FAA News

Federal Aviation Administration, Washington, DC 20591

FOR IMMEDIATE RELEASE
Tuesday, March 2, 1999
Contact: Les Dorr, Jr.
Phone: 202/267-8521

FACT SHEET
FAA ACTIONS ADDRESS US AIR 427 ACCIDENT ISSUES

In the 4 1/2 years since the US Air 427 accident, the FAA and industry have taken safety actions to address issues associated with the accident. The lack of data that conclusively supports one specific accident issue over another resulted in a broad-based FAA strategy that addressed each potential issue.

Potential Accident Issues	FAA Solution
Uncommanded yaw damper movement	**June 1997:** Ordered retrofit of more reliable digital yaw damper by August 2000. Eliminates uncommanded yaw damper movement.
Inappropriate Power Control Unit (PCU) commands	**March 1995 - January 1999:** Issued Airworthiness Directives to inspect, replace or install PCU valves, rudder pressure limiter, other parts. **August 1995:** Revised flight crew training programs emphasizing recovery from unusual attitudes, awareness and early recognition of the situation and mandated procedures to deal with upsets. (Also applies to crew reaction to wake vortex. See below.)
Rudder moved opposite to crew input	**June 1997:** Ordered replacement of PCU with redesigned PCU by August 1999. Incorporates new control valve to prevent possible reversals.

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Crew reaction to wake vortex	**August 1995:** Revised flight crew training programs emphasizing recovery from unusual attitudes, awareness and early recognition of the situation and mandated procedures to deal with upsets. **January 1997:** New procedures incorporated in Boeing 737 flight manual.

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FAA News

Federal Aviation Administration, Washington, DC 20591

FOR IMMEDIATE RELEASE
APA 30-99
Wednesday, March 3, 1999
Contact: Alison Duquette
Phone: 202-267-8521

FAA Orders Inspections of Fuel Tank Wiring on Boeing 737s

WASHINGTON -- The Federal Aviation Administration (FAA) today ordered operators of certain Boeing 737 aircraft to inspect and correct potential chafing of float switch wiring in the center fuel tank. Wire chafing caused by vibration could potentially provide an ignition source inside the fuel tank.

The Airworthiness Directive (AD), effective March 18, requires operators of Boeing 737-100, -200, -300, -400 and –500 aircraft to inspect the wiring for the direct current powered float switch which prevents the fuel tank from being overfilled. It automatically closes the fueling valve when the fuel tank is nearly full. The agency is requiring removal and inspection or deactivation of the float switch prior to an aircraft accumulating 30,000 total flight hours or within 30 days.

Specifically, operators must remove the float switch from the center fuel tank and inspect the wiring for evidence of chafing such as electrical arcing or worn insulation. Depending on the findings, operators may reuse the float switch and install protective Teflon sleeving and wiring, or install a new float switch with Teflon sleeved wiring. Alternatively, operators may deactivate the float switch and paint a "caution" sign adjacent to the aircraft-fueling panel that indicates a conservative maximum fuel capacity. Modified fueling procedures would then be used following deactivation of the float switch to minimize the possibility of fuel spills.

The cost for deactivation of the float switch and installation of a caution sign is estimated at $180 per aircraft, $212,580 for the domestic fleet. The cost for inspection, removal, and reinstallation or replacement of the float switch is estimated at $1,080 per aircraft, $1.3 million for the U.S. fleet.

There are 2,984 aircraft in the worldwide fleet affected by this AD, 1,181 of which are U.S.-registered. Most major U.S. airlines operate the affected aircraft.

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

FAA News

Federal Aviation Administration, Washington, DC 20591

FOR IMMEDIATE RELEASE
APA 31-99
March 3, 1999
Contact: Henry J. Price
Phone: (202) 267-8521

MEDIA ADVISORY

FAA Holds 24th Annual Commercial Aviation Forecast Conference

WASHINGTON — The 24th Annual Federal Aviation Administration (FAA) Commercial Aviation Forecast Conference will be held in Washington, D.C., from 8 a.m. to 5:30 p.m. on Wednesday, March 24, and on Thursday, March 25 from 8:30 a.m. to 1 p.m. The theme of this year's conference is "The Demand for Commercial Aviation Services in the 21st Century."

The event is in conjunction with the agency's annual release of its *FAA Aerospace Forecasts Fiscal Years 1999-2010.*

First day conference activities will be held at the Washington Convention Center, 900 9th St., N.W. The first panel on government oversight begins at 8 a.m. and runs to 9:30 a.m. Speakers on the first panel are Sen. Jay Rockefeller, D-W. Va., Rep. Bud Shuster, R-Pa., and FAA Administrator Jane F. Garvey. The featured luncheon speaker is Gordon Bethune, chairman and chief executive officer of Continental Airlines, who will address the conference at approximately 1 p.m. The first day's schedule includes three additional panels that will address aviation issues such as drivers of aviation demand, aviation demand forecasts, and aviation supply forecasts.

Day two of the event will be held at the Washington Mariott at Metro Center, 775 12th St., N.W. The event includes breakout sessions that will address demand and supply issues from the perspective of large air carriers, regionals/commuters, and airports. Panelists and the breakout session members are made up of leaders from industry, government, labor, media and academia.

The event is co-sponsored by Airports Council International-North America (ACI-NA) and traditionally attracts 500 to 600 individuals from the aviation and investment communities, government, and others from around the world. Members of the media may attend the entire event. Attached is a detailed schedule of the conference.

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

24TH ANNUAL FAA COMMERCIAL AVIATION FORECAST CONFERENCE
Washington, DC -- March 24-25, 1999
"The Demand for Commercial Aviation Services in the 21st Century"

Day 1--Wednesday March 24, 1999
Washington Convention Center
900 9th St., NW

8:00 am - 9:30 am **Panel 1 -- Government Overview**
Moderator: **David Traynham**, Associate Administrator for Policy, Planning, and International Aviation, FAA

Future ATC, **Jane Garvey**, FAA Administrator
House Legislative Issues, **Congressman Bud Shuster,** U.S. House of Representatives
Senate Legislative Issues, **Senator John Rockefeller,** U.S. Senate

9:30 am - 10:00 am Break

10:00 am - 12 noon **Panel 2 -- Drivers of Aviation Demand**
Moderator: **Arnold Schwartz**, Industry Economist, FAA

U.S./World Economic Forecasts, **Kurt Karl**, Executive Vice President, Global Services, WEFA, Inc.
U.S./World Demographics, **Carl Haub**, Demographer, Population Reference Bureau, Inc.
Ticketing Distribution Channels--**Fiona Swerdlow**, Analyst, Digital Commerce, Jupiter Communications
Pricing/Fares--**Robert Harrell,** Harrell Associates, Consultant to American Express
Consolidation/Competition, **Brad Mims,** Acting Assistant Secretary for Aviation and International Affairs, DOT

12 noon - 1:30 pm **Luncheon**
Luncheon Keynote, **Gordon Bethune,** Chairman and CEO, Continental Airlines

1:30 pm - 3:00 pm **Panel 3 -- Aviation Demand Forecasts**
Moderator: **Peter LeBoff**, Industry Economist, FAA

FAA Aviation Forecasts, **John Rodgers**, Director, Aviation Policy and Plans, FAA

World Aviation Forecasts, **Francois Dormoy**, Manager, Business Development, IATA

World *Cargo Forecasts,* **Brian Clancy**, Principal, MERGEGLOBAL

3:00 pm - 3:30 pm Break

3:30 pm - 5:00 pm **Panel 4 -- Aviation Supply Forecasts**
Moderator: **Dan Taylor,** Industry Economist, FAA

Fleet Forecasts, **John Griffiths,** Project Director, Airline Industry Analysis, Boeing Commercial Airplane Group

Infrastructure--Ground, **David Plavin**, President, ACI-NA

Infrastructure--Air, **Russell Chew,** Managing Director, Strategic Operations Planning American Airlines

Labor; Pilot/Mechanic Supply--**Judy Tarver,** President, Universal Pilot Application Service

"The Demand for Commercial Aviation Services in the 21st Century"

Day 2--Thursday March 25, 1999
Marriott at Metro Center
775 12th St. NW

8:30 am - 12 noon Concurrent Breakout Panels

Panel 1 Large Air Carriers
Moderator: **Jon Ash,** Managing Director, Global Aviation Associates

8:30 am - 10:00 am Demand Issues
David Swierenga, Chief Economist, Air Transport Association
Lee Lipton, Schedule Planner, Southwest Airlines
Ferdinand Schmidt, Exec. VP, Network Management, Austrian Airlines

10:30 am - 12 noon Supply Issues
Sam Buttrick, Managing Director, Research Department, Paine Webber
Adam Brown, Vice President, Airbus Industrie
Eric Amel, Director, Revenue Forecasting, Continental Airlines

Panel 2 Regionals/Commuters
Moderator: **Charles Moles**, Industry Economist, FAA

8:30 am - 12:00 noon Demand Issues
Ken Roberts, Business Development, Rolls Royce
Mike Miller, Director of Consulting, AVITAS, Inc

Supply Issues
William Trigeiro, Principal Investigator, User Operations & Economics, MITRE Corp.
Greg Rohde, Senior Legislative Assistant to Senator Bryon Dorgan, (D., N.D.)
Joseph Schoofs, Executive Vice President, Universal Pilot Application Service
Talinda Larsen, Director, SH&E

Panel 3 Airports
Moderator: **Leonard Ginn**, Senior Vice President, ACI-NA

8:30 am - 10:00 am Demand Issues
Frank Chambers, President, Aviation Facilities, Co. Inc.

