

### GPWS Training Urged

Indonesian airlines should ensure that their flight crews receive training in the proper use of ground-proximity warning systems (GPWSs), the Indonesian National Transportation Safety Committee (NTSC) said, citing the March 7, 2007, crash of a Garuda Indonesia Boeing 737-400 in Yogyakarta.

The Garuda 737 overran the departure end of Runway 9 during landing at Yogyakarta, crossed a road and struck an embankment. The airplane was destroyed; of the 140 people in the airplane, 21 were killed and 12 received serious injuries.

In its final report on the accident, the NTSC said that the captain — who was the pilot flying — had “descended the aircraft steeply in an attempt to reach the runway,” and as a result, “the airspeed increased excessively.” GPWS alerts and warnings sounded 15 times during the approach, and the first officer called for a go-around but did not take control of the airplane when he realized that the captain was repeatedly ignoring the GPWS

alerts. The airplane touched down at 221 kt and with 5 degrees of flaps — landing speed with the recommended 40 degrees of flaps is 134 kt.

The NTSC issued 19 safety recommendations, including one that called on airlines to “ensure that their flight crews are trained and checked in ‘GPWS-specific’ simulator training sessions” to ensure that they can perform “the vital actions and required responses to” GPWS and enhanced GPWS warnings. A related recommendation said that the Directorate General of Civil Aviation should ensure that airlines provide the required training and checking.

A recommendation to Garuda Indonesia said that the airline should “review its fuel conservation incentive program to ensure that flight crews are in no doubt about its intent and that there is no

perception that such a policy could compromise the safe operation of aircraft.”

The NTSC also recommended that Indonesian airlines use Flight Safety Foundation training materials on approach and landing accident reduction (ALAR) and the elimination of controlled flight into terrain (CFIT).

Other recommendations called for improvements in flight procedures, training and checking, safety and regulatory oversight, serviceability of flight recorders, and airport emergency planning and emergency equipment.



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### Electrical Discharge Damage

The Australian Transport Safety Bureau (ATSB), citing the Feb. 5, 2006, engine failure and forced landing of a Cessna 208 floatplane, has recommended steps it says will prevent similar failures.

The pilot and 10 passengers on the commercial sightseeing flight were not injured in the forced landing on a lake in remote southwestern Tasmania. The ATSB attributed the engine failure to electrical discharge damage (EDD) to the engine during a previous generator failure.



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Forty-three similar events involving Pratt & Whitney Canada PT6 series turboprop engines on Cessna 208s have been reported worldwide since 1992, the ATSB said.

“As a result of the ATSB investigation into this serious incident, a number of safety actions have been implemented by the aircraft and engine manufacturers, as well as Australia’s Civil Aviation Safety Authority,” the ATSB said. “While the safety actions of all parties are to be commended, the ATSB remains concerned that there remain safety issues that need to be addressed to eliminate the possibility of EDD events leading to engine failures of this engine type.”

As a result, the ATSB issued 10 safety recommendations to the aircraft and engine manufacturers and civil aviation authorities in Canada and the United States. The recommendations involved measures calling for the removal from service of any PT6A series engines that show indications of an EDD event, the use of measures to electrically isolate starter-generators in PT6A engines, the revision of relevant aircraft manual procedures and a review of the continued airworthiness of PT6A engines.

## Life Rafts Wanted

Turbine helicopters that are operated in the Gulf of Mexico and have at least five seats should be equipped with externally mounted life rafts large enough for all occupants, the U.S. National Transportation Safety Board (NTSB) says.

The NTSB said that the U.S. Federal Aviation Administration (FAA) should require the life rafts and also should require that all offshore helicopter operators in the Gulf provide their crews with personal flotation devices equipped with a global positioning system-enabled 406-MHz personal locator beacon and a signaling mirror or other signaling device.

“The [NTSB] has investigated several helicopter accidents in which the aircraft crashed or ditched into the Gulf of Mexico,” the NTSB said in a letter to FAA Acting Administrator Robert A. Sturgell. “In some cases, helicopter occupants did not survive while awaiting the arrival of search and rescue teams. With

better access to life rafts stored on board the aircraft and better signaling devices, these occupants would have had a greater chance of surviving.”

Although helicopters operating in the Gulf are not currently required to carry life rafts, all accidents cited by the NTSB involved helicopters that were equipped with life rafts.

“Even so, none of the rafts were used following the accidents,” the NTSB said. “In every case cited, crew and passengers either did not have sufficient time to locate and inflate the rafts once the helicopters were in the water or passengers did not know where life rafts were located. ... If the helicopters operating in the Gulf were equipped with life rafts that were easy to locate or designed to automatically deploy outside the aircraft after a ditching, all occupants



on board the accident helicopters would have had a greater chance of surviving once they were in the water.”

The ditching of several Gulf helicopters has shown that personal flotation devices equipped with rescue tools can dramatically reduce the amount of time that crewmembers must spend in the water awaiting rescuers, the NTSB said.

