



Air Transportation Modernization Conference

Moving NextGen Forward in Tough Times: Quantifying NowGen Benefits for NextGen Advancement

April 23-25, 2012
Washington Marriott at Metro Center
Washington, DC

Conference Program Agenda (updated April 20)

DAY ONE – Monday, April 23, 2012

12:00 p.m. Registration Opens

1:00 p.m. Interactive Workshops A:

A-1. Re-thinking Funding & Financing

The ultimate question: Where is the money? In an already-constrained environment, all government agencies are being directed to cut their upcoming budgets by at least 10 percent below their current appropriation level. So what does that mean for NextGen initiatives and programs? This workshop will delve into:

- Status on financial support from Congress
- Barriers for investment
- Learning from international incentives
- What are the strategic decisions to make soon? Do we have the resources to go forward?
- What are the benefits for early adopters (retro benefits)?
- What are the risks and opportunities?

Moderator: Gary Church, President, Aviation Management Associates

Richard Golaszewski, EVP, GRA, Incorporated

Ken Mead, General Counsel, Aircraft Owners and Pilots Association (AOPA)

Robert Poole, Director, Transportation Policy and Searle Freedom Trust Transportation Fellow, Reason Foundation

Jim Ziglar, SVP Infrastructure Advisory, Deloitte Corporate Finance LLC

A-2. Upgrading the Functionality of the NAS Infrastructure

The National Airspace System (NAS) being re-designed with NextGen capabilities will bring much benefit, as well as challenges ahead. Discussion leaders will look into:

- Cybersecurity
- Priorities on re-design input and access to the NAS
- Data Integration (domestically and internationally)
- System management
- Updates on ERAM (En-Route Automation Modernization) transition (automation transformation challenges)

Moderator: Gene Hayman, Client Executive, HP

Matthew Hampton, Deputy Assistant Inspector General for Aviation & Special Programs, US Department of Transportation, Office of the Inspector General

Jay Merkle, Director, NextGen Integration, FAA

Jeff Snyder, VP Cyber Programs, Raytheon

David Sweet, Co-Chair, JPDO Net Centric Working Group

2:30 p.m. Networking Break

3:00 p.m. Interactive Workshops B:

B-1. Reaping NextGen Benefits from FMS (Flight Management Systems)

Modern flight management systems offer much support on NextGen capabilities, such as trajectory based operations (TBO), optimized profile descents (OPD) and required time-of-arrivals (RTA). This discussion will explore:

- Future NextGen concepts maximizing current FMS systems
- ADS-B interoperability, such as utilizing ADS-B IN data
- New possible roles of pilots and controllers in an automated environment
- System accommodations for newer aircraft capabilities and mixed equipage
- Impact of non-aviation interferences (ie. LightSquared GPS network)
- Requirements needed to support future trajectory-based operations

Moderator: *Martin Lauth, Assistant Professor, ATM Program, Embry-Riddle Aeronautical University*

Vincent Capezzuto, Director, Air Traffic Systems, Air Traffic Organization, Program Management Organization, FAA

Marc Henegar, Chair, Air Traffic Services Group, Air Line Pilots Association (ALPA)

Jens Hennig, VP Operations, General Aviation Manufacturers Association (GAMA)

B-2. Implications of UAS Integration in the NAS

With the increase in potential applications of Unmanned Aircraft Systems (UAS), government agencies and private organizations are looking to utilize these remotely-piloted vehicles in the civil airspace.

- Update on FAA policy decisions regarding UAS
- What procedures are being developed to enable UAS operations in the NAS?
- Issues and opportunities for commercial aviation

Moderator: *Michael R. Garvin, Jr., Executive Director, NextGen Institute*

Captain Sean Cassidy, First VP, Air Line Pilots Association (ALPA)

Colonel Juan Narvid, Chief, Aviation Integration Division, US Air Force

Dr. Edgar G. Waggoner, Director, Integrated Systems Research Program Office, NASA

Jim Williams, Unmanned Aircraft Systems Executive, FAA UAS Integration Office

4:30 p.m. Conclusion of Interactive Workshops

DAY TWO – Tuesday, April 24, 2012

8:00 a.m. Registration & Networking Breakfast

9:00 a.m. **Welcome Remarks**

Ed Hazelwood, Editor-in-Chief, Conferences, Aviation Week

9:15 a.m. **Opening Address**

Michael P. Huerta, Acting Administrator, FAA

9:45 a.m. **Keynote Address**

Kent L. Statler, EVP and COO, Commercial Systems, Rockwell Collins

10:15 a.m. Networking Break

10:45 a.m. **International Collaboration**

- International interoperability
- FAA/Eurocontrol coordination on ATM procedures
- Explanation and progress from proposed program at GANIS
- Environmental aspect in international communities
- ICAO block upgrade programs and application in US and Europe

Moderator: *Nancy Graham, Director, Air Navigation Bureau, International Civil Aviation Organisation (ICAO)*

Rob Eagles, Director, Infrastructure Implementation & Airports, IATA

Carey Fagan, Executive Director, International Affairs, FAA
Bob Peake, Program Manager, Airservices Australia
Bo Redeborn, Principal Director ATM, EUROCONTROL
Dr. Ruth Stilwell, International Representative, IFATCA
Heidi Williams, VP Air Traffic Services and Modernization, Government Affairs, IAOPA
Captain Don Wykoff, President, IFALPA

11:45 a.m.