10:30 am - 12 noon Supply Issues
William DeCota, Deputy Director of Aviation,
Port Authority of New York and New Jersey
Charles Gates, Director of Aviation, City of Austin
Stan Maiden, Research Director, British Airports Authority

Note: All speakers have confirmed their participation except as indicated.

FAA News

Federal Aviation Administration, Washington, DC 20591

FOR IMMEDIATE RELEASE
APA 32-99
Thursday, March 4, 1999
Contact: Paul Takemoto
Phone: 202-267-8521

FAA Issues Year 2000 Progress Report

Washington – The Federal Aviation Administration (FAA) has released its latest numbers regarding the progress of work being done on its computers to ensure they properly recognize the year 2000, or Y2K.

To date, all FAA systems requiring Y2K repairs have been renovated and are now in the process of being tested. FAA deadlines mandate that all systems are tested by March 31, and the agency is on track to meet this target. Of the 65 mission critical air traffic control (ATC) systems requiring Y2K repairs, 57 – or 88 percent -- have completed individual system testing.

It is important to note that the FAA is conducting end-to-end tests above and beyond the individual system tests for many of its mission critical ATC systems. End-to-end testing is essential since those systems interact with multiple systems, and the FAA needs to make sure that data is properly transmitted through these interfaces.

To that end, at least 30 mission critical ATC systems have successfully completed two of three extensive end-to-end test sessions at the FAA's William J. Hughes Technical Center in Atlantic City, N.J. Those systems include the computers that drive air traffic controller displays at both Terminal Radar Approach Control (TRACON) and Air Route Traffic Control Center facilities.

All FAA systems are scheduled to be implemented as Y2K compliant by June 30.

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

FAA News

Federal Aviation Administration, Washington, DC 20591

FOR IMMEDIATE RELEASE
APA 33-99
Monday, March 8, 1999
Contact: Tammy L. Jones
Phone: 202-267-8521

FAA Updates Blueprint For NAS Modernization

WASHINGTON – Continuing the Federal Aviation Administration's (FAA) strong effort to modernize the Air Traffic Control system, the agency today announced improvements to its National Airspace System (NAS) plan. The plan, NAS Version 4.0, is the result of the agency's intensive work with industry partners to address the growing demands in the aviation system.

This update improves the agency's comprehensive modernization strategy from today through 2015. The plan contains capabilities, technologies, and systems to enhance the safety of the U.S. aviation system and provide users and service providers with more efficient services. It is based on the Free Flight operational concept, in which pilots may choose the most efficient and economical routes to their destinations rather than use prescribed routes.

"Development of this plan was a collaborative effort involving representatives of all facets of the aviation community, and we're pleased that we were able to march to the same tune on this," Steve Zaidman, associate administrator for research and acquisitions said. "Ultimately, all users of the National Airspace System will benefit."

The goals for modernizing the NAS are based on making improvements in:

- Safety – such as better weather information in the cockpit and on controller displays.
- Accessibility – such as instrument approaches to many more airports.
- Flexibility – such as allowing users to select and fly desired routes.
- Predictability – such as meeting flight schedules even in adverse weather conditions.
- Capacity – such as increasing aircraft arrival rates to airports.
- Efficiency – such as saving fuel by reducing taxiing times to and from the runways.
- Security – such as controlling access to facilities and critical information systems.

The NAS Architecture is divided into three modernization phases. Each phase identifies the new capabilities, technologies, procedures and training required. Phase 1 (1998-2002) focuses on sustaining essential air traffic control services and delivering early user benefits. Controller workstations will begin major upgrades, and new controller automation tools will be used at selected cities.

-more-

The Wide Area Augmentation System (WAAS) will be deployed to augment the satellite-based Global Positioning System. It will correct the military-derived signal to provide the integrity, availability, and accuracy to satisfy civil aviation navigation requirements. Also during this phase, air-to-air surveillance will be introduced and FAA computers will be ready for the Year 2000.

Phase 2 (2003-2007) concentrates on deploying the next generation of communications, navigation, and surveillance (CNS) equipment and the automation upgrades necessary to accommodate new CNS capabilities. WAAS will be completed to provide more coverage and precision instrument approaches, and new digital radios that maximize the use of the very high frequency (VHF) spectrum will be installed.

As users equip themselves with automatic dependent surveillance-broadcast (ADS-B) avionics, automatic dependent surveillance ground equipment will be installed to extend air traffic control surveillance services to non-radar areas. ADS-B is a technology that allows aircraft to broadcast information such as identification, position and altitude. The information may be received and processed by other aircraft or ground systems for use in improved situational awareness, conflict avoidance and airspace management.

Phase 3 (2008-2015) completes the required infrastructure and integration of automation advancements with the new CNS technologies enabling additional Free Flight capabilities throughout the NAS. Two important features will be NAS-wide information sharing among users and service providers and "four-dimensional" (longitudinal, lateral, vertical and time) flight profiles to enable greater flexibility and planning.

Because most NAS components are interrelated, a database also was developed that will track the modernization plan and demonstrate how such factors as funding or schedule decisions affect other programs and the modernization efforts. This database tool will give the FAA quick access to the significant amount of technical, schedule, and cost information in Version 4.0, as well as provide information on hypothetical scenarios that might affect the modernization plan.

The database is essential because the NAS is too complex to navigate without an automated tool, Zaidman said. He added that this architecture provides the most detailed guide ever for planning operations and making NAS-related investment decisions.

The Blueprint and Version 4.0 will be updated in response to changing needs, research results, new technology, and funding. The 385-page document and a summary called *Blueprint for NAS Modernization* are on the FAA web site (www.faa.gov/nasarchitecture).

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FAA News

Federal Aviation Administration, Eastern Region, Jamaica, New York, 11430

FOR IMMEDIATE RELEASE
March 10, 1999

Contact: Arlene Salac/Jim Peters
Phone: (718) 553-3015

Media Advisory
New FAA Air Traffic Computer System Dedicated at New York Center

New York – U.S. Secretary of Transportation Rodney E. Slater and FAA Administrator Jane F. Garvey tomorrow will dedicate the nation's first Host and Oceanic Computer System Replacement (HOCSR), a new air traffic control computer system at the New York Enroute Air Traffic Control Center in Ronkonkoma, New York.

The HOCSR, which is fully Y2K compliant, will receive, process, distribute and track information on the more than 2 million annual aircraft movements through New York Center's domestic and oceanic airspace. HOCSR, the successor to the FAA's main computer processor, is the pivotal component of the air traffic control system and reflects the FAA's continuing effort to modernize and enhance the safety of the National Airspace System.

WHO: U.S. Secretary of Transportation Rodney E. Slater and FAA Administrator Jane F. Garvey

WHAT: Dedication of the Host and Oceanic Computer System Replacement (HOCSR)

WHEN: Thursday, March 11, 1999 at 11:30 a.m. **Reporters should arrive at 10:30 a.m. for a media tour and b-roll opportunity prior to the event. A brief Q&A with Slater and Garvey will follow the event.**

WHERE: New York Enroute Air Traffic Control Center, Ronkonkoma, NY

Directions: From New York City, take the Long Island Expressway (LIE) eastbound to exit 57. Stay on the LIE service road. At the second traffic light, which is Route 454/Veterans Memorial Highway, make a right turn and remain on Rte. 454 for 5 miles. Look for Johnson Avenue, the main entrance for MacArthur Airport. New York Center is on the right before the airport.

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FAA News

FOR IMMEDIATE RELEASE
Thursday, March 11, 1999
Contact: Arlene Salac or Jim Peters
Phone: 718-553-3011

Transportation Secretary Slater and Federal Aviation Administration Administrator Garvey Dedicate New York Host Computers

RONKONKOMA, NY -- Transportation Secretary Rodney E. Slater and FAA Administrator Jane Garvey dedicated the newest Federal Aviation Administration air traffic control computer system in a midday ceremony at the New York Air Route Traffic Control Center here today.

They dedicated the Host and Oceanic Computer System Replacement, known as HOCSR, a key component of the National Airspace System infrastructure modernization program and FAA's Y2K compliance effort. The new system takes up five times less space than its predecessor – but is almost five times faster and significantly more reliable than the system it replaces.

All 20 enroute traffic control centers will receive new host computers in 1999. The New York center's HOCSR went on line February 24. New host computers went on line in Boston, Albuquerque and Houston centers on March 6, and Los Angeles, March 7. The Oakland, Calif., center, which is the other site controlling ocean traffic, will receive the oceanic component of the system, as well.

