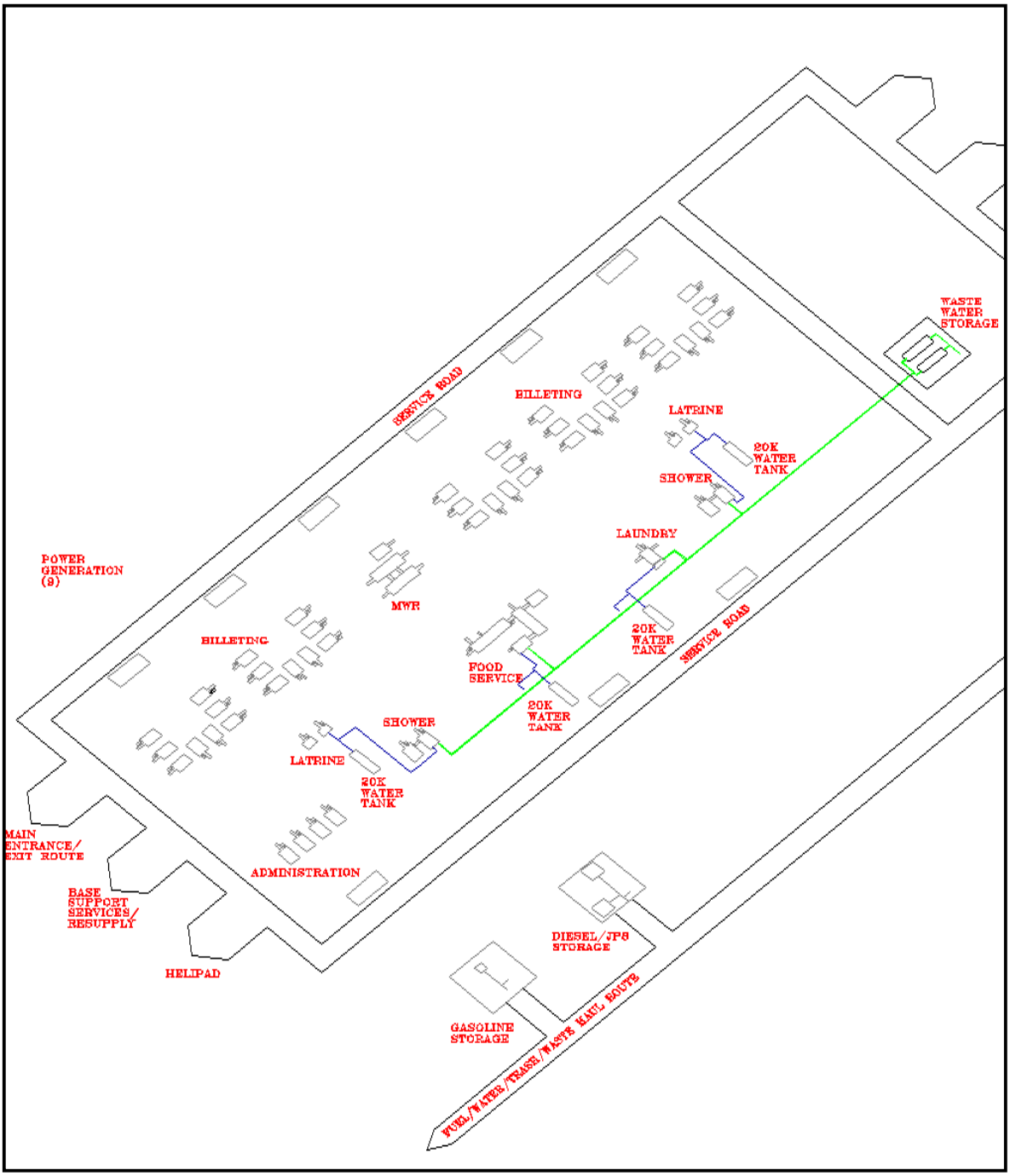


Figure 5-1. Recommended Site Layout of a FP Module

Table 5-1. Minimum Spacing Between Subsystems

	Minimum Spacing (Feet)							
Subsystem	Latrine	Food Service	Graywater	Potable Water	Gasoline	JP-8	60KW TQGs	Billets
Ammunition	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
HW Site	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Solid Waste	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Used Oil Site	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Parking Lot	15	200	15	200	50	50	50	200
Helipad	500	500	300	300	300	300	300	500
MWR Fields	50	50	200	200	300	300	50	50
Roads	15	15	15	15	15	15	15	15
Billets	200	200	200	200	300	300	50	15
60-KW TQGs	50	50	200	50	250	200	300	
750-KW GENs	200	300	200	300	200	200		
JP-8	300	300	200	300	250			
Gasoline	300	300	200	300				
Potable Water	50	20	200					
Graywater	200	200						
Food Service	300							

Table 5-2. Existing Conditions

Site Condition	Definition		
	Good	**Fair**	**Poor**
Terrain	Relatively flat	Uneven	Rough, hilly
Brush/trees	Few	Many	Dense
Soil	Stable	Loose, partially stable	Massive stabilization required
Roads	Existing throughout	Some	None
Drainage	Sufficient as is	Some work required	Massive work required

Table 5-3. Estimated Man-hours for Site Preparation

	Preparation Time (man-hours)		
Site Condition	**Light Eq Plt**	**CSE Co**	**Eng Bn (CH)**
Good	48-72	36-48	24-36
Fair	72-96	48-72	36-48
Poor	96-120	72-96	48-72

5-35. **Road Construction.** Roads in the FP compound must be able to support heavy vehicles such as rough-terrain forklifts, HETs, and the tracked vehicles of tenant units. If not constructed correctly, roads will require constant maintenance to keep them serviceable under heavy traffic conditions.

5-36. **Drainage.** Since the majority of FP subsystems are tent-based, drainage is a top concern. Subsystems should be positioned to allow proper drainage of the site and to avoid drainage of nearby land into the FP area. Runoff due to heavy rain must be channeled away from key subsystems. The latrines should always be positioned downhill from the kitchen to prevent runoff from reaching the cooking area. Local regulations and climate will affect the actions, which must be taken for positive drainage control. When laying out the FP site, keep in mind the desired elevation relationships between subsystems (Figure 5-2).

5-37. **Site Survey and Staking.** Survey the site and stake the activities before setting up any FP module subsystems. Once surveyed, the control points for each subsystem will be marked with a stake and flag (or spray paint on hardstand) IAW the site layout. Within each subsystem, the operators will stake the location of tents and equipment IAW the FP TM using the control points as reference. Setup of each FP subsystem should adhere strictly to the marked staking plan.

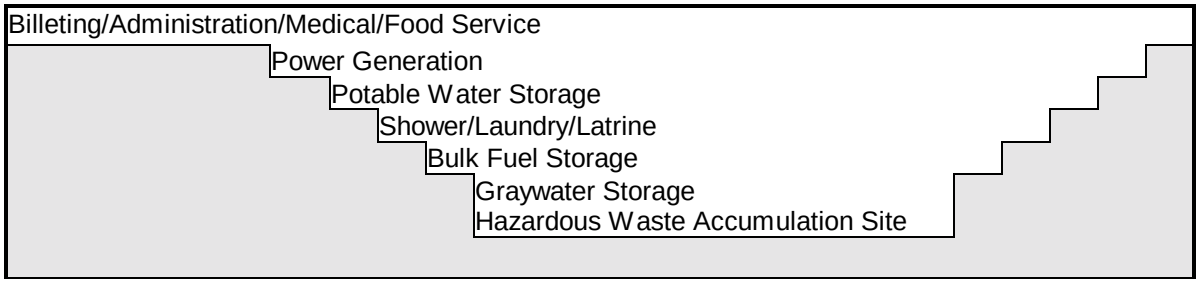


Figure 5-2. Elevation Relationships of Subsystems

SUBSYSTEM SPECIAL PREPARATION

5-38. There are several subsystems in the FP Module that requires special preparation considerations. These subsystems are listed below.

5-39. **Berms.** All collapsible 500-gallon and 20,000-gallon fabric fuel tanks will be emplaced in a berm with raised sides to contain possible fuel leaks or spills. Berms must be designed so that in the event a tank burst the fuel will run off away from the FP compound to reduce the risk of contamination and fire.

5-40. **Culverts.** Electrical cables and potable water and graywater hoses should be buried under roads or pathways to prevent damage. Culvert sections should be used to protect cables and hoses from being crushed or separated. Where potable water hoses cross over or parallel graywater hoses, the potable water hoses must be given 24 inches of vertical and horizontal separation to prevent potential potable water contamination. Either bury the nonpotable hose or use sandbags to raise

the potable line 24 inches. The couplings of potable and graywater hoses must be separated by at least 36 inches to ensure that graywater leaks do not contaminate potable water. When burying fuel lines, ensure that culverts can be inspected for signs of leakage and that precautions are taken to prevent spills from entering surrounding soil.

5-41. **Hardstands.** Several surface areas must be hardened to provide a stable footing for heavy equipment and high traffic facilities. The containerized latrine, the containerized batch laundry, the diesel power generators, the 600-cubic-foot refrigerators, and the food service subsystem dining facility all require hardstand emplacements. The FP TM gives specific information concerning the weight and size of these facilities and equipment.

5-42. **Helipad.** A helipad is part of the FP site. The primary use of the helipad will be for medical evacuations. Locate the helipad as close as possible to the FP medical TEMPER. Materials needed for construction of the helipad, such as matting and lighting are not provided with the FP module. The helipad should be located near the compound but far enough away so that rotor wash does not cause damage to tents or hazards to personnel.

5-43. **Parking Facilities.** A parking area for tenant unit vehicles and equipment must be provided. The area must be large enough to hold all of the unit's vehicles and provide space for the unit to conduct maintenance during their stay.

5-44. **Ammunition Holding Area.** Tenant units may require the use of an AHA at a safe distance from the FP site. The type and size of the AHA will be determined by the needs of the units supported.

5-45. **Waste Accumulation Sites.** It will be necessary to construct sites for storage of solid wastes and hazardous wastes. These storage sites should be constructed IAW the company's environmental protection program and the appropriate laws and regulations governing waste storage in the host nation.

SECTION III – MAIN BODY MOVEMENT

CONUS ACTIVITIES

5-46. Movement of the main body of the QM FP Company begins with a nontactical road march from home station to the port(s) of embarkation. This nontactical road march will be done using organic vehicles to transport company personnel and required organic equipment. See TOE 42-424L000 for a complete listing of authorized organic equipment. Dependent on time requirements and appropriateness, the nontactical road march will proceed to a seaport and/or an aerial port of embarkation. Upon arrival at the port(s) of embarkation, the company will prepare equipment and personnel for overseas movement and await departure. At this time, the AMC LSE Advance Quartering Party should already have arrived in country. If possible, the commander of the QM FP Company should make arrangements to maintain communication

with the advance quartering party so up-to-date information can be used to begin immediately planning the occupation of the FP operational area.

OVERSEAS MOVEMENT

5-47. Upon arrival at the port(s) of debarkation, the equipment reception team will receive the QM FP Company's organic equipment. Final planning for the occupation of the FP AO should be conducted and company personnel and equipment should be readied for a tactical road march to the AO. The tactical road march may or may not be conducted with other units. The road march should be planned to take advantage of available resources and a security posture appropriate to the threat identified should be maintained throughout the march. If needed, members of the advance quartering party can help guide the main body into the FP AO.

OCCUPATION OF THE FP AO

5-48. The AMC LSE Advance Quartering Party will have secured the FP AO before the main body arrives. Upon arrival of the QM FP Company main body, the FP module(s) may or may not have reached the AO. Preparations should immediately begin to occupy the operational area and plan a reinforced defense. The commander and platoon leaders should perform terrain analysis and plan a defense against air, ground, and NBC attack which integrates the support of available resources including those of the visiting tenant units.

SECTION IV – FP MODULE SETUP

TRANSPORTATION TO THEATER

5-49. A FP module consists of about 67,000 cubic feet of containerized material which will require movement from a seaport and/or airport of debarkation to the FP AO. Transportation of the module(s) will be arranged by AMC and is not a responsibility of the QM FP Company. AMC will maintain ownership of the module(s) until the commander of the QM FP Company takes hand receipt at the operating site. The module(s) may be transported from the port(s) of debarkation to the AO by means of air, rail, or linehaul. Table 5-4 contains the shipping requirements for a standard FP module.

5-50. Cold weather kits and camouflage materials are not part of the standard supplies included with a FP module and must be requested separately. Every effort should be made to identify the required configuration of each FP module to reduce delays, and reduce transportation burdens and cost.

MODULE SETUP

5-51. After the QM FP Company has occupied the area, and planned and reinforced the FP AO defense, they should now set up the company command post and erect operator billeting. This will give the company a central area for command and control and a place to live and stow personal gear. Remaining module subsystems should be erected in a logical sequence based on use of manpower and equipment. Subsystems such as power distribution, water distribution and storage, and graywater collection are required for the proper operation of other subsystems. Consider the importance of these subsystems when you determine the use of available resources in the set-up process. ARTEP 42-424-30-MTP contains crew drills which give detailed setup instructions for all subsystems. Technical manuals for these subsystems and components also give setup information.

Table 5-4. Shipping Estimates for Air, Rail, and Linehaul Modes

Mode	Equipment	Quantity
Air	C-5A C-141 C-130 C-17	10 28 58 13
Rail	Gondola cars (68-ft) Flat cars (89-ft)	13 14
Linehaul	M872 w/trailer (40-ft) M915 w/trailer (40-ft) M35A2 (2 ½-ton)	34 27 3627

5-52. Setup of a standard FP module will take 63 personnel about 120 hours to complete. Set-up time will vary based on site conditions, weather conditions and module configuration. If available, more personnel may be used to expedite the set-up process. These personnel may be military or civilian and will not normally possess expertise in module setup. These individuals may be best used conducting repetitive, labor intensive tasks such as erecting billeting TEMPERS. If host nation civilians are used, closely supervise to prevent pilferage and theft and maintain security.

5-53. Availability of critical resources such as the 4K and 10K forklifts will affect set-up time. Use these resources to set up priority subsystems. Follow the staking plan. This will also help to minimize set-up time by preventing the need to relocate subsystem components.

5-54. During setup, the contents of all TRICONs and ISOs should be inventoried using the packing list inside each container. Items and

equipment should also be checked for serviceability. Unserviceable items should be tagged. Shortages or damage should be reported to company headquarters so replacements can be procured as quickly as possible. All packing material and dunage should be saved and stored in unused TRICONs for redeployment.

5-55. The appropriate defensive posture should be maintained throughout the set-up process. During setup, the commander and other leaders should set up the previously planned unit defense, employ physical security and operations security measures, plan for and maintain preparations for NBC conditions, and plan damage control operations. These preparations and measures should take all available resources into consideration including those of visiting tenant units.

SECTION V – REDEPLOYMENT OF FP

IN COUNTRY REDEPLOYMENT ACTIVITIES

5-56. When the order is received to redeploy FP, the QM FP Company commander will start redeployment activities. Redeployment personnel and administration activities are performed and redeployment training activities are undertaken. Company supply activities are to turn in excess items and resupply the company for movement to the home station. Maintenance actions are started to prepare the company's organic vehicles and equipment for movement to home station. At the same time, the company begins preparing the FP subsystems for dismantlement and redeployment.

REDEPLOYMENT OF THE FP MODULE

5-57. A FP module cannot be relocated and will be returned to a CONUS depot for refurbishment following each deployment. The company commander must clear hand receipt of the module to AMC, so it is important that care be taken to redeploy all module components in the best possible condition. Before each subsystem is dismantled, you should ensure each subsystem is free of excess dirt and debris to facilitate later packing. Subsystems with potable water, graywater, or blackwater systems should be flushed with highly chlorinated water and then flushed with potable water to sanitize the systems. Before disassembly, all components should be checked for serviceability. Unserviceable components should be tagged for easy identification during refurbishment. Tagged equipment should be documented and turned in to company headquarters to facilitate the clearing of hand receipt. On occasion, administrative storage may be all that is required of the module. Procedures for this term of storage can be found in TM 746-10.

5-58. During dismantlement, components containing water should be drained and air dried to prevent corrosion or possible freezing. Fuel should be drained from all components containing fuel and allowed to air dry to prevent potential fire hazards. Once dismantled, the components of each subsystem should be thoroughly cleaned before

packing. Each item should be returned to the TRICON or ISO that it was originally IAW the packing list inside each container. Shortages or missing items should be documented and passed to company headquarters to facilitate clearing of hand receipt. ARTEP 42-424-30-MTP contains crew drills that provide detailed dismantling instructions for all of the subsystems. Technical manuals for these subsystems and components also provide dismantling information.

5-59. Hand-off of the FP module to AMC will occur at the site and AMC will arrange transportation for the module back to CONUS. This relieves the unit of the responsibility of tracking the equipment back through various intermediate locations and to its ultimate destination. Coordination should be made with AMC, as soon as possible, to facilitate handover and the clearing of hand receipt for the module(s).

SITE RESTORATION

5-60. Every attempt should be made to restore the operating site to its original condition. Locally constructed items such as floors and sidewalks should be dismantled and properly disposed of in theater. If needed, some of these materials may be used as bracing or dunnage inside shipping containers. Vegetation can not be restored to its original condition, but some revegetation activities may be feasible. Hazardous waste such as fuel, lubricants, graywater, or blackwater should be removed IAW current directives, host nation environment, and storage sites inspected for potential contamination. The environmental baseline survey should be used along with the conventional survey to determine the exact condition of the site and the landscape before its use. Returning the site to its previous condition is the main goal of site restoration.

MOVEMENT TO HOME STATION

5-61. Once the FP module(s) has cleared hand receipt and the site has been appropriately restored, the QM FP Company begins a tactical road march to the port(s) of embarkation. The tactical road march may or may not be done in concert with other units. The road march should be planned to take advantage of available resources and a security posture appropriate to the threat identified be maintained throughout the march. Upon arrival at the port(s) of embarkation, company personnel and equipment should be prepared for movement back to CONUS.

5-62. Upon arrival at the port(s) of debarkation in CONUS, movement of the main body of the QM FP Company to home station will take place by nontactical road march to home station. The nontactical road march will be done using organic vehicles to move company personnel and organic equipment. Upon arrival at home station, the commander starts home station activities to turn in excess or loaned equipment and supplies, inventory organic equipment, debrief company personnel, and complete after action reports.

Chapter 6

FP Operational Procedures

SECTION I – QM FP COMPANY SECTION OPERATIONS

QM FP COMPANY HEADQUARTERS

6-1. The QM FP Company will be under the command and control of the TAACOM or COSCOM. Divisional and nondivisional elements wanting FP support will send requests through command channels to the DISCOM Support Operations Branch which will be responsible for work-loading the FP. Priority will be given to divisional elements. Nondivisional elements will be supported on a space available-basis. FP support to civil authorities for disaster relief and humanitarian aid will be accomplished IAW FM 100-19. Support for peacekeeping missions will be IAW FM 100-23.

6-2. The QM FP Company Headquarters provides overall command and control, training, administration, and logistical support required to conduct FP support. The Company Headquarters staff can coordinate the operations of one to six FP platoons and modules. The Company HQ maintains communication with the next higher headquarters; provides direct supervision to the support operations and unit maintenance sections; tasks the platoon leaders of the FP modules; directs the planning, setup, and continuous improvement of unit defenses; and maintains responsibility for the unit's training, safety and environmental protection programs.

6-3. To ensure appropriate accountability for module equipment, the commander should inventory and inspect the serviceability of all equipment during setup of the module. Missing, damaged, or unserviceable equipment should be documented and kept on file awaiting report of survey and redeployment of the module to AMC for refurbishment. As equipment becomes damaged or unserviceable during operations, it should be reported and documented so an up-to-date status of all module equipment can be kept. ARs 735-5 and 735-11 give guidance for maintaining property accountability.

6-4. As a critical part of the redeployment process, the commander must clear the hand receipt of all module equipment back to AMC. AMC will arrange transportation for the module from the operating site to a CONUS depot for refurbishment. To clear a hand receipt, a report of survey will be done. The commander will be held responsible for equipment and items which can not be properly accounted for. To facilitate clearing of a hand receipt, the commander should ensure that all module equipment is thoroughly cleaned before it is packed.

All equipment should be inspected for serviceability. Unserviceable equipment should be tagged with a description of the damage or malfunction before they are packed. All module equipment should be inventoried and returned to the original container using the packing list and instructions in the panel of each container's door. All missing, damaged, or unserviceable equipment should be reported and documented. This documentation can then be used to simplify the report of survey and to facilitate the clearing of hand receipt for the module back to AMC.

SUPPORT OPERATIONS SECTION

6-5. The Support Operations Section exercises staff supervision over the supply, maintenance, and field service support operations and advises the commander in these functional areas. The section also provides the coordination and management of all contracting and engineering support operations.

6-6. The purchasing/contracting officer manages the purchase of all military or local items required by the FP Company in conjunction with the platoon leaders. FP may also contract for some degree of support or operations to do the mission. The purchasing/contracting officer coordinates with the MACOM in the review of options for each dependency and determines whether military resources or contract support is the most appropriate and cost effective alternative. The purchasing/contracting officer should ensure that FP needs are detailed and thoroughly stated in the contract documents. If contract administration is handled at a higher level, the purchasing/contracting officer should still ensure that the needs of FP are met.

6-7. The general engineering officer plans and coordinates the site setup of FP. He also supervises all engineering functions for each FP module. The general engineering officer will need to be a FP expert and will oversee critical elements of FP setup and operation. He coordinates and/or manages the proper storage and disposal of graywater and blackwater waste. FMs 5-104, 5-114, and 5-116 provide guidance in performing engineering functions.

6-8. The Operations NCO monitors and supervises section operations and advises the Company HQ on tasks involving FP operations and procedures. The laundry NCO coordinates all laundry, clothing, and shower functions including administrative functions. He reports to and advises the operations NCO. The preventive medicine NCO and specialist coordinate medical support and conduct water and other environmental tests. These soldiers advise the operations NCO about the sanitary status of laundry, shower, latrine, water distribution and storage, and food service operations. They also advise company personnel when sanitary or health conditions are inadequate.

UNIT MAINTENANCE SECTION AND PLATOON MAINTENANCE TEAM

6-9. The unit maintenance section provides unit level maintenance on all organic equipment except COMSEC and communications-electronics equipment. One platoon maintenance team will reinforce the unit maintenance section for each FP module assigned to the company. The platoon maintenance team provides unit level maintenance for the platoon's equipment including the FP module itself with the exception of COMSEC and communications-electronic equipment.

FP PLATOON HEADQUARTERS

6-10. The FP Platoon Headquarters provides basic command and control, training, administration, and logistical support for the operations of one FP module under the direction of the QM FP Company Commander. The platoon headquarters will also supervise billeting, and tenant unit in-processing and out-processing functions. Each module comes with a SSP (Appendix C) which contains spare and repair parts to sustain operations for about 30 days. Once operations have begun, it will be necessary to make arrangements within the theater for DS and GS maintenance of equipment and for resupply of operator and unit level spare and repair parts and material.

6-11. The day-to-day operation of FP will depend on METT-T. The tenant units and FP platoon will communicate daily regarding plans and routines of the day. FP should be made aware of any special routines or activities planned by the tenant units. Likewise, the tenant unit should be made aware of the daily schedule of services and equipment available.

6-12. Soldiers arriving at FP will maintain unit integrity. A representative from the platoon headquarters will meet with incoming tenant unit representatives to conduct a briefing concerning camp operations, camp policies, and tenant unit responsibilities. Tenant unit responsibilities are discussed in Section II of this Chapter. A sample in-process brief template is available at Appendix F. Ensure that the in-processing brief covers the following policies:

- Smoking
- Alcohol
- Guest
- Gender Separation
- Quiet Time
- Vehicle Parking
- Other Policies concerning conduct while in the FP compound
- Check Out

6-13. Before a tenant unit occupies a billeting TEMPER, representatives from both the incoming tenant unit and the FP unit conduct a walk-through inspection of the facilities to determine the condition of the TEMPERs and other areas the tenant will occupy. Any and all discrepancies shall be documented and kept on file. The commander of

the tenant unit will make billeting assignments. Tenant unit soldiers will clean and take care of their billeting area and designated areas of the FP camp. FP personnel should ensure that each billet TEMPER remains stocked with the requisite cleaning supplies and that a copy of the camp rules, service schedule, and no smoking notice is posted inside each billeting TEMPER. At least one FP soldier should be assigned to help tenant units in the resolution of billeting-related issues.

6-14. Before departure, the tenant unit should police the billeting TEMPERs and their designated area. A representative of the tenant unit and the FP platoon will conduct a walk-through inspection and record all discrepancies. Any discrepancies not already recorded on the in-processing walk-through inspection document should be assessed. The tenant unit commander should be held accountable for repairs or the cost of repairs. Excessive damage caused by negligence or a lack of discipline should be investigated and punitive action taken as needed. A representative of the tenant unit should also check out with MWR and the laundry section. A tenant unit should not be cleared for departure until all MWR equipment checked out by unit personnel has been accounted for and until all unit personnel laundry has been returned. It is recommended that platoon headquarters develop inspection documents and check out forms to facilitate out-processing.

FACILITIES SUPPORT SECTION

6-15. Facilities Support Section personnel operate and maintain the FP power generation when the organic FP TQG are to be used. When in use, the TQGs will be clustered in groups of three. Operations within each cluster will be rotated every seven hours on a two-on and one-off schedule. This rotation will allow preventive and corrective maintenance to be performed without loss of power to subsystems. A simple switching network is designed into each TQG cluster to facilitate this rotation. If commercial or prime power is used, TQGs should be arranged to provide backup power if an outage, overload, attack, or sabotage occurs.

6-16. The facilities maintenance personnel also maintain climate control equipment such as the environmental control units and ASH heaters; refrigeration units for the 600-cubic-foot prefabricated refrigerators; electrical subsystems and equipment; and the repair of pipes, plumbing fixtures, and equipment. All preventive maintenance should be performed IAW the appropriate technical manuals. A schedule should be maintained by the section leader for performing all applicable preventive maintenance checks.

6-17. Section personnel conduct routine inspections and PMCS of assigned equipment. Facilities support personnel also work with other sections to assist in keeping FP subsystems fully operational. All malfunctions or problems should be documented so a detailed equipment history can be kept for each item. This helps future engineering improvements and provides valuable lessons learned which reduces repair time. A representative of the section should be on duty at all times to respond to malfunctions or problems which may occur.

6-18. **Prime Power Team.** When FP is operating using commercial or prime power, a utilities team (TOE 05530LH00) or an engineer prime power battalion (TOE 05610L000) will be attached to FP. Members of each FP platoon's facilities support section should work closely with the attached element. They should assist and coordinate to maintain uninterrupted electrical service to each module.

FOOD SERVICE SECTION

6-19. The food service section sets up, operates, performs preventive maintenance, and dismantles the food service subsystem. It also provides three cook-prepared meals per day to tenants, attached personnel, and FP personnel. The FP food service subsystem is comparable to a standard garrison kitchen and uses only electrical appliances. Many of the same guidelines given in FM 10-23 can be applied to the operation of the food service subsystem.

6-20. The 96-foot dining TEMPER may seat 120 soldiers at a time. During peak occupancy, it will be necessary to rotate the meal times of all personnel and serve each meal over a minimum of a two-hour period. Meal schedules can be designed to rotate times by section, detachment, or tenant unit dependent on occupancy. Meal schedules should be briefed during in-processing and posted inside each billeting TEMPER. The food service subsystem is cleaned by the food service section and any assigned tenant unit personnel. Soldiers using the dining facility should be required to police their area upon completion of their meal, dispose of uneaten food or refuse in designated containers, and return utensils to the designated area. After completion of the evening meal and a thorough cleaning, the food service dining TEMPER may be used as a convenient location for MWR personnel to show movies or for other large group activities.

6-21. Food service personnel will maintain sanitary conditions at all times. The food service section leader and designated leaders will do routine inspections to ensure all food service personnel and KP personnel are maintaining proper sanitary conditions. FM 21-10 provides specific guidance on field sanitation. Video TVT-10-110 provides specific information of food service sanitation in garrison and field conditions. The preventive medicine NCO will also conduct periodic inspections and tests to ensure food is prepared under sanitary conditions. Sanitary conditions in the food service facilities and operations will be IAW TB MED 530.

6-22. The graywater collection system for the food service subsystem contains an in-line grease trap. Grease collected in the grease trap is contaminated with graywater and is considered hazardous waste. Food service personnel should routinely monitor the grease trap. Grease must be periodically removed and disposed of as hazardous waste by food service personnel. Care should be taken when removing the hazardous waste from the grease trap to prevent personal injury or damage to the environment. Appropriate personal protective equipment should be used. Spills or leaks should be contained and cleaned up. Grease

awaiting proper disposal should be stored in approved containers and labeled as hazardous waste.

LAUNDRY AND SHOWER SECTION

6-23. The laundry and shower section personnel are responsible for the setup, operation, preventive maintenance, and dismantlement of the containerized latrine, containerized batch laundry, and 12-head shower subsystems. The laundry and shower section provides services which allow each soldier one shower per day, unlimited use of the containerized latrine, and one washing of 15 pounds of laundry per three-day period.

6-24. FP uses one CBL that uses two-high capacity commercial washer/extractors and two commercial dryers. The entire CBL subsystem may be operated by one laundry and shower specialist with additional personnel available during designated hours to receive, process, and reissue laundry. Many of the same guidelines outlined in FM 42-414 can be applied to the operations of the FP containerized batch laundry subsystem.

6-25. The laundry and shower section has the capability to clean 15 pounds of laundry for each soldier per three-day period at maximum occupancy with a 24-hour turnaround time. All clothing items, sleeping bags, and sleeping linen are included in a soldier's 15 pounds of laundry. Time must be scheduled for shower towels and food service linens. Operators should periodically monitor the fuel level for the M80 water heater. They should notify the petroleum distribution section when the fuel level reaches 1/3 or less capacity. During less than maximum utilization, laundry and shower section personnel may provide expanded laundry services if needed.

6-26. Only one containerized batch laundry subsystem is used per FP module. It is critical to conduct routine preventive maintenance and to allow time for more complex preventive maintenance procedures. For the smooth operation of the CBL, a schedule for turn in, processing, and return of laundry should be developed, briefed during in-processing, and posted inside each billeting TEMPER.

6-27. The containerized batch laundry produces graywater, which is considered hazardous waste. Personnel must wear appropriate personal protective equipment when working with items contaminated with graywater; spills or leaks should be contained and cleaned up, and graywater awaiting proper disposal should be stored in approved containers and labeled as hazardous waste.

6-28. FP is equipped with four 12-head field shower assemblies. When in operation, each soldier can take one shower per day. Designated laundry and shower section personnel will attend to each shower. These personnel must ensure that towels and soap are available and that facilities are safe, sanitary, and in good working order. Laundry and shower section personnel will clean and sanitize each shower facility daily and as needed, preferably without interfering with scheduled

operations. Operators should periodically monitor the fuel level for the M80 water heater. They must notify the petroleum distribution section when the fuel level reaches 1/3 or less capacity.

6-29. Shower schedules should be made to allow for gender separation, maximum use, time for preventive maintenance, and cleaning. Gender separation should be done by scheduling an amount of time for each gender equivalent to that gender's population within the camp. Times set for each gender should be made throughout the 24-hour period. This schedule should be briefed during in-processing and should be posted in all billeting TEMPERS.

6-30. The shower subsystem produces graywater, which is considered hazardous waste. Personnel must wear appropriate personal protective equipment when working with items contaminated with graywater, spills or leaks should be contained and cleaned up, and graywater awaiting proper disposal should be stored in approved containers and labeled as hazardous waste.

6-31. FP uses four CLs. Laundry and shower section personnel must keep supplies of toilet paper and soap in the latrines, as well as keep the latrines clean. The level of the waste in the blackwater holding tank should be routinely monitored. The laundry and shower section leader should be notified to evacuate the tank once the tank is no more than ¾ full. The general engineering officer assigned to the company's support operations section is responsible for coordinating and supervising the disposal of blackwater. Included in the FP module is a WWVT/T to remove blackwater from the latrine's internal holding tank.

6-32. The containerized latrine produces blackwater, which is considered hazardous waste. Personnel must wear appropriate personal protective equipment when working with items contaminated with blackwater, spills or leaks should be contained and cleaned up, and blackwater awaiting proper disposal should be stored in approved containers and labeled as hazardous waste.

6-33. Each latrine unit should be visited by a Preventive Medicine NCO daily to ensure it is safe, sanitary, and free of insects. If sanitary services are contracted, the Preventive Medicine NCO should be involved in the process to ensure that a desired standard of cleanliness is maintained.

6-34. Latrines may not be used by both genders at the same time. With four operational latrines, latrines may be designated in 25 percent increments, which most closely represent camp population. If this is not sufficient to adequately represent camp population, a "flip sign" may be used so both genders may use the same latrine. Gender designation of latrines should be included in the in-processing brief and signs showing gender designation should be clearly posted on the outside of each latrine. If host nation personnel will be using the latrines, signs should be posted in the host nation language.

6-35. Feminine hygiene products may not be disposed of in latrine toilets. Signs showing this should be posted in latrines designated for

female use. Appropriate waste receptacles must be provided for disposal of these items. The final disposal of these items must be made as appropriate for the AO.

