



Republic of the Philippines
CIVIL AVIATION AUTHORITY of the PHILIPPINES
Office of the Director General

03 June 2010

MEMORANDUM CIRCULAR NO. 16-10

TO: All Air Operator Certificate Holders, Aircraft Maintenance Organizations, Aviation Suppliers/Aircraft Materials Distributor's Certificate Holders, and Aircraft Owners

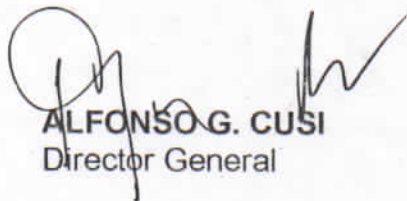
SUBJECT: Quality of Halon in the Fire Extinguishing System

In line with the International Civil Aviation Organization's (ICAO) Assembly Resolution A36-12: *Halon replacement*, the continued use of halon gas in civil aviation has raised environmental concerns particularly in the Montreal Protocol on Substances that Deplete the Ozone Layer, which bans the production and the import/export of pure halon.

Given that the availability of pure halon supplies is declining, the use of recycled halon has rapidly increased in fire extinguishing systems. This recycling has led to a degraded quality of halon, the degraded halon may lead to the release of toxic fumes and possibly causing injury to aircraft occupants.


To ensure safety in the fire extinguishing system of civil aircraft, all concerned organizations/individuals are requested to implement the following measures:

1. Verify the quality of halon in their possession, or provided by suppliers, through effective testing or certification attesting to the quality of halon to an established and recognized international standard;
2. Include in their quality system a means of requesting from halon suppliers certification documentation attesting to the quality of halon to an established and recognized international standard; and
3. Comply with any Airworthiness Directives (ADs) affecting the fire extinguishing system of their aircraft. (Refer to the attached sample ADs produced by EASA and FAA covering this subject)


ALFONSO G. CUSI
Director General

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OF THE PHILIPPINES
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AIDA S. ROMULO
Chief, Central Records Section

EASA	EMERGENCY AIRWORTHINESS DIRECTIVE	
	<p>AD No.: 2009-0251-E</p> <p>Date: 25 November 2009</p> <p>Note: This Emergency Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.</p>	
<p>This AD is issued in accordance with EC 1702/2003, Part 21A.3B. In accordance with EC 2042/2003 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].</p>		
<p>Type Approval Holder's Name :</p> <p>Fire Fighting Enterprises Limited</p>		<p>Type/Model designation(s) :</p> <p>Portable Halon 1211 Fire Extinguishers</p>
<p>Approval Number : Various National approvals.</p>		
<p>Foreign AD : Not applicable</p>		
<p>Supersedure : None</p>		
<p> </p>		
ATA 26	Fire Protection – Portable Fire Extinguishers – Identification / Replacement	
<p> </p>		
<p>Manufacturer(s):</p>	<p>Fire Fighting Enterprises Limited</p>	
<p>Applicability:</p>	<p>Portable Halon 1211 (BCF) fire extinguishers, identified by Finished Goods (FG) number and serial number (s/n) in Appendix 1 of this AD.</p> <p>These fire extinguishers are known to be installed (or carried/stowed on board) on, but not limited to, Airbus, Alenia, Boeing, Embraer, Fokker and SAAB transport aeroplanes, Pilatus, Hawker Beechcraft (formerly Raytheon) and Vulcanair (formerly Partenavia) general aviation aeroplanes and Agusta and Eurocopter helicopters.</p>	
<p>Reason:</p>	<p>The Civil Aviation Authority of the United Kingdom (UK) has informed EASA that significant quantities of Halon 1211 gas, determined to be outside the required specification, have been supplied to the aviation industry for use in fire extinguishing equipment. Halon 1211 (BCF) is used in handheld fire extinguishers, usually fitted or stowed in aircraft cabins.</p> <p>EASA published Safety Information Bulletin (SIB) 2009-39 on 23 October 2009 to make the aviation community aware of this safety concern.</p> <p>The results of the ongoing investigation now show that LyonTech Engineering Ltd, a UK-based company, has supplied a quantity of heavily contaminated Halon 1211 (BCF) to Fire Fighting Enterprises (FFE). This Halon 1211 has subsequently been used to fill certain FFE portable fire extinguishers that are now likely to be installed in or carried on board aircraft.</p> <p>The contaminated nature of this gas, when used against a fire, may lead to release of toxic fumes, possibly causing injury to aircraft occupants.</p>	

