FAA News

Washington, D.C.

FOR IMMEDIATE RELEASE
Tuesday, July 2, 1996

APA 105 -96
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FAA SELECTS UNIVERSITY TEAM TO ESTABLISH INNOVATIVE OPERATIONS RESEARCH CENTER

In its continuing effort to develop greater collaboration among the academic community, aviation industry and government, and to promote critical safety and operations research, the Federal Aviation Administration (FAA) today announced the selection of a team of universities to serve as the FAA Air Transportation Center of Excellence in Operations Research.

The schools that will form the new Center of Excellence are the University of California at Berkeley, Calif., Massachusetts Institute of Technology, Cambridge, Mass., the University of Maryland, College Park, Md., and Virginia Polytechnic Institute, Blacksburg, Va.

"Selection of this team ushers in a new era of world-class partnerships between the FAA, academia and industry," said FAA Administrator David R. Hinson. "We have created a unique consortium of some of the best minds in the country. It is an aviation 'dream team' to work collectively on safety, business and operational issues of mutual interest and concern — and such collaborative efforts are essential in this era of shrinking budgets and scarce resources."

The Center will focus on the development and use of operations research: a focused blend of applied mathematics, computer science and engineering aimed at finding optimal solutions to complex problems. Specific work will address issues in air traffic management and control, human factors, system performance and assessment measures, safety data analysis, scheduling, workload management and distribution, navigation, communications, data collection and distribution, and aviation economics.

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The flexibility of the FAA's new acquisition system effective April 1, 1996, allows the agency to award "single source" contracts to the Air Transportation Center of Excellence in Operations Research — a first for any federally-sponsored Center of Excellence. Single source contracting lets the FAA award up to $10 million for specific deliverables, including engineering development and rapid prototyping products.

"This Center represents a model for government reform," said Hinson. "In the past, the program produced great research, but few products of direct and immediate use. FAA, industry and academia are now coming together to transform research into products that will result in better, more responsive solutions."

The Center will be financed with matching funds from the FAA and academic institutions, which have received pledges for support from other members of the aviation community. While this award represents a long-term FAA commitment over the next 3-10 years, the Center of Excellence will strive to become self-supporting within 10 years.

The Center of Excellence is based on the principle of inclusiveness, and other institutions and companies will have an opportunity to participate. The FAA expects that the critical mass of expertise and capability created and nurtured through the Center will attract and produce people and work of unsurpassed quality, value and relevance. Also, the Center will provide for continuing education, professional networking, and the collection and distribution of information.

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FAA News

Washington, D.C.

FOR IMMEDIATE RELEASE
Tuesday, July 2, 1996

APA 106-96
Contact: Diane Spitaliere
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FAA STATEMENT ON FLIGHT DATA RECORDERS

The Federal Aviation Administration supports the intent of the Safety Board's recommendation on enhanced Flight Data Recorders. We have emphasized that we need as many pieces of information as possible not only to help us better understand the cause of accidents, but to use data from incidents to help us better understand how to prevent accidents. Enhanced Flight data Recorders -- with additional parameters -- provide us with the tools to do just that.

The FAA has developed a proposal based on the NTSB's recommendation and expects to announce its conclusion shortly.

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FOR IMMEDIATE RELEASE
July 3, 1996

CONTACT: Kathleen B. Bergen

Delta Pays $650,000 for Airworthiness Directive Violations

The Federal Aviation Administration today issued a civil penalty action against Delta Air Lines for $650,000. The case involved the operation of a Boeing 757 without conducting required inspections to the aircraft engine thrust reversers. The aircraft was operated on 476 scheduled passenger-carrying flights between October 16, 1995 and January 25, 1996.

The Airworthiness Directive (AD), which required a modification of the thrust reversers on 757s by installing an additional locking feature, also requires inspections after every 1,000 flight hours. Locking features prevent the thrust reversers from deploying in flight. Boeing 757 aircraft originally were manufactured with two locking features; they now are manufactured with three. Thrust reversers help slow and stop the aircraft after landing.

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FAA News

Washington, D.C.

FOR IMMEDIATE RELEASE
Sunday, July 7, 1996

APA-115-96
Contact: Diane Spitaliere
(202) 267-3333

STATEMENT BY FAA ADMINISTRATOR DAVID R. HINSON
ON THE DELTA ACCIDENT IN PENSACOLA, FLA.

Department of Transportation Secretary Federico Peña joins me in expressing our deepest condolences to the family of those who died and to those who were injured in Saturday's engine accident on Delta Flight 1288 in Pensacola, Fla.

The Federal Aviation Administration will provide any technical assistance required by the National Transportation Safety Board (NTSB), the lead federal agency in the investigation of this accident.

To assist the NTSB, the FAA has dispatched a senior accident investigator from our Washington headquarters, as well as two powerplant engineers attached to the New England engine certification office with expertise in Pratt & Whiteny JT8D-219 engines. Other personnel from the FAA's Southern Region will assist the NTSB in the various aspects of its investigation.

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FAA News

ashington, D.C.

FOR IMMEDIATE RELEASE
Tuesday, July 9, 1996

APA 118-96
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FAA PROPOSES RULE TO REQUIRE INCREASED PARAMETERS FOR FLIGHT DATA RECORDERS

The Federal Aviation Administration (FAA) has announced a proposal to help better identify the causes of aircraft accidents and prevent future accidents and incidents by requiring certain aircraft operators to increase the amount of data collected by flight data recorders (FDRs).

Under the Notice of Proposed Rulemaking (NPRM) submitted to the *Federal Register* today, the number of specific areas of flight information -- data parameters -- would increase from 11 to 17 for older aircraft and to 88 parameters for aircraft certified in the future. The NPRM seeks to address the intent of several National Transportation Safety Board (NTSB) recommendations. The proposed rule will require retrofit of affected aircraft within four years of publication of the final rule.

"We have emphasized that we need as many pieces of information as possible not only to help understand the cause of accidents, but to use data from incidents to help us better understand how to prevent accidents," said FAA Administrator David R. Hinson. "Enhanced flight data recorders -- with additional parameters -- will provide us with the tools to do just that."

"This proposal demonstrates the FAA's commitment to ensure that our nation's aviation system continues to be the safest in the world," said U.S. Secretary of Transportation Federico Peña.

In 1995, the FAA called on industry to voluntarily begin retrofitting Boeing 737 aircraft with upgraded FDRs and began an in-depth rulemaking effort in response to the NTSB's recommendations. Through the Aviation Rulemaking Advisory Committee, the FAA worked closely with NTSB and industry to developed the proposed rule.

Overall, the FAA has responded favorably to 90 percent of the urgent recommendations issued by the NTSB since 1967 and has a high response rate for all other recommendations.

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Depending on the age and complexity of the aircraft, the proposed rule would upgrade flight data recorders as follows:

	Aircraft	Current Parameters	Proposed Parameters
Category 1	1,929 aircraft over 30 seats 727, 737, L-1011, DC-8, DC-9, F-28.	11	17/18
Category 2	1,360 aircraft over 30 seats 704 turboprops A-320, 737, 747, 757, 767, DC-10, F-28, MD-80, ATR-42, EMB-120, SAAB-340, DHC-8.	17	17/22
Category 3	1,036 aircraft over 30 seats 673 aircraft 10-19 seats 277 aircraft 20-30 seats 737, 747, 757, 767, 777, F-100, MD-11, MD-80, MD-88, MD-90, ATR-72.	Up to 29	34
Category 4	All newly manufactured aircraft, existing derivatives and any new type certificates.	29	57 (3 years) 88 (5 years)

The total cost of the proposed rule is $316.4 million. The comment period is 30 days after publication in the *Federal Register* for Part 121, 125, and 135 aircraft and 120 days for Part 129 aircraft.

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FAA News

Washington, D.C.

FOR IMMEDIATE RELEASE
Tuesday, July 9, 1996

APA 107-96
Contact: Bob Hawk
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FACT SHEET
HISTORY OF ATR ACCIDENTS/INCIDENTS,
FAA RESPONSE

The Roselawn, Ind., accident on Oct. 31, 1994, was the eighth accident, as defined by the National Transportation Safety Board (NTSB), involving an ATR in the United States. Among the seven previous accidents were a tail strike on landing and an incident in which the wing of another aircraft clipped the tail of an ATR on the ground, resulting in substantial damage but no injuries. Two fatalities were recorded in ATR accidents prior to Roselawn; both involved persons walking into a propeller, one at Bridgeport, Conn., in 1991, and the other at Chicago-O'Hare in 1993. During 1991, there were two additional accidents -- one involved a engine failure and subsequent fire in the nacelle, while the other was a passenger injury during an emergency evacuation. The seventh accident was in 1993 when a flight attendant broke an ankle during a turbulence encounter.

The only major accident involving ATR aircraft outside the United States prior to Roselawn was in October 1987, involving an ATR-42 in severe icing conditions at Crezzo, Italy, fatal to all 37 persons on board. The French civil aviation directorate concluded the crew had "insufficient understanding" of the aircraft's behavior under such conditions.

Less than two dozen roll-axis control incidents, all involving ATR-42 aircraft, had been reported in approximately 4 million flight hours of operation prior to the Roselawn accident. Some of these were found to be due to mechanical malfunctions. Those occurring in weather conducive to icing with flight data recorder evidence of uncommanded aileron deflection include:

-- Detroit, Mich., Dec. 19, 1986
-- Crezzo, Italy, Oct. 15, 1987
-- Traverse City, Mich., Oct. 27, 1987
-- Mosinee, Wis., Dec. 22, 1988
-- Ireland, Aug. 11, 1991
-- Newark, N.J., March 4, 1993
-- Indian Ocean, April 17, 1994
-- Burlington, Mass., Jan. 28, 1994

- more -

Each incident was the result of a unique set of circumstances and was thoroughly investigated by the Federal Aviation Administration (FAA). Among actions taken by the agency: temporary restrictions were imposed on flight into icing conditions, changes were made to the autopilot roll actuator, restrictions were placed on use of the autopilot in icing conditions, and an anti-icing advisory system was designed to address flight crew awareness of significant ice buildup.

The manufacturer ordered changes in the operation of the deicing and stall warning systems, and made ATR-42 roll-control design improvements required by the FAA as part of the basic type design of the ATR-72.

The Roselawn accident resulted in an unprecedented review of ATR aircraft by the FAA with the support of the Air Line Pilots Association (ALPA), the manufacturer, and others in the aviation industry. The FAA performed a detailed certification review of ATR aircraft to assure that all design standards and requirements were satisfied; larger deicer boots were designed by the manufacturer and retrofitted on all ATR aircraft; clear and unmistakable icing cues were developed to help flight crews recognize dangerous icing conditions, and new procedures were mandated to help crews exit such conditions.

In addition, the FAA conducted a thorough review of other aircraft with mechanical deicing systems in conditions similar to those believed to have contributed to the Roselawn accident.

An aircraft incident is classified as an accident by the NTSB if it meets certain conditions. If the incident results in substantial damage to the aircraft, or in death or serious injury to anyone on the aircraft or in contact with the aircraft, it is classified as an accident. If it involves lesser consequences, such as a blown tire, a collapsed nose gear, or an encounter with clear-air turbulence, it may be classified as an incident or an occurrence.

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FAA News

Washington, D.C.

FOR IMMEDIATE RELEASE
Tuesday, July 9, 1996

APA-108-96
Contact: Bob Hawk
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FACT SHEET
AIR TRAFFIC CONTROL PROCEDURES AND WEATHER

The main responsibility of air traffic controllers is to provide safe separation between aircraft. Controllers provide other services, including weather advisories, insofar as their main workload permits.

