

# Safety News

## Pitot Probe Replacements

The European Aviation Safety Agency (EASA) has proposed requiring operators of Airbus A330s and A340s to replace the airplanes' Thales Avionics pitot probes.

The EASA said, in Proposed Airworthiness Directive (PAD) 09-099, that the action followed reports of "airspeed indication discrepancies" by flight crews of A330s and A340s

during flights at high altitudes in inclement weather. Indications are that the crew of an Air France A330 was experiencing such problems before the airplane crashed into the Atlantic Ocean on June 1, 2009, during a flight from Rio de Janeiro, Brazil, to Paris. All 228 people in the airplane were killed. The investigation of the accident is continuing.

A330s and A340s equipped with Thales pitot probes "appear to have a greater susceptibility to adverse environmental conditions" than those equipped with pitot probes manufactured by Goodrich, the EASA said.

"A new Thales pitot probe ... has been designed

which improves A320 airplane airspeed indication behavior in heavy rain conditions," the agency said. "This same pitot probe standard has been made available as optional installation on A330/A340 airplanes, and although this has shown an improvement over the previous ... standard, it has not yet demonstrated the same level of robustness to withstand high-altitude ice crystals as the Goodrich ... probe."

The EASA said it would accept comments on the PAD until Sept. 7, 2009. The PAD did not indicate how soon after that a final airworthiness directive would be issued but said that within four months after issuing the final directive, Goodrich pitot probes (part no. 0851HL) must be installed at the captain and standby positions in place of the older Thales pitot probes (part no. C16195AA). Probes at the first officer position also must be replaced, either with the same Goodrich probe or with a new Thales pitot probe (part no. C16195BA).



Brazilian Navy

## Obstacle Avoidance

The ground-based Obstacle Collision Avoidance System (OCAS) has been approved by the U.S. Federal Aviation Administration (FAA) as the first audio-visual warning system to be used in U.S. airspace to warn pilots against potential collisions with obstacles.

OCAS Inc. said that its system uses a "low-power ground-based radar" to track an aircraft's proximity to an obstacle such as a power line, tower or wind turbine. The system, which is installed on an obstacle, can detect an aircraft's proximity and track and, if a collision is likely, can warn the pilot with flashing lights and an audible alert. No additional equipment is required to be installed in an aircraft.

## Ice Protection

New U.S. certification standards have been adopted to require a more timely activation of ice protection systems on transport category airplanes.

The new standards implemented by the Federal Aviation Administration (FAA) will require new transport aircraft designs to have either automatically activated ice protection systems or a method of alerting pilots to activate them. After their initial activation, the systems must either operate continuously, turn on and off automatically, or alert pilots to cycle them.

The certification change adds "another level of safety to prevent situations where pilots are either completely unaware of ice accumulation or don't think it's significant



Ann Mullikin

enough to warrant turning on their ice protection equipment," said FAA Administrator Randy Babbitt.

The rule applies only to designs for new transport category airplanes and to significant changes in current designs that "affect the safety of flight in icing conditions," the FAA said. The agency is considering further rule making that would cover existing airplane designs.

### English Training Guidelines

Two international organizations are finalizing guidelines for programs that teach aviation English.

The International Civil Aviation English Association (ICAEA) is working with the International Civil Aviation Organization (ICAO) to develop guidelines that recognize that training in aviation English “has specific objectives, content, criteria of proficiency, conditions of use, and professional and personal stakes which set it apart from the teaching of language in any other area of human activity,” ICAO said in the *ICAO Journal* (Volume 64, No. 3).

Until now, there has been “no formal system of accreditation or qualification for schools or teachers developing and delivering aviation English training,” ICAO said.

ICAO formally designated English as the language for international

pilot-controller communications in 2003 and defined six levels of language proficiency — from “pre-elementary” at Level 1 to “expert” at Level 6. Requirements call for pilots and controllers to demonstrate at least “operational” Level 4 proficiency to be permitted to be involved in international flight operations after March 2011.

The *ICAO Journal* article quoted ICAEA President Philip Shawcross as saying that when the ICAO requirements were introduced in 2003, they “essentially required that an entire new training sector be established in a very short period of time. We began to see materials and techniques being employed that were not necessarily appropriate to the ultimate objective, and so it became an early goal for us not only to provide information and guidance to educators but also to the aviation decision makers



who were having to seek out suitable programs in the training marketplace.”

