

# JPDO NEWS

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A newsletter from the Joint Planning and Development Office

## From 1500 K Street

For those who are reading *JPDO News* for the first time, this newsletter was introduced last month. Its purpose is to keep you up-to-date on developments impacting JPDO and the Next Generation Air Transportation System (NextGen).

*JPDO News* will feature information about legislative developments, introduction of initiatives, news from the FAA, NASA and our partners at other departments, upcoming meetings, guest articles, and other events. It will be emailed to you.

NextGen ConOps, which describes how NextGen will work from an operational standpoint, was released on June 13. The NextGen Enterprise Architecture was released on June 22. Both documents are available at [www.jpdo.gov](http://www.jpdo.gov). The Integrated Work Plan, which describes the transition from the current to the future air transportation system, will be released by JPDO on July 31.

We welcome your input. Please send your comments to [9-AWA-ATO-JPDO-Partnership@faa.gov](mailto:9-AWA-ATO-JPDO-Partnership@faa.gov).

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▶ **NEXTGEN DAY ON CAPITOL HILL** visited the Senate on July 11. The event was co-hosted by Senators John D. Rockefeller, IV, Chairman, and Trent Lott, Ranking Member, respectively, of the Committee on Commerce, Science and Transportation / Subcommittee on Aviation Operations, Safety, and Security. Leaders of Government and industry associations strongly endorsed the NextGen mission. Exhibits were well received by attendees. More information on the event is available at [www.jpdo.gov](http://www.jpdo.gov).



*Secretary of the Air Force, Michael Wynne, emphasizes the Defense Department's continued commitment to NextGen.*

## Updates

▶ **Operational Evolution Partnership: FAA's Path to NextGen.** FAA Administrator Marion Blakey presented the agency's Operational Evolution Partnership (OEP) Version 1.0 to the audience at JPDO's NextGen Day on Capitol Hill/Senate, which was held at the Dirksen Senate Office Building.

"OEP continues to be FAA's focal point for collaborating with our partners on NextGen," said Gisele Mohler, OEP Director. The latest release, which takes a longer view (out to 2018), looks at air traffic operations, airport development, and aircraft and operator requirements. It includes the avionics implementation plan that the FAA says "will help aircraft operators make informed equipment decisions." With regard to the FAA's decision to expand OEP, Blakey commented, "We need to put the resources and structure

in place to deliver on our piece of the NextGen system."

▶ **Charles Bergman Takes Helm at NGATS Institute.** Charles Bergman, a former Air Force pilot, who has more than 16 years' experience in aviation operations, safety, and training, as well as in association management, has been named executive director of the NGATS Institute. Most recently, Bergman served as special assistant for Industry Affairs to JPDO.

To further promote the public/private industry partnership, the NGATS Institute was created to incorporate the expertise of industry, state and local government, and academia into the NextGen planning process. For further information with regard to NGATS, visit <http://www.ncat.com/ngats/index.html>. ➔



## NextGen is Doing Something About the Weather

On any given day, a quick glance at news headlines from around the country reveals many stories of frustrated travelers as air travel delays worsen. Roughly 70% of those delays are due to poor weather conditions, said JPDO Director Charles Leader in congressional testimony. The JPDO is working to alleviate weather's impact on the National Airspace System.

"Weather is on my short list of priorities," stated FAA Administrator Blakey at the recent Friends and Partners in Aviation Weather (FPAW) Vision Forum. The forum hosted by the National Business Aviation Association afforded the JPDO Weather Working Group (WWG) an opportunity to solicit feedback and answer questions with regard to the NextGen Weather Concept of Operations (Weather ConOps).

### *The NextGen Weather Vision*

To achieve NextGen goals of meeting burgeoning air travel demand, it is recognized that a major paradigm shift is needed in dealing with weather issues. With strong support from the senior leadership at the FAA, NOAA, and the Department of Defense, WWG has developed a robust vision for the future of aviation. NextGen Weather is being developed around three key themes: (1) an integrated, consistent common weather picture available to all users; (2) a forecast system providing probabilistic weather information; and (3) direct integration of weather information into operational decision-making.

### *Benefits of Improved Weather Capabilities*

Improved weather capabilities will have a tremendous benefit to NextGen, according to Mark Andrews, JPDO Director of WWG. The two major improvements will center on economics and safety. According to Andrews, advances in weather operations can reduce up to \$1.2 billion in economic losses due to delay. As for safety, according to FAA Administrator Blakey, weather is a contributing or causal factor in 87 percent of all general aviation accidents. In NextGen, improved weather probabilistic forecasts will allow more aircraft to fly safely around dangerous airspace. Unlike today's static forecasting tools, future forecasting will be able to tell a plane crew that a weather pattern will be in their flight path, with sufficient lead time to enable smarter decision-making on re-routing.

### *4-D Weather Cube: The Core of NextGen Weather*

At the core of the NextGen Weather ConOps is the development of a 4-Dimensional "Weather Cube." The Weather

Cube will house traditional weather information in three spatial dimensions (latitude, longitude, and altitude), as well as time, a fourth dimension. This tool will contain both current observations and future forecasts, and distribute data in real-time to all system users.

The 4-D Weather Cube will use NextGen Net-Centric Operations capabilities to enable incorporation of weather data into the decision-making processes for air traffic managers. The 4-D Weather Cube will collect global weather information from all weather data collection sources, automatically process it, then distribute it to all system users. This will lessen the effects of inclement weather by informing all interested parties — pilots, controllers, airline operators, etc. — where the inclement weather is, where it's going, and the best way to get around or through it.

### *How Partner Agencies are Helping*

The FAA "is already working with DoD, Commerce, and NASA to leverage their investments in this capability," said Administrator Blakey. The FPAW Vision Forum also provided an opportunity for senior-level agency representatives to showcase their agencies' NextGen Weather efforts. Mary Glackin, Acting Director of the National Weather Service, said her agency is committed to the short-term goals of NextGen. The National Oceanic and Atmospheric Administration, which houses the National Weather Service, is building NextGen requirements into their near-term program plans.

Another program is the Air Force's Joint Environmental Toolkit (JET), a program designed to develop and sustain a "single-box" weather forecasting system that will be fully integrated with the Air Force Weather Weapons System. Work is underway to bring JET expertise into the NextGen 4-D Weather Cube, said an Air Force spokesman.

### *The Future for Weather in Aviation*

"As the saying goes, you can't control the weather but you can control how you deal with it," says FAA Administrator Blakey. JPDO envisions a new role of aviation weather in the air transportation system. Enhanced weather capabilities will allow for better decision-making. Dramatically reducing weather delays is estimated to save operators and passengers billions of dollars a year. Such capabilities will enable a more flexible air traffic management system while maintaining the safest and most efficient aviation system in the world. 