

Lightning Strike Data

Pilots and air traffic controllers should have access to more up-to-date information on lightning strikes, the U.S. National Transportation Safety Board (NTSB) says in a safety recommendation that calls on the U.S. Federal Aviation Administration (FAA) to study the technical feasibility of accomplishing that goal.

The NTSB cited several recent accidents and incidents, noting that “total lightning” detection networks — those that detect both cloud-to-cloud lightning and cloud-to-ground lightning — can help predict areas where lightning may exist along planned flight paths.

“Because lightning detection networks operate independently of weather radar systems, their coverage areas complement each other and lightning information may indicate the presence of thunderstorms outside the range of ground-based weather radar systems,” the NTSB said. “Therefore, lightning information may be critical for thunderstorm identification in regions of the

National Airspace System where weather radar data are unavailable.”

In its safety recommendation letter to the FAA, the NTSB cited several lightning-related events, including an American Eagle Embraer ERJ-145LR’s encounter with severe turbulence on June 28, 2010, while at 38,000 ft over Pioneer, Louisiana, U.S. A flight attendant and one of the 42 passengers were seriously injured, and three other passengers received minor injuries.

The NTSB investigation revealed that air traffic controllers had not told the pilots that they were about to fly into an area of heavy precipitation, which appeared on the airplane’s weather radar display about 20 seconds before the encounter. The controllers said that their weather display showed no precipitation.

Data from a total lightning detection network, however, showed “substantial lightning activity” at the accident site; the lightning was “a strong indication of the presence of a thunderstorm immediately in front of the airplane,” the NTSB said.



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The captain said that, if he had known about the thunderstorm, he would have asked controllers for a course change.

The NTSB recommended that the FAA “study the technical feasibility of presenting, through the use of the weather and radar processor system or other means, real-time total lightning data on controller displays.”

Another recommendation called for incorporating “real-time total lightning data into the products supplied to pilots through the flight information services—broadcast data link.”

TSB Complains of Safety Delays

Significant delays in action on aviation safety recommendations are hindering the strengthening of safety in Canada, the Transportation Safety Board of Canada (TSB) says.

The TSB, in its annual assessment of responses to its safety recommendations, said that only one recommendation dealing with aviation safety received a “fully satisfactory” response.

In the cases of 32 other active recommendations, there is “significant room for improvement,” the TSB said.

Bill Fawcett/Wikimedia



The TSB noted, however, that “since 2000, the board has made five recommendations aimed at enhancing crew resource management, which have just recently received TC’s [Transport Canada’s] priority status.”

In addition, the TSB said it was pleased by a TC project to take quick action on four recommendations made in 2011.

“Every year, we take stock of whether improvements have been made and what still needs to be done to address important safety issues,” said TSB head Wendy Tadros. “This year, there is some progress, and that is encouraging, but in many areas, we still see safety risks, risks that will persist until concrete action is taken.”

Dennis Fitch

Dennis E. Fitch, who, as an off-duty United Airlines captain, helped land a crippled McDonnell Douglas DC-10 in Sioux City, Iowa, U.S., after a catastrophic engine failure and loss of hydraulic flight control systems, died May 6. He was 69.

A DC-10 instructor pilot, he was aboard the airplane as a passenger on the July 19, 1989, flight. He operated the throttles of the nearly uncontrollable DC-10 throughout much of the makeshift approach.

The crash landing killed 111 of the 296 people aboard, and 47 people were seriously injured. Afterward, many in the industry said the fact that anyone survived was a tribute to the crew’s extraordinary airmanship.

Fatigue Warnings

The U.K. Parliament’s Transport Committee is criticizing flight time regulations proposed by the European Aviation Safety Agency (EASA) as a “lowest-common-denominator approach to safety” that does not measure up to existing U.K. requirements.

The EASA proposal must be improved, “or safety could be at risk,” the committee said in documents issued in late May.

The EASA proposal, introduced in December 2010 and revised earlier this year, was intended to introduce new flight and duty time limits and to harmonize those limits throughout the European Union. Current limits in the U.K. are generally more stringent than those being considered by EASA, the Transport Committee said.

“MPs [members of Parliament] accept that common European flight time limitations could improve aviation safety for U.K. passengers travelling on non-U.K. airlines,” the committee added. “However, for these benefits to be realized, the European standards must be uniformly high.”

Committee Chairwoman Louise Ellman said members of Parliament were especially concerned about several items, including the proposed 11-hour maximum nighttime duty period, which “flies in the face of scientific evidence” and should be reduced to no more than 10 hours.



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In addition, under some circumstances, the proposed rules would allow pilots to work very long duty periods and, for example, would not preclude a pilot from landing an airplane after being awake for as long as 22 hours, Ellman said.

