

### 757 Windshield Fires

Operators of hundreds of Boeing 757s would be required to conduct repetitive inspections of electrical heat terminals on windshields and to repair or replace windshields, if necessary, under an airworthiness directive (AD) proposed by the U.S. Federal Aviation Administration (FAA).

The proposed AD, published in late April in the *Federal Register* and open for public comment until May 8, was developed in an effort to prevent smoke and fire on the flight decks of the affected airplanes.

The FAA said it has received reports from eight operators about nine events involving electrical arcing at the lower terminal blocks of flight deck windshields on 757s; four other reports discussed failures of upper terminal blocks. “More than one” incident involved open flames caused by arcing, the FAA said.

The agency said that in one reported event, the crew of a 757-200 experienced smoke in the cockpit, “followed by fracture of the inner pane of the first officer’s windshield. This windshield fracture resulted in total loss of the first officer’s outside visibility and small shards of glass striking the first officer.” An examination of the windshield revealed electrical arcing at two electrical heat terminal connections.

The FAA said that, without corrective action, similar problems are “likely to exist or develop in other products of the same type design.”

The proposed AD would require a detailed inspection of wiring and electrical terminal blocks at “the left and right flight deck window 1 windshield” within 500 flight hours after the AD takes effect. If necessary, corrective actions — including



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applying the correct torque to loose electrical connections, repairing damaged wiring and replacing unserviceable windshields — would be performed. In some cases, repetitive inspections would be required.

The proposed AD applies to 664 U.S.-registered airplanes. In addition, regulatory authorities in other countries are likely to issue similar directives to apply to 757s under their jurisdiction.

The FAA issued a similar AD (2010-15-01) in July 2010 to require repetitive inspections of certain windshield electrical terminals on 757s, 767s and 777s, followed by corrective actions, if necessary. Implementation of the actions that would be required under the proposed AD would terminate the requirements of the previous AD, as they apply to 757s, the FAA said.

### ‘Inconclusive Evidence’

Citing an absence of conclusive scientific evidence, the Australian Civil Aviation Safety Authority (CASA) has rejected a series of recommendations from a panel that examined issues involving cabin air quality, including allegations

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of contamination of cabin air by engine bleed air.

The panel’s report, submitted to CASA in January 2011, found reports of cabin air contamination by bleed air are “quite rare,” although reports are filed at a greater rate for military aircraft than civilian aircraft, and that there was “insufficient evidence to determine the existence of an aerotoxic syndrome,” CASA said.

CASA said that, although it believes reporting requirements are adequate, it will remind operators of “their fumes-reporting responsibilities” and also will work with the Australian Transport Safety Bureau to analyze data from reported fumes events.

CASA also said that it would monitor further research in the area and review cabin air quality standards developed in the United States.

The agency rejected a number of the panel’s recommendations “due to safety issues, the unsuitability of developing unique Australian requirements or a lack of regulatory authority.”

It added, “The panel’s inability to reach definitive conclusions highlights the fact that this is an area of research where reasonable people’s views can differ. ... It would not be prudent for CASA to make major policy and regulatory decisions on the basis of inconclusive evidence.”

**Laser Test**

Pilots are being offered a self-assessment tool to evaluate the possibility that a laser strike on their aircraft has also damaged their eyes (ASW, 11/11, p. 29).

The U.K. Civil Aviation Authority (CAA) says its Aviation Laser Exposure Self-Assessment (ALESA) tool is intended to help pilots decide whether they have a significant eye injury and whether they should consult an optometrist or ophthalmologist.

ALESA, which was developed for the CAA by Stephanie Waggel of George Washington University and is available on the CAA website at <caa.co.uk/docs/49/Alesa card web.pdf>, asks pilots to look at a 10-cm by 10-cm (4-in by 4-in) grid and answer three questions about its appearance, as well as a series of questions about their laser exposure experience.

“Pilots obviously need very good eyesight to do their job and are naturally concerned that their livelihoods could be threatened if they are dazzled by a laser,” said Ewan Hutchison of the CAA Medical Department. “We hope this new self-assessment tool will, in most cases, allay fears but also enable pilots to determine whether they should seek medical attention.”



U.S. Federal Bureau of Investigation

Lasting eye damage is a rare result of a laser strike; temporary visual problems, including flash blindness, blurred vision, dazzle (intense glare) and corneal abrasions are more common, as are headaches.

The number of reported laser strikes on aircraft has increased dramatically in recent years, primarily because of the increased availability on the Internet of inexpensive, powerful lasers, authorities say. In the United Kingdom alone, about 1,600 laser strikes were reported in the first eight months of 2011, according to data compiled by Eurocontrol; by comparison, 30 strikes were reported in all of 2007.