Pilots receive weather information from a variety of sources. Aircraft dispatchers provide weather reports and forecasts to commercial pilots before a flight, including weather that may affect the safety of the flight. They also provide weather updates while a flight is underway. The National Weather Service provides forecasts and inflight weather advisories of conditions that were not forecast prior to departure. FAA provides pre-flight weather briefings and inflight advisories. It is the flight crew's responsibility to become knowledgeable about the weather aloft before departure. It is the controller's responsibility to advise pilots about en route weather that may affect the safe operation of the aircraft.

When potentially hazardous weather conditions, such as a squall line or stationary thunderstorm, are known to air traffic managers, traffic is routed around it. The FAA has developed a variety of air traffic management procedures to deal with bad weather, including increasing the spacing between aircraft, holding aircraft, or changing air traffic routes and patterns.

Controllers routinely advise pilots of significant weather advisories received from the National Weather Service after a flight is underway. They quickly disseminate weather information received from other pilots. Individual controllers are expected to determine what advisories are appropriate for specific aircraft in the airspace they are controlling. They are prepared to suggest alternative routes or altitudes when a pilot requests flight-plan changes because of weather encountered en route.

Controllers also receive intensive training on the effects of adverse weather conditions and make themselves aware of pertinent weather conditions when they come on duty. The importance of relaying significant weather advisories to flight crews is the subject of recurring air traffic alert bulletins.

Pilots who encounter icing, turbulence, or similar conditions are expected to report these conditions to controllers. Pilot reports, known as PIREP's, are an important source of real-time information about weather conditions and may include information that is unavailable to a controller by any other means. However, conditions that are potentially "hazardous" to one aircraft may be harmless to another aircraft of different size, design, or configuration.

Also, areas of icing or troublesome weather are often sharply limited or changing in scope and the conditions themselves may be transitory. Because of this, flight crews are usually in the best position to judge the weather through which they are flying and to assess its potential impact on their flight.

Pilot requests for changes in altitude or direction because of bad weather are normally granted quickly. When conditions are severe enough that immediate action is advisable to avoid threatening conditions, the pilot's emergency authority can be exercised. In that case, the pilot gets exactly what he or she asks for from a controller. In fact, a pilot doesn't need permission to change course if the continued safe operation of the aircraft is at stake.

Standard air traffic control procedures were used in handling the American Eagle flight involved in the Roselawn accident.

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FAA News

Washington, D.C.

FOR IMMEDIATE RELEASE
Tuesday, July 9, 1996

APA-109-96
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FACT SHEET
BILATERAL AIRWORTHINESS AGREEMENTS

Bilateral airworthiness agreements are essential international tools to assure aviation safety and achieve environmental goals in air commerce. The agreements are especially significant in international aviation because they provide the foundation for the certification of products of other countries to operate at an equivalent level of safety as products manufactured in the United States.

Equivalency

In the United States, aircraft airworthiness certification is a public safety function performed by the Federal Aviation Administration (FAA), under provisions of the Federal Aviation Act. The principles of FAA certification apply to other countries with whom the U.S. government has concluded agreements. There are today 27 airworthiness agreements, each one varying in scope.

Bilateral airworthiness agreements are negotiated by the Department of State (DoS), and are concluded by an exchange of diplomatic notes between the U.S. government and the governments of other countries. They are technical agreements designed to facilitate the reciprocal acceptance of test results, certificates or marks of conformity issued by the airworthiness authority of the exporting country. Without such arrangements, there would be a substantial, repetitive certification testing and analysis for each importing country.

Extensive analysis precedes an FAA recommendation that the DoS should conclude a bilateral airworthiness agreement with a particular country. The FAA begins the process by conducting an in-country assessment to determine the technical readiness and competency of that country's civil aviation authority to apply U.S. rules, practices and procedures. Simultaneously, the FAA ensures that the country's aircraft certification procedures comport with the FAA's requirements and that its product manufacturing industry can produce results equivalent to those in the U.S.

If the assessment is positive, the FAA will recommend that State proceeds to develop an airworthiness agreement.

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Bilateral Requirements

All bilateral airworthiness agreements provide that "...the importing State shall give the same validity to the certification (made by the competent civil aviation authority of the exporting State) as if the certification had been made by its (importing State's) own competent civil aeronautical authority in accordance with its own applicable laws, regulations, and requirements."

Each agreement allows the importing State to prescribe additional technical conditions "...which the importing State finds necessary to ensure that the product meets a level of safety equivalent to that provided by its applicable laws, regulations, and requirements which would be effective for a similar product produced in the importing State."

The exporting country's role in this process is to assure that the exported product meets United States equivalent standards by making "findings of compliance" and to provide a certifying statement to this effect to the FAA. The FAA's role in the process is to validate that the product conforms to all United States requirements. The FAA accomplishes this by:

1. Becoming familiar with the design of the aeronautical product and how the country's certification system has been applied to the product;
2. Establishing the "U.S. Type Certification Basis" which identifies the U.S. airworthiness standards that would be applied to a similar aeronautical product, if that product was designed and produced in the U.S.;
3. Comparing the country's design standards, practices and procedures for domestic certification with those of the U.S., and prescribing additional technical conditions, if necessary, to ensure they are equivalent with the U.S. standards; and
4. Working closely with the country's civil aviation authority as an advisor throughout its certification process. The level and frequency of involvement is determined by the complexity of the aeronautical product, as well as the planned usage of the product in the U.S. The FAA also takes into consideration the experience of the country's authority in certifying similar aeronautical products to U.S. requirements.

While the bilateral airworthiness process is intended by the FAA to allow for the basic certification of an aeronautical product to be performed by another country's civil aviation authority, bilaterals do not relieve the FAA of its statutory responsibilities to make the "findings of compliance" with U.S. aircraft certification regulations. Rather, they provide an alternative method for the FAA to make its "findings," utilizing the certification system of the country of design to the maximum extent possible.

The current version of the bilateral between the United States and France was signed in 1973 replacing an agreement dated Aug. 6, 1956. On May 14, 1996, the U.S. and France signed a bilateral aviation safety agreement that will promote aviation safety by increasing collaboration in such safety regulatory areas as aircraft certification, approval and monitoring of maintenance facilities and flight simulator evaluations. It is the third bilateral aviation safety agreement signed by the United States in Europe in the last 11 months.

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Washington, D.C.

FOR IMMEDIATE RELEASE
Tuesday, July 9, 1996

APA 110-96
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FACT SHEET
AIRWORTHINESS/CERTIFICATION AND ICING

The Federal Aviation Administration (FAA) was involved in an extensive airworthiness and certification program leading to FAA approval of ATR-42 and ATR-72 turboprop aircraft, the basis for which is a bilateral airworthiness agreement between the United States and France. Both aircraft types were certified by the FAA under Section 21.29 of the Federal Aviation Regulations, Issue of Type Certificate, Import Products.

Aerospatiale ATR Certification

ATR-42

Under the terms of the U.S.-France 1973 bilateral, aircraft manufacturer Aerospatiale, on Feb. 26, 1982, applied to the FAA, through the Direction de l'Aviation Civile (DGAC), France's civil aviation authority, for type certification of its ATR-42 aircraft which would enable it to operate in the U.S.

Shortly after its type certificate application was filed, Aerospatiale experts were joined by DGAC representatives to launch the certification process with the FAA. The FAA certification team consisted of technical experts whose function was to determine the ATR-42's certification basis, and to assure that the DGAC properly found compliance with this certification basis.

Numerous technical meetings were held in the U.S. and France during the course of the certification program, and the FAA team wrote 98 issue papers -- an unusually large number of papers reflecting a high level of involvement by the FAA in the ATR-42 certification program. Policy and guidance materials, as well as "lessons learned" from other certification programs, were shared with the DGAC and Aerospatiale via these issue papers and other correspondence.

One of the FAA team's issue papers addressed icing certification. It reflected the FAA's concern over the effects of a delayed operation of the aircraft's pneumatic deicing boots -- rubber devices on the leading edge of the wing that alternately inflate and deflate tubes in the boot to break and remove ice accumulations. The FAA provided information to the aviation industry in Advisory Circular 20-73 to address the matter.

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The FAA also reviewed the airplane flight manual (AFM) prior to issuance of the ATR-42's type certificate, and authorized the DGAC to sign it in the FAA's behalf. In addition, the FAA conducted a Maintenance Review Board (MRB), a requirement that formalizes and establishes the aircraft type's initial maintenance program. This is a normal step in any aircraft certification program, to ensure that everyday maintenance needs are met as the aircraft type accumulates actual experience in a particular operating environment.

The FAA also performed a flight test evaluation on the airplane prior to certification. This evaluation was not intended as a full flight test program. During the test flights, covering about 10 flight hours, the FAA pilot conducted a complete survey of the ATR-42's flight deck arrangement and became familiar with the airplane's operation and handling qualities. A thorough ground school, set up by Aerospatiale, also was a part of the FAA pilot's evaluation.

The purpose of the FAA's flight test program was to allow the pilot to become familiar with the aircraft's flying characteristics, to evaluate the AFM, and to be able to understand issues which might arise later -- such as service difficulties, airworthiness directives and/or modifications. At least one evaluation flight was flown at night to allow evaluation of cockpit and exterior lighting. Since meaningful evaluation of performance on handling characteristics in icing conditions would involve extensive flight in natural icing conditions, flight with artificial ice shapes, or both. There was no specific evaluation by the FAA pilot of the airplane during flight into icing conditions.

Although the French certification basis was equivalent to U.S. certification standards, special conditions were issued by the FAA to address the aircraft's automatic takeoff power control system and to ensure that the aircraft met U.S. noise requirements. The FAA subsequently awarded type certificates to three models of the ATR-42 aircraft: ATR-42-200 and ATR-42-300 on Oct. 25, 1985, and the ATR-42-320 on Aug. 25, 1988. Model differences involve higher gross weight, upgraded engines and other structural or systems changes.

ATR-72

On April 9, 1986, Aerospatiale applied for a change in its type certificate to add the new model ATR-72, a growth version of the ATR-42 that incorporates a longer fuselage, a longer wing extension incorporating composite materials, newer engines and other design changes.

The changes from the ATR-42 to the ATR-72 were not considered by the FAA so extensive as to require a new application for a type certificate as originally granted. However, the FAA certification team for the ATR-72 noted that there had been six incidents and one serious accident of ATR-42 aircraft attributed to problems with flight in icing conditions, consequently additional investigations were required in this area.

Addressing this concern, the French DGAC issued Special Condition B6 in consultation with FAA, a requirement created to provide additional criteria for the investigation of airplane handling characteristics and performance in icing conditions, and to address concerns about the aerodynamic effects of residual ice (ice that remains between normal inflation cycles of the deicing boots), as well as ice that accumulates on non-protected surfaces.

Special Condition B6 also provided clarifying procedures for the determination of flight characteristics with ice accreted on the airplane, and clarified steps for continued safe flight and landing demonstrations following a failure or malfunction of the ice protection equipment. The special condition does not impose any additional certification requirements. In addition, the expected icing conditions described in B6 do not include operations in weather conditions involving large droplets, nor does it specifically address ice accumulation behind the active portion of the deicing boots.

After reviewing the special condition and the proposed design of the ATR-72, the FAA determined that certain features had been added to the ATR-42 and ATR-72 to improve safety when operating in icing conditions. These involved an anti-icing advisory system that alerts flight crews of significant ice buildup when operating in icing conditions, including freezing rain. Wing vortex generators, which are devices intended to improve airplane roll control had been mandated on the ATR-42 by AD, and were also to be made a part of the basic type design on the ATR 72.

With changes having been made to the FAA's satisfaction, the DGAC's statement of compliance was accepted. Type certificates were granted to the ATR-72-101/201 on November 15, 1989; ATR-72-102/202 on January 18, 1991, and ATR-72-211/212 on December 15, 1992.

The contents of the DGAC's special condition have been used in most European aircraft certification programs with good results, since it was first used on the ATR-72 aircraft.

