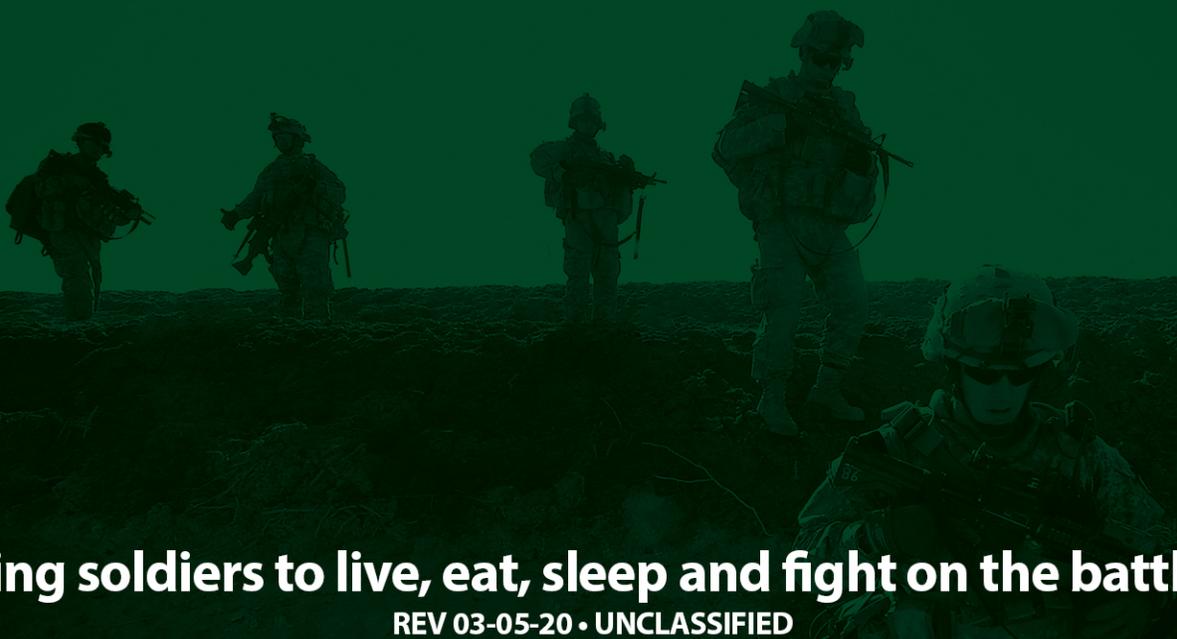




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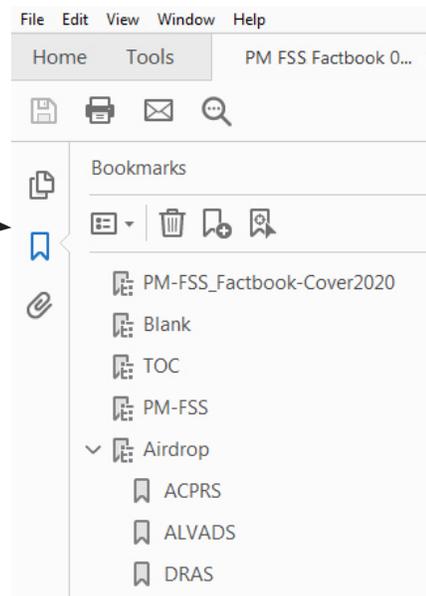


**Enabling soldiers to live, eat, sleep and fight on the battlefield!**

REV 03-05-20 • UNCLASSIFIED



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# PM FSS

UNITED STATES ARMY  
PRODUCT MANAGER  
FORCE SUSTAINMENT SYSTEMS



## U.S. ARMY PRODUCT MANAGER FORCE SUSTAINMENT SYSTEMS (PM-FSS)

### MISSION:

Deliver Expeditionary Force Sustainment through effective fleet management in order to support the readiness of our Army now and into the future. Remain flexible and adaptable to change and modernize at the speed and scale required to efficiently and effectively deliver modern critical sustaining capabilities to Soldiers

### VISION:

Integrate and align our resources in order to take care of Soldiers through expeditionary, modular, and scalable life support capabilities that can quickly deploy and redeploy anytime and anywhere .

### VALUES:

Honesty, Respect, Loyalty, Dependability

### ATTRIBUTES:

Adaptable, Flexible, Communicative, Knowledgeable

### FOCUS:

Product Manager Force Sustainment Systems has life cycle management responsibility for more than 45 Acquisition Category (ACAT) III programs with a total budget in excess of \$0.537B over the FY17-22 years. These programs provide direct and indirect life cycle support to Soldiers in virtually any environment to include training, contingency and combat operations. The programs are organized into five different product lines: Field Feeding Equipment, Field Services Equipment, Shelter Systems, Aerial Delivery Systems, and Force Provider. They provide a broad range of Soldier sustainment capability to ensure Soldiers have the proper living conditions, nutrition, supply, hygiene, and clean clothing, resulting in improved combat effectiveness.

### INFORMATION CONTACT:

Product Manager Force Sustainment Systems

DSN 312-206-865 / (508) 206-2865

[usarmy.natick.rdecom-nsrdec.mbx.nati-sfae-css-e2-f@mail.mil](mailto:usarmy.natick.rdecom-nsrdec.mbx.nati-sfae-css-e2-f@mail.mil)

<http://www.peocscss.army.mil/PdMFSS.html>





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PRODUCT MANAGER  
FORCE SUSTAINMENT SYSTEMS



## ADVANCED CARGO PARACHUTE RELEASE SYSTEM (ACPRS)

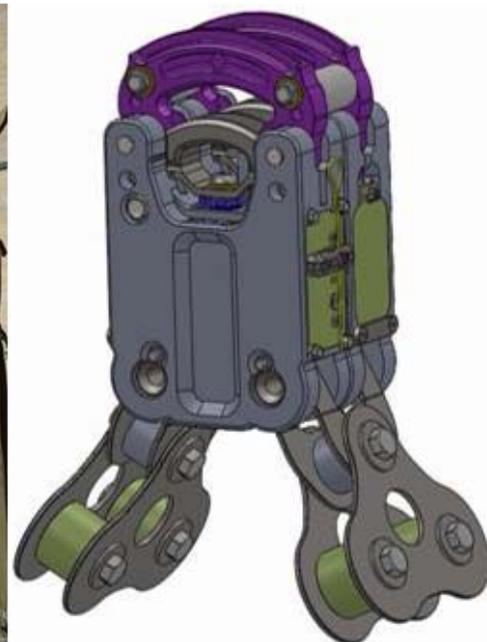
### CAPABILITIES:

Provides capability to conduct Low Velocity Aerial Delivery (LVAD) Operations from altitudes as low as 500 feet AGL for Global Response Force (GRF) missions. Replaces existing M-1 and M-2 Parachute Releases with a more reliable release that improves load survivability in ground winds up to 17 knots.

### DESCRIPTION:

System is an electro-mechanical system that uses an imbedded accelerometer and pressure sensors with an advanced micro-controller to determine when ground impact has occurred and automatically disengages the parachutes. A single system can deliver a suspended load of 25,000 pounds with up to five parachutes. Dual systems are combined together with a simple kit to allow airdrop of loads between 25,000 and 42,000 pounds with 6-8 parachutes.

- **Weight capability:**  
200-42,000 pounds rigged weight
- **Altitude range & speed:**  
As low as 500 feet @ 130-150 KIAS
- **Status/availability:** Type Classified with Full Material Release Transitioned to Sustainment
- **Supportability:** Class II CTA item, will replace M-1 & M-2 parachute releases. Managed by ILSC
- **Special Features:**
  - Omni-directional with increased reliability
  - Compatible with current parachute connectors
- **NSN's**  
ACPRS: 1670-01-608-4698  
Coupling Assy: 1670-01-608-2045



### INFORMATION CONTACT:

#### Expeditionary Support

DSN (312) 206-2895/(508) 206-2895



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FORCE SUSTAINMENT SYSTEMS



## ADVANCED LOW VELOCITY AIRDROP LIGHT & HEAVY, G-16 CARGO PARACHUTE (ALVADS G-16)

### CAPABILITIES:

The ALVADS G-16 was developed as the replacement for the G-11 cargo parachute to allow simultaneous cargo aerial delivery and airborne assault operations of 2,500-42,000 pounds of combat equipment and other supplies from altitudes between 750-975 feet above ground level. The lower airdrop altitude improves aircraft, aircrew, and load survivability in a non-permissive threat environment. ALVADS provides a forced entry capability for Global Response Force.

### DESCRIPTION:

The G-16 is constructed from four unique modules which are hand tied together to assemble the parachute. The modular capability allows the user to remove the damaged module(s), send the damaged portion in for maintenance, and hand tie a replacement in place to keep the canopy in service while the damaged module(s) are repaired



- **Weight capability:**

Light: 2,520 - 22,000 pounds  
(1-4 parachutes)

Heavy: 22,001 - 42,000 pounds  
(5-8 parachutes)

- **Minimum Altitude:**

Light: 750 feet AGL  
Heavy: 975 feet AGL

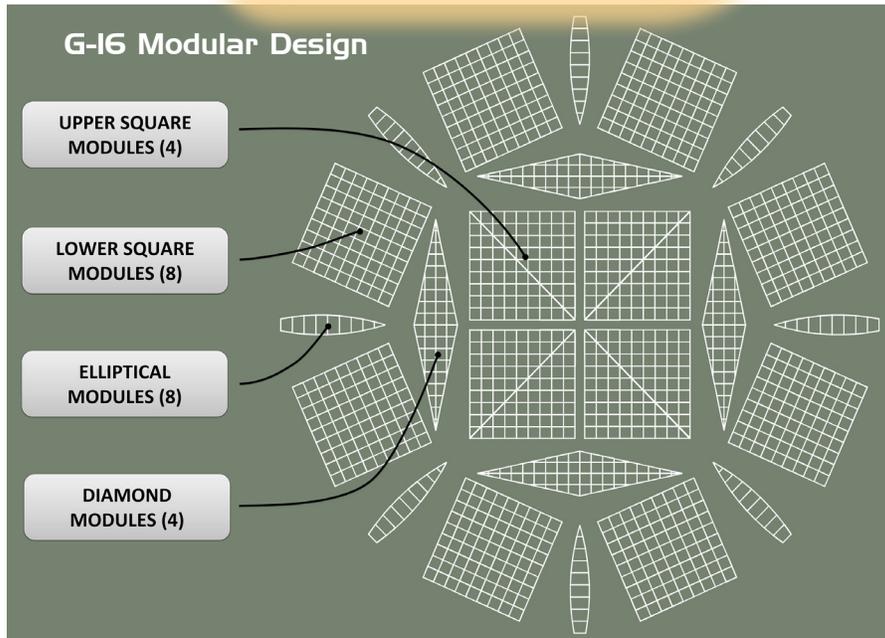
- **G-16 NSN:**

1670-01-657-0128

### INFORMATION CONTACT:

#### Expeditionary Support

DSN (312) 206-2895/(508) 206-2895





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## DUAL ROW AIRDROP SYSTEM (DRAS)

### CAPABILITIES:

Reduces the quantity of C-17s required to support Global Response Force (GRF) missions and tactical insertion times. DRAS maximizes the cargo capability for airdrop by using the C-17s dual logistics rail system vs. single row airdrop rails.

### DESCRIPTION:

Consists of a modified type V airdrop platform (18 feet long by 88 inches wide) utilizing common rigging items and a newly developed outrigger set that prevents platform roll over. DRAS loads are gravity dropped using a static line-deployed 28-foot extraction parachute and modified G-11 parachutes with special reefing.



- **Weight capability:** 7,500 pounds (min) 14,500 pounds (max) rigged
- **Altitude range:** 1,200 feet @ 130-150 knots
- **Weight:** 1,900 pounds (platform and out-riggers)
- **Status/availability:** Fielded 161 sets to meet Global Response Force (GRF) Requirements
- **Supportability:** Item is currently stocked in the Army supply system (Class II Item). ILSC is the Item Manager
- **NSNs:**
  - Outrigger Assembly: 1670-01-487-5464
  - DRAS Panel Assembly: 1670-01-485-1656
  - DRAS Rail: 1670-01-485-1654
  - DRAS Roller Pad: 1670-01-486-1342
  - Static Line Breakaway: 1670-01-499-4464

### INFORMATION CONTACT:

#### Expeditionary Support

DSN (312) 206-2895/(508) 206-2895



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## EXTRACTED HIGH AND LOW SPEED CONTAINER DELIVERY SYSTEM (EHLSCDS)

### CAPABILITIES:

EHLSCDS is a tow plate initiated parachute-extracted airdrop system for delivering Container Delivery System (CDS) payloads with greater accuracy, lower payload dispersion, and decreased threat to the aircraft, aircrew, and ground recovery team. The EHLSCDS is designed for use from cargo aircraft at maximum ramp open airspeed up to 230 Knots from as low as 525 feet above ground level. This capability provides commanders the ability to conduct low altitude, fast and accurate resupply to combat units that allows aircraft to maintain maneuverability, thereby reducing threat exposure.

### DESCRIPTION:

Primary components are the bundle extraction subsystem, the enhanced container and the newly designed main parachute. The extraction subsystem will enable up to eight current A-22 sized CDS bundles to exit the aircraft in a more predictable fashion than conventional gravity released loads increasing accuracy and reducing dispersion.



### Path Forward:

- Full Materiel Release 2QFY19
- Transition to ILSC 4QFY19

### Attributes:

- Attitude Range: Airdrop Altitude 525 AGL – 10,525 feet MSL
- Airdrop Speed: 140 to 230 knots
- Payload Capability: 701 to 2,200 pounds
- Aircraft: C-130J/ C-17

### NSNs:

- G-15 Parachute: 1670-01-647-3116
- 110" Extraction Parachute: 1670-01-647-2680
- A-24 Cargo Bag: 1670-01-650-5347

### INFORMATION CONTACT:

#### Expeditionary Support

DSN (312) 206-2895/(508) 206-2895



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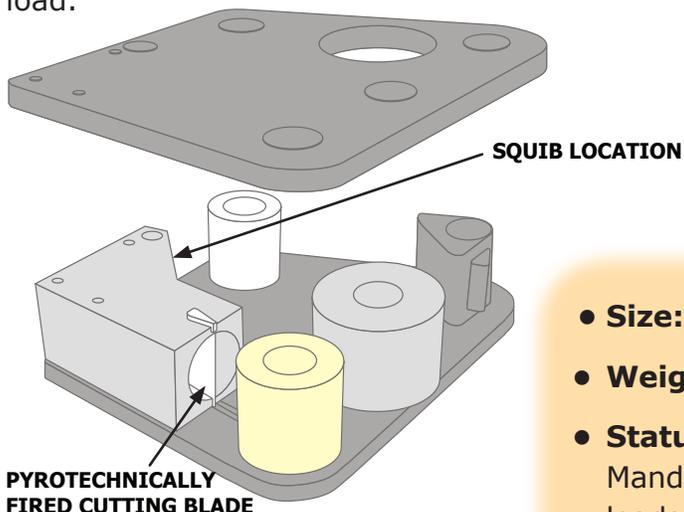
## EXTRACTION PARACHUTE JETTISON SYSTEM – HEAVY (EPJS-H)

### CAPABILITIES:

Provides a remote capability to jettison malfunctioning extraction parachutes (up to a pair of 28 foot extraction parachutes) quickly and safely.

### DESCRIPTION:

A platform-mounted device that integrates a three (3) point link and uses an electronically activated squib to drive a blade through the extraction lines. This action releases the extraction parachute(s) from the airdrop load.



- **Size:** ~10 in x7 in x3 in
- **Weight:** ~20 pounds
- **Status/availability:** Mandatory USAF use on airdrop loads with two 28-foot extraction parachutes.
- **Supportability:** Class II item, available through supply system. ILSC is the Item Manager.
- **NSN:** 1670-01-544-7425



### INFORMATION CONTACT:

#### Expeditionary Support

DSN (312) 206-2895/(508) 206-2895



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## IMPROVED JOINT PRECISION AIRDROP SYSTEM 2,400 LBS (JPADS 2K)

The improved JPADS 2K enhances the capabilities of the previously type-classified JPADS 2K. These new capabilities were rapidly developed to address an urgent user need for improved accuracy and reduce retrograde when utilized in a mountainous combat environment.

### Expendable/One-Time Use Canopy (2K1T)

The JPADS 2K1T Canopy is an expendable, one-time use canopy system compatible with both the Type Classified JPADS 2K system and the new Modular AGU. The 2K1T canopy provides a cost reduction of more than 50% over the current JPADS 2K Canopy, and meets all of the JPADS 2K requirements.

### Modular Autonomous Guidance Unit (MAGU)

The JPADS 2K MAGU is a repackaged, lighter-weight Modular AGU which allows for easier recovery and increased field maintainability as compared to the JPADS 2K AGU which received Type Classified-Standard and Full Materiel Release approval April 2009. The MAGU retains all existing AGU features and meets all JPADS 2K performance requirements, while providing a 37% reduction in AGU weight (57 lbs. vs. 90 lbs.) and a modular design which provides recovery personnel the option to recover a single 12 lb. avionics module (which contains 50% of the AGU cost) if threat or environmental conditions exist which limit the recovery of the entire MAGU.

### Improved Guidance Software w/ Terrain Avoidance Capability

Uses an improved guidance algorithm along with Digital Terrain Elevation Data (DTED) to improve upon the original GPS guidance capability and avoid terrain obstacles in the final 2000 ft of its approach to the target. Accuracy is now less than 100 meters at 80% confidence.