The system is based on an IBM 9672 computer, which replaces 1987-vintage IBM 3083 and 4381 mainframe computers. The communications subsystem for the oceanic air traffic control center at New York and later, the Oakland center, is an IBM RISC 6000, replacing an IBM 4956.

Lockheed Martin Corporation is the prime contractor and system integrator.

Total life cycle cost for the 10-year life of the program is estimated at $607.2 million. However, there is an estimated systemwide savings of $15.6 million in reduced electrical power consumption in the same period, and maintenance costs will be reduced by 65 percent over the older system.

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Design mean time between failure for the old system was 4,796 hours; for the new system, MTBF is 25 years. System cooling requirements are reduced by 95 percent.

The new host can operate at a speed of 32 million instructions per second, as opposed to 7.0 million in the older system.

The old system, which included a primary unit and a backup, required about 1,900 square feet of floor space; the new host and its backup take up less than 250 square feet.

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FAA News

Federal Aviation Administration, Washington, DC 20591

FOR IMMEDIATE RELEASE
Thursday, Mar. 11, 1999

FACT SHEET
Host and Oceanic Computer System Replacement (HOCSR) Program

The Host and Oceanic Computer System Replacement (HOCSR) program is a key component of the ongoing modernization of the Federal Aviation Administration's (FAA) National Airspace System infrastructure. The HOCSR program will replace the main air traffic control automation computers deployed during the 1980s at the Air Route Traffic Control Centers (ARTCCs) in the continental United States, the Honolulu Center Radar Approach Control Facility, the Anchorage, Alaska ARTCC, and various support sites.

The Host and Oceanic computers at these ARTCCs and the Honolulu Center are the very foundation of the FAA automated air traffic control environment and a major element of the overall National Airspace System. The computers receive, process, coordinate, distribute, and track information on aircraft movement throughout the nation's airspace that includes oceanic international air traffic. The computers provide data interfaces to all types of FAA facilities – air traffic control towers, terminal radar approach control centers, flight service stations, adjacent flight information regions, the Host and Oceanic computers at other ARTCCs – and to external organizations such as the U.S. Customs Service and the military.

The architecture and processing capability provided by the computers are key to the FAA's ability to implement new services, concepts, and traffic flows for the airline industry and flying public. The availability of these computers is critical to maintaining the nation's commerce.

The existing computers at the ARTCCs were deployed in 1986 through 1988 to replace IBM custom-built computers. They were procured as an interim upgrade to the ARTCC automation system and were to be replaced in the mid-to late 1990s. Many of the hardware components have reached or are near the end of their commercial life and may have potential Year 2000 (Y2K) problems. The new computers are Y2K compliant.

They will give the FAA the ability to enhance and expand its air traffic control capabilities to meet forecasted increases in demand. Increased processor speeds reduce the time for certain air traffic control tasks from 1-½ hours to 22 minutes. Cost savings for power are estimated to be $15.6 million over the life of the equipment. The new equipment takes up only 80% of the space needed by the old computers.

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In February 1999 the New York Center in Ronkonkoma, New York, was the first center to demonstrate operational readiness of the new HOCSR Program Phase 1 computers. All En Route and Oceanic air traffic control centers will be equipped with the new computers before the year 2000.

More information on the HOCSR Program may be obtained at www.faa.gov/aua/auahome.htm

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

Host and Oceanic Computer System Replacement (HOCSR) Program

The following chart presents a comparison of Host and HOSCR

Host Computer *IBM 3083/4381*	**Host and Oceanic Computer System Replacement (HOCSR)** *IBM 9672 – Generation 3 (G3)*
Not Y2K certified by IBM	Y2K certified by IBM
1980s bipolar technology requires multiple equipment frames to support numerous components	1996 complimentary metal oxide semiconductor (CMOS) technology allows for reduced parts and cost of ownership and greater reliability
Operates at 21.2 KVA	Designed to reduce energy costs up to 97 percent by operating at 1.2 KVA. Estimated $15.6 million in energy savings during system life cycle
Designed to provide a system mean time between failure of 4,796 hours	Designed to reduce maintenance requirements up to 65 percent. Provides system mean time between failure of 25 years
Provides little or no built-in redundancy to protect against outages	Provides built-in automatic redundancy to protect against outages
System footprint requires 900 square feet of facility space	Reduces required facility space to 74 square feet
Requires water cooling distribution unit to eliminate system-generated heat of 66,000 BTUs	Reduced heat generation to 4,069 BTUs allows for air cooling
Increasing supportability problems due to end-of-service-life components and worsening reliability	Supportability assured through planned system life cycle (1998-2008)
Designed to operate at 7 million instructions per second	Provides operating capability of 32 million instructions per second
Requires motor generator to convert 60 Hz street power to 400 Hz power	Designed to operate on 60 Hz power; contains duplicate power components (N+1)
Provides 16 megabytes of memory storage on single processor	Provides 512 megabytes of memory storage on single processor
Designed to provide 16 parallel channels using channel-to-channel adapter	Designed to provide 18 parallel and 4 Enterprise System Connection (ESCON) channels
Designed to support National Airspace System software Native System/370 mode only; no logical partitioning provided.	Provides capability to support current National Airspace System software operating in System/370 mode through logical partitioning and in system/390 mode with VM/ESA software; maximum of 10 logical partitions provided
	Provides enhanced connectivity with Ethernet, integrated services digital network (ISDN), and token-ring LAN features
	Increased operator efficiency achieved with Hardware Management Console

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

FAA News

Federal Aviation Administration, Washington, DC 20591

FOR IMMEDIATE RELEASE

Contact: Les Dorr, Jr.
Phone: 202/267-8521

FACT SHEET
THE FAA'S AIR TRAFFIC MODERNIZATION PROGRAM

The Federal Aviation Administration (FAA) is aggressively upgrading its air traffic systems to meet the challenges of the 21st century

The FAA is responsible for the largest, most complex and safest aviation system in the world. It includes more than 18,000 airports, 470 air traffic control towers, 176 terminal radar control facilities (TRACONs), and 21 en route air traffic control centers.

FAA is putting in place a series of programs and systems in the modernization effort. They include:

- **"Host" computers** -- The FAA is replacing the "host" computer at all of its en route centers. The host processes flight plan and radar data and sends that information to controllers at the center and other air traffic facilities. Host replacement involves hardware only, no new software.

- **Display System Replacement (DSR)** -- DSR is the cornerstone in the FAA air traffic modernization program. It is replacing 20-year-old equipment in the 20 Air Route Traffic Control Centers around the continental U.S. with new controller workstations, display computer hardware and software, and network infrastructure. Features include new color displays and consoles for controllers, quieter and faster flight strip printers, and high reliability.

- **Standard Terminal Automation Replacement System (STARS)** -- STARS will replace computers (hardware and software) at the nation's busiest airport terminals and pave the way for future upgrades. The new displays will help controllers handle traffic more efficiently while maintaining today's extraordinary level of safety.

- **Wide Area Augmentation System (WAAS)** -- WAAS enhances signals from the Global Positioning System (GPS) to satisfy civil aviation navigation requirements. When the first phase of WAAS is operational in September 2000, pilots will be able to make precision GPS-guided landings throughout roughly half of the continental United States.

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- **Data Link** -- Data link is essentially airborne e-mail flowing between computers on the ground and in the cockpit. It reduces the time lag and chances of errors associated with voice communications. Data link can provide critical flight and weather information from various data bases directly to pilots. The technology already is being used to transmit pre-departure clearances to pilots.

- **Free Flight** -- The concept of Free Flight will give operators maximum flexibility, consistent with safety, to fly fuel-efficient routes. The prospect of greatly increased flexibility to fly direct routes could have substantial benefits, including fuel and time savings, fewer delays and a more efficient use of airspace.

- **Free Flight Phase 1** -- Based on a consensus from all sectors of aviation, the FAA established the Free Flight Phase I program to bring significant benefits to airspace users by 2002. The program is installing selected technologies at specific air traffic facilities to help reduce risks and resolve many of the technical and procedural issues connected with the transition to Free Flight.

- **Year 2000 (Y2K)** -- The FAA had to overhaul its computers to make sure they roll over at midnight Dec. 31, 1999. Without a fix, computers would see "00" and may assume it meant 1900. The FAA has already renovated its systems, and is on schedule to implement the fixes in June 1999.

The FAA has already completed other important modernization projects. The Display Channel Complex Rehost, a program that replaced aging computers driving the controller displays at five major en route centers (Chicago; Fort Worth, Texas; Cleveland, Washington; and New York) was finished in 1997. The Voice Switching and Control System, which replaces equipment dating back to the 1960s and provides much clearer, more reliable voice communications, also was operational at all 20 en route centers in 1997.

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FAA OFFICE OF PUBLIC AFFAIRS
PRESS RELEASES HTTP://WWW.FAA.GOV/APA/PR
600 INDEPENDENCE AVE., WASHINGTON D.C., 20591

FOR IMMEDIATE RELEASE

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March 11, 1999
Contact: -
Phone: -

Host and Oceanic Computer System Replacement (HOCSR) Program - OUESTIONS AND ANSWERS

HOST AND OCEANIC COMPUTER SYSTEM REPLACEMENT (HOCSR) PROGRAM
Questions and Answers

General Information:

What is the Host and Oceanic Computer System Replacement (HOCSR) Program?

