



BATTLEFIELD KITCHEN - ARMY | DoD CFD

PURPOSE:

The Army has identified a need to replace the Mobile Kitchen Trailer (MKT) with a kitchen that reduces the problems associated with the open combustion burners used in the MKT, which produce excessive noise and heat. Versatility and mobility are the primary engineering considerations for the BK, which will result in the ability to prepare, cook, and serve meals using less fuel and labor than required for the MKT.

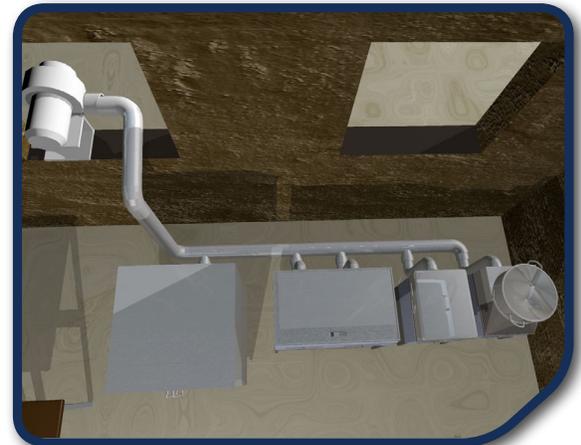
CHARACTERISTICS:

The heart of the BK will be the modular, fuel fired appliances. These will be the first appliances developed from the ground up to meet the needs of the Army. The kitchen itself will be trailer based, but the modular approach will allow the appliances and all the kitchen cabinetry to be quickly and easily removed from the mobile platform and set up in custom configurations as each mission dictates. The modular appliances will be developed with the full system of future kitchens in mind. The first application for the appliances will be the Pre-Planned Product Improvement (P³I) of the Containerized Kitchen (CK). The modular approach will allow appliances and cabinetry to be swapped seamlessly between the BK, CK and future army field kitchens of all sizes, both trailer and ground based.



CAPABILITY & BENEFITS:

- Modularity of appliances will be the building block for the BK, CK, and all army field kitchens; they will be commercial-like but designed for the military.
- Powered ventilation and closed combustion will drastically reduce kitchen heat and noise.
- Weight control will be a primary design consideration in order to maintain the mobility of the current MKT as much as possible.
- Will provide the ability to quickly and easily off-load equipment into fixed facilities.
- Hybrid power (a battery/generator system where the generator only runs to recharge the battery) is being considered; this will reduce generator operational hours, increasing its life while reducing fuel consumption, wet stacking, and noise.
- Cogeneration (production of heat and electricity) is also being considered to further reduce fuel consumption and noise.
- The system design will allow for as many BKs to be linked together as mission requires and terrain allows; the MKT is limited to two, back to back.



Battlefield Kitchen (BK) Conceptual Renderings
TOP: Set Up In Trailer; BOTTOM: Set Up In Structure

COMMENTS:

The Experimental Development and Demonstration phase has been initiated on the advanced technologies being considered. Engineering Development has been initiated on the modular appliances under the CK P³I effort. Transition of advanced technologies to PM-FSS will be ongoing as technologies mature. CASCOM is currently developing a Requirements Document, and transition to procurement is currently scheduled for FY15.

POINT OF CONTACT:

DoD Combat Feeding
Phone: COMM (508) 233-4670
E-Mail: nati-amsrd-nsc-ad-b@conus.army.mil

AT A GLANCE:

- **CAPACITY:**
Up to 300 meals per day
- **FUEL:**
JP-8 and diesel
- **WEIGHT:**
Less than 10,000 lbs (4,536 kg)
- **PERSONNEL:**
Requires four cooks (same as MKT)
- **TRANSPORTATION:**
LMTV towed trailer

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