WATER DISTRIBUTION SECTION

6-36. FP uses 20,000-gallon fabric storage tanks coupled with an expansion tank, which maintains positive pressure and automatically operates an electric pump in response to demand. Hypochlorination is done during the filling of the tank and through recirculation of water through an intake/out-take loop, which can be opened or closed to recirculate water through the storage tank. Potable water distribution and storage for FP should be done using the guidance in FM 10-52. Other guidance on water supply, purification, testing, transportation, distribution, and storage can be found in FMs 10-52-1, 10-115, and 55-50.

6-37. The water source for FP can be a QM Water Supply Company (TOE 10469L000), through the use of an approved host nation commercial water system; through contractor delivery from an approved water source; or through on-site wells constructed by an engineering detachment (TOE 05520LE00). All potable water to be used as a source for the FP water distribution and storage system must be tested and certified by the Preventive Medicine NCO from the FP Company support operations section. Source and potable water for FP use will meet the standards in TB MED 577.

6-38. Two water distribution section personnel should be available for duty at all times while potable water storage and distribution sites are in operation. The primary responsibility of these personnel is to maintain proper chlorination levels within each water storage and distribution system, monitor water usage, receive water deliveries from a certified source, conduct water analysis testing, perform preventive maintenance on water storage and distribution equipment, and complete water reports, logs, and forms. Water distribution section personnel will also operate water supply points for the issue of water into the water tank trailers and into other approved containers.

6-39. Security of the water storage and distribution sites should be maintained to prevent the possibility of water source tampering or sabotage. These sites should be a regular part of the patrol of security personnel.

PETROLEUM DISTRIBUTION SECTION

6-40. FP has the capacity to store 40,000 gallons of JP-8/diesel and 500 gallons of MOGAS. FP uses typical FARE for JP-8 and MOGAS bulk fuel operations. Petroleum storage and distribution operations should be conducted using guidance from FM 10-67-1 and MIL-HDBK-200. Bulk fuel for the resupply of FP may be received through general or direct military support or from a certified host nation source. All source fuel used for resupply of the FP petroleum distribution and storage system must be tested and certified by qualified petroleum distribution section

personnel and meet standards outlined in FM 10-67-1 and MIL-HDBK-200.

6-41. Two petroleum distribution section personnel should be available for duty at all times while the bulk fuel storage and distribution sites are in operation. The primary responsibilities of these personnel are to:

- Monitor bulk fuel usage
- Receive bulk fuel deliveries from a certified source
- Conduct petroleum product analysis and testing
- Issue bulk fuel to vehicles and into approved containers
- Perform preventive maintenance on bulk fuel storage and distribution equipment
- Complete bulk fuel reports, logs, and forms.

6-42. Petroleum distribution section personnel should ensure that the bulk fuel distribution and storage system is properly grounded and that all vehicles and containers are properly grounded during fuel issue or delivery. All bulk fuel distribution and storage sites should be designated as no smoking areas and signs should be posted in English and the host nation language. Fire fighting equipment should be conveniently available to the site and a fire extinguisher should always be within easy access during issue and delivery operations. Petroleum products are also considered hazardous waste and a hazard to the environment and to personnel. All leaks should be contained and cleaned up immediately. Personnel should use appropriate personal protective equipment and avoid direct contact with petroleum products.

6-43. Security of the petroleum storage and distribution sites should be maintained to prevent the possibility of tampering or sabotage. These sites should be a regular part of the patrol of security personnel.

6-44. The largest consumer of bulk fuel will be the tactical quiet generators when they are used to provide electrical power. Each generator cluster will employ a 500-gallon collapsible fabric fuel drum to supplement the generator's internal fuel tanks. During normal operations, these fuel drums will require refueling about every three days. Refueling of these drums can be done by tanker delivery via the camp's perimeter roadway. Petroleum distribution personnel are also responsible for the setup, operation, preventive maintenance, and dismantlement of these fuel drums. Section personnel should do routine inspections of these drums to ensure proper operation and environmental protection.

6-45. MOGAS is only required in small quantities for operation of the chillers for the potable water tank trailer**.** Unless otherwise directed, all bulk fuel stores are for FP vehicle and equipment operation and are not to be distributed to tenant units.

ADMINISTRATIVE, CHAPLAIN, MEDICAL, AND MWR FACILITIES

6-46. Administrative, chaplain, medical, and MWR services will be provided by attached personnel from the MACOM, tenant unit personnel, and detachments from other units using TEMPERs. Specific equipment is provided by FP as part of each module. To provide effective services to tenant units, the following considerations should be made when setting up these facilities:

- Make every effort to provide private spaces within the administrative TEMPERs for the discussion of legal, finance, and personal matters, religious counseling, and medical attention.
- Determine the mission, weather, and the needs of the tenant units when planning the setup of MWR fields and the types and quantities of MWR equipment to make available.
- Set up a secure area for the storage of AAFES items. A TRICON may be made available for the storage of AAFES goods and security patrols or watches may be necessary. If AAFES provides telephone and/or ATM, equipment should be located in a visible and well-lighted area to increase personnel safety and security.

6-47. Availability of these services should be included in the in-processing brief delivered to each tenant unit. Signs should be posted inside each billeting TEMPER showing service schedules for all appropriate services.

GRAYWATER COLLECTION AND DISPOSAL

6-48. Graywater disposal may be performed using an approved host nation sewage system, if available. If not available, each FP module is supplied with a graywater collection system that can store about 40,000 gallons of wastewater. Once collected in the graywater collection system, wastewater may be hauled to an approved disposal site or disposed of via field expedient method. Graywater is considered hazardous waste. It should only be disposed of IAW appropriate environmental regulations and directives.

6-49. Expertise exists within the QM FP Company to setup, operate, maintain, and dismantle the graywater collection system. The general engineering officer in FP Company support operations section is responsible for disposing of the graywater. The general engineering officer and the preventive medicine NCO should monitor graywater collection and disposal operations to ensure environmentally safe and sanitary disposal.

BLACKWATER DISPOSAL

6-50. Wastewater collected in the holding tanks of the containerized latrines is called blackwater. It is considered hazardous waste, which is a danger to the environment and to personnel. Care must be taken when disposing of blackwater. Blackwater may be collected from the latrines and disposed of through an approved host nation sewage system, may be hauled to a approved disposal site by military personnel

or civilian contractor, or disposed of using the field expedient method. A WWVT/T is provided as part of each FP module and may be used to collect and properly dispose of blackwater. The general engineering officer in the FP Company support operations section is responsible for disposing of the blackwater disposal. The general engineering officer and the preventive medicine NCO should monitor blackwater collection and disposal operations to ensure environmentally safe and sanitary disposal.

SECTION II – TENANT RESPONSIBILITIES

RESPONSIBILITIES OF TENANT UNITS

6-51. Supported units must clean billeting TEMPERs and the grounds in and around the area assigned. Tenant unit commanders are held accountable for damages or loss imposed by improper or inappropriate use FP facilities by their personnel. Requests for tenant unit assistance or any issues requiring a decision should be sent through the tenant unit chain of command via the FP Company and/or platoon headquarters.

6-52. Tenant units are responsible for their organic equipment and the logistical support required to refit the unit. The QM FP Company commander may also assign tenant units more responsibilities as appropriate during their stay. The following are responsibilities of the tenant unit or are appropriate additional duties which may be assigned:

- **Weapons and Ammunition Storage.** The tenant unit must store all weapons and ammunition. If appropriate to the unit's METT-T, the QM FP Company commander may allocate a TRICON to be used to store the tenant units weapons and ammunition. The tenant unit will continue to be responsible and accountable for the security of their weapons once stored. It may not be safe to store certain types of ammunition in TRICONs during severely hot weather conditions.
- **Organic Equipment Maintenance and Security.** The tenant unit must maintain and secure their organic equipment. The QM FP Company gives the tenant unit an area for parking and maintaining their organic vehicles. The unit is also given ample space for the storage of other types of organic equipment. Also report and assists in any hazardous waste spills incurred during maintenance activities.
- **Logistical Support.** Tenant units maintain their own logistics relationships. Unless otherwise ordered, they will not receive supplies of fuel, water, ammunition, or food, other than prepared meals, from FP stores. Unless otherwise staffed, configured, and equipped, FP will not replenish or refit the unit.
- **Defense.** The QM FP Company can defend against a Level I threat. Threat levels II or III require the assistance of the tenant units and/or other theater assets. During in-processing and as

necessary, tenant units should be informed of their responsibilities for defense of the FP AO and held accountable for the performance of those tasks.

- **Police Call.** Each day after the morning meal, a police call should be held to allow all soldiers to police their billets and designated areas. All refuse or unauthorized items should be picked up and placed into designated containers for disposal. All containers should then be emptied or staged at the designated location for pickup. Soldiers will also conduct a general inspection of their designated billeting TEMPERs. They must ensure guy ropes and stakes are secure and that no damage to the TEMPER or conditions which may potential cause damage to the TEMPER exist. Any damage identified that can not be effectively repaired should be reported to platoon headquarters.
- **Coordination with FP Platoon Headquarters.** The tenant unit commander must keep the FP Company and/or platoon headquarters informed of the unit's actions. A daily briefing should be arranged to allow the tenant unit commander to inform FP Headquarters of their intended activities, to allow FP personnel to communicate any new taskings or information and to resolve issues that may rise.

ATTACHED UNITS

6-53. Dependent upon the mission and configuration, detachments from other units may be required. MWR, medical, and chaplain personnel are not assigned to the QM FP Company and will be assigned as needed to support operations. If the tactical generators are used to provide primary power, a prime power team may also be detached to support operations. Supporting unit personnel will be afforded access to all FP life support functions with the exception of billeting. Living quarters and/or shelter will be the responsibility of the company detailing the detachment. If more convenient and available, the FP Company may accommodate the billeting needs of the detachments. FP will maintain the structures used by these detachments and the detached personnel will maintain the cleanliness and appearance of the structure and the assigned area.

SECTION III – COMMUNICATIONS

ASSETS

6-54. Communications help to support unit missions, to carry out administrative duties, to maintain contact with higher headquarters, to transmit tactical information, and to defend the unit. The commander must set up communications with all elements. Communications help may be needed in setting up an adequate system. Assistance can typically be obtained from the COSCOM or EAC in which the unit is operating. See Figure 6-1 for a typical wire communications diagram

with FP authorized equipment.

6-55. The QM FP Company has the organic communications equipment required to do the mission. Authorized communications equipment includes the AN/VRC 87/88/90-series radios and wire telephone communications with switchboard maintained at the QM FP Company headquarters. Automated data transfer via computer modem and data facsimile capabilities is also available.

6-56. There are many different communications methods. The commander should use those that offer maximum reliability, flexibility, security, and speed with a minimum of effort and material. He should not depend on one method but should use methods that complement each other. Signal equipment can be damaged by electromagnetic pulse. Alternative means of communication should always be available in the event of nuclear warfare. FM 24-1 gives more guidance.

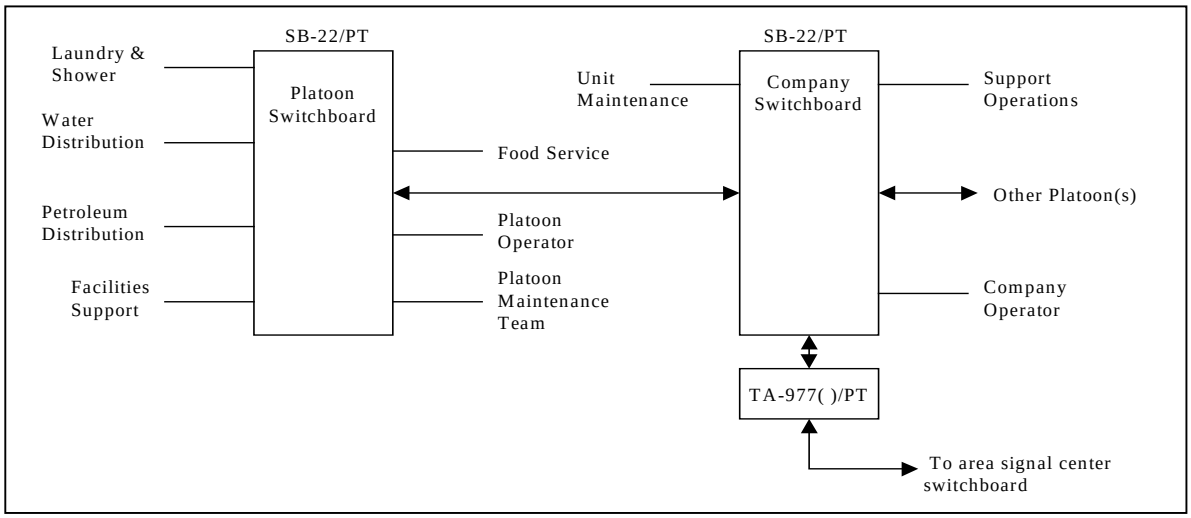


Figure 6-1. Sample FP Wire Communications Diagram

6-57. Wire systems use field wire and cable, telephones, and a switchboard to provide person-to-person conversations. The company headquarters uses this system to provide internal communications 24 hours a day. TC 24-20 gives information on field wire activities and the general characteristics of equipment used with field wire systems.

6-58. Radio is one of the most versatile methods of communication. Since it is wireless, it can operate while the unit is mobile and can handle large volumes of traffic. Radio is the commander's main method of communications with unit elements too far away for contact by local telephone. However, radio is the least secure method of communication and is subject to jamming, interception, deception, and interference. Radio can be severely damaged by electromagnetic pulse resulting from a nuclear detonation. During the blackout following detonation, radio transmission will be impossible. For more information see FMs 24-18

and 25-50.

6-59. Automation involves methods of sending, receiving, processing, or storing of information by an automated capability, such as a computer. An automated capability can process large volumes of information. It can also provide real-time delivery of send and receive data. Automation is easily secured and provides speed, accuracy, improved text and video display, and programmable output and formats. Automated systems require a manual backup system. They are susceptible to electromagnetic pulse, power fluctuations, induced viruses, and magnetic disturbance.

6-60. The manual method consists of sending, receiving, and storing documents by physical capabilities, without using electronic means. This method includes using messengers and a manual record management system. The method is reliable and flexible. It uses assets found in every unit. It is also the most secure means available. The records Management system provides backup for data storage. However, the method requires a large amount of space and is manpower intensive. The messenger is subject to enemy interception as well as constraints of weather, terrain, and time.

6-61. Visual sounds and signals are used to send messages over short distances. These signals are most useful during periods of radio silence. They are used as alarms or warnings, especially of enemy attack, or as a means of sending prearranged messages. Messages transmitted by visual or sound signals are easily misunderstood; therefore, they must be taken in the selection of the means and the message to be conveyed. Message transmitted by this means should be few, prearranged, and simple. Visual signals include road signs, flags, lights, panels, arm and hand, and pyrotechnics. Sound signals include horns, bells, whistles, weapon fire, and sirens. FMs 3-4, 5-36, 21-60, 21-305, 23-30, and 55-312 provide information and guidance on conducting sound and visual signals.

COMMUNICATIONS SECURITY

6-62. Communications security consists of measures to keep unauthorized persons from getting information from the communications system. Personnel should understand and observe COMSEC measures given in AR 380-40. Two measures that should always be used are transmission security and physical security.

6-63. All transmissions are governed by the SOI. SOI is a series of orders issued for technical control and coordination of signal support activities for a command. As a rule, the commander receives only an extract of an SOI; the part needed to manage the unit's nets. Among other things, the SOI may provide a list of EEFI that must not be transmitted. Operations will have a copy of this list. They should monitor transmissions to see if information on the list is being passed. Other ways for making transmissions more secure are:

- Choose a means of communication according to the urgency of the

situation.

- Transmit only when necessary.
- Use low transmitting power when possible.
- Be wary if a radio station's signal strength suddenly changes.
- Plan the message and keep it short as possible.
- Cut out unnecessary talk and maintain communications silence as much as possible.
- Use only authorized codes and ciphers.
- Avoid identifying yourself or others.
- Demand authentication and do not talk to anyone who will not authenticate.

6-64. Operators should be impressed with the need to protect communications equipment from abuse, damage, or capture. They should guard against giving the location of equipment. Phone wires should be put inside the defensive perimeter and along frequently traveled routes. Burying wires and cables whenever possible will protect them against electromagnetic pulse. Proper grounding will also protect electronic equipment during nuclear attack. Radios should be put in well-defended locations. Operators should move transmitters frequently. The commander should be sure to rotate operators so that an enemy will not connect an operator with a specific unit or operation.

UNWANTED SIGNALS

6-56. Radio reception may be hindered, confused, or prevented by unwanted signals. These signals may be unintentional or intentional. Unwanted signals should be reported according to SOI supplemental instructions. Before reporting an unwanted signal, the operator should disconnect the receiving antenna to determine whether or not the signal is from an outside source. The operator should follow procedures in FM 24-33 to determine the nature of the unwanted signal.

6-66. **Unintentional Signals.** Electromagnetic signals caused by sources other than the enemy may interfere with radio reception. These sources include friendly radio signal, faulty electrical components, weather conditions, and nearby generators. This type of unwanted signal is caused by interference.

6-67. **Intentional Signals.** Electronic devices provide ways for the enemy to operate against the unit in combat situations. Through electronic warfare, the enemy attempts to monitor and break up unit communications. The intentional unwanted signals most often encountered include deception, jamming, and squelch capture.

6-68. An operator who suspects interference should notify the commander immediately. The operator should make a report according to SOI supplemental instructions and in the format shown in FM 24-1. The report should be made whether or not the operator is successful in working through the interference. After reviewing the report, the

commander sends it to higher headquarters as required by the SOI.

SECTION IV – DEFENSE

COMMANDER RESPONSIBILITIES

6-69. A FP commander is responsible for the internal defense of the modules and associated operating areas. The object is to form a base defense perimeter to defend against enemy attack. The commander prepares, plans, and supervises an internal defense that ensures the protection of personnel, equipment, and resources from enemy attack.

6-70. The unit must be able to protect itself against a Level I enemy incursion. Because the unit is not trained or equipped to conduct sustained defense against Level II and Level III attacks, it will require augmentation by tenant units and other theater assets to defend at these levels. See Table 6-1 for levels of enemy threat activity. History has shown that the massing of troops provides a convenient enemy target. Transportation routes and personnel delivering soldiers, equipment, and supplies to and from FP may also be at risk of attack. Terrorist-style attacks and the mining of lines of communication are also potential threats which require careful consideration in the setup of an effective defense. All units and/or detachments within the FP compound will maintain the defensive readiness posture appropriate to the AO.

Table 6-1. Level of Enemy Threat Activity

LEVEL	TYPE OF ACTIVITY
I	Activity by enemy controlled agents.
	Sabotage by enemy sympathizers.
	Terrorism.
II	Diversionary and sabotage operations conducted by unconventional forces.
	Raid, ambush, and reconnaissance operations conducted by combat units.
	Special missions or UW missions.
III	Heliborne operations.
	Airborne operations.
	Amphibious operations.
	Ground force deliberate operations.
	Infiltration operations.

DEFENSE PLANNING

6-71. FP will fall under the general force protection plan for the area in which it is operating. This responsibility will be with the MACOM, COSCOM, or JTF. The primary defense provider will be the tenant units. METT-T will determine the defensive posture appropriate for the area.

6-72. The commander plans the defense of the operating area. Higher headquarters S2 and S3 can provide information on the threat from opposing forces in the AO. The advance quartering party should have conducted a preliminary reconnaissance of the area and created a preliminary defensive plan. The commander will perform a secondary reconnaissance of the operating area. He should sketch the area on a map and use this map to create a defense plan. The commander may request more supplies for obstacles and camouflage as well as more ammunition, if necessary.

6-73. Components of an effective base defense plan include procedures for detection, delay, and destruction. Detection efforts include using day and night observation devices, MP and counterintelligence information, and chemical or radiological monitoring devices. Warning systems and procedures to notify all personnel of various alert postures should be considered. Following detection, use delay measures to show the attacker's progress to allow base defense forces to respond. Delay measures include mines, boobytraps, obstacles, and barriers. Following detection and delay, the enemy force must be destroyed. If the threat exceeds available base assets, preplanned delay measures may be seriously tested until additional forces arrive to destroy the threat. FMs 5-103, 7-7, 7-10, 20-3, 20-23, 21-75, 23-14, 23-30, 23-31, 23-67, 44-80, and 90-10 provide information and guidance for planning, setting up, maintaining, and improving defenses.

6-74. The defense plan should also deploy camouflage, cover, concealment, dispersion, light and noise discipline and the use of an alarm system. The size of FP makes it difficult to conceal. However, appropriate steps should be taken to camouflage and conceal structures and equipment as much as possible.

6-75. The commander should spread out the unit as much as possible without slowing operations. Dispersion is secondary to mission accomplishment. Class III supplies should be kept away from other supplies. If possible, Class V supplies should be kept at least 180 meters from other supplies. This makes it harder for the enemy to destroy all of the unit's supplies in one strike.

6-76. Light and noise discipline are important to maintaining good defense. Troops should be trained to work quietly and with little or no light. Flashlights should have colored and filtered lights. TEMPERS should be used for operations if necessary. While the size and population of FP may make the maintenance of light and noise discipline difficult, it should not be overlooked.

6-77. Camouflage and night operations provide for passive air defense.

FP personnel have only small arms weapons. They should be trained to fire their weapons as a group at attacking aircraft as an active air defense measure.

6-78. An alarm system can warn the unit that an attack is imminent. Ideally the unit's defense plan should allow increases in perimeter defense while continuing support of missions. The company should be trained to respond appropriately to threats. However, when attack is imminent, all personnel stop their normal duties and take defensive positions. The commander's first responsibility is to secure the unit. If he cannot defend against enemy activity, he must coordinate with higher headquarters for the appropriate support or to conduct a hasty retreat.

NUCLEAR, BIOLOGICAL, AND CHEMICAL OPERATIONS

6-79. The enemy has the means to conduct operations involving NBC weapons. It can be expected to use them into any battlefield scenario. When this happens, the company must be able to survive an attack, and based on level of damage and/or contamination, continue to do its mission. The commander should choose an officer, a NCO and an enlisted alternate to lead and train NBC defense teams. AR 350-41 establishes the requirement for unit NBC defense teams. The team should be trained to decontaminate troops and equipment, do radiological monitoring and survey, and detect chemical attacks. All officers and NCOs must know and be able to apply the principles of NBC defense as given in FM 3-100. Techniques for mitigating the effects of a NBC attack are given in FMs 3-3 and 3-4.

SECTION V – UNUSUAL OPERATING CONDITIONS

WET WEATHER CONDITIONS

6-80. Extended periods of wet weather or torrential rains may create conditions that negatively effect FP operations. Extended periods of rain may cause the earth to become muddy and make moving in and around the camp difficult for equipment and personnel. In these conditions, sidewalks need to be constructed in areas receiving significant personnel traffic. Tracking of mud into facilities may also cause sanitary issues which require additional consideration.

6-81. Wet conditions may cause TEMPERs to sag and guy ropes and stakes to become loosened. Increase routine inspections of structural integrity for TEMPERs to ensure facilities remain structurally sound and undamaged. Wet conditions can also cause grounding rods for electrical systems to become loosened and grounding to become less than effective. Increase routine inspection of grounding rods to ensure proper grounding and prevent electrical shock.

COLD WEATHER CONDITIONS

6-82. The FP module is not intended for use in freezing conditions. Brief drops into temperatures below freezing can be tolerated, but sustained operations in these conditions require the addition of the separately provided cold weather kit. Subsystems with collapsible fabric tanks will place TEMPERs over the tanks. Insulating material and heat tracing devices will be placed around hoses and connections. ASH is provided to replace the ECUs for TEMPER climate control. These heaters produce greater heating BTUs and function more efficiently in cold weather conditions. The cold weather kit comes with a TM, which contains all of the instructions necessary for the setup, operation, maintenance and dismantlement of the kit.

6-83. Snow must be removed from TEMPER flies promptly to prevent damage or catastrophic failure of the tent. A long-handled snow rake is provided for this task. Snowdrifts against TEMPERs should be removed. If cold weather is anticipated, the TEMPERs should be rearranged to reduce inaccessible deadspace between TEMPERs and/or vestibules. Snow may need to be removed sidewalks and roadways. To prevent damage to positioned equipment, mark their locations with a tall stake or flag. Also ensure that all electrical cables, graywater hoses, or blackwater hoses are buried or protected from damage by snow removal equipment.

EXTREME HEAT OR DESERT CONDITIONS

6-84. Every effort must be made to reduce the effects of the heat and sand on equipment, especially ECUs, fuel supplies, and water supplies. Empty TRICONs can be used to keep equipment out the sun and sand. Use solar shades or tentage wherever possible to reduce the solar heating of water and fuel tanks. Avoid filling tanks to 100 percent capacity to reduce the possibility of heat deterioration, infrared deterioration, and rupture. Electric pumps and equipment powered by small air-cooled internal combustion engines should be shaded to prevent overheating. Water the air filters of internal combustion equipment. Preventive maintenance on these systems should be performed in shorter intervals, if necessary.

6-85. Extreme heat effects the physiology of personnel and increases the likelihood of heat stroke, exhaustion, and dehydration. Schedule tasks and workload to take these conditions under consideration. Make sure soldiers take frequent breaks, use sunscreen, and drink plenty of water to prevent dehydration.

HIGH ELEVATION

6-86. Fuel burning equipment, including internal combustion engines is limited in the altitude at which they may be effectively and efficiently operated. Operation at high elevations may require adjustment of the fuel and air mixtures on some internal combustion engines. The equipment's TM should be checked to determine the procedure for

making necessary adjustments.

6-87. At high elevations, personnel may experience difficulty at increased levels of exertion. Consider the effects of elevation on physiology and tasks. Consider this when you schedule the workload.

Appendix A

Table of Organization and Equipment 42-4241000

TABLE OF ORGANIZATION
AND EQUIPMENT
NUMBER 42424L0

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D. C.,
SECTION I REPORT

QUARTERMASTER FORCE PROVIDER
COMPANY
DESIGNATION: -------- QUARTERMASTER COMPANY
(FORCE PROVIDER)

1 APRIL 1998

1. MISSION.
A. TO PROVIDE THE FRONT LINE SOLDIER A BRIEF RESPITE FROM THE RIGORS OF COMBAT.

B. TO SUPPORT A TASK FORCE DURING THEATER RECEPTION, RECONSTITUTION, AND REDEPLOYMENT.

C. TO SUPPORT HUMANITARIAN AID, NONCOMBATANT EVACUATION AND DISASTER RELIEF OPERATIONS.

2. ASSIGNMENT. TO A THEATER ARMY AREA COMMAND (TAACOM) OR A CORPS SUPPORT COMMAND (COSCOM) WITH ATTACHMENT TO A HEADQUARTERS AND HEADQUARTERS DETACHMENT, SUPPLY AND SERVICE BATTALION, TOE 42446L000; A HEADQUARTERS AND HEADQUARTERS COMPANY, SUPPORT GROUP (CORPS), TOE 63422L000; OR HHC AREA SPT GP, TOE 63622L000. THE COMPANY MAY BE DETACHED TO OPERATE SEPARATELY IN AN AUSTERE ENVIRONMENT.

3. CAPABILITIES.

A. AT LEVEL 1, THIS UNIT: OPERATES UP TO SIX INDEPENDENT FORCE PROVIDER MODULES, EACH SUPPORTING 550 SOLDIERS OR, WITH MODULES COMPLEXED/COMBINED, SUPPORT A BRIGADE SIZE FORCE OF 3300 PERSONNEL. EACH MODULE WILL PROVIDE:

(1) CLIMATE CONTROLLED BILLETING ACTIVITIES

(2) FOOD SERVICE

(3) SHOWER AND LATRINE FACILITIES

(4) LAUNDRY SERVICE

(5) FACILITIES FOR MWR ACTIVITIES

B. THE COLUMNS UNDER LEVELS 2 AND 3 ADAPT THIS TABLE FROM APPROXIMATELY 90% FOR LEVEL 2 TO APPROXIMATELY 80% FOR LEVEL 3. DECREMENTS RESULT IN OPERATING CAPABILITY FOR 5 MODULES AT LEVEL 2 AND 4 MODULES AT LEVEL 3.

C. THE CAPABILITIES OF A TYPE B ORGANIZATION ARE THE SAME AS THOSE OF A LEVEL 1 ORGANIZATION. THE OPERATIONAL CONCEPT FOR THIS UNIT ENVISIONS TYPE B FORCE STRUCTURE UTILIZATION.

(1) THE TYPE B COLUMN ADAPTS THIS TOE TO A LESSER REQUIREMENT FOR U.S. ARMY PERSONNEL. POSITIONS REFLECTED IN LEVEL 1, BUT NOT IN THE TYPE B COLUMN, ARE THOSE THAT CAN BE FILLED BY NON-U.S. ARMY PERSONNEL. THE NUMBERS OF U.S. ARMY AND NON-U.S. ARMY PERSONNEL MAY BE BALANCED TO ACCOMMODATE LOCAL CONDITIONS.

(2) INTERPRETERS AND TRANSLATORS REQUIRED WHEN ORGANIZED UNDER THE TYPE B COLUMN WILL BE PROVIDED BY THE APPROPRIATE MAJOR ARMY COMMAND (MACOM)

(3) WHEN AUTHORIZED BY DEPARTMENT OF THE ARMY DA), U.S. MILITARY PERSONNEL REQUIREMENTS SHOWN IN THE TYPE B COLUMN MAY BE MODIFIED BY TROOP BASIS PROPONENTS AS REQUIRED BY LOCAL CONDITIONS OF EMPLOYMENT IN ORDER TO ENABLE THE UNIT TO EFFECTIVELY ACCOMPLISH ITS MISSION.

(4) DA CIVILIANS, CONTRACTOR PERSONNEL, LOCAL NATIONALS, AND THIRD COUNTRY NATIONALS MAY BE SUBSTITUTED FOR U.S. MILITARY PERSONNEL AS DETERMINED BY THE THEATER ARMY COMMANDER.

D. THE COLUMNS DESIGNATED BY LEVELS 1 THROUGH 3 ARE DESIGNED TO RELATE TO CATEGORIES ESTABLISHED IN AR 220-1, UNIT STATUS REPORTING.

E. INDIVIDUALS OF THIS ORGANIZATION CAN ASSIST IN THE COORDINATED DEFENSE OF THE UNIT'S AREA OR INSTALLATION.

F. THIS UNIT PERFORMS UNIT MAINTENANCE ON ALL ORGANIC EQUIPMENT (EXCEPT COMSEC EQUIPMENT).

G. THIS UNIT IS DEPENDENT ON:

(1) APPROPRIATE ELEMENTS OF THE CORPS OR THEATER ARMY FOR FINANCE, LEGAL, PERSONNEL AND ADMINISTRATIVE SERVICES,

TABLE OF ORGANIZATION
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WASHINGTON, D. C.,
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ADDITIONAL SECURITY, SUPPLEMENTAL TRANSPORTATION, AND UNIT LEVEL SIGNAL SYSTEMS SUPPORT.

(2) ENGINEER COMBAT BATTALION, HEAVY, TOE 05415L000, FOR SITE PREPARATION.

(3) ENGINEER FIRE FIGHTING TEAM, FIRE TRUCK, TOE 05510LB00, FOR FIRE FIGHTING.

(4) UTILITIES (4000) TEAM, TOE 05530LH00, FOR UTILITIES OPERATION.

(5) QUARTERMASTER SUPPLY COMPANY, TOE 42447L000, FOR POTABLE WATER SUPPLY.

(6) AREA SUPPORT MEDICAL BATTALION, TOE 08455L000, FOR LEVEL II UNIT AND RESIDENT HEALTH SERVICE SUPPORT.

(7) RESIDENT UNIT MINISTRY TEAM FOR RELIGIOUS SUPPORT TO UNIT WHICH ATTACHED.

(8) ENGINEER PRIME POWER BATTALION, TOE 05610L000, FOR POWER GENERATION SUPPORT.

(9) THE SUPPORTING CSG OR ASG HEADQUARTERS FOR PLANNING AND OPERATIONAL SUPPORT DURING RECEIPT OF TYPE B PERSONNEL FILL AND PROJECT STOCK FORCE PROVIDER MODULES LEADING TO FULL LEVEL ONE CAPABILITY AND DEPLOYMENT.

4. BASIS OF ALLOCATION. UP TO SIX PER THEATER.

5. CATEGORY. THIS UNIT IS DESIGNATED A CATEGORY II UNIT. FOR UNIT CATEGORIES, SEE AR 71-32.

6. MOBILITY.
A. THIS UNIT IS CAPABLE OF TRANSPORTING 824,500 POUNDS (31,478 CUBIC FEET) OF TOE EQUIPMENT WITH ORGANIC VEHICLES.