Service Difficulties

Following certification, the FAA has several methods of learning of service difficulties or other safety issues involving foreign manufactured aircraft. Bilateral airworthiness agreements between the United States and other countries provide for notification procedures.

The main vehicle for notification of service problems is the foreign airworthiness authorities' responsibility under the Bilateral Aviation Agreement (BAA) to provide notification of safety issues in a timely manner. In Aerospatiale's case, the DGAC has responsibility under the BAA to keep the FAA apprised of all mandatory airworthiness modifications and special inspections and the DGAC must assist in analyzing those major incidents occurring on those products covered by the BAA that would raise technical questions regarding the airworthiness of such products.

In addition to this process provided for under the BAA, the FAA has several domestic programs in place to collect and analyze adverse information.

In addition to these formal channels, manufacturers are required to report certain failures to the FAA. FAA principal maintenance inspectors assigned to individual operators also report service difficulties through their flight standards district offices. And, certification specialists receive information informally and directly from manufacturers and operators as a result of their contacts and experience.

If there is a safety issue which is determined to constitute an unsafe condition, the cognizant airworthiness authority is responsible for addressing the unsafe condition with an airworthiness directive (AD). ADs issued by non-U.S. aviation authorities are kept by the FAA in a formal tracking system -- a database written for each airplane model, showing actions subsequently taken by the FAA in response to them.

FAA's normal approach is to duplicate the foreign airworthiness directive with an FAA AD, although at times the AD must take the form of a notice of proposed rulemaking (NPRM) in order to satisfy requirements of the Administrative Procedures Act and other statutory limitations imposed on rulemaking activities. In considering the foreign AD, the FAA can exceed actions required by it, determine that action is not justified or find that action is not warranted. The FAA may also decide to write an AD even though the foreign authority has chosen not to do so. In all cases, close coordination is maintained between the FAA and the foreign authority throughout the FAA's decision making process.

Historically, the FAA receives timely reports of service difficulties involving foreign manufactured aircraft. Once notification is made, the FAA acts to correct any unsafe conditions. In Aerospatiale's case, the French DGAC and Aerospatiale have regularly kept the FAA apprised of safety related matters affecting ATR aircraft.

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FAA News

Washington, D.C.

FOR IMMEDIATE RELEASE
Tuesday, July 9, 1996

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FACT SHEET
REGULATIONS GOVERNING
OPERATIONS IN ICING CONDITIONS

A comprehensive icing research and development program has been underway at the Federal Aviation Administration (FAA) since the late 1970s, in a cooperative effort with other government agencies, the aviation industry and international airworthiness authorities. Launched originally to improve and supplement FAA icing standards, as part of its aircraft certification efforts involving rotorcraft and small airplanes, the effort has been expanded over time as the science of aviation has advanced.

Examples of Advisory Materials

1. Advisory Circular (AC) 20-73 Aircraft Icing, April 21, 1971;
2. Aircraft Icing Hand Book Department of Transportation (DOT)/FAA/CT-88/8-1;
3. AC 23.1419-2 Certification of Part 23 Airplane For Flight and Icing Conditions, Jan. 3, 1992; and
4. AC 20-117A, Ground Deicing.

The FAA effort included five airworthiness directives issued between 1986 and 1989 affecting operations of ATR aircraft in icing conditions. Following the accident involving an ATR-72 aircraft at Roselawn, Ind., on Oct. 31, 1994, the FAA also has been extensively committed to undertaking additional research, analysis and corrective actions, based on the best available scientific evidence. This has included steps to gain a better understanding of the adverse effects of operations in a weather phenomenon outside the airplane certification regulations. These include freezing drizzle and freezing drizzle aloft, sometimes referred to as Super Cooled Drizzle Drops (SCDDs), a condition not fully understood until recent times, and freezing rain.

Prior FAA Actions

Since 1986, when the ATR-42 aircraft entered service, the ATR fleet (including ATR-72 aircraft) has accumulated over four million flight hours. In that time, there have been eight serious roll anomalies, which are defined as unplanned aircraft movements caused by forces, such as severe icing, that adversely affect flight.

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The FAA investigated each incident and, based on information available at the time, took appropriate action. It was believed that each ATR icing event, although similar in appearance, was the result of a unique set of circumstances. The FAA's five airworthiness directives (ADs) focused on unsafe conditions discovered during the agency's investigations:

1. On Dec. 19, 1986, the FAA initially prohibited flight into icing conditions following roll control problems on two ATR-42s approaching Detroit, Mich.; after changes were made to the aircraft deicing and stall warning systems and adoption of a new speed range to be flown in icing conditions, the flight restriction was removed.
2. On Dec. 4, 1987, following an ATR-42 roll control problem near Traverse City, Mich., the FAA required installation of a drain hole on the autopilot roll actuator to prevent water from collecting, freezing and binding the actuator, which was determined to have caused the roll problem.
3. On April 7, 1989, the FAA prohibited use of the autopilot in icing conditions, prompted by a reported roll control problem on an ATR-42 on approach to Mosinee, Wisc. The FAA determined the autopilot masked the normal central forces and/or response caused by an asymmetric ice buildup, and the airplane rolled when the autopilot disconnected.
4. On Dec. 15, 1989, the FAA superseded the previous AD by removing the autopilot restriction following installation of vortex generators to improve roll control. Vortex generators were also required on the basic type design of the ATR-72. These ADs were the result of the Notice of Proposed Rulemaking (NPRM) process where comments were solicited from the aviation community.
5. Oct. 31, 1989, the FAA required installation of an anti-icing system on the ATR-42. The AD was not in response to any particular incident, but was designed to address the problem of flight crews being unaware of significant ice buildup when operating in icing conditions, including freezing rain. Modifications included installation of an electronic ice detector, a stick shaker system, changes in stall angle of attack and airplane flight manual (AFM) changes to reflect higher minimum speeds when operating in icing conditions. The changes were made proactively to improve protection against loss of control when operating in icing conditions, including freezing rain. Similar design features were incorporated into the basic type design of the ATR-72.

Current FAA Actions

Following the Roselawn accident, the FAA augmented its research, analysis and testing program. The effort has resulted in numerous operational and structural changes affecting the fleet of ATR-42 and ATR-72 aircraft.

Special Certification Review

As a result of the accident, the National Transportation Safety Board (NTSB) recommended that the FAA conduct a Special Certification Review (SCR) of ATR-42/ATR-72 series airplanes. The NTSB also recommended that flight tests and/or wind tunnel tests be conducted as part of the review. These tests would be performed to determine the aileron hinge moment characteristics of the airplanes while operating at different airspeeds and in different configurations during ice accumulation, and with varying angles of attack following ice accretion.

In response, the FAA immediately formed a 10-person team, including six certification specialists from the FAA and four from the Direction Generale de l'Aviation Civile (DGAC), the airworthiness authority for France. Thousands of hours were devoted to investigating the certification and performance of ATR-42 and ATR-72 series of airplanes over a six-month period, both in the United States and France.

During its investigation, the SCR team participated in the creation of two telegraphic airworthiness directives (ADs). The first prohibited flight, issued on December 9, 1994, into known or forecast icing conditions for the ATR fleet. The second, issued on January 11, 1995, restored flight in icing conditions only if certain flight and dispatch restrictions and procedures were adopted.

The AD of Dec. 9, 1994, was issued only after the SCR team was able to find factual evidence linking ice aft of the decicing boots with the behavior of the accident airplane. While the FAA found evidence that a large ice ridge aft of the deicing boots was likely formed in freezing drizzle but not in normal icing conditions, there were no validated means for the crew to identify when the airplane had entered into icing conditions beyond the certification requirements. As a result, even though there was no reason to suspect that normal icing conditions would be adverse to the ATR-42 and -72 airplanes, the team proposed that the safest course of action was to prohibit flight in all icing conditions. One month later, after extensive testing of the airplane behind the U.S. Air Force (USAF) Icing Tanker at Edwards Air Force Base -- testing later verified in France -- a means of identifying when hazardous ice was forming on the airplane had been developed. As a result of this investigation, another AD was issued which allowed the airplane to return to flight in normal icing conditions, subject to special training of dispatchers and crew.

Results of the team's inquiry:

- The original icing certification program for the two airplane types demonstrated the adequacy of the anti-ice and deicing systems to protect the airplane against adverse effects of ice accretion;
- The wing deicing system demonstrated acceptable performance in the meteorological conditions defined in the aircraft certification definition;
- During icing tanker testing, the proper functioning of the wing deicing boots was observed to correlate with Aerospatiale test data generated during the original airplane certification program;
- The certification program for the ATR-42 and -72 icing systems was documented thoroughly, in a manner consistent with other FAA icing certification programs; and
- ATR-42/72 series airplanes were certificated properly, in accordance with DGAC and FAA regulations, practices and procedures.

The SCR team also reviewed certain important aspects of events involving ATR aircraft. Events of unacceptable control anomalies were found to have been associated with severe icing conditions such as freezing rain/freezing drizzle and, in a few cases, the icing was accompanied by turbulence. These other roll anomaly events provided no evidence that the ATR-72 had any problems with any icing conditions for which it was certificated.

The SCR team also focused on SCDDs, a weather condition aloft that is believed by investigators to have been in the vicinity of the Roselawn accident. The scientific investigation of SCDD, freezing rain and freezing drizzle -- collectively referred to as Super-Cooled large droplets (SLD) -- and the body of knowledge on the subject is relatively new and not universally understood within the aviation community. In response, the team reviewed the aerodynamic effects of SCDDs and SLDs on ATR series aircraft and how SCDDs influence uncommanded aileron deflection.

Wind tunnel tests and two series of icing tanker tests were included in the SCR team's review. A combination of tests by Aerospatiale and the icing tanker tests conducted by the FAA and Air Force were used to determine possible immediate and long term changes to the ATR series of aircraft, changes to flight crew operations procedures and flight crew training and equipment requirements.

Subsequent to the testing programs, Aerospatiale developed a modification to the outer wing deicing boots on ATR-42/72 aircraft. The larger boots were certificated by extensive dry air and wind tunnel tests, and by dry air and natural icing flight tests conducted by Aerospatiale and FAA flight test pilots. The results of the tests revealed that the modified boots performed their intended function within the icing requirements of the Federal Aviation Regulations (FARs). All U.S.-registered ATR-42 and ATR-72 series airplanes were required by the FAA to be modified with the new boots prior to June 1, 1995.

The aircraft manufacturer developed the deicing boot modification to provide an increased margin of safety in the event of an inadvertent encounter with freezing rain or freezing drizzle, collectively referred to Super-cooled Large Droplets (SLD). Importantly, means for the crew to identify when the airplane had entered severe icing were identified in the tanker testing. With the ability to recognize that such an encounter had occurred, flight crews would thus be afforded an opportunity to safely exit those conditions.

However, even with improved boots installed, ATR-42 and ATR-72, along with other similar aircraft, are not certificated for flight into known freezing drizzle or freezing rain conditions.

The SCR team also made several recommendations regarding operational considerations for the turboprop transport fleet generally. These recommendations include changes to flight crew and dispatcher training, expanded pilot reports (PIREPs), air traffic control and pilot cooperation regarding reporting of adverse weather conditions, flight crew training in unusual attitude recovery techniques and aircraft systems design and human factors.

In addition, based on recent research and analysis, the icing conditions experienced by the ATR-72 in the Roselawn accident, as well as other earlier accidents and incidents, may require clarification in certification requirements.

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FAA News

Washington, D.C.

FOR IMMEDIATE RELEASE
Tuesday, July 9, 1996

APA 112-96
Contact: Bob Hawk
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FACT SHEET
FLIGHT OPERATIONS

Accepted practice in the aviation community is to avoid operating in freezing rain or freezing drizzle. Such conditions, however, sometimes occur unexpectedly during a flight and raise many operational issues, including how a flight crew can recognize conditions beyond those for which the plane is certified and what actions the crew can take to safely exit such conditions.