Public-Private Partnerships

In April 2011, the FAA Reauthorization and Reform Act included an amendment authorizing a public-private partnership (PPP) approach to accelerating NextGen through private-sector funding with federal loan guarantees. What are the potential opportunities across all operational programs? What does this mean for early adopters who have already invested with their own capital? What definitions need to be considered in the Service Level Agreements or long-term lease agreements?

Moderator: Russell Chew, Managing Partner, NEXA Capital Partners

Pat McNall, Deputy Assistant Administrator for Acquisition and Business & Chief Acquisition Officer, FAA

Joshua Schank, President & CEO, Eno Center for Transportation

Jeffrey Shane, Partner, Hogan Lovells US LLP

12:30 p.m.

Lunch

Sponsored by PwC

Aviation Week & Space Technology Distinguished Service Award

Presentation by the Flight Safety Foundation

This award is administered by the Flight Safety Foundation and has been presented since 1949 for "distinguished service in achieving safer utilization of aircraft."

Award Presenter: Kevin Hiatt, Chief Operating Officer, Flight Safety Foundation

2:00 p.m.

RTCA NAC's Business Case & Performance Metrics Working Group

Debby Kirkman, Architect for NAS Performance & Policy, The MITRE Corporation

Ed Lohr, Director, Fleet Strategy, Delta Air Lines

2:30 p.m.

Concurrent Discussions:

These afternoon sessions are designed for executives to discover creative concepts, and stimulate discussions to challenge all stakeholders, public and private, in moving NextGen forward. Each session will begin with a realistic case study featuring quantitative data and benefits, and/or updates on the program with latest metrics. The speaker will then be joined by 1-2 discussion leaders to review the presentation and pertinent issues, as well as discuss innovative and different approaches to leveraging existing processes.

C-1. ADS-B

- Case study results of ADS-B utilization
- Reviews on training and equipage requirements
- Current regulatory considerations
- Innovations in operational trials
- Updates on ADS-B ground infrastructure and integration to ATC automation systems

Speaker: Captain Joe Burns, Managing Director, Technology and Flight Test, United Airlines

Discussion Leaders:

Dr. John Cavolowsky, Director, Airspace Systems Program Office, NASA

Melissa Rudinger, SVP Government Affairs, Aircraft Owners & Pilots Association (AOPA)

C-2. Data-Comm

As the NAS (National Airspace System) transitions the information/data flow between AOC and aircraft from a voice communication system to digital link, what will be the transition path, as well as design for integration of ground automation and communication networks?

- Improving on technologies' funding cuts
- Updates on programs and capabilities (ex. FANS, LINK2000+, Iridium, etc)
- Reviews on industry recommendations (RTCA SC-214), and impact on the FAA Data-Comm program and DCIT (Data-Comm Implementation Team)

Speaker: Steve Dash, Deputy Director, Enterprise Services, FAA

Discussion Leaders:

Chris Benich, VP Aerospace Regulatory Affairs, Honeywell

Diane DeSua, Director - NextGen Programs, Lockheed Martin

4:00 p.m. Networking Break

4:15 p.m. Concurrent Discussions:

D-1. RNP

- Quantitative cost-benefit analysis on featured RNP case-study
- Analysis of current regulations, approvals and trials
- Innovative capabilities and applications for RNP – design automation, enhancing with other enablers, etc
- Removing impediments from RNP
- Reviews on training and procedure requirements
- Automating approach designs/procedures?

Speaker: Sarah Dalton, Director, Airspace and Technology, Alaska Airlines

Discussion Leaders:

Chris Baur, FRAeS, President, Hughes Aerospace Corporation

Andy McDowell, Director - Airspace and Airport Services, Jeppesen

D-2. SWIM (System Wide Information Management)

SWIM will be the platform for integration of multiple legacy systems, such as weather, surveillance, traffic flow and more, to empower the entire NAS community with accessible, shared data for effective air traffic management. Designing SWIM as an SOA (service-oriented architecture) ensures interoperability among pertinent systems for real-time intelligence and CDM (collaborative decision making). SWIM is already deployed in key NextGen systems, such as the Corridor Integrated Weather System. What benchmarking strategies from current projects will be used for integration of other systems?