B. THIS UNIT HAS 28,867 POUNDS (2,146 CUBIC FEET) OF TOE EQUIPMENT WITH ORGANIC VEHICLES.

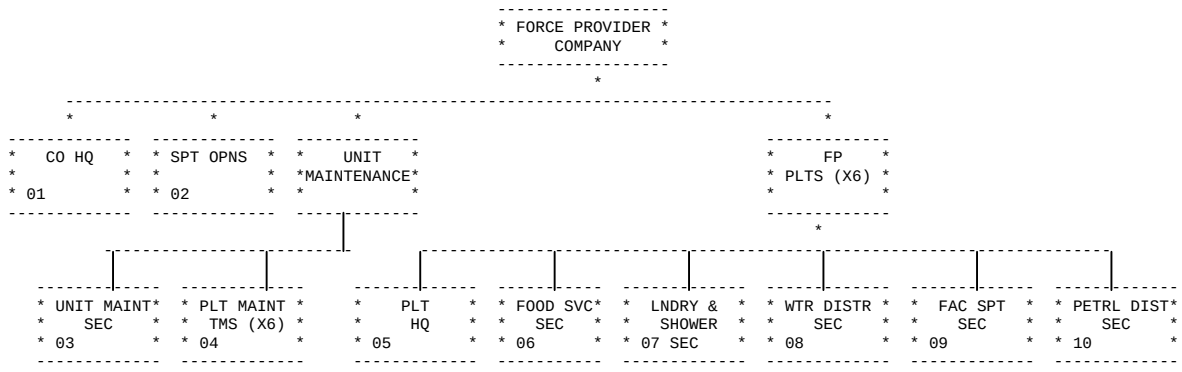
C. THIS UNIT IS 0% MOBILE. SOURCE: USAQMC&S.

7. DOCTRINE. THE FOLLOWING DOCTRINAL PUBLICATIONS ARE APPLICABLE TO THE OPERATION OF THIS UNIT:

FM 3-5, NBC DECONTAMINATION
FM 5-100, ENGINEER COMBAT OPERATIONS
FM 5-104, GENERAL ENGINEERING
FM 5-114, ENGINEER OPERATIONS SHORT OF WAR
FM 5-116, ENGINEER OPERATIONS: EAC
FM 5-422, ENGINEER PRIME POWER OPERATIONS
FM 10-1, QUARTERMASTER PRINCIPLES
FM 10-23, ARMY FOOD SERVICE OPERATIONS
FM 10-27-2, TACTICS, TECHNIQUES, AND PROCEDURES FOR SUPPLY AND FIELD SERVICES OPERATIONS
FM 10-27-3, TACTICS, TECHNIQUES, AND PROCEDURES FOR QUARTERMASTER DIRECT SUPPORT SUPPLY AND FIELD SERVICES OPERATIONS
FM 10-52, WATER SUPPLY IN A TOPNS
FM 10-52-1, WATER SUPPLY POINT, EQUIPMENT AND OPERATIONS
FM 10-280, MOBILE FIELD LAUNDRY, CLOTHING EXCHANGE, AND FIELD BATH OPERATIONS
FM 29-50, DIRECT SUPPORT SUPPLY AND FIELD SERVICES
FM 29-114, FIELD SERVICE COMPANY, GENERAL SPT, FORWARD
FM 42-424 (DRAFT), FORCE PROVIDER COMPANY
FM 54-23, REAR AREA OPERATIONS
FM 54-30, CORPS SUPPORT GROUP
FM 54-40, CORPS SUPPORT GROUP
FM 63-3, COMBAT SERVICE SUPPORT OPERATIONS-CORPS
FM 63-4, COMBAT SERVICE SUPPORT-THEATER ARMY AREA COMMAND
FM 63-11, LOGISTIC SUPPORT ELEMENT
FM 100-9, RECONSTITUTION
FM 100-10, COMBAT SERVICE SUPPORT
FM 100-15, CORPS OPERATIONS
FM 100-16, SUPPORT OPERATIONS FOR ECHELONS ABOVE CORPS
FM 100-17, ARMY FORCE PROJECTION
FM 100-19, ASSISTANCE TO U.S. CIVIL AUTHORITIES ARMY AND AIR FORCE EXCHANGE SYSTEM POLICY 8-4
FM 100-22, INSTALLATION MANAGEMENT

TABLE OF ORGANIZATION
AND EQUIPMENT
NUMBER 42424L0

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D. C.,
SECTION I REPORT



TOE 42424L000 TABLE OF ORGANIZATION AND EQUIPMENT TOE 42424L000
13/05/98 491231 OBJ 13/05/98

QM FORCE PROVIDER CO 42424L000

ICP SYS	LINE /LIN	PP	ERC	DESCRIPTION	SDTC	GRADE	MOS	BR	DC PC	ASI/RMKS 1 2 3 4	STRENGTH LEVELS LVL 1	LVL 2	LVL 3	AUG A	TYPE B	CADRE C	NONSTANDARD REMARKS 1	2	3
	PARA 01			COMPANY HEADQUARTERS															
	01	2		COMMANDER	AAA	O4	92A00	QM	P2	11	1	1	1		1	1			
	02	2		FIRST SERGEANT	AAE	E8	92Y5M		P2		1	1	1		1	1			
	03	2		SUPPLY SGT	QHL	E6	92Y3O		P2		1	1	1		1	1			
	04	2		NBC NCO	GAM	E5	54B2O		P2		1	1	1			1			
	05	2		SUPPLY SGT	QHL	E5	92Y2O		P2		1	1	1			1			
	06	2		ARMORER	QAP	E4	92Y1O		P2	01	1	1	1			1			
	07	2		VEHICLE DRIVER	AAV	E3	92A1O		P2	04 05	1	1	1			1			
	08	2		SUPPLY SP	QHM	E3	92Y1O		P2	01	1	1	1			1			
										PARA TOTAL	8	8	8		3	8			
	A32060	2	B	ALARM CHEMICAL AGENT AUTOMATIC: PORTABLE MANPACK							1	1	1		1				
G003		2									1-	1-	1-		1-				
G003	A32355	2	B	ALARM CHEMICAL AGENT AUTOMATIC: PORTABLE MANPACK M8A1							1	1	1		1				
G019		2									1-	1-	1-		1-				
	A72260	2	A	ANTENNA: RC-292							1	1	1		1				
C005		2									1-	1-	1-		1-				
C005	A79381	2	A	ANTENNA GROUP: OE-254()/GRC							1	1	1		1				
	B07126	2	B	AXLE CABLE REEL: RL-27							1	1	1		1				
G014	C05701	2	B	MONITOR CHEMICAL AGENT:							2	2	2		2				
	C68719	2	B	CABLE TELEPHONE: WD-1/TT DR-8 1/2 KM							2	2	2		2				
C091	D60801	2	B	DIGITAL NON-SECURE VOICE TERMINAL W/DIGITAL DATA PORT: TA-1042A/							1	1	1		1		TEQ		
C098	J31569	2	A	INST KIT: MK-2325/VRC FOR AN/VRC-87/88/90 IN HMMWV							1	1	1		1				
	J48402	2	A	INSTALLATION KIT: MK-2502/VRC F/AN/VRC-46/64 OR AN/GRC-160							1	1	1		1				
C098		2									1-	1-	1-		1-				
C007	J71543	2	A	INSTL KIT: MK-2147/VRC F/KY-57 W/AN/VRC-43 OR AN/VRC-46							1	1	1		1				
C098		2									1-	1-	1-		1-				
C098	J87848	2	A	INST KIT: MK-2499/VRC FOR TSEC/KY-57 WITH SINCGAR							1	1	1		1				
C139		2									1-	1-	1-		1-				
	M11895	2	A	MASK CBR: PROTECTIVE FIELD							429	360	291		429				
G011		2									429-	360-	291-		429-				
G011	M12418	2	A	MASK CHEMICAL BIOLOGICAL: M40							429	360	291		429				
	N96741	2	B	PISTOL CALIBER .45 AUTOMATIC:							1	1	1		1				
I018		2									1-	1-	1-		1-				
	P40750	2	B	POWER SUPPLY: PP-6224/U							1	1	1		1				
I018	P98152	2	B	PISTOL 9MM AUTOMATIC: M9							1	1	1		1				
	Q19339	2	B	RADIAC SET: AN/PDR-27							1	1	1		1				
G010		2									1-	1-	1-		1-				
	Q20935	2	B	RADIACMETER: IM-93/UD							2	2	2		2				
G020		2									2-	2-	2-		2-				
	Q21483	2	B	RADIACMETER: IM-174/PD							1	1	1		1				
G010		2									1-	1-	1-		1-				
	Q53001	2	A	RADIO SET: AN/VRC-46							1	1	1		1		TEQ		
C098		2									1-	1-	1-		1-		TEQ		
G010	R20684	2	B	RADIAC SET: AN/VDR-2							1	1	1		1				

TOE 42424L000

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13/05/98 491231 OBJ 13/05/98

QM FORCE PROVIDER CO 42424L000

ICP SYS	LINE /LIN	PP	ERC	DESCRIPTION	SDTC	GRADE	MOS	BR	DC PC	ASI/RMKS 1 2 3 4	STRENGTH LEVELS LVL 1	LVL 2	LVL 3	AUG A	TYPE B	CADRE C	NONSTANDARD REMARKS 1	2	3
G008	R30925	2	B	RADIAC SET: AN/PDR-75							1	1	1		1				
G020	R31061	2	B	RADIAC SET: AN/UDR-13							1	1	1		1				
C098	R45203	2	A	RADIO SET: AN/VRC-90							1	1	1		1		TEQ		
C139		2									1-	1-	1-		1-		TEQ		
	R59023	2	B	REELING MACHINE CABLE HAND: RL-31							1	1	1		1				
	R59160	2	B	REELING MACHINE CABLE HAND: RL-39							1	1	1		1				
C091		2									1	1	1		1				
C139	R67908	2	A	RADIO SET: AN/VRC-90A							1	1	1		1		TEQ		
C198		2									1-	1-	1-		1-		TEQ		
	R93169	2	B	RADIO TEST SET: AN/PRM-34()							1	1	1		1				
	R94977	2	B	RIFLE 5.56 MILLIMETER: M16A1							428	359	290		43				
I011		2									428-	359-	290-		43-				
I011	R95035	2	B	RIFLE 5.56 MILLIMETER: M16A2							428	359	290		43				
C007	S01373	2	A	SPEECH SECURITY EQUIPMENT: TSEC/KY-57							1	1	1		1				
C139		2									1-	1-	1-		1-				
	T25726	2	B	TONE-SIGNALLING ADAPTER: TA-977( )/PT							1	1	1		1				
C091	T31872	2	B	TELEPHONE WIRE WITH REEL: MX-10891/G							1	1	1		1				
T046	T60081	2	B	TRUCK CARGO: 4X4 LMTV W/E							2	2	2		2				
	T61494	2	A	TRUCK UTILITY: CARGO/TROOP CARRIER 1-1/4 TON 4X4 W/E (HMMWV)							1	1	1		1				
	U05008	2	B	SPLICING KIT TELEPHONE CABLE: MK-356/G							1	1	1		1				
	U81707	2	B	SWITCHBOARD TELEPHONE MANUAL: SB-22/PT							1	1	1		1				
	V31211	2	B	TELEPHONE SET: TA-312/PT							1	1	1		1				
C007	V98788	2	A	POWER SUPPLY VEHICLE: HYP-57/TSEC							1	1	1		1				
C098		2									1-	1-	1-		1-				
	W37483	2	B	TOOL KIT ELECTRIC EQUIPMENT: TK-101/GSQ							1	1	1		1				
	W95811	2	B	TRAILER CARGO: 1-1/2 TON 2 WHEEL W/E							2	2	2		2				
T046		2									2-	2-	2-		2-				
	X40009	2	B	TRUCK CARGO: 2-1/2 TON 6X6 W/E							2	2	2		2				
T046		2									2-	2-	2-		2-				
G019	Z04910	2	B	ALARM CHEMICAL AGENT AUTOMATIC: XM22							1	1	1		1				
C151	Z21128	2	A	DATA TRANSFER DEVICE: AN/CYZ-10 (C)							1	1	1		1				
Q075	Z26406	2	B	COMPUTER SET DIGITAL: OL-583/TYQ (ULLS-S4 CONFIG)							1	1	1		1				
T046	Z36068	2	B	TRAILER CARGO: LMTV W/DROPSIDES							2	2	2		2				
C198	Z84501	2	A	RADIO SET: AN/VRC-90D							1	1	1		1		TEQ		
	PARA 02			SPT OPNS SECTION															
	01	2		ENGINEER OFFICER	KDA	O3	21A00	EN	P2		1	1	1		1	1			
	02	2		PURCHASING/CONTR OFF	NAJ	O3	97A00	NO	P2		1	1	1		1	1			
	03	2		OPERATIONS SERGEANT	AAP	E8	92A5O		P2		1	1	1		1	1			
	04	2		LAUNDRY/SHOWER NCO	QDK	E5	57E2O		P2	01	1	1	1			1			
	05	2		PREVENTIVE MED NCO	SHG	E5	91S2O		P2		1	1	1		1	1			
	06	2		PREVENTIVE MED SP	SHI	E4	91S1O		P2	01	1	1	1			1			
										PARA TOTAL	6	6	6		4	6			
	C68719	2	B	CABLE TELEPHONE: WD-1/TT DR-8 1/2 KM							3	3	3		3				
C091	D60801	2	B	DIGITAL NON-SECURE VOICE TERMINAL W/DIGITAL DATA PORT: TA-1042A/							1	1	1		1		TER		

TOE 42424L000

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QM FORCE PROVIDER CO 42424L000

ICP SYS	LINE /LIN	PP	ERC	DESCRIPTION	SDTC	GRADE	MOS	BR	DC PC	ASI/RMKS 1 2 3 4	STRENGTH LEVELS LVL 1	LVL 2	LVL 3	AUG A	TYPE B	NONSTANDARD CADRE C	REMARKS 1	2	3
	E61310	2	A	COMPARATOR COLOR: HYDROGEN ION AND RESIDUAL CHLORINE							2	2	2		2				
	H31136	2	B	FACSIMILE SET: AN/TXC-1						700	1	1	1		1				
C067		2								700	1-	1-	1-		1-				
C067	L67964	2	B	LIGHTWEIGHT DIGITAL FACSIMILE: AN/UXC-7							1	1	1		1				
	R59160	2	B	REELING MACHINE CABLE HAND: RL-39							1	1	1		1				
C091		2									1	1	1		1				
	S12148	2	A	SPRAYER: PESTICIDE MANUALLY CARRIED DC							1	1	1		1				
	S45531	2	A	SPRAYER AND DUSTER: PESTICIDE MANUALLY CARRIED							1	1	1		1				
C091	T31872	2	B	TELEPHONE WIRE WITH REEL: MX-10891/G							1	1	1		1				
	T61494	2	A	TRUCK UTILITY: CARGO/TROOP CARRIER 1-1/4 TON 4X4 W/E (HMMWV)							3	3	3		3				
	V31211	2	B	TELEPHONE SET: TA-312/PT							1	1	1		1				
Q029	W47475	2	A	WATER QUALITY ANALYSIS SET: PURIFICATION							2	2	2		2				
	W95537	2	B	TRAILER CARGO: 3/4 TON 2 WHEEL W/E							1	1	1		1				
T056		2									1-	1-	1-		1-				
	Y36849	2	A	MEDICAL EQUIPMENT SET WATER QUAL ANALYSIS PREVENTIVE MEDICINE:							2	2	2		2				
	Y37130	2	A	WATER TESTING KIT BACTERIOLOGICAL:							2	2	2		2				
T056	Z36272	2	B	TRAILER CARGO: HIGH MOBILITY 3/4 TON							1	1	1		1				
	PARA 03			UNIT MAINT SECTION															
	01	2		MOTOR SERGEANT	OCO	E7	63B4O		P2		1	1	1		1	1			
	02	2		CONST EQUIP REP	TBL	E5	62B2O		P2		1	1	1			1			
	03	2		LT WH VEH MECHANIC	OBR	E5	63B2O		P2	01	1	1	1			1			
	04	2		EQUIP REC/PARTS SGT	QKJ	E5	92A2O		P2		1	1	1						
	05	2		CONST EQUIP REP	TBL	E4	62B1O		P2		1	1	1						
	06	2		LT WH VEH MECHANIC	OBR	E4	63B1O		P2	01	1	1	1						
	07	2		EQUIP REC/PARTS SP	QCO	E4	92A1O		P2	B5	1	1	1			1			
										PARA TOTAL	7	7	7		1	4			
	A56243	2	B	ANALYZER SET ENGINE: PORTABLE SOLID STATE (STE/ICEPM)							1	1	1		1				
P034		2									1-	1-	1-		1-				
O018	C32887	2	B	CLEANER STEAM PRESSURE JET TRAILER MOUNTED:							1	1	1		1				
	C68719	2	B	CABLE TELEPHONE: WD-1/TT DR-8 1/2 KM							1	1	1		1				
	D99573	2	B	CHARGER BATTERY: PP-34/MSM							1	1	1		1				
	E32466	2	B	CLEANER STEAM PRESSURE JET: SKIDMTD 125 PSI MAX OIL HTD							1	1	1		1				
O018		2									1-	1-	1-		1-				
	E70064	2	B	COMP UNIT RCP: TRK 2 WHL PNEU TIRES GAS DRVN 5 CFM 175 PSI							1	1	1		1				
O026	G18358	2	B	GEN SET: DED SKID MTD 3KW 60HZ							2	2	2		2		TEA	TEI	
K012	G54041	2	B	GEN ST DSL ENG: SKID MTD 3KW 60 HZ AC 120/208V MEP-016B							1	1	1		1		TEA		
O018		2									1	1	1		1		TEA	TEI	
O026		2									2-	2-	2-		2-		TEA	TEI	
O019	H00586	2	B	HEATER: DUCT TYPE PORTABLE 1200-00 BTUS							1	1	1		1				
	J35813	2	B	GEN ST DSL ENG: 5KW 60HZ 1-3PH AC 120/208 120/240V TAC UTIL							1	1	1		1		TEI		
O018		2									1-	1-	1-		1-		TEI		
	J45699	2	B	GEN ST GAS ENG: 3KW 60HZ 1-3PH 120/240 120/208V SKD TAC UTILITY							1	1	1		1		TEA		
K012		2									1-	1-	1-		1		TEA		
	K24862	2	B	HEATER DUCT TYPE PTBL: GAS 250000 BTU WHL MTD							1	1	1		1				

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TOE 42424L000 TABLE OF ORGANIZATION AND EQUIPMENT TOE 42424L000
13/05/98 491231 OBJ 13/05/98

QM FORCE PROVIDER CO 42424L000

ICP SYS	LINE /LIN	PP	ERC	DESCRIPTION	SDTC	GRADE	MOS	BR	DC PC	ASI/RMKS 1 2 3 4	STRENGTH LEVELS LVL 1	LVL 2	LVL 3	AUG A	TYPE B	NONSTANDARD CADRE C	REMARKS 1	2	3
O019		2									1-	1-	1-		1-				
	K53748	2	B	HOSE ASSEMBLY: NONMETALLIC FUEL/OIL HYDROCARBON USE BRASS FITTIN							4	4	4		4				
	M60449	2	B	MULTIMETER DIGITAL: AN/PSM-45							2	2	2		2		TEB		
	Q20935	2	B	RADIACMETER: IM-93/UD							1	1	1		1				
G020		2									1-	1-	1-		1-				
	R59160	2	B	REELING MACHINE CABLE HAND: RL-39							1	1	1		1				
T046	T60149	2	B	TRUCK CARGO: 4X4 LMTV W/E W/W							1	1	1		1				
P034	T77499	2	B	TEST SET ELECTRONIC SYSTEMS: AN/PSM-80(V)2							1	1	1		1				
P069		2									1-	1-	1-		1-				
	V31211	2	B	TELEPHONE SET: TA-312/PT							1	1	1		1				
	V48441	2	B	TENT: FRAME TYPE MAINTENANCE MEDIUM LIGHT METAL COTTON DUCK OD7							1	1	1		1				
O050		2									1-	1-	1-		1-				
	W32593	2	B	SHOP EQUIPMENT AUTO MAINT AND REPAIR: OM COMMON NO 1 LESS POWER							1	1	1		1				
	W32867	2	B	SHOP EQUIPMENT AUTO MAINT AND REPAIR: ORG SUPPL NO 1 LESS POWER							1	1	1		1				
	W33004	2	B	TOOL KIT GENERAL MECHANICS: AUTOMOTIVE							4	4	4		4		TEC		
	W45060	2	B	TOOL KIT: MASTER MECHANICS							1	1	1		1		TEJ		
	W95811	2	B	TRAILER CARGO: 1-1/2 TON 2 WHEEL W/E							1	1	1		1				
T046		2									1-	1-	1-		1-				
	X40146	2	B	TRUCK CARGO: 2-1/2 TON 6X6 W/WINCH W/E							1	1	1		1				
T046		2									1-	1-	1-		1-				
P069	Z24989	2	B	TEST SET ELECTRONIC SYSTEMS: AN/PSM-XX							1	1	1		1				
Q073	Z26338	2	A	COMPUTER SET DIGITAL: OL-582/TYQ (ULLS-G CONFIG)							1	1	1						
T046	Z36068	2	B	TRAILER CARGO: LMTV W/DROPSIDES							1	1	1		1				
O050	Z79968	2	B	TENT: LIGHTWEIGHT MAINTENANCE ENCLOSURE							1	1	1		1				
	PARA 04			6 PLT MAINT TEAMS															
	01	2		LT WH VEH MECHANIC	OBR	E5	63B2O		P2		6	5	4			1			
	02	2		QM & CHEM EQUIP REP	OCW	E5	63J2O		P2		6	5	4			1			
	03	2		LT WH VEH MECHANIC	OBR	E4	63B1O		P2		6	5	4			1			
	04	2		HVY WH VEH MECH	OBO	E4	63S1O		P2		6	5	4			1			
	05	2		QM & CHEM EQUIP REP	OCW	E3	63J1O		P2		6	5	4			1			
										PARA TOTAL	30	25	20			5			
	C68719	2	B	CABLE TELEPHONE: WD-1/TT DR-8 1/2 KM							6	6	6		6				
	M60449	2	B	MULTIMETER DIGITAL: AN/PSM-45							12	12	12		12		TEB		
	R59160	2	B	REELING MACHINE CABLE HAND: RL-39							6	6	6		6				
	V31211	2	B	TELEPHONE SET: TA-312/PT							6	6	6		6				
	W33004	2	B	TOOL KIT GENERAL MECHANICS: AUTOMOTIVE							30	25	20		30		TEC		
	PARA 05			6 PROVIDER PLT HQS															
	01	2		PLATOON LEADER	AAT	O2	92A00	QM	P2		6	5	4		6	1			
	02	2		PLATOON SERGEANT	AAU	E7	92A4O		P2		6	5	4		6	1			
	03	2		SUPPLY SGT	QHL	E6	92Y3O		P2		6	5	4			1			
	04	2		SUPPLY SP	QHM	E4	92Y1O		P2	05 09	6	5	4			1			

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      05   2    MHE OPERATOR            QEK    E3   92A1O      P2                  6    5    4             1
      06   2    SUPPLY SP               QHM    E3   92Y1O      P2  01 05 09        6    5    4             1
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TOE 42424L000                              TABLE OF ORGANIZATION AND EQUIPMENT                              TOE 42424L000
   13/05/98                                   491231  OBJ                                                     13/05/98
                    QM FORCE PROVIDER CO                  42424L000
                                                                                  STRENGTH LEVELS          NONSTANDARD
ICP  LINE  PP ERC    DESCRIPTION         SDTC  GRADE  MOS   BR  DC    ASI/RMKS      LVL  LVL  LVL  AUG TYPE CADRE  REMARKS
SYS  /LIN                                                     PC   1  2  3  4       1    2    3    A    B    C    1   2   3
                                                                  PARA TOTAL       36   30   24        12    6

A32060 2  B ALARM CHEMICAL AGENT AUTOMATIC: PORTABLE MANPACK                        6    6    6         6
G003       2                                                                      6-   6-   6-        6-
G003 A32355 2  B ALARM CHEMICAL AGENT AUTOMATIC: PORTABLE MANPACK M8A1            6    6    6         6
G019       2                                                                      6-   6-   6-        6-
     C68719 2  B CABLE TELEPHONE: WD-1/TT DR-8 1/2 KM                            6    6    6         6
     D34883 2  B DOLLY SET LIFT TRANSPORTABLE SHELTER: 7 1/2 TON                 12   12   12        12       TEG
C091 D60801 2  B DIGITAL NON-SECURE VOICE TERMINAL W/DIGITAL DATA PORT: TA-1042A/  6    6    6         6       TES
     F28973 2  P FORCE PROVIDER MODULE: HOUSES 550 SOLDIERS TRANSPORTABLE         6    6    6         6       TEL
     H31136 2  B FACSIMILE SET: AN/TXC-1                              700        6    6    6         6
C067       2                                                          700        6-   6-   6-        6-
C098 J31569 2  B INST KIT: MK-2325/VRC FOR AN/VRC-87/88/90 IN HMMWV              6    6    6         6
     J48402 2  B INSTALLATION KIT: MK-2502/VRC F/AN/VRC-46/64 OR AN/GRC-160     6    6    6         6
C098       2                                                                      6-   6-   6-        6-
C007 J71543 2  B INSTL KIT: MK-2147/VRC F/KY-57 W/AN/VRC-43 OR AN/VRC-46        6    6    6         6
C098       2                                                                      6-   6-   6-        6-
C098 J87848 2  B INST KIT: MK-2499/VRC FOR TSEC/KY-57 WITH SINCGAR              6    6    6         6
C139       2                                                                      6-   6-   6-        6-
C067 L67964 2  B LIGHTWEIGHT DIGITAL FACSIMILE: AN/UXC-7                        6    6    6         6
     Q20935 2  B RADIACMETER: IM-93/UD                                          6    6    6         6
G020       2                                                                      6-   6-   6-        6-
     Q21483 2  B RADIACMETER: IM-174/PD                                         6    6    6         6
G010       2                                                                      6-   6-   6-        6-
     Q53001 2  B RADIO SET: AN/VRC-46                                           6    6    6         6       TES
C098       2                                                                      6-   6-   6-        6-      TES
G010 R20684 2  B RADIAC SET: AN/VDR-2                                           6    6    6         6
G020 R31061 2  B RADIAC SET: AN/UDR-13                                          6    6    6         6
C098 R45203 2  B RADIO SET: AN/VRC-90                                           6    6    6         6       TES
C139       2                                                                      6-   6-   6-        6-      TES
     R59160 2  B REELING MACHINE CABLE HAND: RL-39                              6    6    6         6
C091       2                                                                      6    6    6         6
C139 R67908 2  B RADIO SET: AN/VRC-90A                                          6    6    6         6       TES
C198       2                                                                      6-   6-   6-        6-      TES
C007 S01373 2  B SPEECH SECURITY EQUIPMENT: TSEC/KY-57                          6    6    6         6
C139       2                                                                      6-   6-   6-        6-
C091 T31872 2  B TELEPHONE WIRE WITH REEL: MX-10891/G                           6    6    6         6
Q004 T49119 2  B TRUCK LIFT FORK: DSL DRVN 10000 LB CAP 48IN LD CTR ROUGH TERRAIN  6    6    6         6
P005 T49255 2  B TRUCK LIFT FORK: DSL DRVN 4000 LB CAP ROUGH TERRAIN            6    6    6         6
T046 T60081 2  B TRUCK CARGO: 4X4 LMTV W/E                                      6    6    6         6
     T61494 2  B TRUCK UTILITY: CARGO/TROOP CARRIER 1-1/4 TON 4X4 W/E (HMMWV)   6    6    6         6
     U81707 2  B SWITCHBOARD TELEPHONE MANUAL: SB-22/PT                         6    6    6         6
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ICP SYS	LINE /LIN	PP	ERC	DESCRIPTION	LVL 1	LVL 2	LVL 3	AUG A	TYPE B	CADRE C
	V31211	2	B	TELEPHONE SET: TA-312/PT	6	6	6		6	
C007	V98788	2	B	POWER SUPPLY VEHICLE: HYP-57/TSEC	6	6	6		6	
C098		2			6-	6-	6-		6-	
	W95537	2	B	TRAILER CARGO: 3/4 TON 2 WHEEL W/E	6	6	6		6	

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QM FORCE PROVIDER CO 42424L000

ICP SYS	LINE /LIN	PP	ERC	DESCRIPTION	SDTC	GRADE	MOS	BR	DC PC	ASI/RMKS 1 2 3 4	STRENGTH LEVELS LVL 1	LVL 2	LVL 3	AUG A	TYPE B	CADRE C	NONSTANDARD REMARKS 1 2 3
T056		2									6-	6-	6-		6-		
	X40009	2	B	TRUCK CARGO: 2-1/2 TON 6X6 W/E							6	6	6		6		
T046		2									6-	6-	6-		6-		
	X48914	2	B	TRUCK LIFT FORK: DSL DRVN 6000 LB CAP ROUGH TERRAIN							6	6	6		6		
P005		2									6-	6-	6-		6-		
	X49051	2	B	TRUCK LIFT FORK: DSL DRVN 10000 LB CAP ROUGH TERRAIN							6	6	6		6		
Q004		2									6-	6-	6-		6-		
G019	Z04910	2	B	ALARM CHEMICAL AGENT AUTOMATIC: XM22							6	6	6		6		
C151	Z21128	2	B	DATA TRANSFER DEVICE: AN/CYZ-10 (C)							6	6	6		6		
Q075	Z26406	2	B	COMPUTER SET DIGITAL: OL-583/TYQ (ULLS-S4 CONFIG)							6	6	6		6		
T056	Z36272	2	B	TRAILER CARGO: HIGH MOBILITY 3/4 TON							6	6	6		6		
C198	Z84501	2	B	RADIO SET: AN/VRC-90D							6	6	6		6		TES
	PARA 06			6 FOOD SVC SECTIONS													
	01	2		SR FOOD OPNS SGT	QJY	E7	92G4O		P2		6	5	4			1	
	02	2		SR FIRST COOK	QJV	E6	92G3O		P2		12	10	8			2	
	03	2		COOK	QCC	E5	92G2O		P2		18	15	12			3	
	04	2		COOK	QCC	E4	92G1O		P2		36	30	24			6	
	05	2		COOK	QCC	E3	92G1O		P2	01	30	25	20			5	
										PARA TOTAL	102	85	68			17	
	C68719	2	B	CABLE TELEPHONE: WD-1/TT DR-8 1/2 KM							6	6	6		6		
	R59160	2	B	REELING MACHINE CABLE HAND: RL-39							6	6	6		6		
T046	T60081	2	B	TRUCK CARGO: 4X4 LMTV W/E							6	6	6		6		
	V31211	2	B	TELEPHONE SET: TA-312/PT							6	6	6		6		
	W95811	2	B	TRAILER CARGO: 1-1/2 TON 2 WHEEL W/E							6	6	6		6		
T046		2									6-	6-	6-		6-		
	X40009	2	B	TRUCK CARGO: 2-1/2 TON 6X6 W/E							6	6	6		6		
T046		2									6-	6-	6-		6-		
T046	Z36068	2	B	TRAILER CARGO: LMTV W/DROPSIDES							6	6	6		6		
	PARA 07			6 LAUNDRY/SHOWER SECS													
	01	2		LAUNDRY NCO	QDL	E6	57E3O		P2		6	5	4		6	1	
	02	2		LAUNDRY NCO	QDL	E5	57E2O		P2		12	10	8			2	
	03	2		SHOWER NCO	QJF	E5	57E2O		P2		6	5	4			1	
	04	2		LAUNDRY SPECIALIST	QDM	E4	57E1O		P2		18	15	12			3	
	05	2		SHOWER SPEC	QJE	E4	57E1O		P2		12	10	8			2	
	06	2		LAUNDRY SPECIALIST	QDM	E3	57E1O		P2	01	24	20	16			4	
	07	2		SHOWER SPEC	QJE	E3	57E1O		P2		12	10	8			3	

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                                                                    PARA TOTAL     90   75    60         6   16
     C68719 2  B CABLE TELEPHONE: WD-1/TT DR-8 1/2 KM                                6    6     6         6
     R59160 2  B REELING MACHINE CABLE HAND: RL-39                                   6    6     6         6
T046 T61908 2  A TRUCK CARGO: MTV W/E                                                6    6     6         6
     V31211 2  B TELEPHONE SET: TA-312/PT                                            6    6     6         6
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TOE 42424L000                                TABLE OF ORGANIZATION AND EQUIPMENT                                TOE 42424L000
   13/05/98                                    491231  OBJ                                                       13/05/98
                    QM FORCE PROVIDER CO                    42424L000
                                                                                                 STRENGTH LEVELS        NONSTANDARD
ICP  LINE  PP ERC    DESCRIPTION         SDTC  GRADE  MOS   BR  DC    ASI/RMKS      LVL  LVL  LVL  AUG TYPE CADRE  REMARKS
SYS  /LIN                                                     PC   1  2  3  4       1    2    3    A    B    C    1   2   3