	For the reason described above, this EASA AD requires the identification and removal from service of all affected fire extinguishers and replacement with serviceable units.
Effective Date:	26 November 2009
Required Action(s) and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <ol style="list-style-type: none"> (1) Within two (2) days after the effective date of this AD, identify the FG number and s/n of the portable fire extinguisher(s) installed or carried on board the aircraft. (2) If any portable fire extinguisher identified as required by paragraph (1) of this AD is listed in Appendix 1 of this AD, before next flight, remove it from the aircraft and replace it with a serviceable unit. (3) From the effective date of this AD, do not install any portable fire extinguisher as identified in Appendix 1 of this AD on any aircraft, unless it has been serviced with Halon 1211 that has been verified to conform to the correct specification.
Ref. Publications:	None
Remarks :	<ol style="list-style-type: none"> 1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this EAD. 2. The safety assessment has requested not to implement the full consultation process and an immediate publication and notification. 3. Enquiries regarding this AD should be referred to the Airworthiness Directives, Safety Management & Research Section, Certification Directorate, EASA. E-mail: ADs@easa.europa.eu. 4. For any question concerning the technical content of the requirements in this AD, please contact: Fire Fighting Enterprises Ltd, 9 Hunting Gate, Hitchin, Hertfordshire SG4 0TJ, United Kingdom Telephone: +44 (0) 845 402 4242 E-mail: sales@ffeuk.com, Website: www.ffeuk.com

APPENDIX 1

FG Number	serial number(s)
BA20703GR-3	044293, 044339 and 044340.
BA20703GSR-3	044650, 044651, and 044682 through 044685 inclusive.
BA20703R-3	044398 through 044417 inclusive, 044692, 045066, 045206, 045207 and 045208.
BA21741GR-2	044336, 044337, 044338, 044562, 044563, 044564, 044585, and 044728 through 044733 inclusive.
BA21741GSR-2	044241, 044242, 044294, 044295, 044882, 044950, 045188, 045189, and 046753 through 046756 inclusive,.
BA21741SR-2	044325 through 044329 inclusive, 044490 through 044499 inclusive, 044542 through 044546 inclusive, and 044744 through 044763 inclusive,
BA21783GSR-3	044586 and 044587
BA22594GR-3	044369, 044370, 044371, and 044466 through 044471 inclusive
BA23044SR-1	044429 through 044432 inclusive, 044889 through 044895 inclusive, 045099, 045100 and 045101.
BA23792-1	04645 through 04744 inclusive
BA23792R-1	044877 through 044881 inclusive
BA24180R-1	044227 through 044232 inclusive, 046010 and 046011
BA51012GS-3	045137 and 045138.
BA51012R-3	044485 through 044489 inclusive
BA51012SR-1	045190.
BA51015-3	044243 through 044282 inclusive, 044355 through 044368 inclusive, 044433 through 044452 inclusive, 044512 through 044531 inclusive, 044693 through 044723 inclusive, and 044774 through 044781 inclusive,
BA51015G-3	044724, 044725, 044824 through 044830 inclusive, and 044869 through 044876 inclusive.
BA51015GR-3	044532 through 044541 inclusive, 044734 through 044737 inclusive, 044913 through 044924 inclusive, and 045058 through 045063 inclusive.
BA51015GS-3	044883 through 044888 inclusive, and 044945 through 044949 inclusive.
BA51015GSR-3	044738 through 044743 inclusive, 044911 and 044912.
BA51015R-3	044568 through 044584 inclusive.
BA51015S-3	044459 through 044465 inclusive
BA51015SR-3	044565, 044566 and 044567.