The HOCSR Program, structured in four-phases, eliminates supportability problems and potential Year 2000 risks with the current En Route (Host) and Oceanic domain Air Traffic Control (ATC) automation computers. The computers and related peripherals have reached or are near the end of their commercial life. This four phased approach was selected to minimize operational site impacts while achieving the program goals within budget constraints.

What hardware and software does the Host and Oceanic Computer System Replacement (HOCSR) Program provide?

The four phases of the HOCSR Program provide the following improvements:

Phase 1:
· An IBM 9672 - RA4 Generation 3 (G3) computer replaces the current En Route domain (Host) IBM 3083 BX1 and Oceanic domain IBM 4381 mainframe computers.

· An IBM RISC 6000, model H-50 computer replaces the current IBM 4956 Series/1 computer as the communications subsystem at the Oceanic ATC Centers. This new subsystem is referred to as the Series/1 Replacement (S1R).

· The new G3, a System/390 computer, will use the existing National Airspace System (NAS) software in a System/370 emulation mode.

Phase 2:
· A software upgrade for the NAS software to operate on the native System/390 of the G3 computer to elliminate the

System/370 emulation mode.

· A commercial mainframe operating system update (VM/ESA) to provide the capability for the G3 computers to execute support programs.

Phase 3:
· New selected peripherals and the required software to interface the new peripherals with the G3 and the S1R.

Phase 4:
· New storage and tape drive peripherals and required interfacing software.

Why does the Federal Aviation Administration (FAA) need the Host and Oceanic Computer System Replacement (HOCSR) Program?

The computers at the En Route and Oceanic domain Air Traffic Control (ATC) centers are the very foundation of the FAA's automated ATC environment. The computers receive, process, coordinate, distribute, and track information on aircraft movement throughout the nation's airspace that includes Oceanic international air traffic. The architecture and processing capability provided by the computers are key to the FAA's ability to implement new services, service efficiencies, and improved traffic flows for the user. The availability of these computers is critical to maintaining the nation's commerce.

The existing computers that execute ATC software at the En Route, Oceanic, and the Honolulu Center Radar Approach Control (CERAP) centers were deployed in the 1980s. Many of the computer components have reached or are near the end of their commercial life and may have potential Year 2000 problems.

What is the acquisition approach for the Host and Oceanic Computer System Replacement (HOCSR) Program? What organizations are involved?

The HOCSR Program follows the Federal Aviation Administration (FAA) Acquisition Management System process.

The HOCSR Product Team was formed in September 1997 to conduct an Investment Analysis (IA) to develop the implementation, engineering, and acquisition strategies necessary to replace the current aging En Route (Host) and Oceanic computer systems. The Team utilized the approved Mission Need Statement 309, that defined the need to provide the level and types of En Route and Oceanic domain air traffic services identified in FAA strategic plans and aviation forecasts through 2008, to accomplish the IA effort. In conjunction with the IA effort, the Team conducted a proof of concept to demonstrate the capability for the existing National Airspace System software to operate on a new hardware platform. The FAA Joint Resources Council (JRC) initially approved these strategies in March 1998. Final approval by the JRC occurred in May 1998. The FAA organizational disciplines involved in the HOCSR Program include: program management, acquisition, system engineering, operational requirements, operations support, contracts, finance, legal, training, facilities engineering, unions, logistics, maintenance, training, testing, and security.

Where will the Host and Oceanic Computer System Replacement (HOCSR) Program operational systems be installed?

The HOCSR Program operational systems will be installed at the 20 Air Route Traffic Control Centers (ARTCCs) that perform the domestic En Route and Oceanic Air Traffic Control (ATC), the Honolulu Center Radar Approach Control (CERAP) Facility which provides offshore Oceanic ATC, the Anchorage, Alaska ARTCC, and various support sites as follows:

Operational Sites:

Seattle
Salt Lake City
Denver
Anchorage
Atlanta
Chicago
Ft. Worth
Jacksonville
Washington
Houston
Cleveland
Boston
New York*
Kansas City
Memphis
Honolulu
Albuquerque
Oakland*
Minneapolis
Miami
Los Angeles
Indianapolis

*NOTE: The New York and Oakland ARTCCs will have both the En Route and Oceanic domain Generation 3 computers for ATC automation.

Support Sites:

Federal Aviation Administration Academy
William J. Hughes Technical Center (WJHTC) (4 Labs)
Lockheed Martin Corporation (Rockville, MD)
Integration and Interoperability Facility at the WJHTC

How do controllers use the Host and Oceanic computer systems?

The Host and Oceanic computer systems are the primary automation component of the En Route and Oceanic domain Air Traffic Control (ATC) system and the major elements of the overall National Airspace System ATC system. The main functions of the Host and Oceanic computers are processing flight and radar data, communications, and generating display data to the air traffic controllers. The Host and Oceanic computers are data interfaces to all types of Federal Aviation Administration ATC facilities. These facilities include ATC towers, terminal radar approach control centers, flight service stations, adjacent flight information regions, the En Route and Oceanic

computer systems at other Air Route Traffic Control Centers, and to external organizations such as the U.S. Customs Service and the military. The Host and Oceanic computers also disseminate domestic flight plan data and provide the infrastructure for inter-facility control messages.

What benefits are expected from all phases of the Host and Oceanic Computer System Replacement (HOCSR) Program?

· Year 2000 compliant state-of-the-art equipment to support the evolution of air traffic control (ATC) capabilities for the 21st century
· Reduction in equipment space requirements from approximately 1910 to 250 square feet
· Power cost savings of approximately $15.6 million during the 10 year life cycle (1998 - 2008) of the systems provided by the HOCSR Program
· Increased ATC automation processor speed from the current 7 million to 32 million instructions per seconds; reduces the time required to perform certain ATC tasks from 1-1/2 hours to 22 minutes
· Increased Series/1 Replacement (S1R) software maintenance efficiency due to C+ and C++ programming language
· Reduction of two interface requirements for the S1R subsystem; interfaces eliminated are the bi-synchronous interface to the Protocol Conversion Unit and the communications path A-B switch interface
· Significant parts reduction for increased reliability and reduced operating costs
· Increased processor memory from 16 megabytes to 512 megabytes
· Automatic redundancy

How does the new equipment provided by the Host and Oceanic Computer System Replacement (HOCSR) Program affect pilots?

The level of Federal Aviation Administration air traffic control (ATC) service and flying safety for pilots will be enhanced due to increased ATC computer system reliability and availability, and the elimination of current system supportability and potential Year 2000 problems.

How does the new equipment provided by the Host and Oceanic Computer System Replacement (HOCSR) Program affect airline passengers?

The level of Federal Aviation Administration air traffic control (ATC) service and flying safety for airline passengers will be enhanced due to increased ATC computer system reliability and availability, and the elimination of current system supportability and potential Year 2000 problems.

Facts about the New York Air Route Traffic Control Center (ARTCC):

· The New York ARTCC in Ronkonkoma, New York, is the first of 20 FAA sites nationwide to deploy the HOCSR Program equipment.
· The New York ARTCC is one of 2 operational facilities that provide both En Route and Oceanic air traffic control (ATC)

services.
· The New York center controls approximately 3.27 million square miles of airspace, which is managed by 36 sectors. The airspace contains 17,000 square miles of domestic airspace and 3.25 million square miles of oceanic airspace. The New York oceanic airspace shares common boundaries with five other Federal Aviation Administration (FAA) ATC facilities (San Juan Center Radar Approach Control, Miami, Jacksonville, Washington, and Boston ARTCCs), four ATC centers from three foreign countries (Canada, Portugal, and Trinidad/Tobago), and one foreign airport Tower (Bermuda).
· Air traffic controllers at the New York center control an average of 7,600 aircraft daily. Approximately 7,000 aircraft operations per day occur in domestic airspace, 600 are in oceanic airspace.
· The control room at the New York center accommodates 94 operational ATC positions.
· The New York center employs 533 people, including 79 Airway Facilities; 351 controllers and 103 staff, management, supervisory, and support personnel in Air Traffic. This workforce provides round-the-clock service 365 days a year.
· The HOCSR hardware for the En Route ATC operations was delivered to the New York center on 13 July 1998 and achieved Initial Operational Capability on 24 January 1999. The system went into full operation on 24 February 1999. Oceanic operations at the New York Center using the new HOCSR Program computers will occur later this year.

Technical Information:

What are the major components of the Host and Oceanic Computer System Replacement (HOCSR) Program equipment being installed?

The major components provided in Phase 1 of the HOCSR Program are the IBM 9672 RA-4 Generation 3 (G3) and the IBM RISC 6000 Model H-50 computers. Phase 2 of the HOCSR Program is a software only upgrade to the G3 computer. Current system peripherals and storage devices will be replaced in Phases 3 and 4 of the HOCSR Program.

