

Runway Safety Recommendations

Runway safety is among the issues most critically in need of action by the U.S. Federal Aviation Administration (FAA), the U.S. National Transportation Safety Board (NTSB) said in its annual list of “most wanted” safety improvements.

In previous years, the NTSB list had called for more attention to issues involving runway incursions; the 2007 list expands the category to runway safety, which also includes runway excursions.

“While the FAA is in the process of developing and testing new technologies to make ground operation of aircraft safer, runway safety incidents continue to occur with alarming frequency and consistency,” the NTSB said.

FAA data show that 371 runway incursions occurred during fiscal 2007, which ended Sept. 30; the previous year, 330 incursions were reported.

Two individual runway safety recommendations — new on the list this

year — call on the FAA to require pilots to obtain specific authorization from air traffic control (ATC) before taxiing across any runway.

Runway safety recommendations include: “Implement a safety system for ground movement that will ensure the safe movement of airplanes on the ground and provide direct warning capability to the flight crews; implement ATC procedures requiring an explicit clearance for each runway crossing; [and] require operators to conduct arrival landing distance calculations before every landing based on existing performance data, actual conditions and incorporating a minimum safety margin of 15 percent.”

The FAA has issued Advisory Circular (AC) 91-79, which discusses methods by which pilots and operators of turbine

airplanes can “identify, understand and mitigate risks associated with runway overruns during the landing phase of flight.” It also provides information that can be used by operators to develop standard operating procedures to mitigate the risks.

In related action, the FAA said that it will establish the Takeoff/Landing Performance Assessment Aviation Rule-making Committee to review regulatory requirements for takeoff operations on snow- and ice-contaminated runways.



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RVSM in Metric Airspace

Reduced vertical separation minimum (RVSM) has been introduced in China's airspace — the first time the system has been used in airspace in which height is measured in meters.

The new flight level allocation scheme (FLAS), which took effect Nov. 21, requires a minimum vertical separation of 300 m (984 ft) for aircraft between 8,900 m and 12,500 m — approximately Flight Level (FL) 290 and FL 410. Previously, aircraft being operated in that airspace were separated by a minimum of 600 m (1,969 ft).



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The General Administration of Civil Aviation of China (CAAC) says that benefits of RVSM will be the same in China as they have been in much of the rest of the world's airspace, where RVSM has been phased in over the past decade: improved use of airspace for air traffic control (ATC) conflict resolution, fuel savings of about 1 percent because flights will be conducted closer to optimum cruise altitudes and a reduction in ground delays.

Pilots must receive training on the China RVSM FLAS before operating in Chinese RVSM airspace, and all aircraft flown in that airspace must be RVSM-compliant.

In a briefing leaflet on Chinese RVSM, the International Federation of Air Line Pilots' Associations (IFALPA) told its members that, “since most civil aircraft use feet as the primary altitude reference with a minimum selectable interval of 100 ft, ATC will issue the flight level clearance in meters. Pilots shall use the China RVSM FLAS table to determine the corresponding flight level in feet. The aircraft shall be flown using the flight level in feet.”

Emergency Response

Canadian airports are now required to comply with a “more formal approach” to development and testing of emergency response plans, according to regulatory amendments being implemented by Transport Canada (TC).

Under the amendments, emergency response plans must include “outlines of potential emergency scenarios and how each type of emergency will be handled, and identify airport and community organizations that are able to provide assistance,” TC said. The plans also must include emergency response diagrams for each type of aircraft that uses the airport.

Previous requirements called for airport operations manuals to include information on emergency response planning, but the changes require the inclusion of additional, specific details.

Lawrence Cannon, minister of transport, infrastructure and communities, said that the regulatory changes “highlight the importance of planning to respond effectively to potential emergencies.”

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Cargo Fire Suppression

Fire suppression systems should be required on all cargo planes operating under U.S. Federal Aviation Regulations Part 121, the U.S. National Transportation Safety Board (NTSB) says (see p. 36).

The NTSB, citing a Feb. 7, 2006, fire in a UPS Air Cargo McDonnell Douglas DC-8 at Philadelphia International Airport, recommended that the U.S. Federal Aviation Administration (FAA) require installation of the systems. The NTSB also said that the FAA should provide clear guidance to operators of large passenger and cargo airplanes on how to respond to indications of a fire “in the absence of a cockpit alert,” using the philosophy adopted by a group of industry specialists in the Smoke/Fire/Fumes Checklist Template, published by Flight Safety Foundation in June 2005.

The NTSB addressed several recommendations to the U.S. Department of Transportation office that oversees transportation of hazardous materials, including a recommendation that the agency require aircraft operators to take steps to reduce the risk that shipments of non-rechargeable lithium batteries — prohibited on passenger aircraft — might become involved in cargo-only

aircraft fires. Those steps might include transporting the batteries in fire-resistant containers or in limited quantities at any one location in the airplane.

