Airport Climate Change

Forecasts of a changing global climate are likely to force changes in operations at many airports, according to a study by the U.S. National Research Council (NRC), part of a private, nonprofit institution that advises the federal government on science, technology and health issues.

The major effect at airports in coastal areas of the United States will be the flooding of runways because of rising sea levels and surges that result from more intense storms, the NRC said. The problem likely will require construction of sea walls and levees to keep water off the runways or — in the most extreme cases — relocation of runways or airports.

The study identified five climate changes that will be especially important to aviation, as well as other forms of transportation, in the United States: more very hot days, increases in Arctic temperatures, rising sea levels, increases in events involving intense precipitation and increases in the intensity of hurricanes.

Safety Improvements Urged

The aviation industry in Latin America — where the accident rate is double the worldwide average — must intensify efforts to reduce accidents and coordinate safety regulations, Giovanni Bisignani, director general of the International Air Transport Association (IATA), says.

Data show that the 2007 accident rate in Latin America was one accident for every 600,000 flights, an improvement from the 2005 rate of one accident in 400,000 flights.

Bisignani noted that there are more than 250 safety deficiencies in Latin America with regard to standards established by the International Civil Aviation Organization. He called for increased cooperation in harmonizing safety regulations across the region and an end to divergent regulations across national borders, as well as increased use of the IATA operational safety audit (IOSA) — now incorporated into the aviation safety oversight programs of five Latin American countries.

The safety deficiencies are “unacceptable and must be improved immediately,” he said. “Cooperation and a broader view based on global standards are necessary to address unique infrastructure challenges and upgrade the aging and insufficient air traffic control technology. Safety knows no borders, and safety regulation must converge again.”

Accident Criminalization Denounced

The European Regions Airline Association (ERA) is encouraging European countries to adopt nonpunitive voluntary reporting systems within the aviation industry, “rather than encouraging a culture of blame and criminal prosecution, which discourages the sharing of safety information” (ASW, 3/08, p. 12).

The remarks by ERA President Antonis Simigdalas, the COO of Aegean Airlines, came as the Corporate Manslaughter and Corporate Homicide Act took effect in the United Kingdom in early April. The new law provides for prosecution of corporate organizations rather than individuals in cases of death resulting from failures of the corporation’s senior management.

“Prosecution is justified when it can be shown that willful disregard for established procedures, deliberate misuse of equipment, abuse of substances or anything similar has recklessly endangered the safe operation of a flight,” Simigdalas said. “However, where the cause of an incident or accident is due to human fallibility and all involved have used their best endeavors to ensure the safe operation of a flight, the use of reported data for criminalization purposes acts directly against the larger public interest and the future safety of European flight operations.”

Simigdalas said that a voluntary safety reporting system is crucial for accident prevention and that “all aviation personnel … must be willing to disclose and share such information and be confident that they do so without penalty or fear of prosecution.”
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**Safety Reporting Pact**

The U.S. Federal Aviation Administration (FAA) and the National Air Traffic Controllers Association (NATCA) have agreed to establish a voluntary safety reporting system — an air traffic safety action program (ATSAP; ASW, 7/07, p. 12).

In a joint statement announcing their agreement, the FAA and NATCA said that their goal was to encourage a “voluntary, cooperative, nonpunitive environment for the open reporting of safety of flight concerns by employees of the FAA.”

The ATSAP, which resembles the aviation safety action programs in place for pilots, flight attendants, dispatchers and/or maintenance personnel at many airlines, will provide both the FAA and the controllers with access to safety information that will be analyzed to identify actions that can resolve safety issues.

“This system … lets us know immediately when we have issues,” FAA Acting Administrator Robert Sturgell said. “We can dissect them together, find causes, spot trends and implement solutions. … Creating an atmosphere where controllers and their managers can identify, report and correct safety issues will go a long way in helping us further improve our safety record.”

NATCA President Patrick Forrey said safety would be improved under a “systematic approach for all employees responsible for the safety of the traveling public to promptly identify and correct potential safety hazards. For the people NATCA represents, the benefits are clear: This provides us with protection from discipline when our members identify errors and other performance-related issues affecting system safety.”

**Copper Pipe Failure**

The Civil Aviation Safety Authority of Australia (CASA) is warning operators and maintainers of aircraft with copper alloy pipes of the possibility of fatigue failure, citing a report of an in-flight failure of a copper fuel line, which led to a fuel leak and an engine failure.

