



U.S. Department
of Transportation
**Federal Aviation
Administration**

InFO

Information for Operators

InFO 11002
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Flight Standards Service
Washington, DC

http://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/info

An InFO contains valuable information for operators that should help them meet certain administrative, regulatory, or operational requirements with relatively low urgency or impact on safety.

Subject: Smoke/Fumes in the Cabin/Cockpit of Transport Category Aircraft

Purpose: This InFO informs air carriers and operators of the need to place a greater emphasis on finding new ways to identify areas susceptible to smoke or may become susceptible to smoke.

Background: Reports to air traffic, submission of Service Difficulty Reports (SDR), and several focused surveys reveal that approximately 900 smoke or fumes in the cockpit or cabin events occur annually in transport category airplanes. Many of these incidents prompted the flightcrew to declare an emergency and either divert, turn back or request priority handling to their destination.

Discussion: The engineering, materials and the composition of materials used in today's aircraft have a large degree of safety built in. However, regardless of the safety devices/functions designed and built in, when any material or chemical is heated, it will reach a flash or combustion point, at which point, an open flame is produced which can easily spread and likely will produce smoke. Often, prior to developing an open flame, overheated materials or components will also create smoke or fumes which can travel to the cockpit and/or cabin via the environmental system. The air carriers and operators that have experienced these situations are required to submit a report to the Federal Aviation Administration (FAA) for smoke/fumes in the aircraft.

Aircraft are placed on various types of inspection programs that have been developed to find problems before they become serious. In addition, the air carriers are also required to have a Continuing Analysis and Surveillance System (CASS) for the performance and effectiveness of its inspection program and the program covering other maintenance, preventive maintenance and alterations and for the correction of any deficiencies in those programs.

Unfortunately, with all the safeguards built into modern aircraft and the operational requirements placed on the air carriers to maintain the aircraft in accordance with the instructions for continued airworthiness (ICA), and the operators continuous airworthiness maintenance programs (CAMP), smoke/fumes in cabin/cockpits is still a serious problem.

Recommended Action: After each smoke incident/event the air carrier or operator should ensure that the company follows policies, procedures, and instructions in accordance with its manuals. The FAA is requesting that at each CASS meeting, air carriers and or operators put special emphasis on the smoke events data and track it separately for trend analysis. It is recommended that documentation from each event be reviewed and maintenance and inspection requirements be updated regularly. Air carrier/operators should ensure all data is used to definitively resolve and thereby reduce incidents of smoke and fumes entering the aircraft.

Contact: Questions or comments regarding this InFO should be directed to the Aircraft Maintenance Division, Air Carrier Maintenance Branch, AFS-330, at (202) 267-1675.