The investigation of the February 2006 accident revealed that electronic devices containing rechargeable lithium batteries were in the airplane, but investigators could not determine whether the batteries were of any of the defective types that had been recalled by manufacturers or whether they might have contributed to the fire.

Other recommendations included calls for the FAA to require airport inspectors to ensure that airports that meet passenger

aircraft requirements and also have cargo operations include cargo aircraft in aircraft rescue and fire fighting (ARFF) training programs and for the Cargo Airline Association to work with member airlines and other groups to “develop and disseminate accurate and complete airplane emergency response diagrams for ARFF personnel at airports with cargo operations.”

The airplane in the February 2006 incident was destroyed by fire after landing. All three crewmembers evacuated, and all sustained minor injuries. The NTSB said that the probable cause of the accident was an in-flight cargo fire, initiated by an unknown source.



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Open-Door Policy

Air carriers should be required to revise cabin crew training procedures to ensure that training programs and manuals specify that a door must be open if an air conditioning (A/C) cart is connected, the U.S. National Transportation Safety Board (NTSB) has said.

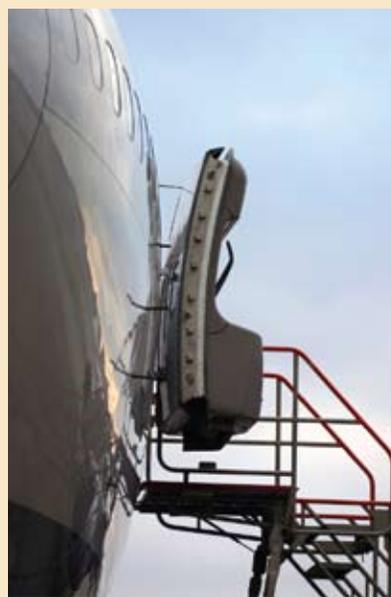
In its safety recommendation to the U.S. Federal Aviation Administration (FAA), the NTSB said that the FAA also should “advise that the A/C cart can pressurize the airplane on the ground if all doors are closed, and warn about the dangers of opening any door while the air conditioning cart is supplying conditioned (cooled or heated) air to the cabin.”

The NTSB cited a May 31, 2005, accident at Chicago O’Hare International Airport in which an Air Wisconsin flight attendant was ejected from the airplane service door of a Bombardier CL600 after she had closed both that door and the

main cabin door and then re-opened the service door. As she lifted the door handle on the service door, the door burst open and she was thrown to the ground. She suffered a fractured shoulder; no one else in the airplane was injured.

The NTSB said that the probable cause of accident was “the opening of the service door when the airplane was pressurized.” Contributing factors were “the captain’s failure to ensure that one of the airplane doors was open while a ground-cooling cart was connected,” the NTSB said.

The NTSB said that, at the time of the accident, the Air Wisconsin flight attendant manual and flight attendant training program “did not include information about keeping a door open to prevent pressurization of the cabin when an A/C cart is supplying heated or cooled air to the cabin on the ground.” About one year after the accident, the



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airline modified its training materials to include warnings that explained why at least one door must be open when an A/C cart is in use, the NTSB said.

Child Safety Seats

Australia should eliminate the requirement for mandatory use of a “top tether strap” when an automotive child restraint seat (CRS) is used in an aircraft seat, according to a study conducted for the Civil Aviation Safety Authority of Australia (CASA).

The top straps — not part of the CRS design in most other countries — typically extend from the top of a CRS, over the top of the aircraft seat and down the back, preventing the inhabitant of the seat behind the CRS from using the tray table.

The study said that the use of automotive CRSs in Australian regular public transport aircraft may have decreased in recent years and that most children younger than age 3 travel in the laps of an adult, restrained by a supplementary loop belt. Nevertheless, the study recommended that these

children should travel in their own seats, “in an appropriately sized and fitted child restraint system.”

The study said that acceptable restraint systems include those that use a top tether strap with an “effective tether anchor,” those that use belt paths through the rear portion of a CRS and those that use certain types of devices to attach a CRS to an aircraft seat.



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In Other News ...

The **Eurocontrol Council** has accepted a plan to create a performance-based air traffic management system for Europe; the plan sets goals for safety, capacity, delays and cost efficiency. ... The **Civil Aviation Safety Authority of Australia** (CASA) has conducted a series of unannounced, all-day surveillance exercises at major airports to evaluate specific safety issues that had been identified through data analysis and risk research. The exercises are intended to gather more information on safety risks and to “take a snapshot of operations at a point in time,” CASA said.

Correction ... An item in the November 2007 issue incorrectly stated Capt. Henry P. “Hank” Krakowski’s new job title; he is the chief operating officer of the U.S. Federal Aviation Administration Air Traffic Organization.

Compiled and edited by Linda Werfelman.