



ENHANCED - TRAY RATION HEATING SYSTEM (E-TRHS)

PURPOSE:

The Enhanced - Tray Ration Heating System (E-TRHS) is a USMC group field feeding platform designed to feed 250 Warfighters. It fills a logistical gap that exists between providing Marines individual rations (MRE™, MCW/ LRP) and utilizing USMC or Army Logistics Civilian Augmentation Program (LOGCAP) to serve UGR-A™ menu items (or the 14 or 21-day CONOPS A-Ration Menu). UGR-H&S™, UGR-A™, and UGR-M menu items can be stored, prepared and served by the E-TRHS.

CHARACTERISTICS:

The E-TRHS uses the kitchen-in-a-box concept. All of the required cooking appliances, utensils, and serving wares are packed in an easily transportable refrigerated ISO container known as the Small Field Refrigeration System (SFRS). When a suitable cooking and serving site is found, the SFRS is opened up, the kitchen is set up outside of the container, and the refrigeration unit is powered on. Once at the desired set point temperature, the container is filled with semi-perishable or perishable food items. The SFRS uses a Thermo King VM405 MAX-EL Refrigeration Unit which is already logistically supported by the Marine Corps. The cooking appliances consist of a tray ration heater and two M-59A field ranges to do the bulk of the cooking. The TRH can boil 20 gal (76 L) of water in 30 to 45 minutes. All of the associated equipment, such as rain cover, tables, pan carriers, and spatulas, are also contained within the SFRS. The E-TRHS provides cooking flexibility, allowing the cook to boil, simmer, pan fry, grill or roast available rations. The kitchen uses the USMC's single fielded Airtronic™ burner, reducing supportability risks. The burner requires JP-8 or approved diesel fuel to operate. Power the refrigeration unit, burners and lighting is provided by a MEP 803A (10KW) Tactically Quiet Generator.



CAPABILITIES & BENEFITS

- Is capable of supporting forward feeding with multiple deployment scenarios.
- Supports preparation of complete UGR-H&S™, UGR-A™, and UGR-B™ menus.
- SFRS enables easy transportation and then converts to refrigerated storage for rations at temperatures from 33°F to 40°F (.56°C to 4.4°C) and frozen rations at temperatures from -5°F to 32°F (-21°C to 0°C) in ambient environments up to 122°F (50°C).

COMMENTS:

The E-TRHS fielding required integration of separately procured components. There are 76 systems deployed and managed by Product Manager-Combat Support Equipment (PdM-CSE), Marine Corps Systems Command.

The Combat Feeding Directorate and PdM-CSE partnered with the Naval Surface Warfare Center to design, test, and manufacture 70 sanitation sinks in 2014-2015. This will provide the Marine Corps with field sanitation capabilities that are not currently available in the E-TRHS.

POINT OF CONTACT:

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AT A GLANCE:

■ DIMENSIONS:

8 ft L × 6-5.5 ft W × 8 ft H (2.4×1.9×2.4 m)

■ WEIGHT:

■ Max. Gross Weight: 15,000 lbs (6,750 kg)

■ Tare Weight (including RU): 3520 lbs (1,584 kg)

■ Max Payload Weight: 11,480 lbs (5.166 kg)

■ VOLUME:

300 cubic feet (8.5 cubic meters)

■ COOLING CAPACITY:

■ 10,500 BTU/hr @ 35°F-110° (1.7°C – 44°C)

■ 5200 BTU/hr @ 0°F-110°F (-18°C – 44°C)

■ UTILITIES/POWER:

208/230 VAC, 3-Phase, 50-60 Hz, 10-14 A Nominal Current Rating

■ TRANSPORTATION:

Transportable by USMC MTRV or LVS

UNCLASSIFIED

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