T006 X40794 2  A TRUCK CARGO: DROP SIDE 5 TON 6X6 W/E                                6    6    6
T046        2                                                                       6    6    6
     X40831 2  A TRUCK CARGO: 5 TON 6X6 LWB W/E                                     6    6    6         6
T006        2                                                                       6-   6-   6-
     PARA 08        6 WATER DISTRIB SECS
       01   2    WATER TRMT SUPV         QHY    E6   77W3O      P2                 6    5    4         6   1
       02   2    WATER TRMT NCO          QHW    E5   77W2O      P2                 6    5    4             1
       03   2    WATER TRMT SP           QHX    E4   77W1O      P2                18   15   12             3
       04   2    WATER TRMT SP           QHX    E3   77W1O      P2  01            12   10    8             2
                                                                    PARA TOTAL     42   35   28         6   7
O018 C32887 2  B CLEANER STEAM PRESSURE JET TRAILER MOUNTED:                        6    6    6
     C68719 2  B CABLE TELEPHONE: WD-1/TT DR-8 1/2 KM                               6    6    6         6
     E32466 2  B CLEANER STEAM PRESSURE JET: SKIDMTD 125 PSI MAX OIL HTD            6    6    6         6      TEF
O018        2                                                                       6-   6-   6-        6-     TEF
     E61310 2  A COMPARATOR COLOR: HYDROGEN ION AND RESIDUAL CHLORINE               6    6    6         6
     E72804 2  B COMP UNIT RTY:  AIR TRLR MTD DSL DRVN 250CFM 100PSI               6    6    6         6
O026 G18358 2  B GEN SET: DED SKID MTD 3KW 60HZ                                    6    6    6         6      TEI
O018 G54041 2  B GEN ST DSL ENG: SKID MTD 3KW 60 HZ AC 120/208V MEP-016B          6    6    6         6      TEI
O026        2                                                                       6-   6-   6-        6-     TEI
     J35813 2  B GEN ST DSL ENG: 5KW 60HZ 1-3PH AC 120/208 120/240V TAC UTIL      6    6    6         6      TEI
O018        2                                                                       6-   6-   6-        6-     TEI
     R59160 2  B REELING MACHINE CABLE HAND: RL-39                                6    6    6         6
     S70027 2  A SEMITRAILER FLAT BED: BREAKBULK/CONT TRANSPORTER 22-1/2 TON      6    6    6         6
     T19101 2  A TANK ASSEMBLY FABRIC COLLAPSIBLE: 3000 GAL WATER SEMITRAILER MTD 6    6    6         6
T046 T61239 2  A TRUCK TRACTOR: MTV W/E                                           6    6    6         6
T046 T61908 2  A TRUCK CARGO: MTV W/E                                            6    6    6         6
     V31211 2  B TELEPHONE SET: TA-312/PT                                        6    6    6         6
T006 X40794 2  A TRUCK CARGO: DROP SIDE 5 TON 6X6 W/E                            6    6    6
T046        2                                                                   6-   6-   6-
     X40831 2  A TRUCK CARGO: 5 TON 6X6 LWB W/E                                 6    6    6         6
T006        2                                                                   6-   6-   6-
     X59326 2  A TRUCK TRACTOR: 5 TON 6X6 W/E                                   6    6    6         6
T046        2                                                                   6-   6-   6-        6-
     PARA 09        6 FACILITIES SPT SECS
       01   2    SR UTILITIES EQUIP REP  TEK    E6   52C3O      P2                 6    5    4         6   1
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02	2	UTILITIES EQUIP REP	TFA	E5	52C2O	P2		6	5	4		1	
03	2	PWR-GEN EQUIP REP	TDJ	E5	52D2O	P2		6	5	4		1	
04	2	PLUMBER/PIPEFITTER	KFW	E4	51K1O	P2		6	5	4		1	
05	2	UTILITIES EQUIP REP	TFA	E4	52C1O	P2		6	5	4		1	
06	2	PWR-GEN EQUIP REP	TDJ	E4	52D1O	P2	09	6	5	4		1	
07	2	PLUMBER/PIPEFITTER	KFW	E3	51K1O	P2		6	5	4		1	
08	2	INTERIOR ELECTRICIAN	KFB	E3	51R1O	P2		6	5	4		1	
09	2	UTILITIES EQUIP REP	TFA	E3	52C1O	P2		12	10	8		2	

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QM FORCE PROVIDER CO 42424L000

ICP SYS	LINE /LIN	PP	ERC	DESCRIPTION	SDTC	GRADE	MOS	BR	DC PC	ASI/RMKS 1 2 3 4	STRENGTH LEVELS LVL 1	LVL 2	LVL 3	AUG A	TYPE B	CADRE C	NONSTANDARD REMARKS 1	2	3
	10	2		PWR-GEN EQUIP REP	TDJ	E3	52D1O		P2	01	6	5	4			1			
										PARA TOTAL	66	55	44		6	11			
	C68719	2	B	CABLE TELEPHONE: WD-1/TT DR-8 1/2 KM							6	6	6		6				
	M60449	2	B	MULTIMETER DIGITAL: AN/PSM-45							24	24	24		24		TEP		
	R59160	2	B	REELING MACHINE CABLE HAND: RL-39							6	6	6		6				
K031	T34437	2	A	TRACTOR WHEELED: DSL 4X4 W/EXCAVATOR AND FRONT LOADER							6	6	6		6				
T046	T60081	2	B	TRUCK CARGO: 4X4 LMTV W/E							6	6	6		6				
	T61494	2	B	TRUCK UTILITY: CARGO/TROOP CARRIER 1-1/4 TON 4X4 W/E (HMMWV)							6	6	6		6				
	V31211	2	B	TELEPHONE SET: TA-312/PT							6	6	6		6				
	W33004	2	B	TOOL KIT GENERAL MECHANICS: AUTOMOTIVE							18	15	12		18		TEC		
	W34648	2	B	TOOL KIT CARPENTERS: ENGINEER SQUAD W/CHEST							6	6	6		6				
	W45060	2	B	TOOL KIT: MASTER MECHANICS							6	6	6		6		TEJ		
	W48622	2	B	TOOL KIT PIPEFITTERS: 1/8 TO 2 IN PIPE							12	10	8		12		TEK		
	W49033	2	B	TOOL KIT PLUMBERS: FIELD MAINTENANCE AND REPAIR OF PLUMBING							12	10	8		12		TEK		
	W51362	2	B	TOOL KIT SERVICE REFRIGERATION UNIT: GENERAL MAINTENANCE							30	23	16		30		TEH		
	W91074	2	A	TRACTOR WHL IND: DSL W/BACKHOE W/LOADER W/HYD TOOL ATTACH (CCE)							6	6	6		6				
K031		2									6-	6-	6-		6-				
	W95537	2	B	TRAILER CARGO: 3/4 TON 2 WHEEL W/E							6	6	6		6				
T056		2									6-	6-	6-		6-				
	X40009	2	B	TRUCK CARGO: 2-1/2 TON 6X6 W/E							6	6	6		6				
T046		2									6-	6-	6-		6-				
T056	Z36272	2	B	TRAILER CARGO: HIGH MOBILITY 3/4 TON							6	6	6		6				
	PARA 10			6 PETR DISTRIB SECS															
	01	2		PETRL SUPPLY SGT	QFP	E6	77F3O		P2		6	5	4		6	1			
	02	2		FUEL HANDLING SP	QCX	E5	77F2O		P2	H7	6	4	2			2			
	03	2		PETRL HVY VEH OPR	AKK	E4	77F1O		P2	H7 09	6	5	4			1			
	04	2		FUEL HANDLING SP	QCX	E4	77F1O		P2	H7	12	10	8			1			
	05	2		PETRL LT VEH OPR	AKJ	E3	77F1O		P2	H7	6	5	4			2			
	06	2		FUEL HANDLING SP	QCX	E3	77F1O		P2	H7	6	5	4						
										PARA TOTAL	42	34	26		6	7			
	C68719	2	B	CABLE TELEPHONE: WD-1/TT DR-8 1/2 KM							6	6	6		6				

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     R59160 2  B REELING MACHINE CABLE HAND: RL-39                                    6    6    6         6
     S73372 2  A SEMITRAILER TANK: 5000 GAL FUEL DISPENSING AUTOMOTIVE W/E            6    6    6         6
T046 T61239 2  A TRUCK TRACTOR: MTV W/E                                              6    6    6         6
T046 T61908 2  A TRUCK CARGO: MTV W/E                                                6    6    6         6
     V12141 2  A TANK AND PUMP UNIT LIQUID DISPENSING TRUCKMOUNTING:                  6    6    6         6
T046        2                                                                        6-   6-   6-        6-
     V31211 2  B TELEPHONE SET: TA-312/PT                                           6    6    6         6
     W19880 2  B TIEDOWN ASSEMBLY: CHAIN TYPE FOR HOLDNG COLLAPSIBLE FABRIC DRUMS   12   12   12        12        TED
     W95811 2  A TRAILER CARGO: 1-1/2 TON 2 WHEEL W/E                               6    6    6         6
T046        2                                                                        6-   6-   6-        6-
     X40831 2  A TRUCK CARGO: 5 TON 6X6 LWB W/E                                    12   12   12        12        TET
  TOE 42424L000
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TOE 42424L000                              TABLE OF ORGANIZATION AND EQUIPMENT                              TOE 42424L000
   13/05/98                                  491231  OBJ                                                     13/05/98
                     QM FORCE PROVIDER CO                42424L000
                                                                                  STRENGTH LEVELS          NONSTANDARD
ICP  LINE  PP ERC    DESCRIPTION         SDTC  GRADE  MOS   BR  DC    ASI/RMKS     LVL  LVL  LVL  AUG TYPE CADRE   REMARKS
SYS  /LIN                                                     PC   1  2  3  4     1    2    3     A    B    C    1   2   3

T046        2                                                                     6-   6-   6-         6-
T046        2                                                                     6-   6-   6-         6-
     X59326 2  A TRUCK TRACTOR: 5 TON 6X6 W/E                                     6    6    6          6
T046        2                                                                     6-   6-   6-         6-
T046 Z90712 2  A TRAILER CARGO: MTV W/DROPSIDES                                   6    6    6          6
T046 Z94047 2  A TRUCK TANK: POL MTV W/E                                          6    6    6          6
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TOE 42424L000 TABLE OF ORGANIZATION AND EQUIPMENT TOE 42424L000
13/05/98 491231 OBJ 13/05/98

QM FORCE PROVIDER CO 42424L000

TYPE	SRC/TOEBP	CODE	SEQ	REMARK
STANDARD PERSONNEL ASI		B5	01	ENLISTED: TACTICAL ARMY COMBAT SERVICE
			02	SUPPORT COMPUTER SYSTEM/STANDARD
			03	MAINTENANCE SYSTEM (TACCS/SAMS)
			04	OFFICER: EH-60 PILOT
			05	WARRANT OFFICER: EH-60 PILOT
		H7	01	ENLISTED: PETROLEUM VEHICLE OPERATIONS
STANDARD PERSONNEL REMARK		01	01	ALSO LIGHT VEHICLE DRIVER
		04	01	ALSO RADIO OPERATOR
		05	01	ALSO SWITCHBOARD OPERATOR
		09	01	ALSO FORKLIFT/MHE OPERATOR
		11	01	ARMED WITH PISTOL/REVOLVER
NON-STD PERSONNEL REMARK				*NO RMKS FOUND IN DETAIL**
STANDARD EQUIPMENT REMARK		700	01	FAX INCLUDED IN CTA 50-909 WILL BE
			02	ISSUED IN LIEU OF
NON-STD EQUIPMENT REMARK	42424L000	TEA	01	PROVIDES POWER FOR LIGHT SET, BATTERY CHARGER, MAINTENANCE
	42424L000		02	TENT, AND SHOP SETS.
	42424L000	TEB	01	ONE PER TWO USERS IN MAINTENANCE SECTION.
	42424L000	TEC	01	ONE PER 52D, 62B, 63B MECHANIC, AND 63J.
	42424L000	TED	01	NEEDED FOR WATER AND POL 500 GAL DRUMS.
	42424L000	TEF	01	NEEDED FOR CLEANING TANKS AND DRUMS.
	42424L000	TEG	01	USED TO MOVE CONTAINERS FORCE PROVIDER PACKAGED IN.
	42424L000	TEH	01	ONE PER 52C.
	42424L000	TEI	01	PROVIDES POWER FOR STEAM CLEANER
	42424L000	TEJ	01	ONE PER SIX (OR FRACTION THEREOF) 63H, 52D, 62B, 63W
	42424L000		02	NOT TO EXCEED THREE PER SECTION OR TEAM.

	42424L000	TEK 01	FOR USE BY 51K PLUMBERS.
	42424L000	TEL 01	OPERATIONAL PROJECT STOCK HAND RECEIPT ITEM REQUIRES
	42424L000	02	DA RELEASE FOR MTOE USE.
	42424L000	TEP 01	ONE PER 2 52C/52D. 24 REQUIRED FOR 4 PER MODULE
	42424L000	TEQ 01	OPFAC RULE QB20F, FORCE PROVIDER CO CDR, 90 & 1042.
	42424L000	TER 01	OPFAC RULE QH20Q, FORCE PROVIDER SPT OPS SEC, 1042.
	42424L000	TES 01	OPFAC RULE QF20E, FORCE PROVIDER PLT HQ, 90 & 1042.
	42424L000	TET 01	SIX FOR TRANSPORTATION OF TPU'S; SIX FOR TRANSPORTATION
	42424L000	02	OF FARE'S (CONTAINED IN FORCE PROVIDER MODULES) AND
	42424L000	03	PETROLEUM EQUIPMENT.
NON-STD RATIONALE NOTE			*NO RMKS FOUND IN DETAIL**

QM FORCE PROVIDER CO 42424L000

PARA	LINE	DESCRIPTION	STRENGTH LEVELS LVL 1	LVL 2	LVL 3	AUG A	TYPE B	CADRE C
01		QM FORCE PROVIDER CO SRC 42424L000						
	01	OFFICER	9	8	7		9	4
	02	WARRANT OFFICER						
	03	ENLISTED	420	352	284		35	83
		PARA TOTAL	429	360	291		44	87
		SRC TOTAL						

TOE 42424L000 TABLE OF ORGANIZATION AND EQUIPMENT TOE 42424L000
13/05/98 491231 OBJ 13/05/98

QM FORCE PROVIDER CO 42424L000

	TITLE	GRADE	MOS	BR	DCPC	STRENGTH LEVELS 1	2	3	AUG A	TYPE B	CADRE C
RECAPITULATION BY GRADE											
OFFICERS	QM GENERAL	MAJ	92A00	QM	P2	1	1	1		1	1
						1	1	1		1	1
	ENGINEER GENERAL	CPT	21A00	EN	P2	1	1	1		1	1
	CONTRACT AND IND MGT		97A00	NO	P2	1	1	1		1	1
						2	2	2		2	2
	QM GENERAL	LT	92A00	QM	P2	6	5	4		6	1
						6	5	4		6	1
	COMMISSIONED OFFICER TOTAL					9	8	7		9	4
	OFFICERS TOTAL					9	8	7		9	4
ENLISTED	AUTOMATED LOG SP	E8	92A5O		P2	1	1	1		1	1
	UNIT SUPPLY SP		92Y5M		P2	1	1	1		1	1
						2	2	2		2	2
	LIGHT WVEH MECH	E7	63B4O		P2	1	1	1		1	1
	AUTOMATED LOG SP		92A4O		P2	6	5	4		6	1
	FOOD SERVICE SP		92G4O		P2	6	5	4			1
						13	11	9		7	3
	UTIL EQUIP REPAIRER	E6	52C3O		P2	6	5	4		6	1
	LAUNDRY AND SHOWER SP		57E3O		P2	6	5	4		6	1
	PETROLEUM SUPPLY SP		77F3O		P2	6	5	4		6	1
	WATER TREATMENT SP		77W3O		P2	6	5	4		6	1

FOOD SERVICE SP	92G3O	P2	12	10	8			2
UNIT SUPPLY SP	92Y3O	P2	7	6	5		1	2
			43	36	29		25	8

TOE 42424L000

TOE 42424L000 TABLE OF ORGANIZATION AND EQUIPMENT TOE 42424L000
13/05/98 491231 OBJ 13/05/98

QM FORCE PROVIDER CO 42424L000

TITLE	GRADE	MOS	BR	DCPC	STRENGTH LEVELS 1	2	3	AUG A	TYPE B	CADRE C
UTIL EQUIP REPAIRER	E5	52C2O		P2	6	5	4			1
PWR GEN EQUIP REP		52D2O		P2	6	5	4			1
CHEM OPS SP		54B2O		P2	1	1	1			1
LAUNDRY AND SHOWER SP		57E2O		P2	19	16	13			4
CONST EQUIP REP		62B2O		P2	1	1	1			1
LIGHT WVEH MECH		63B2O		P2	7	6	5			2
QM & CHEM EQUIP REP		63J2O		P2	6	5	4			1
PETROLEUM SUPPLY SP		77F2O		P2	6	4	2			2
WATER TREATMENT SP		77W2O		P2	6	5	4			1
PREVENTIVE MED SPEC		91S2O		P2	1	1	1		1	1
AUTOMATED LOG SP		92A2O		P2	1	1	1			
FOOD SERVICE SP		92G2O		P2	18	15	12			3
UNIT SUPPLY SP		92Y2O		P2	1	1	1			1
					79	66	53		1	19
NON-COMMISSIONED OFFICER TOTAL					137	115	93		35	32
PLUMBER	E4	51K1O		P2	6	5	4			1
UTIL EQUIP REPAIRER		52C1O		P2	6	5	4			1

PWR GEN EQUIP REP	52D1O	P2	6	5	4		1
LAUNDRY AND SHOWER SP	57E1O	P2	30	25	20		5
CONST EQUIP REP	62B1O	P2	1	1	1		
LIGHT WVEH MECH	63B1O	P2	7	6	5		1
HVY WHEELED VEH MECH	63S1O	P2	6	5	4		1
PETROLEUM SUPPLY SP	77F1O	P2	18	15	12		2
WATER TREATMENT SP	77W1O	P2	18	15	12		3
PREVENTIVE MED SPEC	91S1O	P2	1	1	1		1
AUTOMATED LOG SP	92A1O	P2	1	1	1		1

QM FORCE PROVIDER CO 42424L000

TITLE	GRADE	MOS	BR	DCPC	STRENGTH LEVELS 1	2	3	AUG A	TYPE B	CADRE C
FOOD SERVICE SP		92G1O		P2	36	30	24			6
UNIT SUPPLY SP		92Y1O		P2	7	6	5			2
					143	120	97			25
PLUMBER	E3	51K1O		P2	6	5	4			1
INTERIOR ELECTRICIAN		51R1O		P2	6	5	4			1
UTIL EQUIP REPAIRER		52C1O		P2	12	10	8			2
PWR GEN EQUIP REP		52D1O		P2	6	5	4			1
LAUNDRY AND SHOWER SP		57E1O		P2	36	30	24			7
QM & CHEM EQUIP REP		63J1O		P2	6	5	4			1
PETROLEUM SUPPLY SP		77F1O		P2	12	10	8			2
WATER TREATMENT SP		77W1O		P2	12	10	8			2

AUTOMATED LOG SP	92A1O	P2	7	6	5			2
FOOD SERVICE SP	92G1O	P2	30	25	20			5
UNIT SUPPLY SP	92Y1O	P2	7	6	5			2
			140	117	94			26
NON-NCO TOTAL			283	237	191			51
ENLISTED TOTAL			420	352	284		35	83
SRC TOTAL			429	360	291		44	87

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QM FORCE PROVIDER CO 42424L000

TITLE	GRADE	MOS	BR	DCPC	1	2	3	STRENGTH LEVELS AUG A	TYPE B	CADRE C
RECAPITULATION BY MOS										
ENGINEER GENERAL		21A00	EN	P2	1	1	1		1	1
QM GENERAL		92A00	QM	P2	7	6	5		7	2
CONTRACT AND IND MGT		97A00	NO	P2	1	1	1		1	1
OFFICERS TOTAL					9	8	7		9	4
PLUMBER		51K1O		P2	12	10	8			2
INTERIOR ELECTRICIAN		51R1O		P2	6	5	4			1
UTIL EQUIP REPAIRER		52C1O		P2	18	15	12			3
UTIL EQUIP REPAIRER		52C2O		P2	6	5	4			1
UTIL EQUIP REPAIRER		52C3O		P2	6	5	4		6	1

PWR GEN EQUIP REP	52D1O	P2	12	10	8		2
PWR GEN EQUIP REP	52D2O	P2	6	5	4		1
CHEM OPS SP	54B2O	P2	1	1	1		1
LAUNDRY AND SHOWER SP	57E1O	P2	66	55	44		12
LAUNDRY AND SHOWER SP	57E2O	P2	19	16	13		4
LAUNDRY AND SHOWER SP	57E3O	P2	6	5	4	6	1
CONST EQUIP REP	62B1O	P2	1	1	1		
CONST EQUIP REP	62B2O	P2	1	1	1		1
LIGHT WVEH MECH	63B1O	P2	7	6	5		1
LIGHT WVEH MECH	63B2O	P2	7	6	5		2
LIGHT WVEH MECH	63B4O	P2	1	1	1	1	1
QM & CHEM EQUIP REP	63J1O	P2	6	5	4		1
QM & CHEM EQUIP REP	63J2O	P2	6	5	4		1
HVY WHEELED VEH MECH	63S1O	P2	6	5	4		1

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TOE 42424L000 TABLE OF ORGANIZATION AND EQUIPMENT TOE 42424L000
13/05/98 491231 OBJ 13/05/98

QM FORCE PROVIDER CO 42424L000

TITLE	GRADE	MOS	BR	DCPC	STRENGTH LEVELS 1	2	3	AUG A	TYPE B	CADRE C
PETROLEUM SUPPLY SP		77F1O		P2	30	25	20			4
PETROLEUM SUPPLY SP		77F2O		P2	6	4	2			2
PETROLEUM SUPPLY SP		77F3O		P2	6	5	4		6	1
WATER TREATMENT SP		77W1O		P2	30	25	20			5
WATER TREATMENT SP		77W2O		P2	6	5	4			1
WATER TREATMENT SP		77W3O		P2	6	5	4		6	1
PREVENTIVE MED SPEC		91S1O		P2	1	1	1			1
PREVENTIVE MED SPEC		91S2O		P2	1	1	1		1	1
AUTOMATED LOG SP		92A1O		P2	8	7	6			3
AUTOMATED LOG SP		92A2O		P2	1	1	1			
AUTOMATED LOG SP		92A4O		P2	6	5	4		6	1
AUTOMATED LOG SP		92A5O		P2	1	1	1		1	1
FOOD SERVICE SP		92G1O		P2	66	55	44			11
FOOD SERVICE SP		92G2O		P2	18	15	12			3
FOOD SERVICE SP		92G3O		P2	12	10	8			2
FOOD SERVICE SP		92G4O		P2	6	5	4			1
UNIT SUPPLY SP		92Y1O		P2	14	12	10			4
UNIT SUPPLY SP		92Y2O		P2	1	1	1			1
UNIT SUPPLY SP		92Y3O		P2	7	6	5		1	2
UNIT SUPPLY SP		92Y5M		P2	1	1	1		1	1
ENLISTED TOTAL					420	352	284		35	83
SRC TOTAL					429	360	291		44	87

TOE 42424L000

TOE 42424L000 TABLE OF ORGANIZATION AND EQUIPMENT TOE 42424L000
13/05/98 491231 OBJ 13/05/98
QM FORCE PROVIDER CO 42424L000

LIN	ERC	DESCRIPTION	STRENGTH LEVELS 1	2	3	AUG A	TYPE B	CADRE C
RECAPITULATION								
A32060	B	ALARM CHEMICAL AGENT AUTOMATIC: PORTABLE MANPACK						
A32355	B	ALARM CHEMICAL AGENT AUTOMATIC: PORTABLE MANPACK M8A1						
A56243	B	ANALYZER SET ENGINE: PORTABLE SOLID STATE (STE/ICEPM)						
A72260	A	ANTENNA: RC-292						
A79381	A	ANTENNA GROUP: OE-254()/GRC	1	1	1		1	
B07126	B	AXLE CABLE REEL: RL-27	1	1	1		1	
C05701	B	MONITOR CHEMICAL AGENT:	2	2	2		2	
C32887	B	CLEANER STEAM PRESSURE JET TRAILER MOUNTED:	7	7	7		1	
C68719	B	CABLE TELEPHONE: WD-1/TT DR-8 1/2 KM	48	48	48		48	
D34883	B	DOLLY SET LIFT TRANSPORTABLE SHELTER: 7 1/2 TON	12	12	12		12	
D60801	B	DIGITAL NON-SECURE VOICE TERMINAL W/DIGITAL DATA PORT: TA-1042A/	8	8	8		8	
D99573	B	CHARGER BATTERY: PP-34/MSM	1	1	1		1	
E32466	B	CLEANER STEAM PRESSURE JET: SKIDMTD 125 PSI MAX OIL HTD						
E61310	A	COMPARATOR COLOR: HYDROGEN ION AND RESIDUAL CHLORINE	8	8	8		8	
E70064	B	COMP UNIT RCP: TRK 2 WHL PNEU TIRES GAS DRVN 5 CFM 175 PSI	1	1	1		1	
E72804	B	COMP UNIT RTY: AIR TRLR MTD DSL DRVN 250CFM 100PSI	6	6	6		6	
F28973	P	FORCE PROVIDER MODULE: HOUSES 550 SOLDIERS TRANSPORTABLE	6	6	6		6	
G18358	B	GEN SET: DED SKID MTD 3KW 60HZ	8	8	8		8	
G54041	B	GEN ST DSL ENG: SKID MTD 3KW 60 HZ AC 120/208V MEP-016B						
H00586	B	HEATER: DUCT TYPE PORTABLE 1200-00 BTUS	1	1	1		1	
H31136	B	FACSIMILE SET: AN/TXC-1						
J31569	A	INST KIT: MK-2325/VRC FOR AN/VRC-87/88/90 IN HMMWV	1	1	1		1	
J31569	B	INST KIT: MK-2325/VRC FOR AN/VRC-87/88/90 IN HMMWV	6	6	6		6	
J35813	B	GEN ST DSL ENG: 5KW 60HZ 1-3PH AC 120/208 120/240V TAC UTIL						
J45699	B	GEN ST GAS ENG: 3KW 60HZ 1-3PH 120/240 120/208V SKD TAC UTILITY					2	
J48402	A	INSTALLATION KIT: MK-2502/VRC F/AN/VRC-46/64 OR AN/GRC-160						
J48402	B	INSTALLATION KIT: MK-2502/VRC F/AN/VRC-46/64 OR AN/GRC-160						
J71543	A	INSTL KIT: MK-2147/VRC F/KY-57 W/AN/VRC-43 OR AN/VRC-46						
J71543	B	INSTL KIT: MK-2147/VRC F/KY-57 W/AN/VRC-43 OR AN/VRC-46						
J87848	A	INST KIT: MK-2499/VRC FOR TSEC/KY-57 WITH SINCGAR						
J87848	B	INST KIT: MK-2499/VRC FOR TSEC/KY-57 WITH SINCGAR						
K24862	B	HEATER DUCT TYPE PTBL: GAS 250000 BTU WHL MTD						
K53748	B	HOSE ASSEMBLY: NONMETALLIC FUEL/OIL HYDROCARBON USE BRASS FITTIN	4	4	4		4	
L67964	B	LIGHTWEIGHT DIGITAL FACSIMILE: AN/UXC-7	7	7	7		7	
M11895	A	MASK CBR: PROTECTIVE FIELD						
M12418	A	MASK CHEMICAL BIOLOGICAL: M40	429	360	291		429	
M60449	B	MULTIMETER DIGITAL: AN/PSM-45	38	38	38		38	
N96741	B	PISTOL CALIBER .45 AUTOMATIC:						
P40750	B	POWER SUPPLY: PP-6224/U	1	1	1		1	
P98152	B	PISTOL 9MM AUTOMATIC: M9	1	1	1		1	
Q19339	B	RADIAC SET: AN/PDR-27						
Q20935	B	RADIACMETER: IM-93/UD						
Q21483	B	RADIACMETER: IM-174/PD						
Q53001	A	RADIO SET: AN/VRC-46						
Q53001	B	RADIO SET: AN/VRC-46						
R20684	B	RADIAC SET: AN/VDR-2	7	7	7		7	

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TOE 42424L000 TABLE OF ORGANIZATION AND EQUIPMENT TOE 42424L000
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QM FORCE PROVIDER CO 42424L000

LIN	ERC	DESCRIPTION	STRENGTH LEVELS 1	2	3	AUG A	TYPE B	CADRE C
R30925	B	RADIAC SET: AN/PDR-75	1	1	1		1	
R31061	B	RADIAC SET: AN/UDR-13	7	7	7		7	
R45203	A	RADIO SET: AN/VRC-90						
R45203	B	RADIO SET: AN/VRC-90						
R59023	B	REELING MACHINE CABLE HAND: RL-31	1	1	1		1	
R59160	B	REELING MACHINE CABLE HAND: RL-39	53	53	53		53	
R67908	A	RADIO SET: AN/VRC-90A						
R67908	B	RADIO SET: AN/VRC-90A						
R93169	B	RADIO TEST SET: AN/PRM-34()	1	1	1		1	
R94977	B	RIFLE 5.56 MILLIMETER: M16A1						
R95035	B	RIFLE 5.56 MILLIMETER: M16A2	428	359	290		43	
S01373	A	SPEECH SECURITY EQUIPMENT: TSEC/KY-57						
S01373	B	SPEECH SECURITY EQUIPMENT: TSEC/KY-57						
S12148	A	SPRAYER: PESTICIDE MANUALLY CARRIED DC	1	1	1		1	
S45531	A	SPRAYER AND DUSTER: PESTICIDE MANUALLY CARRIED	1	1	1		1	
S70027	A	SEMITRAILER FLAT BED: BREAKBULK/CONT TRANSPORTER 22-1/2 TON	6	6	6		6	
S73372	A	SEMITRAILER TANK: 5000 GAL FUEL DISPENSING AUTOMOTIVE W/E	6	6	6		6	
T19101	A	TANK ASSEMBLY FABRIC COLLAPSIBLE: 3000 GAL WATER SEMITRAILER MTD	6	6	6		6	
T25726	B	TONE-SIGNALLING ADAPTER: TA-977( )/PT	1	1	1		1	
T31872	B	TELEPHONE WIRE WITH REEL: MX-10891/G	8	8	8		8	
T34437	A	TRACTOR WHEELED: DSL 4X4 W/EXCAVATOR AND FRONT LOADER	6	6	6		6	
T49119	B	TRUCK LIFT FORK: DSL DRVN 10000 LB CAP 48IN LD CTR ROUGH TERRAIN	6	6	6		6	
T49255	B	TRUCK LIFT FORK: DSL DRVN 4000 LB CAP ROUGH TERRAIN	6	6	6		6	
T60081	B	TRUCK CARGO: 4X4 LMTV W/E	20	20	20		20	
T60149	B	TRUCK CARGO: 4X4 LMTV W/E W/W	1	1	1		1	
T61239	A	TRUCK TRACTOR: MTV W/E	12	12	12		12	
T61494	A	TRUCK UTILITY: CARGO/TROOP CARRIER 1-1/4 TON 4X4 W/E (HMMWV)	4	4	4		4	
T61494	B	TRUCK UTILITY: CARGO/TROOP CARRIER 1-1/4 TON 4X4 W/E (HMMWV)	12	12	12		12	
T61908	A	TRUCK CARGO: MTV W/E	18	18	18		18	
T77499	B	TEST SET ELECTRONIC SYSTEMS: AN/PSM-80(V)2						
U05008	B	SPLICING KIT TELEPHONE CABLE: MK-356/G	1	1	1		1	
U81707	B	SWITCHBOARD TELEPHONE MANUAL: SB-22/PT	7	7	7		7	
V12141	A	TANK AND PUMP UNIT LIQUID DISPENSING TRUCKMOUNTING:						
V31211	B	TELEPHONE SET: TA-312/PT	45	45	45		45	
V48441	B	TENT: FRAME TYPE MAINTENANCE MEDIUM LIGHT METAL COTTON DUCK OD7						
V98788	A	POWER SUPPLY VEHICLE: HYP-57/TSEC						
V98788	B	POWER SUPPLY VEHICLE: HYP-57/TSEC						
W19880	B	TIEDOWN ASSEMBLY: CHAIN TYPE FOR HOLDNG COLLAPSIBLE FABRIC DRUMS	12	12	12		12	
W32593	B	SHOP EQUIPMENT AUTO MAINT AND REPAIR: OM COMMON NO 1 LESS POWER	1	1	1		1	
W32867	B	SHOP EQUIPMENT AUTO MAINT AND REPAIR: ORG SUPPL NO 1 LESS POWER	1	1	1		1	
W33004	B	TOOL KIT GENERAL MECHANICS: AUTOMOTIVE	52	44	36		52	
W34648	B	TOOL KIT CARPENTERS: ENGINEER SQUAD W/CHEST	6	6	6		6	
W37483	B	TOOL KIT ELECTRIC EQUIPMENT: TK-101/GSQ	1	1	1		1	
W45060	B	TOOL KIT: MASTER MECHANICS	7	7	7		7	
W47475	A	WATER QUALITY ANALYSIS SET: PURIFICATION	2	2	2		2	
W48622	B	TOOL KIT PIPEFITTERS: 1/8 TO 2 IN PIPE	12	10	8		12	
W49033	B	TOOL KIT PLUMBERS: FIELD MAINTENANCE AND REPAIR OF PLUMBING	12	10	8		12	
W51362	B	TOOL KIT SERVICE REFRIGERATION UNIT: GENERAL MAINTENANCE	30	23	16		30	
W91074	A	TRACTOR WHL IND: DSL W/BACKHOE W/LOADER W/HYD TOOL ATTACH (CCE)						
W95537	B	TRAILER CARGO: 3/4 TON 2 WHEEL W/E						
W95811	A	TRAILER CARGO: 1-1/2 TON 2 WHEEL W/E						
W95811	B	TRAILER CARGO: 1-1/2 TON 2 WHEEL W/E						

