InFO

Information for Operators

U.S. Department
of Transportation

**Federal Aviation
Administration**

InFO 10019
DATE: 10/6/10

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: The Federal Aviation Administration (FAA), Office of Accident Investigation and Prevention (AVP-100) continues to receive over 900 reports a year on smoke or fumes in the cabin and or cockpit. AVP-100 receives these reports on a daily basis. In fact, it is not unusual to receive more than one report during a 24-hour period. For instance, on one day in April of 2010, five reports of smoke in the cockpit came in from one Title 14 of the Code of Federal Regulations (14 CFR) part 121 air carrier. All these incidents prompted the flightcrew to declare emergencies and divert to the nearest airport.

Discussion: The engineering, materials and the composition of chemicals that are 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. Prior to open flame there is smoke, a byproduct of combustion. In many cases the failed system, circuit, component, part, or appliance, etc may over-heat and smoke will find its way in to either the cockpit or cabin via the environmental system. The air carriers and operators that have experienced these problems are required to submit a report to the 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 safe guards 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 FAA recommends that 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 the air carriers and 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: regarding this InFO should be directed to the Air Carrier Maintenance Branch, AFS-330 at (202) 385-6434.