“The Board sees no reason not to provide as many tools to survive as possible,” the NTSB said.

## Reducing Runway Incursions

The United States recorded 24 serious runway incursions out of more than 61 million surface movements in fiscal 2007 — or one incursion for every 2.5 million movements, the U.S. Federal Aviation Administration (FAA) says.

That represents a 25 percent reduction for fiscal 2007, which ended Sept. 30, compared with the previous year. The FAA's goal had been to reduce the number of incursions to no more than one for every 2 million surface movements.

Hank Krakowski, chief operating officer for the FAA Air Traffic Organization, attributed the reduction to improved training of airport and airline personnel, clearer airport signs and other new procedures. These actions and other efforts to improve runway safety were intensified after an August meeting of FAA officials and industry representatives. For

example, the FAA says that 75 airports have voluntarily accelerated programs to enhance airport markings; of those, 52 airports had completed the work by mid-October, 19 were scheduled to complete the work by the end of 2007, and four planned to complete the work before the original deadline of June 30, 2008.

Long-term efforts to eliminate runway incursions will include flight deck warning systems and several types of ground surveillance systems.



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## Looking for Answers

The U.K. Civil Aviation Authority (CAA) wants to know what cabin crewmembers, flight crewmembers and trainers think about current training for dealing with in-flight fires and is conducting an online survey to find out.

“Cabin crews receive extensive training on emergency procedures, including dealing with fires, but a number of training issues have emerged in recent years that have led us to commission the study,” said Janice Fisher, head of the CAA Cabin Safety Office.

She said that the survey's results will aid in the evaluation of existing fire response training and help identify improvements.

The survey, being conducted for the CAA by RGW Cherry and Associates, is online at <[www.rgwcherry.co.uk/caa\\_survey.html](http://www.rgwcherry.co.uk/caa_survey.html)>.

**Twin Otter Inspections Ordered**

The French Bureau d'Enquêtes et d'Analyses (BEA), citing the fatal August 2007 crash of a de Havilland DHC-6 Twin Otter in French Polynesia, is recommending inspections of stainless steel stabilizer control cables.

The BEA recommended that Transport Canada and the European Aviation Safety Agency "require operators to perform an inspection as soon as possible on stainless steel stabilizer control cables installed on DHC-6 Twin Otter airplanes, with particular attention being paid to chafing areas in contact with cable guides."

A second recommendation said that the two agencies should "consider extending these inspections to carbon steel cables that may also be installed on the stabilizer control system of this airplane."

Twenty people died and the airplane was destroyed in the crash, just after takeoff from Moorea. A preliminary investigation found that sections of the two stainless steel stabilizer control cables were heavily worn because of chafing at positions where they passed through cable guides. The investigation was continuing.



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**In Other News ...**

**Patrick Gandil** has been designated as the new director general of the French Direction Générale de l'Aviation; he had been secretary general of the Ministry of Infrastructure, Tourism, Transportation and the Sea. ... Australian Transport Minister **Mark Vaile** has ordered a review of the relationship between the Australian Transport Safety Bureau and the Civil Aviation Safety Authority to identify actions that would improve aviation safety; lawyer Russell Miller was conducting the review and was scheduled to submit his report in December. ... Very light jet manufacturer **Eclipse Aviation** says its flight operational quality assurance (FOQA) program has been approved by the U.S. Federal Aviation Administration (FAA); Eclipse is the first manufacturer to receive FAA approval for its program, which includes flight data monitoring capabilities similar to those used by airlines.



U.S. National Aeronautics and Space Administration

**New Rules for Wiring**

Aircraft manufacturers will have two years to complete new wiring-related maintenance and inspection tasks that are being required by the U.S. Federal Aviation Administration (FAA) to reduce wire-failure risks in airliners.

The requirements are included in a new rule that increases safety requirements for the design, installation and maintenance of electrical wiring in new airplane designs as well as in existing airplanes. The rule adds new certification standards "to address wire degradation and inadequate design or maintenance," the FAA said.

Manufacturers have 24 months from the effective date of Dec. 8, 2007, to complete the maintenance and inspection requirements in existing airplanes; U.S. scheduled airlines and foreign airlines that operate aircraft registered in the United States have 39 months from the effective date to develop wiring maintenance and inspection programs in accordance with manufacturers' instructions.

"We've gained enormous knowledge about aircraft wiring issues over the last decade," said Nicholas A.



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Sabatini, FAA associate administrator for aviation safety. "With this rule, we are ensuring that wiring systems will be properly designed, installed and manufactured over the life of the airplane."

The new maintenance requirements apply to aircraft that carry more than 30 passengers or maximum payloads of at least 7,500 lb (3,402 kg).

The FAA said that the new rule — developed after an examination of connectors, wiring harnesses and cables to determine how they are installed and how they deteriorate during an aircraft's time in service — is part of an effort to improve the safety not only of wiring but also of a variety of other aircraft systems.

*Compiled and edited by Linda Werfelman.*