“The Civil Aviation Authority must do more to monitor pilots so that long duty periods are the exception, not the rule,” she added. “And we are also concerned about a culture of underreporting of pilot fatigue.”

Ellman said the EASA proposals should be revised before the British government commits itself to their adoption.

Proposed Penalties

The U.S. Federal Aviation Administration (FAA) has proposed \$445,125 in civil penalties against Horizon Air for its alleged operation of a Bombardier Dash 8-400 on 45 flights while it was not in compliance with an airworthiness directive requiring inspections of engine nacelle fittings.

The flights occurred in March 2011.

The FAA also proposed \$395,850 in civil penalties against US Airways for allegations that

it violated hazardous materials regulations in 2010 by accepting an undeclared shipment of 10 disposable cigarette lighters filled with flammable gas and an improperly packaged shipment of alkali-filled wet cell batteries.

The agency proposed a \$210,000 civil penalty against Alaska Airlines for an alleged failure to comply with deactivation procedures during maintenance on 10 dates in 2010 and 2011.

Each airline was given 30 days to respond to the allegations.

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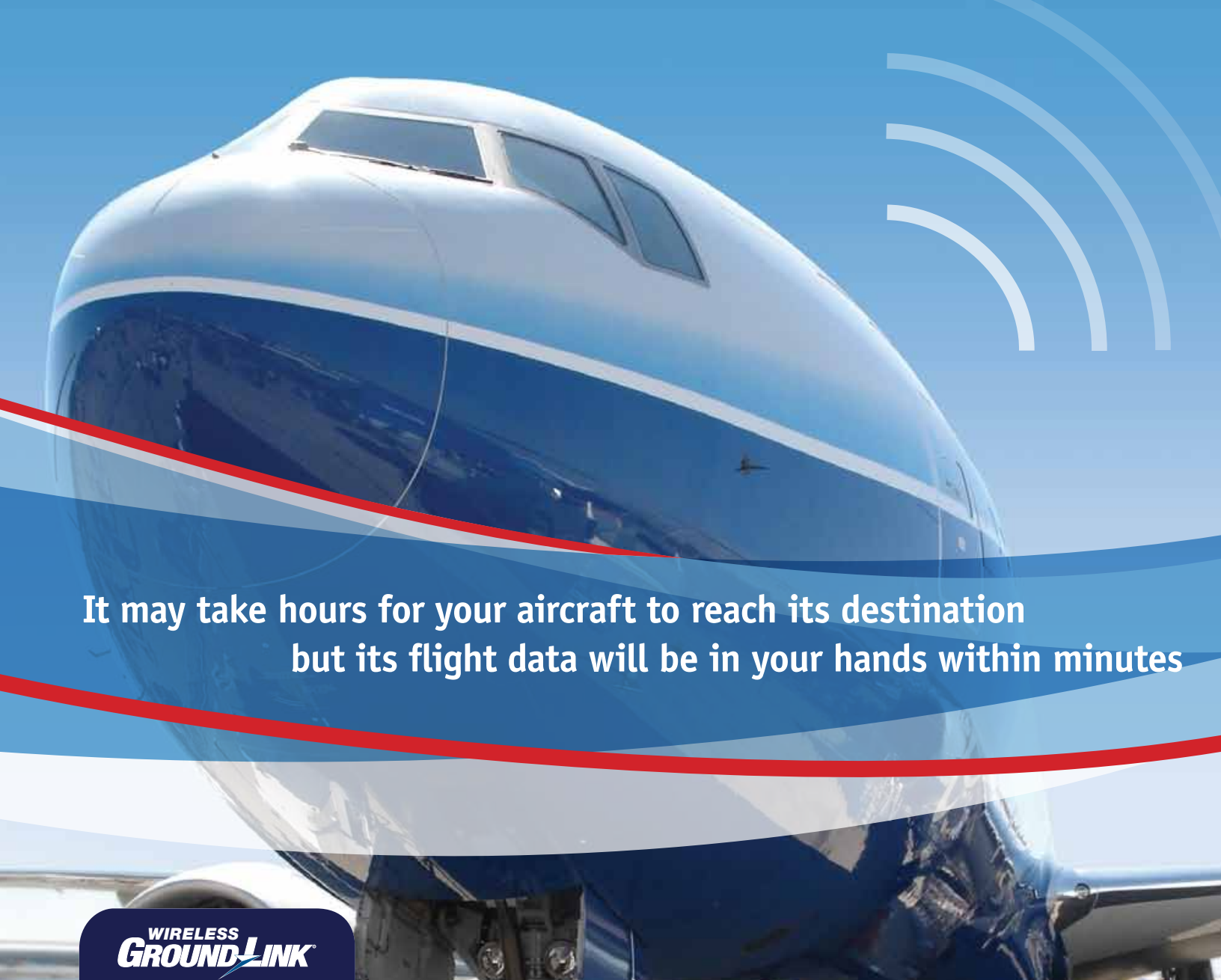


STC Compatibility

Following the fatal crashes of two small twin-engine airplanes, the U.S. National Transportation Safety Board (NTSB) is calling for the development of guidelines to ensure that every time an aircraft is equipped with a supplemental type certificate (STC) modification, it is compatible with others that may have been installed before it.

