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## **Halon Replacement for Airplane Portable Fire Extinguishers- Progress Report**

Of the seven potential fire extinguishing agents evaluated by the FAA, three passed the MPS and are UL approved: Halotron I (HCFC-123 Blend B), FE-36 (HFC-236fa), FM-200 (HFC-227ea). The bottles for these approved candidates are about one and a half times larger and two times heavier than the currently used UL-rated 5B:C Halon 1211 bottle. This combined with regulatory uncertainties has prompted further research into 2-bromo-3,3,3-trifluoropropene (BTP), an experimental compound with favorable environmental properties and strong performance in handheld application.

Boeing's approach has been to pursue an alternative that will fulfill long-term environmental requirements, and will be compatible with manufacturing and airline operational requirements. Consequently, a Request for Information on candidates was sent to over thirty different organizations in 2007. Boeing contracted with American Pacific Corporation on initial development of BTP. BTP has since been tested, and passed UL 5B tests and FAA MPS hidden fire tests with a bottle that is a drop-in replacement for Halon 1211 on Boeing airplanes.

BTP toxicity testing is ongoing and is being conducted as required by the EPA and EU in order to obtain SNAP and REACH approval. This presentation will provide an update on our progress.