What components of the existing system does the Host and Oceanic Computer System Replacement (HOCSR) Program replace?

The components to be replaced in Phase 1 of the HOCSR Program include the following:
· IBM 3083 Processor Unit
· IBM 3089 Power Unit
· IBM 3087 Coolant Distribution Unit
· IBM 3278 Service Support and System Console
· IBM 4381 Central Processor
· IBM 4956 Series/1 Communication Subsystem Processor Unit

Phase 2 of the HOCSR Program, which provides a software upgrade only, will not include any hardware component replacement.

The following components will be replaced in Phases 3 and 4 of the HOCSR Program:
· IBM 3180 Keyboard Video Display Terminal
· IBM 3268 Printers

- IBM 3274 Terminal Control Unit
- IBM 3380 Direct Access Storage Device
- IBM 3480 Tape Drive
- IBM 3725 Communication Controller
- IBM 3727 Communication Controller
- IBM 3814 Switches
- IBM 3865 Modem
- IBM 3880 Disk Controller
- IBM 4245 High Speed Printer
- IBM 4248 High Speed Printer

What is the interaction between the primary and backup air traffic control (ATC) computers?

The existing En Route and Oceanic computer systems consist of two completely distinct, and identical computers. The En Route domain computer, known as the "Host", is an IBM 3083 and the Oceanic domain computer is an IBM 4381. In each domain, each set of computers is symmetrically cabled to all required system peripherals. This allows each computer in the domain set to function independently as the primary operational computer for ATC. During normal operations one computer is assigned and performs as the primary computer while the other computer operates as the backup computer accomplishing numerous ATC support functions. These support functions include data reduction, software maintenance, training and test support, and database activities.

A health check or polling operation takes place between the primary and backup computer each half second. When a problem occurs with the primary computer, the backup computer automatically terminates its support functions, assumes the role of the primary ATC computer and performs all operational functions. When the problem is corrected, the support functions are resumed on the backup computer.

The extensive redundancy provides the system with the ability to recover quickly and effectively from the failure of any individual component, with a minimal impact on ATC. The computers being provided by the HOCSR Program will operate in the same manner.

How is the Host and Oceanic Computer System Replacement (HOCSR) equipment integrated without interrupting air traffic control operations?

The HOCSR Product Team, in conjunction with Federal Aviation Administration regional and operational site personnel, developed a comprehensive implementation plan and schedule that outlines the details of equipment installation, integration, testing, and operational transition. The HOCSR Product Team, operational sites, and the implementation contractor direct, control, coordinate, and monitor the accomplishment of these activities on a daily basis to prevent any operational impacts.

What do you plan to do with the old systems that are replaced by the Host and Oceanic Computer System Replacement (HOCSR) Program?

The HOCSR Product Team is accomplishing a comprehensive equipment disposal plan for Phase 1 of the HOCSR Program.

This plan includes critical parts recovery, general disposal guidelines, and specific equipment isolation and removal procedures.

The critical parts recovery activity provides for the removal and storage of current system components to eliminate supportability problems until the HOCSR Program Phase 1 equipment deployment activity is completed. Current system components not placed in the critical spare parts pool will be either scrapped or salvaged by the operational sites. The Federal Aviation Administration chose this disposal method after a worldwide search by IBM could not identify any demand for the current equipment.

The general disposal guidelines and the specific equipment isolation and removal procedures address all aspects of equipment disposal including hazardous and precious material recovery and disposition.

What is the expected lifecycle of the system provided by the Host and Oceanic Computer System Replacement (HOCSR) Program?

The planned lifecycle for the system provided by the HOCSR Program is 10 years (1998 - 2008.

Contractual Information:

Who is the prime contractor for the Host and Oceanic Computer System Replacement (HOCSR) Program?

Lockheed Martin Corporation (LMC) serves as the prime contractor and system integrator. LMC selected the IBM Corporation to provide the IBM 9672 Generation 3 computer and the Sunhillo Corporation to provide the Series/1 Replacement for the Oceanic centers.

What maintenance support will be required?

During Phase 1 the Federal Aviation Administration (FAA) will require contract maintenance support for the new IBM 9672-RA4 Generation 3 (G3) and IBM RISC 6000, Model H-50 computers. It is the FAA's intent to bring maintenance in house as soon as possible.

Contract support for the G3 and RISC 6000 computers will be required until all appropriate FAA personnel have received training and demonstrated proficiency to perform the required maintenance tasks.

What is the estimated cost of the HOCSR Program?

The estimated 10-year life cycle cost for the program is $607.2 million. These costs include system production, program management and system engineering, system technology refresh activities, deployment, software tools and licenses, installation, contractor maintenance, security, training, travel, testing, and logistics support for all four phases of the HOCSR Program.

What are the significant accomplishments of the Host and

Oceanic Computer System Replacement (HOCSR) Program?

To date, significant accomplishments of the HOCSR Program since Program approval in March 1998 include:
· Developed HOCSR IBM 9672 Generation 3 (G3) training material in 3 months versus the normal 18 months
· Delivery of Phase 1 computers to 19 operational sites
· Government acceptance of the HOCSR Program Phase 1 equipment at 14 operational sites
· Initial Operational Capability (IOC) at the first operational site (New York Center) in 10 months
· Completed the Phase 1 Independent Operational Test and Evaluation on 3/8/99
· Operational Readiness Demonstration (ORD) at the first operational site (New York Center) in 11 months
· IOC at 13 operational sites
· ORD at 7 operational sites

Chronology of Events
Leading to Commissioning of the
Host and Oceanic Computer System Replacement (HOCSR) Program
Phase 1 Operational System at the New York Air Route Traffic Control Center

· HOCSR Program Initial Approval by the Federal Aviation Administration (FAA) Joint Resources Council (JRC)
MARCH 1998

· Site Survey Conducted at New York Center
APRIL 1998

· HOCSR Program Final Approval by FAA JRC
MAY 1998

· Contract Issued to Lockheed Martin Corporation
JUNE 1998

· New York Center Site Readiness Review Conducted
JUNE 1998

· HOCSR Equipment Delivery at New York Center
JULY 1998

· HOCSR Installation and Integration Completed at New York Center
AUGUST 1998

· HOCSR Site Acceptance Testing Completed at New York Center
NOVEMBER 1998

· Government Acceptance of the HOCSR Program Phase 1 En Route at New York Center
NOVEMBER 1998

· Initial Operational Capability of the HOCSR Program Phase 1 En Route System at New York Center
JANUARY 1999

· In-Service Decision for the HOCSR Program Phase 1 En Route

System
FEBRUARY 1999

· Operational Readiness Demonstration of the HOCSR Program
Phase 1 En Route System at New York Center
FEBRUARY 1999

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800 INDEPENDENCE AVE., WASHINGTON D.C., 20591

FOR IMMEDIATE RELEASE

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March 11, 1999
Contact: Arlene Salac or Jim Peters
Phone: 718-553-3011

Transportation Secretary Slater and FAA Administrator Garvey Dedicate New Air Traffic Computers in New York

RONKONKOMA, NY – Transportation Secretary Rodney E. Slater and FAA Administrator Jane Garvey dedicated the newest Federal Aviation Administration air traffic control computer system in a midday ceremony at the New York Air Route Traffic Control Center here today.

They dedicated the Host and Oceanic Computer System Replacement, known as HOCSR, a key component of the National Airspace System infrastructure modernization program and FAA's Y2K compliance effort. The new system is more than four times faster and orders of magnitude more reliable than its predecessor - while occupying only an eighth of the floor space of the system it replaces.

All 20 enroute traffic control centers will receive new host computers in 1999. The New York center's HOCSR, the first in the nation, went on line February 24. New computers are also in full operation at the Fort Worth, Albuquerque, Atlanta, Denver, Boston and Oakland centers. The Oakland center, which is the other site beside New York controlling air traffic over the ocean, will receive the oceanic component of the system, as well.

The system is based on an IBM 9672 computer, which replaces 1987-vintage IBM 3083 and 4381 mainframe computers. The communications subsystem for the oceanic air traffic control center at New York and later, the Oakland center, is an IBM RISC 6000, replacing an IBM 4956.

Lockheed Martin Corporation is the prime contractor and system integrator.

Total life cycle cost for the 10-year life of the program is estimated at $607.2 million. However, there is an estimated systemwide savings of $15.6 million in reduced electrical power consumption in the same period, and maintenance costs will be reduced by 65 percent over the older system.

Design mean time between failure for the old system was 4,796 hours; for the new system, MTBF is 25 years. System cooling requirements are reduced by 95 percent.

The new host can operate at a speed of 32 million instructions per second, as opposed to 7.0 million in the older system.

The old system, which included a primary unit and a backup, required about 1,900 square feet of floor space; the new host and its backup take up less than 250 square feet.

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FAA News

Federal Aviation Administration, Eastern Region, Jamaica, New York 11430

FOR IMMEDIATE RELEASE
March 11, 1999
Contact: Arlene Salac/Jim Peters
Phone : (718) 553-3015

Fact Sheet
New York Enroute Air Traffic Control Center
(New York Center)

New York Center, in Ronkonkoma, New York, is one of 20 Federal Aviation Administration radar facilities nationwide that provide air traffic services for high altitude aircraft.

