

JPDO NEWS

January 2008

A newsletter from the Joint Planning and Development Office

From 1500 K Street

- JPDO is sponsoring a workshop for the aviation community on February 12-13 at the National Transportation Safety Board Conference Center, 429 L'Enfant Plaza, SW, Washington, DC 20594. The workshop will focus on the integration of weather into the Next Generation Air Transportation System. For more information, visit our web site at www.jpdo.gov.
- The next JPDO "All Hands" meeting will be held on Thursday, February 28, at the James Webb Auditorium, NASA Headquarters Building, 300 E St., SW, Washington, DC 20024. Check www.jpdo.gov for details.

FYI

- The JPDO Board Members will meet on January 11 at JPDO Headquarters in Washington, DC.
- The Senior Policy Committee members will convene on January 16 in Washington, DC.

We welcome your input. Please send your comments to 9-AWA-ATO-JPDO-Partnership@faa.gov.

Happy New Year to all our readers!
From the JPDO News Staff

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Patience, Perseverance, and Partnership in 2008

In achieving a significant milestone, the JPDO in 2007 developed foundational planning documents with the cooperation and collaboration of its partner departments, agencies, and industry partners. Additionally, the JPDO worked with its partner agencies to refine the investment portfolio, set-up the framework for a substantive business case, and initiate the architectural and analytical work to support those efforts.

JPDO Director Charles Leader put 2008 into perspective when, at the November 9 "All Hands" meeting, he said, "In an initiative as large in scope as NextGen, patience, persistence, perseverance, and partnership are crucial as JPDO staff, partner departments, agencies, and stakeholders begin the new year by transitioning to support implementation."

Strategic Partnerships

In 2008, the focus will be to mature the work of the previous year to achieve greater interagency alignment of investments, and articulation of a more comprehensive business case. There are a number of key strategic opportunities to support that effort, oriented around partnership, investment and implementation decision-making. The JPDO is in a unique position to facilitate these initiatives through strategic partnerships across the public and private sectors, and we will see more of that in 2008. ✈️



Ed Waggoner, JPDO Director of Enterprise Architecture and Engineering, discusses the Integrated Work Plan.

Integrated Work Plan Timeline

The Integrated Work Plan (IWP) describes a transformation from "where we are today, to where we are going," according to Ed Waggoner, JPDO Director of Enterprise Architecture and Engineering. "It's an evolutionary plan to get to a revolutionary future."

Version 0.1 of the IWP was published July 31, 2007, and circulated for feedback. By the September 12 deadline, almost 2,000 comments were received dealing with both the narrative description and data elements. The Enterprise Architecture and Engineering Division adjudicated comments from partner departments and agencies, the NextGen Institute, JPDO Working Groups, and the Joint Architecture and Engineering Board.

The release of Version 0.2 to stakeholders and industry is tentatively scheduled for February 15, 2008. Assuming that date, Version 1.0 will be released by the summer of 2008. ✈️



ADS-B: The Wave of the Future

One of the most promising programs of the Next Generation Air Transportation System (NextGen) is Automatic Dependent Surveillance-Broadcast (ADS-B), which has the potential for broad operational applications. ADS-B has three components: the Global Positioning Satellite (GPS) system, ground-based transceivers, and ADS-B avionics on aircraft. ADS-B works by having aircraft transponders receive GPS signals which are used to determine precise locations of aircraft in flight. The system converts that position into a unique digital code and combines it with other data from the aircraft's flight-management system (i.e., type of aircraft, speed, flight number, and whether it is turning, climbing, or descending). ADS-B is far more accurate than ground-based radars and is characterized as the backbone of the NextGen system.

Vincent Capezzuto, Director of ATO's Surveillance and Broadcast Services, is tasked with implementing ADS-B across the National Airspace System (NAS). While speaking at the JPDO's November "All Hands" meeting, Capezzuto said the ADS-B program will offer surveillance broadcast services to the en route, terminal, and surface environments. These services include traffic information services – broadcast (TIS-B) and flight information services-broadcast (FIS-B). TIS-B and FIS-B will enable the following initial applications: enhanced visual approaches, final approach and runway occupancy awareness, airport surface situational awareness, and conflict detection.

Capezzuto said all elements of the developing program have been "vetted deeply." The ADS-B system requires proper avionics to be in place. It is "a must," he said. All primary radars will remain, as will 50 percent of secondary radars, though the latter will be "thinned out."

Contract Award

The ADS-B contract was awarded on August 31, 2007, to the ITT Corporation. It will run with options from 2007 to 2025. ITT is responsible for building ADS-B ground stations, and will own and operate the equipment. The data will be owned by the FAA, which will retain ownership of the system's paper design.

Under the contract, the FAA will pay subscription fees for ADS-B broadcasts transmitted to properly equipped aircraft and air traffic control facilities. ITT will be able to use the existing infrastructure of AT&T, one of its subcontractors, to deploy ground stations throughout the country.

Performance Control Board

A Performance Control Board will be established, consisting of FAA and vendor personnel. Among its functions, the Board will monitor and maintain configuration management of the system, review and agree on changes to be incorporated into the system from a safety and security standpoint, and resolve programmatic issues.

An integral part of contract performance is a graduated value-added services clause, characterized by Capezzuto as "a little unique." The provision will foster the FAA's interest in increasing the safety, capacity, and efficiency of the NAS by reducing overall costs to the program and accelerating avionics equipage.

Notice of Proposed Rulemaking (NPRM)

On October 1, 2007, following the award of the ADS-B contract, the FAA issued a NPRM that would require those who want to fly in Class A, B, C, and other designated airspace to equip with avionics that will broadcast ADS-B *Out* from the aircraft. Equipage is essential for NextGen capabilities such as aircraft self-separation.

The NPRM includes an explanation of ADS-B's two primary capabilities: *In* and *Out*. ADS-B *Out* refers to an appropriately equipped aircraft's broadcast of flight information. ADS-B *In* denotes the ability of an appropriately equipped aircraft to receive ADS-B *Out* transmissions from other aircraft, and information broadcast from ground stations. The NPRM proposes only to require ADS-B *Out* (by 2020), which must be mandated to achieve system benefits. The agency believes the safety benefits of receiving traffic, weather, and flight information will encourage aircraft owners to voluntarily equip to receive ADS-B *In*.

Aviation Rulemaking Committee (ARC)

While the NPRM is being finalized, an ARC chartered on July 15, 2007, published a report on optimizing operational benefits of ADS-B before implementing a nationwide ADS-B airspace rule. The report was published on October 12, 2007. The deadline for comments is March 3, 2008. After reviewing the comments, the ARC will make specific recommendations to the FAA concerning the proposed requirements. The final rule will be issued in 2010 with a compliance date planned for 2020. For more information, visit http://www.faa.gov/regulations_policies/rulemaking/recently_published/media/29305.pdf. 