

07SAB06

28 July 2006

FAA warns of danger of hydrogen emissions from self heating MREs



While troops are the main users of self heating MREs they are increasingly popular with mountain climbers, hikers and other outdoor activity enthusiasts.

The US FAA has issued the following Safety Alert for Operators (SAFO) on July 24:

Subject: Fire hazard with flameless ration heaters (also known as meals, ready-to-eat or MRE)

Background: In November 2004, a flight attendant conveyed a concern to an FAA aviation safety inspector about passengers eating MREs during flight. The flight attendant had become concerned when the MREs started producing heat and steam.

Discussion: At least one MRE manufacturer uses a combination of chemicals (e.g., food grade iron, magnesium, and salt water) that when mixed together, create heat and steam to warm the meal. At its Technical Center in Atlantic City, NJ, the FAA studied the safety of such meals onboard passenger carrying aircraft. The FAA conducted a series of six tests in a variety of conditions in an open cabin environment and in confined spaces simulating an overhead bin or a cargo hold. The FAA summarized its findings in the following statement: "It is evident from the tests that the release of hydrogen gas from these MREs is of a sufficient quality to pose a significant hazard onboard a passenger aircraft."

In June 2006, the FAA released a Technical Note addressing The Fire Safety Hazard of the Use of Flameless Ration Heaters Onboard Commercial Aircraft DOT/FAA/AR-TN06/18. This report is available for download free of charge at: <http://actlibrary.tc.faa.gov/> (select Search Library Catalogue; use the terms "Flameless ration heaters"). A hard copy may be purchased from the National Technical



Information Service (NTIS) at: <http://www.ntis.gov/>. While this Technical Note does not officially establish that flameless ration heaters are hazardous material, its message regarding safety is perfectly clear: such heaters may create a safety hazard in an aircraft.

Recommended Action: Directors of safety, directors of operations, fractional ownership program managers, directors of training, and crewmembers of passenger-carrying aircraft should be familiar with the content of this SAFO, and should implement practices to prevent self heating MREs from being activated by passengers during flight.



IFALPA provides this data for information only, In all cases pilots should follow their company's guidance and procedures.

In the interests of flight safety, reproduction of this bulletin in whole or in part is encouraged. It may not be offered for sale or used commercially. All reprints must credit IFALPA.