### INFORMATION CONTACT:

#### Expeditionary Support

DSN (312) 206-2895/(508) 206-2895



- **Payload Capability:**  
700 – 2,150 pounds suspended
- **Altitude Range:**  
5,000 feet AGL to 24,500 feet MSL  
3,500 feet minimum AGL for Training Drops
- **Weight:** 57 pounds, 37% weight reduction (MAGU)
- **Status/Availability:**  
Full Materiel Release approved April 2013  
Fleet modification ongoing through FY18
- **NSN:**
  - MAGU:1670-01-609-0728
  - 2K1T: 1670-01-608-8045





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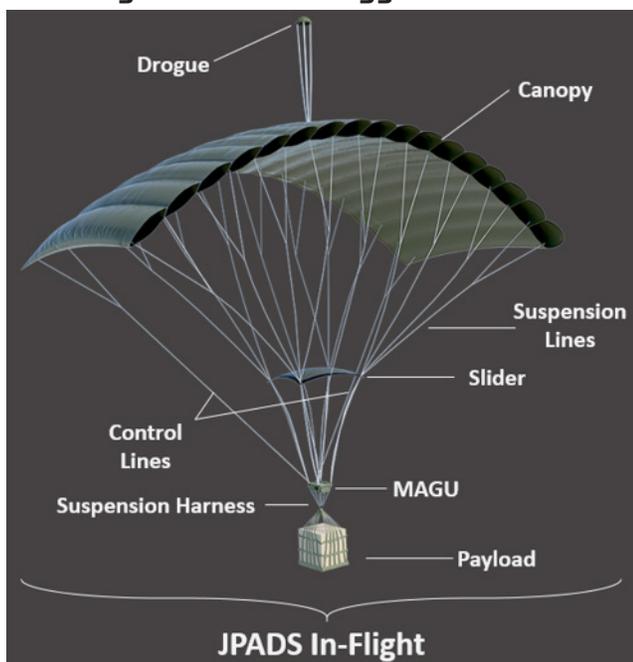


## JOINT PRECISION AIRDROP SYSTEM 2,400 POUNDS, MODULAR (JPADS 2K-M)

### CAPABILITIES:

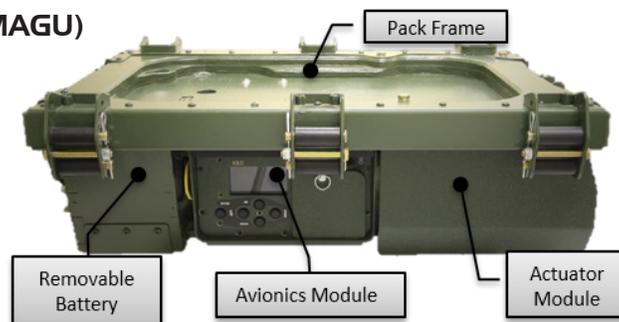
JPADS 2K is a fully autonomous, GPS-guided aerial delivery system consisting of a parafoil and an modular autonomous guidance unit (MAGU). Along with JPADS 10K, it is the only cargo aerial delivery system which can provide high altitude, high precision, and high offset cargo delivery.

Fully Packed and Rigged JPADS 2K



- **Weight Range:**  
700-2,150 Pounds Suspended
- **Altitude Range:**  
• 5,000 feet AGL – 24,500 feet MSL
- **Release distance from DZ:**  
> 20km (wind dependent)
- **NSN:** System 1670-01-609-0728  
Parachute: 1670-01-619-7617  
1T Parachute: 1670-01-608-8045  
MAGU: 1670-01-619-7620  
Battery: 6140-01-610-7622
- **LIN:** J00947

### JPADS Modular Autonomous Guidance Unit (MAGU)



The JPADS 2K MAGU autonomously guides the system with two motors by pulling and releasing left and right control lines. The MAGU's modularity allows it to be broken down into four modules, as shown above, which facilitates maintenance. The avionics module contains all of the electronics including CPU, memory, and mil-GPS. The flight software includes extremely sophisticated guidance, navigation, and control algorithms which can account for wind variations and actively avoid terrain and hazards.

A JPADS 2K system comes with a standard reusable parafoil, but there is a one-time-use, pre-packed parachute (2K1T) with the same capabilities that can be ordered at half the cost for theater use.

### INFORMATION CONTACT:

#### Expeditionary Support

DSN (312) 206-2895/(508) 206-2895

#### JPADS Website:

<https://www.airdrop.mil/>

The JPADS website is CAC enabled with many features such as mission planning, drop zone planning, one-stop document shop, post-mission analysis and more.





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## JOINT PRECISION AIRDROP SYSTEM 10,000 POUNDS (JPADS 10K)

### CAPABILITIES:

JPADS 10K is a fully autonomous, GPS-guided system for precision aerial delivery of payloads up to 9500 lbs., including mass resupply, fuel and light vehicles. The system can be released from high altitudes and offset, with accuracy within 250 m from target.

### DESCRIPTION:

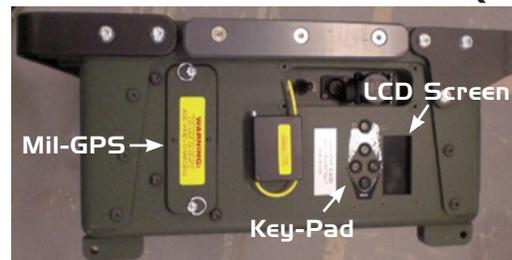
The JPADS 10K AGU autonomously guides the system using GPS and advanced flight software. The system steers by pulling and releasing on control lines which run from the AGU to the main canopy trailing edge. The desired impact point is programmed through the keypad and LCD screen on the AGU.



Packed and Rigged  
JPADS 10K

<b>Canopy Surface Area</b>	3500 sq. ft.
<b>Opening Altitude Loss</b>	500 - 1000 ft.
<b>Max Glide, L/D, No Wind</b>	3.5:1
<b>AGU &amp; Canopy Weight</b>	507 lbs.

### Autonomous Guidance Unit (AGU)



### JPADS 10K Rigging Configurations:

- **Type V Platform:** Payload up to 9500 lbs. Deployed by Gravity or Platform Extraction
- **Four A-22 Containers on 463L or CEP:** Payload suspended – up to 8800 lbs. Gravity Deployment

### INFORMATION CONTACT:

#### Expeditionary Support

DSN (312) 206-2895/(508) 206-2895

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- **Payload Capability:**  
4,500 - 9,500 pound suspended
- **Altitude Range:**  
5,000 ft AGL – 24,500 ft MSL
- **Release distance from DZ:**  
> 20 km (wind dependent)
- **Program Status:**  
Production and Fielding
- **NSN:** 1670-01-600-8309
- **LIN:** J05004



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## LOW COST AERIAL DELIVERY SYSTEM (LCADS)

(ONE-TIME USE/DISPOSABLE/PRE-PACKED PARACHUTES)

ITEM	DESCRIPTION	APPLICATION	AIRCRAFT
<b>Low Cost Container (LCC)</b> <p>COMPATIBLE WITH LCADS &amp; CONVENTIONAL PARACHUTES</p>	<ul style="list-style-type: none"> <li>A-22 Size Container</li> <li>About \$200</li> <li>500-2,200 Pounds</li> <li>NSN 1670-01-523-7246</li> </ul>	<ul style="list-style-type: none"> <li>Container Delivery System (CDS) Loads</li> <li>Low to High Altitude</li> <li>Low or High Velocity Descent</li> <li>Combat Resupply</li> <li>Humanitarian Airdrop</li> </ul>	
<b>Low Cost High Velocity Parachute</b> 	<ul style="list-style-type: none"> <li>About \$700</li> <li>60-90 FPS Descent Rate</li> <li>500-2,200 Pounds</li> <li>NSN 1670-01-529-1202</li> </ul> <p>COMPATIBLE WITH LCC &amp; STANDARD A-22</p>	<ul style="list-style-type: none"> <li>Medium to High Altitude CDS Airdrop (3,000 feet AGL - 25,000 feet MSL)</li> <li>High Velocity (60-90 FPS)</li> <li>Non-Fragile Payloads</li> <li>Combat Resupply</li> <li>Humanitarian Airdrop</li> </ul>	<ul style="list-style-type: none"> <li>C-130</li> <li>C-17</li> </ul>
<b>Low Cost Low Velocity Parachute</b> 	<ul style="list-style-type: none"> <li>About \$2,700</li> <li>&lt;28 FPS Descent Rate</li> <li>500-2,200 Pounds</li> <li>NSN 1670-01-547-0401</li> </ul>	<ul style="list-style-type: none"> <li>Low to Medium Altitude CDS (1,000 feet AGL - 13,000 feet MSL)</li> <li>Low Velocity (&lt;30 FPS)</li> <li>Combat Resupply</li> <li>Humanitarian Airdrop</li> </ul>	
<b>Low Cost Low Altitude Cross Parachute</b> 	<ul style="list-style-type: none"> <li>Includes 4 LCLA Container Straps (NSN 1670-01-554-0755)</li> <li>About \$250</li> <li>80-200 Pounds</li> <li>NSN 1670-01-551-5433</li> </ul>	<ul style="list-style-type: none"> <li>Door Bundle Type Loads</li> <li>Low Velocity (&lt;30 FPS)</li> <li>Very Low Altitude (150-300 feet AGL)</li> <li>Small Unit Combat Resupply</li> <li>Humanitarian Airdrop</li> </ul>	<ul style="list-style-type: none"> <li>C-23</li> <li>C-130 E/H/J</li> <li>CASA 212</li> </ul>
<b>Low Cost Low Altitude 35'/24' Parachutes</b> 	<p>ALSO COMPATIBLE WITH A-7A CONTAINER</p> <ul style="list-style-type: none"> <li>Repurposed excess or out-of-service T10/T10Rs</li> <li>Conversion procedures in TM 10-7670-331-13&amp;P</li> <li>Primary used for garrison training</li> </ul>	<ul style="list-style-type: none"> <li>Cross: single – up to 200 pounds, double – up to 400 pounds, triple – up to 600 pounds</li> <li>24 foot: single – up to 300 pounds, double – up to 600 pounds</li> <li>35 foot: single – up to 500 pounds, double – up to 1000 pounds</li> </ul>	<ul style="list-style-type: none"> <li>CH-46</li> <li>CH-47</li> <li>CH-53</li> <li>M-28/C-145</li> <li>V-22</li> <li>UH-60 (restricted)</li> <li>C-7</li> </ul>

### INFORMATION CONTACT:

Expeditionary Support, DSN (312) 206-2895, (508) 206-2895

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UNITED STATES ARMY  
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FORCE SUSTAINMENT SYSTEMS



## LOW COST LOW ALTITUDE (LCLA) AERIAL DELIVERY SYSTEM

### CAPABILITIES:

Extension of the Low Cost Aerial Delivery System (LCADS) suite of low cost, expendable airdrop systems. Comprised of several parachutes with different weight capabilities.

### DESCRIPTION:

- Cross Parachute is for 80-200 pounds
- Double Cross Parachute is for 201-400 pounds
- Triple Cross is for 401-600 pounds
- T-10 (35-ft diameter cargo) is for 100-500 pounds (Double T-10 is up to 1000 pounds on C-130)
- T-10R (24-ft diameter cargo) is for 80-300 pounds (Double T-10R is up to 600 pounds on C-130)

Approved for use on C-23, C-130, CASA 212, CH-46, CH-47, CH-53 M-28, V-22 and UH-60 aircraft. LCLA chutes are deployed at 150-300 feet Above Ground Level. Parachutes are pre-packed and are expendable, eliminating retrograde and property accountability requirements. The 35-foot and 24-foot parachutes are authorized for repacking and reuse utilizing an expendable Deployment Bag.

#### • **Weight Capability:**

80-1000 pounds

#### • **Altitude Range:**

150-300 AGL

- **Status/availability:** Available through the standard Army Supply System. DLA Managed.

#### • **NSN:**

- Cross Parachute with Container Straps: 1670-01-551-5433
- Container Straps: 1670-01-554-0755
- 35-foot: 1670-01-576-6655
- 24-foot: 1670-01-576-6654
- Expendable Deployment Bag, 35-foot: 1670-01-578-6771
- Expendable Deployment Bag, 24-foot: 1670-01-578-6776



### INFORMATION CONTACT:

#### Expeditionary Support

DSN (312) 206-2895/(508) 206-2895

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UNITED STATES ARMY  
PRODUCT MANAGER  
FORCE SUSTAINMENT SYSTEMS



## ASSAULT KITCHEN (AK)

### CAPABILITIES:

The primary use of the AK is to support company level feeding in light through heavy forces. The AK heats on the move — food is hot and ready to be served on arrival — and will be used to heat and serve rations in a field environment. It provides the ability to serve up to 250 hot Unitized Group Ration Heat & Serve meals and can support multiple unit locations as the tactical and logistical situation permits. It is capable of being set up and feeding in 15 minutes or less and can provide food 56% faster than the older company level kitchen. The AK may also be dismantled to provide hot meals in static locations such as Forward Operating Bases and Combat Outposts. The AK may be used statically to prepare up to 150 limited UGR-A rations using the M59 Field Range and Griddle.

- **Power Requirements:**  
24VDC Vehicle Power
- **Size (LxWxH):**  
20'x20'x8'2"; 267 ft<sup>3</sup> with trailer and HMMWV
- **Weight:** 1500 lbs (dry weight of AK components)
- **Status/availability:** In production and fielding IAW HQDA direction
- **Transportability:** Air, land and sea
- **Supportability:**  
TM 10-7360-230-13&P
- **NSN:** 7360-01-558-3100 (green)
- **LIN:** A94943
- **Joint Interest:** Shares key components and Operational Requirement Document with USMC Tray Ration Heating System (TRHS)

### DESCRIPTION:

The AK consists of a vehicle-mounted tray ration heater, insulated food containers, beverage dispensers, worktables, ice chest, and required utensils. It is transported and operated on a High Mobility Multipurpose Wheeled Vehicle (HMMWV) and Light Tactical Trailer (LTT) combination.

### INFORMATION CONTACT:

**Expeditionary Service Support**  
DSN (312) 206-2843/(508) 206-2843





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UNITED STATES ARMY  
PRODUCT MANAGER  
FORCE SUSTAINMENT SYSTEMS



## BATTLEFIELD KITCHEN (BK)

### CAPABILITIES:

Capable of supporting up to 400 Soldiers with three hot meals per day. The BK was designed to replace the MKT on a one for one basis with improvements in efficiency, air quality, and reduced noise.

### DESCRIPTION:

Utilizes new military standard fuel fired modular appliances that are thermostatically controlled and fully vented. It has a restaurant style exhaust fan and filtered intake air.

The BK is designed to meet the objective when preparing the UGR-A ration but has full capability to prepare a wide variety of rations from heat and serve to line item menus. All appliances are sized for mobility and modularity. It has two ovens, two holding cabinets, two griddles, two steam tables, and two tilt skillet/stove top appliances.

Includes on-board electrical power generation, ventilation of burner and cooking effluent, work surfaces near every appliance, bright LED lighting and reduced noise. It will have an on board hand wash sink as well as a prep sink. It will also have a small amount of refrigerated storage.

The BK mounted on a M1061A1 trailer and is towed by a 2 1/2-ton LMTV (M1078).

The BK is designed with versatility in mind. All components (including exhaust ventilation) can be downloaded from the platform to create a kitchen in a hard structure. Likewise two kitchens can be linked together to form an efficient 800 man capable kitchen.



- **Power Requirements:**  
3kW (includes generator)
- **Size (LxWxH):**  
15'x23'x10'  
(fully expanded)
- **Weight:** 11,500 lbs
- **Status/availability:**  
Currently in development through 2020. The requirement has been cancelled due to Army change in priorities.
- **Transportability:**  
Air, land and sea
- **Supportability:**  
TM 10-7360-226-13&P
- **NSN:**  
7360-01-72-667
- **LIN:** C27633



### INFORMATION CONTACT:

#### Expeditionary Service Support

DSN (312) 206-2843/(508) 206-2843

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UNITED STATES ARMY  
PRODUCT MANAGER  
FORCE SUSTAINMENT SYSTEMS



## CONTAINERIZED ICE MAKING SYSTEM (CIMS)

### CAPABILITIES:

The CIMS is capable of supporting 600 man Force Provider Base Camps by producing 3600lbs of ice per day. The ice is bagged in heat sealed 10lb bags and moved to an internal storage area capable of holding 1200lbs of ice.

### DESCRIPTION:

The CIMS utilizes an all-electric refrigeration unit that is to be runs off an external power source. The CIMS utilizes a 208V 3-phase 50/60HZ AC power source. The CIMS is a TriCon sized ISO container featuring a floor and walls that are fully insulated to minimize the heat transfer through the unit. The container is able to be opened on 3 sides. The CIMS produces 3600lbs of ice per day when provided the required power and water from a potable source. The ice is then bagged in 10lb bags, heat sealed, and moved to a holding location that can support 1200lbs of ice. The storage location includes a platform that is able to monitor the location of ice bags to efficiently pack and store bags. The CIMS features 3 modes, Cooling, Ice Production, and Sanitation. The CIMS is able to produce approx. 150lbs of ice per hour, or can be placed in cool mode to simply store previously produced ice. The sanitation mode includes a feature the purges all the water from the system to prepare the system for cold storage. The system has the capability to monitor ice production rates as well as ice storage temperature data.

### BENEFITS:

- Provide organic ice making capability that will provide a cost savings by producing ice on site than shipping into theatre. Will reduce logistics support and save on waste, fuel, and resources
- Easily deployed and operated where power and water sources are available. Non-MOS specific or 92G operators.
- Easily transported by military or commercial equipment including flatbed truck, railway car, ship, forklift, or any other equipment capable of transporting an ISO container. It has been designed with the prime mover being the Force Provider ATLAS forklift.
- Modular system design, with major sub-components easily removed for replacement or repair. Major sub-components include refrigeration condensing section, refrigeration evaporator, ice production evaporator, electronics control panel, ice bagging and sealing system, and gantry system.
- Refrigeration unit is easily maintainable and utilizes low loss quick disconnect refrigeration tubing for the ability to repair without brazing.

### INFORMATION CONTACT:

#### Expeditionary Service Support

DSN (312) 206-2843/(508) 206-2843

REV 10-29-19 • UNCLASSIFIED

### AT A GLANCE

- **Dimensions:**  
8 ft H x 8 ft L x 6'-5 1/2" W
- **Weight:**  
Approx. 4500lbs
- **Power Requirements:**  
208V, 3-phase, 50/60HZ  
External power source, approx. 16kw spike, 9-10kw nominal
- **Ice Production Capability:**  
3600lbs
- **Ice Storage Capability:**  
1200lbs
- **Refrigerant:** R-407C
- **Supportability:**  
TM -10 & 23&P in development
- **Status/Availability:**  
Currently in development and testing



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- **Power Requirements:**  
10kW (includes generator)
- **Size (LxWxH):**  
25'x23'x11-1/2'  
(fully expanded)
- **Weight:** 20,500 lbs (w/ trailer)
- **Status/availability:** In sustainment
- **Transportability:**  
Air, land and sea
- **Supportability:**  
TM 10-7360-226-13&P
- **NSN:** 7360-01-473-3408
- **LIN:** C27633

## CONTAINERIZED KITCHEN (CK)

### CAPABILITIES:

Capable of supporting up to 800 Soldiers with three hot meals per day. Each CK replaces two Mobile Kitchen Trailers when used in consolidated field feeding operations.