New York Center is unique because it functions as a domestic enroute control facility as well as an oceanic control facility. Two separate computer complexes perform these functions.

AIRSPACE

New York Center controls approximately 3.27 million square miles of airspace. The airspace contains 17,000 square miles of domestic airspace and 3.25 million square miles of oceanic airspace.

New York Center's oceanic airspace shares common boundaries with five FAA facilities, three foreign air traffic control centers and one foreign air traffic control tower. The U.S. centers include San Juan, Miami, Jacksonville, Washington and Boston Centers; the foreign centers are in Canada, Portugal, and Trinidad/Tobago; and the air traffic control tower is in Bermuda.

OPERATIONS

New York Center air traffic controllers handle, on average, 7,600 daily aircraft operations. Approximately 7,000 are in domestic airspace and 600 are in oceanic airspace. In 1998, New York Center had 2.134 million operations. Its control room can accommodate up to 94 operational positions.

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POWER GENERATION

New York Center is capable of providing electrical power generation for extended periods of time. It has a battery backup power system that enables the facility to go from commercial to engine generator power seamlessly and smoothly. The last quarterly generator check was accomplished in December.

STAFFING

New York Center has 533 people: 79 are assigned to Airway Facilities; and 351 controllers and 103 staff, management, supervisory and support personnel assigned to Air Traffic. They provide 24-hour coverage 365 days a year.

RECENT UPGRADES

Host and Oceanic Computer System Replacement (HOCSR) has been in use at New York Center since February 24. It is the first of 20 FAA centers to deploy the HOCSR. It was delivered to New York Center on July 17, 1998. HOSCR went to Initial Operational Capability (IOC) on January 24 and Operational Readiness Demonstration (ORD) on Feb. 24.

HOSCR replaces the current HOST, Oceanic Display and Planning System, and the Offshore Flight Data Processing System. As such, it's the foundation of the enroute air traffic control environment, which receives, processes, coordinates, distributes and tracks information on aircraft movement through domestic and oceanic airspace. The HOST system was removed from service March 6.

Voice Switching and Control System (VSCS) has been in use at New York Center since November 1996. This real time, computer controlled communications system is used by air traffic controllers for all air-to-ground and ground-to-ground communications. The VSCS is a digital communications system that can accommodate the digital air traffic control equipment being upgraded in accordance with National Airspace System (NAS) plans. VSCS provides improved reliability; faster processing time and the capability to be tailored for configurations ranging from 50 to 430 controller positions.

Display Channel Complex Rehost (DCCR) has been in use at New York Center since May 1997. It replaced the Display Channel Complex (DCC), which provided graphical display services to the M1 consoles in New York Center's control room.

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The DCCR receives track and other data from the HOST computer and reformats it for presentation purposes. The DCCR then passes the information through to the controller displays to facilitate the control of commercial, general aviation and military air traffic in the United States. DCCR is an interim system that will be replaced by the Display System Replacement (DSR).

Oceanic Interim Situation Display (ISD) has been in use at New York Center since December 1998. The ISD replaces the Plan View Displays (PVDs) with an upgraded hardware and software platform, which better supports the automated functions of the Flight Data Processing System (FDPS) for air traffic display. ISD supplies a configuration of sufficient size to display traffic situation, routes and map data and messages.

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FAA News

Federal Aviation Administration, Washington, DC 20591

FOR IMMEDIATE RELEASE
APA 34-99
Monday, March 15, 1999
Contact: Henry J. Price
Phone: 202-267-8521

FAA Issues Launch License to First International Sea Launch Consortium

WASHINGTON -- Federal Aviation Administration (FAA) Administrator Jane F. Garvey announced today the agency has issued a Launch License to a Boeing-led international consortium to conduct a first-of-its-kind space launch from a sea-going platform in mid-Pacific later this month.

The 40 percent Boeing-owned partnership will use a Ukrainian-built Zenit booster rocket and a Russian-built upper stage for a demonstration launch targeted for Saturday, March 27. The launch platform is a converted self-propelled oil drilling platform, which will be accompanied to the launch site by an assembly and command ship designed and built by Kvaerner Maritime of Norway, another partner in the undertaking.

"This is the beginning of an exciting new era in commercial space launch activity," Garvey stated.

Patricia Grace Smith, FAA associate administrator for commercial space transportation, said, "Sea Launch represents a highly innovative technological undertaking by a unique international partnership. It adds an entire new dimension to U.S. competitiveness in the global space launch market."

By launching from a mid-ocean location on the Equator, Sea Launch gains several advantages. It benefits from the maximum rotational forces of Earth, and since the large geostationary communications satellites, which are its target customers, must orbit over the equator, it is in position to boost them by the most direct route. As a result, it can place 11,000-pound payloads in the desired orbit.

The FAA's commercial space office faced a daunting task in assessing the safety aspects of a system made up of components from several nations and launched from a mobile platform 3,000 miles from its home port of Long Beach, Calif. The office performed a rigorous assessment of the Sea Launch application and conducted several independent safety analyses before issuing the license. The FAA assessed the safety of the proposed missions based on a comparison with current U.S. launch standards and requirements. An FAA safety monitor will be aboard the command ship for the demonstration launch.

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FAA News

Federal Aviation Administration, Washington, DC 20591

FOR IMMEDIATE RELEASE
APA 35-99
Wednesday, March 17, 1999
Contact: Les Dorr, Jr.
Phone: 202/267-8521

FAA Progress Report on Boeing 737 Rudder PCU Retrofits

Washington -- In response to a Federal Aviation Administration (FAA) order to improve the already high safety record of the Boeing 737, close to 50 percent of the aircraft subject to the order now have new rudder power control units (PCUs).

In addition, Boeing 737-600, -700 and -800 models are already manufactured with a redesigned unit, so almost 60 percent of the nation's 737 fleet now carries the new equipment.

The redesigned PCU eliminates the possibility of a "rudder reversal" -- movement of the rudder opposite to what the crew intended -- by making reversal mechanically impossible. The FAA's latest figures, from March 1, show that 484 of 1025 U.S.-registered Boeing 737-100 through -500 models had received the new unit.

"We are urging industry to continue making progress in complying with the FAA's mandate," said FAA Administrator Jane F. Garvey. "We have no plans to extend our August deadline."

The FAA ordered installation of the new PCUs in June 1997 as the result of data from the National Transportation Safety Board's investigations of Boeing 737 accidents at Pittsburgh (1994) and Colorado Springs, Colo. (1991). The PCU redesign makes rudder reversal a mechanical impossibility.

All 737s must have the new unit installed by Aug. 4, 1999. Until then, all older-model PCUs are checked by flight crews every 250 flight hours (about once a month) to ensure they are functioning properly.

In addition to the redesigned PCU installation, the agency has ordered installation of a device that limits the amount of rudder movement during flight, making the aircraft more controllable in the event of an upset. The FAA also is requiring operators to install a new, more reliable digital yaw damper, a device that increases ride comfort by making small rudder inputs to cancel side-to-side motions. All 737s must have the new equipment by August 2000.

-more-

The FAA also has worked extensively with industry to enhance pilot training and awareness of possible in-flight upsets caused by uncommanded rudder inputs. In January 1997, the FAA mandated new flight procedures and training to help pilots recognize and respond correctly to unusual aircraft attitudes. U.S. air carriers have already incorporated these initiatives into their operations and training programs.

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

FAA News

Federal Aviation Administration, Washington, DC 20591

FOR IMMEDIATE RELEASE
APA 36-99
Friday, March 19, 1999
Contact: Les Dorr, Jr.
Phone: 202/267-8521

95 Percent of U.S. 737s Have Upgraded Recorders Installed or in Progress

Washington -- In response to a Federal Aviation Administration (FAA) regulation requiring installation of upgraded digital flight data recorders (FDRs) by July 2001, more than 95 percent of domestic Boeing 737s already have the new units or have some of the installation work finished.

As of March 1, 300 Boeing 737s were completely outfitted with new recorders and enhanced sensors. Work on another 676 aircraft was in progress, with individual tasks such as wiring, installation of sensors or activation of some sensors already installed. Rudder position measurements are now available on more than 35 percent (363) of the 1025 Boeing 737s covered by the FAA's July 1997 rule.

"We gave industry four years to accomplish this complex task," said FAA Administrator Jane F. Garvey. "I'm pleased to see such excellent progress on the Boeing 737, and I urge industry to accelerate installation of these important safety devices, focusing first on the rudder parameters."

A digital flight data recorder stores information such as altitude, airspeed, attitude and control surface position while a plane flies through the air. Such data is extremely useful in accident or incident investigations. The data also can be used to identify trends in routine operations and help prevent potential accidents.

The regulation also affects virtually all other U.S.-operated airliners, both large and small. Typically, work is performed on existing aircraft during major maintenance checks, so there is no disruption of service to the flying public.

The 1997 rule increases the number of specific areas of flight information -- called data parameters-- up to 88 for newly manufactured aircraft and from 11 to 17 or 18 for older aircraft. The rule addresses several previous National Transportation Safety Board recommendations.