2010-01-03 Fire Fighting Enterprises Limited: Amendment 39-16159. Docket No. FAA-2009-1225; Directorate Identifier 2009-NM-257-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective January 20, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to portable Halon 1211 (BCF) fire extinguishers manufactured by Fire Fighting Enterprises Limited. These fire extinguishers may be installed on (or carried or stowed on board) various transport airplanes, small airplanes, and rotorcraft, certificated in any category, identified in but not limited to the airplanes and rotorcraft of the manufacturers included in Table 1 of this AD, all type-certificated models.

Table 1—Affected Airplanes and Rotorcraft

Manufacturer	Product subtype
328 Support Services GmbH (Type Certificate previously held by AvCraft Aerospace GmbH; Fairchild Dornier GmbH; Dornier Luftfahrt GmbH).	Transport Airplane.
Aermacchi S.p.A	Small Airplane.
Agusta S.p.A	Rotorcraft.
AgustaWestland	Rotorcraft.
Airbus (Type Certificate previously held by Airbus Industrie)	Transport Airplane.
Aircraft Industries a.s. (Type Certificate previously held by LETECKE ZAVODY a.s.; LET Aeronautical Works)	Small Airplane.
Alenia Aeronautica	Transport Airplane.
B–N Group Ltd (Type Certificate previously held by Pilatus Britten-Norman Limited; Britten-Norman (Bembridge) Limited).	Small Airplane.
BAE Systems (Operations) Limited (Type Certificate previously held by British Aerospace Regional Aircraft; British Aerospace (Commercial Aircraft) Limited; Jetstream Aircraft Limited; British Aerospace, PLC; Avro International Aerospace Division; British Aerospace).	Transport Airplane.
The Boeing Company	Transport Airplane.

Empresa Brasileira de Aeronautica S.A. (EMBRAER)	Transport Airplane.
Eurocopter Deutschland GMBH (ECD) (Type Certificate previously held by Messerschmitt-Bolkow-Blohm-Gmbh)	Rotorcraft.
Eurocopter France	Rotorcraft.
Fokker Services B.V	Transport Airplane.
Hawker Beechcraft (Type Certificate previously held by Raytheon Aircraft Company; Beech Aircraft Corporation)	Small Airplane.
Pilatus Aircraft Ltd	Small Airplane.
Saab AB, Saab Aerosystems (Type Certificate previously held by SAAB AIRCRAFT AB; SAAB-Fairchild)	Transport Airplane.
Short Brothers PLC (Type Certificate previously held by Short Brothers, Ltd.)	Transport Airplane.
Triton America LLC (Type Certificate previously held by AAI Acquisition, Inc; Adam Aircraft)	Small Airplane.
Vulcanair S.p.A. (Type Certificate previously held by Partenavia Costruzioni Aeronautiche S.p.A)	Small Airplane.

Subject

(d) Air Transport Association (ATA) of America Code 26: Fire Protection.

Reason

(e) The mandatory continuing airworthiness information (MCAI) consists of two European Aviation Safety Agency (EASA) ADs: 2009-0251-E, dated November 25, 2009, and 2009-0262, dated December 15, 2009. EASA AD 2009-0251-E states:

The Civil Aviation Authority of the United Kingdom (UK) has informed EASA that significant quantities of Halon 1211 gas, determined to be outside the required specification, have been supplied to the aviation industry for use in fire extinguishing equipment. Halon 1211 (BCF) is used in handheld fire extinguishers, usually fitted or stowed in aircraft cabins.

EASA published Safety Information Bulletin (SIB) 2009-39 on 23 October 2009 to make the aviation community aware of this safety concern.