### DESCRIPTION:

Combines existing military standard kitchen equipment and commercial components integrated into an expandable 20' container mounted on a tactical trailer.

Includes on-board electrical power generation, ventilation to exhaust by-products of food preparation and burner exhaust, environmental control, refrigerated storage, and an on-board handwashing sink with hot and cold running water.

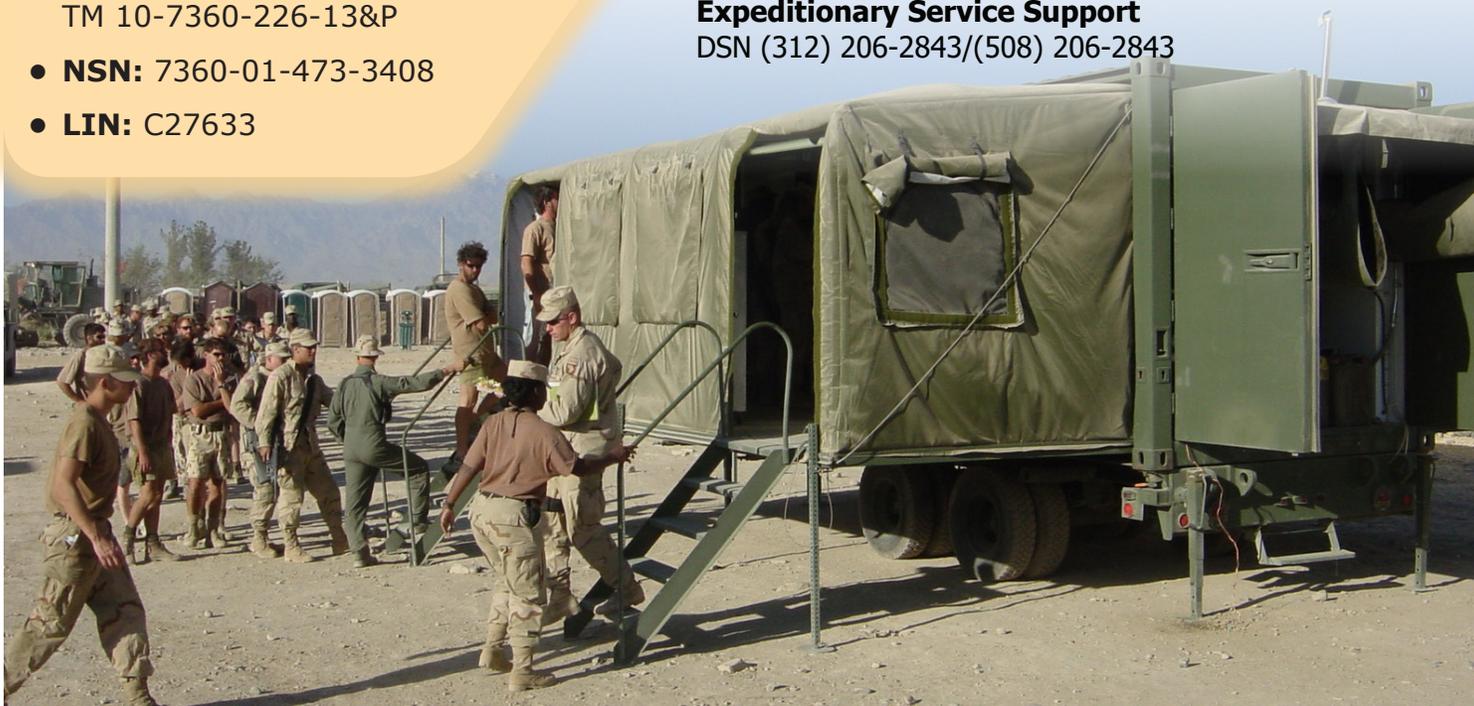
The CK is towed by a 5-ton FMTV (M1083) or M923 cargo truck.

### MODERNIZATION:

Active AMMPS MWO conversion, publication of updated Technical manuals, ECP hardware to improve ventilation systems and CO monitor addition. Replacement winch and winch repair kit qualification.

### INFORMATION CONTACT:

**Expeditionary Service Support**  
DSN (312) 206-2843/(508) 206-2843





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## FOOD SANITATION CENTER (FSC)

### CAPABILITIES:

Provides capability to perform clean up following food service operations in the field. Replaces gasoline burning immersion heaters. Safely and efficiently operates on JP8 fuel.

### DESCRIPTION:

Uses a three-sink sanitation method with each sink at a different temperature for successive cleaning, rinsing, and sanitizing of pots, pans, etc. Includes burners, sinks, storage racks, drain tables and work tables. Housed in a Modular General Purpose Tent System small or TEMPER tent. A carbon monoxide monitor, sink-fill pump, hot surface insulation, National Sanitation Foundation-compliant sinks and grease separator are included.

### UPCOMING CHANGES:

A containerized FSC that can support a 150 man dining facility is being developed in FY19. The system is TRICON based and meets the TRI-SERVICE sanitation codes.

### INFORMATION CONTACT:

**Expeditionary Service Support**  
DSN (312) 206-2843/(508) 206-2843

- **Power Requirements:**  
120VAC
- **Size (LxWxH):** Variable layout arrangement
- **Weight:** 1,400 lbs (approx.)
- **Status/availability:**  
In Operations and Support Phase
- **Transportability:**  
2-1/2 ton or larger truck
- **Supportability:**  
TM 10-7360-211-13&P
- **NSN:** 7360-01-496-2112
- **LIN:** S33399





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## KITCHEN, COMPANY LEVEL, FIELD FEEDING (KCLFF)

### CAPABILITIES:

KCLFF is designed to heat, deliver and serve operational rations for up to 200 Soldiers as the tactical and logistical situation permits. A variety of meal options are possible, ranging from serving remotely prepared meals to cooking limited A-rations.

### DESCRIPTION:

Includes M59 range, cook pot cradle, tray pack heater tank, insulated beverage dispensers, insulated food containers, ice chest, utensils, etc.

Operated by two cooks.

### INFORMATION CONTACT:

#### Expeditionary Service Support

DSN (312) 206-2843/(508) 206-2843



- **Power Requirements:**  
24VDC Vehicle power for battery recharge or MBU operation
- **Weight:** 1,400 lbs
- **Status/availability:** In sustainment; no longer procured
- **Transportability:**  
HMMWV or larger truck
- **Supportability:**  
TM 10-7360-209-13&P
- **NSN:** 7360-01-374-1980
- **LIN:** K28601





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FORCE SUSTAINMENT SYSTEMS



## MODERN BURNER UNIT (MBU)

### CAPABILITIES:

Provides the heat source to safely and efficiently operate field kitchens and sanitation centers on battlefield fuels (JP-8).

### DESCRIPTION:

Direct replacement for the M2 Burner, push button operation, lights in place with electronic ignition, fuels in place, operational in environments from -25°F to 120°F. Power/fuel kits available for each field feeding application. An MBU Tool Kit has been developed to support the operator maintenance functions on the MBU.

### INFORMATION CONTACT:

**Expeditionary Service Support**  
DSN (312) 206-2843/(508) 206-2843

- **Power Requirements:**  
24VDC, 2kW gen set for MKT
- **Size (LxWxH):** 23"×19"×9.75"  
(same as M2 burner)
- **Weight:** 39 lbs empty, 54 lbs fully fueled
- **Status/availability:** Available for requisition
- **Transportability:** Transported inside kitchen
- **Supportability:** TM 9-6115-673-13&P, MBU Tool kit NSN 5180-01-565-2047
- **NSN:** 7310-01-507-9310





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## MOBILE KITCHEN TRAILER (MKT)

### CAPABILITIES:

The MKT is capable of preparing the Unitized Group Ration (UGR) Heat & Serve or UGR-A rations or line item A ration meals serving up to 300 meals three times per day. It is located in Army units with a mission to feed 75 to 300 personnel, typically in an Echelon Above Brigade (EAB) battalion, or separate companies having a field feeding section.

### DESCRIPTION:

The MKT is mounted on the M10I trailer and towed by the Light Medium Tactical Vehicle (LMTV). It includes open combustion cooking appliances that use JP8 burning Modern Burner Units (MBUs) as the heat source. The MKT is collapsible for transport including internal air transport on C130. The roof canopy and platform expand to provide the necessary work space during operations. The fabric cover is provided with screen and the roof has vent assemblies for air circulation. Stair/ladders are provided for access.

### INFORMATION CONTACT:

**Expeditionary Service Support**  
DSN (312) 206-2843/(508) 206-2843

- **Power Requirements:**  
2 KW generator, 120 VAC
- **Size (LxWxH):** 171"x92"x93"  
(travel) 201"x152"x93" (operational)
- **Weight:** 6,100 lbs
- **Status/availability:** In sustainment
- **Transportability:** Air, land and sea
- **Supportability:** TM 10-7360-206-13
- **NSN:** 7360-01-483-8617
- **LIN:** L28351





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- **Power Requirements:**

On-board diesel engine or  
190-230 VAC, 50/60 Hz shore  
power

- **Size (LxWxH):** 20'x8'x8' ISO  
container

- **Weight:** 13,396 lbs empty/39,504  
lb payload

- **Status/availability:** In production,  
with 1,721 systems issued to Army,  
Navy, and APS locations

- **Transportability:** Land, sea & air

- **Supportability:**

TM 10-8145-222-10  
TM 10-8145-222-23  
TM 10-8145-222-23P

- **NSN:**

8145-01-534-3597 (MTRCS01)  
8145-01-592-9018 (MTRCS02)

- **LIN:** M30688

## MULTI-TEMPERATURE REFRIGERATED CONTAINER SYSTEM (MTRCS)

### CAPABILITIES:

MTRCS provides mission-critical refrigeration capability to simultaneously transport frozen and refrigerated products to include rations or medical supplies. MTRCS is operational on the move and includes an integral bale bar for HEMTT-LHS and PLS compatibility.

### DESCRIPTION:

MTRCS consists of a commercial-based combination engine driven/electrical powered 20,500 BTU refrigeration unit; insulated 8'x8'x20' ISO container with a removable partition segregating the 2 temperature zones; cargo restraints; and zone temperature recording device. Provides 155 ft<sup>3</sup> in freezer section and 511 ft<sup>3</sup> in refrigeration section, for a total of 666 ft<sup>3</sup> of storage space.

### INFORMATION CONTACT:

#### Program Officer Field Services & Field Feeding Equipment

DSN (312) 206-2843/(508) 206-2843





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## MOUNTED WATER RATION HEATER (MWRH)

### CAPABILITIES:

Provides vehicle crews with on-board hot water for heating individual rations, preparing beverages, and limited personal hygiene, e.g. shaving.

Helps reduce the logistical footprint in support of deployed forces by providing enhanced subsistence capability for vehicle crews.

### DESCRIPTION:

The MWRH is electrically-powered and thermostatically controlled. It operates similar to a double boiler with the hot water dispensed from a spigot. The MWRH heats one gallon of water in 40 minutes, or 5 MREs and 40 oz. water for beverages in 80 minutes. It can be operated on the move. Currently installed in tracked vehicles and Stryker vehicles.

### INFORMATION CONTACT:

**Expeditionary Service Support**  
DSN (312) 206-2843/(508) 206-2843

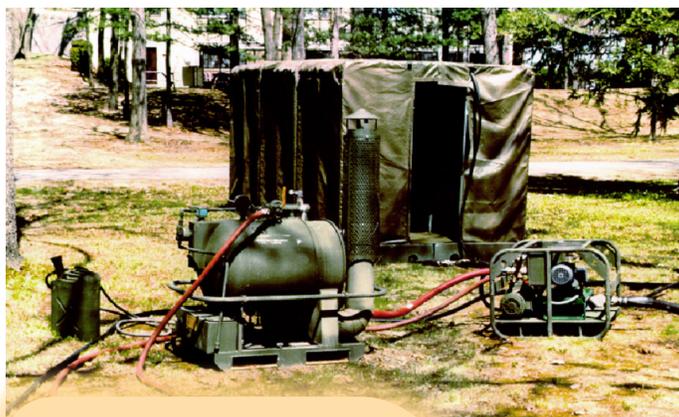
- **Power Requirements:**  
28VDC, 15A max
- **Size (LxWxH):**  
11.5" x 8.5" x 10.5"
- **Weight:** 17 lbs
- **Status/availability:**  
CTA item available from TACOM ILSC.
- **NSN:** 7310-01-387-1305
- **LIN:** W52987





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## BATTLEFIELD 12-HEAD SHOWER

### CAPABILITIES:

Provides the capability for hot showers in the field at a rate of 72 showers (10 minute each) per hour.

### DESCRIPTION:

The 12-Head Shower consists of six 2-man shower stalls made of fiberglass bases with fabric secured over a framework of aluminum tubing. A combination of hose connections and a pump assembly supply water and provides drainage for the shower facility.

Hot water is provided by the diesel/JP8 fired AWH 400 water heater.

### INFORMATION CONTACT:

**Expeditionary Service Support**  
DSN (312) 206-2843/(508) 206-2843

- **Power Requirements:**  
5kW, 208 Volts, 3 phase
- **Size (LxWxH):**  
20'x8'x7'
- **Weight:** 2,000 lbs
- **Status/Availability:**  
Currently in sustainment.
- **NSN:** 4510-01-163-6775
- **LIN:** S62548





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## CONTAINERIZED BATCH LAUNDRY (CBL)

### CAPABILITIES:

Provides capability to wash and dry 200 lbs of clothes per hour, in a clean and safe environment to clean clothing, linens, etc., in support of Army field hospitals. The CBL is equipped with water reuse, recapturing 50% of water used. Capable of collecting the waste water and transferring it up to 500' from the container. Fully transportable by land, air and sea.

### DESCRIPTION:

2-50 lb. washers/extractors, 2-75 lb. dryers (both commercial), water heater, all hoses and connections mounted in an ISO container. A TEMPER tent for laundry sorting is included with lighting, and environmental control.

### INFORMATION CONTACT:

**Expeditionary Service Support**  
DSN (312) 206-2843/(508) 206-2843

- **Power Requirements:**  
100kW, 208 Volt/3-phase
- **Size (LxWxH):** 20'x8'x8'  
ISO compatible container + 16' TEMPER tent
- **Weight:** 16,500 lbs
- **Status/Availability:** Currently in sustainment.
- **Transportability:** Land, air or sea
- **NSN:** 3510-01-527-2209, Green  
3510-01-527-2210, Tan
- **LIN:** C28019





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## EXPEDITIONARY SOLID WASTE DISPOSAL SYSTEM (ESWDS)

### CAPABILITIES:

Capable of on-site disposal of 1000 pounds of non-hazardous, mixed solid waste per day for approximately 92% volume reduction. Supports the 150-person module of the Force Provider Expeditionary product by providing safer alternative to open burn pits and backhauling of waste. ESWDS is designed to be easily set up and operated by MOS-nonspecific soldiers using the Army's All Terrain 10K forklift.

### DESCRIPTION:

The primary chamber of the ESWDS is manually loaded to capacity through a large front door. After loading, the door is sealed shut and electronically locked to avoid unsafe access during operation. The Operator uses simple push-button controls to start the system. The entire operation does not require attendance or operator input after the system is loaded and started. All key operating parameters are controlled by the PLC contained within the ESWDS control panel. The full batch burn cycle consists of a 5 hour burn time followed by a 5 hour cool-down. Pollution is controlled by automatically maintaining the secondary burn chamber at an average of 1600°F. After cool down, the operator removes the ash using provided rakes, shovels, etc. Eye protection and dust masks are also furnished.



- **Power requirements:** Operates on 208VAC, 3 phase. Average power draw: 2.5 KW Peak power draw: 5 KW
- **Fuel requirements:** Uses an average of 60 gallons per day of Diesel or F-34 fuel. One 500-gallon fuel storage bladder is furnished.
- **Size (LxWxH):** 20'x8'x8' (Three Triple Containers (TRICON) joined together). Stack Height from grade is 20 feet.
- **Weight:** Approximately 9500 pounds per TRICON.
- **Status/Availability:** Development completed. Production decision contingent on funding.
- **Transportability:** Being developed for air, land, and sea
- **Supportability:** Operator and maintainer technical manuals under development
- **NSN:** XXXX-XX-XXX-XXXX
- **LIN:** XXXXXX

### INFORMATION CONTACT:

#### Expeditionary Service Support

DSN (312) 206-2843/(508) 206-2843

REV 04-05-19 • UNCLASSIFIED



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## HUMAN REMAINS TEMPERATURE CONTROLLED TRANSFER CASE (HRTC2)

### MISSION:

The Human Remains Temperature Controlled Transfer Case (HRTC2) will protect and maintain human remains at an optimal temperature, with a visible means to ensure the internal temperature is maintained, while in transit from the area of operation to the servicing mortuary. It will be used primarily by Quartermaster Mortuary Affairs companies as an integral part of the equipment used to provide Mortuary Affairs (MA) support to all military services across the range of military operations.

### CHARACTERISTICS/DESCRIPTION:

The HRTC2 will consist of inner and outer shells with insulation in between. The HRTC2 will objectively have a refrigeration unit for cooling. The HRTC2 will be reusable, stackable, and able to be loaded onto an aircraft 463L pallet. The HRTC2 will be capable of hosting automated identification technology (AIT) by use of an approved Radio Frequency Identification (RFID) tag affixed to the case to assist in tracking the human remains throughout the entire evacuation process.

