

MRE

Meal Ready to Eat — Where Do These Fit Into Our Survival?



An MRE contains a main course, side dish, bread, dessert, and flameless ration heater.

The Meal, Ready-to-Eat — commonly known as the MRE — is a self-contained, individual field ration in lightweight packaging bought by the United States military for its servicemembers for use in combat or other field conditions where organized food facilities are not available. The MRE replaced the canned MCI or Meal, Combat, Individual rations in 1981 and is the intended successor to the lighter LRP ration developed by the United States Army for Special Forces and Ranger patrol units in Vietnam.

History

The first soldier ration established by a Congressional Resolution during the Revolutionary War consisted of enough food to feed a man for one day, mostly beef, peas, and rice. During the Civil War, the military moved toward

canned goods. Later, self-contained kits were issued as a whole ration, and contained canned meat, salt pork, bread, coffee, sugar and salt. During the First World War, canned meats were replaced with lightweight preserved meats (salted or dried), in order to save weight and allow more rations to be carried by soldiers carrying their supplies on foot. At the beginning of World War II, a number of new field rations were introduced, including the Mountain ration and the Jungle ration. However, cost-cutting measures by Quartermaster Command officials during the latter part of World War II and the Korean War again saw the predominance of heavy canned C rations issued to troops, regardless of operating environment or mission. The use of canned wet rations continued through the Vietnam War, with the improved MCI field ration.

Development

After repeated experiences dating from before World War II, Pentagon officials ultimately realized that simply providing a nutritionally balanced meal in the field was not adequate. Servicemembers in various geographic regions and combat situations often required different sub-sets of ingredients for food to be considered palatable over long periods. Moreover, catering to individual tastes and preferences would encourage servicemembers to actually consume the whole ration and its nutrition. Most importantly, the use of specialized forces in extreme environments and the necessity of carrying increasingly heavy field loads while on foot during extended missions required significantly lighter alternatives to standard canned wet rations.

In 1963, the Department of Defense began developing the "Meal, Ready to Eat", a ration that would rely on modern food preparation and packaging technology to create a lighter replacement for the canned Meal, Combat, Individual ration. This led in 1966 to the Long Range Patrol or LRP ration, a dehydrated meal stored in a waterproof canvas pouch. However, just as with the jungle ration, its expense compared to canned wet rations as well as the costs of stocking and storage a specialized field ration led to its limited usage and repeated attempts at discontinuance by Quartermaster Command officials. In 1975, work began on a dehydrated meal stored in a plastic retort pouch. It went into special issue starting in 1981 and standard issue in 1986, using a limited menu of 12 entrees.

The MRE has been in continual development since 1993. In an array of field tests and surveys, servicemembers requested more entree options and larger serving sizes. By 1994, commercial-like graphics were added to make the packets more user-friendly, while biodegradable materials were introduced for non-edible components such as spoons and napkins.

The number of entrées expanded to 16 by 1996 (including vegetarian options — Vegetarian menu: bean & rice burrito), 20 entrées by 1997 and 24 entrées by 1998. Today, servicemembers can choose from up to 24 entrées, and more than 150 additional items. The variety allowed service members from various cultures and geographical regions to find something palatable. In 1992, a Flameless Ration Heater (FRH), a water-activated exothermic reaction product that emits heat, allowed a service member in the field to enjoy a hot meal.

In 2006, "Beverage Bags" were introduced to the MRE, as servicemembers have begun to depend more on hydration packs than on canteens, thus denying them the use of the metal canteen cups (shaped to fit in a canteen pouch with the canteen) for mixing powdered beverages. In addition to having measuring marks to indicate levels of liquid for precise measurement, they can be sealed and placed inside the

flameless heater.

Most recently, MREs have been developed using the Dietary Reference Intake, created by the Institute of Medicine (IOM). The IOM indicated that service members (who were classified as highly active men between the ages of 18 and 30) typically burn about 4,200 Calories a day, but tended to only consume about 2,400 Calories a day during combat, entering a negative energy balance. This imbalance occurs when service members fail to consume full portions of their rations. Although manipulations to the food items and distribution of macronutrients in order to help boost the amount of kilocalories per MRE have been made, more studies are showing that many service members still do not meet today's standards of daily consumption, often trading and discarding portions of the ration. Researchers continue to study the habits and eating preferences of servicemembers, making constant changes that encourage servicemembers to eat the entire meal and thus get full nutritional value.

In addition, the military has experimented with new assault ration prototypes such as the First Strike Ration and the HOOAH! Bar, designed with elite or specialized forces in mind. Lighter than the typical MRE, they require no preparation and allow servicemembers to eat them on the go.

In July 2009, 6,300 dairy shake packets of varying flavors were recalled due to evidence of salmonella contamination.