In addition to issuing several airworthiness and other directives assuring the continued safe operation of ATR aircraft in the aftermath of the Roselawn accident, the Federal Aviation Administration (FAA) approved modifications to the aircraft's wing deicing boots, began an evaluation of other aircraft with pneumatic deicing boots and non-powered flight control systems used in scheduled domestic passenger service, and took other positive steps to help pilots recognize and exit severe icing conditions.

FAA has issued 18 final rules to help pilots determine when an airplane is operating in icing conditions that exceed the icing certification envelope of the airplane, and provide guidance on what actions to take when such conditions are encountered. These rules, effective June 11 require flightcrews of specific kinds of aircraft to immediately exit freezing rain and freezing drizzle conditions. Specific items include:

- Side-window and other cues were identified to help pilots recognize they had entered severe icing conditions that exceed the certification envelope;
- Pilots are now specifically instructed in the airplane flight manual to immediately exit severe icing conditions;
- Certain control procedures are outlined if this severe ice has formed on the airplane; and
- Use of the autopilot in severe icing conditions is no longer permitted.

The Special Certification Review of ATR aircraft, conducted by FAA and the French civil aviation authority after the accident, also recommended several operational changes for aircraft with mechanical deicing boots and unpowered control systems transport flight crews and dispatchers. These recommendations include changes to flight crew and dispatcher training, expanded pilot reports, and training of flight crews in recovering from situations in which the aircraft is in an "unusual" attitude.

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FAA is taking additional action on a number of items connected with flight operations in potentially hazardous weather conditions. Operations and training recommendations were reached by participants in an International Conference on Inflight Icing held May 6-8, 1996, and will be incorporated into FAA's official Icing Plan, which is expected to be completed in the fall of 1996.

Among issues to be covered by this plan are training safe operation in areas of freezing rain or drizzle, dispatch procedures, and flight crew recognition and avoidance of severe icing, including icing conditions with water droplets that exceed the size of those for which the aircraft is certified. Other issues, including weather reporting and forecasting procedures and pilot reports, will receive further review and then will be incorporated into the plan.

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FAA News

Washington, D.C.

FOR IMMEDIATE RELEASE
Tuesday, July 9, 1996

APA 113-96
Contact: Bob Hawk
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CHRONOLOGY OF ACTIVITY RELATED TO ATR AIRCRAFT

Date	Action
February 26, 1982	Aerospatiale, manufacturer of ATR aircraft, applies to the FAA, through the French civil aviation authority, Direction de l'Aviation Civile (DGAC), for type certification of ATR-42 airecraft.
July 31, 1984	Federal Coordinator for Meteorological Services and Supporting Research establishes by charter the National Aircraft Icing Program Council, with FAA and intra-governmental participation.
May 28, 1985	FAA issues Advisory Circular 29-2 on effects of icing conditions on aircraft performance and flight characteristics.
October 25, 1985	FAA awards type certificates to ATR-42-200, ATR-42-300 aircraft, manufactured by Aerospatiale of France.
April 9, 1986	Aerospatiale applies to FAA to add ATR-72 aircraft to the ATR-42 type certificate.
April, 1986	Federal Coordinator for Meteorological Services and Supporting Research publishes National Aircraft Icing Technology Plan.
September 2, 1986	FAA issues Advisory Circular 23.1419-2 with additional information on the effects of icing conditions on aircraft performance and flight characteristics.
December 18, 1986	(Non-Icing incident) Near Detroit, Mich., two ATR-42 aircraft experience uncommanded autopilot disconnect after deicer boots were activated.
December 19, 1986	FAA prohibits flight into icing conditions following roll control problems on two ATR-42 aircraft near Detroit, Mich., on December 18, 1986. The restriction was removed by telegraphic airworthiness directive (AD) on July 10, 1987, after changes were made to deicing and stall warning systems and adoption of new speed range to be flown when encountering icing conditions. (Telegraphic AD T86-25-52.)

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December 2, 1987	An ATR-42, near Traverse City, Mich., experienced autopilot disconnect and stiff and heavy aileron controls, with poor flight control effects.
December 4, 1987	FAA requires installation of drain hole on autopilot roll actuator to prevent water from collecting, freezing and binding the actuator, which was found to have caused the ATR-42 problem on December 2, 1987. (Telegraphic AD T87-25-51.)
August 25, 1988	FAA awards type certificate to ATR-42-320 aircraft.
March 6, 1989	FAA meets with Aerospatiale and DGAC in Seattle to discuss ATR aircraft operations, autopilot incidents and need for AD.
April 7, 1989	FAA issues Immediately Adopted AD prohibiting use of ATR autopilot in icing conditions, prompted by reported ATR-42 roll control problem on approach to Mosinee, Wis. (AD 89-09-05.)
October 31, 1989	FAA requires, on ATR-42, installation of electronic ice detector, stick shaker system, changes in stall angle of attack, and airplane flight manual changes to reflect higher minimum speeds when operating in icing conditions. (AD 89-24-07.)
November 15, 1989	FAA awards type certificates to ATR-72-101/201 aircraft.
December 15, 1989	FAA removes the autopilot restriction following installation of vortex generators designed to improve roll control (also later required on ATR-72 aircraft.)
November 6, 1990	(Non-Icing incident) ATR-42 in Puerto Rico experienced a roll departure during climb, an incident caused by the crew applying excessive roll trim prior to autopilot disconnection.
December 13, 1990	FAA requires within 48 hours airplane flight manual changes on the amount of aileron trim that can be applied and more frequent aileron system inspections. (Telegraphic AD T90-26-52.)
January 18, 1991	FAA awards type certificate to ATR-72-102/202 aircraft.
December 15, 1992	FAA awards type certificate to ATR-72-211/212 aircraft.

November 9, 1993	FAA issues final rule, following a Notice of Proposed Rulemaking, that requires installation of new Automatic Flight Control System (AFCS) computer and associated wiring, a system developed by the manufacturer to improve roll trim control.
October 31, 1994	ATR-72-212 accident at Roselawn, Ind.
November 4, 1994	FAA issues Flight Standards Information Bulletin containing operating procedures to minimize exposure to potentially adverse environmental conditions.
November 7, 1994	NTSB issues five safety recommendations on operation of ATR airplanes.
November 9, 1994	FAA meets with over 90 ATR airplane operators to discuss operating experiences.
November 14, 1994	FAA prohibits use of autopilot while operating in icing conditions or turbulence. (Telegraphic AD T94-24-51, with minor editorial changes on November 15 and 16.)
November 15, 1994	FAA creates a Special Certification Review Team to investigate the icing certification and lateral control characteristics of the ATR-42 and ATR-72. The 10-person team, composed of FAA and DGAC specialists, spent the next six months reviewing original certification data and hundreds of hours of wind tunnel testing performed by Aerospatiale after the accident.
December 9, 1994	FAA prohibits flight into known or forecast icing conditions. (Telegraphic AD T94-25-51.)
December 13-22, 1994	FAA participates with Aerospatiale and DGAC in icing tanker testing at Edwards AFB, California, to investigate ice accretion both in icing conditions within the aircraft's certification rules, and severe icing conditions well outside the aircraft's certification requirements (large, supercooled water droplets, or freezing drizzle).
December 28-30, 1994	FAA meets with more than 75 aviation industry leaders to discuss ATR flight operations and tanker tests.
January 11, 1995	FAA restores flight by ATR aircraft in icing conditions only if certain flight and dispatch restrictions and procedures are adopted by June 1, 1995, by which time a suitable modification to the ATR-42 and ATR-72 ice protection system must be developed and approved by the FAA. (Telegraphic AD T95-02-51.)

March 4-7, 1995	FAA, DGAC and Aerospatiale participate in a second series of tanker tests at Edwards to test an ATR-72 fitted with modified deicing boots, duplicating the December 1994 testing. The modified boots are shown to perform their intended function within the icing conditions defined in the certification rules. The new boots are also shown to shed a ridge of ice formed during flight in large supercooled water droplets, or freezing drizzle, which is believed to have existed in the Roselawn area during the October 31, 1994, accident.
March 20, 1995	The FAA and DGAC approve the modified ATR-72 deicing boots for installation on ATR-42 and ATR-72 aircraft by June 1, 1995.
May 26, 1995	FAA determines that installation of the modified deicing boots, together with the use of special flight crew and dispatcher restrictions, provides an improved level of safety and permits continued operation of the ATR fleet beyond the June 1, 1995, deadline set on January 11, 1995.
September 1995	FAA publishes and disseminates to the aviation industry an extensive overview on roll upset in severe icing.
September 29, 1995	FAA's Special Certification Review Team completes final report of its investigation into ATR-42 and ATR-72 airplanes.
October 12, 1995	FAA issues NPRM (AD 95-NM-146-AD) proposing to finalize actions to date on the ATR fleet.
January 25, 1996	FAA issues a supplemental NPRM proposing actions NPRMs issued on this date, requiring various modifications to 17 turboprop aircraft types produced by 12 other manufacturers.
March 15, 1996	FAA issues briefing sheet "In-Flight Icing: FAA's Three-Phase Program."
May 6-8, 1996	FAA convenes major International Conference on Inflight Icing.
May 14, 1996	Department of State signs with France a bilateral aviation safety agreement to increase collaboration on safety issues -- the third such agreement signed with a European country in the last 11 months.
June 11, 1996	Effective date of the January 25, 1996, rulemaking. (AD 96-09-28.)
Fall 1996	FAA to publish new Icing Plan, incorporating recommendations of the May 6-8, 1996, icing conference.

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FAA News

Washington, D.C.

FOR IMMEDIATE RELEASE
Tuesday, July 9, 1996

APA 114-96
Contact: Bob Hawk
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GLOSSARY OF TERMS

Airplane Flight Manual (AFM): A manual required by part 21 of the Federal Aviation Regulations (FARs) that contains an aircraft's operating limitations and performance information.

Ailerons: Flight control surface located on the aft portion of the wing used to rotate an airplane about its longitudinal axis.

Aileron deflection: Pivoting of the aileron control surface about its hinge line.

Aileron hinge moment characteristics: The relationship between control wheel inputs and airplane responses, including control wheel displacements and forces necessary to counter generated control surface displacements.

Airworthiness directive (AD): It is a substantive regulation issued by the Federal Aviation Administration (FAA) in accordance with part 39 of the FARs. ADs are issued when: (1) An unsafe condition has been found; and (2) that condition is likely to exist or develop in another aircraft, engines, propellers, or appliances of the same type design.

Autopilot: A flight control system that automatically keeps the aircraft on a set heading, altitude and speed.

Deicing boots: Rubber tubes attached to an airfoil that removes ice, after it has formed, by pneumatically inflating the boots.

Direction de l'Aviation Civile (DGAC): French airworthiness authority, similar to the FAA in terms of regulation and certification of aircraft.

European Regional Airlines Association: Association of over 168 members, including airlines, airports and manufacturers in 21 countries.

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Freezing drizzle: Water droplets below 32 degrees Fahrenheit, but are still liquid and which freeze on impact with the ground or any exposed surface. Droplet sizes are about 200-300 microns in diameter.

Freezing rain: Water droplets below 32 degrees Fahrenheit, but are still liquid and which freeze on impact with the ground or any exposed surface. Droplet sizes are large, over 500 microns in diameter. (1 micron = 0.000001 meters.)

Ice accretion: Ice buildup on aircraft surfaces. (Abnormal ice accretion is unusual ice buildup that differs in location, shape, texture or thickness from ice usually encountered.

Icing envelope: Icing certification limits established by the Federal Aviation Regulations.

Icing tanker: An airplane that produces an icing cloud representative of natural icing conditions. The airplane carries water that is sprayed through nozzles mounted on a spray bar attached to the aircraft.

International Civil Aviation Organization (ICAO): An agency of the United Nations that fosters development of international air transport by establishing international standards, procedures, promoting safety, uniformity and efficiency in air navigation worldwide.