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LIN	ERC	DESCRIPTION	STRENGTH LEVELS 1	2	3	AUG A	TYPE B	CADRE C
X40009	B	TRUCK CARGO: 2-1/2 TON 6X6 W/E						
X40146	B	TRUCK CARGO: 2-1/2 TON 6X6 W/WINCH W/E						
X40794	A	TRUCK CARGO: DROP SIDE 5 TON 6X6 W/E	12	12	12			
X40831	A	TRUCK CARGO: 5 TON 6X6 LWB W/E					12	
X48914	B	TRUCK LIFT FORK: DSL DRVN 6000 LB CAP ROUGH TERRAIN						
X49051	B	TRUCK LIFT FORK: DSL DRVN 10000 LB CAP ROUGH TERRAIN						
X59326	A	TRUCK TRACTOR: 5 TON 6X6 W/E						
Y36849	A	MEDICAL EQUIPMENT SET WATER QUAL ANALYSIS PREVENTIVE MEDICINE:	2	2	2		2	
Y37130	A	WATER TESTING KIT BACTERIOLOGICAL:	2	2	2		2	
Z04910	B	ALARM CHEMICAL AGENT AUTOMATIC: XM22	7	7	7		7	
Z21128	A	DATA TRANSFER DEVICE: AN/CYZ-10 (C)	1	1	1		1	
Z21128	B	DATA TRANSFER DEVICE: AN/CYZ-10 (C)	6	6	6		6	
Z24989	B	TEST SET ELECTRONIC SYSTEMS: AN/PSM-XX	1	1	1		1	
Z26338	A	COMPUTER SET DIGITAL: OL-582/TYQ (ULLS-G CONFIG)	1	1	1			
Z26406	B	COMPUTER SET DIGITAL: OL-583/TYQ (ULLS-S4 CONFIG)	7	7	7		7	
Z36068	B	TRAILER CARGO: LMTV W/DROPSIDES	9	9	9		9	
Z36272	B	TRAILER CARGO: HIGH MOBILITY 3/4 TON	13	13	13		13	
Z79968	B	TENT: LIGHTWEIGHT MAINTENANCE ENCLOSURE	1	1	1		1	
Z84501	A	RADIO SET: AN/VRC-90D	1	1	1		1	
Z84501	B	RADIO SET: AN/VRC-90D	6	6	6		6	
Z90712	A	TRAILER CARGO: MTV W/DROPSIDES	6	6	6		6	
Z94047	A	TRUCK TANK: POL MTV W/E	6	6	6		6	

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SEQDT	SYS/BOIP	LIN	TYPE	ICP TITLE / NOMEN
790630	C005		A	ANTENNA OE-254
	C005AA	A79381	B	ANTENNA GROUP: OE-254()/GRC
790630	C007		A	VINSON
	C007AA	S01373	B	SPEECH SECURITY EQUIPMENT: TSEC/KY-57
	C007AE	V98788	B	POWER SUPPLY VEHICLE: HYP-57/TSEC
791231	Q004		A	FORKLIFT 10,000 LB
	Q004AA	T49119	B	TRUCK LIFT FORK: DSL DRVN 10000 LB CAP 48IN LD CTR ROUGH TER
801029	T006		A	TRUCK, 5T DROP SIDE
	T006AA	X40794	B	TRUCK CARGO: DROP SIDE 5 TON 6X6 W/E
801219	P005		A	FORKLIFT RT 4000 LB
	P005AA	T49255	B	TRUCK LIFT FORK: DSL DRVN 4000 LB CAP ROUGH TERRAIN
850926	G003		A	CHEM ALARM M8A1
	G003AB	A32355	B	ALARM CHEMICAL AGENT AUTOMATIC: PORTABLE MANPACK M8A1
851029	I011		A	RIFLE: 5.56MM M16A2
	I011IA	R95035	B	RIFLE 5.56 MILLIMETER: M16A2
860731	K031		A	EXCAVATOR (SEE)
	K031AA	T34437	B	TRACTOR WHEELED: DSL 4X4 W/EXCAVATOR AND FRONT LOADER
861230	I018		A	PISTOL 9MM
	I018AA	P98152	B	PISTOL 9MM AUTOMATIC: M9
870530	G008		A	RADIAC SET AN/PDR-75
	G008AA	R30925	B	RADIAC SET: AN/PDR-75
870930	Q029		A	WATER QUAL ANALYSIS SET
	Q029AA	W47475	B	WATER QUALITY ANALYSIS SET: PURIFICATION
880401	C067		A	LT WT DIGITAL FAX
	C067AA	L67964	B	LIGHTWEIGHT DIGITAL FACSIMILE: AN/UXC-7
880401	C091		A	MSE
	C091CN	D60801	B	DIGITAL NON-SECURE VOICE TERMINAL W/DIGITAL DATA PORT: TA-10
880430	G010		A	RADIAC SET AN/VDR-2
	G010AA	R20684	B	RADIAC SET: AN/VDR-2
880630	C098		A	SINCGARS
	C098AE	R45203	B	RADIO SET: AN/VRC-90
	C098AT	J31569	B	INST KIT: MK-2325/VRC FOR AN/VRC-87/88/90 IN HMMWV
	C098A2	J87848	B	INST KIT: MK-2499/VRC FOR TSEC/KY-57 WITH SINCGAR
880630	G011		A	PROTECTIVE MASK
	G011AA	M12418	B	MASK CHEMICAL BIOLOGICAL: M40

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SEQDT	SYS/BOIP	LIN	TYPE	ICP TITLE / NOMEN
890731	K012		A	GEN SET, DSL KW AC
	KO12AA	G54041	B	GEN ST DSL ENG: SKID MTD 3KW 60HZ AC 120/208V MEP-016B
890930	O018		A	STEAM CLNR WHL MTD
	O018AA	C32887	B	CLEANER STEAM PRESSURE JET TRAILER MOUNTED:
891215	G014		A	CAM
	G014AA	C05701	B	MONITOR CHEMICAL AGENT:
920401	C139		A	SINCGARS A
	C139CF	R67908	B	RADIO SET: AN/VRC-90A
920529	T046		A	FMTV
	T046AA	T61908	B	TRUCK CARGO: MTV W/E
	T046AB	Z36068	B	TRAILER CARGO: LMTV W/DROPSIDES
	T046AC	T61239	B	TRUCK TRACTOR: MTV W/E
	T046AD	Z94047	B	TRUCK TANK: POL MTV W/E
	T046AK	Z90712	B	TRAILER CARGO: MTV W/DROPSIDES
	T046AM	T60081	B	TRUCK CARGO: 4X4 LMTV W/E
	T046AV	T60149	B	TRUCK CARGO: 4X4 LMTV W/E W/W
921030	P034		A	IFTE CTS
	P034AB	T77499	B	TEST SET ELECTRONIC SYSTEMS: AN/PSM-80(V)2
930801	T056		A	TRLR CGO, HIGH MOBILITY 3/4 TON
	T056AA	Z36272	B	TRAILER CARGO: HIGH MOBILITY 3/4 TON
940228	O019		A	ARMY SPACE HEATER (ASH)
	O019AA	H00586	B	HEATER: DUCT TYPE PORTABLE 1200-00 BTUS
940831	C151		A	ACMES
	C151AA	Z21128	B	DATA TRANSFER DEVICE: AN/CYZ-10 (C)
950801	Q073		A	COMP SET DIG: (ULL-G)
	Q073AA	Z26338	B	COMPUTER SET DIGITAL: OL-582/TYQ (ULLS-G CONFIG)
950801	Q075		A	COMP SET DIG: (ULL-S4)
	Q075AA	Z26406	B	COMPUTER SET DIGITAL: OL-583/TYQ (ULLS-S4) CONFIG)
960630	C198		A	SINCGARS D
	C198AQE	Z84501	B	RADIO SET: AN/VRC-90D
961215	G019		A	ALARM CHEM XM22
	G019AA	Z0410	B	ALARM CHEMICAL AGENT AUTOMATIC: XM22
970915	G020		A	POCKET RADIAC
	G020GA	R31061	B	RADIAC SET: AN/UDR-13
980115	P069		A	SPORT
	P069AA	Z24989	B	TEST SET ELECTRONIC SYSTEMS: AN/PSM-XX

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SEQDT	SYS/BOIP	LIN	TYPE	ICP TITLE / NOMEN
890930	O050		A	LIGHTWEIGHT MAINTENANCE ENCLOSURE
	OO50AA	Z79968	B	TENT: LIGHTWEIGHT MAINTENANCE ENCLOSURE
O01231	O026		A	GEN SET DED SKID 3KW
	O026AA	G1358	B	GEN SET: DED SKID MTD 3KW 60HZ

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Appendix B

FP Module Configuration

Item #	Qty Rqd	Spec/ Part Number (Cage)	National Stock Number (Ref)	Item Description	Remarks
1	105	PD 8115-0101	8145-01-389-9184	Container, Shipping And Storage-Triple (TRICON) with Connectors	
2	5	Mil-C-52661, Type I	8115-01-241-7524	Container, Shipping, ISO, 20 Ft, End Opening	Need to confirm NSN
3	51	Mil-T-44271, Type-IV	8340-01-185-2628	Tent, Extendable, Modular, Personnel (TEMPER), Type IV, 32 Ft, Color - Desert Tan	Modified from orig
3a	2	5-4-3350-2	8340-01-198-7618	End Section	
3b	4	5-4-3363-2	8340-01-198-7619	Window Section (Temperate)	
3c	2	5-4-3353-2	8340-01-198-5358	Tent Fly (16 Feet)	
3d	2	5/4/64	8340-01-186-3022	End Section Liner (Temperate)	
3e	2	5-4-3366	8340-01-186-3023	Intermediate Liner (Temperate)	
3f	4	5-4-3368-2	8340-01-198-7622	Tent Floor (Single Ply) 8 Feet	
3g	1	5-4-3370-2	8340-01-186-3028	Vestibule (Comes with shaded item)	
3h		5-4-3371-2	Part of Vestibule NSN	Vestibule Door	
3i	1	5-4-3372-2	8340-01-198-7623	Vestibule Floor (Single Ply)	
3j	1	5-4-3374-2		Vestibule Container	
3k	4	5-4-3359-2	8340-01-198-7620	Tent Cover	
3l	4	5-4-8487-2		Tent Pin Container	
3m	1	5-4-3618	8340-01-186-3036	Plenum, Extendable, 16 Feet	
3n	1	5-4-3620	8340-01-211-6798	Plenum, Side Entrance, 16 Feet	
3o	60	5-4-196	8340-00-985-7461	Tent Pin, Steel, 18 Inch	
3p	25	5-4-1	8340-00-261-9751	Tent Pin, Wood 24 Inch	
3q	5	5-4-4006	8340-01-240-5854	Arch Assembly	
3r	5	5-4-3335	8340-01-186-3004	Header Assembly	
3s	20	5-4-3336	8340-01-186-3005	Purlin Assembly	
3t	10	5-4-3341	8340-01-186-3009	Eave Extender Assembly	
3u	5	5-4-3340	8340-01-186-3008	Ridge Extender Assembly	
3v	3	5-4-3343	8340-01-186-3010	Vestibule Frame Assembly	
3x	4	5-4-3347-2	8340-01-213-9557	Frame Sections Cover Assembly (Tan)	
4	7	Mil-T-44271, Type-XI	8340-01-257-8478	Tent, Extendable, Modular, Personnel (TEMPER), 32 Ft, Type XI, Color - Desert Tan.	
4a	2	5-4-3350-2	8340-01-198-7618	End Section	
4b	3	5-4-3363-2	8340-01-198-7619	Window Section (Temperate)	
4c	1	5-4-3351-2	8340-01-213-6003	Door Section (Desert/Tropical)	
4d	2	5-4-3353-2	8340-01-198-5358	Tent Fly (16 feet)	
4e	1	5-4-3364	8340-01-186-3022	End Section Liner (Temperate)	
4f	1	5-4-3365	8340-01-213-9566	End Section Liner (Desert/Tropical)	
4g	2	5-4-3366	8340-01-186-3023	Intermediate Liner (Temperate)	
4h	4	5-4-3368-2	8340-01-198-7622	Tent Floor (Single Ply) 8 feet	

Item #	Qty Rqd	Spec/ Part Number (Cage)	National Stock Number (Ref)	Item Description	Remarks
4i	2	5-4-3370-2	8340-01-186-3028	Vestibule	
4j	2	5-4-3371-2	Part of Vestibule NSN	Vestibule Door	
4k	2	5-4-3372-2	8340-01-198-7623	Vestibule Floor (Single Ply)	
4l	2	5-4-3374-2	Not Assigned	Vestibule Container	
4m	4	5-4-3359-2	8340-01-198-7620	Tent Cover	
4n	4	5-4-8487-2	Not Assigned	Tent Pin Container	
4o	1	5-4-3614	8340-01-186-3035	Plenum, End Wall, 16 feet	
4p	1	5-4-3618	8340-01-186-3036	Plenum, Extendable, 16 feet	
4q	50	5-4-791	8340-00-823-7451	Tent Pin, Steel 12"	
4r	30	5-4-1	8340-01-261-9751	Tent Pin, Wood 24"	
4s	5	5-4-4006	8340-01-240-5854	Arch Assembly	
4t	5	5-4-3335	8340-01-186-3004	Header Assembly	
4u	18	5-4-3336	8340-01-186-3005	Purlin Assembly	
4v	10	5-4-3341	8340-01-186-3009	Eave Extender Assembly	
4w	5	5-4-3340	8340-01-186-3008	Ridge Extender Assembly	
4x	6	5-4-3343	8340-01-186-3010	Vestibule Frame Assembly	
4y	2	5-4-3337	8340-01-186-3007	Door Sill Assembly	
4z	4	5-4-3347-2	8340-01-213-9557	Frame Sections Cover Assembly	
4aa	2	5-4-4081-2	8340-01-211-6788	Doors, Double Bump Through, Class A	
5				DELETED	
6	1	Mil-T-44271, Type-VIII	8340-01-257-8475	Tent, Extendable, Modular, Personnel (TEMPER), 96 Ft, Type VIII, Color - Desert Tan.	
6a	2	5-4-3350-2	8340-01-198-7618	End Section	
6b	10	5-4-3363-2	8340-01-198-7619	Window Section (Temperate)	
6c	2	5-4-3362-2	8340-01-213-6004	Door Section (Temperate)	
6d	6	5-4-3353-2	8340-01-198-5358	Tent Fly (16 feet)	
6e	2	5-4-3364	8340-01-186-3022	End Section Liner (Temperate)	
6f	10	5-4-3366	8340-01-186-3023	Intermediate Liner (Temperate)	
6g	12	5-4-3368-2	8340-01-198-7622	Tent Floor (Single Ply) 8 feet	
6h	2	5-4-3370-2	8340-01-186-3028	Vestibule	
6i	2	5-4-3371-2	Part of Vestibule NSN	Vestibule Door	
6j	2	5-4-3372-2	8340-01-198-7623	Vestibule Floor (Single Ply)	
6k	2	5-4-3374-2	Not Assigned	Vestibule Container	
6l	9	5-4-3359-2	8340-01-198-7620	Tent Cover	
6m	8	5-4-8487-2	Not Assigned	Tent Pin Container	
6n	2	5-4-3614	8340-01-186-3035	Plenum, End Wall, 16 feet	
6o	3	5-4-3618	8340-01-186-3036	Plenum, Extendable, 16 feet	
6p	1	5-4-3620	8340-01-211-6798	Plenum, Side Entrance, 16 feet	
6q	200	5-4-791	8340-00-823-7451	Tent Pin, Steel 12"	
6r	100	5-4-1	8340-01-261-9751	Tent Pin, Wood 24"	
6s	13	5-4-4006	8340-01-240-5854	Arch Assembly	
6t	13	5-4-3335	8340-01-186-3004	Header Assembly	
6u	56	5-4-3336	8340-01-186-3005	Purlin Assembly	
6v	26	5-4-3341	8340-01-186-3009	Eave Extender Assembly	
6w	13	5-4-3340	8340-01-186-3008	Ridge Extender Assembly	
6x	6	5-4-3343	8340-01-186-3010	Vestibule Frame Assembly	
6y	4	5-4-3337	8340-01-186-3007	Door Sill Assembly	
6z	12	5-4-3347-2	8340-01-213-9557	Frame Sections Cover Assembly	

Item #	Qty Rqd	Spec/ Part Number (Cage)	National Stock Number (Ref)	Item Description	Remarks
6aa	2	5-4-4081-2	8340-01-211-6788	Doors, Double Bump Through, Class A	
7				DELETED	
8	3	Mil-T-44271, Type-I	8340-01-212-9468	Tent, Extendable, Modular, Personnel (TEMPER), 64 Ft, Type I, Color - Desert Tan.	
8a	2	5-4-3350-2	8340-01-198-7618	End Section	
8b	5	5-4-3363-2	8340-01-198-7619	Window Section (Temperate)	
8c	3	5-4-3362-2	8340-01-213-6004	Door Section (Temperate)	
8d	4	5-4-3353-2	8340-01-198-5358	Tent Fly (16 feet)	
8e	2	5-4-3364	8340-01-186-3022	End Section Liner (Temperate)	
8f	6	5-4-3366	8340-01-186-3023	Intermediate Liner (Temperate)	
8g	8	5-4-3368-2	8340-01-198-7622	Tent Floor (Single Ply) 8 feet	
8h	3	5-4-3370-2	8340-01-186-3028	Vestibule	
8i	3	5-4-3371-2	Part of Vestibule NSN	Vestibule Door	
8j	3	5-4-3372-2	8340-01-198-7623	Vestibule Floor (Single Ply)	
8k	3	5-4-3374-2	Not Assigned	Vestibule Container	
8l	3	5-4-3391	8340-01-186-3032	Partition	
8m	8	5-4-3359-2	8340-01-198-7620	Tent Cover	
8n	4	5-4-8487-2	Not Assigned	Tent Pin Container	
8o	2	5-4-3614	8340-01-186-3035	Plenum, End Wall, 16 feet	
8p	2	5-4-3618	8340-01-186-3036	Plenum, Extendable, 16 feet	
8q	106	5-4-791	8340-00-823-7451	Tent Pin, Steel 12"	
8r	54	5-4-1	8340-01-261-9751	Tent Pin, Wood 24"	
8s	9	5-4-4006	8340-01-240-5854	Arch Assembly	
8t	9	5-4-3335	8340-01-186-3004	Header Assembly	
8u	34	5-4-3336	8340-01-186-3005	Purlin Assembly	
8v	18	5-4-3341	8340-01-186-3009	Eave Extender Assembly	
8w	9	5-4-3340	8340-01-186-3008	Ridge Extender Assembly	
8x	9	5-4-3343	8340-01-186-3010	Vestibule Frame Assembly	
8y	6	5-4-3337	8340-01-186-3007	Door Sill Assembly	
8z	8	5-4-3347-2	8340-01-213-9557	Frame Sections Cover Assembly	
8aa	2	5-4-4081-2	8340-01-211-6788	Doors, Double Bump Through, Class A	
9				DELETED	
10	4	MIL-T-45316 / MS52108-1	2330-01-108-7367	Trailer, Tank, Potable Water, 400 Gallon, 1-1/2 Ton, 2 Wheel, M149A2	
11	10	LP/P.DES 5-94 (81337)	6230-01-414-2758	Floodlight Assembly, Trailer Mounted, with Support Equipment	
12	2	GVT10-S-PB10-ND4H-NH	4630-01-414-9253	Waste Water Vacuum Tank / Trailer, 1000 Gallon	IME Waste Water Truck
13	68	MIL-T-44243; 5-4-3614 (81337)	8340-01-186-3035	Plenum, End Wall, 16 Ft, TEMPER	
14	39	TA13229E6351 (97403)	6150-01-308-5671	Electrical Feeder System, PDISE M100	
14a	1	13229E6325 (97403)		Electrical Feeder Center, 100A	
14b	1	13227E7020 (97403)		Cable, Pigtail, 100A, 4 Ft	
14c	2	13227E7024 (97403)		Cable Assy, Service, 100A, 50 Ft	
14d	8	13227E5825 (97403)		Strap, Cable Carrying	
15	170	MIL-C-29184; PIN: M29184/3-02	6150-01-220-5588	Cable Assembly, Power, 60 AMP, 100 Ft Long	
16	67	MIL-E-44258, Type III, 1-6-6041 (81337)	6110-01-251-0402	TEMPER Electrical Distribution Box, Type III, 120V	
16a	1			Power Control Box	

Item #	Qty Rqd	Spec/ Part Number (Cage)	National Stock Number (Ref)	Item Description	Remarks
16b	1	1-6-6044-3		Cable Assy. Light Type III and IV	
16c	1	1-6-6044-1		Cable Assy. Light Type III and IV	
16d	2	1-6-6043-1		Cable Assy. Outlet Type III	
16e	2	1-6-6043-2		Cable Assy. Outlet Type III	
17	137	MIL-L-44259, Type I, Pin: M44259-I	6230-01-242-2016	Light Set, Flourescent	
17a	4			Light Assembly	
17b	1	BR2104 (17023)		Container, Storage	
17c	4	5-4-4005 (81337)		Strap Assembly, Light Support	
17d	1	F40CW (08108)		Lamp, Fluorescent	
17e	1	FHN20G (81349)		Fuseholder, Extractor	
18	0	9-1-0190 (81337)	6110-01-413-6474	Convenience Outlet Assembly, Altered Item	
18a	1	1-6-6045 (81337)		Cable, Extension, Outlet, Type III	
19	67	1-6-6005 (81337)	6110-01-242-6691	Stand, Distribution Box, TEMPER	
20				DELETED	
21*	11	5-4-4081-2 (81337)	8340-01-263-2546	Doors, Double Bump-Through, Green	
22	650	MIL-T-10798	8460-00-243-3234	Trunk, Locker, 2 Trays	
23	675	AA-C-571	7105-00-935-0422	Cot, Folding	
24	82	A-A-393, Type 1, Class 1, Size 10	4210-00-889-2491	Fire Extinguisher, ABC, Dry Chemical, 10 Pound	
25	138	MIL-T-44243; 5-4-3391 (81337)	8340-01-186-3032	Partition, TEMPER	
26	1300	MIL-P-2383, Size 2	8340-00-261-9751	Pin, Tent, Wood, Size 2 (24 In)	
27	37	LLL-M-71, Type IX	5120-00-926-7116	Mallet, Wood, 6 In Face x 8 In Long Head	
28	37	A-A-1293	5120-00-900-6098	Sledge Hammer, 12 Pound, Fiberglass Handle, 34 In Long	
29	95	GGG-S-326, Type IV, Class A, Style 1.	5120-00-293-3336	Shovel, Round Point, D Handle	
30	75	H-B-0051, Type 2, Size 4	7920-00-291-8305	Broom, Upright	
31	78	9-1-0189-1 (81337)	7220-00-254-4240	Floor Mat, Altered Item (Cut to 32 feet)	
32	53	A-A-262	7920-00-926-5243	Bucket, Mop, Steel, Oval, 16 Quart, w/ Casters	
33	53	A-A-261	7920-00-682-6861	Wringer, Mop, SZ-Small, TY-Gear & Rack	
34	60	T-M-561, Type 1, Style 1, Class 15	7920-00-141-5550	Mop Head	
35	53	NN-H-101, Type 1, Class 1, Size B	7920-00-267-1218	Mop Handle	
36	400	FDC5770-5 (98313)	5340-01-204-3009	Special Purpose Web, Tiedown	
37	68	MIL-A-0083216; TA 13230E3500	4120-01-413-7835	Air Conditioner Assy, 54 k BTUH, 208V, 3 Phase, 50/60 Hz, Horiz. Color - Desert Sand	Need new NSN for Keco Model
37a	1	12139-100 (90598)		Cable, Power	
37b	2	12057-1 (90598)		Cover, Duct	
37c	1	12006-100 (90598)		Duct, Flexible - 7 Ft	
37d	1	12006-101 (90598)		Duct, Flexible - 9 Ft	
37e	2			Duct Holder	
37f	1	TM9-4120-398-14		TM, Air Condtioner, 54,000 BTU/Hr	
38	68	9-1-0146 (81337)	4130-01-415-7300	Debris Screen, Air Conditioner Duct	
39	542	AA-C-291; Type 1, Class 1	7105-00-269-8463	Chair, Folding Steel	Does not include what is in MWR package
40	4	MIL-T-53048	5430-01-170-6984	Tank, Fabric, 3,000 Gallon	
40a	1	80331 (05476)		Cloth, Ground	

Item #	Qty Rqd	Spec/ Part Number (Cage)	National Stock Number (Ref)	Item Description	Remarks
40b	1	90040-1 (05476)		Kit, Repair	
40c	1	80329 (91043)		Pump Assembly, Hand	
40d	1	90075 (05476)		Tank, 3,000 Gallon	
40e	1	TM 10-5430-233-12&P		TM, 3,000 Gallon Fabric Tank	
41	100	JJ-N-180, Type I, Style B, Size 4	3510-00-841-8384	Mesh Bags (Dozen)	
42	3	A-A-52127	3510-00-222-1457	Pin, Laundry, 5 In, Qty-100	
43	7	5100-243 (Forest Service Spec)	4730-00-595-1103	Nozzle, Garden Hose	
44	62	9-1-0191 (81337)	7110-01-415-6895	Table, Folding, 6 Ft., Aluminum	
45	2	13226E7023-3 (97403)	6150-01-247-4780	Cable Assembly, Power, 60 Amp, 25 Ft Long	
46	20	9-1-0183 (81337)	6150-01-413-9314	Extension Cord, 25 Ft, 120 Volt, GFCI	
47	0			DELETED (USE ITEM 46)	
48	1	9-1-0150-1 (81337)	4630-01-413-2606	Pump, Sewage Ejection, Laundry with Accessories	
48a	1	MS 27022-13		Coupling Half, QDisc, 2½ In, MC x Ext. Pipe Thread	
48b	1	MS 27028-13		Coupling Half, QDisc, 2½ In, Dust Cap	
48c	2	M52618/8T841X6A		Bushing, Reducing, 3 In Ext NPT x 2 In Int. NPT	
48d	2	MS 27022-11		Coupling, QDisc, 2 In, MC x Ext. NPT	
48e	2	MS 27028-11		Coupling, QDisc, 2 In, Dust Cap	
48f	2	Mil-T-27730, Size II		Tape, Antiseize, ½ In Wide x 260 In Long, Roll	
48g	2	M52618/8T840X6A		Bushing, Reducing, 3 In Ext NPT x 2½ In Int. NPT	
48h	1	M10388-A07AF1C4A		Nipple, 2½ In, Grooved End x Ext. NPT	
49	4	9-1-0150-2 (81337)	4630-01-413-2608	Pump, Sewer Ejection, General Purpose	
49a	2	M52618/8T840X6A		Bushing, Reducing, 3 In Ext NPT x 2½ In Int. NPT	
49b	1	M10388-A07AF1C4A		Nipple, 2½ In, Grooved End x Ext. NPT	
49c	2	M52618/8T841X6A		Bushing, Reducing, 3 In Ext NPT x 2 In Int. NPT	
49d	2	MS 27022-11		Coupling, QDisc, 2 In, MC x Ext. NPT	
49e	2	Mil-T-27730, Size II		Tape, Antiseize, ½ In Wide x 260 In Long, Roll	
50	2	MS 27028-13	4730-01-019-7432	Cap, Dust, Q-Disc, 2-1/2 In	
51	6	MS 27028-11	4730-00-649-9100	Cap, Dust, Q-Disc, 2 In	
52				DELETED	
53				DELETED	
54	10	6-1-8222-1 (81337)	6150-01-214-0135	Power Cable Assembly, Tee, 20A	
55	6	A-A-50025-4	3920-00-929-8588	Truck, Hand, Box, Laundry, Plastic, 12 Bushel	
56	52	A-A-1069/A4	7240-00-160-0440	Can, Ash and Garbage, 32 Gallon, Steel, Galv.	
57	52	A-A-1069/B4	7240-00-161-1143	Cover, Can, Ash and Garbage	
58				DELETED	
59				DELETED	
60	2	13225E9136-11 (97403)	4720-01-174-8173	Hose Assembly, Rubber, Discharge, Potable Water RDF, 1-1/2 In x 25 Ft	
61	16	9-1-0189-2	7220-00-254-4240	Floor Mat, Altered Item, 10 Ft	
62	4	H-B-00481; Type 1, Class 2, Duty A	7920-00-772-5800	Brush, Sanitary	
63	10	L-H-520; Type 2, Grade A	4720-00-729-5334	Hose Assembly, Nonmetallic, Garden	
64	10	A-A-697-1	8540-00-530-3770	Paper, Toilet Tissue (Roll), Box, White, Single Ply, Unglazed	
65	2	AF PD-91-VRG-62; Dwg. 8611305 (98752)	4510-01-163-6775	Field Shower, Portable, Bare Base	

Item #	Qty Rqd	Spec/ Part Number (Cage)	National Stock Number (Ref)	Item Description	Remarks
65a	6	8611319-22 (66388)		Top Frame Assembly	
65b	6	8611307-3 (66388)		Base Assembly	
65c	36	8611319-5 (66388)		Support Post	
65d	6	8611336-7 (66388)		Cover Assembly	
65e	2	8611341-35 (66388)		Door Panel Assembly	
65f	3	8611340-34 (66388)		Floor Panel Assembly	
65g	1	8611330-6 (66388)		Water Pump Assembly	
65h	6	8611345-9 (66388)		Supply Hose, MC x FC, 1 In x 29 In L	
65i	2	8611346-10 (66388)		Supply Hose, MC x FC, 1 In x 424 In L (35 Ft)	
65j	6	8611352-15 (66388)		Drain Hose, FC x FC, 2 In X 58 In L (5 Ft)	
65k	2	8611353-16 (66388)		Drain Hose, MC x FC, 2 In x 424 In L (35 Ft)	
65l	1	8611355-18 (66388)		Spring Check Valve Assembly, 1 In, MC x FC	
65m	1	8611347-11 (66388)		Supply Hose, MC x FC, 1 In x 144 In L	
65n	1	8611349-13 (66388)		M-80 Water Hose, MC x FC, Red, 1 In x 90 In L	
65o	1	8611349-12 (66388)		M-80 Water Hose, MC x FC, Red, 1 In x 300 In L	
65p	1	8611350-14 (66388)		M-80 Water Hose, MC x FC, Red, 1.5 In x 61 In L	
65q	1	8611345-17 (66388)		Strainer	
65r	1	MFG1301-261		Valve Regulator	
65s	2	MS28741-8-1440		M-80 Fuel Hose	
65t	1	319K (81718)		Y-Connector, 2 In, FC x MC x MC	
65u	1	6-1-8222-1 (81337)	6150-01-214-0135	Power Cable Assembly, Tee, Electrical 20A	
65v	1	9-1-0182 (81337)	6150-01-413-2235	Power Cable Adapter, Class L	
66	4	9-1-0149 (81337)	4720-01-414-5555	Supply Hose, FC x FC, 1 In x 424 In L (35 Ft)	
67	6	MS 49000-7	4730-00-889-2382	Reducer, Quick Disconnect, Cam-Lock, 1-1/2 In FC x 1 In MC	
68	2	9-1-0147 (81337)	4730-01-413-2605	Y-Connector Assembly, Type I, MC x MC x MC 1 In	
69	2	9-1-0148 (81337)	4730-01-413-2607	Y-Connector Assembly, Type II, FC x MC x MC, 1 In	
70	10	PPP-D-729, Type I, Class A	8110-00-597-2353	Drum, Shipping and Storage, Steel, 55-Gallon	
71	100	DDD-T-551; Type 1, Class 1, Style A, B or C	7210-01-051-5837	Towel, Bath, Cotton Terry, Dozen	
72	44	9-1-0187 (81337)	7110-01-415-6896	Bench, 6 Ft	
73	12	5-13-4059 (81337)	7125-01-334-3159	Rack, Storage	
74				DELETED	
75	12	9-1-0182 (81337)	6150-01-413-2235	Power Cable, Class L to Commercial, 20 Amp	
76				DELTED	
77	4	MIL-H-44086, Type I	4520-01-162-0385	Heater, Water, Liquid Fuel, M-80	
77a	1			Stack Assembly	
77b	1	6-1-8285 (81337)	4510-01-214-9139	Drum Fill Adapter Assembly, Type II	
77c	2	MS28741-8-1440	4720-00-063-7222	Hose Assembly, Fuel	
78				DELETED	
79	25	MIL-C-53109 / TA 13228E3325	7240-01-337-5268	Can, Fuel, Military, Plastic, 5 Gallon, Sand Color 30279	
80	25	MIL-S-1285 / TA 13219E2600	7240-00-177-6154	Spout, Fuel Can, Flexible	
81				DELETED	
82				DELETED	
83				DELETED	
84				DELETED	
85				DELETED	