Details of the incident were not available, but CASA said the fuel line failed because of “work hardening,” which results from exposure to long periods of normal engine vibration, damage incurred during maintenance or over-tightening during installation.

CASA recommends periodic inspections of all copper alloy pipes and replacement of those that are damaged or that have been in service longer than 10 years or 10,000 flight hours.

**Most ICAO Audits Made Public**

All but six member states of the International Civil Aviation Organization (ICAO) audited in accordance with ICAO’s Universal Safety Oversight Audit Programme (USOAP) have agreed that results of their audits should be made public.

“The fact that most states have authorized ICAO to go public means that they recognize the critical safety benefit of transparency,” said Roberto Kobeh González, president of the ICAO Council.

“Being aware of problems in various states and of the effective solutions developed to solve them can help other states correct their own deficiencies identified under USOAP. It also makes it easier for states and donors to cooperate in providing assistance where needed and helps the public make informed decisions about the safety of air transportation.”

March 23 was the deadline for states to agree to have their information posted on ICAO’s public Web site — <www.icao.int/fsix/safety.cfm>. The deadline was established in 2006 by the Directors General of Civil Aviation Conference on a Global Strategy for Aviation Safety. USOAP calls for “regular, mandatory, systematic and harmonized safety oversight audits” aimed at evaluating the level of implementation of ICAO standards and recommended practices by ICAO’s member states, identifying safety concerns and providing recommendations for improvement.

The six countries that have not agreed to the public release of their audits are Iran, Kazakhstan, Kiribati, Sierra Leone, Swaziland and Zimbabwe. ICAO said that it “continues to strongly encourage the six states to provide their consent.”

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Getting Along

A report on the relationship between the Australian Transport Safety Bureau (ATSB) and the Civil Aviation Safety Authority of Australia (CASA) has produced a series of recommendations aimed at helping the two bodies “maximize the practical contribution they are able to make to aviation safety,” said Anthony Albanese, Australia’s minister for infrastructure, transport, regional development and local government.

Some of the 19 recommendations address administrative matters, but others involve more complex issues, including “refining the protection of information collected during ATSB investigations, namely that in strictly limited circumstances, the information should be provided to CASA to facilitate immediate safety action,” Albanese said.

Plans called for public comments on the recommendations to be accepted until April 30; final action was to come after that date.

The report said that the review of the relationship between the ATSB and CASA was ordered after friction between the two agencies became apparent during investigation of the May 7, 2005, crash of a Fairchild Metro 23 near Lockhart River in Queensland. All 15 people in the airplane were killed in the controlled flight into terrain crash, and the airplane was destroyed.

“While cooperation and coordination in the interests of aviation safety [are] to be expected of both, there will from time to time be legitimate differences of opinion between them, sometimes creating tensions,” the report said. “That they may have legitimate differences of opinion on occasion, each firmly held, is not a matter of surprise or concern. It is how they deal with those differences that is important.”

Airport Moving Map

Jeppesen has received approval from the U.S. Federal Aviation Administration for its airport moving map application for Class 2 (portable/fixed mount) electronic flight bags (EFBs) — the first company to receive approval.

The moving map uses global positioning system (GPS) technology to show pilots their aircraft’s position on an airport surface. About 200 commercial airports worldwide are included in the database.

Jeppesen’s airport moving map has been in use for nearly five years on Class 3 (installed) EFBs. The company says approval of the Class 2 application will enable the retrofitting of a number of aircraft.

In Other News …

Swiss researchers say they have used mathematical and computer techniques to develop a sophisticated simulation of aircraft wake turbulence. They say the simulation will improve understanding of the physics of wake turbulence and thereby aid in aircraft construction. … Officials in Australia are considering a proposal to establish a national database of power lines, tall buildings and other low-level flight risks. The Energy Networks Association said after initial discussions with the Australian Transport Safety Bureau and Geoscience Australia that the proposal would be considered as one of this year’s priority issues. … The U.S. National Transportation Safety Board (NTSB), citing the 2006 collision of a Raytheon Hawker 800XP and a Schleicher ASW27-18 glider near Reno, Nevada, U.S., has recommended requiring some gliders to be equipped with transponders. The NTSB said that the U.S. Federal Aviation Administration should end gliders’ exemptions from regulations requiring transponder use.

Correction

Several paragraphs of “Working to the Limit,” beginning on p. 14 in the April 2008 issue of AeroSafety World, were inadvertently repeated or eliminated. The correct version of the article is available on the Flight Safety Foundation Web site at <www.flightsafety.org/asw/ apr08/asw_apr08_p14-18.pdf>.