The results of the ongoing investigation now show that LyonTech Engineering Ltd, a UK-based company, has supplied a quantity of heavily contaminated Halon 1211 (BCF) to Fire Fighting Enterprises (FFE). This Halon 1211 has subsequently been used to fill certain FFE portable fire extinguishers that are now likely to be installed in or carried on board aircraft.

The contaminated nature of this gas, when used against a fire, may lead to release of toxic fumes, possibly causing injury to aircraft occupants.

For the reason described above, this EASA AD requires the identification and removal from service of all affected fire extinguishers and replacement with serviceable units.

EASA AD 2009-0262 adds the following:

* * * * *

* * * On 25 November 2009, EASA Emergency AD 2009-0251E was published to address an earlier batch of extinguishers with contaminated Halon 1211.

The results of the ongoing investigation have now established that LyonTech Engineering Ltd, a UK-based company, has supplied further consignments of Halon 1211 (BCF) to Fire Fighting Enterprises (FFE) that do not meet the required specification. This Halon 1211 has subsequently been used to fill certain FFE portable cabin and toilet compartment fire extinguishers that are now likely to be installed in or carried on board aircraft.

The contaminated nature of this gas, when used against a fire, may provide reduced fire suppression, endangering the safety of the aircraft and its occupants. In addition, extinguisher activation may lead to release of toxic fumes, possibly causing injury to aircraft occupants.

* * * * *

Compliance

(f) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Actions

(g) Do the following actions.

(1) Within 90 days after the effective date of this AD, replace portable Halon 1211 (BCF) fire extinguishers manufactured by Fire Fighting Enterprises Limited with serviceable fire extinguishers; except as provided by paragraph (g)(2) of this AD.

(2) Fire extinguishers identified in paragraphs (g)(2)(i) and (g)(2)(ii) of this AD are not required to be replaced.

(i) Fire extinguishers conclusively determined to have been most recently filled with Halon 1211 supplied by a company other than LyonTech Engineering Limited.

(ii) Fire extinguishers that have been most recently filled by LyonTech Engineering Limited and that are conclusively determined by Fire Fighting Enterprises Limited to be filled with Halon 1211 that meets their design specification for Halon purity.

(3) As of the effective date of this AD, do not install any portable fire extinguisher manufactured by Fire Fighting Enterprises Limited unless it has been conclusively determined that the last time it was filled, it was filled with Halon 1211 supplied by a company other than LyonTech Engineering Limited; or it has been conclusively determined by Fire Fighting Enterprises Limited that the last time it was filled, it was filled with Halon 1211 that meets their design specification for Halon purity.

FAA AD Differences

Note: This AD differs from the MCAI and/or service information as follows:

(1) EASA ADs 2009-0251-E and 2009-0262 specify to inspect for certain fire extinguishers manufactured by Fire Fighting Enterprises Limited and replace if necessary. This AD requires

replacing all fire extinguishers manufactured by Fire Fighting Enterprises Limited except as provided in paragraph (g)(2) of this AD.

(2) EASA AD 2009-0251-E specifies a time of 2 days to do the actions and EASA AD 2009-0262 specifies a time of 30 days to do the actions. This AD requires that the actions be done within 90 days. We have determined that a 90-day compliance time will ensure an acceptable level of safety.

Other FAA AD Provisions

(h) The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The manager of the office having certificate responsibility for the affected product has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, will coordinate requests for approval of AMOCs with the manager of the appropriate office for the affected product. Send information to ATTN: Dan Rodina, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-2125; fax (425) 227-1149. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

Related Information

(i) Refer to MCAI EASA Emergency Airworthiness Directive 2009-0251-E, dated November 25, 2009; and EASA Airworthiness Directive 2009-0262, dated December 15, 2009; for related information.

Material Incorporated by Reference

(j) None.

Issued in Washington, DC, on December 28, 2009.
Kalene C. Yanamura,
Acting Director,
Aircraft Certification Service.