Item #	Qty Rqd	Spec/ Part Number (Cage)	National Stock Number (Ref)	Item Description	Remarks
86	20	13225E9136-4	4720-01-140-6288	Hose Assy, Rubber, Discharge, Potable Water, RDF, 4 In X 20 Ft Long	
87				DELETED	
88				DELETED	
89				DELETED	
90				DELETED	
91				DELETED	
92	4	MIL-W-53047	4130-01-131-2685	Water Chiller, Small, Mobile, Ged, With Trailer Mounting Kit	
92a	1			Engine/Compressor	
92b	1			Housing	
92c	2	13226E1736 (97403)		Binder, Load	
92d	2	13226E1721 (97403)		Bracket, Eyebolt	
92e	2	13226E1727 (97403)		Cradle, Water Chiller	
92f	2	G-291, 3/8 x 4-1/2 (97403)		Eyebolt	
92g	2	MS 15759-814		Flatwasher	
92h	2	13226E1719 (97403)		Hook, Grab	
92i	12	RR-C-271, Type II (81346)		Link, Connecting	
92j	2	MS 35649-2312		Nut, Hexhead	
92k	2	LC-072H-4 (84830)		Spring, Compression	
92l	2	MS 27026-3		Coupling Half, Female	
92m	1	MS 14308-4		Elbow, Brass, Reducing, 90 Degree	
92n	1	SAE J 530, PN 130137		Nipple, Reducer, Brass, Hex	
92o	1	A213226E1819 (79403)		Nipple	
92p	1	A213226E1820 (79403)		Hose, Rubber	
92q	2	MS 35842-13		Clamp, Hose	
92r	1	13226E1714 (97403)		Line, Fuel Assembly	
92s	1	13226E1733 (97403)		Muffler	
92t	1	13226E1787 (97403)		Nozzle Assembly, 3/4 Inch Female QDisc	
92u	1	13226E1796 (97403)		Rope, Starter	
92v	1	13226E1738 (97403)		Strainer Assembly	
92w	5	13226E1710 (97403)		Tube Assembly, 3/4 Inch Hose, MC x MC	
92x	1	13226E1802 (97403)	8465-00-141-0932	Bag, Auxillary Storage	
92y	1	TM 10-4130-237-14		TM, Small Mobile Water Chiller	
93	4	13230E5679 (97403)	3835-01-433-4196	Connection Kit, Nozzle, Large	
93a	1	13230E5338		Nozzle Assembly, 1½ Inch	
93b	1	13225E9136-11		Hose Assy, Rubber, Disch, Pot Water RDF, 1½ In x 25 Ft.	
93c	1	MS 49000-5		Reducer, QDisc, 2 In FC x 1½ In MC	
93d	1	MS 27030-6		Gasket, 2 In, QDisc	
93e	1	13225E9136-2		Hose Assy, Rubber, Disch, Pot Water RDF, 2 In x 20 Ft	
93f	1	13230E5702		Pressure Regulator, 2 In, QDisc	
93g	1	13230E5341		Gate Valve Assy, 2 In, QDisc, MC x FC	
93h	1	13229E7191-35		Reducer, QDisc, 4 In FC x 2 In MC	
93i	1	MS 27030-9		Gasket, 4 In, QDisc	
93j	1	13230E5340		Tee Assy, QDisc, 4 In, M x F x M	
93k	1	13225E9140		Stand, Nozzle Assembly	
94				DELETED	

Item #	Qty Rqd	Spec/ Part Number (Cage)	National Stock Number (Ref)	Item Description	Remarks
95				DELETED	
96	1	MS27030-5	5330-00-360-0595	Gasket, Coupling Half, QDisc, 1½ In	
97	1	13229E7170	4730-01-415-6403	Adapter Assembly, 1 In FC x 3/8 NPT	
98	1	13229E7195	4730-01-415-6420	Adapter, 3/8 INT. NPT x 3/4 In M Garden Hose Thread	
99				DELETED	
100	4	13230E5678 (97403)	3835-01-433-4199	Connection Kit, Nozzle, Small	
100a	1	13229E7168		Nozzle Assembly, 1 Inch	
100b	4	13225E9136-12		Hose Assembly, Rubber Disch, Pot Water, 1 In x 10 Ft	
100c	1	13230E5348		Regulator Assembly, Pot Water, 1 Inch	
100d	1	MS 49000-7		Reducer, QDisc, 1½ In FC x 1 In MC	
100e	1	MS 23030-5		Gasket, QDisc, 1½ Inch	
100f	2	13225E9136-11		Hose Assy, Rubber, Disch, Pot Water RDF, 1½ In x 25 Ft.	
100g	1	MS 49000-5		Reducer, QDisc, 2 In FC x 1½ In MC	
100h	1	MS 27030-6		Gasket, 2 In, QDisc	
100i	1	13230E5341		Gate Valve Assy, 2 In, QDisc, MC x FC	
100j	1	13229E7191-35		Reducer, QDisc, 4 In FC x 2 In MC	
100k	1	MS 27030-9		Gasket, 4 In, QDisc	
100l	1	13230E5340		Tee Assy, QDisc, 4 In, M x F x M	
100m	1	13225E9140		Stand, Nozzle Assembly	
101				DELETED	
102	360	MIL-P-236 / M236A112	4710-00-273-1041	Pipe, Culvert, Nestable, Steel, 12 In Dia., Round, Flanged Half Sections with Bolts and Nuts	Each piece consists of two halves, nuts and bolts
103				DELETED	
104				DELETED	
105				DELETED	
106				DELETED	
107				DELETED	
108				DELETED	
109				DELETED	
110				DELETED	
111				DELETED	
112	18	13229E5741 (97403)	N/A	Cable Assy, 60kW, B Unit, W19	This is the 200 A cable
113				DELETED	
114				DELETED	
115				DELETED	
116				DELETED	
117				DELETED	
118				DELETED	
119				DELETED	
120				DELETED	
121				DELETED	
122				DELETED	
123				DELETED	
124				DELETED	
125	12	MIL-D-23119; M23119-3	8110-01-369-7666	Drum, Fabric, Collapsible, Liquid Fuel, Cylindrical, 500 Gallon, Type III	
125a				Refer to TM	

Item #	Qty Rqd	Spec/ Part Number (Cage)	National Stock Number (Ref)	Item Description	Remarks
126	12	9-1-0175 (81337)	5430-01-415-7432	Liner, Berm, 500 Gal Tank	
127	12	9-1-0194 (81337)	2910-01-415-6890	Manifold Assy, Fuel, FP Generator	
128	2	MIL-Y-40628 / M40628	8110-00-856-6243	Yoke, Towing and Lifting, Fabric Drum	
129	4	MIL-B-53081 / M53081-2	5430-01-237-3659	Berm Liner Assembly, Size 2 (10k Tank)	
130	3	MIL-R-52255, Type III	8110-01-394-7605	Repair Kit For Collapsible Fabric Tanks, Drums	
130a	4			Clamp, Repair, Sealing, 3 Inch	
130b	2			Clamp, Repair, Sealing, 5 Inch	
130c	2			Clamp, Repair, Sealing, 7.50 Inch	
130d	2			Plug, Wood, Tapered, Threaded, 3 Inch	
130e	2			Plug, Wood, Tapered, Threaded, 5 Inch	
130f	1			Pouch	
130g	2			Instructions	
131	4	MIL-T-52983 / M52983-10	5430-01-358-6157	Tank, Fabric, Collapsible, 10,000 Gallon, Fuel with Accessories	
131a	1	MIL-T-52983	5430-00-641-8552	Tank, Fabric, Collapsible, 10,000 Gallon, Fuel	
131b	1	MIL-B-53081	5430-01-237-3659	Berm Liner Assembly, Size 2	
131c	1	MIL-T-52983		Valve Assembly, Ball, 4 Inch	
131d	1	MIL-T-52983		Vent Assembly, 2 Inch, Qdisc	
131e	1	633 K-4 (81718)		Elbow, 4 Inch, Qdisc, M x F	
131f	1	633 KB-4 (81718)		Elbow, 4 Inch, Qdisc, F x F	
131g	1	MIL-R-52255		Repair Kit, Type III	
131h	3	MS 9021-383		O-Ring	
131i	1	MS 29513-250		O-Ring	
131j	2	MS 27030-6		Gasket, Qdisc Coupling	
131k	2	MS 27030-9		Gasket, Qdisc Coupling	
131l	2	MIL-T-52983		Gasket, 4 Inch Flange	
131m	1	MIL-T-52983		Drain Hose Assembly with Valve	
131n	1			2 In Drain Fitting, 2 In FNPT x 2 In FC	
132	4	MIL-H-370, P/N M370B05B33000	4720-00-229-0662	Hose Assembly, Non-Collapsible, Rubber, Liquid Fuel	
133	2	MIL-F-52749 / TA13219E0500	4930-01-301-8201	Forward Area Refueling Equipment, (FARE), Color – Tan	
133a	1	MIL-P-52746 / TA13227E9215	4320-01-306-6892	Pumping Assembly, Flammable Liquid, 100 GPM	
133b	1		4330-00-491-4957	Filter/Seperator, Liquid Fuel, 100 GPM	
133c	1	13219E0466 (MS-49000-17)	4730-01-064-0560	Reducer, Qdisc, Cam-Lock, 4 In FC x 2 In MC with Caps and Plug	
133d	2	13219E0461		Container, Suction Hose	
133e	12	13219E0464		Suction Hose Assembly, 2 Inch x 5 Ft. Long	
133f	2	13219E0462	5975-01-050-5707	Nozzle Stand, Ground Rod	
133g	2	13219E0467		Valve Assembly, 2 In, Butterfly, FC x MC	
133h	1	13219E0476		Tee Assembly, 2 In Qdisc, M x F x F	
133i	1	13220E9406-1		Adapter, Water Detector Kit	
133j	2	MS 39352-9	4730-01-009-1735	Nipple, 2 Inch Qdisc, M x M	
133k	1	13219E0475		Fitting, Wye, 2 In, Qdisc, F x M x M	
133l	2	13219E0491		Valve Elbow Assembly, Coupler	
133m	5	13219E0465		Hose, Discharge, 2 In I.D. x 50 Ft Long	
133n	5			Filter for Filter/Seperator	

Item #	Qty Rqd	Spec/ Part Number (Cage)	National Stock Number (Ref)	Item Description	Remarks
133o	4	MIL-R-3065 (51744)		O-Ring Filter/Seperator Cover	
133p	1	13217E5363	MFR 51744	Sight Guage Gasket	
133q	1	MS49000-3	4730-00-951-3294	Reducer, 3 In FC x 2 In MC	
134	8	A-A-393, Type I, Class 2, Size 20	4210-01-237-2887	Fire Extinguisher, Dry Chemical, Type I, Class 2, Size 20	
135	2	MIL-C-43044 / TA13215E8372	4930-00-855-8739	Control, Pressure, Filling, Non-Vented Drum with Hose and Manual	
135a	1			Hose Assembly, 1½ Inch x 5 Feet	
136	4	13229E9836-2	4930-01-352-1661	Nozzle Assembly, Fuel and Oil Servicing, 1-1/2 Inch, Color-Tan	
137	27	13220E1127 (58541)	6150-01-197-6335	Lead, Electrical (Grounding Cable)	
138	120	W-R-550	5975-00-878-3791	Rod, Ground, Sectional, Type III, Class B, with Attachments	
138	6	MS 27029-17	4730-00-640-6188	Plug, Dust, 4 Inch, Cam-Lock	
140	6	MS 27028-17	4730-00-640-6156	Cap, Dust, 4 Inch, Camlock	
141	1	9-1-0176 (81337)	4730-01-415-3846	Tee Assembly, 4 Inch, Fuel, FC x FC x MC	
142	6	MS 49000-19	4730-01-186-0821	Reducer, Qdisc, Cam-Lock, 2 In FC x 4 In MC	
143	12	MS-49000-5	4730-00-951-3295	Reducer, Qdisc, Cam-Lock, 2 In FC x 1-1/2 In MC	
144	6	MS-49000-17	4730-01-064-0560	Reducer, Qdisc, Cam-Lock, 4 In FC x 2 In MC	
145	8	13226E8282	4820-01-210-5605	Valve Assembly, Qdisc, 4 In, MC x FC	
146	14	MIL-H-370 / M370B09B2A1200	4720-00-529-5538	Hose Assembly, Suction, Liquid Fuel, 4 In x 10 Ft Long, MC x FC	
147	1	2410PP (1JA49)	7930-01-316-6008	Drip Pan, Absorbant, Spill Cleanup (Box of 20)	
148	20		7920-01-339-6928	Absorbent Material, Spill Cleanup	
149	3	A-A-1282 / A1282-I-2	9330-01-281-0337	Sorbent, Oil (Boom), 8 Inch x 10 Foot (Pack Of 4)	
150	8	C-6274-20 (05668)	8110-01-143-4864	Pail, Polyethylene, 5 Gallon with Lid	
151				DELETED	
152				DELETED	
153	1	MIL-M-27386 / 13200E0803	4730-00-842-0850	Manifold Assembly, Type II, Quick Disconnect, 4 Inch	
154	2	MS 27026-9	4730-00-203-1010	Coupling Half, QDisc, Cam-Lock, 1½ In FC x 1½ In Ext. NPT	
155	1	13230E5754	3835-01-433-4194	Waste Water Connection Assembly, 125 GPM Pump	
155a	4	13230E5758-5 (97403)	4730-01-363-8061	Coupling, Clamp, Grooved End Pipe, 2-1/2 Inch	
155b	1	13230E5760-1 (97403)		Valve, Check, Grooved Ends, Waste Water, 2-1/2 Inch	
155c	2	13230E5761-1 (97403)		Hose Assembly, Suction, Grooved Ends, Waste Water, 2-1/2 Inch x 10 Foot	
155d	1	13230E5762-1 (97403)		Reducer, 4 Inch x 2-1/2 Inch, Groove Ends	
155e	1	13230E5763 (97403)		Strainer, Tee Type, Grooved Ends, 4 Inch	
155f	1	13230E5761-3 (97403)		Hose Assembly, Suction, Grooved Ends, Waste Water, 4 Inch x 10 Foot	
155g	2	13230E5758-7 (97403)	4730-01-415-7250	Coupling, Clamp, Grooved End Pipe, 4 Inch	
156	2	13230E5757	4320-01-156-3873	Pump Assembly, 125 GPM, Waste Water	
157	140	13230E5758-7	4730-01-415-7250	Coupling, Clamp, Grooved End Pipe, 4 Inch	
158	102	13230E5767-2	4710-01-415-7259	Pipe, Plastic, Grooved Ends, 4 Inch ID, 228 Inches	
159	1	13230E5755	3835-01-433-4193	Connection Assembly, 20,000 Gallon Tank, Waste Water (Subcomponants Shaded Below)	
159a	2	MIL-P-10388 / M10388-A29DT		Tee, Grooved Ends, 4 Inch	
159b	4	13230E5764 (97403)		Valve Assembly, Gate, Grooved Pipe, 4 Inch, Waste Water	

Item #	Qty Rqd	Spec/ Part Number (Cage)	National Stock Number (Ref)	Item Description	Remarks
159c	4	13230E5761-4 (97403)		Hose Assembly, Suction, Grooved Ends, Waste Water, 4 Inch x 20 Feet	
159d	2	MIL-P-10388 / M10388-A11A1 (81349)		Elbow, 90 Degree, Grooved Ends, 4 Inch	
159e	2	MS70100-1 (96906)		Coupling Half, QDisc, Cam-Locking, Nipple Adapter, Male x External Grooved Pipe	
159f	1	13230E5760-2 (97403)		Valve, Check, Grooved Ends, Waste Water, 4 Inch	
159g	2	13230E5766 (97403)		Adapter Assembly, Female Cam-Lock x Grooved Pipe, 4 Inch, Waste Water	
159h	13	13230E5758-7 (97403)	4730-01-415-7250	Coupling, Clamp, Grooved End Pipe, 4 Inch	
160	3	LP/P.DES 2-96, Type II (81337)	5430-01-434-0765	Tank, Fabric Collapsible, 20,000 Gallon Waste Water with Ground Cloth and Accessories	
161	15	13230E5761-3	4720-01-415-7252	Hose Assembly, Suction, Grooved Ends, Waste Water, 4 Inch x 10 Foot	
162	13	13230E5767-1	4710-01-415-7254	Pipe, Plastic, Grooved Ends, 4 Inch ID, 120 Inches	
163	7	13230E5756	3835-01-433-4191	Waste Water Connection Assembly, Facilities	
163a	1	13230E5770 (97403)		Lateral Reducer, Grooved Ends, 4 In x 4 In x 2-1/2 In	
163b	1	13230E5752-1 (97403)		Valve Assembly, Ball, Grooved Pipe, 2-1/2 Inch	
163c	1	13230E5756-1 (97403)		Hose Assembly, Suction, Grooved Ends, Waste Water, 2-1/2 Inch x 10 Feet	
163d	1	13230E5756-2 (97403)		Hose Assembly, Suction, Grooved Ends, Waste Water, 2-1/2 Inch x 20 Feet	
163e	1	MIL-P-10388 / M10388-A07AF1C4A (81349)		Coupling, Male NPT x Grooved Pipe, 2-1/2 Inch	
163f	1	MIL-F-52618/8 (81349)		Reducing Bushing, 3 In x 2-1/2 In	
163g	4	13230E5758-5 (97403)	4730-01-363-8061	Coupling, Clamp, Grooved End Pipe, 2-1/2 Inch	
164	2	MIL-P-10388 / M10388-A11AI	4730-01-415-6423	Pipe Fitting, Elbow, 90 Deg, 4 In, Al, Grooved, Color – Black	
165	1	MIL-P-10388 / M10388-A05AI	4730-01-415-7977	Pipe Fitting, Cap, 4 In, Al, Grooved, Color - Black	
166	1	13230E5768	3835-01-433-4195	Accessory Kit, Waste Water Collection System	
166a	1	13225E9192 (97403)		Lubricant, Gasket, Potable Water System, Quart	
166b	15	13230E5758-5 (97403)	4730-01-363-8061	Coupling, Clamp, Grooved End Pipe, 2-1/2 Inch	
166c	50	13230E5758-7 (97403)	4730-01-415-7250	Coupling, Clamp, Grooved End Pipe, 4 Inch	
166d	6	13229E7254-2	9330-01-281-8337	Boom, Absorbent, 3 Inch Dia. x 48 Inches Long	
166e	6	MIL-P-10388 / M0388-A05AI1C (81349)		Pipe Fitting, Cap, 4 Inch	
166f	3	13230E5760-2		Valve, Check, Grooved Ends, Waste Water, 4 Inch	
166g	1	13230E5752-1 (97403)		Valve Assembly, Ball, Grooved Pipe, 2-1/2 Inch	
166h	3	13230E5756-1 (97403)		Hose Assembly, Suction, Grooved Ends, Waste Water, 2-1/2 Inch x 10 Feet	
166i	3	13230E5756-2 (97403)		Hose Assembly, Suction, Grooved Ends, Waste Water, 2-1/2 Inch x 20 Feet	
166j	2	13230E5764 (97403)		Valve Assembly, Gate, Grooved Pipe, 4 Inch, Waste Water	
166k	15	MIL-C-10388 / M10387-C-06 (81349)		Gasket, Coupling, Clamp, Pipe, 2-1/2 Inch	
166l	1		8105-01-221-3239	Bag, Contaminated Waste, Size 3 (200 Bag Roll)	
166m	2	MIL-T-27730 (81349)		Tape, Antiseize, Size II	DELETE
166n	1	13230E5757 (97403)	4320-01-156-3873	Pump Assembly, 125 GPM, Waste Water (Counted on Line 156)	
166o	2	MIL-C-53109 / 13228E3325	7240-01-337-5268	Can, Gasoline, Military, 5 Gallon	

Item #	Qty Rqd	Spec/ Part Number (Cage)	National Stock Number (Ref)	Item Description	Remarks
166p	1	MIL-S-1285 / 13219E2600	7240-00-177-6154	Spout, Can, Flexible	
166q	50	MIL-C-10388 / M10387-C-09 (81349)	5330-01-216-4470	Gasket, Coupling, Clamp, Pipe, 4 Inch	
166r	27	13230E5767-2 (97403)	4710-01-415-7259	Pipe, Plastic, Grooved Ends, 4 Inch ID, 228 Inches	Move to 158
166s	5	13230E5767-1 (97403)	4710-01-415-7254	Pipe, Plastic, Grooved Ends, 4 Inch ID, 120 Inches	Move to 162
166t	3	13230E5761-3 (97403)	4720-01-415-7252	Hose Assembly, Suction, Grooved Ends, Waste Water, 4 Inch x 10 Foot	
166u	3	13230E5761-4 (97403)		Hose Assembly, Suction, Grooved Ends, Waste Water, 4 Inch x 20 Foot	
166v	40	MIL-P-236 / M236A112	4710-00-273-1041	Pipe, Culvert, Nestable, Steel, 12 In Dia., Round, Flanged Half Sections with Bolts and Nuts	DELETE
167	2		4110-01-166-3579	Refrigerator, Prefabricated, 600 Cubic Foot	
168	2	MIL-R-13312, Type II	4110-01-389-9182	Refrigeration Unit, Mechanical, Panel Type, 10,000 BTUH, Electric Motor Driven, Type II	
169	2	9-1-0178 (81337)	6150-01-413-2234	Cable Assembly, 60 AMP, Class L, For Equipment Installation	
170				DELETED	
171	2	MIL-F-44330	7360-01-277-2558	Food Sanitation Center (Without Tent or M2 Burners)	
171a	2	5-13-4256 (81337)		Adapter, Sink	
171b	1	5-13-4061 (81337)		Drain Hose Assembly, Single Sink	
171c	1	5-13-3749 (81337)		Drain Hose Assembly, Three Sinks	
171d	6	5-13-4050 (81337)		Rack Assembly, Storage/Drying	
171e	2	5-13-4255 (81337)		Rack, Sink, Immersion	
171f	3	5-13-4120 (81337)		Sink Assembly	
171g	1	5-13-4257 (81337)		Shelf, Table	
171h	1	5-13-4242 (81337)		Table, Folding Legs	
171i	1	5-13-4240 (81337)		Table, Drain	
171j	3			Thermometer Bracket	
171k	3	0440-0004 (28480)	6685-00-444-6500	Thermometer, 5-1/2 In	
171l	2	A-A-295 (58536)	7240-00-151-6629	Trash Barrel with Lid, 32 Gallon	
171m	1	12255633-1 (19207)	4210-01-149-1356	Fire Extinguisher	
171n	1	TM 10-7360-211-13&P		Technical Manual	
171o	1	TM 10-7360-204-13&P		Technical Manual	
171p	1	TM 10-8340-224-13&P		Technical Manual	
172	1	9-1-0196 (81337)	7360-01-433-4201	Water Distribution Kit, Force Provider Modular Field Kitchen	
172a	1	13225E9136-11	4720-01-174-8173	Hose Assembly, Rubber, Discharge Only, Potable Water, RDF, 1-1/2 Inch, 25 Feet Long, MC x FC	
172b	1	9-1-0158 (81337)		Tee Assembly, 1-1/2 In FC x 1-1/2 FC x 1 In MC	
172c	1	13225E9136-9		Hose Assembly, Rubber, Discharge Only, Potable Water, RDF, 1-1/2 Inch, 10 Feet Long, MC x FC	
172d	1	9-1-0160 (81337)		Hose Assembly, Hot Water Supply, 1 Inch, 25 Feet Long, FC x FC	
172e	1	9-1-0169 (81337)		Hose Assembly, Hot Water Supply, Sanitation Center	
172f	1	1-6-705		Manifold, Water Distribution	
172g	2	9-1-0168 (81337)		Hose Assembly, Hot Water Supply, 1/2 Inch, 40 Foot Long, FC x FC,	
172h	1	9-1-0159 (81337)		Hose Assembly, Cold Water Supply, 1 Inch, 25 Feet Long, MC x FC	
172i		9-1-0163 (81337)		Hose Assembly, Cold Water Supply, Ice Machines	

Item #	Qty Rqd	Spec/ Part Number (Cage)	National Stock Number (Ref)	Item Description	Remarks
172j	1	9-1-0167 (81337)		Hose Assembly, Cold Water Supply, Food Prep Tent	
172k	1	9-1-0166 (81337)		Hose Assembly, Cold Water Supply, Stock Pots	
172l	1	9-1-0165 (81337)		Hose Assembly, Cold Water Supply, Kitchen and Dining Facility	
172m	1	9-1-0164 (81337)		Hose Assembly, Cold Water Supply, Sanitation Center	
172n	4	9-1-0161 (81337)		Hose Assembly, Drain, 1-1/4 In, 40 Foot Long, FC x FC	
172o	1	9-1-0162 (81337)		Cross Assembly, Waste Water, 1-1/4 Inch MC x MC x MC x MC	
172p	4	1-6-707		Faucet, Double	
172q	2	MS 27021-8		Coupling Half, Quick Disconnect, Cam Locking Type, Male, Hose Shank, Type II, 1-1/4 Inch, Brass	
172r		MS 27021-2	4730-01-139-4511	Coupling Half, Quick Disconnect, Cam Locking Type, Male, External Pipe Thread, Type III, 1/2 Inch, Brass	
172s	2	MS 27028-8		Coupling Half, Quick Disconnect, Cam Locking Type, Dust Cap, 1-1/4 Inch	
172t	2	MS 27029-8		Coupling Half, Quick Disconnect, Cam Locking Type, Dust Plug, 1-1/4 Inch	
172u	2	MS 27028-2		Coupling Half, Quick Disconnect, Cam Locking Type, Dust Cap, 1/2 In	
172v	2	MS 27029-2		Coupling Half, Quick Disconnect, Cam Locking Type, Dust Plug, 1/2 In	
172w	4	1-6-694-6		Hose, 1/2 Inch, 40 Feet	
172x	4	1-6-688-1		Hose, 1 Inch, 25 Feet	
172y	4	1-6-1509-9		Hose, 1-1/4 Inch, 45 Feet	
172z	10	MIL-T-27730, Size II	8030-00-889-3535	Tape, Antiseize, 1/2 In Wide x 260 In Long	
172aa	24	MS 35842-12		Clamp, Hose, Low Pressure, Type F, SAE #24	
172ab	24	MS 35842-11		Clamp, Hose, Low Pressure, Type F, SAE #12	
172ac	2	MS 27025-2		Coupling Half, Quick Disconnect, Cam Locking Type, Female, Hose Shank, Type VI, 1/2 Inch, Brass	
172ad	2	MS 27025-8		Coupling Half, Quick Disconnect, Cam Locking Type, Female, Hose Shank, Type VI, 1-1/4 Inch, Brass	
173	6	6-1-9932 (81337)	4320-01-245-6936	Water Pump Assembly	
174	1	MIL-U-43263; Type I, Style 2, Size 5	7310-00-130-3462	Coffee Urn	
175	0			DELETED (USE ITEM 176)	
176	3	9-1-0198 (81337)	6110-01-413-6473	Power Distribution Box, Kitchen Equipment	
177	30	A-A-388	7330-00-633-8905	Pan, Baking Sheet, Al, 26 x 18 In	
178	48	A-A-1060-3	7350-00-641-6050	Dispenser, Sugar, 12 Oz	
179	48	A-A-1060-1	7350-00-680-2630	Shaker, Salt, 2 Oz	
180	48	DD-S-50, Type1, Style A	7350-00-655-5254	Shaker, Pepper, 3 Oz	
181	3	A-A-424, Size 4	7350-00-170-8333	Pitcher, 5 Qt	
182	1	A-A-1755	7330-00-815-1456	Strainer, 5-1/2 Qt	
183	4	GGG-C-746, Type 2, Grade D	7340-00-292-9487	Fork, Food Preparation	
184	2	A-A-217	7920-00-058-2242	Holder, Scouring Brick	
185	4	GG-T-353	6685-01-092-3911	Thermometer, Bi-Metal, Type III	
186	20	MIL-U-10815, Type 2, Size 2	7340-00-223-7800	Spoon, Food Service	
187	4	GGG-C-746, Type 17, Grade D	7340-00-680-0863	Knife, Slicing	

Item #	Qty Rqd	Spec/ Part Number (Cage)	National Stock Number (Ref)	Item Description	Remarks
188	3	A-A-1956	7330-00-680-0865	Ladle, Kitchen, 4 Oz	
189	4	GGG-C-746, Type 7, Grade D	7340-00-197-1274	Knife, Steak	
190	2	A-A-300, Type 1	7290-00-616-0109	Dust Pan, Rubber	
191	2	H-B-00190, Type 1, Style 1, Class 2	7920-00-240-6358	Brush	
192	8	A-A-1043, Type 3, Class 1	5350-00-242-4404	Steel Wool, 1 Pound Roll	
193	1		5345-00-215-1881	Stone, Sharpening, Three Grit Sections, Course, Medium and Fine	
194				DELETED	
195	6	L-P-0050, Type 2, Class 1, Size 1	7920-00-753-5242	Pad, Scouring	
196	60	L-S-00626, Type II, Class 1, Size 3, Por A	7920-00-884-1116	Sponge, Cellulose	
197	72	A-A-973, Type A	7920-00-926-5176	Stainless Steel Sponge	
198	1	AA-R-200; Type H, Size 20, Style 1	4110-01-009-3738	Refrigerator, Mechanical, Food, 20 Cubic Foot, 120V	
199	2	S-T-540, Type I, Size 3	7310-01-287-5313	Toaster, Electric, Conveyor Rack, 115V	
200	1	1-6-727 (81337)	7310-01-229-2155	Cabinet, Food Warming, 120V with Power Cable	
201	1	OO-M-280, Class 2, Model 1, Style 1, Type II	7320-00-222-4177	Meat Slicing Machine, Electric, 115V	
202	2	MIL-D-82035, Size 11, Style B, Type II	7310-00-364-1438	Dispenser, Beverage, Mechanical	
203	1	OO-M-38, Model 1, Style 1, Size 20	7320-01-205-2776	Mixing Machine, Food, Electric, 115V, with Attachments	
204	2	1-6-768 (81337)	4510-01-223-5388	Trap Assembly, Grease	
204a	1			Hose Assembly, Suction, 2 Inch x 15 Ft	
205	2	9-1-0186 (81337)	7360-01-415-7454	Fan Assembly, Kitchen, 30 Inch, Altered Item	
206	4	MIL-I-11867	4110-00-837-6442	Ice Making Machine, 200 Pound, 208V	
207					Not a kit anymore
207a					
207b	8	5-7-190 (81337)	3610-01-219-6780	Sign Making Kit, Portable	
207c					added to others in package
207d					added to others in package
207e					added to others in package
207f	200	Mil-P-2383, Size 2		Pin, Tent, Wood, Size 2 (24 Inch)	
207g	10	GGG-R-96, Type II, Class A, Size 1	3750-00-171-7182	Rake, Garden	
207h	2	GGG-S-65, Type V	5110-00-293-3435	Saw, Crosscut, Skew Back, 26 Inch Cutting Edge, 8 Points per Inch	
207i	2	GGG-A-926, Type I, Class I, Design A	5110-00-293-2336	Ax, Single Bit, Flat Top Face, Hickory Handle, 31 nches Long, 4 Pound Head	
207j	2		5440-00-227-1592	Step Ladder, 4 Ft., 250 Pound Duty Rating, UL 112, Type I	
207k	25	A-A-1928, Type II	5340-00-292-0896	Padlock, Combination, Four Point	
207l	5	A-A-1307	5120-01-112-8351	Hammer, Hand, 16 Oz. Head, 13 Inches Long	

