

NextGen Institute Annual Public Meeting

October 21, 2008
NTSB Conference Center



Our Web Address

www.ncat.com/ngats/index.html



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[NEW on the NextGen Institute Website-Updated 10/09/08](#)

ANNOUNCEMENT

NextGen Institute Annual Public Meeting

The NextGen Institute will hold this year's annual public meeting in conjunction with the JPDO's All Hands meeting on October 21, 2008 from 9:00am to 12:00pm. The meeting will be held at the National Transportation Safety Board (NTSB) building. The NTSB building is located at 429 L'Enfant Plaza, SW and can be accessed from the L'Enfant Plaza metro stop. The NextGen Institute will give an overview briefing of the 2008 calendar year progress and then the public will be given an opportunity to ask questions about the NextGen Institute and its operations. The public is cordially invited to attend this joint Industry/Government/NextGen forum.

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About the NextGen Institute

Overview

Purpose and Goals

Formation of the Institute-

- o [Other Transactions Agreement \(OTA\)](#)
- o [OTA Modification addressing OCI](#)
- o [OTA Modification 4](#)
- o [OTA Modification 9](#)
- o [OTA Modification 11](#)

Principles of Operation

Institute Management Council

IPTs and Working Groups

Contractual Opportunities

Overview

Vision 100—Century of Aviation Reauthorization Act, Pub. L. 108-176, represents a multi-agency initiative to transform the future air transportation system. This act created the Joint Planning and Development Office as the means by which six government agencies will combine resources and talent to effect the transformation and further, Vision 100 directed that "the [Joint Planning and Development] Office shall consult with the public and ensure participation of experts from the private sector."

The NextGen Institute was established in March 2005 via a contract between the National Center for Advanced Technologies (NCAT) and the Federal Aviation Administration (FAA) "as the mechanism through which the JPDO will access world-class private sector expertise, tools, and facilities for application to NGATS activities and tasks." Professional, technical and consulting services from a broad spectrum of industry will be provided through the NextGen Institute "as requested by the JPDO leadership in support of planning, research, analysis, assessment, architecture, functional requirements setting, prototyping, simulation, and demonstrating future system attributes."

Co-located with the JPDO, the Institute is a fully involved partner in the day to day activities and process through which the JPDO accomplishes the Vision 100 and NGATS goals.

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Purpose and Goals

The NextGen Institute was created in March, 2005 with the purpose of:

NextGen Overview

- Vision 100—Century of Aviation Reauthorization Act, Pub. L. 108-176, represents a multi-agency initiative to transform the future air transportation system.
- This act created the JPDO as the means by which six government agencies combine resources and talent to effect the transformation and further, Vision 100 directed that "the [Joint Planning and Development] Office shall consult with the public and ensure participation of experts from the private sector."
- The NextGen Institute was established in March 2005 via an Other Transactions Agreement between the National Center for Advanced Technologies (NCAT) and the Federal Aviation Administration (FAA)
- "...the mechanism through which the JPDO will access world-class private sector expertise, tools, and facilities for application to NextGen activities and tasks."



Purpose

- Enabling partnership between the government and private sector on goals and priorities and definition, development, and implementation of NextGen
- Establishing a mechanism for gathering and applying the best expertise in support of NextGen
- Encouraging the development of transformational ideas
- Sustaining a long-term undertaking by promoting jointly supporting solutions and coordinated investments

Goals

- Establish the mechanism for the JPDO to access world-class expertise, tools, and facilities for application to the NextGen activities and tasks
- Conduct FAA/JPDO-requested work in support of planning, research, analysis, assessment, architecture, setting functional requirements, prototyping, simulation, and demonstrating future system attributes
- Validate new concepts and approaches
- Establish and maintain a collaborative relationship between the government and private sector that will serve as a catalyst for fostering a shared vision of NextGen and combine the talents and resources of government, industry and academia

Institute Management Council

- IMC serves as an industry decision-making body providing oversight
- Advise the JPDO Director and FAA Senior VP of NextGen and Operations Planning on NextGen planning and implementation priorities
- Assist the JPDO Director and FAA Senior VP of NextGen and Operations Planning in communicating these priorities to FAA Administrator and other government stakeholders
- Invite FAA Administrator and key staff to IMC meetings to ensure industry priorities are understood

Institute Management Council Roster

Co-Chairmen

- James C. May - Air Transport Association
- Phil Boyer - Aircraft Owners and Pilots Association