**Cooperative Effort**

Latin American governments and the region’s aviation industry must work together to improve safety and reduce the regional accident rate, which last year was 3.5 times the global rate, International Air Transport Association (IATA) Director General and CEO Tony Tyler says.

Although Latin American airlines “achieved a 32 percent improvement in the Western-built jet hull loss rate [in 2011], compared to 2010,” those accidents accounted for 27 percent of jet hull losses worldwide, Tyler said. Air traffic in

the region accounts for 6 percent of the world’s total.

“If this does not improve, then the current rate of traffic growth means that in six years, carriers here will experience a major accident every eight weeks,” he said in a speech to an IATA conference in Santiago, Chile, in late March.

“If Latin American aviation is to continue to deliver on its immense promise, safety must be addressed as a community working in partnership with government, and global standards must be at the heart of our joint efforts.”

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**Maintenance Transition**

Australian maintenance organizations are being urged to begin as soon as possible to transition to a new regulatory framework.

The deadline for compliance with the new regulations is June 26, 2013. By that date, organizations that maintain regular public transport aircraft and aeronautical products must have approval from the Civil Aviation Safety Authority (CASA) under Civil Aviation Safety Regulations Part 145, “Continuing Airworthiness — Approved Maintenance Organizations.” Regular public transport air operators will be required to receive approval under Part 42, “Continuing Airworthiness Requirements for Airplanes and Aeronautical Products.”

CASA said it would issue no extensions beyond the deadline.

More than 200 maintenance organizations and 30 regular public transport operators will be required to make the regulatory transition.

CASA said it is providing guidance for those making the transition, “with step-by-step information available on the CASA website” at <casa.gov.au>.

### NextGen Critique

The U.S. Federal Aviation Administration (FAA) has failed to finalize program requirements for the six “transformational programs” that will serve as the foundation for the Next Generation Air Transportation System (NextGen), according to the U.S. Transportation Department’s Office of Inspector General (OIG).

“Having a reliable and comprehensive program baseline through its end-state is key to providing effective oversight of a program and avoiding the cost overruns, schedule delays and unmet expectations that FAA has experienced with past modernization efforts,” the OIG said in a report issued in late April.

The report said that the FAA instead has approved “shorter, discrete segments” of the six programs “to minimize risk in the near term,” and added that the agency’s approach “limits visibility into what the transformational programs will require for successful implementation, how much they will cost and what they will ultimately deliver.”



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The six programs include automatic dependent surveillance–broadcast (ADS–B), the satellite-based surveillance system that provides information on aircraft location, as well as other programs that will provide data and voice communication, weather information and air traffic management technologies.

The FAA said it agreed with most elements of the OIG report’s recommendations, including the establishment of an “integrated master schedule framework, policy and standard operating procedures” for the six transformational programs and a broader NextGen implementation package.

### Quality Assurance

Transport Canada (TC) lacks a quality assurance program designed for continuous improvement of its aviation safety surveillance program, according to a report by the Canadian Office of Auditor General.

The report, issued in early April, said that TC has made progress in moving away from a “traditional surveillance approach” in favor of a systems-based approach that will allow for “more consistent and rigorous surveillance of aviation companies’ compliance with safety regulations.”

However, the report also found weaknesses, noting that “a minimum acceptable level of surveillance has not been clearly established to indicate how long aviation companies can operate without being inspected, and only two-thirds of planned inspections have been carried out.”

In addition, the report said, most inspections are “not fully conducted according to established methodology and are subject to little management oversight.”

### In Other News ...

The Independent Pilots Association, the labor union representing pilots for cargo carrier UPS, has filed a court challenge of the U.S. Federal Aviation Administration’s (FAA’s) exclusion of cargo pilots from new pilot duty and rest rules intended to guard against **fatigue**. The union asked a U.S. federal appeals court to order the FAA to reconsider. ... Brazil and the United States have agreed to a public-private aviation **partnership** designed to enhance bilateral cooperation on aviation safety and other areas, including airport expansion, airspace management and aviation security.

### Libyan Airlines Barred From EU

The European Commission has updated its list of air carriers banned from operating in the European Union (EU) to include all carriers certified in 21 specific countries, as well as five individual carriers.

Eleven other carriers are permitted to fly into the EU under operational restrictions.

In addition, the European Commission said that, because of its “serious concerns regarding the safety oversight of air carriers licensed in Libya,” Libyan civil aviation authorities adopted restrictions that bar all of its licensed carriers from EU operations at least until November.

Because of the restrictions, the EC Air Safety Committee said, “Inclusion of Libyan air carriers in the EU air safety list was not necessary. Nevertheless, implementation of the measures decided by the Libyan authorities remains subject to close monitoring.”



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Compiled and edited by Linda Werfelman.