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FAA News

Federal Aviation Administration, Washington, DC 20591

FOR IMMEDIATE RELEASE
APA 38-98
March 22, 1999
Contact: William Shumann
Phone: 202-267-8521

Statement of FAA Administrator Jane Garvey on the Departure of Steven Akey as DOT's Assistant to the Secretary and Director of Public Affairs.

"For the past six years Steven Akey has given the Transportation Department, its operating administrations and the Clinton/Gore Administration expert guidance on getting our message on safety and other key transportation topics to the American people. His strategic view and his counsel have been invaluable."

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FAA News

Federal Aviation Administration, Washington, DC 20591

FOR IMMEDIATE RELEASE:
APA 37-99
Tuesday, March 23,1999
Contact: Henry J. Price
Phone: 202-267-8521

Commercial Forecast Reports Seventh Consecutive Year of Aviation Growth

WASHINGTON – U.S. Transportation Secretary Rodney E. Slater announced today that the nation's air carriers, braced by one of the strongest economies on record, have experienced seven straight years of traffic growth, with a record 643.3 million people traveling on U.S. commercial airlines in 1998. According to figures released today, this trend will continue, with the number of air travelers increasing to almost one billion in 2010.

"Safety is President Clinton's highest transportation priority, and this administration is determined to provide the programs and policies to further enhance both the safety and efficiency of our air transportation system," said Slater. "The economic figures we are releasing today are a positive report card on our effort to ensure that Americans have access to safe, affordable and efficient air travel."

FAA Administration Jane F. Garvey said, "The outstanding growth in aviation is even more encouraging when you consider that there were no major air carrier accidents last year. As air travel continues to grow, the FAA is determined to ensure that Americans can continue to rely on the safest, most secure and efficient airspace in the world."

The announcement came as the Federal Aviation Administration (FAA) released its report *FAA Aerospace Forecasts Fiscal Years 1999-2010.* The report shows that domestic enplanements increased by 2.1 percent in 1998, while international enplanements in the Atlantic and Latin American regions had significant gains. Traffic in the Atlantic region increased 9.2 percent, while traffic on Latin American routes grew by 5 percent. In addition, U.S. commercial air carriers reported an operating profit of $9.2 billion, a $1.3 billion improvement over 1997. Despite relatively slow increases in Asia, overall U.S. air carrier international enplanements are forecast to increase to 56 million in 1999 and grow 5.7 percent a year, reaching 103.1 million in 2010.

The FAA forecast provides extensive historical data and forecasts for the period 1999 through 2010 for large U.S. commercial air carriers, the nation's regional/commuter airlines, general aviation, and the military. For the first time, the report includes forecasts for commercial space transportation, Canadian transborder traffic, and cargo airlines.

- more -

The number of domestic passengers traveling on commercial air carriers is expected to increase to 567.9 million in 1999, a 2.4 percent increase over 1998. For the period 1998 through 2010, passengers are forecast to increase 3.4 percent a year, reaching 828 million in 2010. To accommodate this expansion, the FAA forecasts that the large commercial aircraft fleet will increase from 5,030 in 1998 to 7,165 aircraft in 2010, an annual increase of 3 percent.

Paralleling the increase in domestic air traffic, the number of passengers on U.S. and foreign flag carriers traveling to or from the United States are expected to increase to 132.2 million in 1999, a 4.8 percent increase over 1998. This growth is expected to continue at a 5.1 percent rate each year and reach 230.2 million in 2010. U.S. air carrier international enplanements are forecast to increase to 56 million in 1999 and grow by 5.7 a year, reaching 103.1 million in 2010.

Outpacing the large air carriers, commuter airline enplanements are forecast to increase to 71 million in 1999, a 7.4 percent increase over 1998. Enplanements are expected to increase by 5.4 percent each year, reaching 123.8 million in 2010. In addition, the commuter passenger fleet is expected to increase from 2,039 aircraft last year to 2,886 aircraft in 2010, an annual increase of 2.9 percent, and the regional jet fleet from 206 aircraft in 1998 to 1,195 in 2010, an annual 15.8 percent increase.

The general aviation industry is picking up. In 1998, the industry had the highest number of shipments since 1994 -- 2,223 units, up from 1,159 units in 1997. The general aviation fleet is expected to increase from 194,800 in 1998, to 220,800 in 2010, a 1 percent yearly increase. The turboprop/turbojet fleet, the fastest growing segment, is forecast to increase 2.7 percent annually.

It is projected that aircraft operations handled at combined FAA and contract tower airports will increase from 50.9 million in 1999 to 63.9 million in 2010, an annual increase of 2.1 percent. To meet increasingly crowded skies, the agency last year advanced a focused safety agenda to reduce the rate of aviation accidents by 80 percent. In addition, the FAA has launched an aggressive air traffic modernization program that is expected to be fully implemented over the next decade.

Members of the public can contact FAA's Statistics and Forecast Branch at (202) 267-3355 to obtain a copy of *FAA Aviation Forecasts Fiscal Years 1998-2010.* The media can contact FAA's Office of Public Affairs at (202) 267-8521.

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

March 24, 1999 **FAA FORECAST FACT SHEET** [1]

Contact: Henry Price, 202-267-8521

I. *1998 ECONOMIC ACTIVITY AND AIR TRAVEL*

⇒ **The U.S. and international economies were up again in 1998. U.S. Gross Domestic Product (GDP) increased 3.8% while world GDP grew 1.9%.**

⇒ **In 1998 domestic fares increased 3.4% while international fares declined 4.5%. In real terms (adjusted for inflation), domestic fares increased 1.9% and international fares declined 5.9%.**

⇒ **Domestic enplanements increased from 543.0M in 1997 to 554.6M (+2.1%) in 1998. U.S. air carrier international enplanements increased from 52.3M in 1997 to 53.1M (+ 1.6%) in 1998.**

⇒ **Total aircraft handled at FAA en route centers increased from 41.4M in 1997 to 43.2M (+4.4%) in 1998. Commercial aircraft handled at centers increased from 29.3M in 1997 to 30.4M (+3.6%) in 1998.**

⇒ **U.S. commercial air carriers reported an operating profit of $9.2B, a $1.3B improvement over 1997. Operating revenues increased to $112.7B (+4.9%) in 1998, while operating expenses increased to $103.5B (+3.9%). Relatively slow growth of operating expenses in 1998 was due, in part, to a large drop in fuel costs. In 1998, fuel prices declined 18.6%.**

II. *ECONOMIC ASSUMPTIONS FOR FAA FORECASTS*

⇒ **U.S. real GDP is forecast to increase from $7.5T in 1998 to $7.7T (+2.7%) in 1999. Over the 12-year forecast period GDP is forecast to increase at an annual rate of 2.3%.**

⇒ **World GDP is forecast to increase from $26.1T in 1998 to $26.7T (+ 2.5%) in 1999. The average annual increase in world GDP over the forecast period is 3.2% a year.**

- **Asia/Pacific GDP increases 2.2% in 1999; average annual growth is 4.5%.**
- **Latin American GDP increases 3.2% in 1999; average annual growth is 4.4%.**
- **European GDP increases 2.6% in 1999; average annual growth is 2.8%.**
- **Canadian GDP increases 2.5% in 1999; average annual growth is 3.1%.**

⇒ **Inflation and oil prices are projected to remain in the moderate range, increasing at average annual rates of 2.3 and 2.8%, respectively. Most of the increases in oil prices occur in 2000 and 2001 (+21.8%) due, in part, to the expected recovery of the Asian economies.**

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[1] **All specified years are fiscal years (October 1 through September 30), and all specified quarters are calendar quarters, unless designated otherwise. All international economic data are in calendar years.**

III. *AVIATION ACTIVITY FORECASTS*

Large Commercial Air Carriers

⇒ **Domestic air carrier enplanements are expected to increase to 567.9M (+2.4%) in 1999, and grow 3.4% a year for the period 1998-2010, reaching 828.0M in 2010.**

⇒ **Total Passengers (U.S. and foreign flag carriers) to/from the U.S. are forecast to increase to 132.2M (+4.8%) in 1999, and grow 5.1% a year reaching 230.2M in 2010.**

- **Atlantic route passengers increase to 50.3M (+6.8%) in 1999, and grow 4.4% annually, reaching 79.3M in 2010.**
- **Pacific route passengers increase to 23.3M (+0.9%) in 1999, and grow 5.8% annually, reaching 45.5M in 2010.**
- **Latin American passengers increase to 39.2M (+5.4%) in 1999, and grow 6.3% annually, reaching 77.8M in 2010.**
- **Canadian transborder passengers increase to 19.4M (+3.7%) in 1999, and grow 3.3% annually, reaching 27.6M in 2010.**

⇒ **U.S. air carrier international enplanements are forecast to increase to 56.0M (+5.4%) in 1999, and to grow 5.7% a year, reaching 103.1M in 2010.**

