



## ELECTRIC – SINGLE PALLET EXPEDITIONARY KITCHEN (E-SPEK)

### PURPOSE:

The E-SPEK replaces the fuel fired SPEKs that are currently used by the AF, providing the new capability of an all electric initial hot meal feeding capability to Expeditionary Air Force (AEF) deployments in austere locations. The ESPEK can prepare 550 UGR-H&S™ rations and 350 UGR-A™ rations (with additional refrigeration) in less than two hours. It is a compact, quick response kitchen system consisting of a tent based kitchen and optional dining areas, all electric appliances, and a sanitation system transported in standard ISO shipping containers (TriCons or BiCons) or on 463L air cargo pallets to support air, land, and ocean transport.

### CHARACTERISTICS:

The E-SPEK can provide hot meals within 4 hrs after rations arrive. It is best utilized for Prime Readiness in Base Service units at austere contingency locations for periods of 30 days or less. The E-SPEK consists of one 24 ft (7.3 m) CAMSS20EX Shelter integrated to form 480 sq ft (45 sq m) of kitchen, food preparation, sanitation, storage and serving line areas. The following food service equipment is included: 1 manual tilt braising pan (i.e. tilt grill), 1 convection oven, 2 pressureless steamers, portable flooring system, 5 lightweight food preparation work tables, 1 three compartment sanitation sink, 5 insulated food and beverage containers, portable drying and storage racks, utensils, hotel pans, and other miscellaneous food service equipment items. The kitchen's sanitation system and potable water hose system are designed to pump water from a separate water truck, water buffalo, or bladder. The system also has an integrated sump pump for removing gray water from the sanitation unit to a separate grey water tank/bladder. A separate (optional) dining facility consists of a second CAMSS20EX shelter system coupled to one end of the kitchen shelter and all of the associated tables and chairs necessary to support in-shelter dining.

Power is supplied to the kitchen via a 60 kW MEP-806B generator through a 200 amp Class L main power cable that feeds power to a 60 KVa power distribution panel (PDP). In addition, 110VAC GFCI duplex convenience outlets are added to provide convenience power and lighting. Each commercial appliance is modified to add a 60 amp Class L box mount connector on the rear of the appliance to support field plug and operation capabilities.

The E-SPEK Kitchen can be transported and deployed on a single 463L air cargo pallet. However, the generator, water bladder, hoses, and additional dining equipment (i.e. dining shelter, tables, chairs, etc.) need to be transported on a second air cargo pallet.

### CAPABILITIES & BENEFITS:

- Is designed primarily for the UGR-H&S™; UGR-A™ rations can be prepared with the addition of refrigeration and additional electrical power.
- Provides flexibility to roast, bake, grill, boil, braise, steam, and stew.
- Eliminates the hazards, burdens and costs associated with using fuel fired equipment.
- Provides a much improved shelter system (CAMSS) over the legacy TEMPER tent system.
- Is easily unpacked and assembled; requires only 4 food service personnel to operate and has on demand hot water capabilities.
- Operates from the 60 kW TQG currently used in the BEAR's inventory.
- Is designed to be the first two 463L pallet positions for the BEAR Kitchen system.

### COMMENTS:

The E-SPEK is a vital part of the Air Force Basic Force Module Phasing Plan and can be augmented by the playbook option BEAR Kitchen System. The technical data package was transitioned to the AF in FY10.

Similar to the E-SPEK is the Containerized E-SPEK (CESPEK). It provides many of the same capabilities as the E-SPEK but is contained in a unique three sided expandable (ISO) TriCon shelter. All of the components, except for those permanently mounted (tilt grill & combi ovens) are transported inside the TriCon kitchen shelter for pack out, making it "Ready for Transport" as a standard TriCon and "fully operational" when deployed as an expeditionary kitchen. Fabrication of the CESPEK is complete and will be evaluated by the BEAR and Air Force Services Agency in FY10 & FY11 at Tyndall & Holloman Air Force Bases.

### POINT OF CONTACT:

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