### INFORMATION CONTACT:

#### Expeditionary Service Support

DSN (312) 206-2843/(508) 206-2843



- **Power Requirements:**  
Internal battery power or 120 VAC or 28 VDC external
- **Size:** 86" (L) × 34" (W) × 24" (H) (est. external dimensions)
- **Weight:** 250 lbs (est.)
- **Status/Availability:** Development suspended- Technology development needed
- **NSN:** Not yet assigned
- **LIN:** Not yet assigned





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FORCE SUSTAINMENT SYSTEMS



## LAUNDRY ADVANCED SYSTEM (LADS)

### CAPABILITIES:

Provides capability to clean clothing of 500 Soldiers per day in the field. LADS washes and dries clothing using a dry-to-dry process which washes, extracts, and dries the clothing in the same drum. The laundry water is re-used and recycled via distillation to minimize water consumption and waste water generation. LADS consumes 400 gallons of water per 20-hour day compared to over 20,000 gallons for washing with the predecessor laundry.

### DESCRIPTION:

Two laundry drums and water processing equipment within a 20'x8'x8' ISO frame, fuel tank, storage container and 30kW generator mounted on a M871 trailer.

### INFORMATION CONTACT:

**Expeditionary Service Support**  
DSN (312) 206-2843/(508) 206-2843

- **Power Requirements:**  
30kW Tactical Quiet Generator, 208V AC, 3 Phase, 50/60 Hz
- **Size:** 20'x8'x8' ISO frame mounted on M871 trailer
- **Weight:** 29,800 lbs plus trailer and generator
- **Status/availability:**  
Currently in sustainment
- **NSN:** 3510-01-558-6662
- **LIN:** L70538





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FORCE SUSTAINMENT SYSTEMS



## MOBILE INTEGRATED REMAINS COLLECTION SYSTEM (MIRCS)

### MISSION:

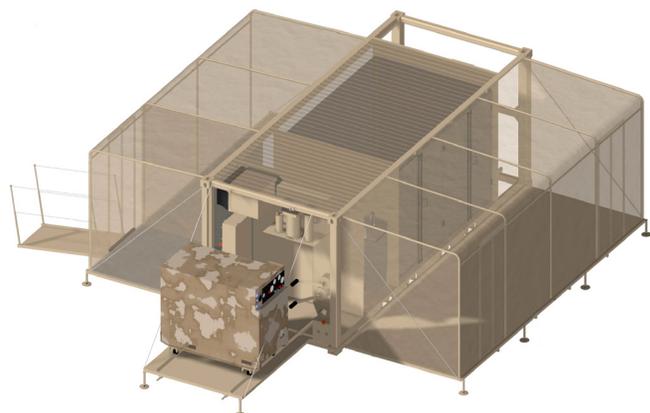
Provides Mortuary Affairs (MA) units with a complete, self-contained, mobile facility to process, initially identify and store human remains and personal effects in support of the full spectrum of military and peacetime disaster support operations. The MIRCS will transform Joint MA operations by providing a system with reduced operational footprint that is deployable, agile, versatile, and sustainable.

### CHARACTERISTICS/DESCRIPTION:

The MIRCS is self-contained in an expandable 8'x8'x20' ISO certified container that is directly compatible with the HEMTT-LHS and Palletized Load System for transport. It is capable of holding up to 16 remains in refrigerated storage and is environmentally controlled. It has a processing area and an administration area as well as onboard storage for supplies. The system is transportable by C-130 or larger aircraft and helicopter sling load and provides refrigeration on the move.

### INFORMATION CONTACT:

**Expeditionary Service Support**  
DSN (312) 206-2843/(508) 206-2843



- **Power Requirements:**  
15kW Tactical Quiet Generator (included)
- **Size:** 20'x8'x8' ISO frame
- **Weight:** 19,240 lbs
- **Status/Availability:** In sustainment
- **NSN:**  
4110-01-534-7675, Green;  
4110-01-534-7676, Tan
- **LIN:** M57970





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FORCE SUSTAINMENT SYSTEMS



## SMALL UNIT SHOWER (SUS)

### CAPABILITIES:

Lightweight, portable shower system provides shower support for small units in forward areas, providing up to 24 showers per hour.

### DESCRIPTION:

- Compact heating unit burns diesel or JP-8 fuels.
- Provides temperature controlled water at 95°F-105°F.
- Air beam supported tent with four individual shower stalls provides privacy and controlled water drainage.
- Set up/tear down by two Soldiers in 15 minutes.

### INFORMATION CONTACT:

#### Expeditionary Service Support

DSN (312) 206-2843/(508) 206-2843



- **Power Requirements:**  
28VDC via NATO slave cable connection to vehicle.
- **Size (LxWxH):**  
Heater: 20" x 13" x 21";  
Shelter: 8' x 12' x 7' (set up), two bags (packed) 35" x 29" x 17" each
- **Weight:** 225 lbs
- **Status/Availability:** CTA item (CTA 50-909), available through supply system by requisition.
- **NSN:** 4510-01-409-0139
- **LIN:** B43946



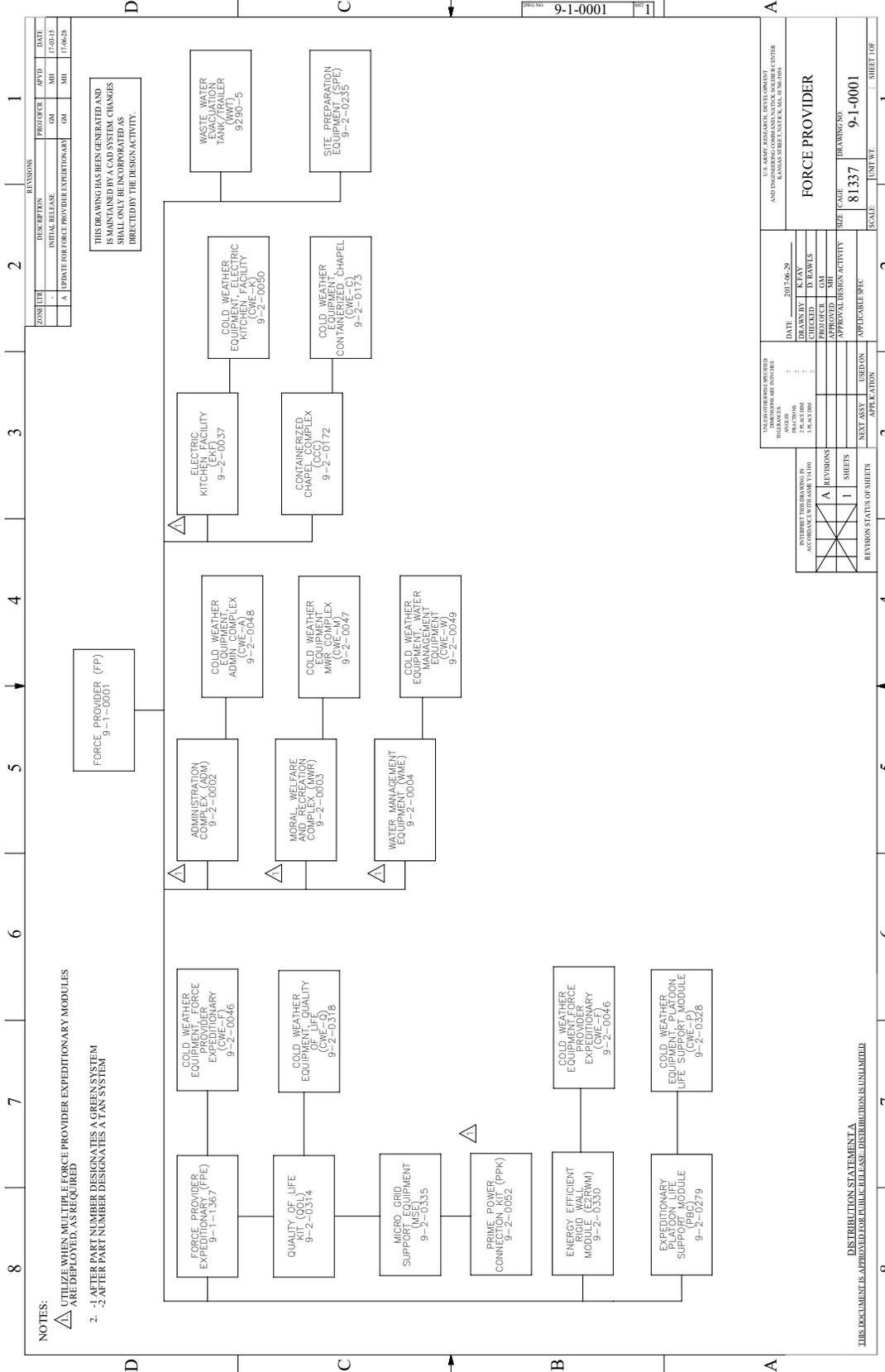


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FORCE SUSTAINMENT SYSTEMS



## FORCE PROVIDER



NOTES:  
 1. UTILIZE WHEN MULTIPLE FORCE PROVIDER EXPEDITIONARY MODULES ARE DEPLOYED, AS REQUIRED.  
 2. -1 AFTER PART NUMBER DESIGNATES A GREEN SYSTEM  
 -2 AFTER PART NUMBER DESIGNATES A TAN SYSTEM

9-1-0001 1

DATE: 2012-06-29 DESIGNED BY: K. FAY CHECKED BY: D. R. KELLY PROJECT: OM APPROVED BY: SHP APPROVAL DESIGN ACTIVITY:		FORCE PROVIDER SHEET NO: 81337 DRAWING NO: 9-1-0001	
U.S. ARMY LOGISTICS SUPPORT CENTER AND ENGINEERING CENTER KANSAS STREET, NETLE, MO, 63106		SCALE: UNIT WT. SHEET 1 OF 1	
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**INFORMATION CONTACT:**  
**Expeditionary Service Support**  
 DSN (312) 206-2886/  
 (508) 206-2886



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FORCE SUSTAINMENT SYSTEMS



## FORCE PROVIDER EXPEDITIONARY

### CAPABILITIES:

Force Provider Expeditionary is a modular base camp life support capability that supports 150 personnel with environmentally controlled billeting, food service, hygiene, power generation and distribution, petroleum and water storage and distribution, and shower water recycling.

### DESCRIPTION:

Force Provider Expeditionary is the Army's Premier Base Camp. The Force Provider concept was born in 1991 as a result of inadequate living conditions for our Soldiers during Operation Desert Shield/Storm. General Sullivan, CSA directed the development of a containerized, highly deployable city. Force Provider Expeditionary provides Soldiers with the basic necessities for living conditions - billet, showers, latrines and laundry, kitchen and their support equipment.

Based on lessons learned from the deployment scenario, the Force Provider Module has evolved from a 600 man camp with limited flexibility in deployment capability, to a 150 Soldier Expeditionary Base Camp with additional Moral, Welfare and Recreational and Administrative support capabilities. Each Expeditionary Base Camp comes complete with water and fuel storage, and distribution systems, and wastewater collection.

Force Provider Expeditionary has provided high quality living conditions in Guatemala, Honduras, Haiti, Guantanamo Bay, Bosnia, Afghanistan, Africa, Iraq and Kuwait.

### INFORMATION CONTACT:

#### Expeditionary Service Support

DSN (312) 206-2886/(508) 206-2886

### Expeditionary Base Module Components:

- Expeditionary Base Camp (150 Soldier)
- Water Management System
- TRICONS: 22 Rev D
  - Expeditionary Latrines System (ELS): 2 each
  - Expeditionary Showers System (ESS): 2 each
  - Expeditionary Batch Laundry (EBL): 1 each
  - Expeditionary TRICON Kitchen System (ETKS): 1 each
- Generators (MEP806B/MEP1070A): 6 each micro-grid configuration

### Module Production & Distribution:

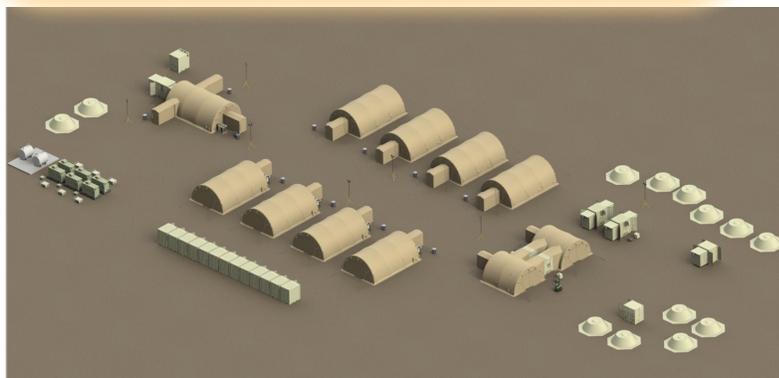
- Production Objective (AAO): 236
- Modules Complete: 236

### Optional Add-On Equipment for Force Provider:

- Morale, Welfare & Recreation Complex
- Administration Complex
- Cold Weather Kit (provides freeze protection down to -15 F)
- Prime Power Kit (US Army Prime Power Battalion high power generator support)
- Electric Kitchen Complex (1800 A rations per day - 600 man camp support)
- Waste Water Trailer (1K waste evacuation trailer - 600 man support)
- Site Preparation Equipment (skid steer loader - 150/600 man camp support)
- Quality of Life Equipment (to meet Senior Warfighter Forum (SWarF) deployment guidelines)
- Water Reuse System (WRS) (to reduce dependence on water resupply missions)

### Force Provider Module NSNs:

- Production Configuration:
  - 5419-01-548-5064 (Tan)
  - 5419-01-548-5063 (Green)





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FORCE SUSTAINMENT SYSTEMS



## FORCE PROVIDER EXPEDITIONARY (FPE) 150 MAN

### CAPABILITIES:

- Completely self-contained, stand-alone system
- 150 man Billeting – TEMPER Air Supported (TAS) tents
- Kitchen/Dining Facilities
- Administration Support Facilities
- Expeditionary TRICON Systems
  - Expeditionary TRICON Kitchen System (ETKS) (1x)
  - Expeditionary Latrine System (ELS) (2x)
  - Expeditionary Shower System (ESS) (2x)
  - Expeditionary Batch Laundry (EBL) (1x)
- Power Generation/Distribution
  - Generators (MEP 806B)/(MEP1070A) (6x)
  - 200AMP Power Distribution Box (6x)
- Fuel Storage/Distribution
  - 1 K Fuel Bladders (4x)
  - Fuel Distribution Pump (1x)

### DEPENDENCIES:

- User provides:
  - Food
  - Potable water
  - Fuel
  - Trash disposal
  - Black Water disposal

### TRANSPORTABLE:

- Land/Rail/Sea/Air
- Meets CSC/ISO requirements

### DEPLOYABLE:

- C-17 compatible
- Rapid set-up – 8 men in 4 hours

### FLEXIBILITY:

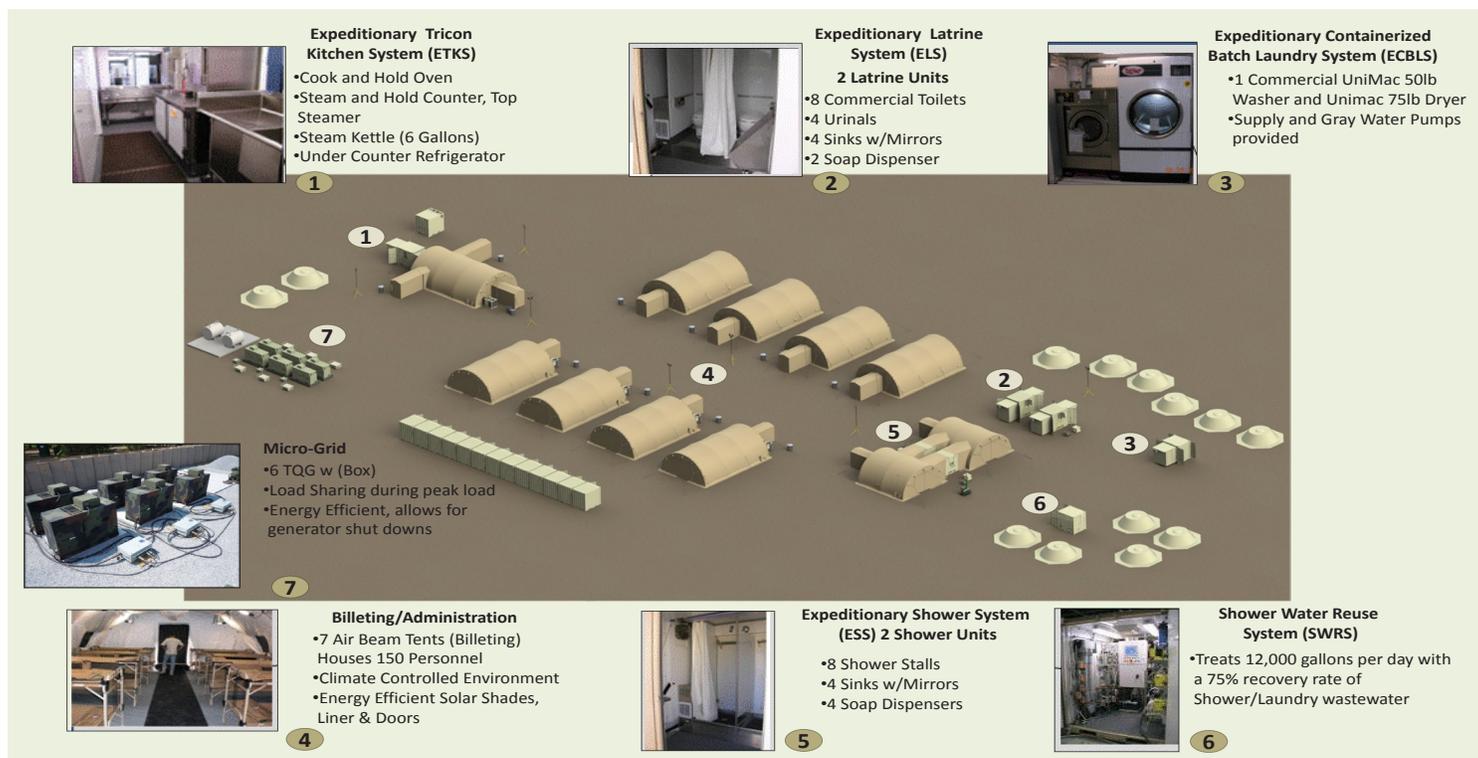
- Complexes into larger facilities through multiple EBCs or other base camp systems
- Additional Add-On capabilities
  - Cold Weather Kit
  - Prime Power Kit

Meets CSA mindset for commonality on the battle field

### INFORMATION CONTACT:

#### Expeditionary Service Support

DSN (312) 206-2886/(508) 206-2886





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FORCE SUSTAINMENT SYSTEMS



## ENERGY EFFICIENT RIGID WALL LIFE SUPPORT MODULE (E2RWLSM)

### CAPABILITIES:

Energy Efficient Rigid Wall Life Support Module is a modular base camp life support capability that supports 150 personnel with environmentally controlled billeting, food service, hygiene, power generation and distribution, petroleum and water storage and distribution.