“The installation of multiple STCs is becoming more prevalent in general aviation aircraft,” the NTSB said. “There are likely many aircraft that are flying with multiple STCs for which the interrelationship may not have been properly evaluated by the installer.”

The agency’s safety recommendation letter noted two fatal accidents in 2010 — involving a Cessna T337G Skymaster and a Beech 58 Baron — that killed a total of seven people. In each case, the NTSB cited multiple STCs and a “lack of guidance by the [U.S.] Federal Aviation Administration for multiple STC interaction evaluation.”



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Crisis Management

Representatives of the European aviation industry attended a Eurocontrol crisis management workshop aimed at enhancing the industry's response to situations such as ash-spewing volcanic eruptions, nuclear emergencies and the uncontrolled re-entry into earth's atmosphere of space satellites.

Representatives of more than 30 nations and expert organizations attended the May session in Brussels, Belgium.

"Delegates discussed lessons learned from the ash crises in 2010–2011 and how these could be applied to other events with a network-wide impact," Eurocontrol said. "They talked about the responsibilities of various actors involved, in particular that of the [air traffic control] network manager and [European Aviation Crisis Coordination Cell, which supports the network manager], which they agreed is a strategic and political layer to help in coordinating a response to a major crisis."

Fatigue Proposal in Australia

The Australian Civil Aviation Safety Authority (CASA) has proposed new rules to manage pilot fatigue.

CASA's graduated approach would allow operators engaged in aerial work to choose basic flight and duty time limitations of no more than seven hours of flight time and eight hours of duty time a day, while those engaged in more complex operations could operate under more detailed rules that consider time zone changes, split duty periods, augmented crew and overnight operations.

"These operators would have the flexibility needed for the demands of daily operations, such as passenger transport, while safely managing fatigue," CASA said.

The largest airlines would be required to adopt a fatigue risk management system, which uses scientific principles to identify fatigue hazards and provides for continuous monitoring.



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"Under the proposed new rules, the shared responsibilities of both air operators and flight crew in the management of fatigue risk are clearly defined," CASA said. "Flight crew would be required to use off-duty periods to obtain enough sleep, to use in-flight rest appropriately and to disclose anything that may prevent them from meeting applicable fatigue risk management policies and limitations. Operators would be required to provide flight crewmembers with sufficient time away from work to enable restorative rest and sleep."

CASA is accepting comments on the proposals through June 12.

Cooperation on the Ground

The International Air Transport Association (IATA) has endorsed the creation of a ground handling council to encourage cooperation in a variety of areas in ground operations, including safety initiatives.

The council will consist of 20 representatives of airlines and ground services providers and will report to the IATA Operations Committee.

Related initiatives will involve the linking of several key data sources "to facilitate data-driven decisions to improve safety performance and reduce ground damage," IATA said.

In addition, IATA said it will promote "greater regulatory acceptance and utilization" of the IATA Safety Audit for Ground Operations and the *IATA Ground Operations Manual*.



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"Through renewed commitment to working together, taking a risk-based and data-driven approach, aviation stakeholders and regulators can improve safety and reduce the cost of ground damage, which is estimated in the billions of dollars annually," said Guenther Matschnigg, IATA senior vice president for safety, operations and infrastructure.

In Other News ...

The U.S. Federal Aviation Administration (FAA) says it plans to reexamine its recently announced rule on **pilot fatigue**, especially the exclusion of cargo pilots from flight and duty time limits and rest requirements. ... The U.K. Civil Aviation Authority (CAA) has delayed until September the introduction of new European Aviation Safety Agency **pilot licenses** for U.K. pilots. The delay from the planned July date was a result of "the complexity of the transition to the new license format," the CAA said. ... The U.S. Federal Aviation Administration has directed its investigators and lawyers to "pursue the stiffest possible sanctions" against people who intentionally point laser devices at aircraft. Some 3,592 **laser strikes** were recorded in 2011, up from 2,836 in 2010.

Compiled and edited by Linda Werfelman.