The ICAEA guidelines will emphasize the importance of “plain language in an operational context [as] the prime focus of aviation English training,” as well as the need for lesson content that is relevant to the pilot or controller group being trained.

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### Learjet Design Change Sought

Bombardier should be required to change the design of the thrust lever system in its Learjet 60 in the aftermath of a fatal Sept. 19, 2008, crash, the U.S. National Transportation Safety Board (NTSB) says.

Both pilots and two of the four passengers in the Global Exec Aviation Learjet were killed in the late-night crash, in which the airplane overran the runway during departure from Columbia, South Carolina, U.S.

The NTSB investigation of the accident is continuing, but an examination of the engines found “evidence consistent with high thrust ... and indicated that the thrust reversers

were stowed.” The NTSB said that the findings prompted concern about “safety issues involving inadvertent stowage of the thrust reversers.”

“In March 2009, Learjet published a Federal Aviation Administration (FAA)-approved temporary flight manual (TFM) change in procedures, which described improved methods for quickly recognizing and handling situations when inadvertent stowage occurs,” the NTSB said. “However, the NTSB is concerned that Learjet 60 pilots are not sufficiently trained to recognize that a failure could occur during takeoff as well as landing phases of flight and could subsequently result in the loss of system logic control requirements for maintaining deployed thrust reversers during a rejected takeoff.”

The NTSB issued six safety recommendations to the FAA, including a call for the agency to require the design change “so that the reverse lever positions in the cockpit match the positions of the thrust-reverser mechanisms at the engines when the thrust reversers stow.” Another recommendation said the FAA should require training for Learjet 60 pilots “for takeoff as well as landing phases of flight on recognizing an inadvertent thrust reverser stowage, including the possibility that the stowage can occur when the requirements for deploying thrust reversers are not fully met, such as when the air/ground sensor squat switch circuits are damaged.”



Bombardier

## Hard Landings

Operators should provide more training in procedures for reporting suspected hard landings, the U.K. Civil Aviation Authority (CAA) says in a new flight operations division communication.

The communication was issued as a result of the U.K. Air Accidents Investigation Branch (AAIB) report on the hard landing of an Airbus A321 at Manchester Airport on July 18, 2008.

The AAIB said that the airplane was “not flared sufficiently” and the subsequent landing was “severe hard.” Nevertheless, the AAIB said, “the possibility of a landing parameter exceedance was not reported by the crew following discussion with ground engineers who had been on the flight. The presence of a landing parameter exceedance report was identified after a further two sectors had been flown, when an unrelated inspection of the landing gear found a crack in a wing rib gear support lug.”

The CAA said that data systems in this particular A321 were not configured to automatically generate exceedance reports; instead, the data management unit (DMU) had to be interrogated manually. The pilots believed that, because the DMU had not produced a report, there had been no hard landing.

The CAA said operators should “provide clear guidance and training to all staff to enable them to correctly report a suspected hard/heavy landing to enable investigation prior to any further operations.”

The “primary trigger” for a hard/heavy landing report should be the aircraft commander’s subjective evaluation of the event, the report said, adding, “It must be clear to crew and maintenance staff that all suspected hard/heavy landings must be reported before further flight to permit a full investigation and determination of continued airworthiness.”



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## Wind Farms vs. ATC

Eurocontrol is developing guidelines for the assessment and mitigation of the effects of wind farms on air traffic control surveillance systems.

“Wind turbines can potentially have a detrimental impact on the performance of surveillance systems used for air traffic control,” Eurocontrol said. “A wind farm could cause the loss or corruption of the declared aircraft’s position, or may create false targets. These create additional work for air traffic controllers and may also result in safety issues.”

The proposed guidelines were developed in consultation with civil and military providers of surveillance systems in Europe, with input from Australia, Canada, Japan, New Zealand and the United States.

A comment period will continue through January 2010.



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## In Other News ...

The International Air Transport Association has signed a memorandum of understanding with **India** to “enhance the skills and knowledge of Indian civil aviation personnel to support the development of Indian aviation.” ... The Australian **Civil Aviation Safety Authority** (CASA) has begun a campaign to ensure that operators of model aircraft and rockets comply with safety rules that require them to remain away from airports and below 400 ft in controlled airspace, unless they have CASA’s approval. The campaign follows an incident involving a model aircraft being flown near the Perth airport.

Compiled and edited by Linda Werfelman.