### DESCRIPTION:

Energy Efficient Rigid Wall Life Support Module provides the basic necessities of living conditions in a field environment – billeting, showers, latrines, kitchen, and their support equipment. Each E2RWLSM comes complete with power generation (micro grid capability) and distribution, water and fuel storage and distribution systems, waste water collection and water reuse capability. Billeting and Administration facilities are expandable 20 FT ISO rigid wall shelters.

### INFORMATION CONTACT:

**Expeditionary Service Support**  
DSN (312) 206-2886/  
(508) 206-2886

### Energy Efficient Rigid Wall Life Support Module Components

- TRICONS: 3 each,
- 20 FT ISO Billeting Module (15 each)
- 20 FT ISO Administration Module (2each)
- TRICON Refrigerated Containers (TRCS): 1 each
- Expeditionary TRICON Systems (3 each)
  - Expeditionary TRICON Kitchen System (ETKS) (1 each)
  - Expeditionary Latrine System(2 each)
  - Expeditionary Shower System (2 each)
  - Expeditionary Self-Serve Laundry (1 each)
  - Water Reuse System (1 each)
- Four 32 ft Airbeam environmentally controlled billeting tents
- One 32 ft Airbeam environmentally controlled tent administration tent
- Kitchen/Dining Facilities
- Power Generation MEP 1070A (6X) with micro grid capability
- Fuel storage/Distribution
  - 1K gallon Fuel Bladders (4 each)
  - Fuel Distribution System (1 each)

### Energy Efficient Rigid Wall Life Support Module Add-On Equipment

- Cold Weather Equipment FPE (Provides freeze protection sown to -15F) NSN: 5419-01-581-2258 (T), 5419-01-580-6932 (G)
- Morale, Welfare and Recreation Complex
- Administration Complex
- Prime Power Kits (US Army Prime Power Battalion Medium Power generator support – 600 man support)
- Electric Kitchen Facility (1800 A rations per day – 600 man support)
- Waste Water Tank/Trailer (1K waste evacuation trailer – 600 man support)
- Site Preparation Equipment (skid steer loader – 150/600 man support)
- Energy Efficient Rigid Wall Life Support Module Dependencies
- User provides
  - Food
  - Fuel
  - Black water disposal
  - Potable water
  - Trash disposal
  - Force Protection

### Energy Efficient Rigid Wall Life Support Module Production Objectives

- War Reserve/Operational Project Stock
- AAO: 24

### Energy Efficient Rigid Wall Life Support Module NSNs:

5419-01-672-8779 (T)  
5419-01-672-8769(G)



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## PLATOON BASE LIFE SUPPORT MODULE (PBLSM)

### CAPABILITIES:

Platoon Base Life Support Module is a modular base camp life support capability that supports 75 personnel with environmentally controlled billeting, food service, hygiene, power generation and distribution, petroleum and water storage and distribution.

### DESCRIPTION:

Platoon Base Life Support Module provides the basic necessities of living conditions in a field environment – billeting, showers, latrines, kitchen, and their support equipment. Each PBLSM comes complete with power generation and distribution, water and fuel storage and distribution systems, and waste water collection.

### INFORMATION CONTACT:

#### Expeditionary Service Support

DSN (312) 206-2886/(508) 206-2886

### Platoon Base Life Support Module Components:

- Rev A: TRICONS: 9 each,
- TRICON Refrigerated Containers (TRCS): 1 each
- Expeditionary TRICON Systems (3 each)
  - Expeditionary TRICON Kitchen System (ETKS) (1X)
  - Expeditionary Latrine System(1X)
  - Expeditionary Shower System (1X)
- Four 32 ft Airbeam environmentally controlled billeting tents
- One 32 ft Airbeam environmentally controlled tent administration tent
- Kitchen/Dining Facilities
- Power Generation MEP 1070A (3X)
- Fuel storage/Distribution
  - 1K gallon Fuel Bladders (2X)
  - Fuel Distribution System (1X)

### Platoon Base Life Support Module Add-On Equipment:

- Cold Weather Equipment PBC Provides freeze protection down to -15F)  
NSN: 5419-01-660-6753 (T),  
5419-01-660-6771 (G)

### Platoon Base Life Support Module Dependencies:

- User provides
  - Food
  - Potable water
  - Fuel
  - Trash disposal
  - Black water disposal
  - Force Protection

### Transportable:

- Land/Sea/Air
- C-17 compatible
- Meets CSC/ISO requirements

### Platoon Base Life Support Module Production Objectives

- War Reserve/Operational Project Stock
- AAO: 20

### Platoon Base Life Support Module NSNs:

- 5419-01-624-4927 (T)
- 5419-01-624-4930(G)



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## ADMINISTRATION COMPLEX

### CAPABILITIES:

Administration Complex provides facilities for command/administration and camp support personnel facilities to conduct administration functions to include mission planning, and command and control.

### DESCRIPTION:

Administration Complex provides four 32 FT energy efficient environmentally controlled Airbeam tents powered by one 60kW AMMPS generator. Tents are capable of being deployed alone or complexed together depending upon mission requirements.

### Administration Complex Components

- TRICONS: 6 each, Rev A
- 32 FT Airbeam environmentally controlled tent ( 4 each)
- MEP1070 Generator (1 each)
- Power distribution equipment
- Tables/chairs

### Administration Complex Add-On Equipment

- Cold Weather Equipment ADM (Provides freeze protection down to -15F) NSN: 5419-01-591-0190 (T), 5419-01-591-0189 (G)

### Administration Complex Dependencies

- Fuel

### Transportable:

- Land/Sea/Air
- C-17 compatible
- Meets CSC/ISO requirements

### Administration Complex Production Objectives

- War Reserve/Operational Project Stock
- AAO: 59

### Administration Complex NSNs:

- 5419-01-581-0855 (T)
- 5419-01-581-0857 (G)

### INFORMATION CONTACT:

#### Expeditionary Service Support

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## MORALE, WELFARE AND RECREATION COMPLEX (MWR)

### CAPABILITIES:

Morale, Welfare and Recreational Complex provides equipment and facilities for MWR support/activities to the Force Provider module. Capabilities include physical fitness equipment, athletic equipment, equipment to support reading material storage and distribution, games and audio/visual equipment.

### DESCRIPTION:

Morale, Welfare and Recreational Complex provides four 32 FT energy efficient environmentally controlled Airbeam tents powered by one 60kW AMMPS generator. Tents are complexed together to provide a stand-alone facility for MWR requirements.

### INFORMATION CONTACT:

#### Expeditionary Service Support

DSN (312) 206-2886/(508) 206-2886

### Morale, Welfare and Recreational Complex Components

- TRICONS: 9 each, Rev A
- 32 FT Airbeam energy efficient environmentally controlled tent ( 4 each)
- MEP1070 Generator (1 each)
- Power distribution equipment
- Tables/chairs
- Sports Equipment
- Physical Fitness Equipment
- Audio/Visual Equipment

### Morale, Welfare and Recreational Complex Add-On Equipment

- Cold Weather Equipment ADM (Provides freeze protection down to -15F) NSN: 5419-01-591-0186 (T), 5419-01-591-0185 (G)

### Morale, Welfare and Recreational Complex Dependencies

- Fuel

### Transportable:

- Land/Sea/Air
- C-17 compatible
- Meets CSC/ISO requirements

### Morale, Welfare and Recreational Complex Production Objectives

- War Reserve/Operational Project Stock
- AAO: 59

### Morale, Welfare and Recreational Complex NSNs:

5419-01-581-0858 (T)

5419-01-581-0859 (G)



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## QUALITY OF LIFE EQUIPMENT (QOL)

### CAPABILITIES:

Quality of Life Equipment provides 14 additional climate controlled billeting tents to increase the square foot of living space in order to meet Senior Warfighter Forum (SWarF) deployment guidelines of 50 SQFT per soldier after 45 days of operation.

### DESCRIPTION:

The Quality of Life Equipment provide fourteen (14) each environmentally controlled Airbeam TEMPER billeting tents with solar shades, thermo liners, lights, TEMPER power distribution boxes and convenience outlets and two (2) each MEP 1070 60 kW AMMPS generators with power cable assemblies and distribution boxes. Bed down capability is provided by the existing Expeditionary Force Provider module by relocating bunk beds.

### Quality of Life Equipment Components

- REV B: TRICONS: 10 each
- 32 FT Airbeam energy efficient environmentally controlled billeting tents (14 each)
- Generator sets (MEP 1070) (2 each)
- Power distribution equipment

### Quality of Life Equipment Add-On Equipment

- Cold Weather Equipment QOL (Provides freeze protection down to -15F) NSN: 5419-01-660-6958 (T), 5419-01-660-6955 (G)

### Quality of Life Equipment Dependencies

- Fuel

### Transportable:

- Land/Sea/Air
- C-17 compatible
- Meets CSC/ISO requirements

### Quality of Life Equipment Production Objectives

- War Reserve/Operational Project Stock
- AAO: 236

### Quality of Life Equipment NSNs:

4519-01-660-8857 (T)  
5419-01-660-8854(G)

### INFORMATION CONTACT:

#### Expeditionary Service Support

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## ELECTRIC KITCHEN FACILITY (EKF)

### CAPABILITIES:

The EKF is housed in two 3:1 ISO lightweight hard wall expandable containers. The EKF has a ventilation system which exhausts heat and steam during operation. The EKF also provides for a standard ECU hook-up to moderate the internal temperature of the facility. The EKF has a source water and waste water storage capacity of 3K gallons each. The power requirement for the facility is 3 each 208V, 3-phase, 60kW generators. The internal meal preparation equipment is all electric state of the art Commercial off the Shelf food service equipment.

Capable of serving 600 meals (A rations) three times daily.

Includes Cooks/Storage tent, and Four (4) each TRICON Refrigerated Containers for cold food storage.

### DESCRIPTION:

The EKF has a compact, user friendly, efficient workflow design with all kitchen equipment integrated and secured within the containers during transport. The facility easily interfaces to any base camp or operates as a standalone system. The EKF may be transported by land, air, and sea.

Utilized where multiple Expeditionary Force Provider modules are co-located to increase food preparation options and efficiency of service

### INFORMATION CONTACT:

#### Expeditionary Service Support

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### Electric Kitchen Facility Components

- Rev B: TRICONS: 5 each
- 20 FT ISO Containers: 2 each (Kitchen Module, Food Prep/Sanitation Module)
- 4 each TRICON Refrigerated Container Systems (TRCS)
- 20 FT Rigid kitchen module
- 20 FT Rigid food preparation/sanitation module
- 21 FT Airbeam food service tent
- 96 FT Airbeam environmentally controlled tent for dining services
- 32 FT Airbeam environmentally controlled tent for Cooks billeting and dry food storage space
- All electric kitchen appliances and food service equipment

### Electric Kitchen Facility Add-On Equipment

- Cold Weather Equipment EKF (provides freeze protection down to -15F) NSN: 5419-01-592-0031 (T), 5419-01-592-9269 (G)

### Electric Kitchen Facility Dependencies

- Power: Dependent on host site for operational power, may be powered by three 60kW generator
- Food
- Water

### Transportable:

- Land/Sea/Air
- C-17 compatible
- Meets CSC/ISO requirements

### Electric Kitchen Facility Production Objectives

- War Reserve/Operational Project Stock
- AAO: 30

### Electric Kitchen Facility NSNs:

5419-01-580-7056 (T)

5419-01-580-7055(G)



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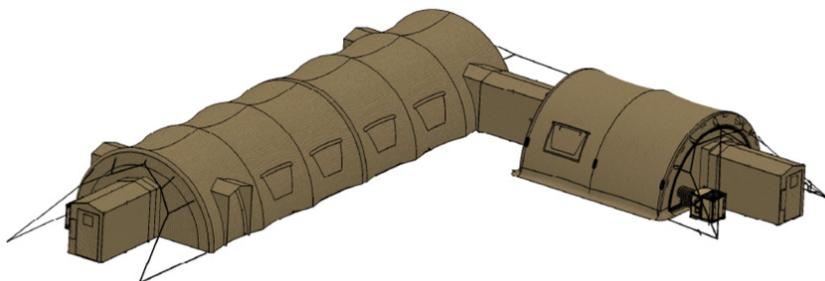
## CONTAINERIZED CHAPEL COMPLEX (CCC)

### CAPABILITIES:

The Containerized Chapel Complex provides the capability for free religious expression for all soldiers, authorized civilians and contractors that are deployed for long durations. The CCC will provide the capability to enhance quality religious support and improve the quality of life for personnel deployed to support operations in austere environments. The system provides for the administration of religious needs for Catholic, Jewish, Muslim, Protestant and other faith groups. The CCC interfaces with the FPE LSM power grid.

### DESCRIPTION:

A modular tent based chaplaincy complex designed to provide faith based support for the major religious groups represented in the U.S. Army. The CCC is capable to fully support deployed soldiers in austere environments as an add-on package to the Force Provider Module. The Complex consists of an environmentally controlled 21 ft x 64 ft Airbeam TEMPER worship support tent with a variety of religious ceremonial support items (bibles, scriptures, alters, candles, prayer mats, etc), and an environmentally controlled chaplain Air beam TEMPER billeting/administration tent for the chaplain and staff.



### INFORMATION CONTACT:

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### Containerized Chapel Complex Components

- TRICONS: 4 each, Rev A
- 64 ft Airbeam environmentally controlled tent for religious services
- 32 ft Airbeam environmentally controlled tent for Chaplain billeting and meeting space
- Chaplaincy equipment for Christian, Catholic, Jewish and Muslim faith based support services
- Containerized Chapel Complex Add-On Equipment
- Cold Weather Equipment CCC (Provides freeze protection down to -15F) NSN: 5419-01-592-9187 (T), 5419-01-592-9184 (G)

### Containerized Chapel Complex Dependencies

- Power: Dependent on host site for operational power, may be powered by one 60kW generator

### Transportable:

- Land/Sea/Air
- C-17 compatible
- Meets CSC/ISO requirements

### Containerized Chapel Complex Production Objectives

- War Reserve/Operational Project Stock
- AAO: 45

### Containerized Chapel Complex NSNs:

9925-01-592-9180 (T)  
9925-01-592-9167(G)



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## PRIME POWER EQUIPMENT

### CAPABILITIES:

Provide step-down transformers from Prime Power Battalion 3MW, 4260V (medium volt) generators to the Expeditionary Force Provider power grid.

### DESCRIPTION:

Prime Power Connection Kits provide the capability to power Force Provider on the 249th Engineer Battalion (Prime Power) centralized power plants. The kits provide 150kV, 4160V delta step-down transformers and 2/0 cabling to allow distribution of power to the Force Provider module's electrical distribution system.

- Transformers replace the organic Force Provider 60kW generators on 1:1 ration.
- Cables connect the Prime Power Battalion 3MW, 4260V (medium volt) generators to the transformers in a continuous loop.
- Transformer are connected to the Force Provider Power Distribution Boxes to provide power throughout the base camp
- Rev B PPKs are configured to accommodate the Expeditionary Force Provider configuration.
- Designed to supports multiple (up to four) co-located Expeditionary Force Provider modules per kit



### Expeditionary Service Support

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### Prime Power Connection Kits Components

- Rev B: TRICONS: 16 each
- 150kV, 4160V delta step-down transformers
- 2/0 cabling for connectivity between medium power generators and transformers

### Prime Power Connection Kits Dependencies

- 249th Engineer Battalion Prime Power Battalion 3MW, 4260V (medium volt) generators and personnel support to operate system

### Prime Power Connection Kits Objectives

- War Reserve/Operational Project Stock
- AAO: 59

### Prime Power Connection Kits NSNs:

5419-01-579-5460 (T)

5419-01-579-5458(G)





## SITE PREPARATION EQUIPMENT

### CAPABILITIES:

Compact Skid Steer loaders primarily used for site preparation for base camp deployment. Supports material loading applications, filling, elevating, transportation and discharging of material on site. Primary capability is to provide for site preparation and maintenance of the FPE LSM deployment area and to provide fork lift capability to move and place large module subsystems and components.

### DESCRIPTION:

Heavy Type II Skid Steer Loader M400T, (tracked model) or Light Type III Skid Steer Loader M400W, (track over wheel model) with support equipment package. Equipment is transported in two 10 ft BICON containers. Work tools are easily interchanged using quick coupler front end.



### INFORMATION CONTACT:

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### Site Preparation Equipment Components

- BICONS: 2 each, Rev A
- Heavy Type II Skid Steer Loader M400T, (3805-01-552-4485) or Light Type III Skid Steer Loader M400W (3805-01-552-4487)
- Multi-purpose bucket utilized to perform performs excavating, digging, lifting/loading, stripping, leveling, and stockpiling operations as well as removing obstacles such as large stones, tree limbs, etc
- Pallet Forks utilized to perform various lading/unloading operations
- Auger utilized to dig 12 in or 24 inch diameter holes up to 96 in deep
- Hammer utilized to easily break up concrete, rocks, asphalt as well as drive stakes and pickets
- Equipped with NATO slave receptacle

### Site Preparation Equipment Dependencies

- Fuel

### Site Preparation Equipment Production Objectives

- War Reserve/Operational Project Stock
- AAO: 218

### Site Preparation Equipment NSNs:

- 9925-01-613-2720 (T)
- 9925-01-613-2714 (G)



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FORCE SUSTAINMENT SYSTEMS



## WASTE WATER EVACUATION TANK/TRAILER

### CAPABILITIES:

Transports 1000 Gallons of Black or Gray waste water over rough terrain or improved roads

Maximum speed over rough terrain is 20 MPH

Maximum speed over improved roadways is 45 MPH

Operates for 8 hours on one tank of fuel.