Item #	Qty Rqd	Spec/ Part Number (Cage)	National Stock Number (Ref)	Item Description	Remarks
207m	5	A-A-2554	5120-00-809-9450	Opener, Crate	
207n	5	A-A-2565	5120-00-224-1389	Pry Bar, 16 Inch Long, Steel	
207o	10	A-A-2566, Size 5	5120-00-242-0762	Bar, Wrecking, 3/4 In Diameter, 36 In. Long	
207p	5	GGG-B-110, Type I	5120-00-965-0879	Bar, Combination Pry and Scrape, 2½ x 13 Inch	
207q	5	A-A-1293	5120-00-900-6098	Sledge Hammer, 12 Pound, Fiberglass Handle, 34 Inch Long	
207r	2	LLL-M-71, Type IX	5120-00-926-7116	Mallet, Wood, 6 In Face x 8 In Long Head with Steel Bands	
207s	10	A-A-1823	9905-00-196-1068	Ribbon, Flagging, Surveyor's, Flourescent Yellow, 50 Yard Roll	
207t	10	A-A-1823	9905-00-194-9703	Ribbon, Flagging, Surveyor's, Flourescent Pink, 50 Yard Roll	
207u	2	9-1-0173 (81337)	5210-00-554-7087	Tape, Measuring, 100 Ft., Open Reel, Fiberglass	
207v	1	9-1-0174 (81337)		Tape, Measuring, 300 Ft., Open Reel, Fiberglass	
207w	1	FF-N-105, Type II, Style 10	5315-00-753-3881	Nail Common, Size 4d, (1½ In. Long), 50 Lb. Box	
207x	1	FF-N-105, Type II, Style 10	5315-00-753-3883	Nail Common, Size 8d, (2½ In. Long), 50 Lb. Box	
207y	5	A-A-2344	5120-00-264-3796	Wrench, Adjustable, 12 In Long, 1-5/16 Jaw Capacity	
207z	5	A-A-2344	5120-00-240-5328	Wrench, Adjustable, 8 In Long, 15/16 Jaw Capacity	
208	60	MIL-B-12233, Class A, Color 1	8105-00-285-4744	Bag, Sand, Burlap, Qty-100	
209	5	MIL-B-1771	3590-00-058-1837	Barber Kit	
210	5	GG-K-391, Type 3	6545-00-656-1094	First Aid Kit, 20-25 Man Crew	
211	5		9925-01-326-2855	Chaplain Kit	
212	1	9-1-0180 (81337)		Morale Welfare and Recreation Kit	
213	4		6150-01-307-9446	Electrical Distribution System, PDISE M40	
213a	1	13227E5830 (97403)		Center, Distribution, 3 Phase, 120/208 V, 40 Amp	
213b	1	13226E7040 (97403)	6150-01-251-9125	Box, Receptacle, 120V, 20 Amp	
213c	3	13226E7032-2 (97403)	6150-01-250-0044	Cable, Extension, 25 Ft, 20 Amp, 3 Pin	
213d	3	13226E7032-1 (97403)	6150-01-250-3643	Cable, Extension, 50 Ft, 20 Amp, 3 Pin	
213e	1	13226E7019 (97403)	6150-01-256-6301	Cable, Pigtail, 4 Ft, 40/60 Amp, 5 Pin	
213f	2	13226E7023-2 (97403)	6150-01-247-4781	Cable, Service/Feeder, 50 Ft, 40/60 Amp, 5 Pin	
213g	1	13227E5830 (97403)	6150-01-256-6298	Container, Transit and Storage	
213h	1	13227E5830-2 (97403)		List, Packing	
213i	8	13227E5825 (97403)	6150-01-256-6299	Strap, Cable Carrying	
214	30	3226E7046	6150-01-208-9751	Electrical Utility Kit, PDISE M46	
214a	2	13226E7034 (97403)	6150-01-251-9124	Cable Assembly, Branch Circuit, 24 Ft, 20 Amp, 3 Pin	
214b	6	13226E7032-3	6150-01-247-4766	Cable, Extension, 15 Ft, 20 Amp, 3 Pin	
214c	1	13227E5830 (97403)	6150-01-256-6298	Container, Transit and Storage	
214d	3	13227E5829 (97403)	6150-01-264-2068	Kit, Light Bulb	
214e	3	W-L-101/68 (81348)	6240-00-617-1744	40 W, Blue	
214f	3	W-L-101/85 (81348)	6240-00-194-7924	75 W, White	
214g	2	13226E7043 (97403)	6230-01-247-4784	Light Utility, 120 V, Dual Socket, Incandescent	
214h	2	13226E7041 (97403)	6150-01-256-6302	Rope Assembly, Support, 53 Ft	
214i	6	13226E7044 (97403)	6150-01-250-0045	Strap, Cable Securing	
215				DELETED	
216				DELETED	
217				DELETED	

Item #	Qty Rqd	Spec/ Part Number (Cage)	National Stock Number (Ref)	Item Description	Remarks
218	6	9-1-0140-1 (81337)	8145-01-415-4821	Container, Reusable, Bulk Handling, Half Size, General Purpose	
219	6	9-1-0141 (81337)	8145-01-415-7267	Container, Reusable, Bulk Handling, Equipment, Commercial	
220	17	9-1-0142-1 (81337)	8145-01-415-4113	Container, Reusable, Bulk Handling, Small	
221	8	9-1-0142-2 (81337)	8145-01-415-4116	Container, Reusable, Bulk Handling, Medium	
222	3	9-1-0142-3 (81337)	8145-01-415-4115	Container, Reusable, Bulk Handling, Large	
223				DELETED	
224				DELETED	
225				DELETED	
226				DELETED	
227				DELETED	
228				DELETED	
229				DELETED	
230	2	9-1-0140-2 (81337)	8145-01-415-4827	Container, Reusable, Bulk Equipment, Half Size	
231	7	5-4-3352-2 (81337)	8340-01-213-6003	Door Section, Desert/Tropical, TEMPER, Color – Desert Tan	
232	7	5-4-3365 (81337)	8340-01-213-9566	End Section Liner, Desert/Tropical, TEMPER	
233				DELETED	
234				DELETED	
235	2	MIL-O-43633, Type II, Size 1	7310-01-420-7103	Oven, Baking and Roasting, Double Deck, Floor Standing, 208V 3 Phase	
236	2	MIL-G-2338, Type II, Style 1, Size 2	7310-01-146-6984	Griddle, Floor Standing, with Splash Guards	
237	2	MIL-P-23694, Type I, Style 3	7310-00-758-8564	Tilt Fry Pan	
238	2	MIL-K-43359, Type I, Size 4	7310-00-389-4711	Steam Kettle	
239	2	S-S-710, Type II, Style I, Size 2	7310-00-271-1619	Steam Table with Sneeze Guard and Accessories	
240				DELETED	
241	4	5-13-4242 (81337)	7305-01-333-8493	Table, Folding Leg	
242	4	A-A-391 (58536)	7330-00-078-5706	Board, Food Chopping	
243	2	GGG-C-746, Type 12, Grade C (81348)	7330-00-550-7592	Butchers Steel	
244	10	MIL-C-43613 (81349)	7240-00-089-3827	Can, Water, Military	
245	2	6921793900 (80049)	7330-00-266-7453	Colander, SS, 16-Qt	
246	8	MIL-P-1735 (81349)	7330-00-250-6300	Cover, Cooking Pot	
247	72	MP-C-30-H (21669)	7310-01-235-0922	Cover, Pan, Food Serving (Rectangular)	
248	12	FC-120 (56023)	7310-00-834-4480	Cover, Steam Table, Full Size	
249	12	FC-280 (56023)	7310-01-107-1281	Cover, Steam Table, Half Size	
250	4	A-A-1077 (58536)	7330-00-272-2489	Dipper, Kitchen	
251	20	500LDC-G (21669)	7310-01-245-6937	Dispenser, Liquid, 5 Gallon	
252	2	A-A-394 (58536)	7330-00-815-1458	Egg Whip	
253	2	9-196-650 (81923)	6545-00-919-6650	First Aid Kit, General Purpose	
254	12	200MPC1-G (21669)	7330-01-234-2163	Food Container, Insulated	
255	6	MIL-U-10815, Type 4, Size 2 (80244)	7330-00-256-2158	Food Turner	
256	6	MIL-U-10815, Type 1, Size 1 (80244)	7340-00-223-7791	Fork, Food Preparation	
257	6	MIL-U-10815, Type 1, Size 2 (80244)	7340-00-223-7792	Fork, Food Preparation	

Item #	Qty Rqd	Spec/ Part Number (Cage)	National Stock Number (Ref)	Item Description	Remarks
258	4	6447M (4Y739)	7340-00-197-1271	Knife, Boning	
259	4	GGG-C-746, Type 20, Grade D (80244)	7340-00-488-7950	Knife, Cook's	
260	4	GGG-K-494, Type 2 (80244)	5110-00-892-5071	Knife, Craftsman's	
261	4	GGG-C-746, Type 5, Grade D (80244)	7340-00-488-7939	Knife, Paring	
262	4	GGG-C-746, Type 6, Grade D (80244)	7340-00-406-6531	Knife, Slicing	
263	4	A-A-1956, Size 1 (58536)	7330-00-254-4793	Ladle, Kitchen, 2 Ounce	
264	4	A-A-1956, Size 3 (58536)	7330-00-248-1153	Ladle, Kitchen, 8 Ounce	
265	4	A-A-1751 (58536)	7330-00-205-3096	Measure, Liquid, 2 Quart	
266	4	A-A-1954 (58536)	7330-00-272-7876	Measuring Set, Spoon	
267	4	5-13-3971 (81337)	7330-01-245-0201	Opener, Can, Hand	
268	4	5-13-3969 (81337)	7330-01-236-3155	Opener, Can, Mounted	
269	20	MIL-P-12851 (81349)	7330-00-272-2589	Pan, Baking & Roasting	
270	10	C36793B (95027)	7330-00-286-8069	Pan, Baking & Roasting, Top	
271	10	A-A-388 (58536)	7330-00-634-4494	Pan, Baking & Roasting, Bottom	
272	72	MP36 (21669)	7310-01-234-2189	Pan, Food Serving and Storage	
273	6	124 (56023)	7310-00-238-5164	Pan, Steam Table, Long	
274	12	224 (56023)	7310-00-576-4614	Pan, Steam Table, Small	
275	4	W8079 (85812)	7330-00-238-8316	Peeler, Potatoe, Hand	
276	2	A-A-631 (58536)	7330-00-257-4822	Pick, Ice	
277	2		5120-00-223-7397	Pliers, Slip Joint	
278	4	MIL-P-1735, Size 1	7330-00-292-2306	Pot, Cooking, 10 Gallon, without Cover	
279	4	MIL-P-1735, Size 1	7330-00-292-2307	Pot, Cooking, 15 Gallon, without Cover	
280	8	-97074	7330-00-379-4439	Pot Holder	
281	2	MIL-R-1982 (81349)	7360-00-274-7088	Roll, Cutlery	
282	2	A-A-2368 (58536)	7330-00-153-9749	Rolling Pin	
283	2	MIL-S-17531 (81349)	7330-00-205-1950	Scraper, Baker's	
284	2		5120-00-234-8913	Screwdriver, Cross Tip, 4 In	
285	2		5120-00-222-8852	Screwdriver, Flat Tip, 4 In	
286	2	GGG-C-746, Type 21, Grade D	7340-00-272-9586	Server, Pie and Cake	
287	4	5-13-4257 (81337)	5340-01-333-8486	Shelf Assembly	
288	2	A-A-467 (58536)	7330-00-184-0089	Sifter, Flour, Hand	
289	4	A-A-1072 (58536)	7330-00-680-2635	Skimmer, Kitchen	
290	4	-19099	7330-00-849-5194	Spatula	
291	4	2-9-120PT224 (81349)	7330-00-379-2544	Splash Plate	
292	8	A-A-1082, Type I, Size 2 (58536)	7340-00-240-7080	Spoon, Food Service, 15 In	
293	16	A-A-1082, Type III, Size 2 (58536)	7340-00-205-1421	Spoon, Food Service, Slotted	
294	2	C69M (70752)	5345-00-198-8040	Stone, Sharpening	
295	6	-64067	7330-00-616-0997	Tongs, Food Serving, SS	
296	2		5120-00-240-5328	Wrench, Adjustable	
297	4	A-A-295	7240-00-151-6629	Waste Receptacle	
298	2		7330-00-543-7097	Cutter Set, Cookie	
299	4	LP/P.DES 2-96, TYPE I (81337)	5430-01-432-6304	Tank, Fabric Collapsible, 20,000 Gallon Potable Water with Ground Cloth and Accessories	
300	4	9-1-0510 (81337)	4610-01-432-6307	Hypochlorination Unit, FP WDS	

Item #	Qty Rqd	Spec/ Part Number (Cage)	National Stock Number (Ref)	Item Description	Remarks
301	4	9-1-0530 (81337)	5430-01-435-4882	Tank Connection Kit, FP WDS	
301a	2	13225E9135-4 (97403)		4 In. x 20 Ft., Suction Hose Assembly, Potable Water	
301b	4	9-1-0500 (81337)		1½ In. Gate Valve Assembly	
301c	2	9-1-0501 (81337)		Tee Assembly, Qdisc., 1½ In M x 1½ In F x 1½ In M	
301d	2	9-1-0503 (81337)		Recirculation Tee Assembly	
301e	2	9-1-0523 (81337)		Expansion Tank System Assembly	
301f	6	13225E9135-9 (97403)		1½ In x 10 Ft., Hose Assembly, Potable Water	
301g	2	9-1-0520 (81337)		Check Valve Assembly, 1½ Inch	
301h	2	9-1-0505 (81337)		Test Valve Assembly	
301i	2	9-1-0521 (81337)		Hose Assembly, Potable Water, 1½ In x 15 Ft, Qdisc, F x F	
301j	24	13225E9135-10 (97403)		1½ In x 20 Ft, Hose Assembly, Potable Water	
301k	2	MS 49000-13 (96906)	4730-00-951-3298	Reducer, 2 In. Male QDisc x 1½ In. Female, QDisc	
301l	2	MS 49000-19 (96906)	4730-01-186-0821	Reducer, 4" MQD x 2" FQD	
301m	2	13230E5342 (97403)		Valve Assembly, Gate, QDisc, 4 Inch	
301n	2	13230E5335 (97403)		Tee Assembly, QDisc, 4 In. F x 4 In. M x 4 In. F	
301o	2	9-1-0507 (81337)		Hypochlorinator Tee Assembly	
301p	2	13225E9135-3 (97403)	4720-01-163-4685	Hose Assy, Rubber, POTW RDF, 4 In x 10 Ft.	
302	1	9-1-0528 (81337)	4320-01-435-4873	Accessory Kit, FP WDS	
302a	4	MS49000-5 (96906)	4730-00-951-3295	Reducer, 2" Female x 1½" Male, Quick Disconnect	
302b	2	9-1-0521 (81337)		Hose Assembly, Potable Water, 1½ Inch, F QDisc x F QDisc.	
302c	2	9-1-0505 (81337)		Test Valve Assembly	
302d	2	6-1-9932 (81337)	4320-01-245-6936	Pump Assembly, Water, Army Trailer Mounted Laundry	Move to 173
302e	2	9-1-0520 (81337)		Check Valve Assembly, 1½ Inch	
302f	2	13225E9135-9 (97403)		Hose Assy, Rubber, POTW RDF, 1½ IN., 10 FT.	
302g	2	9-1-0524 (81337)		Expansion Tank Assembly	
302h	2	9-1-0501 (81337)		Tee Assy, QDisc., 1½" M x 1½" F x 1½" M	
302i	4	9-1-0500 (81337)		Gate Valve Assy, QDisc., 1½" F x 1½" M	
302j	8	13225E9135-10 (97403)		Hose Assy, Rubber, POTW RDF, 1½ In., 20 FT.	
303	1	LP/P.DES 1-96	3510-01-425-8708	Containerized Batch Laundry	
304				DELETED	
305	4	LP/P. DES 1-97		Containerized Latrine System	
306					
307	27		6115-01-274-7390	Generator, TQG, DED, 60 kW, 50/60 Hz (MEP 806A)	
308	18	9-1-0622 (81337)		Switch Box Assembly with Stand	
309	10	13226E7741 (97403)	5120-01-013-1676	Slide Hammer	
310	127	9-1-0624 (81337)		TEMPER Convenience Outlet Assembly, 3 Drop	
311					Not used in this configuation
312					Not used in this configuation
313					Not used in this configuation
314					Not used in this configuration
315	2	9-1-0535 (81337)		Shave Stand System	
316	4	9-1-0550 (81337)		Reusable Oven Container	
317	116	5-4-3359-2	8340-01-198-7620	Tent Cover	Not required with new tents

Appendix C

Cold Weather Kit

Qty	Nomenclature	National Stock Number	Part Number	CAGE	Remarks
4	Torch Ay, Propane Cylinder	3439-00-542-0531			
30	Debris Screen Air Condition Duct	4130-01-415-7300	9-1-0146	81337	
18	Fire Extinguisher, ABC, 10 PD	4210-00-889-2491	A-A-393 TY1 CL1 SZ10	80244	
97	Adapter Drum Fill, 2 Port	4510-01-214-9139			
96	Heater, 120K BTU/Hr, Ash	4520-01-467-2739	PD 4520-0079		
12	Mallet, Rubber Head, 24oz 15 In	5120-00-293-3399	GGG-H-33		
12	Punch, Aligning, 12 Ft, 1/4 In PT	5120-00-595-9531	GGG-P-831		
1	Blade Set, .5 Shank, Wood, 10TPI	5130-00-275-1203			
1	Blade Set, .5 Shank, MTL, 18TPI	5130-00-275-1204			
1	Recipocating In-Line Saw, 0.5 In	5130-00-819-7767	W-S-90		
112	Special Purpose Web, Tiedown	5340-01-204-3009	9392419	19200	
20	Cable Ay, Sp Ext 25 Ft 120V GFI	6150-01-413-9314	9-1-0183	81337	
36	Mat, Floor Altered (3 Ft x 32 Ft)	7220-00-254-4240	9-1-0189-1	81337	
60	Bag, Sand, Burlap, Qty-100	8105-00-285-4744	MIL-B-12233, Class A, Color 1		
5	Container, Reusable Small	8145-01-415-4113	9-1-0142-1	81337	
2	Container, Reusable Medium	8145-01-415-4116	9-1-0142-2	81337	
4	Container, TRICON CWK		9-1-0607	81337	
29	Container, TRICON w/Conn 4 Shelf		PD 8115-0101		
4	Window Sect, TEMPER Fabric Green	8340-01-186-3016	5-4-3352-1	81337	
2	Fly, 16 Ft TEMPER Green	8340-01-186-3018	5-3353-1	81337	
16	Floor, Insulated, 8 Ft, TEMPER	8340-01-186-3025	5-4-3369		
2	Partition, TEMPER	8340-01-186-3032	5-4-3391	81337	
6	Tent TEMPER, 32 Ft, Ty IV, Green	8340-01-196-6272	MIL-T-44271, Ty IV, Green		
4	Intermediate, Sect Liner, TEMPER	8340-01-211-9636	5-4-3367	81337	
4	Extendable Section Frame, TEMPER	8340-01-238-8101	MIL-F-44251, Ty II, Cl 2		
6	Tent TEMPER, 64 Ft, Ty XX, Green		9-1-0621	81337	
100	Ribbon, Flag Surveyor's, Pink	9905-00-194-9703	A-A-1823 - Pink		
86	Shovel, Snow, Plastic, Commercial		9-1-0604	81337	
86	Rake, Snow, Commercial		9-1-0605	81337	
4	Drill, Rotary Hammer		TE74 2061950		
8	Drill Bit		2206373		
34	Cord Ext, 20A 50 Ft Mil to Comm		9-1-0613	81337	
2	Cable Tie, Nylon, 14 Ft, 100 lb		Commercial - Cable Tie, Nylon, 1		
6	Hose, Sply, Cold Pot, Food Prep		9-1-0167	81337	
8	Hose Ay Wwk 1.25 In x 25 Ft Heat Trace		9-1-0610	81337	
8	Hose Ay Wwk 2.5 In x75 Ft Heat Trace		9-1-0608	81337	

12	Hose Ay Pot 1.5 In x 75 Ft Heat Trace		9-1-0612	81337	
400	Wood Stake, 1 In x1 In x6 Ft Lumber		9-1-0614	81337	
6	Heater, 110K BTU/Hr, Port, DF/Kero		3E218D		
320	Extruded Polystyrene R-10 8x2x2		Commercial - Extruded Polystyren		
3	Adapter Kit, TRICON, Wtr Heater		9-1-0609	81337	
1	Endwall, TEMPER, Iso End Open		9-1-0606	81337	
2	Endwall, TEMPER, Vehicle		9-1-0603	81337	
4	Endwall, TEMPER, TRICON		9-1-0602	81337	
4	Driving Bit, Tent Stake		TE-Y-RD 3/4 2207025		
4	Drill Bit		2206571		
4	Stake Driving Tool		9-1-0601	81337	`

Appendix D

FP System Support Package

Item #	Qty	Specification / Part Number (CAGE)	National Stock Number (Reference)	Item Description
1	20	OC114 (81348)	6810-00-242-4770	Calcium Hypochlorite
2	16 pks	U-25410 (12308)	6810-01-044-0315	Reagent, DPD-1
3	6 pks	U-25337 (12308)	6630-01-044-0334	Reagent, Ph Color Indicator
4	1	D-212714-6 (71229)		Sealant, Pipe, Antiseize, metal to metal
5	1	D-212714-23 or 24 or 25 (71229)		Sealant, Pipe, Antiseize, metal to plastic
6	5 1/4 lbs	MIL-G-18709	9150-00-754-2595	Grease, Ball and Roller Bearings
7	5 gal	P-D-680	6850-00-274-5421	Dry Cleaning Solvent
8	35 lbs	MIL-G-10924	9150-00-197-7692	Grease, Automotive and Artillery
9	3	3372165 (36719)		Fuel, Engine Primer
10	600 QT	MIL-L-2104	9150-00-186-6681	Lubricating Oil, Internal Combustion Engine, Tactical Service, OE/HDO 30
11	100	O-S-801; Class 3	6810-00-249-9354	Sulfuric Acid, Electrolyte, for Storage Batteries, 1 Gallon Unit Packs
12	90 Gal.	MIL-A-46153		Antifreeze
13	50			Antifreeze, Nontoxic
14	24	A-A-51	8520-00-129-0803	Soap, Toilet, 4 Oz, Box of 72
15	50	MIL-A-46106, Type I, Group I	8040-01-331-8047	Adhesive, Sealant, Silicone RTV, Tube
16	50	MIL-T-27730, Size II	8030-00-889-3535	Tape, Antiseize, 1/2 In Wide x 260 In L
17	12	MIL-G-12223, Type II	8415-00-753-6552	Gloves, Toxicological Agents Protective, Medium

Appendix E

Conversion Factors and Foreign Units of Measure

Multiply:	**By:**	**To obtain**:
	A	
acres	0.02471	ares
acres	43,560	square feet
acres	4,047	square meters
acres	1.562×10^{-3}	square miles
acres	5645.38	square varas
acres	4,840	square yards
acres	100	square meters
acre-feet	43,560	cubic feet
atmospheres	76.0	centimeters of mercury
atmospheres	29.92	inches of mercury
atmospheres	33.9	feet of water
atmospheres	10,333	kilograms per square meter
atmospheres	14.7	pounds per square inch
atmospheres	1.058	tons per square foot
	B	
bars	9.870×10^{-7}	atmospheres
bars	1	dynes per square centimeter
bars	0.01020	kilograms per square meter
bars	2.089×10^{-3}	pounds per square foot
bars	1.450×10^{-5}	pounds per square inch
board-feet	144 square inches x 1 inch	cubic inches
British thermal units	0.2520	kilogram-calories
British thermal units	777.5	foot-pounds

Multiply:	By:	To obtain:
British thermal units	3.927×10^{-4}	horsepower-hours
British thermal units	1.054	joules
British thermal units	107.5	kilogram-meters
British thermal units	2.928×10^{-4}	kilowatt-hours
British thermal units per minute	12.96	foot-pounds per second
British thermal units per minute	0.02356	horsepower
British thermal units per minute	0. 01757	kilowatts
British thermal units per minute	17.57	watts
British thermal units per square foot per minute	0.1220	watts per square inch
bushels	1.244	cubic feet
bushels	2,150	cubic inches
bushels	0.03524	cubic meters
bushels	4	pecks
bushels	64	pints (dry)
bushels	32	quarts (dry)
	C	
centares	1	square meters
centigrams	0.01	grams
centiliters	0.01	liters
centimeters	0.3937	inches
centimeters	0.01	meters
centimeters	393.7	mils
centimeters	10^{-5}	millimeters
centimeters-dynes	7.233×10^{-5}	centimeter-grams
centimeters-dynes	1.020×10^{-8}	meter-kilograms
centimeter-dynes	7.376×10^{-8}	pound-feet
centimeter-grams	980.7	centimeter-dynes
centimeter-grams	10^{-3}	meter-kilograms

Multiply:	**By:**	**To obtain**:
centimeter-grams	7.233×10^{-3}	pound-feet
centimeters of mercury	0.01316	atmospheres
centimeters of mercury	0.4461	feet of water
centimeters of mercury	136.0	kilograms per square meter
centimeters of mercury	27.85	pounds per square foot
centimeters of mercury	0.1934	pounds per square inch
centimeters per second	1.969	feet per minute
centimeters per second	0.03281	feet per second
centimeters per second	0.036	kilometers per hour
centimeters per second	0.6	meters per minute
centimeters per second	0.02237	miles per hour
centimeters per second	3.728×10^{-4}	miles per minute
centimeters per second per second	0.03281	feet per second per second
centimeters per second per second	0.036	kilometers per hour per second
centimeters per second per second	0.02237	miles per hour per second
circular mils	5.067×10^{-6}	square centimeters
circular mils	7.854×10^{-7}	square inches
circular mils	0.7854	square mils
cord-feet	4 foot x 4 foot x 1 foot	cubic feet
cords	8 foot x 4 foot x 4 foot	cubic feet
cubic centimeters	3.531×10^{-5}	cubic feet
cubic centimeters	6.102×10^{-2}	cubic inches
cubic centimeters	10^{-6}	cubic meters
cubic centimeters	1.308×0^{-6}	cubic yards
cubic centimeters	2.642×10^{-4}	gallons
cubic centimeters	10^{-3}	liters
cubic centimeters	2.113×10^{-3}	pints (liquid)
cubic centimeters	1.057×10^{-3}	quarts (liquid)

Multiply:	**By:**	**To obtain**:
cubic feet	2.832×10^{4}	cubic centimeters
cubic feet	1,728	cubic inches
cubic feet	0.02832	cubic meters
cubic feet	0.03704	cubic yards
cubic feet	7.481	gallons
cubic feet	28.38	liters
cubic feet	59.84	pints (liquid)
cubic feet	29.92	quarts (liquid)
cubic feet per minute	472.0	cubic centimeters per second
cubic feet per minute	0.1247	gallons per second
cubic feet per minute	0.7420	liters per second
cubic feet per minute	62.4	pounds of water per minute
cubic inches	16.39	cubic centimeters
cubic inches	5.787×10^{-4}	cubic feet
cubic inches	1.639×10^{-5}	cubic meters
cubic inches	2.143×10^{-5}	cubic yards
cubic inches	4.329×10^{-3}	gallons
cubic inches	1.639×10^{-2}	liters
cubic inches	0.03463	pints (liquid)
cubic inches	0.01732	quarts (liquid)
cubic meters	10^{6}	cubic centimeters
cubic meters	35.31	cubic feet
cubic meters	61,023	cubic inches
cubic meters	1.308	cubic yards
cubic meters	264.2	gallons
cubic meters	10^{3}	liters
cubic meters	2113	pints (liquid)
cubic meters	1057	quarts (liquid)
cubic yards	7.646×10^{5}	cubic centimeters

Multiply:	By:	To obtain:
cubic yards	27	cubic feet
cubic yards	46,656	cubic inches
cubic yards	0.7646	cubic meters
cubic yards	202.0	gallons
cubic yards	764.6	liters
cubic yards	1616	pints (liquid)
cubic yards	807.9	quarts (liquid)
cubic yards per minute	0.45	cubic feet per second
cubic yards per minute	3.367	gallons per second
cubic yards per minute	12.74	liters per second
	D	
days	24	hours
days	1440	minutes
days	86,400	seconds
decigrams	0.1	grams
deciliters	0.1	liters
decimeters	0.1	meters
degrees (angle)	60	minutes
degrees (angle)	0.01745	radians
degrees (angle)	3600	seconds
degrees per second	0.01745	radians per second
degrees per second	0.1667	revolutions per minute
degrees per second	0.002778	revolutions per second
dekagrams	10	grams
dekaliters	10	liters
dekameters	10	meters
drams	1.772	grams
drams	0.0625	ounces
dynes	1.020×10^{-3}	grams

Multiply:	By:	To obtain:
dynes	7.233×10^{-5}	poundals
dynes	2.248×10^{-6}	pounds
dynes per square centimeter	1	bars
	E	
ergs	9.486×10^{-11}	British thermal units
ergs	1	dyne-centimeters
ergs	7.376×10^{-8}	foot-pounds
ergs	1.020×10^{-3}	gram-centimeters
ergs	10^{-7}	joules
ergs	2.390×10^{-11}	kilogram-calories
ergs	1.020×10^{-8}	kilogram-meters
ergs per second	5.692×10^{-9}	British thermal units per minute
ergs per second	4.426×10^{-6}	foot-pounds per minute
ergs per second	7.376×10^{-8}	foot-pounds per second
ergs per second	1.341×10^{-10}	horsepower
ergs per second	1.434×10^{-9}	kilogram-calories per minute
ergs per second	10^{-10}	kilowatts
	F	
fathoms	6	feet
feet	30.48	centimeters
feet	12	inches
feet	0.3048	meters
feet	36	varas
feet	1/3	yards
feet of water	0.02950	atmospheres
feet of water	0.8826	inches of mercury
feet of water	304.8	kilograms per square meter
feet of water	62.43	pounds per square foot

Multiply:	By:	To obtain:
feet of water	0.4335	pounds per square inch
feet per minute	0.5080	centimeters per second
feet per minute	0.01667	feet per second
feet per minute	0.01829	kilometers per hour
feet per minute	0.3048	meters per minute
feet per minute	0.01136	miles per hour
feet per second	30.48	centimeters per second
feet per second	1.097	kilometers per hour
feet per second	0.5921	knots per hour
feet per second	18.29	meters per minute
feet per second	0.6818	miles per hour
feet per second	0.01136	miles per minute
feet per 100 feet	1	percent grade
feet per second per second	30.48	centimeters per second per second
feet per second per second	1.097	kilometers per hour per second
feet per second per second	0.3048	meters per second per second
feet per second per second	0.6818	miles per hour per second
foot-pounds	1.268×10^{-3}	British thermal units
foot-pounds	1.356×10^{7}	ergs
foot-pounds	5.050×10^{-7}	horsepower-hours
foot-pounds	1.356	joules
foot-pounds	3.241×10^{-4}	kilogram-calories
foot-pounds	0.1383	kilogram-meters
foot-pounds	3.766×10^{-7}	kilowatt-hours
foot-pounds per minute	1.286×10^{-3}	British thermal units per minute
foot-pounds per minute	0.01667	foot-pounds per second
foot-pounds per minute	3.030×10^{-5}	horsepower

Multiply:	By:	To obtain:
foot-pounds per minute	3.241×10^{-4}	kilogram-calories per minute
foot-pounds per minute	2.260×10^{-5}	kilowatts
foot-pounds per second	7.717×10^{-2}	British thermal units per minute
foot-pounds per second	1.818×10^{-3}	horsepower
foot-pounds per second	1.945×10^{-2}	kilogram-calories per minute
foot-pounds per second	1.356×10^{-3}	kilowatts
furlongs	40	rods
	G	
gallons	3,785	cubic centimeters
gallons	0.1337	cubic feet
gallons	231	cubic inches
gallons	3.785×10^{-3}	cubic meters
gallons	4.851×10^{-3}	cubic yards
gallons	3.785	liters
gallons	8	pints (liquid)
gallons	4	quarts (liquid)
gallons per minute	2.228×10^{-3}	cubic feet per second
gallons per minute	0.06308	liters per second
gills	0.1183	liters
gills	0.25	pints (liquid)
grains (troy)	1	grains (average)
grains (troy)	0.06480	grams
grains (troy)	0.04167	pennyweights (troy)
grams	980.7	dynes
grams	15.43	grains (troy)
grams	10^{-3}	kilograms
grams	10^{3}	milligrams
grams	0.03527	ounces

Multiply:	By:	To obtain:
grams	0.03215	ounces (troy)
grams	0.07093	poundals
grams	2.205×10^{-3}	pounds
gram-calories	3.968×10^{-3}	British thermal units
gram-centimeters	9.302×10^{-3}	British thermal units
gram-centimeters	980.7	ergs
gram-centimeters	7.233×10^{-3}	foot-pounds
gram-centimeters	9.807×10^{-5}	joules
gram-centimeters	2.344×10^{-8}	kilogram-calories
gram-centimeters	10^{-5}	kilogram-meters
grams per centimeter	5.6×10^{-3}	pounds per inch
grams per cubic centimeter	62.43	pounds per cubic foot
grams per cubic centimeter	0.3613	pounds per cubic inch
grams per cubic centimeter	3.405×10^{-7}	pounds per mil-foot
	H	
hectares	2.471	acres
hectares	1.076×10^{5}	square feet
hectograms	100	grams
hectoliters	100	liters
hectometers	100	meters
hectowatts	100	watts
hemispheres (solid angle)	0.5	sphere
hemispheres (solid angle)	4	spherical right angles
hemispheres (solid angle)	6.283	steradians
horsepower	42.44	British thermal units per minute
horsepower	33,000	foot-pounds per minute
horsepower	550	foot-pounds per second
horsepower	1.014	horsepower (metric)

Multiply:	By:	To obtain:
horsepower	10.70	kilogram-calories per minute
horsepower	0.7457	kilowatts
horsepower	745.7	watts
horsepower (boiler)	33,520	British thermal units per hour
horsepower (boiler)	9.804	kilowatts
horsepower-hours	2,547	British thermal units
horsepower-hours	1.98×10^6	foot-pounds
horsepower-hours	2.684×10^6	joules
horsepower-hours	641.7	kilogram-calories
horsepower-hours	2.737×10^5	kilogram-meters
horsepower-hours	0.7457	kilowatt-hours
hours	60	minutes
hours	3,600	seconds
	I	
inches	2.540	centimeters
inches	10^3	mils
inches	0.03	varas
inches of mercury	0.03342	atmospheres
inches of mercury	1.133	feet of water
inches of mercury	345.3	kilograms per square meter
inches of mercury	70.73	pounds per square foot
inches of mercury	0.4912	pounds per square inch
inches of water	0.002458	atmospheres
inches of water	0.07355	inches of mercury
inches of water	25.40	kilograms per square meter
inches of water	0.5781	ounces per square inch
inches of water	5.204	pounds per square foot
inches of water	0.03613	pounds per square inch