Each MRE meal provides about 1,200 Calories (1,200 kcal or 5,000 kJ). They are intended to be eaten for a maximum of 21 days (the assumption is that logistics units can provide superior rations by then), and have a shelf life of three years (depending on storage conditions).

Packaging requirements are strict. MREs must be able to withstand parachute drops from 380 metres (1,250 ft), and non-parachute drops of 30 metres (98 ft). The packaging is required to maintain a minimum shelf life of three and a half years at 27 °C (81 °F), nine months at 38 °C (100 °F), and short

durations from -51 °C (-59.8 °F) to 49 °C (120 °F) must be sustainable. New forms of packaging are being considered to better meet these requirements including the use of zein to replace the foil, which can be easily punctured, conducts heat, and is reflective (which may give away a servicemember's position).

Each MRE weighs 18 to 26 ounces (510 to 740 g), depending on the menu. Since MREs contain water, they weigh more than freeze-dried meals providing equivalent calories.

Resale status

As a result of earlier unauthorized sales to civilians, the Department of Defense requires that "U.S. Government Property, Commercial Resale is Unlawful" be printed on each case of MREs. Despite the disclaimer, there are no laws that forbid the resale of MREs. Although the government has attempted to discourage sellers from selling MREs, auction sites such as eBay have continued to allow auctions of the MREs because the Department of Defense has been unable to show them any regulations or laws specifically outlawing the practice. According to a spokesman for eBay, "until a law is passed saying you can't sell these things, we're not going to stop them from being sold on the site."

The recent growth of MREs listed on eBay (2005) has resulted in a government investigation of whether they were intended for Hurricane Katrina victims, and the news media nickname "Meals Ready for eBay." Some cases are being sold from Louisiana, Mississippi, Florida and other Gulf states affected by Katrina. The internal cost of a 12 pack case of MREs is \$86.98 (approx. \$7.25 a meal) to the government, much higher than what is actually paid to vendors. That said, MREs can be purchased by civilians directly from the contractors who supply MREs to the United States Government. These MREs are very similar to genuine US Government MREs, differing only in minor details (i.e. design of case and bag or type of spoon).

Flameless Ration Heaters are prohibited on commercial airlines unless sealed in the original MRE menu bag,

due to the hydrogen fumes yielded by the chemical process of cooking with them.

MRE contents:

An MRE contains a main course, side dish, bread, dessert, and flameless ration heater. General contents may include:

Main course (entree)

Side dish

Dessert or snack (often commercial candy, fortified pastry, or HOOAH! Bar)

Crackers or bread

Spread of cheese, peanut butter, or jelly

Powdered beverage mix: fruit flavored drink, cocoa, instant coffee or tea, sport drink, or dairy shake.

Utensils (usually just a plastic spoon)

Flameless ration heater (FRH)

Beverage mixing bag

Accessory pack:

- Xylitol chewing gum
- Water-resistant matches
- Napkin / toilet paper
- Moist towelette

Seasonings, including salt, pepper, sugar, creamer, and/or Tabasco sauce.

Many items are fortified with nutrients. In addition, DoD policy requires units to augment MREs with fresh food and A-rations whenever feasible, especially in training environments.

OK — Now that you're an expert on MREs, you must be anxious to try them out. The only supplier I can recommend is: <http://beprepared.com>. You can even buy 1 meal for \$5.75 to try one out.

Also, we show their 3 day unit and the huge, 1 year supply. You will note that the cost is about twice as much as a year's supply of dehydrated food as sold by efoodsdirect. The only advantage is you don't need a source of heat or the addition of liquid.

The call is your's, however, this writer recommends that you, first, try a



Above is 1 individual meal
Cost = \$5.75



Above is a 3 day package
for 1 individual.
Cost = \$35.95



Above is a Year's supply
for 1 individual.
Cost = \$3,599.95

3 day unit before making a final decision. I might add that the 3 day unit makes an ideal item to have in your vehicle for that one time you're stuck in snow or desert sand.

In Arizona, every year someone ventures into a snow storm or gets

stranded in the desert. Usually without even enough water, they, many time perish from dehydration. Making the fatal mistake of wandering from their vehicle, the buzzards usually find them before rescuers!

MREs usually have a shorter shelf life than dehydrated food. This, coupled with the higher cost, I can't recommend MREs for other than the first few days of a survival situation. At least you don't have to spend the initial hours scrounging up something to eat.

You will note the the military only plans on feeding the troops for 21 days on MREs. planning on conventional facilities and food after that.

You might work out a plan using a few of the 3 day units as a buffer to your long range dehydrated supply.

Most of us will have freinds and relatives who, for some reason, didn't heed the warning to survival preparation. But, when the need arises, you can count on them to, now, remember what you were trying to get them to do and will come to you for food! Having a stock of these 3 day units can serve as barter or a way of sending them home with something to eat.