Lateral control forces: Airplane roll forces that are transmitted to the pilots through the control wheel.

Roll control anomalies: Unusual airplane control forces or movements involving the longitudinal axis.

Severe icing: There is not a universal definition of severe icing. One definition is: Icing conditions that exceed the capabilities of the ice protection equipment (source: Aeronautical Information Manual).

Stall angle of attack: The angle between that freestream velocity vector and the chord line of the wing at which stall is defined. Stall may be defined by the wing lift coefficient reaching its maximum value or by the activation of a device to reduce the angle of attack (e.g., stick pusher).

Stick shaker system:	A mechanical system that provides stall warning by vibrating the control column.
Supercooled drizzle drops (SCDD):	Freezing drizzle aloft; supercooled means that the water droplets are below 32 degrees Fahrenheit. But they are still liquid, not solid.
Supercooled large droplets (SLD):	A term that includes both freezing rain and freezing drizzle.
Turboprop aircraft:	An aircraft powered by a turbine engine that drives a propeller; the energy in the engine's exhaust gases is primarily used to drive the propeller, which produces thrust as it rotates.
Unpowered aileron control system:	A control function requiring a flight crew to use physical strength to move the ailerons through a series of cables or control rods.
Vortex generators:	Devices to improve airplane roll control.

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FAA News

Washington, D.C.

FOR IMMEDIATE RELEASE
Tuesday, July 9, 1996

APA 117-96
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FACT SHEET
HAZARDOUS IN-FLIGHT WEATHER ADVISORY SERVICE (HIWAS)

The Hazardous In-Flight Weather Advisory Service (HIWAS) is a continuous national broadcast to pilots of in-flight weather advisories for particular areas developed in the 1980s. HIWAS alerts are sent out to all pilots which tells them to tune their radio to specific frequency for weather information. Summarized area weather information is gathered from various sources including:

- Severe Weather Forecast Alerts (AWW) gathered from FAA Flight Service Stations
- Area Route Traffic Control Centers (ARTCC) Center Weather Service Units (CWSUs); and
- The National Weather Service (NWS)

Information contained in the broadcasts include:

- Corrective Significant Meteorological (SIGMET) situations;
- ARTCC Center Weather Advisories (CWAs) which are modifications to a SIGMET forecasted to occur within 2 hours;
- Airman Meteorological Information (AIRMETs) which are weather concerns less significant than a SIGMET; and
- Urgent Pilot Weather Reports (PIREPs) which are reports of meteorological phenomena encountered by aircraft in flight.

HIWAS has replaced In-Flight Weather Broadcasts where it has been commissioned at various ARTCCs, Terminal Air Traffic Centers, and FSS facilities. The service is used as enhancement for pilots in order to get the most up-to-date weather information. Pilots are advised that HIWAS should not be used a replacement for preflight or inflight briefings or real-time weather updates from Flight Watch -- a shortened term for use in air-ground contacts to identify the flight service station that radio to pilots Enroute Flight Advisory Service (EFAS). Pilots are notified in Notices to Airmen Publications when HIWAS is implemented in a specific area.

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Where implemented, a HIWAS alert is broadcast on all except emergency frequencies. The average time for ARTCC areas and FSSs to update the broadcasts takes about 10 minutes.

The FAA is examining the feasibility of automating the system. Work is being conducted to incorporate state-of-the-art technologies to receive data from various sources and automatically format the information to voice messages for pilots. Test demonstrations of the feasibility of this effort has been conducted at the New York ARTCC with promising results.

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FAA News

Washington, D.C.

FOR IMMEDIATE RELEASE
Tuesday, July 9, 1996

APA 118-96
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FAA PROPOSES RULE TO REQUIRE INCREASED PARAMETERS FOR FLIGHT DATA RECORDERS

The Federal Aviation Administration (FAA) has announced a proposal to help better identify the causes of aircraft accidents and prevent future accidents and incidents by requiring certain aircraft operators to increase the amount of data collected by flight data recorders (FDRs).

Under the Notice of Proposed Rulemaking (NPRM) submitted to the *Federal Register* today, the number of specific areas of flight information -- data parameters -- would increase from 11 to 17 for older aircraft and to 88 parameters for aircraft certified in the future. The NPRM seeks to address the intent of several National Transportation Safety Board (NTSB) recommendations. The proposed rule will require retrofit of affected aircraft within four years of publication of the final rule.

"We have emphasized that we need as many pieces of information as possible not only to help understand the cause of accidents, but to use data from incidents to help us better understand how to prevent accidents," said FAA Administrator David R. Hinson. "Enhanced flight data recorders -- with additional parameters -- will provide us with the tools to do just that."

"This proposal demonstrates the FAA's commitment to ensure that our nation's aviation system continues to be the safest in the world," said U.S. Secretary of Transportation Federico Peña.

In 1995, the FAA called on industry to voluntarily begin retrofitting Boeing 737 aircraft with upgraded FDRs and began an in-depth rulemaking effort in response to the NTSB's recommendations. Through the Aviation Rulemaking Advisory Committee, the FAA worked closely with NTSB and industry to developed the proposed rule.

Overall, the FAA has responded favorably to 90 percent of the urgent recommendations issued by the NTSB since 1967 and has a high response rate for all other recommendations.

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Depending on the age and complexity of the aircraft, the proposed rule would upgrade flight data recorders as follows:

	Aircraft	Current Parameters	Proposed Parameters
Category 1	1,929 aircraft over 30 seats 727, 737, L-1011, DC-8, DC-9, F-28.	11	17/18
Category 2	1,360 aircraft over 30 seats 704 turboprops A-320, 737, 747, 757, 767, DC-10, F-28, MD-80, ATR-42, EMB-120, SAAB-340, DHC-8.	17	17/22
Category 3	1,036 aircraft over 30 seats 673 aircraft 10-19 seats 277 aircraft 20-30 seats 737, 747, 757, 767, 777, F-100, MD-11, MD-80, MD-88, MD-90, ATR-72.	Up to 29	34
Category 4	All newly manufactured aircraft, existing derivatives and any new type certificates.	29	57 (3 years) 88 (5 years)

The total cost of the proposed rule is $316.4 million. The comment period is 30 days after publication in the *Federal Register* for Part 121, 125, and 135 aircraft and 120 days for Part 129 aircraft.

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FAA News

Washington, D.C.

FOR IMMEDIATE RELEASE
Thursday, July 11, 1996

APA 119-96
Contact: Bob Hawk
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FAA REQUIRES WINDSHIELD MODIFICATIONS AFFECTING MODEL 1900D AIRPLANES

The Federal Aviation Administration (FAA) is requiring immediate modifications to windshields installed on Model 1900D twin-engine 19-passenger turboprop aircraft manufactured by Raytheon Aircraft Corporation (formerly Beech Aircraft Company). The FAA's action, potentially affecting 239 aircraft operated by domestic commuter airlines, is in response to reports of smoke and fire occurring in the cockpit of two 1900D aircraft.

"Our notice to the manufacturer and operators of the Model 1900D aircraft addresses an unsafe condition in these aircraft," said FAA Administrator David R. Hinson. "The FAA is committed to ensuring safety of flight and this action will remedy the problem in a timely manner. While the FAA's initiative may require some short-term aircraft delays and flight cancellations, we believe that safety considerations override the minimal inconveniences that may be experienced in passenger travel."

The windshield problem occurred in the two aircraft when short circuits in wiring around the cockpit windshield produced arcing and higher than normal heat that led to smoke and minor fire in the cockpit of the affected aircraft. In both instances, the aircraft landed safely and there were no injuries to passengers or crew members.

Aircraft affected by the action, in the form of an airworthiness directive (AD) issued late on July 10, are those whose original metal framed windshields containing wiring used to supply heat for anti-icing systems were replaced by composite framed windshields. The AD requires operators to deactivate circuit breakers controlling the anti-icing system heat supply and prohibits flight into known icing conditions, pending development by the manufacturer of an acceptable method of compliance with FAA anti-icing system requirements.

- more -

Model 1900D operators have already begun to deactivate windshield circuit breakers on the affected aircraft and are working with the manufacturer to address the problem over the longer term. The FAA estimates that the work will take about one hour per airplane. The windshields are identified as serial numbers UE-1 through UE239, with windshield assembly part numbers 114-384020-1 or -2.

The AD also requires air carriers to install a placard in airplane cockpits indicating that flight into known icing conditions is prohibited. The carriers may request approval to briefly delay installation of the placard if other means, such as pilot briefings before flight, are conducted. However, the carriers are still required by the AD to deactivate the windshield circuit breakers immediately.

The affected aircraft are operated by Air Midwest, Wichita, Kan.; Commutair, Plattsburgh, N.Y.; Continental Express, Houston, Texas; Florida Gulf Airlines, Jacksonville, Fla.; Great Lakes Aviation, Spencer, Iowa; Liberty Express Airlines, Falls Creek, Pa.; Mountain West Airlines (Mesa Air Group), Farmington, N.M. (which includes America West Express, Mesa Airlines, United Express and USAir Express), and Skyway Airlines, Milwaukee, Wis.

Air travelers are advised to check with the airlines to determine if their flights are affected by the work required to be performed.

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FAA News

Washington, D.C.

FOR IMMEDIATE RELEASE
Thursday, July 11, 1996

APA 120-96
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REPORT ADDRESSES
HUMAN FACTORS ISSUES IN AVIATION

To assist aircraft operators in meeting challenges associated with increasingly complex flight-deck technologies, the Federal Aviation Administration (FAA) today released a human factors report that provides specific recommendations to improve flightcrew interaction and management of modern cockpit systems. The report evaluates flight deck design, flightcrew training/qualifications, and operational issues for potential safety problems, and recommends appropriate means to address human factors concerns.

In a letter transmitting the report to aviation industry and safety interests, FAA noted that it considers the report "to be the foundation for continued progress over the next several years in our treatment of human factors in the certification and operation of transport category airplanes." A work team, from various offices in FAA, the National Aeronautics and Space Administration (NASA), industry, and other aviation groups, will begin to develop a strategic plan for implementing the report's recommendations. Kathy H. Abbott, Ph.D., has been selected as the FAA's national resource specialist to lead the evaluation, prioritization, and implementation of the team's recommendations.

"As we usher in a new century, it's imperative we find better ways for flightcrews to deal with constantly evolving cockpit technologies, philosophies, training, automation and cultural influences," said FAA Administrator David R. Hinson. "FAA's report addresses human factors issues on these multiple levels, and provides our implementation team with the long-range ability to prioritize critical improvements."

- more -

FAA's Human Factors Team Report on "The Interfaces Between Flightcrews and Modern Flight Deck Systems" contains the team's evaluation of flightcrew/cockpit automation interfaces of today's transport aircraft. Specific improvements over the next five or more years contained in the report focus on:

- Developing expertise in human performance for cockpit designers, users, evaluators and researchers;
- Improvements in cockpit design, training, operations, and certification standards that recognize human performance problems;
- Development of new tools and methods to support improvements in design, training, operations and certification, as well as ways to measure and track human factors safety advancements; and
- Updating regulatory standards to address the potential for cockpit designs that may contribute to human error and reduce flightcrew situation awareness.

According to the study, FAA found flightcrews too frequently had limited understanding of automation's capabilities, limitations, functions, operating principles, and behavior. In addition, there were often differing pilot decisions about appropriate automation levels to use, or whether to turn equipment on or off in unusual situations. The report concluded that human factors problems can exist because of interrelated deficiencies, including:

- Insufficient communication and coordination;
- Processes used for cockpit design, training, and regulatory functions that inadequately address human performance issues;
- Insufficient criteria, methods and tools for cockpit design, training, as well as evaluation of human performance;
- Insufficient knowledge and skills related to human performance; and
- Insufficient understanding and consideration of cultural differences in cockpit design, training, operations and evaluation within the aviation community.

