

## INTERNATIONAL HALON REPLACEMENT WORKING GROUP MEETING

June 24-25, 1998

Hosted by SR Technics Zurich, Switzerland

### WEDNESDAY, JUNE 24, 1998

#### Update on Schedule for Halon Replacement/Class 'D' to Class 'C' Cargo Compartment Conversion

The focus of the research recently conducted at the FAATC has been in the areas of halon simulant work and smoke detection work. The FAA issued the final rule on Class 'D' to Class 'C' cargo compartment conversion. The rule requires all class 'D' cargo compartments to be converted to class 'C' cargo compartments in transport category airplanes in the United States within 3 years from March 19, 1998 (date the rule was issued). Discussion on 'D' to 'C' conversion. **ACTION:** FAATC will contact FAA Northwest Mountain Aircraft Certification office to check into simulant use in certification of converted ('D' to 'C') cargo compartments.

#### Cargo Test Work at the FAATC – D. Blake

Dave presented results of recent cargo compartment MPS tests (MPS bulk-load tests) conducted at the FAATC. The Cargo Compartment MPS Task Group will discuss the results of these tests in further detail and make some decisions based on factors and results of these tests.

#### FAATC Cargo Compartment Water Mist & Aerosol Can Tests – R. Hill

Status: We have a zoned water mist system installed in a 727 cargo compartment. We did some preliminary tests and will be conducting more extensive tests in the near future. Tim Marker developed an aerosol can simulator and has conducted some cans with this aerosol can simulator – a video of these tests was shown at the November 1997 Working Group meeting. We are currently conducting further tests in our explosion chamber at the FAATC in preparation for cargo compartment water mist aerosol can tests which will be conducted in the near future.

#### FAATC Tests on Gaseous Mixture Containers in Class 'C' Cargo Compartments – R Hill

Described tests conducted for the US Department of Transportation (DOT) on closed oxygen canisters in class 'C' cargo compartments. The results of these tests were recently reported to the DOT.

#### FIREDASS Update – K. Frid

The main work for the past six months has been done on computer modeling. Detailed information will be presented at the November 1998 conference in Atlantic City. The website address for FIREDASS information is:

<http://fseg.gre.ac.uk/firedass/>

#### NASA Aircraft Safety Research Program – R. Hill

A small portion of the research funds for this NASA research program is directed to research in aircraft fire safety. The FAATC is working with NASA and National Institute of Standards and Technology (NIST) in conducting some of this research. There is also some work being conducted on on-board oxygen systems. Brief discussion on OBIGGS/OBOGGS programs.

Discussion on the 4 different groups working in the area of alternative agents for fire suppressions systems (DoD, International Halon Replacement Working Group, NMERI program, NASA Aircraft Safety Research Program).

#### Halon Options Task Group Update – R. Hill

Bob Tapscott has posted the latest draft of the Halon Options report on the NMERI website for comments.

#### Update on Handheld Extinguisher Work at FAATC – D. Blake

Presented details on relocation of test apparatus. Work at FAATC will start again in early July 1998. Seat Toxicity Test Update: This is currently set up in the DC-10 main cabin and work is near completion to begin the toxicity tests. Plans to start the baseline tests in early July 1998. The draft version of the handheld extinguisher minimum performance standard is posted on the FAATC website for comments. Harry Webster is engineer responsible for the test program at the FAATC. There is currently no Task Group leader.

#### Engine Nacelle Simulator Testing – R. Hill

Presented status of project via viewgraphs of current test apparatus configuration. Doug Ingerson is currently working on installing a heating system for the air. Doug will give a detailed presentation on the engine nacelle project and MPS at the November 1998 conference.

#### FAATC Simulant Testing Update – D. Blake

Presented (via viewgraphs) Halon 1301 simulant cargo compartment test work done by John Reinhardt at the FAATC.

#### Task Group Updates

##### Montreal Protocol Update – D. Ball

Discussed the Kyoto Protocol and provide update on status of Montreal Protocol. Further details will be presented at the November 16-20, 1998, International Aircraft Fire and Cabin Safety Research Conference.

#### **THURSDAY, JUNE 25, 1998**

##### Task Group Presentations (continued)

##### Hydrostatic Test Task Group – H. Humfeldt

Presented background on hydrostatic testing requirements, amount of halon released in hydrostatic testing, amount of halon in world fleet, and work that this Task Group has done.

**ACTION:** R. Hill will contact DOT to find out who (or what department) is responsible for this rule and will talk to that person and find out what data they require to reevaluate the rule. However, this Task Group will have to provide test data to back up its request to do hydrostatic testing at 14-year intervals. Bill Leach of the NAWC in Lakehurst, New Jersey, has offered to test a few commercial bottles in the Navy's program at his facility. Commercial airlines are asked to supply bottles to him for testing. Member comment: This data has already been compiled and submitted by the ATA for an exemption. The exemption was granted to the airlines that were part of this

ATA committee only. R. Hill: This Task Group should take an action to request that data from the ATA committee. There is ongoing work within the FAA on checking bottles without opening them. A copy of this Task Group's report is included on this Website.

#### Status of In-Use Lavatory Extinguisher MPS – R. Hill

This MPS has been completed, and the report has been published. We would like information from anyone who has used this Minimum Performance Standard. **ACTION:** How does industry feel we can get the alternative agents for lavatory extinguishers into aircraft lavatory extinguishers? Provide any information you can come up on this to April Horner by *October 1, 1998*, to be made available at the November 1998 conference in Atlantic City. The authorities will also discuss this issue. Percival Aviation and Kidde both have alternative agents available in lavatory extinguishers.

#### Next Meeting

The next Working Group meeting will be part of the November 16-20, 1998, International Aircraft Fire and Cabin Safety Research Conference in Atlantic City, New Jersey. There will be a number of presentations on topics usually discussed within this Working Group. Unless, this Working Group requests a separate meeting, one will not be held during that week. Task Group leaders are requested to let April Horner know if they would like a Task Group meeting during the week of the November 16-20, 1998. You must let April know by ***October 1, 1998***, if you would like a Task Group meeting during the conference week. She will need to know approximately how many people will attend the Task Group meeting, how much time you will need for the Task Group meeting, and what day and time you would like to hold the Task Group meeting in order to plan meeting room space for your group.

#### Presentations by Working Group Members

"Life Cycle Cost Model for Wright Lab" – Matt Kolley

"Portable Fire Extinguisher Applications of FM-200" – Mark Robin

"Effects of Airplane Operational Parameters on Cargo Compartment Fire Suppression System Effectiveness" – Al Gupta

"The Re-evaluation of CF3I as Halon Replacement for Engine Nacelles – Juan Vitali

Presentation by Safety Hi-Tech/North American Fire Guardian – Lucian Borghetti

#### Future Meetings

If your organization is interested in hosting a meeting in early Spring or Summer 1999, please contact April Horner.