### DESCRIPTION:

1000 Gallon Waste Water Evacuation Tank/Trailer designed to remove waste water from base camp location for processing at off site locations. Self-contained system with integral diesel powered evacuation pump capable of operation for 8 hours on one tank of fuel. Meets DOT Specification for transportation over rough terrain or improved roads.



### INFORMATION CONTACT:

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### Waste Water Evacuation Tank/Trailer

- Fully equipped hazardous waste tank trailer meeting DOT Specification for transport over public roads
- Self-contained system with integral power source (JP8/13 gallons)
- Designed for operation in temperatures above 32 F
- Designed for over-the-road and rough terrain mobility
- Land, sea, air and rail transportable
- Transports 1000 Gallons of Black or Gray waste water over rough terrain or improved roads
- Maximum speed over rough terrain is 20 MPH
- Maximum speed over improved roadways is 45 MPH
- Operates for 8 hours on one tank of fuel.

### Prime Power Connection Kits Dependencies

- Fuel
- Prime mover

### Waste Water Evacuation Tank/ Trailer Production Objectives

- War Reserve/Operational Project Stock
- AAO: 59

### Waste Water Evacuation Tank/Trailer NSN:

4630-01-513-8155



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## FORCE PROVIDER WATER REUSE SYSTEM (WRS)

### CAPABILITIES:

- Purifies shower waste water for reutilization with showers
  - Recycles ~75% of the gray shower water produced
  - 12,000 gallons per day capacity (40 GPM peak flow)
  - Produces shower re-use quality water
- Set up: 30 minute with 1 personnel
- System operational temperatures: -15°F to 120°F
- Unattended automatic operation after startup
  - Self-monitoring Programmable Logic Control (PLC) with user friendly touch screen LCD
  - Displays controls, flows, pressures, set-up/operating instructions and troubleshooting
- System includes:
  - Automated chlorine injection
  - Self cleaning 15-micron pre-filter
  - Auto back-wash 0.2-micron micro-filters to remove suspended solids and micro-organisms
  - Reverse osmosis membranes to remove dissolved organic materials, bacteria, virus and soap
  - Activated carbon filtration
  - Ultraviolet light disinfection
  - Continuous water quality monitor through conductivity sensors

### • Power

#### requirements:

100A, 208V, 3PH (x1)

### • Shipping Size:

TRICON, 8'Hx8'Wx6.5'L

### • Weight: 7110 lbs



### INFORMATION CONTACT:

#### Expeditionary Service Support

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## FORCE PROVIDER EXPEDITIONARY TRICON KITCHEN SYSTEM (ETKS) CAPABILITIES:

- Provides 3 meals per day for a minimum of 150 personnel UGRAs and limited "A" rations
  - Commercial off the shelf (COTS) equipment
    - ◊ Refrigerator
    - ◊ Steam kettle
    - ◊ Convection Oven
    - ◊ Cook-N-Hold Oven
    - ◊ Steam-N-Hold Oven
    - ◊ Griddle
  - On-board Sanitation System with grease separator
  - Food Service Window
  - Operated by 2 personnel
- Environmentally controlled (cooling/heating)
- TRICON folds out to 18 feet in width
- Set-up: 15 min, 2 personnel
- System Includes:
  - Fresh and black water storage
  - Hoses
  - Power cables
- Interfaces with TEMPER Tent for dining facility
- Interfaces to any base camp operation
- Able to operate as a standalone system
  - Can support small expeditionary units in austere environment



- **Power requirements:**  
100A, 208V, 3PH (×2)
- **Shipping Size:**  
TRICON, 8'H×8'W×6.5'L
- **Weight:** 7160 lbs



### TRANSPORTABLE:

- Land/Rail/Sea/Air
- Meets CSC/ISO requirements
  - Highly mobile
  - Weighs less than 10K
  - Forkliftable

### INFORMATION CONTACT:

**Expeditionary Service Support**  
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## FORCE PROVIDER EXPEDITIONARY LATRINE SYSTEM (ELS)

### CAPABILITIES:

Provides capability for latrine services for 75 personnel, with individual privacy and increased sanitation.

- Low water use toilets w/privacy stalls (×4)
- Urinal (×2)
- Hand wash sinks (×2)
- Accommodates male and female personnel
- Environmentally controlled (cooling/heating)
- TRICON folds out to 18 feet in width
- Set-up: 15 min, 2 personnel
- System includes:
  - Fresh and black water storage (3K gallon each)
  - Hoses
  - Power cables
- Interfaces to any base camp operation
- Able to operate as a standalone system
- Can support small expeditionary units in austere environment
- External pumps for easy maintenance

### TRANSPORTABLE:

- Land/Rail/Sea/Air
- Meets CSC/ISO requirements
  - Highly mobile
  - Weighs less than 10K
  - Forkliftable

### INFORMATION CONTACT:

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- **Power Requirement:**  
60A (×1)

- **Shipping Size:**  
TRICON, 8'H × 8'W × 6.5'L

- **Weight:** 6420 lbs





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## FORCE PROVIDER EXPEDITIONARY SHOWER SYSTEM (ESS)

### CAPABILITIES:

- Provides capability for shower services for 24 personnel/hour (10 minute shower), with individual privacy and increased sanitation
  - Individual stalls (x4)
  - Individual water temperature control
  - Hand wash sinks (x4)
- Accommodates male and female personnel
- Environmentally controlled (cooling/heating)
- TRICON folds out to 18 feet in width
- Set-up: 15 min, 2 personnel
- System Includes:
  - Fresh and black water storage (3K gallons each)
  - Hoses
  - Power cables
- Interfaces with TEMPER Tent for additional changing space
- Interfaces to any base camp operation
- Able to operate as a standalone system
- Can support small expeditionary units in austere environment
- External pump for easy maintenance

### Power

#### requirements:

60A, 208V, 3PH (x1)

### Shipping Size:

TRICON, 8'H x 8'W x 6.5'L

### Weight: 6330 lbs



### TRANSPORTABLE:

- Land/Rail/Sea/Air
- Meets CSC/ISO requirements
  - Highly mobile
  - Weighs less than 10K
  - Forkliftable

### INFORMATION CONTACT:

#### Expeditionary Service Support

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FORCE SUSTAINMENT SYSTEMS



## FORCE PROVIDER EXPEDITIONARY BATCH LAUNDRY SYSTEM (EBL)

### CAPABILITIES:

- Provides capability to wash and dry 100 lbs of cloths per hour, in a clean and safe environment
  - 50 lbs commercial washer/extractor
  - 75 lbs commercial dryer
- Environmentally controlled (cooling/heating)
- TRICON folds out to 14 feet in width
- Set-up: 15 min, 2 personnel
- System Includes:
  - Fresh and grey water storage (two 3,000 gallon blivets)
  - Hoses
  - Power cables
- Interfaces to any base camp operation
- Able to operate as a standalone system
  - Can support small expeditionary units in austere environment

### TRANSPORTABLE:

- Land/Rail/Sea/Air
- Meets CSC/ISO requirements
  - Highly mobile
  - Weighs less than 10K
  - Forkliftable

### INFORMATION CONTACT:

**Expeditionary Service Support**  
DSN (312) 206-2886/(508) 206-2886

- **Power Requirement:**
  - 208 VAC 3 Phase Class L Connector
  - 100A (x1), 60A (x1)
  - Max Draw 40KW
  - 15 KW average
- **Shipping Size:** TRICON, 8'H x 8'W x 6.5'L
- **Weight:** 6930 lbs





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FORCE SUSTAINMENT SYSTEMS



## FORCE PROVIDER EXPEDITIONARY SELF-SERVICE LAUNDRY SYSTEM (ESSLS)

### CAPABILITIES:

Provides capability for laundry service to 150 personnel

- 4 – High efficiency 21 lbs. front loading washing machines
- 4 – 18 lbs. light commercial dryers
- Onboard waste and supply pumps

Environmentally controlled (cooling/heating)

TRICON folds out to 18 feet in width

Setup: 45 min, 5 personnel

System includes:

- Fresh and grey water storage
- Hoses
- Power Cables

Interfaces to any base camp operation

Capable of operating as standalone Unit

Can support small expeditionary forces in austere environments

### TRANSPORTABLE:

- Land/Rail/Sea/Air
- Meets CSC/ISO requirements
  - Highly mobile
  - Weighs less than 10K lbs.
  - Forkliftable

### INFORMATION CONTACT:

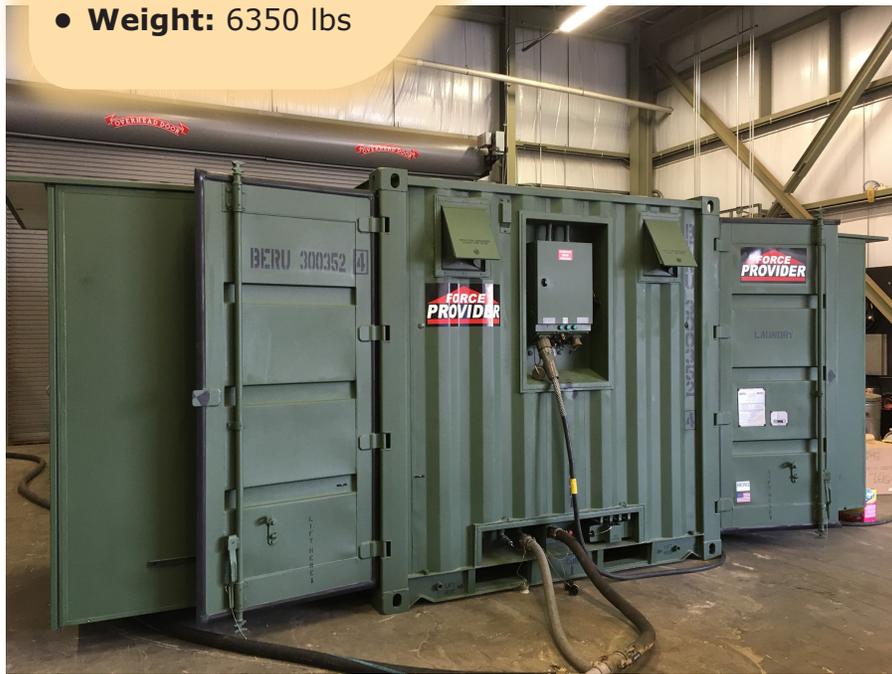
#### Expeditionary Service Support

DSN (312) 206-2886/(508) 206-2886

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- **Power requirements:**  
100A, 208V, 3PH  
Class L Connector (x1)  
8 KW Average
- **Shipping Size:** TRICON,  
8'H x 8'W x 6.5'L
- **Weight:** 6350 lbs





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FORCE SUSTAINMENT SYSTEMS



## FUTURE CAPABILITIES INTEGRATION LABORATORY

FCIL provides a fully-instrumented and network-enabled realistic field operating environment that uniquely enhances the data-driven development, integration, demonstration and evaluation of innovative and transformative Force Sustainment, Expeditionary Energy, Force Projection, and Maneuver Support systems, equipment, technologies, tactics, and training. This is accomplished in an open and collaborative environment with DOD Joint Services, US Government Agencies, Private Industry, Academia, and Allied Governments. The result is a more lethal, resilient, and ready Joint Force, postured to fight and win in future multi-domain operations against near-peer adversaries.



## FORCE PROVIDER CAPABILITY PROGRESSION





# PM FSS

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FORCE SUSTAINMENT SYSTEMS



## STANDARD ARMY APPROVED TENT AND HEATER COMBINATIONS

HEATER NAME	HEATER PHOTO	MAX BTU	HEATER NSN	SHELTER NAME
Large Capacity Field Heater (LCFH)		350K	4520-01-500-1534 (TY I) 4520-01-559-8737 (TY II)	<ul style="list-style-type: none"> <li>Lightweight Maintenance Enclosure (LME)</li> </ul>
Improved Army Space Heater (IASH) Type II		180K	4520-01-646-3010	<ul style="list-style-type: none"> <li>Modular General Purpose Tent System (MGPTS) Small, Medium, Large</li> <li>Tent, Extendable, Modular, Personnel (TEMPER)</li> <li>Tent, Extendable, Modular, Personnel (TEMPER) Air Supported</li> </ul>
Space Heater Convective (SHC) 35K BTU		35K	4520-01-431-8927	<ul style="list-style-type: none"> <li>Modular Command Post System (MCPS)</li> <li>Modular General Purpose Tent System (MGPTS) Small</li> </ul>
Space Heater Convective (SHC) 60K BTU		60K	4520-01-520-6477	<ul style="list-style-type: none"> <li>Modular General Purpose Tent System (MGPTS) Medium</li> <li>Tent, Extendable, Modular, Personnel (TEMPER)</li> </ul>
Space Heater Convective (SHC) 90K BTU		90K	4520-01-598-1844	<ul style="list-style-type: none"> <li>Modular General Purpose Tent System (MGPTS) Medium and Large</li> <li>Tent, Extendable, Modular, Personnel (TEMPER)</li> <li>Tent, Extendable, Modular, Personnel (TEMPER) Air Supported</li> </ul>
Space Heater Small (SHS)		12K	4520-01-478-9207	<ul style="list-style-type: none"> <li>Soldier Crew Tent (SCT)</li> </ul>
Space Heater Arctic (SHA)		26K	4520-01-444-2375	<ul style="list-style-type: none"> <li>5 Man Arctic</li> <li>10 Man Arctic</li> </ul>
H-45 Space Heater		45K	4520-01-329-3451	<ul style="list-style-type: none"> <li>Modular General Purpose Tent System (MGPTS)</li> <li>Modular Command Post System (MCPS)</li> <li>Tent, Extendable, Modular, Personnel (TEMPER) Frame Supported Only</li> <li>Tent, Frame Type, Expandable, 16' x 16'</li> </ul>

### INFORMATION CONTACT: Expeditionary Service Support

REV 08-23-18 • UNCLASSIFIED

DSN (312) 206-2880/(508) 206-2880



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UNITED STATES ARMY  
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FORCE SUSTAINMENT SYSTEMS



## LARGE CAPACITY FIELD HEATER (LCFH)

### CAPABILITIES:

Provides Joint Forces a fully supportable heater for larger shelters to allow sustained field operations in any cold weather environment. The LCFH is the Army's only standard heater for the Army's standard vehicle maintenance shelter, Lightweight Maintenance Enclosure (LME). Operates down to -60°F, provides reductions in system weight, noise and CO emissions, and improvements in system reliability, fuel economy and safety with no leakage of combustion products.

### DESCRIPTION:

The LCFH is a self-powered 350-400K BTU capacity forced air heater and the largest member of Improved Army Space Heater (IASH) Family. The LCFH burns JP-8 and all diesel fuels and provides safety features that guard against flame failure, high temperature air out, and carbon monoxide level.

### INFORMATION CONTACT:

#### Expeditionary Service Support

DSN (312) 206-2880/(508) 206-2880

- **Power Requirements:**  
None
- **Size: (LxWxH):**  
40" x 45" x 62"
- **Weight:** 650 lbs (dry)
- **Status/availability:**  
MTOE Item, In Sustainment, TACOM ILSC managed
- **Transportability:**  
Traditional Modes
- **Supportability:** Standard Army Supply and Two Level Maintenance, TM 9-4510-272-14&P (Type I) TM 10-4510-265-14&P (Type II)
- **NSN:**  
4520-01-500-1534 (Type I)  
4520-01-539-8737 (Type II)
- **LIN:** H00654





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## IMPROVED ARMY SPACE HEATER (IASH)

### CAPABILITIES:

Operates outside tent to provide heating for soldiers operating in basic cold and extreme cold environments. Thermostatically controlled, mobile, safely delivers heated or ventilation air through sealed detachable ducts. Has remote control capability, and provides improved safety over the Army Space Heater (ASH) it replaced.

### DESCRIPTION:

The IASH (H-140) is a multi-fueled, powered heater that provides a maximum heat output of 140K BTU. Operates in an ambient temperature range from -60°F to 100°F and burns JP-8, DF-1, DF-2, and DF-A fuels for up to 8 hours unattended on a 14-gallon internal fuel tank. Safety features include an automatic shutdown in the event of an over temperature condition if the heater overheats or detects carbon monoxide gas in the shelter or return airflow.

### INFORMATION CONTACT:

#### Expeditionary Service Support

DSN (312) 206-2880/(508) 206-2880

- **Power Requirements:**  
3kW Generator
- **Size (L×W×H):**  
59"×40"×33"
- **Weight:** 360 lbs
- **Status/availability:**  
Class II MTOE item, Replaced by IASH Type II, In Sustainment Only, TACOM ILSC managed
- **Transportability:**  
Two Soldier portable
- **Supportability:** Standard Army Supply and Maintenance Systems, TM 9-4520-271-14&P
- **NSN:** 4520-01-477-0568
- **LIN:** H00586





## IMPROVED ARMY SPACE HEATER (IASH) TYPE II

### CAPABILITIES:

Provides Soldiers operating in basic, cold, and extreme cold environments a lightweight, forced-air heater with an adjustable thermostat to significantly reduce output to support small heated areas that operates in NBC environments and altitudes up to 12,000 feet without degradation of heat output. The IASH Type II has a single switch start and is operationally controlled by a control box located inside the tent and configured with automatic safety and temperature controls.

### DESCRIPTION:

The IASH Type II is a safe, portable, multi-fueled, military robust forced-air heater in the 10,000 to 180,000 BTU/hr heating range. The IASH Type II is less costly, lighter weight, more mobile, stackable for improved transportability, reliable, efficient, maintainable, and reduces the logistics footprint as compared to the legacy IASH it replaces.