- FAA roadmap on merging varied networks with different operating standards
- Preventive measures for system vulnerabilities (access, IP, etc)
- Project priorities on data integration and architecture design

Speaker: Ahmad Usmani, SWIM Program Manager, FAA

Discussion Leaders:

Dave Almeida, Director, Net-centric Information & Services, Harris Corporation

Joshua Gustin, Director, Data Management, FAA

5:45 p.m. Cocktail Reception

6:45 p.m. Close of Day Two

DAY THREE – Wednesday, April 25, 2012

8:00 a.m. Registration & Networking Breakfast

8:20 a.m. **Opening Remarks**

Ed Hazelwood, Editor-in-Chief, Conferences, Aviation Week

8:30 a.m. **Congressional Address**

Chairman Mica will address long-term government transportation priorities, and update on aviation programs within the Committee's purview.

Congressman John L. Mica (R-FL), Chairman of the House Transportation and Infrastructure Committee

9:00 a.m. **FAA Updates on Procedures and Policies**

- Ability of FAA to adapt and support in FY2012-2013
- NextGen Implementation Plan schedule updates and reviews
- Process on procedures getting published

Vicki Cox, Assistant Administrator for NextGen, FAA

Chris Metts, VP Program Management Organization, FAA

Elizabeth Lynn Ray, VP Mission Support Services, FAA

- 9:30 a.m. **What Have We Achieved? NextGen Performance Metrics Scorecard**
The FAA executive NextGen Management Board with input from the NextGen Advisory Committee has approved the Web-Based NextGen Performance Snapshots (Web-NPS), a set of metrics to provide a "rear-view mirror" look at NextGen performance. The first instantiation of the Web-NPS is planned for March 30, 2012. Performance information will have a geographic, metroplex focus with an emphasis on the 30 Core FAA Airports. The Web-NPS will also highlight key NextGen success stories, including qualitative and quantitative benefits and impacts of these important capabilities. The Web-NPS is being developed to meet external expectations of transparency into NextGen's progress and achievement (e.g. Office of Management and Budget).
Gisele Mohler, Director, NextGen Performance & Outreach, FAA
- 10:00 a.m. **Collaborative Air Traffic Management**
Collaborative Air Traffic Management draws the entire system (people, processes and technologies) together to provide an improved end-to-end traffic flow management that meets preferences or restrictions from all parties.
- Surface movement management
 - Airline/airport collaboration
 - Variances in airport capabilities
 - Results and recommendations from successful operational trials
- Moderator: John Kefaliotis, VP NextGen Air Transportation System, ITT Exelis
Joe Bertapelle, Director of Strategic Aerospace Programs, JetBlue Airways
Dr. Robert Hoffman, Principal Analyst and Director, Advanced Research Group, Metron Aviation
Flavio Leo, Deputy Director, Aviation Planning and Strategy, Massachusetts Port Authority
Jim Wetherly, Investment Portfolio Management for Surface and CATM, NextGen Organization, FAA*
- 10:45 a.m. Networking Break
- 11:00 a.m. **Optimization of the Airspace and Procedures in the Metroplex (OAPM)**
Some metroplex areas have now gone through initial review, design and implementation...what's next? Lessons learned for upcoming areas? What considerations will be taken to incorporate approved NextGen procedures? What are the short-term and long-term obstacles and benefits?
*Jim Davis, National Airspace Representative, NATCA
Dennis Roberts, Director, Airspace Service, FAA
Captain Brian Townsend, Flight Technical Operations, US Airways*
- 11:45 a.m. **Training, Culture and Change –How to Make It Happen**
How are we going to change the current culture to enable a full NextGen 4D TBO from gate to gate? With any implementation of initiatives, programs or technologies, it has to be more than changing the culture, but having your workforce embrace your initiatives towards operational excellence, and being trained and equipped properly. This session will discuss understanding and improving transitions of change management to achieve operational effectiveness.
- Regulations and standardizations on training
 - Scalable performance assessments
 - Recognizing and properly managing misunderstandings and unproductive behavior
 - Effective communications for union and workforce support
- Moderator: Steve Fulton, Technical Fellow, GE Aviation
Mel Davis, NATCA National NextGen Representative, FAA
Steve Fulton, Technical Fellow, GE Aviation
Marc Henegar, Chair, Air Traffic Services Group, Air Line Pilots Association, International (ALPA)
Captain David "Fig" Newton, Sernior Manager, NextGen/Airspace, Southwest Airlines*
- 12:30 p.m. 2012 NextGen Ahead conference concludes