Multiply:	By:	To obtain:
	J	
joules	9.486×10^{-4}	British thermal units
joules	10^{7}	ergs
joules	0.7376	foot-pounds
joules	2.390×10^{-4}	kilogram-calories
joules	0.1020	kilogram-meters
joules	2.778×10^{-4}	watt-hours
	K	
kilograms	980,665	dynes
kilograms	10^{3}	grams
kilograms	70.93	poundals
kilograms	2.2046	pounds
kilograms	1.102×10^{-3}	tons (short)
kilogram-calories	3.968	British thermal units
kilogram-calories	3,088	foot-pounds
kilogram-calories	1.588×10^{-3}	horsepower-hours
kilogram-calories	4,183	joules
kilogram-calories	426.6	kilogram-meters
kilogram-calories	1.162×10^{-3}	kilowatt-hours
kilogram-calories per minute	51.43	foot-pounds per second
kilogram-calories per minute	0.09351	horsepower
kilogram-calories per minute	0.06972	kilowatts
kilogram-centimeters squared	2.373×10^{-3}	pounds-feet squared
kilogram-centimeters squared	0.3417	pounds-inches squared
kilogram-meters	9.302×10^{-3}	British thermal units
kilogram-meters	9.807×10^{7}	ergs
kilogram-meters	7.233	foot-pounds
kilogram-meters	9.807	joules
kilogram-meters	2.344×10^{-3}	kilogram-calories

Multiply:	**By:**	**To obtain**:
kilogram-meters	2.742×10^{-6}	kilowatt-hours
kilograms per cubic meter	10^{-3}	grams per cubic centimeter
kilograms per cubic meter	0.06243	pounds per cubic foot
kilograms per cubic meter	3.613×10^{-5}	pounds per cubic inch
kilograms per cubic meter	3.405×10^{-10}	pounds per mil foot
kilograms per meter	0.6720	pounds per foot
kilograms per square meter	9.678×10^{-5}	atmospheres
kilograms per square meter	98.07	bars
kilograms per square meter	3.281×10^{-3}	feet of water
kilograms per square meter	2.896×10^{-3}	inches of mercury
kilograms per square meter	0.2048	pounds per square foot
kilograms per square meter	1.422×10^{-3}	pounds per square inch
kilograms per square millimeter	10^{6}	kilograms per square meter
kilolines	10^{3}	maxwells
kiloliters	10^{3}	liters
kilometers	10^{5}	centimeters
kilometers	3281	feet
kilometers	10^{3}	meters
kilometers	0.6214	miles
kilometers	1093.6	yards
kilometers per hour	27.78	centimeters per second
kilometers per hour	54.68	feet per minute
kilometers per hour	0.9113	feet per second
kilometers per hour	0.5369	knots per hour
kilometers per hour	16.67	meters per minute
kilometers per hour	0.6214	miles per hour
kilometers per hour per second	27.78	centimeters per second per second
kilometers per hour per second	0.9113	feet per second per second

Multiply:	By:	To obtain:
kilometers per hour per second	0.2778	meters per second per second
kilometers per hour per second	0.6214	miles per hour per second
kilometers per minute	60	kilometers per hour
kilowatts	56.92	British thermal units per minute
kilowatts	4.425×10^4	foot-pounds per minute
kilowatts	737.6	foot-pounds per second
kilowatts	1.341	horsepower
kilowatts	14.34	kilogram-calories per minute
kilowatts	10^3	watts
kilowatt-hours	3415	British thermal units
kilowatt-hours	2.655×10^6	foot-pounds
kilowatt-hours	1.341	horsepower-hours
kilowatt-hours	3.6×10^6	joules
kilowatt-hours	860.5	kilogram-calories
kilowatt-hours	3.671×10^5	kilogram-meters
knots	51.48	centimeters per second
knots	1.689	feet per second
knots	1.853	kilometers per hour
knots	1.152	miles per hour
	L	
links (engineer' s)	12	inches
links (surveyor' s)	7.92	inches
liters	10^3	cubic centimeters
liters	0.03531	cubic feet
liters	61.02	cubic inches
liters	10^{-3}	cubic meters
liters	1.308×10^{-3}	cubic yards
liters	0.2642	gallons

Multiply:	By:	To obtain:
liters	2.113	pints (liquid)
liters	1.057	quarts (liquid)
liters per minute	5.885×10^{-4}	cubic feet per second
liters per minute	4.403×10^{-3}	gallons per second
$\log_{10}N$	2.303	$\log_E N$ or $ln N$
$\log_E N$ or $ln N$	0.4343	$\log_{10}N$
lumens per square foot	1	foot-candles
	M	
meters	100	centimeters
meters	3.2808	feet
meters	39.37	inches
meters	10^{-3}	kilometers
meters	10^{3}	millimeters
meter-kilograms	9.807×10^{7}	centimeter-dynes
meter-kilograms	10^{5}	centimeter-grams
meter-kilograms	7.233	pound-feet
meters per minute	1.667	centimeters per second
meters per minute	3.281	feet per minute
meters per minute	0.05468	feet per second
meters per minute	0.06	kilometers per hour
meters per minute	0.03728	miles per hour
meters per second	196.8	feet per minute
meters per second	3.281	feet per second
meters per second	3.6	kilometers per hour
meters per second	0.06	kilometers per minute
meters per second	2.237	miles per hour
meters per second	0.3728	miles per minute
meters per second per second	3.281	feet per second per second

Multiply:	By:	To obtain:
meters per second per second	3.6	kilometers per hour per second
meters per second per second	2.237	miles per hour per second
microns	10^{-6}	meters
miles	1.609×10^{5}	centimeters
miles	5,280	feet
miles	1.6093	kilometers
miles	1,760	yards
miles	1900.8	varas
miles per hour	44.70	centimeters per second
miles per hour	88	feet per minute
miles per hour	1.467	feet per second
miles per hour	1.6093	kilometers per hour
miles per hour	0.8690	knots per hour
miles per hour	26.82	meters per minute
miles per hour per second	44.70	centimeters per second per second
miles per hour per second	1.467	feet per second per second
miles per hour per second	1.6093	kilometers per hour per second
miles per hour per second	0.4470	meters per second per second
miles per minute	2682	centimeters per second
miles per minute	88	feet per second
miles per minute	1.6093	kilometers per minute
miles per minute	0.8684	knots per minute
miles per minute	60	miles per hour
milliers	10^{3}	kilograms
milligrams	10^{-3}	grams
milliliters	10^{-3}	liters
millimeters	0.1	centimeters

Multiply:	By:	To obtain:
millimeters	0.03937	inches
millimeters	39.37	mils
mils	0.002540	centimeters
mils	10^{-3}	inches
miner' s inches	1.5	cubic feet per minute
minutes (angle)	2.909×10^{-4}	radians
minutes (angle)	60	seconds (angle)
months	20.42	days
months	730	hours
months	43,800	minutes
months	2.628×10^{6}	seconds
myriagrams	10	kilograms
myriameters	10	kilometers
myriawatts	10	kilowatts
	N	
nautical miles	6067	feet
nautical miles	1.852	kilometers
nautical miles	1.151	miles
nautical miles	2025	yards
	O	
ounces	8	drams
ounces	437.5	grains
ounces	28.35	grams
ounces	0.0625	pounds
ounces (fluid)	1.805	cubic inches
ounces (fluid)	0.02957	liters
ounces (troy)	480	grains (troy)
ounces (troy)	31.10	grams
ounces (troy)	20	pennyweights (troy)

Multiply:	By:	To obtain:
ounces (troy)	0.08333	pounds (troy)
ounces per square inch	0.0625	pounds per square inch
	P	
pennyweights (troy)	24	grains (troy)
pennyweights (troy)	1.555	grams
pennyweights (troy)	0.05	ounces (troy)
perches (masonry)	24.75	cubic feet
pints (dry)	33.60	cubic inches
pints (liquid)	28.87	cubic inches
poundals	13,826	dynes
poundals	14.10	grams
poundals	0.03108	pounds
pounds	444,823	dynes
pounds	7,000	grains
pounds	453.6	grams
pounds	16	ounces
pounds	32.17	poundals
pounds (troy)	0.8229	centimeter-dynes
pound-feet	1.356×10^{7}	centimeter-grams
pound-feet	13,825	meter-kilograms
pound-feet	0.1383	meter-kilograms
pound-feet squared	421.3	kilograms-centimeters squared
pounds-feet squared	144	pounds-inches squared
pounds-inches squared	2.926	kilograms-centimeters squared
pounds-inches squared	6.945×10^{-3}	pounds-feet squared
pounds of water	0.01602	cubic feet
pounds of water	27.68	cubic inches
pounds of water	0.1198	gallons

Multiply:	By:	To obtain:
pounds of water per minute	2.669×10^{-4}	cubic feet per second
pounds per cubic foot	0.01602	grams per cubic centimeter
pounds per cubic foot	16.02	kilograms per cubic meter
pounds per cubic foot	5.787×10^{-4}	pounds per cubic inch
pounds per cubic foot	5.456×10^{-9}	pounds per mil foot
pounds per cubic inch	27.68	pounds per cubic centimeter
pounds per cubic inch	2.768×10^{4}	kilograms per cubic meter
pounds per cubic inch	1728	pounds per cubic foot
pounds per cubic inch	9.425×10^{-6}	pounds per mil foot
pounds per foot	1.488	kilograms per meter
pounds per inch	178.6	grams per centimeter
pounds per mil foot	2.306×10^{8}	grams per cubic centimeter
pounds per square foot	0.01602	feet of water
pounds per square foot	4.882	kilograms per square meter
pounds per square foot	6.944×10^{-3}	pounds per square inch
pounds per square inch	0.06804	atmospheres
pounds per square inch	2.307	feet of water
pounds per square inch	2.036	inches of mercury
pounds per square inch	703.1	kilograms per square meter
pounds per square inch	144	pounds per square foot
	Q	
quadrants (angle)	90	degrees
quadrants (angle)	5400	minutes
quadrants (angle)	1.571	radians
quarts (dry)	67.20	cubic inches
quarts (liquid)	57.75	cubic inches
quintals	100	pounds
quires	25	Sheets

Multiply:	By:	To obtain:
	R	
radians	57.30	degrees
radians	3438	minutes
radians	0.637	quadrants
radians per second	57.30	degrees per second
radians per second	0.1592	revolutions per second
radians per second	9.549	revolutions per minute
radians per second per second	573.0	revolutions per minute per minute
radians per second per second	9.549	revolutions per minute per second
radians per second per second	0.1592	revolutions per second per second
reams	500	sheets
revolutions	360	degrees
revolutions	4	quadrants
revolutions	6.283	radians
revolutions per minute	6	degrees per second
revolutions per minute	0.1047	radians per second
revolutions per minute	0.01667	revolutions per second
revolutions per minute per minute	1.745×10^{-3}	radians per second per second
revolutions per minute per minute	0.01667	revolutions per minute per second
revolutions per minute per minute	2.778×10^{-4}	revolutions per second per second
revolutions per second	360	degrees per second
revolutions per second	6.283	radians per second
revolutions per second	60	revolutions per minute
revolutions per second per second	6.283	radians per second per second
revolutions per second per second	3600	revolutions per minute per minute

Multiply:	By:	To obtain:
revolutions per second per second	60	revolutions per minute per second
rods	16.5	feet
	S	
seconds (angle)	4.848×10^{-5}	radians
spheres (solid angle)	12.57	steradians
spherical right angles	0.25	hemispheres
spherical right angles	0.125	spheres
spherical right angles	1.571	steradians
square centimeters	1.973×10^{5}	circular mils
square centimeters	1.076×10^{-3}	square feet
square centimeters	0.1550	square inches
square centimeters	10^{-6}	square meters
square centimeters	100	square millimeters
square feet	2.296×10^{-5}	acres
square feet	929.0	square centimeters
square feet	144	square inches
square feet	0.09290	square meters
square feet	3.587×10^{-8}	square miles
square feet	0.1296	square varas
square feet	1/9	square yards
square feet-feet squared	2.074×10^{4}	square inches-inches squared
square inches	1.273×10^{6}	circular mils
square inches	6.452	square centimeters
square inches	6.994×10^{-3}	square feet
square inches	10^{6}	square mils
square inches	645.2	square millimeters
square inches-inches squared	41.62	square centimeters-centimeters squared
square inches-inches squared	4.823×10^{-5}	square feet-feet squared

Multiply:	By:	To obtain:
square kilometers	247.1	acres
square kilometers	10.76×10^{6}	square feet
square kilometers	10^{6}	square meters
square kilometers	0.3861	square miles
square kilometers	1.196×10^{6}	square yards
square meters	2.471×10^{-4}	acres
square meters	10.764	square feet
square meters	3.861×10^{-7}	square miles
square meters	1.196	square yards
square miles	640	acres
square miles	27.88×10^{6}	square feet
square miles	2.590	square kilometers
square miles	3.098×10^{6}	square yards
square millimeters	1.973×10^{3}	circular mils
square millimeters	0.01	square centimeters
square millimeters	1.550×10^{-3}	square inches
square mils	1.273	circular mils
square mils	6.452×10^{-6}	square centimeters
square mils	10^{-6}	square inches
square varas	0.0001771	acres
square varas	7.716049	square feet
square varas	0.0000002765	square miles
square varas	0.857339	square yards
square yards	2.066×10^{-4}	acres
square yards	9	square feet
square yards	0.8361	square meters
square yards	3.228×10^{-7}	square miles
square yards	1.1664	square varas
steradians	0.1592	hemispheres

Multiply:	By:	To obtain:
steradians	0.07958	spheres
steradians	0.6366	spherical right angles
steres	10^3	liters
	T	
temperature (degrees centigrade) + 273	1	absolute temperature (degrees centigrade)
temperature (degrees centigrade) + 17.8	1.8	temperature (degrees Fahrenheit)
temperature (degrees Fahrenheit) + 460	1	absolute temperature (degrees Fahrenheit)
temperature (degrees Fahrenheit) - 32	5/9	temperature (degrees centigrade)
tons (long)	1016	kilograms
tons (long)	2240	pounds
tons (metric)	10^3	kilograms
tons (metric)	2205	pounds
tons (short)	907.2	kilograms
tons (short)	2000	pounds
tons (short) per square foot	9765	kilograms per square meter
tons (short) per square foot	13.89	pounds per square inch
tons (short) per square foot	1.406×10^6	kilograms per square meter
tons (short) per square foot	2000	pounds per square inch
	V	
varas	2.7777	feet
varas	33.3333	inches
varas	0.000526	miles
varas	0.9259	yards
	W	
watts	0.05692	British thermal units per minute
watts	10^7	ergs per second

Multiply:	By:	To obtain:
watts	44.26	foot-pounds per minute
watts	0.7376	foot-pounds per second
watts	1.341×10^{-3}	horsepower
watts	0.01434	kilogram-calories per minute
watts	10^{2}	kilowatts
watt-hours	3.415	British thermal units
watt-hours	2655	foot-pounds
watt-hours	1.341×10^{-3}	horsepower-hours
watt-hours	0.8605	kilogram-calories
watt-hours	367.1	kilogram-meters
watt-hours	10^{-2}	kilowatt-hours
webers	10^{8}	maxwells
weeks	168	hours
weeks	10,080	minutes
weeks	604,800	seconds
	Y	
yards	91.44	centimeters
yards	3	feet
yards	36	inches
yards	0.9144	meters
yards	1.08	varas
years (common)	365	days
years (common)	8760	hours
years (leap)	366	days
years (leap)	8784	hours

FOREIGN UNITS OF MEASURES

Denominations:	Where used:	American equivalents:
	A	
almude	Portugal	4.422 gallons
ardeb	Egypt	5.6188 bushels
are	metric	0.02471 acres
arr' t' l or li' ra	Portugal	1.0119 pounds
arroba	Argentine Republic	25.32 pounds
arroba	Brazil	32.38 pounds
arroba	Cuba	25.36 pounds
arroba	Paraguay	25.32 pounds
arroba	Venezuela	25.40 pounds
arroba (liquid)	Cuba, Spain, Venezuela	4.263 gallons
arshine	Russia	.28 inches
arshine *(squared)*	Russia	5.44 feet squared
artel	Morocco	1.12 pounds
	B	
baril	Argentine Republic	20.077 gallons
baril	Mexico	20.0787 gallons
barrel	Malta (customs)	11.2 gallons
berkovets	Russia	361.128 pounds
bongkal	Federal Malay States	832 grains
bouw	Sumatra	7,096.5 meters squared
bu	Japan	0.12 inches
bushel	British Empire	1.03205 U.S. bushels
	C	
caffiso	Malta	5.40 gallons
candy	India (Bombay)	569 pounds

Denominations:	Where used:	American equivalents:
candy	India (Madras)	500 pounds
cantar	Egypt	99.05 pounds
cantar	Morocco	112 pounds
cantar	Turkey	124.45 pounds
cantaro	Malta	175 pounds
cast (metric)	metric	3.086 grains
catty	China	1.333-1/3 pounds
catty	Japan	1.32 pounds
catty	Java, Malacca	1.36 pounds
catty	Thailand	2-2/3 pounds
catty (stand)	Thailand	1.32 pounds
catty	Sumatra	2.12 pounds
centaro	Central America	4.2631 gallons
centner	Brunswick	117.5 pounds
centner	Bremen	127.5 pounds
centner	Denmark, Norway	110.23 pounds
centner	Prussia	113.44 pounds
centner	Sweden	93.7 pounds
centner	double or metric	220.46
chetvert	Russia	5.957 bushels
ch' ih	China	12.6 inches
chi' ih (metric)	China	1 meter
cho	Japan	2.451 acres
comb	England	4.1282 bushels
coyan	Thailand	2,645.5 pounds
cuadra	Argentine Republic	4.2 acres
cuadra	Paraguay	94.7 yards
cuadra (square)	Paraguay	1.85 acres
cuadra	Uruguay	1.82 acres

Denominations:	Where used:	American equivalents:
cubic meter	metric	35.3 cubic feet
cwt (hundred weight)	British Empire	112 pounds
	D	
dessiatine	Russia	2.6997 acres
drachma (new)	Greece	15.43 gr., or 1 gram
	F	
fanega (dry)	Ecuador, Salvador	1.5745 bushels
fanega	Chile	2.75268 bushels
fanega	Guatemala, Spain	1.53 bushels
fanega	Mexico	2.57716 bushels
fanega (double)	Uruguay	7.776 bushels
fanega (single)	Uruguay	3.888 bushels
fanega	Venezuela	3.334 bushels
fanega (liquid)	Spain	16 gallons
feddan	Egypt	1.04 acres
frall (rais' s)	Spain	50 pounds
frasco	Argentine Republic	2.5098 quarts (liquid)
frasco	Mexico	2.5 quarts (liquid)
frasila	Zanzibar	35 pounds
fuder	Luxembourg	264.18 gallons
funt	Russia	0.9028 pounds
	G	
gallon	British Empire	1.20094 U.S. gallons
garnice	Poland	1.0567 gallons
gram	metric	15.432 grains
	H	
hectare	metric	2.471 acres
hectolitre (dry)	metric	2.838 bushels
hectolitre (liquid)	metric	26.418 gallons

Denominations:	Where used:	American equivalents:
	J	
jarib	Iran	2.471 acres
joch	Austria (Germany)	1.422 acres
joch	Hungary	1.067 acres
	K	
ken	Japan	5.97 feet
kilogram (kilo)	metric	2.2046 pounds
kilometre	metric	0.62137 miles
klafter	Austria (Germany)	2.074 yards
koku	Japan	5.119 bushels
kwamme	Japan	8.2673 pounds
	L	
last	Belgium (Netherlands)	85.134 bushels
last	England	82.56 bushels
last	Germany	2 metric tons (4,409 + pounds)
last	Prussia	112.29 bushels
last	Scotland, Ireland	82.564 bushels
league (land)	Paraguay	4.633 acres
li	China	1,890 feet
libra (pound)	Argentine Republic	1.0128 pounds
libra	Central America	1.014 pounds
libra	Chile	1.014 pounds
libra	Cuba	1.0143 pounds
libra	Mexico	1.01467 pounds
libra	Peru	1.0143 pounds
libra	Uruguay	1.0143 pounds
libra	Venezuela	1.0143 pounds
litre	metric	1.0567 quarts (liquid)
litre	metric	0.90810 quarts (dry)

Denominations:	Where used:	American equivalents:
livre (pound)	Greece	1.1 pounds
livre	Guiana (Dutch)	(NEED INFORMATION)
load, timber	England	50 cubic feet
lumber, standard	Europe	165 cubic feet, or 1,980 feet b.m.
	M	
manzana	Nicaragua	1.742 acres
manzana	Costa Rica, Salvador	1.727 acres
marc	Bolivia	0.507 pounds
maund	India	82-2/7 pounds
metre	metric	39.37 inches
mil	Denmark	4.68 miles
mil (geographic)	Denmark	4.61 miles
milla	Nicaragua	1.1594 miles
milla	Honduras	1.1493 miles
mina (old)	Greece	2.202 pounds
morgen	Germany	0.63 acres
	O	
oke	Egypt	2.8052 pounds
oke (ocque)	Greece	2.82 pounds
oke	Turkey	2.828 pounds
	P	
pic	Egypt	22.82 inches
picul	Borneo, Celebes	135.64 pounds
picul	China	133-1/3 pounds
picul	Java	136.16 pounds
picul	Philippine Republic	139.44 pounds
pie	Argentine Republic	0.94708 feet
pie	Spain	0.91416 feet

Denominations:	Where used:	American equivalents:
pik	Turkey	27.9 inches
pood	Russia	36.113 pounds
pund (pound)	Denmark	1.102 pounds
	Q	
quart	British Empire	1.20094 quarts (liquid)
quart	British Empire	1.03205 quarts (dry)
quarter	Great Britain	8.256 bushels
quintal	Argentine Republic	101.28 pounds
quintal	Brazil	120.54 pounds
quintal	Castle, Peru	101.43 pounds
quintal	Chile	101.41 pounds
quintal	Mexico	101.47 pounds
quintal	metric	220.46 pounds
R		
rottle	Israel	6.35 pounds
	S	
sack (flour)	England	280 pounds
sangene	Russia	7 feet
salm	Malta	8.2 bushels
se	Japan	0.02451 acres
seer	India	22 - 35 pounds
shaku	Japan	11.9303 inches
sho	Japan	1.91 quarts (liquid)
skalpund	Sweden	0.937 pounds
stone	British Empire	14 pounds
sun	Japan	1.193 inches
	T	
tael kuping	China	575.64 grains (troy)
tan	Japan	2.05 pecks

Denominations:	Where used:	American equivalents:
tchvtert	Russia	5.96 bushels
to	Japan	2.05 pecks
ton	space measure	40 cubic feet
tonde cereals	Denmark	3.9480 bushels
tonda land	Denmark	1.36 acres
tonne	France	2204.62 pounds
tsubo	Japan	35.58 feet squared
tsun	China	1.26 inches
tunna (wheat)	Sweden	4.5 bushels
tunnland	Sweden	1.22 acres
	V	
vara	Argentine Republic	34.0944 inches
vara	Costa Rica, Salvador	32.913 inches
vara	Guatemala	32.909 inches
vara	Honduras	32.593 inches
vara	Nicaragua	33.057 inches
vara	Chile and Peru	32.913 inches
vara	Cuba	33.386 inches
vara	Mexico	32.992 inches
vedro	Russia	2.707 gallons
verst	Russia	0.663 miles
vloka	Poland	41.50 acres
	W	
wey	Scotland and Ireland	41.282 bushels

Appendix F

Sample Template In-Processing Brief

1. **Operations Center**. The Force Provider Operations Center is manned 24-hours a day. The center is your focal point for all actions during your stay in the Force Provider compound. The operations center is centrally located at _____.

2. **Billeting.** Billeting will be provided for each individual in your unit. The billets are climate-controlled TEMPER tents and are equipped with cots only. Individuals must use their own sleeping bags. It is your responsibility to determine sleeping assignments, signing for the equipment, policing up the sleeping areas, and reporting required repairs to the Force Provider Operations Center. Females and males will be billeted in separate tents. The Force Provider Billeting NCO needs a list of your personnel and their billet assignments when you arrive.

3. **Food Service.** Personnel will be fed in the kitchen area set up at the _____ end of the compound. If Force Provider is full to its maximum capacity, your unit may be limited to specific feeding times. Three meals are served daily at the following hours:

Breakfast	0630 – 0930
Lunch	1130 – 1430
Dinner	1600 – 1900

4. **Showers.** There are two shower tents located _____ which are operational from 0600 - 2200 hours, daily. Towels and soap are provided at the shower tent but individuals must provide their own shampoo (which may be purchased at the AAFES Annex). Special hours will be reserved for female showering. You need to let the Force Provider Billeting NCO know how many females are in your unit so he can coordinate showering times.

5. **Laundry.** Soldiers can turn in up to 15 pounds of clothing during a three-day period. Turnaround time on laundry is 24 hours, so plan accordingly. The laundry tent is located _____ (adjacent to the showers) and is open daily from 0600 - 1800. It is each soldier's responsibility to turn in and pick up his clothing. Samples of a 15-pound load of clothing are (these will be posted at the laundry point):

BDU	2 each	BDU Jacket	2 each
BDU Trousers	2 each	BDU Trousers	2 each
Laundry Bag	1 each	BDU Field Jacket	1 each
Socks	5 pair	Laundry Bag	1 each
T-Shirts	5 each	Socks	3 pair
Towels	2 each	T-Shirts	2 each
Underwear	5 each	Underwear	2 each

6. **Latrines.** There are two latrines located _____ which are open 24 hours a day. Toilet paper and a hand-washing station (soap, water, and towels) are located in each latrine.

7. **Medical Facility.** The Dispensary is located _____ . Sick Call will be held twice a day, 0700 - 1000 and 1300 - 1500. Medical personnel will provide instructions and appointments for follow-up treatment. Emergency medical care is available at the Dispensary. After 1800, contact the Force Provider Operations Center.

8. **Religious Services.** A TEMPER tent is provided for use as a chapel. Force Provider does not have an assigned Chaplain; however, the Unit's chaplain may contact the Force Provider Operations Center for use of the Chapel.

9. **Force Provider Exchange.** The Army/Air Force Exchange Service has space to run a Post Exchange Annex. The store is located _____ . The store is stocked with personal hygiene items, cigarettes, snacks, nonalcoholic beverages, and other assorted items, as space allows.

10. **Alcohol.** There will be no alcoholic beverages available or allowed in the Force Provider compound.

11. **Telephones.** Credit card telephones are available for use and are located next to the Post Exchange Annex.

12. **Banking Services.** An automatic teller machine is located in the Post Exchange area for soldiers use.

13. **Military Personnel Services.** Finance, personnel, mail drop, and legal services are provided in tent # ____ .

14. S**ecurity.** It is the soldier's responsibility to provide security for weapons, ammunition, vehicles, and his unit's equipment. A TRICON shelter #____, located next to the Force Provider Operations Center, is provided for soldier use as an arms room. Soldiers should coordinate with the Operations Center for space required to secure their unit equipment and vehicles. Individuals are responsible for safeguarding personal belongings.

15. **Site Operations.** Normal site functions, such as kitchen police and latrine clean-up, are provided by HNS or contractors. In the event that HNS or contractor support is not available, your unit may be required to provide personnel for kitchen police and latrine clean-up details. The user unit will:

    a. Provide fire/security guards for their sleeping areas. Fire extinguishers are located throughout the Force Provider area.
    b. Be provided space near the Force Provider Operations Center for their orderly room and charge of quarters.
    c. Be responsible for emptying trash cans and general police of sleeping areas and other areas used for unit functions.

16. **Training Support.** A training area is available for your use. Coordinate your needs with the Operations Center.

17. **Morale, Welfare, and Recreation.** To get the hours of operation, schedule time, or sign out equipment, check with the MWR staff located at _____ .

18. **Environmental Protection.** Users of Force Provider shall consider environmental protection in high regard. Extreme care should be exercised during all activities (recreation, training, work details) to protect the environment and integrity of this site.

19. **Miscellaneous.**

a. Smoking. No smoking is allowed in the sleeping areas. Butt cans are provided outside the tents and in smoking areas. Smoking and nonsmoking areas in the Force Provider compound are clearly marked.
b. Announcements. A public address system is located at the Operations Center where announcements can be coordinated.
c. Helipad. Use of the helipad will be coordinated with the Operations Center. The Force Provider does not have organic capability to refuel or re-arm helicopters.
d. Guests. Guests will be signed in at the Operations Center. Your unit is responsible for the conduct of all guests.

20. **Other Provisions.** Any provisions not covered in this brief will be addressed on a case-by-case basis by the Force Provider Company commander.

Glossary

AAFES	Army and Air Force Exchange Service
AAR	after action review
AC	Active Component
AHA	Ammunition Holding Area
AMC	Army Materiel Command
AO	area of operation
APOD	airport of debarkation
ATM	automated teller machine
ASB	Area Support Battalion
ASC	Ammunition Supply Company
ASH	army space heater
ASCC	Army Service Component Commander
ASG	area support group
ASIOE	associated support items of equipment
Bn	battalion
BDAR	battle damage assessment and repair
BSB	Base Support Battalion
BTU	British Thermal Unit
CARC	chemical agent retardant coating
CBL	containerized batch laundry
CCA	contract construction agent
CESP	civil engineering support plan
CFSC	community and family Support Center
CLS	containerized latrine system
COMSEC	communication security
CONUS	continental United States
COSCOM	Corps Support Command
COSIS	care of systems in storage
COTS	commercial off-the-shelf

CREST	contingency real estate support team
CSG	corps support group
CSS	combat service support
DA	Department of the Army
DCSLOG	Deputy Chief of Staff Logistics
DSA	division support area
DRMO	defense reutilization and marketing office
DISCOM	Division Support Command
DS	direct support
EAC	echelon above corps
EBS	environmental baseline survey
ECAS	environmental compliance assessment system
ECO	environmental compliance officer
ECU	environmental control unit
EEFI	essential elements of friendly information
FARE	forward area refueling equipment
FM	field manual
FMTV	family medium tactical vehicles
FORSCOM	Force Command
FP	Force Provider
G3, G4	Assistant Chief Of Staff, G3 (G4)
GFE	government-furnished equipment
GPM	gallons per minute
GS	general support
HAZCOM	hazardous communications
HAZMAT	hazardous material
HAZMIN	hazardous waste minimization
HET	heavy equipment transporters
HMMWV	high-mobility multipurpose wheeled vehicle
HNS	host nation support
HNSA	host nation support agreement
HQ	headquarters

HW	hazardous waste
ISCP	installation spill contingency plan
ISO	international organization for standardization
ISP	interim support package
JTF	joint task force
KP	kitchen police
kW	kilowatt (1000 watts)
LIC	low intensity conflict
LOC	lines of communication
LOGCAP	Logistics Civil Augmentation Program
LSE	logistics support element
MACOM	Materiel Army Command
MAST	maintain, account, sustain, and train
METL	mission essential task list
METT-T	mission, enemy, troops, time, and terrain
MHE	material handling equipment
MIS	Management Information System
MMSA	Material Management Support Activity
MOGAS	motor gasoline
MOS	military occupational specialist
MP	Mission Profile, Also Military Police
MSB	Main Support Battalion
MSDS	material safety data sheet
MTOE	Modified Table Of Organization And Equipment
MWR	morale, welfare, and recreation
NAVFAC	naval facility
NBC	nuclear biological chemical
NCO	noncommissioned officer
NEO	noncombatant evacuation operations
NEPA	National Environmental Policy Act
NFPA	National Fire Protection Association
OCONUS	outside continental united states

OMS	operational mode summary
OPLAN	operations plan
OPORD	operation order
ORD	operational requirements document
OSHA	Occupational Safety and Health Agency
P3I	preplanned product improvement
PDISE	Power Generation And Distribution Illumination System, Electric
PLL	prescribed load list
PMCS	preventive maintenance checks and services
POC	point of contact
POL	petroleums, oils, and lubricants
QM	Quartermaster
RC	Reserve Component
RPMA	real property maintenance activities
ROM	rough order of magnitude
S&S BN	Supply And Services Battalion
SASO	stability and support operations
SEP	sewage ejection pump
SOFA	status of forces agreement
SOI	signal operations instructions
SOP	standing operating procedure
SPOD	seaport or debarkation
SSL	shop stock list
SSP	system support package
STAMIS	Standard Army Management Information System
TAACOM	Theater Area Army Command
TAMMS	the Army Maintenance Management System
TEMPER	tent, extendable, modular, personnel
TM	technical manual
TOPNS	theater of operations
TOE	table of organization and equipment
TRICON	triple container

TQG	tactical quiet generators
USACE	United States Army Corps of Engineers
USAR	United States Army Reserve
USARC	United States Army Reserve Command
WWVT/T	waste waster vacuum tank/trailer
XO	executive officer

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