### INFORMATION CONTACT:

#### Expeditionary Service Support

DSN (312) 206-2880/(508) 206-2880

- **Power Requirements:**  
3kW Generator
- **Size (LxWxH):**  
58"x23"x28"
- **Weight:** 250 lbs
- **Status/availability:**  
Class II MTOE item, Available through supply system, TACOM ILSC managed
- **Transportability:** Traditional modes
- **Supportability:** Standard Army Supply and Maintenance Systems, TM 10-4520-269-13&P
- **NSN:** 4520-01-646-3010
- **LIN:** H00586





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FORCE SUSTAINMENT SYSTEMS



## SPACE HEATER CONVECTIVE (SHC) 35K

### CAPABILITIES:

Provides forced hot air circulation in military tentage without the need for an external power supply. Operates outside the tent and provides heating for the Modular Command Post System (MCPS) and other similar sized tents. The SHC 35K integrates thermoelectrics and combustion into a supportable heater that delivers clean, breathable heat to military tentage and shelters. Thermoelectric modules convert waste heat into electrical energy, which is used to power the blowers, pumps, ignition system, safety system, and control devices required in the operation of the heater. Provides single switch startup and heater operation that is completely automatic due to built-in diagnostics, safety and temperature controls.

### DESCRIPTION:

The SHC 35K is 35,000 BTU, self-powered, thermoelectric heater that is capable of burning multiple liquid fuels (DF-2, DF-1, DF-A, JP-5, & JP-8). The SHC 35K operates from -60°F to 60°F, and provides better heat distribution than radiant type heaters, frees up floor space, and eliminates the need for a fire guard. Accessories include a remote temperature control box, cable, insulated air ducts, fuel hoses, gravity feed adapter, fuel can stand and spare parts.

### INFORMATION CONTACT:

#### Expeditionary Service Support

DSN (312) 206-2880/(508) 206-2880

- **Power Requirements:**  
None
- **Size (LxWxH):**  
40" x 14" x 18"
- **Weight:** 74 lbs
- **Status/availability:** CTA Item, Available through supply system, DLA managed
- **Transportability:** Traditional modes
- **Supportability:** Standard Army Supply and Maintenance Systems, TM 10-4520-262-12&P
- **NSN:**  
4520-01-431-8927
- **LIN:** H39372





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## SPACE HEATER CONVECTIVE (SHC) 60K

### CAPABILITIES:

Provides Soldiers operating in basic cold and extreme cold environments with a safe, portable, heater for the Modular General Purpose Tent System (MGPTS), and other shelters having up to 600 square feet of floor space. The SHC 60K operates outside the tent/shelter and provides forced air heating which supplies better heat distribution than radiant type heaters, frees up floor space, and eliminates the need for a fire guard.

### DESCRIPTION:

The SHC 60K is a 60,000 BTU lightweight, portable, multi-fueled heater that requires no external generator. Electrical power to operate the SHC 60K is generated internally, and without any moving parts or noise, by the use of thermoelectric modules, located in the combustion chamber, that convert waste heat into electrical energy. The electricity generated is used to power the blowers, pumps, ignition system, safety system, control devices, and to recharge the battery. The heater provides single switch startup and operation is completely automatic due to built-in diagnostics, safety and temperature controls. Accessories include a remote temperature control box, cable, insulated air ducts, fuel hoses, gravity feed adapter, fuel can stand and spare parts.

### INFORMATION CONTACT:

#### Expeditionary Service Support

DSN (312) 206-2880/(508) 206-2880



- **Power Requirements:** None
- **Size (LxWxH):** 48" x 17" x 19-1/4"
- **Weight:** 98 lbs
- **Status/availability:** CTA Item, Available through supply system, DLA managed
- **Transportability:** Traditional modes
- **Supportability:** Standard Army Retail Supply and Maintenance Systems, TM 10-4520-264-12&P
- **NSN:** 4520-01-520-6477
- **LIN:** H39372





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## SPACE HEATER CONVECTIVE (SHC) 90K

### CAPABILITIES:

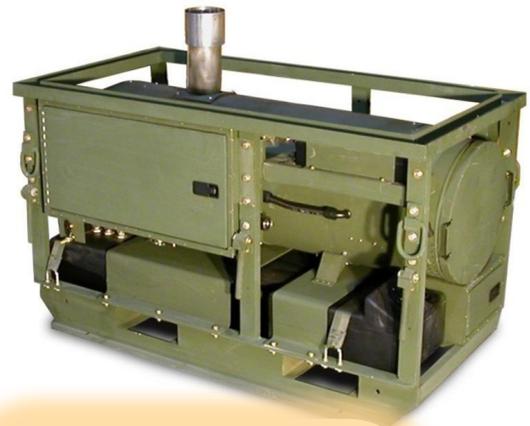
Provides forced hot air circulation without the need for an external power supply (i.e., field generator). The SHC 90K generates its own electrical power, without any moving parts, through the use of thermoelectric modules located inside the combustion chamber that convert waste heat into electricity. The internal generation of electrical power gives the SHC 90K the added capabilities of single switch operation, forced hot air circulation, outside the tent operation, completely automatic safety and temperature controls, built-in troubleshooting diagnostics, operation without the need for a fire guard, and significantly higher combustion efficiencies, all without the need for an external power supply. The SHC 90K's unique, self-powering capability enables the heating system to be smaller, lighter, more mobile, versatile, reliable and efficient and is an ideal match for meeting the future battle field requirements to reduce the logistic burden of supplying fuel and power to the field.

### DESCRIPTION:

The SHC 90K is a 90,000 BTU, lightweight, portable, multi-fuel, self-powered heater that operates outside military tents and provides forced hot air recirculation via sealed, detachable, quick connect, flexible air ducts, without the need for an external power supply. The SHC 90K operates on diesel and JP-8 fuels and generates its own internal electrical power without any moving parts. Fuel ignition is accomplished by a one-switch startup procedure on a remote control located inside the tent. Heater operation includes completely automatic safety and temperature controls as well as built-in troubleshooting diagnostics. The SHC 90K is also equipped with a remote intelligent control box that informs the heater's operator of a problem and how to fix it. The SHC 90K is equipped with an internal fuel tank to provide a minimum of 15 hours of continuous operation and has the capability to operate on an external fuel supply as well. It has a protective enclosure that can withstand extreme environmental and field conditions, and is forklift compatible with handrails/handles to support local movement and positioning.

### INFORMATION CONTACT:

**Expeditionary Service Support**  
DSN (312) 206-2880/(508) 206-2880



- **Power Requirements:** None
- **Size (LxWxH):** 53" x 28.5" x 31.5"
- **Weight:** 355 lbs
- **Status/availability:** CTA Item, Available through supply system, TACOM ILSC managed
- **Transportability:** Traditional modes
- **Supportability:** Standard Army Supply and Maintenance Systems, TM 10-4520-267-13&P
- **NSN:** 4520-01-598-1844
- **LIN:** S05023





## SPACE HEATER SMALL (SHS)

### CAPABILITIES:

Provides heating for Soldiers in the Soldier Crew Tent and 4 and 5 man tents in moderate climatic conditions. Operates inside the tent to provide radiant heating without the use of external power and burns multiple fuels (Diesel, DF-1, DF-2, DF-A, JP-8, Jet A1 and Kerosene). Has both an internal/external fuel capability to allow heater operation off an external fuel supply using a fuel can and stand.

### DESCRIPTION:

The SHS is a 9,000 to 12,000 BTU output nonpowered heater, operational in temperatures ranging from -65°F to 60°F, and can be stored in temperatures ranging from -60°F to 160°F. The SHS includes all accessories including an integral fuel tank that eliminates the need for hoses, gravity feed adapter, fuel can and fuel can stand.

### INFORMATION CONTACT:

#### Expeditionary Service Support

DSN (312) 206-2880/(508) 206-2880

- **Power Requirements:**  
None
- **Size (LxWxH):**  
17.5" x 9" x 17"
- **Weight:** 32 lbs
- **Status/availability:** CTA Item, Available through supply system, DLA managed
- **Transportability:** Traditional modes
- **Supportability:** Standard Army Supply and Maintenance Systems, TM 10-4520-263-12&P
- **NSN:** 4520-01-478-9207





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## SPACE HEATER ARCTIC (SHA)

### CAPABILITIES:

Operates inside the tent to provide heating for Soldiers in 5 and 10-man arctic tents. The SHA is operational in temperatures ranging from -60°F to 60°F, and can be stored in temperatures ranging from -60°F to 160°F. Replaces the M-1950 Yukon heater and utilizes vaporizing S-tube burner technology which eliminates the hazardous exposure of a pool of raw fuel during operation and provides a significant improvement in the combustion of diesel fuel.

### DESCRIPTION:

The SHA is a lightweight, portable, multi-fueled (DF-2, DF-1, DF-A, JP-5, JP-8, wood and coal) non-powered heater that provides a maximum heat output of 26,000 BTU with a high/low adjustment capability. The SHA accessories are comprised of the stack, flue cap, gravity feed adapter, fuel can stand and hoses. All accessory components, including the pre-assembled, telescoping stove pipe, can be stored within the heater making it highly mobile and easy to assemble.

### INFORMATION CONTACT:

#### Expeditionary Service Support

DSN (312) 206-2880/(508) 206-2880

- **Power Requirements:**  
None
- **Size (LxWxH):** 17"×9"×17"
- **Weight:** 41 lbs
- **Status/availability:** CTA Item, Available through supply system, DLA managed
- **Transportability:** Traditional modes
- **Supportability:** Standard Army Retail Supply and Maintenance Systems, TM 10-4520-261-12&P
- **NSN:** 4520-01-444-2375





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## HEATER, SPACE, RADIANT, LARGE (H-45 SPACE HEATER) TYPE II, LIQUID FUEL

### CAPABILITIES:

Operates inside tent to provide heating for the Modular General Purpose Tent System (MGPTS), Modular Command Post System (MCPS), and TEMPER tents. The H-45 heater replaced the antiquated potbelly M-1941 heater. The H-45 heater operates without the use of electrical power and can burn all types of liquid fuel (DF-2, DF-1, DF-A, JP-5, and JP-8). Utilizes R-tube burner technology which eliminates the hazardous exposure of a pool of raw fuel during operation and provides a significant improvement in the combustion of diesel fuel while still maintaining simplicity, ruggedness, and low cost.

### DESCRIPTION:

The H-45 heater is a non-powered, 45,000 BTU heater that includes all accessories (stack, flue cap, gravity feed adapter, hoses, fuel can stand, etc). The H-45 Heater is operational in temperatures ranging from -60°F to 60°F, and can be stored in temperatures ranging from -60°F to 160°F.

### INFORMATION CONTACT:

**Expeditionary Service Support**  
DSN (312) 206-2880/(508) 206-2880

- **Power Requirements:**

None

- **Size (D×H):** 18"D × 24"H

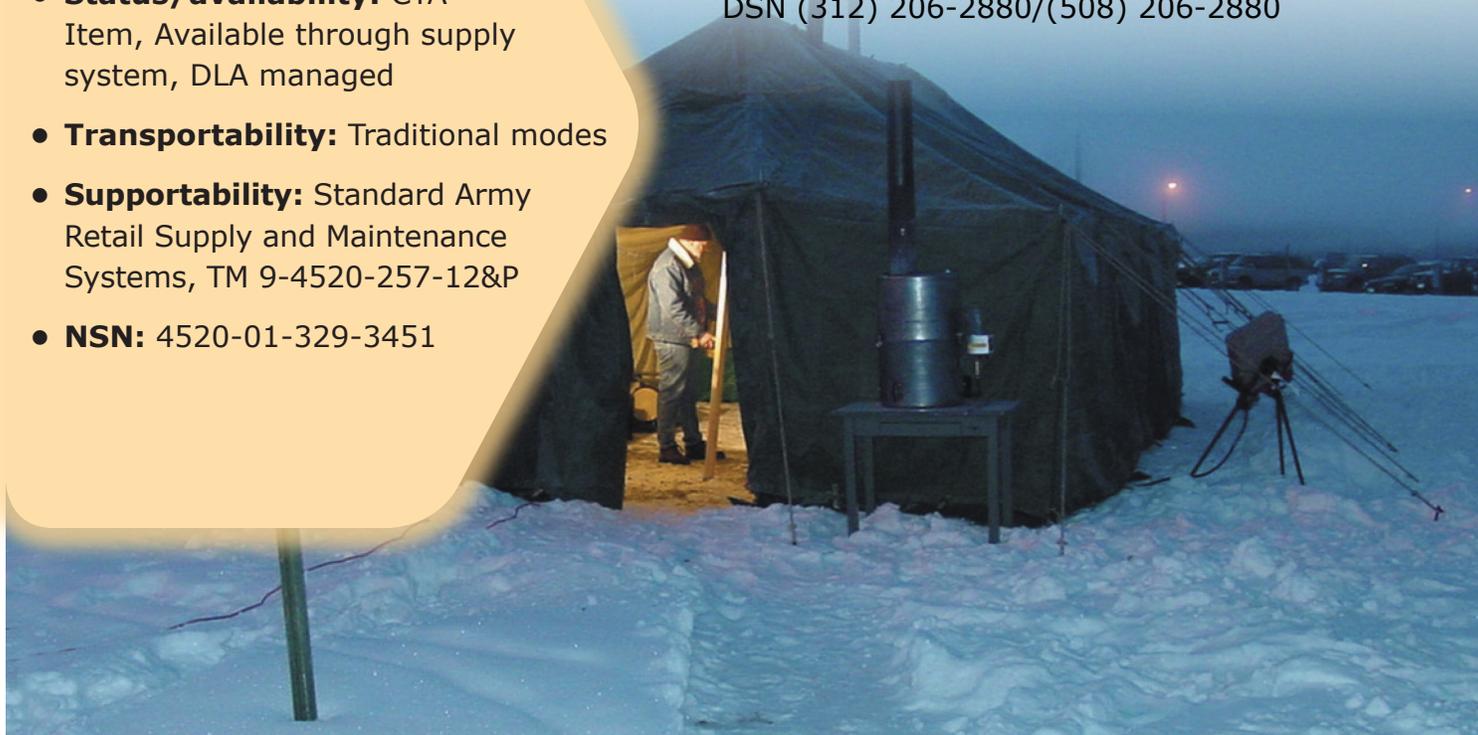
- **Weight:** 65 lbs

- **Status/availability:** CTA Item, Available through supply system, DLA managed

- **Transportability:** Traditional modes

- **Supportability:** Standard Army Retail Supply and Maintenance Systems, TM 9-4520-257-12&P

- **NSN:** 4520-01-329-3451





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## 9/18/36K IMPROVED ENVIRONMENTAL CONTROL UNITS (IECUs)

### CAPABILITIES:

Provide cooling in the range of 9,000 to 36,000 BTU/hr and supplemental heating for rigid wall shelters. IECUs weigh less than legacy MIL-STD ECUs, provide increased energy efficiency (lower power consumption) are more reliable, and most importantly, eliminate the use of ozone depleting refrigerants. IECUs employ modern logic/control systems, variable speed controls to reduce inrush current and are operable at extreme temperatures.

### DESCRIPTION:

Improved Environmental Control Units (IECUs) provide the next generation Environmental Control Units (ECUs) that use environmentally approved refrigerants, with zero ozone-depleting chemicals (ODCs). 9/18/36K IECUs are required to replace currently fielded legacy MIL-STD ECUs in order to comply with statutory and regulatory restrictions on the use of Class II Ozone Depleting Chemicals and increase the performance, efficiency and reliability of military ECUs. IECUs support the Warfighter by providing the required cooling, heating, and dehumidification to allow operation of essential mission systems to conduct military operations worldwide.



### INFORMATION CONTACT:

#### Expeditionary Service Support

DSN (312) 206-2880/(508) 206-2880

REV 05-08-19 • UNCLASSIFIED

- Power Requirements:** 9K IECU: 3kW Generator, 18K IECU (1- or 3-Phase): 5kW Generator, 36K IECU: 10 kW Generator
- Size:**
  - 9K IECU 115/1/60 23.75"W x 26"D x 16"H
  - 18K IECU 208/3/60 30"W x 28"D x 20"H
  - 18K IECU 230/1/60 30"W x 28"D x 20"H
  - 36K IECU 208/3/60 38"W x 35"D x 27"H
- Weight:**
  - 9K IECU 115/1/60 180 lbs.
  - 18K IECU 208/3/60 250 lbs.
  - 18K IECU 230/1/60 250 lbs.
  - 36K IECU 208/3/60 350 lbs.
- Status/availability:** MTOE Item, Army Fieldings to begin 1QFY20.
- Transportability:** Traditional Modes
- Supportability:** Standard Army Supply and Two Level Maintenance
- NSN:**
  - 9K IECU 115/1/60 4120-01-592-7940
  - 18K IECU 208/3/60 4120-01-592-7987
  - 18K IECU 230/1/60 4120-01-592-7977
  - 36K IECU 208/3/60 4120-01-592-7949
- LIN:**
  - 9K IECU 115/1/60 A05047
  - 18K IECU 208/3/60 A05048
  - 18K IECU 230/1/60 A05049
  - 36K IECU 208/3/60 A05050





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## 60K IMPROVED ENVIRONMENTAL CONTROL UNIT (IECU)

### CAPABILITIES:

60K IECU utilizes environmentally friendly refrigerant and be tested for operation up to 135 degrees Fahrenheit, will be ruggedized for military environments, reduces power consumption, reduces weight, increases reliability and increases heat output. The 60K IECU is organically supportable and feature soft start, limited inrush current, embedded diagnostics, automatic safety controls, remote control capability, and is NBC and EMI protected.

### DESCRIPTION:

The 60,000 Btu/hr Improved Environmental Control Unit (60K IECU) provides cooling, heating, and dehumidification to soldiers and materiel systems in combat, combat support (CS), and combat service support (CSS) units, while utilizing non-ozone-depleting substance as its refrigerant. System upgrades will consist of a "best of breed" concept that incorporates the latest technologies in Electromagnetic Interference, Chemical Biological Radiological and Nuclear (CBRN) protection as well as energy efficiency and component upgrades over the legacy system.