Commercial Airline Operations

- *James C. May - Air Transport Association

Commercial Pilots

- *John Prater- Air Line Pilots Association

Air Traffic Control Technology

- *Pete Dumont- Air Traffic Control Association

Air Traffic Controllers

- Pat Forrey- National Air Traffic Control Association

Airport Operators

- Greg Principato - Airports Council International - North America

At Large

- Bill Connors - National Business Travel Association
- Henry Ogrodzinski - National Association of State Aviation Officials

Business Aircraft Operations

- Ed Bolen - National Business Aviation Association

Institute Management Council Roster

Federal Advisory Committees, Universities, and Non Profit Research Organizations

- Margaret Jenny - Radio Technical Commission for Aeronautics
- Steve Hampton - Embry-Riddle Aeronautical University

Small Aircraft General Aviation

- *Phil Boyer - Aircraft Owners and Pilots Association

Helicopter Operations

- Matt Zuccaro - Helicopter Association International

Manufacturers of Air Vehicles and Airborne/Space-borne and Ground Based Equipment

- *Paul G. Kaminski - Aerospace Industries Association
- Peter J. Bunce - General Aviation Manufacturers Association

Regional Commercial Airline Operations

- Roger Cohen - Regional Airline Association

Ex-Officio

- Charlie Leader - Joint Planning and Development Office

*-Executive Committee Member



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Working Groups (formerly Integrated Product Teams)

- » [Application and Instructions](#)
- » [Download Application](#)
- » [Working Group Selection Process Document](#)
- » [WG Needs Statements](#)
 - * [Weather](#)
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 - * [Net Centric Operations](#)

Aircraft Needs Statement Example

Requesting Team/Organization: Aircraft Working Group

Co-Lead Names: Jeff Duven and Dave Nakamura

Brief Description of the Team's Task

To develop plans and recommendations for the performance, function and capabilities of aircraft that will enable the implementation of NextGen operations needed to improved capacity, efficiency and safety in the NAS. Develop and document rationale and business cases to enable the AWG to develop a plan and recommendations for change in aircraft and systems. Develop recommendations and guidance for updates to the JPDO Enterprise Architecture, and Integrated Work Plan that reflect a realizable way forward to advanced airspace operations.

Expected Products and Timeframes

1. Aircraft Equipage Recommendations and Roadmap,
2. Identification of potential needs to technical standards and guidance
3. Identification of areas for coordination for global harmonization
4. Others as needed

BIOGRAPHY

COLONEL DOUGLAS J. WREATH



Colonel Wreath is Reserve Advisor to the Deputy Chief of Staff for Warfighting Integration and CIO, Office of Secretary of the Air Force, Washington, D.C. He advises senior members of the staff on Reserve Component issues and plans and executes Future Total Force initiatives. He's also leads the Next Generation Air Transportation System's Net Centric Working Group.

Colonel Wreath is a graduate of the U.S. Air Force Academy Class of 1984. He graduated with military honors, twice serving as a cadet Group Commander. At graduation, he was presented the Cadet Ideals Award. He began his commissioned service as a space and missile operations officer at the Johnson Space Center in Houston, Texas. He was certified as a Space Shuttle Mission Controller, serving as a Ground Navigation Analyst for six shuttle missions. He then served in remote Southeast Turkey as a Space

Operations Crew Commander and Director of Training. Subsequent tours included service as a Wing Operations Evaluator, Aide to the Commander of Air Force Space Command, Operations



*Gene C. Hayman Jr.
Boeing Air Traffic Management*

Mr. Gene Hayman was born and raised in Herndon, Virginia. He has a MBA with a focus on Program Management and Organizational Leadership. Mr. Hayman started his career in the private sector working with several different companies in a wide variety of domains ranging from Aerospace, Defense, Telecommunications, Information Technology, Financial, and Environmental.

