

Tastier MRE: Chemistry gives battlefield chow a gourmet flare

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The portable packages of food called the Meal, Ready to Eat (MRE) that sustain military personnel in combat or field conditions without regular food facilities are getting tastier and more sophisticated thanks to innovations in food technology. That's the focus of an article in Chemical & Engineering News, ACS' weekly newsmagazine.

C&EN Senior Editor Bethany Halford notes that the forerunners to today's MREs, known as C Rations, consisted of simple ingredients like beans and franks or ham slices in little green cans. One former soldier described the meals as "big wads of grease." By contrast, today's MRE contains a main course like ravioli, bread, moist lemon poppyseed cake for dessert, a packet of instant coffee or other powdered beverage, and a flameless heater. Instead of cans, modern field rations come in tough pouches that can withstand heavy downpours and endure helicopter air-drops.

Scientists have devoted years to developing the modern MRE, which must meet a strict set of criteria, including a prolonged shelf life ranging from months to even years. MRE packaging now contains protective layers, composed of foil and other materials, which block out oxygen, water vapor, and light to keep [food](#) from spoiling. Scientists are currently testing improved packaging materials, advanced sterilization techniques, and better ways to heat foods. Who knows, [military personnel](#) of the future may even find that MRE with crab cakes in sweet pepper aioli and finish up with a lemon curd napoleon.

More information: "The Science of Feeding Soldiers",
pubs.acs.org/cen/science/88/8818sci2.html

Provided by American Chemical Society

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