- **Atlantic route enplanements increase to 19.4M (+7.3%) in 1999, and grow 4.5% annually, reaching 30.5M in 2010.**
- **Pacific route enplanements increase to 14.5M (+2.9%) in 1999, and grow 6.1% annually, reaching 28.6M in 2010.**
- **Latin American route enplanements increase to 22.2M (+5.4%) in 1999, and grow 6.3% annually, reaching 44.0M in 2010.**

⇒ **Domestic passenger yields, adjusted for inflation, are forecast to fall to 13.90 cents (-2.0%) in 1999. Real yields decline 1.1% a year, reaching 12.38 cents in 2010.**

- **International yields, adjusted for inflation, decline to 10.25 cents (-2.5%) in 1999. Real yields decline 1.0% annually, reaching 9.27 cents in 2010.**

⇒ **U.S. large air carrier jet fleet increases from 5,030 aircraft in 1998 to 7,165 aircraft in 2010, an annual increase of 3.0%.**

Regionals/Commuters

⇒ **Commuter enplanements are forecast to increase to 71.0M (+7.4%) in 1999, and grow 5.4% a year, reaching 123.8M in 2010.**

⇒ **The commuter passenger fleet increases from 2,039 aircraft in 1998 to 2,886 aircraft in 2010, an annual increase of 2.9%.**

- **The regional jet fleet increases from 206 aircraft in 1998 to 1,195 aircraft in 2010, an annual increase of 15.8%**

General Aviation

⇒ **The general aviation fleet increases from 194,800 aircraft in 1998 to 220,800 in 2010, growing 1.0% a year.**

- **The turboprop/turbojet fleet, the fastest growing segment, is forecast to increase 2.7% annually.**

⇒ **General aviation hours flown are expected to increase from 28.2M in 1998 to 34.1M in 2010, an average annual growth rate of 1.6% a year.**

- **The hours flown by the turboprop/turbojet fleet is forecast to increase from 3.5M hours in 1998 to 5.2M in 2010, an average annual growth rate of 3.4%**

IV. *FAA WORKLOAD FORECASTS*

Instrument Operations at Combined FAA and Contract Tower Airports

⇒ **Instrument operations are forecast to increase to 50.9M (+2.0%) in 1999, and grow 2.1% a year, reaching 63.9M in 2010.**

- **Commercial instrument operations increase from 26.6M in 1998 to 36.1M in 2010, an average annual growth rate of 2.6%.**

- **General aviation instrument operations increase from 19.9M in 1998 to 24.4M in 2010, an average annual growth rate of 1.7%.**

IFR Aircraft Handled

⇒ **IFR aircraft handled at FAA air route traffic control centers increase to 44.2M (+2.2%) in 1999, and grow 2.3% a year, reaching 56.7M in 2010.**

- **Commercial IFR aircraft handled increases from 30.4M in 1998 to 41.7M in 2010, an average annual increase of 2.7%.**

- **General aviation IFR aircraft handled increases from 8.6M in 1998 to 10.8M in 2010, an average annual growth rate of 1.9%.**

FAA News

Federal Aviation Administration, Washington, DC 20591

FOR IMMEDIATE RELEASE
APA 39-99
Thursday, March 25, 1999
Contact: Paul Takemoto
Phone: 202-267-8521

FAA Completes Y2K Testing on Critical Air Traffic Communications System

WASHINGTON -- The Federal Aviation Administration (FAA) announced that a major communications component of the nation's airspace system (NAS) has successfully completed testing to make sure it properly recognizes the year 2000, or Y2K.

The Leased Interfacility NAS Communications System (LINCS), built and maintained by MCI WorldCom Government Markets, connects mission critical radar, radio, computer and weather-reporting sites to air traffic control facilities. Over 5,000 system components were upgraded to make it Y2K-ready, including 3,750 monitoring systems and 800 network switching systems.

"LINCS is the system that allows air traffic controllers to receive much of the critical information they need to separate aircraft," said FAA Administrator Jane F. Garvey. "We are pleased that LINCS, along with all other FAA systems requiring Y2K work, is on track to be ready for the new millennium."

FAA systems are scheduled to be tested by March 31 and implemented as Y2K compliant by June 30.

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

FAA News

Federal Aviation Administration, Washington, DC 20591

FOR IMMEDIATE RELEASE
APA 40-99
March 26, 1999
Contact: Paul Takemoto
Phone: 202-267-8521

FAA Says Year 2000 Consultant to Fly on New Year's Eve

WASHINGTON – The Federal Aviation Administration (FAA) is pleased to report that Peter deJager, a speaker and consultant on Year 2000 – or Y2K – issues based in Brampton, Can., has announced that he will be flying during the rollover to the new millennium as an expression of confidence that the nation's airspace system will perform safely.

DeJager, initially skeptical of the FAA's Y2K efforts, now believes that the agency has shown sufficient progress to indicate that its computer systems will properly recognize the rollover. To date, all FAA systems – both mission critical and non-mission critical – have been renovated and are now in the process of being tested. Under FAA guidelines, all systems are scheduled to be tested by March 31 and implemented as Y2K compliant by June 30.

DeJager's itinerary calls for him to fly from Chicago O'Hare International Airport to London Heathrow Airport.

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

FAA News

Federal Aviation Administration, Washington, DC 20591

FOR IMMEDIATE RELEASE
APA 41-99
March 31, 1999
Contact: Paul Takemoto
Phone: 202-267-8521

FAA MEDIA ADVISORY

The Federal Aviation Administration (FAA) will conduct a Y2K test involving tracking aircraft at the Denver International Airport on Saturday, April 10 from 10 p.m. until 2 a.m. MDT. Air traffic computer systems involved in the test will have their clocks set to shortly before midnight on Dec. 31, 1999, and rolled over to Jan.1, 2000.

Due to space limitations and extensive media interest, press coverage will be limited to a pool of four: a print reporter, a camera person, a sound technician and a still photographer.

Media interested in participating in the pool should take part in an FAA phone conference on Friday, April 2, at 2 p.m. Please call 202-493-4180 and, when asked for the pass code, enter 2211.

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

FAA News

Federal Aviation Administration, Washington, DC 20591

FOR IMMEDIATE RELEASE
APA 42-99
Wed., March 31, 1999
Contact: Rebecca Trexler
Phone: 202-267-8521

FAA Purchases Additional Security Equipment

WASHINGTON—The Federal Aviation Administration announced today that it would purchase more than 150 additional security devices for the nation's airports, continuing to implement a recommendation by the White House Commission on Aviation Safety and Security.

"Thanks to the $100 million Congress recently appropriated for this purpose in fiscal year 1999, we have been able to continue deploying state-of-the-art security equipment to protect the flying public," said Cathal L. Flynn, associate administrator for civil aviation security. "In partnership with the aviation industry, we are raising the baseline of security to meet the evolving threat."

Recognizing that terrorism is a national security issue, the federal government has funded the purchase of the world's best equipment to safeguard civil aviation, while the airlines have been responsible for the equipment's operation and maintenance. Congress provided $157 million for advanced security equipment for fiscal years 1997 and 1998, and an additional $100 million for fiscal 1999 to continue the deployment.

Today's purchase of 21 FAA-certified explosives detection systems and 135 trace explosives detection devices adds to the multi-year deployment of innovative security equipment recommended in 1996 by the White House Commission on Aviation Safety and Security which was led by Vice President Al Gore. Purchases to date include 95 FAA-certified explosives detection systems, 20 automated dual-energy X-ray machines, two quadrapole resonance devices, and 462 trace explosives detection devices. The trace explosives detectors are deployed primarily at airport security checkpoints for screening carry-on bags. The other machines are bulk explosives detectors used for examining checked baggage.

Security equipment for checked baggage has been installed at over 30 airports, while the trace explosives detectors for carry-on bags are being used at more than 50 airports. For security reasons, the airports will not be identified. The agency is working with airports and airlines to continue installations, and plans to buy and deploy even more equipment over the next few years.

- more -

Under the contracts announced today, the FAA will purchase 21 CTX-5500 units for $18.9 million from InVision Technologies Inc. of Newark, Calif.; and 135 IONSCAN 400s for $6.2 million from Barringer Instruments Inc. of New Providence, N.J. The CTX-5500 is an FAA-certified bulk explosives detection system that uses computed tomography ("CAT scan") technology to automatically identify a wide range of explosives in checked bags. The IONSCAN 400 is a trace explosives device that employs ion mobility spectrometry to detect minute amounts of explosives on bags, electronic devices or other carry-on items.

Other initiatives in the past 10 years have led to a security regimen that further reduces vulnerabilities. These include the deployment of agency security personnel overseas and at the nation's major airports, a robust research and development program in explosives-detection technologies and aircraft "hardening" against blast effects, a new automated passenger screening program, expanded passenger bag matching, and computer-based training and performance monitoring for security checkpoint screeners.

The FAA notes that, with the wide deployment of equipment using CAT scan technology, passengers should be aware that their checked bags could be scanned with intense X-rays that may damage any undeveloped film in their bags. The agency will require airlines to warn passengers who are checking bags of this risk to undeveloped film and suggest they take it on board with them in their carry-on bags.

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