Today's highly automated transport aircraft have demonstrated an improved safety record compared to previous airplanes. Yet, today's report addresses concerns in the aviation community over flightcrew understanding and use of increasingly sophisticated cockpit automation systems. Up to two-thirds of all air accidents are associated with human factors.

Coordinated with input from various offices within FAA, international aviation authorities, manufacturers, operators, pilot organizations, and academic researchers, today's report is the most comprehensive analysis of flight deck human factors issues to date.

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FAA News

Washington, D.C.

FOR IMMEDIATE RELEASE
Friday, July 12, 1996

APA 121-96
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FAA ANNOUNCES ASSESSMENTS OF FOREIGN COMPLIANCE WITH INTERNATIONAL SAFETY STANDARDS

As part of an effort to provide the public with more information about aviation safety in international travel, the Federal Aviation Administration (FAA) today announced the results of the agency's assessment of two countries' capability to provide safety oversight of their air carriers that operate in the United States. They are: Malaysia and Ghana; rated as acceptable under international safety standards.

The assessments are not an indication of whether an individual foreign carrier is safe or unsafe, rather they determine whether or not the country has a civil aviation authority in place and the extent to which that authority ensures that operational and safety procedures are maintained by its air carriers.

The focus of the FAA's foreign assessment program is on countries, not individual carriers from that country. These countries are assessed for their adherence to International Civil Aviation Organization's (ICAO) aviation safety standards, not FAA regulations.

Travelers may call 1-800 FAA-SURE (1-800-322-7873) to obtain a summary statement about whether a foreign country has been assessed and the results, if available.

Countries whose air carriers fly to the United States must adhere to the safety guidelines of ICAO, the United Nations' technical agency for aviation which establishes international standards and recommended practices for aircraft operations and maintenance.

The FAA, with the cooperation of the host country, only assesses countries whose airlines have operating rights to or from the United States, or have requested such rights.

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Specifically, the FAA determines whether a country has an adequate infrastructure for international aviation safety oversight as defined by the ICAO standards. The basic elements that the FAA considers necessary include: 1) laws enabling the appropriate government office to adopt regulations necessary to meet the minimum requirements of ICAO; 2) current regulations that meet those requirements; 3) procedures to carry out the regulatory requirements; 4) air carrier certification, routine inspection, and surveillance programs, and 5) organizational and personnel resources to implement and enforce the above.

The FAA has established three ratings for the status of these countries at the time of the assessment: (1) does comply with ICAO standards, (2) conditional and (3) does not comply with ICAO standards.

- **Category 1, Does Comply with ICAO Standards:** A country's civil aviation authority has been assessed by FAA inspectors and has been found to license and oversee air carriers in accordance with ICAO aviation safety standards.

- **Category II, Conditional:** A country's civil aviation authority in which FAA inspectors found areas that did not meet ICAO aviation safety standards and the FAA is negotiating actively with the authority to implement corrective measures. During these negotiations, limited operations by this country's air carriers to the U.S. are permitted under heightened FAA operations inspections and surveillance.

- **Category III, Does Not Comply with ICAO Standards:** A country's civil aviation authority found not to meet ICAO standards for aviation oversight. Unacceptable ratings apply if the civil aviation authority has not developed or implemented laws or regulations in accordance with ICAO standards; if it lacks the technical expertise or resources to license or oversee civil aviation; if it lacks the flight operations capability to certify, oversee and enforce air carrier operations requirements; if it lacks the aircraft maintenance capability to certify, oversee and enforce air carrier maintenance requirements; or if it lacks appropriately trained inspector personnel required by ICAO standards. Operations to the U.S. by a carrier from a country that has received a Category III rating are not permitted unless they arrange to have their flights conducted by a duly authorized and properly supervised air carrier appropriately certified from a country meeting international aviation safety standards.

The FAA has assisted countries with less than acceptable ratings by providing technical expertise, assistance with inspections, and training courses. The FAA hopes to work with other countries through ICAO to address non-compliance with international aviation safety oversight standards

The FAA will continue to release the results of safety assessments to the public as they are completed. First announced in September 1994, the ratings are part of an ongoing FAA program to complete initial assessments, by the end of 1996, of all countries with air carriers that operate to the United States.

Malaysia

The U.S. Federal Aviation Administration conducted an assessment of this government's civil aviation authority in May 1996. The purpose of this assessment was to determine whether the civil aviation authority was in compliance with the aviation safety oversight standards contained within the International Civil Aviation Organization (ICAO) Annexes to the Convention on International Civil Aviation (1944) (Chicago Convention). It is every government's obligation to establish an infrastructure (i.e. a civil aviation authority) that implements oversight of international aviation standards and ensures compliance by the air carriers which that state licenses.

The FAA found at the time of the assessment that this government's civil aviation authority was in compliance with ICAO aviation safety oversight standards regarding air carrier operations. Further information can be obtained by calling FAA at 1-800-322-7873.

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Ghana

The U.S. Federal Aviation Administration conducted an assessment of this government's civil aviation authority in June 1996. The purpose of this assessment was to determine whether the civil aviation authority was in compliance with the aviation safety oversight standards contained within the International Civil Aviation Organization (ICAO) Annexes to the Convention on International Civil Aviation (1944) (Chicago Convention). It is every government's obligation to establish an infrastructure (i.e. a civil aviation authority) that implements oversight of international aviation standards and ensures compliance by the air carriers which that state licenses.

The FAA found at the time of the assessment that this government's civil aviation authority was in compliance with ICAO aviation safety oversight standards regarding air carrier operations. Further information can be obtained by calling FAA at 1-800-322-7873.

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FAA News

Washington, D.C.

FOR IMMEDIATE RELEASE
Sunday, July 14, 1996

APA 122-96
Contact: Henry J. Price
Telephone: (202) 267-8521

MEDIA ADVISORY

FEDERAL AVIATION ADMINISTRATION
HAZARDOUS MATERIALS NEWS CONFERENCE
1 P.M., MONDAY, JULY 15

Federal Aviation Administration (FAA) Administrator David R. Hinson will hold a news conference to announce several major initiatives regarding hazardous materials on passenger aircraft.

The news conference will be held at 1 p.m. on Monday, July 15, in room 9 A-B-C at FAA Headquarters, 800 Independence Ave., S.W. in Washington, D.C. Due to limited space only credentialed press and media will be allowed to attend.

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FAA News

Washington, D.C.

FOR IMMEDIATE RELEASE
Monday, July 15, 1996

APA 123-96
Contact: Henry J. Price
Telephone: (202) 267-8521

BOLD INITIATIVES TO IMPROVE HAZARDOUS MATERIALS TRANSPORTATION

Federal Aviation Administration (FAA) Administrator David R. Hinson today announced several initiatives to enhance air safety and broaden the public's protection from the potential dangers of transporting hazardous materials by aircraft. Today's initiatives call for a seven-fold increase of previous resources devoted to inspection, outreach, and public education regarding hazardous materials in air transportation, as well as a ban of transporting on passenger aircraft specific oxygen-yielding hazardous materials that can fuel fires.

"Today the FAA is taking another in a series of steps that will strengthen the safety of aviation in the United States," Hinson said. "As many of you know, we have done a great deal in recent years to improve aviation safety, and today's announcement builds upon that record."

Hinson stated that the administration is calling for a realignment of $14 million in fiscal year 1997 to improve the oversight of the movement of hazardous materials by air. Of this, $10.6 million will go towards FAA's hazardous materials programs to expand the agency's current hazardous materials inspectors and legal work force by 130 positions. The funding realignment will also be used to step up cargo security programs to address terrorist and criminal concerns.

FAA's budget realignment focuses efforts so that inspectors can be specialized in hazardous materials and cargo security. Furthermore, through aggregation and analysis of inspections, incidents, and all other data from all sources, emerging trends will be identified. These trends will be used to target hazardous materials inspections and outreach to stop noncompliance and improve safety.

- more -

The Research and Special Programs Administration (RSPA) is the cross-modal agency overseen by the DOT. RSPA designates and designs federal policies in transporting hazardous materials. The budget proposal will also provide $3.4 million to RSPA to improve coordination of better data systems to identify transportation of hazardous materials trends. The program will also provide an increased means of more effectively responding to incidents and investigating as well as prosecuting those who violate the law.

In addition to the funding realignment, the FAA has asked RSPA to ban the transportation of "oxidizers" and "oxidizing materials" in specific compartments on passenger and cargo aircraft. Oxidizers, such as hydrogen peroxide, are materials that may, generally by yielding oxygen, cause or enhance the combustion of other materials. This effort is in addition to RSPA's temporary ban on the transportation of chemical oxygen generators which went into effect in May.

The FAA is also preparing a Notice of Proposed Rule Making (NPRM) that will be released in the Fall to label Class C and D cargo compartments so that they can be identified by ground crews who load cargo. Class C compartments are storage areas on aircraft that contain smoke and fire detectors to alert flight crews, who can then remotely apply fire suppression agents into the compartment. Class D compartments are designed to smother fires by a lack of available oxygen.

According to the FAA, there are 3,700 air carrier stations currently inspected by FAA, and there are over 2,000 freight forwarders, 4,900 repair stations, and 75,000 commercial shippers that may transport hazardous materials.

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An electronic version of this news release is available via the World Wide Web at: http://www.faa.gov

FAA News

Washington, D.C.

FOR IMMEDIATE RELEASE
Monday, July 15, 1996

APA 124-96
Contact: Marcia Adams
(202) 267-8521

MEDIA ADVISORY

Federal Aviation Administrator David R. Hinson will present the second annual National Screener of the Year Award to Dianne Robinson. She is checkpoint security supervisor for International Total Services, Inc., at Honolulu International Airport.

WHO: FAA Administrator David Hinson

WHAT: National Screener of the Year Award Ceremony

WHEN: Tuesday, July 16, 1996, 10:00 am

WHERE: FAA Headquarters
800 Independence Avenue, S.W.
McCracken Room, 10th Floor
Washington, DC 20591

Note: A screener ensures the safety of the public by screening carry-on baggage to detect deadly and dangerous weapons and other suspicious materials. Moreover, they can and do deny entry to passengers with suspicious carry-on items.

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FAA News

ashington, D.C.

FOR IMMEDIATE RELEASE
Tuesday, July 16, 1996

APA 125-96
Contact: Marcia Adams
(202) 267-8521

FAA AND INDUSTRY PAY TRIBUTE TO SECURITY PERSONNEL

The Federal Aviation Administration (FAA), Air Transport Association, Regional Airline Association, National Air Carrier Association, and the Air Line Pilots Association recognized aviation security personnel today by presenting the second National Screener of the Year Award.

Dianne Robinson, the national award recipient, is a checkpoint security supervisor for International Total Services, Inc., (ITS) at Honolulu International Airport's busiest checkpoint. FAA Administrator David R. Hinson presented the award to Robinson in a special ceremony today at the FAA Headquarters in Washington, D.C.

Nominated by ITS, Robinson was chosen as the National Screener of the Year from an overall group of 78 nominees and nine regional finalists.

"Aviation security professionals play a vital role in ensuring the safety of the public by screening carry-on baggage to detect deadly and dangerous weapons and other suspicious materials," said Hinson. "This award acknowledges the dedicated efforts of security professionals, such as air carrier security screeners and checkpoint security supervisors."

Within the United States, security personnel annually screens 1.3 billion people and more than two billion pieces of carry-on baggage.

Nominees for the award displayed specific and sustained superior performance in aviation security. In her screening duties during the past four years, Robinson earned FAA's 100 percent weapons detection rating. She also oversaw the implementation of the Testing and Training Tutorial Program, which resulted in significant improvements in weapons detection capability. Moreover, she set the customer service standard by continually going the extra step for passengers.

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FAA News

Washington, D.C.

