DLA

ManTech Optimizes Packaging of Meals Ready to Eat (MRE)

The Challenge:

Over the years more food items have been added to the MRE to improve variety, acceptability, and nutritional quality. Meanwhile the size and shape of the MRE shipping box has remained constant, resulting in an increased difficulty in fitting 12 MREs into a box and causing delays and cost overruns.

ManTech Response:

- DLA's Combat Rations Network for Technology Implementation (CORANET) program optimized MRE packages and packing of MREs into shipping boxes and onto pallets
- Analyzed packaging and determined best fit for packaging automation to: (1) minimize entrapped air; (2) eliminate redundant packaging; and (3) develop an algorithm for the most efficient use of packaging space
- Menu bags based on the new films, and the new cardboard design sent to U.S. Army Natick Research Development and Research Center (NRDRC), for Soldiers for quality analysis and feedback.
- Improved productivity in manufacturing by developing modeling software for the manufacturers to use in packing and packaging of primary MRE packages, boxes and palletized shipping containers
- DLA ManTech investment of $600K

Impact:

- Eliminated unnecessary manufacturing lines and excessive packaging for the MRE main meals into smaller MRE cardboard cartons - estimated cost savings of $250,000/year.
- Reduced the quantity of packaging and packing material required for the MRE menu bag, the MRE case, and the palleting for a conservative combined estimated cost savings of $750k/year
- Reduced the volume and weight of the primary packaging by 35% to reduce the cost of shipping more than 30 million MRE's procured annually

Combined efficiencies total $1 million in annual savings

Defense Logistics Agency (DLA), Army, Navy, Marine Corps, NRDRC, US Dept. of Agriculture (USDA), Food Industry and Universities