- **Power Requirements:**  
15 kW Generator
- **Size:**  
42"W x 35"D x 46"H
- **Weight:** 560 lbs
- **Status/availability:**  
MTOE Item, Legacy Block I fieldings complete, CB protected variant in development with fieldings targeted to begin FY21.
- **Transportability:**  
Traditional Modes
- **Supportability:** Standard Army Supply and Two Level Maintenance, TM 9-4120-431-14
- **NSN:** 4120-01-543-0741 (Block I)
- **LIN:** B29108



### INFORMATION CONTACT:

#### Expeditionary Service Support

DSN (312) 206-2880/(508) 206-2880

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## STANDARD ARMY APPROVED TENTS



**Tent Extendable Modular Personnel (TEMPER) Air Supported**

NSNs: 8340-01-558-8706 (Type 41) (Green)  
8340-01-558-8707 (Type 41) (Tan)



**Modular Command Post System (MCPS)**

NSNs: 8340-01-323-2454 (Green)  
8340-01-334-7529 (Tan)



**Tent Extendable Modular Personnel (TEMPER)**

NSNs: 8340-01-196-6272 (Type IV - 32') (Green)  
8340-01-185-2628 (Type IV - 32') (Tan)



**Modular General Purpose Tent System (MGPTS)**

NSNs: 8340-01-456-3633 (Green Sm)  
8340-01-456-3628 (Green Med)  
8340-01-456-3647 (Green Lg)  
8340-01-491-1507 (Tan Sm)  
8340-01-491-1515 (Tan Med)  
8340-01-491-1479 (Tan Lg)



**Lightweight Maintenance Enclosure (LME)**

NSNs: 8340-01-456-3637 (Green)  
8340-01-507-4375 (Tan)



**Soldier Crew Tent (SCT)**

NSNs: 8340-01-359-0084 (Type I Green/Tan)  
8340-01-359-1481 (Type II Green/White)

**INFORMATION CONTACT:**  
**Expeditionary Service Support**  
DSN (312) 206-2843/(508) 206-2843



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## LIGHTWEIGHT MAINTENANCE ENCLOSURE (LME)

### CAPABILITIES:

Provides the Joint Forces a fully supportable, lightweight, rapidly deployable, blackout capable, mobile repair shelter for tracked and wheeled vehicles across the battlefield under all climatic conditions.

### DESCRIPTION:

The LME is a frame supported shelter with vinyl-coated polyester fabric (white interior) and equipped with an electrical power distribution box and interior lighting. The LME is similar to the TEMPER but with frame and fabric sections modified to add height and width needed for enclosure of tactical vehicles and equipment. The LME is heated with the Large Capacity Field Heater (LCFH).

### INFORMATION CONTACT:

#### Expeditionary Service Support

DSN (312) 206-2843/(508) 206-2843

- **Power Requirements:** Equipped with Power Distribution Box to accept external power sources
- **Size (LxWxH):** 32'x24'x15' (at center), 13.5' (at door opening)
- **Weight:** 1,400 lbs
- **Status/availability:** CTA item. Available through supply system. DLA managed.
- **Transportability:** Traditional Modes
- **Supportability:** Standard Army Supply and Maintenance Systems, TM 10-5410-284-13&P
- **NSN:**  
Type I: 8340-01-456-3637 (Green)/  
8340-01-507-4375 (Tan)  
Type II: 5410-01-512-6867 (Green)/  
5410-01-512-6868 (Tan)
- **LIN:** T49947





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FORCE SUSTAINMENT SYSTEMS



## MODULAR GENERAL PURPOSE TENT SYSTEM (MGPTS)

### CAPABILITIES:

Provides a multipurpose, modular, weatherproof shelter that improves upon the General Purpose (GP) Small, Medium and Large tents in the areas of habitability, weight, erect/strike time, supportability, durability, mobility, and versatility.

### DESCRIPTION:

MGPTS is a large, modular, pole supported tent with vinyl-coated polyester fabric that is a more versatile and habitable replacement for the old GP Small, Medium, & Large tents. Liners, plenum and fabric floors are available as optional items.

### INFORMATION CONTACT:

#### Expeditionary Service Support

DSN (312) 206-2843/(508) 206-2843

#### ● Power Requirements:

None. Electrical feed-throughs are provided to accept external power sources.

#### ● Size (LxWxH):

Small 18'x18'x11.5' (7' H sidewall)  
Medium 36'x18'x11.5' (7' H sidewall)  
Large 54'x18'x11.5' (7' H sidewall)

#### ● Weight: Small 470 lbs; Med 795 lbs; Large 1107 lbs.

#### ● Status/Availability: CTA Item, Available through supply system, DLA managed

#### ● Transportability: Air, land and sea

#### ● Supportability: Standard Army Maintenance System, TM 10-8340-240-12&P

#### ● NSN:

Small: 8340-01-456-3633 (Green),  
8340-01-491-1507 (Tan)  
Med: 8340-01-456-3628 (Green),  
8340-01-491-1515 (Tan)  
Large: 8340-01-456-3674 (Green),  
8340-01-491-1479 (Tan)

#### ● LIN: M35064





- **Power Requirements:**  
Equipped with single phase or 3-phase electrical power
- **Size:** TEMPER sections are interchangeable to form different configurations. Multiple configurations assembled with 8'L x 20'6"W sections. Typical sizes 16' x 20'; 32' x 20'; 64' x 20'.
- **Weight:** 1328 lbs. (Type IV)
- **Status/availability:** CTA Item, Available through supply system, DLA managed
- **Transportability:** Air, Land, Sea, Rail
- **Supportability:** Standard Army Maintenance System, TM 10-8340-224-13&P
- **NSN:**  
32 NSNs; 16 TEMPER Types (I thru XVI) in either Green or Tan (e.g. TY IV Green 8340-01-196-6272; TY IV Tan 8340-01-185-2628)
- **LIN:** T47813

## TENT, EXTENDABLE, MODULAR, PERSONNEL (TEMPER)

### DESCRIPTION:

The TEMPER Tent (Tent Extendable Modular Personnel) is a highly versatile design suitable for a wide range of environments and capable of being assembled using standard modules into a multitude of configurations. These configurations can range from smaller personnel and utility purposes to larger medical or kitchen configurations. In its largest standard form, it can be assembled into a dining facility which can serve 1,100 service people.

The TEMPER has an aluminum frame and is primarily covered with a vinyl coated polyester duck cloth that is fire, mildew and water resistant. The covering also has special coatings which suppress its visual and electronic characteristics to help conceal it from surveillance. It is fitted with features which allows for both heating and air conditioning.

### INFORMATION CONTACT:

**Expeditionary Service Support**  
DSN (312) 206-2843/(508) 206-2843





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FORCE SUSTAINMENT SYSTEMS



## TEMPER AIR SUPPORTED

### CAPABILITIES:

- The TEMPER Air Supported shelters are completely integrated with floor, air plenum, and liners
  - Easy to maintain
  - Reduced dust penetration
- Set-up: 15 min, 4 personnel
- Low pressure air beams (60PSI) do not require continuous air flow
- Designed and tested to 55 MPH sustained winds and 65 MPH gusts
- Withstand full snow loads (10 lb/ft<sup>2</sup>)
- Will accept all military HVAC systems (side or end wall)
- Complexes to meet any configuration
  - TEMPER Vestibule to TEMPER Vestibule
  - TEMPER Air Supported to TEMPER Air Supported Open Span
  - TEMPER Air Supported to ISO Side or ISO Endwall
  - TEMPER Air Supported to TRICON



### INFORMATION CONTACT:

#### Expeditionary Service Support

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## SOLDIER CREW TENT (SCT)

### CAPABILITIES:

Provides environmental protection for billeting of combat vehicle crews. The SCTs popularity is promoting a change in the authorization of units in need of billeting for small unit elements. A 4" stovepipe opening is included for use with standard Space Heater Arctic (SHA).

### DESCRIPTION:

The SCT is a lightweight, durable, single frame, single hub tent. The tent body is suspended from the frame in a canopy style. An over-cover lies on top of the frame to provide an air gap for added insulation. Two reversible over-covers are available in green/tan or green/white configurations. A cold weather cotton liner is also provided. Houses up to 5 Soldiers comfortably with 120 square feet floor space. Erect/strike is accomplished in less than 5 minutes. A storage/transport cover is included as well as a field repair kit.

### INFORMATION CONTACT:

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- **Power Requirements:** None
- **Size (L×W×H):** 11'×11'×53"
- **Weight:** 75 lbs
- **Status/availability:** CTA Item, Available through supply system, DLA managed
- **Transportability:** All traditional modes
- **Supportability:** Standard Army Retail Supply System and Standard Army Maintenance System, TM 10-8340-227-13&P
- **NSN:**  
Type I (Green/Tan) 8340-01-359-0084  
Type II (Green/White) 8340-01-359-1481
- **LIN:** T51043





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## ARMY STANDARD FAMILY OF RIGID WALL SHELTERS (ASF-RWS)

### CAPABILITIES:

Rigid wall shelters fulfill a multitude of missions including billeting; basing; mission command/command post functions; maintenance facilities; medical facilities; and any other functions that can be integrated, either permanently or temporarily, into such a shelter. Energy efficiency not only leads to fuel savings, but extends operational reach and lethality in resource-constrained environments. Transportability and mobility mean greater survivability and faster operational response. Modularity and interoperability allow for flexibility and scalability when preparing for and conducting multi-domain operations. Suitability in extreme conditions ensure our Army is effective all around the globe. Implementing all of these features with a mind for sustainability results in reduced life cycle costs.

### DESCRIPTION:

The Army Standard Family of Rigid Wall Shelters (ASF-RWS) program provides critical modernization and standardization updates to the following rigid wall shelter variants: Expandable/Non-Expandable (20-foot, 10-foot), Vehicle Mounted, and Panelized/Collapsible. This effort will allow the program office to develop, test, and evaluate rigid wall shelter designs that incorporate the latest material and manufacturing technologies to improve energy efficiency, reduce weight, improve supportability, and increase mobility. It will also allow the program office to incorporate user community feedback to reduce the proliferation of non-standard shelter use across the Army, thereby reducing sustainment cost for these items.

- **Power Requirements:**  
None.
- **Size:** Dependent on Shelter Variant
- **Weight:** Dependent on Shelter Variant
- **Status/availability:**  
Expandable/Non-Expandable  
RWS In development with availability starting in FY21.
- **Transportability:**  
Traditional Modes
- **Supportability:**  
Standard Army Supply and Two Level Maintenance
- **NSN:** TBD
- **LIN:** TBD



### INFORMATION CONTACT:

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## AUTHORIZED STOCKAGE LIST MOBILITY SYSTEM (ASLMS)

### CAPABILITIES:

Provides capability to use a single ASL storage system that is easily moved from a garrison to battlefield environment. ASLMS increases effectiveness of the Army's logistics system in support of the Warfighter and improves overall unit readiness. Enables deployment within 24 hours by all strategic lift assets and provides maneuver elements with a tailored, forward positioned, multimodal, modular Class IX ASL. International Standards Organization (ISO) compatible container system equipped with bail bar for full land, air, and sea movement. Reduces logistics burden on deploying units, and allows units to utilize same ASL equipment in both garrison and battlefield environments.

### DESCRIPTION:

ASLMS is a modular containerized storage system that houses ASL repair parts (Class IX) and consists of side opening, tactically and strategically deployable, ISO compatible, linked storage containers. It consists of standardized, side-opening containers with integrated, modular drawer storage, cabinet, bin, shelf & rack storage systems. ASLMS provides ready access to repair parts for use in both garrison and field environments.

- **Power Requirements:** None
- **Size (LxWxH)/Weight (GVW):**  
ASLMS Spare Parts Container - 20'x8'x8'/19,160 lbs.  
ASLMS Bulk Container - 20'x8'x8'/14,300 lbs.
- **Status/availability:** ASLMS Program of Record only fielded to Stryker Brigade Combat Teams (SBCTs). Field units have purchased similar COTS items (over 400 COTS systems procured).
- **Transportability:** Traditional Modes, Interoperable with joint service transportation systems and strategic lift assets.
- **Supportability:** Standard Army Supply and Two Level Maintenance, TM 10-5411-236-13&P
- **NSNs:**  
5411-01-524-5844 (Parts/Bulk, OD),  
5411-01-524-5845 (Parts/Parts, OD),  
5411-01-524-5846 (Parts/Bulk, DS),  
5411-01-524-5847 (Bulk/Bulk, OD),  
5411-01-524-5848 (Bulk/Bulk, DS),  
5411-01-524-5849 (Parts/Parts, DS)
- **LIN:** A04334

### INFORMATION CONTACT:

**Expeditionary Service Support**  
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## ULTRA-LIGHTWEIGHT CAMOUFLAGE NET SYSTEM (ULCANS) INCREMENT I

### CAPABILITIES:

ULCANS Increment I systems will provide Full Spectrum Signature Management, Protection from Current Sensor Threats as a Low Cost Force Multiplier. ULCANS Increment I introduces complete EM spectrum defeat for Visual, nIR, SWIR, LWIR, Radar, UV to mitigate known sensor gaps from legacy camouflage to restore combat overmatch.

### DESCRIPTION:

ULCANS is designed to improve survivability of military personnel and hardware as an all-weather modular concealment system that provides visual, infrared, and radar signature reduction. It is snag resistant, field repairable, and maintainable. It is designed for easy, rapid deployment and recovery with minimal personnel. ULCANS Increment I developing reversible Light/Dark Woodland, Snow/Alpine and Desert/Urban variants to restore combat overmatch against new and future foreign sensor threats. Incorporate Short Wave Infra-Red (SWIR) defeat, Radar background matching capability, and improve Thermal (LWIR) performance to mitigate known sensor gaps. New camouflage to the Force for the first time in a generation (since mid-late 90's).

- **Power Requirements:** None.
- **Weight:** TBD
- **Status/availability:** In development with availability of Light /Dark Woodland Variants in late FY19, Snow/Alpine variants in FY20 and Desert/Urban in FY21 as CTA items. TACOM ILSC Managed.
- **Transportability:** Traditional Modes
- **Supportability:** Standard Army Supply and Two Level Maintenance, TACOM ILSC Managed
- **NSN:** Woodland R/S 1080-01-677-6912, Woodland R/S 1080-01-677-6918
- **LIN:** TBD



### INFORMATION CONTACT:

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- **Power Requirements:**  
None
- **Weight:** 90 - 100 lbs
- **Status/availability:**  
Woodland & Desert Radar Scattering (R/S) & Woodland & Desert Radar Transparent (R/T) variants available through supply system, CTA Item, CECOM LCMC managed
- **Transportability:** Traditional modes
- **Supportability:** Standard Army Retail/Wholesale Supply Systems, TM 5-1080-250-12&P
- **NSN:**  
Woodland R/S 1080-01-457-2956  
Desert R/S 1080-01-475-0696  
Woodland R/T 1080-01-475-0697  
Desert R/T 1080-01-475-0694
- **LIN:** C89480

## ULTRA-LIGHTWEIGHT CAMOUFLAGE NET SYSTEM (ULCANS)

### CAPABILITIES:

ULCANS is camouflage providing increased survivability and multi spectral signature suppression to counter visual, near-infrared, shortwave infrared and radar threats, providing thermal signature suppression. ULCANS anti-snag design allows for quicker deployment/recovery.

### DESCRIPTION:

ULCANS is a durable, snag resistant camouflage screen system and support system that replaces the LCSS. The robust ULCANS design utilizes a one-piece shape disrupter that holds onto the screen reducing probability of Foreign Object Damage (FOD) to systems/equipment and risk to personnel. ULCANS is 25%-30% lighter than LCSS.

### INFORMATION CONTACT:

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## EXPEDITIONARY SHELTER PROTECTION SYSTEM (ESPS)

### CAPABILITIES:

Provide ballistic protection capability for shelters against small arms and small fragmenting munitions to support Force Provider Expeditionary (FPE) shelters as new add-on capability. ESPS shall be rapidly emplaced, ultra-violet protected, flame resistant, moisture resistant, and non-degradable in extreme temperatures (T), and shall protect against high-powered rifles and medium fragmenting munitions (O). The ESPS is intended to provide ballistic protection and withstand blast overpressure in expeditionary settings, where robust means of protection, such as concrete barriers and sandbags, are not readily available.



- **Power Requirements:**

None.

- **Weight:** ~ 250 lbs per ESPS Panel Module

- **Status/availability:**

In final development, Available in FY20 as CTA Item

- **Transportability:** Four Soldier portable

- **Supportability:** Standard Army Retail Supply and Maintenance Systems

- **NSN:** TBD

- **LIN:** TBD

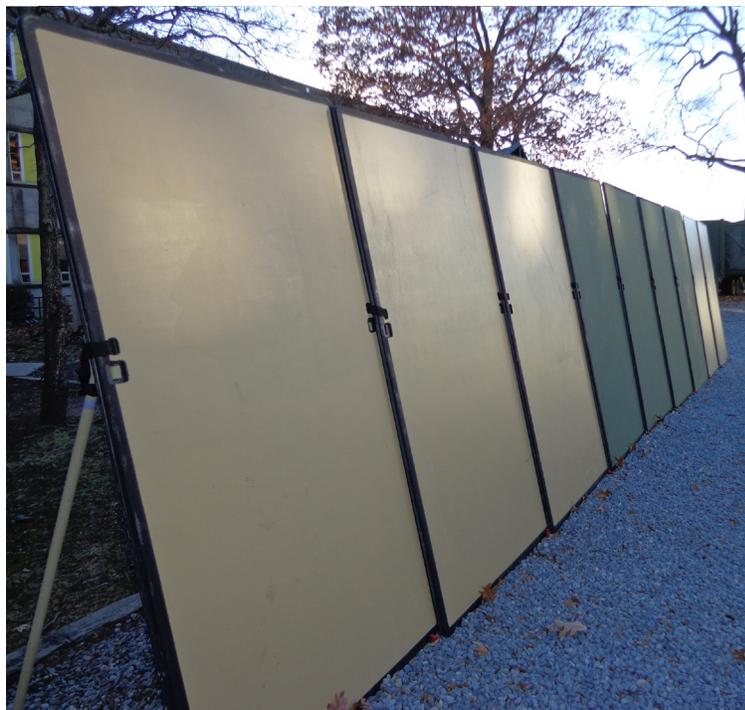
### DESCRIPTION:

ESPS is a rapidly deployable, expeditionary ballistic protection from multiple ballistic threats (direct and indirect) that can be installed around 32' x 21' shelter in less than 1 hour. The ESPS provides immediate protection against small arms and fragmentation on day 1 in all battlefield environments. The ESPS is a lightweight, low cost solution, redeployable, reusable, requires no material handling equipment or special tools for system setup.

### INFORMATION CONTACT:

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