FOR IMMEDIATE RELEASE
Tuesday, July 16, 1996

APA 126-96
Contact: Alison Duquette
Tel.: (202) 267-8521

FAA ORDERS REMOVAL OF FAN HUBS FROM SIX PRATT & WHITNEY ENGINES

The Federal Aviation Administration (FAA) today ordered immediate removal of fan hubs from six Pratt & Whitney JT8D-200 turbofan engines that were recently found to have manufacturing defects that could result in an uncontained engine failure.

Following the July 7 accident involving a Delta Air Lines MD-88 aircraft, a defect was found in a tie bolt hole of the fan hub of the failed engine. The agency has identified six engines with similar anomalies and have removed the engines from service. After a review of the manufacturing records of the engines, the FAA determined that a surface anomaly occurred in a tie bolt hole. The anomaly was noticed during the Blue Etch Anodize inspection process, but was deemed acceptable by the manufacturer at that time. This type of inspection process uses non-destructive inspection techniques to identify possible sources of engine damage.

"FAA has been working closely with the National Transportation Safety Board (NTSB) and Pratt & Whitney to identify any possible defects in these engines," said FAA Administrator David R. Hinson. "We are continuing our review of the manufacturing records and quality control procedures and, based on any findings, further rulemaking action may be considered."

All six fan hubs have been identified and removed from service. The airworthiness directive (AD) issued today requires the fan hubs to be removed and replaced with serviceable parts. Three of the engines were operated by Delta Air Lines, Atlanta, Ga. but only two were in service. Continental Airlines, Houston, Texas had one engine in service. Ford Motor Company, Dearborn, Mich. and FinnAir, Finland, each had one engine that was not in service.

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An electronic version of this news release is available via the World Wide Web at: http://www.faa.gov

FAA News

Vashington, D.C.

FOR IMMEDIATE RELEASE
Wednesday, July 17, 1996

APA 127-96
Contact: Les Dorr, Jr.
Telephone: 202/267-8521

FAA COMPLETES DELIVERY OF NEW VOICE SWITCHING AND CONTROL SYSTEM

The Federal Aviation Administration (FAA) has completed on-time delivery of the Voice Switching and Control System (VSCS), the largest automation system ever introduced by the agency and a key element of the FAA's aggressive plan to modernize the U.S. air traffic control system.

The last of 21 VSCS installations -- all delivered right on schedule -- arrived at the FAA's Jacksonville Air Route Traffic Control Center in Hilliard, Fla., on June 28. The Jacksonville VSCS is scheduled for operational use in the air traffic system in February 1997. The new system already is fully operational at 11 of the FAA's en route centers, helping pilots and air traffic controllers communicate more quickly, clearly and accurately.

"The beauty of VSCS is that it is a system for today and tomorrow, "said FAA administrator David R. Hinson. "It helps us immediately by providing greater capacity and more capabilities than the current system. It also will let us manage the rapidly increasing demand for air traffic control services well into the 21st century."

Developed by the Harris Corp., TRANSCOMM Division, Melbourne, Fla., VSCS is a state-of-the-art communications system that provides clear, fast and precise communications essential to maintaining the world's safest and busiest air traffic control system.

It allows each of the nation's en route centers to configure its communications assets to meet specific needs. It allows controllers to adjust their communications system to meet the changing conditions of traffic volume, weather conditions and controller workload.

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An electronic version of this news release is available via the World Wide Web at: http://www.faa.gov

FAA News

Washington, D.C.

FOR IMMEDIATE RELEASE
Wednesday, July 17, 1996

APA 128-96
Contact: Les Dorr, Jr.
Telephone: 202/267-8521

FAA TAPS NORTHROP GRUMMAN FOR SAFETY PROGRAM

The Federal Aviation Administration (FAA) has awarded Northrop Grumman Norden Systems, Inc., Norwalk, Conn., a contract for three full-scale development versions of the agency's Airport Movement Area Safety System (AMASS). AMASS is designed to detect potential runway incursions and alert air traffic controllers in time to prevent ground accidents.

Under the $13.7 million Cost-Plus-Fixed-Fee modification to the firm's existing contract, Northrop Grumman is to deliver three full-scale development AMASS systems, to be located at St. Louis, Detroit and Atlanta.

The modification provides for development, fabrication, test, delivery, installation, integration and checkout of the AMASS systems. The contractor also will complete formal system testing, ensure that the systems and documentation satisfy all production requirements, demonstrate that the AMASS specification has been met, and validate that initial operating performance is satisfactory.

Performance under this modification commences upon award and specifies field test completion dates of September 1997 for Detroit, November 1997 for St. Louis and February 1998 for Atlanta.

The full scale development AMASS system is a key element of the FAA's aggressive plan to increase runway safety at the nation's airports. AMASS will help alleviate ground hazards by allowing automated tracking of vehicles and aircraft, and providing controllers with timely alerts of impending runway incursions. The FAA's efforts to improve airport ground movements will help meet growing air traffic demands and will maintain the very highest level of safety.

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An electronic version of this news release is available via the World Wide Web at: http://www.faa.gov

FAA News

Washington, D.C.

For Immediate Release
July 18, 1996

For further information
Contact FAA Public Affairs
202-267-3883

STATEMENT OF FAA ADMINISTRATOR DAVID R. HINSON

Transportation Secretary Federico Peña and I are saddened by the crash of TWA Flight 800, and on behalf of the Administration want to extend our deepest condolences to the families and friends of those on board.

The Federal Aviation Administration is cooperating with the lead federal investigatory agency, the National Transportation Safety Board, and will provide technical support and personnel as requested. Two staff members from the FAA's accident investigation office are accompanying NTSB officials to the scene, and all data the FAA has on Flight 800 is being provided to the NTSB.

Flight 800 disappeared from Boston Air Traffic Control Center radar at approximately 8:45 p.m. EDT Wednesday while enroute from JFK Airport in New York to DeGaulle Airport in Paris. The B747-100 aircraft vanished about 20 miles southeast of the Long Island coast.

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FAA News

Washington, D.C.

FOR IMMEDIATE RELEASE
Thursday, July 18, 1996

APA 129-96
Contact: Bob Hawk
Tel.: (202) 267-8521

**STATEMENT BY DAVID R. HINSON, ADMINISTRATOR,
FEDERAL AVIATION ADMINISTRATION,
ON AVIATION SECURITY**

Increased security measures remain in effect at United States airports. These measures, initiated by the Federal Aviation Administration (FAA) last August, required airports and airlines to intensify their security within the United States in accordance with agreed aviation security contingency plans.

Many adjustments to the FAA's security measures have been made in the intervening months, based on assessments received from law enforcement and intelligence agencies with whom we are in continuous consultation. The heightened measures are also applicable during the Olympics in Atlanta. The FAA's security program will be modified as needed to ensure the safety of the traveling public.

Stringent security measures for flights to the United States have been in place for several years. Special security measures are also in effect for flights departing the United States for overseas locations. While the FAA cannot comment on the details of any specific measure, the FAA requires that all items transported on board a commercial passenger aircraft flying overseas be subjected to intense screening and other control methods.

Various devices and procedures are used in these screening efforts. To augment existing equipment, the FAA has been involved since 1994 in a vigorous research and development program to develop new equipment designed to enhance screening, including advanced systems to detect explosives. One system has been certified by the FAA and is being used at airports in Atlanta and San Francisco.

The purpose of this two-year demonstration program, ending in 1997, is to explore operational questions that will be raised by integrating explosives detection equipment into a baggage system. The FAA also needs to validate the estimated costs of deployment. The FAA will then determine where and when such equipment should be deployed after evaluating the results of the operational testing.

- more -

The FAA will continue to cooperate with the National Transportation Safety Board (NTSB), the lead federal accident investigatory agency, by providing technical support and expert assistance.

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FAA News

Washington, D.C.

FOR IMMEDIATE RELEASE
Friday, July 19, 1996

APA 130-96
Contact: Les Dorr, Jr.
Telephone :202/267-8521

STATEMENT
Presence of Legionella Bacteria at
FAA William J. Hughes Technical Center

A routine test during a corrosion control project has turned up evidence of Legionnaire's Disease bacteria in the sediment of a pond containing water used for cooling two buildings at the Federal Aviation Administration's William J. Hughes Technical Center, Atlantic City, N.J.

Center director Guy S. Gardner said legionella bacteria was determined Wednesday to be present at the bottom of the pond. The finding was based on samples taken to monitor a chlorine treatment process designed to reduce pipe corrosion. Gardner said the water in the pond does not pose a direct threat. He also announced a number of steps the Technical Center is taking to deal with the situation:

- FAA is arranging for a contractor to drain the pond, clean out the sludge, sterilize the entire area, and install a new liquid nitrogen water-cooling system to replace the current spraying process. A contract for this project is expected to be awarded Friday.
- The agency has assured that microbial filters have been installed in the air intake systems of nearby buildings.
- Restrictions have been placed on access to the area around the cooling pond, including a nearby walkway and parking lot.

Full information on the situation was provided to Technical Center employees during a Thursday meeting, including an hour-long medical briefing and question-and-answer session. The meeting was telecast on closed-circuit television to employees who were unable to attend.

The Technical Center is the FAA's primary research facility and has a staff of approximately 2,500 persons, including federal employees and contractors.

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FAA News

Vashington, D.C.

FOR IMMEDIATE RELEASE
Wednesday, July 24, 1996

APA 131-96
Contact: Marcia Adams
Tel.: (202) 267-8521

COMMERCIAL SPACE TRANSPORTATION ADVISORY COMMITTEE TO MEET

The Commercial Space Transportation Advisory Committee (COMSTAC), the industry group which advises Department of Transportation and Federal Aviation Administration (FAA) officials on commercial space transportation issues, will meet Thursday, July 25, in room 2230 of the Department of Transportation building, 400 7th Street S.W., Washington, D.C., from 8:30 a.m. to 1:00 p.m.

The 25-member committee convenes regularly to address evolving issues and changes in the industry. The committee is comprised of representatives from all aspects of the commercial space transportation industry - launch companies, satellite operators, and insurance providers.

Committee members will be briefed on the status of several facets of the commercial space transportation industry. The briefing will include an update on commercial space transportation legislation from a House of Representatives staff member, reusable launch vehicles (RLV) from a National Aeronautics and Space Administration representative, and evolved expendable launch vehicles (EELV) projects from an Air Force representative.

-more-

Frank Weaver, associate administrator for Commercial Space Transportation will also address the group and describe recent meetings with Chinese space launch officials in Beijing, the Notice of Proposed Rulemaking on launch operators' financial responsibility requirements, and the restructuring of the Office of Commercial Space Transportation.

The committee is expected to vote to update the Mission Model Report which projects the future demand for space launches and the Commercial Requirements Report which outlines technological improvements needed in order for the U.S. commercial space launch industry to remain competitive.

The meeting is open to the public, however, space is limited. Please contact Marcia Adams on (202) 267-3488 if you plan to attend the meeting.

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An electronic version of this news release is available via the World Wide Web at: http://www.faa.gov

FAA News

Washington, D.C.

FOR IMMEDIATE RELEASE
Thursday, July 25, 1996

APA 132-96
Contact: Curtis Austin
Tele.: (202) 267-8521

FAA PROPOSES RULE ON COMMERCIAL SPACE LAUNCH FINANCIAL RESPONSIBILITY

Responding to the increasing number of commercial space launches in recent years, the Federal Aviation Administration (FAA) is proposing a rule to establish a process for determining financial responsibility requirements for commercial space launch operators.

"Since the first U.S. licensed commercial space launch in 1989, there have been 63 commercial space launches. This proposed rule, based on the experiences of past launches, will establish rules of general applicability and describe the process for determining financial responsibility requirements for the increasing number of commercial space launch operators," Administrator David R. Hinson said.

