

Status of Hand Fire Extinguishers for use in Aircraft, AC 20-42D

IASFPWG

Atlantic City, NJ
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Washington, DC



**Federal Aviation
Administration**



Overview

- **Background on Halon Replacement Hand Fire Extinguishers**
- **Overview of Proposed AC on Hand-Held Extinguisher**
- **Status of AC**
- **Status of ICAO/EC Activities to Ban Halon Use**

Halon Replacement Hand-Held Fire Extinguishers

- In 1993, FAA Mandated Development of Certification Criteria
- International Aircraft Systems Fire Protection Working Group (IASFPWG):
 - MPS Full-Scale Fire Tests for Each Aircraft Application (Developed at FAATC) to Demonstrate Replacement Agent Equivalency to Halon
 - Hand-Held MPS Released 2002 (DOT/FAA/AR-01/37)
 - **Drafted AC 20-42C Revision 11/2006**

Proposed AC 20-42D

- **Updates Guidance for New Installations of Required Hand-Held Extinguishers**
 - Establishes Hand-Held MPS as FAA Approved Procedure for Halon Replacement Extinguishers
 - Identifies FAA Approved Replacements to Halon 1211
 - HCFC Blend B
 - HFC-227ea
 - HFC-236fa
 - Provides Guidance on Fire-Fighting Effectiveness Selection, Location and Mounting
 - Provides Safe-Use and Marking Provisions for Halocarbon Extinguishers
 - Explains Certification for Replacement Agents
- **Recommends Transition to Halocarbon Clean Agent Extinguishers**
- **Cancels AC 20-42C, March 1984**
- **FR Notice Issued 10/1/09 for Public Comment**

Notice of Availability

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Hand Fire Extinguishers for Use in Aircraft, AC 20-42D Revision

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of availability and request for public comment.

SUMMARY: This notice announces the availability of and request for public comments on the proposed revision of current Federal Aviation Administration (FAA) Advisory Circular (AC) 20-42C, Hand Fire Extinguishers for use in Aircraft. The proposed revision "D" to the AC provides updated guidance for the fire-fighting effectiveness, selection, location, mounting and safe-use of hand fire extinguishers in aircraft. It also identifies three FAA approved replacement agents for Halon 1211.

DATES: Comments must be received on or before November 27, 2009.

FOR FURTHER INFORMATION CONTACT:

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SUPPLEMENTARY INFORMATION:

Comments Invited

You are invited to comment on the draft order listed in this notice by sending such written data, views, or arguments to the above listed address. Please identify "FAA AC 20-42D, Hand Fire Extinguishers for use in Aircraft" as the subject of your comments. You may also examine comments received on the proposals before and after the comment closing date at FAA offices, 950 L'Enfant Plaza, 5th Floor, SW., Washington, DC 20024, weekdays except Federal holidays, between 8:30 a.m. and 4:30 p.m. The Director of the Aircraft Certification Service will consider all communications received on or before the closing date before implementing the revision.

Background

The FAA developed this proposed revision to AC 20-42C with direct industry assistance through the International Aircraft Systems Fire Protection Working Group (IASFPWG). The proposed revision will provide users with updated guidance on available extinguishing agents. Specifically, the revised AC will provide guidance on the effectiveness and safe-use of Halon 1211 and three FAA approved replacement agents.

It: (1) Establishes an FAA approved minimum performance standard (MPS) for halon replacement agents developed by the FAA Technical Center which requires a hidden fire test and a seat fire/toxicity test; (2) Recommends that users of halon extinguishers transition to using the new halocarbon clean replacement agents in fire extinguishers kept onboard airplanes and rotorcraft; and (3) Provides guidance on how to gain certification for halocarbon clean agent extinguishers intended to replace Halon 1211 hand-held extinguishers.

How To Obtain Copies

You can get an electronic copy via the Internet at http://www.faa.gov/aircraft/draft_docs/, and then select Advisory Circulars, or by contacting the person named in the paragraph **FOR FURTHER INFORMATION CONTACT**.

Issued in Washington, DC on October 1, 2009.

Status of AC and Halon Replacements

- **AC 20-42D Notice for Public Comment 10/09**
- **Comment Period Closes 11/27/09**
- **Resolution of Comments Completed by 2/10**
- **Issuance of AC Scheduled for 3/10**
- **Halon Replacement Hand-Held Extinguishers:**
 - **Three Approved Replacement Agent Extinguishers Have Not Been Used Because of Increased Weight and Volume**
 - **New Agents are to be Evaluated**
 - **FK-5-1-12 (Novec 1230)**
 - **2-BTP**
 - **Water Mist**

Status of Halon Use in Civil Aviation Comparison

- [ICAO \(A36-12\) AIRP Proposal](#) (Rev Annex 6 & 8)
- [EC DG Environment Proposal](#)

	<u>New A/C Prod</u> (ICAO/EC)	<u>New A/C TC</u> (ICAO/EC)	<u>Existing A/C</u> (ICAO/EC)
Lavatory	2012/2017	2012/2012	None/2017
Portable	2015/2021	2012/2012	None/2021
Engines/APU	None/2031	2012/2012	None/2031
Cargo	None/2031	None/2017	None/2031