



Status on HALON contamination

Rémi DELETAIN

Certification Directorate

**Powerplant Installation & Fuel
System Expert**



Contents of the presentation

Contaminated halon

-  **Status**

-  **ICAO state letter**



Contaminated Halon

Background

- ✧ **UK based company delivered polluted Halon (H1211 / H1301)**
- ✧ **17 Customers identified**
- ✧ **EASA / CAA UK approach individually each company involved in Aviation either as PartM / Part145**
- ✧ **Wide variety of applications: handheld, enigne, APU, cargo for General aviation, Helicopters & Large airplanes**



Contaminated Halon 1211

EASA global approach for Halon 1211

- ✧ Identification of the suspected batches
- ✧ Test of the suspected batches
- ✧ According to the results (purity <90%)
issuance of AD with defined applicability
(P/N, S/N)
- ✧ For all batches with $90\% < \text{purity} < 99\%$
FAA-TC Tests done with different levels of
contaminants to determine compliance time
for future ADs



Contaminated Halon 1211

- As of today, EASA has issued 7 ADs covering:
 - ✦ **Portable extinguishers FFE**
Total number of FE: around 5000
 - ✦ **Portable extinguishers Sicli H1-10 AIR (formerly General Incendie MAIP)**
Total number of FE: around 1400 FE
 - ✦ **L'hotellier**
Total number of FE: around 1800 for ATR, Eurocopter and Socata)
- Most of batches have now been tested. ADs were issued where no test results available
- New set of ADs might be issued to cover lower levels of purity depending on test results



Contaminated Halon 1211

- Halon 1211 is used also on engine fire extinguishing
 - ✧ **Fixed extinguishers L'H**
Total number of FE: around 120
- Risk under EASA assesment for Dassault
- Correctives actions in place for Eurocopter



Contaminated Halon 1301

- ✈ **Level of risk is still under assessment taking into account:**
 - ✦ **Less toxicity impact for engines and APU**
 - ✦ **Purity % vs Fire suppression capability o be assessed on a case-by-case basis**
 - ✦ **Compliance with applicable engine fire suppression specifications**
 - ✦ **Decision on way forward to be taken**



References

AD	Title	Releas. date	Effectiv. date	Comp.	Remark
EASA 2009-0251-E	FFE H1211 - Handheld	25.11.09	26.11.09	2d	483 units
EASA 2009-0262	FFE H1211 - Handheld-	23.12.09	29.12.09	30d	FFE ASB-26-115 2317 units
EASA 2009-0262 R1	FFE H1211 - Handheld	27.01.10	10.02.10	30d from origin	SB ASB-26-115 Revision C for S/N list - 1 more S/N
EASA 2009-0278	SICLI H1211 - Handheld	22.12.09	05.01.10	30d	1422 units
EASA 2009-0276	ATR - H1211 - Handheld - L'Hotellier	23.12.09	06.01.10	36d	SB 83521-26-001 orign issue 21.12.09 1582 units (L'Hotellier total)
EASA 2009-0276 R1	ATR - H1211 - Handheld - L'Hotellier	05.02.10	05.02.10	4m from origin	SB 83521-26-001 revision 1, 28.01.10



References

AD	Title	Releas. date	Effectiv. date	Comp.	Remark
EASA 2009-0277	ECF- H1211 – Handheld – L’Hotellier	23.12.09	06.01.10	36d	SB 83520-26-001 orign issue 21.12.09 1582 units (L’Hotellier total)
EASA 2009-0277 R1	ECF- H1211 – Handheld – L’Hotellier	05.02.10	05.02.10	6m from origin	SB 83520-26-001
EASA 2010-0012	SOCATA- H1211 – Handheld – L’Hotellier	05.02.10	12.02.10	3m	SB 83520-26-001, dated 21.12.09 SB 70-183(26), jan 2010 1582 units (L’Hotellier total)
EASA 2010-0061	ATR – H1211 Handheld – L’hotellier	31.03.10	14.04.10	4m from origin 4m (for new S/N)	Supersedes EASA 2009-0276 R1 with same applicability + S/N QL71732 to QL71770
EASA 2010-062	FFE H1211 – Handheld-	31.03.10	14.04.10	4m	SB 26-116



References

- ✈ **Airworthiness Communication from CAA-UK**
 - ★ **AIRCOM 2009/13, dated 12 Oct 2009**
- ✈ **Flight Ops Communication from CAA-UK**
 - ★ **FODCOM 30/2009, dated 12 Oct 2009**
- ✈ **Safety Information Bulletin from EASA**
 - ★ **SIB 2009-39, dated 23 oct 2009**



Contaminated Halon/ICAO state letter

- ✈ ICAO state letter was released on 12th of January 2010**
- ✈ This letter does not formally require answer**
- ✈ It requires Member States « to assess halon fire extinguishing supplies and take action as appropriate »**
- ✈ Based on this letter, the strategy chosen by the Agency in cooperation with the EC is the following :**



Contaminated Halon/ICAO state letter / EASA position

As a short term action

-  **The Agency has already issued an SIB to raise awareness of Air operators, AMOs, aviation suppliers and manufacturers . The SIB will be up-dated.**

As a mid/long term action

-  **Based on the recent events of falsified documents, reliance on documentation to ensure quality of halon is not enough**



Contaminated Halon/ICAO state letter

- ★ The key for quality can only be to determine the adequate test methods**
- ★ The Agency plans to draft AMC applicable to Production Organisations and Maintenance organisations for guidance on how to perform the quality inspection of halon at incoming inspection**
- ★ The answer to the State letter is under drafting at the Agency/EC and will be released by the European Commission.**



Thank you