Under the current system, the office of the FAA associate administrator for commercial space transportation sets the financial responsibility requirements on a case-by-case basis for commercial launch operators it licenses. The level of these requirements is based on an analysis of the risk associated with the licensed activities and a determination of the maximum probable loss in the event of an accident. The requirements are generally met through the acquisition of third-party liability and government property insurance.

The proposed rule, or Notice of Proposed Rulemaking (NPRM), would codify this approach and describe the process by which the Office of Commercial Space Transportation (AST) determines maximum probable loss. The specific amounts of required insurance would continue to be set forth in license orders. The NPRM was published in the Federal Register July 25. A 60-day comment period began with its publication.

— more —

This NPRM is the first of two under Phase 1 of AST's rulemaking program. The second regulation, making its way through the rulemaking process, updates the original regulation regarding conducting commercial space launches from federal launch facilities. In Phase 2, AST already is drafting proposed regulations regarding licensing operators of commercial launch facilities, commonly known as spaceports.

Persons wishing to comment on the NPRM should mail their comments to the FAA Rules Docket, Room 915G, Federal Aviation Administration, U.S. Department of Transportation, 800 Independence Ave., S.W., Washington, D.C. 20591. The comments should reference the docket number of the Federal Register notice and must be recieved within 60 days of the date of publication.

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FAA News

Washington, D.C.

FOR IMMEDIATE RELEASE
Thursday, July 25, 1996

APA 133-96
Contact: Curtis Austin
Tel.: (202) 267-3479

LARSEN APPOINTED CHIEF SCIENTIFIC AND TECHNICAL ADVISOR FOR PROPULSION CONTROL SYSTEMS

Federal Aviation Administration (FAA) Administrator David R. Hinson today announced the appointment of Hals N. Larsen, a former chief engineer at Boeing who led the team that developed the 777's propulsion system, as the agency's chief scientific and technical advisor for propulsion control systems.

In his new position, Larsen will be part of the FAA's National Resource Specialist (NRS) program. The NRS program was established in 1979 to build and maintain a cadre of highly specialized technical experts to serve as consultants within the FAA and to the aviation industry in design, development, and application of regulatory policies and practices for certification of state-of-the-art technology.

As a result of the FAA's new personnel system, the agency was able to expedite hiring Larsen. The new system cuts average time for outside hiring from seven months to about six weeks, and replaces a foot-thick stack of personnel statutes and rules with a 41-page document.

"I am pleased that Hals Larsen has accepted this important appointment," Hinson said. "Hals' expertise in propulsion control systems will provide us with additional expertise to deal with the dramatic growth in aviation and the rapidly advancing aerospace technology as we enter the 21st century."

- more --

Larsen will be responsible for providing expert scientific and technical advice and guidance in all research and development programs in propulsion control systems and their application to the agency's Aircraft Certification Service. He also will serve as a technical liaison to industry and other government and international authorities dealing with propulsion control systems. Propulsion control systems is a discipline involving the study, design, analysis, test and verification of engine control systems and their integration with other aircraft systems.

During the fiscal year (FY) 1996 budget hearings, Hinson identified the need for world-class scientific experts. In testimony before the Department of Transportation House Appropriations Subcommittee, Hinson said that it is important for the FAA to possess the "intellectual capital" required to deal with the growth in aviation and to ensure that FAA representatives discharging oversight and regulatory responsibilities possess the level of expertise needed to speak with recognized authority in emerging and expanding areas of aviation science. The FAA is planning to select additional National Resource Specialists in the near future.

Larsen will be stationed in the FAA's Aircraft Certification Office in Renton, Wash., but will report directly to the Aircraft Engineering Division Manager in FAA's Washington, D.C. headquarters.

Larsen, who was hired by Boeing in 1966, most recently was responsible for all aspects of the certification and installation of the GE90 engine on the 777 aircraft in his role as integrated product team leader for the GE90 engine. Prior to his appointment to this position in 1995, Larsen worked from 1993 to November 1995 as chief engineer, 777 propulsion system integration, where he was responsible for coordinating the integration of all propulsion related systems in the 777.

In his 29-year-career with Boeing, Larsen has received numerous awards and recognition for his work, including four patents for his work in turbine engine controls, and several "cost savings" awards. He was selected as "Employee of the Year" by Boeing's engineering division in 1981 and in 1985 was the recipient of the division's "Special Recognition" award.

Larsen received a bachelor of science degree in mechanical engineering from Purdue University in 1965, and then received masters degree in mechanical engineering from Purdue the following year.

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An electronic version of this news release is available via the World Wide Webb at: http://www.faa.gov

FAA News

Washington, D.C.

FOR IMMEDIATE RELEASE
Thursday, July 25, 1996

APA 96-134
Contact: Diane Spitaliere
(202) 267-8521

FAA STATEMENT ON INCREASED SECURITY LEVELS AT U.S. AIRPORTS

The Federal Aviation Administration will begin increasing security levels at U.S. airports with a special focus on international flights.

The heightened level includes several steps obvious to the public. These include more intensive screening of passengers on international flights, and more intensive screening of carry-on baggage for domestic and international flights. Additional classified measures also will be instituted.

The new measures and procedures will be implemented by both U.S. and foreign airlines. There also will be additional controls on air transport cargo.

Passengers should expect delays at the airport, as congestion at security screening checkpoints may occur as a result of more bags being opened and searched. To minimize delays, passengers should:

- Clearly label luggage and be prepared to answer questions about their bags;
- Have photo identification available;
- Be prepared to have carry-on and checked baggage inspected; and
- Arrive early and after checking bags, proceed promptly to departure gates.

While the cause of the destruction of TWA Flight 800 has yet to be determined, prudence demands that these actions be taken. While no specific credible threats to airlines or airports have been made, these additional measures are needed now to prevent or deter criminal or terrorist acts against civil aviation.

The United States has been in a heightened state of security at airports since last August. The FAA has made several major security improvements since 1988, including:

(more)

FAA STATEMENT ON INCREASED SECURITY LEVELS (2 of 2)

- Improving the flow of intelligence information to the FAA and the industry;
- Placing federal security managers in 19 of the largest and busiest U.S. airports, and civil aviation security liaison officers at 17 overseas locations;
- Increased security for cargo and mail;
- Implementing new employment and training standards for screeners at U.S. airports and other security personnel;
- Publishing guidelines to help airports build security into new construction;
- Requiring employment investigations and some criminal history records checks;
- Conducting joint FAA/FBI vulnerability assessments at major U.S. airports; and
- Deployment of state-of-the-art explosives detection systems in Atlanta and San Francisco for operational testing. The agency also is moving aggressively toward developing a national deployment strategy for explosive detection systems.

FAA News

'ashington, D.C.

FOR IMMEDIATE RELEASE
Tuesday, July 30, 1996

APA 135-96
Contact: Bob Hawk
Tel.: 202, 267-8521

STATEMENT
BY FEDERAL AVIATION ADMINISTRATION
ON NTSB RECOMMENDATIONS
ON 1995 VALUJET ACCIDENT REPORT

The Federal Aviation Administration (FAA) will undertake an immediate review of the recommendations issued today by the National Transportation Safety Board (NTSB) in connection with an engine fire that occurred on a ValuJet aircraft on June 8, 1995, in Atlanta.

The FAA has already responded positively to three recommendations issued by the board to the FAA on July 6, 1995, affecting the engine, a JT8D-9A manufactured by Pratt & Whitney:

1. The FAA issued an airworthiness directive on July 10, 1995, requiring more frequent inspection of certain components of up to 23 engines last overhauled and maintained by Turk Hava Yollari of Turkey, one of which was involved in the fire.

2. The FAA worked with the engine manufacturer to modify its manuals and service bulletins to clarify allowable damage and repair procedures. The manual revisions have been made.

3. The FAA issued on July 5, 1996, a flight standards information bulletin reminding FAA inspectors and designees of their responsibility to ensure that aircraft, aircraft engines, propellers and other parts imported or accepted into the United States follow established FAA policy and guidance.

Overall, the FAA has responded favorably to 84 percent of the recommendations issued by the NTSB since 1967.

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FAA News

Washington, D.C.

FOR IMMEDIATE RELEASE
Wednesday, July 31, 1996

APA 136-96
Contact: Curtis Austin
Tel.: (202) 267-8521

**FAA ANNOUNCES WINNERS
OF ENVIRONMENTAL EXCELLENCE AWARDS**

The Federal Aviation Administration (FAA) has honored five employees for environmental contributions that ranged from saving taxpayers $26 million on an environmental cleanup project to actively involving a community in plans to reduce noise from increased airport operations.

"These individuals have made significant contributions to the mission of the FAA by their activities in the environmental and natural resources disciplines. Their efforts have savied millions of taxpayer dollars, conserved energy, and furthered the public's understanding of our mission while maintaining the sensitive balance between community desires and the FAA's requirements," Administrator David R. Hinson said. "The agency and the American public owe these individuals a debt of thanks," Hinson said of the 1995 Environmental Excellence Awards winners.

This year's winners are John Silva, manager Environmental Program in New England Region's Airports Division; Keith Buch, environmental engineer and Gregory Falzetta, environmental protection specialist, both of the William J. Hughes Technical Center in Atlantic City, N.J.; Moni Jacob, energy conservation manager in the agency's Southwest Regional Airway Facilities Division in Fort Worth, Texas; and Tom Bock, supervisor, special projects in the FAA's Eastern Region's Air Traffic Division in Jamaica, N.Y.

Established in the summer of 1994, the Environmental Excellence Awards recognizes individuals and teams throughout the FAA who work to advance environmental awareness, energy efficiency and pollution prevention. Program

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officials in the FAA's headquarters and in its nine regions are asked to submit nominations in December and winners are selected in March of the following year by a six-member committee from the FAA's Office of Environment and Energy.

Listed below is an overview of the contributions of the 1995 winners:

- John Silva, recipient of the Environmental Excellence in Mitigation of Environmental Impacts Award, actively involved the community in developing solutions when aircraft departures were increased on a runway at Boston-Logan International Airport. As a result of the community participation programs he helped launch the community and the FAA agreed on a plan to route many of the additional aircraft over water or less densely populated areas to mitigate much of the increased noise levels resulting from the additional departures.

- Keith Buch and Gregory Falzetta developed an alternate cleanup plan that saved taxpayers millions of dollars and earned themselves the Environmental Excellence in FAA Operations Award. Past practices at a salvage yard at the FAA's Willam J. Hughes Technical Center, located eight miles northwest of Atlantic City, N.J., resulted in the need for a major cleanup to remove high polychlorinated biphenyl (PCB) contaminated soils. PCB is a hazardous chemical found in such things as transformers and hydraulic machinery. The original cleanup plan required removing the contamination solely by burning it out of the soil, a process known as soil incineration. The cost would have been in excess of $31 million. Buch and Falzetta, however, proposed disposing of the PCB-contaminated soil by a combination of soil incineration and landfilling at a cost of only $5 million -- a $26 million taxpayer savings.

- Moni Jacob was awarded the Environmental Excellence in Natural Resource Conservation Award for work at the FAA's Southwest Region's Airway Facilities Division in Fort Worth, Texas, that will potentially save the FAA millions of dollars. Five sites were chosen that represented a cross-section of FAA facilities, and Jacob was tasked with finding ways to conserve energy. Through such methods as improving light efficiency and installing high efficiency equipment such as heat pumps, Jacob saved the agency a total of approximately $180,000 at the five test sites. Because the five test sites were representative of major FAA facilities nationwide, total savings to the FAA can be expected to be in the millions each year when these projects are implemented.

- Tom Bock received the Director's Award for Special Environmental Achievement for his work in implementing community involvement programs in environmental projects in the wake of the FAA's Expanded East Coast Plan (ECP), which rerouted air traffic routes along the East Coast. Bock's presence at public hearings, coupled with sensitivity to understanding how potential changes in air traffic procedures may be perceived by the public helped the FAA to increase the public's understanding of the need for the rerouting.

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