After holding several program management positions early in his career, he joined Coleman Research Corporation (CRC) in 1992. Assigned to CRC's environmental division, he served as the Chief of Staff with oversight responsibility of a team of 280 operations and environmental researchers. This team was primarily responsible for working with Department of Energy's (DOE) senior executives and congressional



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Working Group Members Selected via NextGen Institute

» Working Group Co-Chairs Selected

- [Agile ATS](#)
- [Air Navigation Services \(ANS\)](#)
- [Aircraft](#)
- [Airport Infrastructure](#)
- [Environment](#)
- [Global Harmonization](#)
- [Safety](#)
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- [Net Centric Operations](#)
- [Weather](#)

[Download the Complete List of All Working Group Members Selected Via NextGen Institute](#)

Overall Industry Commitment

- > 300 approved industry WG members
- 20% of their time
- Salary/Travel Costs/Expenses pro bono
- Industry Commitment Exceeds \$14 Million a year

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Address http://www.ncat.com/ngats/ngats_tasks.html Go Links IceMan WebConnect FAA eCenter eLMS Customize Links



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- [FY06 Task Requests](#)
- [FY07 Task Requests](#)
- [FY08 Task Requests](#)

Links to Relevant Information:

- ~[Other Transactions Agreement \(OTA\)](#)
- ~[OTA Mod 0001 on Organizational Conflicts of Interest, etc.*](#)
- ~[Institute Task Award Process](#)
- ~[NextGen Institute Website](#)
- ~[JPDO Website](#)
- ~[FAA Website](#)

Contact Information:

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Dan Cumberland

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Community-Wide Information Sharing

- **Sponsor:** Net-Centric Operations Working Group
- **Contractor:** ITT
- **Contract Value:** \$80k
- **Purpose:** To provide information on (1) historical and existing civil aviation information sharing regimes, and operator views of the usefulness and effectiveness of those regimes; (2) the usefulness of various categories of information (e.g. classified, non-classified but sensitive, proprietary, general) to safe and efficient air transportation system operations; and (3) analysis of to whom and to what extent various classes of protected information should be made available to various potential classes of users.
- **Start Date:** September 15,2007
- **Status:** Deliverables in Final Review by the Net-Centric Operations Working Group.

Optimizing Sequencing in the Terminal Area Phase 1

- **Sponsor:** Environment Working Group
- **Contractor:** Innovative Solutions International, Inc.
- **Contract Value:** \$250k
- **Purpose:** Conduct investigations for the integration of CNS/ATM technologies to support applications that will reduce fuel burn, emissions and noise, and eliminate terminal area airspace congestion.

The validation of this concept can provide a path forward for Next Generation Air Transportation System (NextGen) implementation of safer, cleaner, and more efficient terminal area operations across the U.S.

- **Start Date:** August 17, 2007
- **Status:** All deliverables have been approved by the Environmental Working Group

Optimizing Sequencing in the Terminal Area Phase 2

- **Sponsor:** Environment Working Group
- **Contractor:** Innovative Solutions International, Inc.
- **Contract Value:** \$250k
- **Purpose:** Conduct demonstrations of the integration of CNS/ATM technologies to support applications that will reduce fuel burn, emissions and noise, and eliminate terminal area airspace congestion.
- **Start Date:** Sept. 30, 2008
- **Status:** Phase 2 Statement of Work (SOW) and Contract Start
 - The NextGen Institute prepared documentation to justify a non-competitive procurement.
 - This documentation was reviewed at the 8/7/08 Contract Award Oversight Board (CAOB) and subsequently approved by the CAOB.
 - The non-competitive award announcement was posted on the NextGen web site on Aug. 21, 2008.
 - The contract for Phase 2 was signed on September 30, 2008.

Emergency

Management Operation Control System (EMOCS)

- **Sponsor:** Aviation Security Working Group
- **Contractor:** Harris Corp.
- **Contract Value:** \$350k
- **Purpose:** The purpose of this task is to plan for the development and implementation of a fully operational low altitude airspace emergency management communications, navigation, surveillance, and weather system, applicable to both the civil and government first responders, which can support both fixed and rotary wing operations.
- **Start Date:** December 17, 2007
- **Status:** The deliverables are in final review by the Aviation Security Working Group

Communications, Navigation, Surveillance (ICNS) Study

- **Sponsor:** Air Navigation Services and Aircraft Working Groups
- **Contractor:** TBD.
- **Contract Value:** \$2.25M
- **Purpose:** There will be two phases to this study. The first phase will develop an operational narrative/scenario, create top-level ICNS requirements to enable the operational scenarios, identify a set of alternatives, and identify and prioritize the analyses to be conducted. At the end of Phase 1, there will be a joint review with the Red Team and key JPDO personnel not on the Government Team, to assess the results and provide feedback and decisions prior to Phase 2. Phase 2 will further define and expand Phase 1 products, execute the required analyses, and develop the remaining deliverables.
- **Start Date:** Contract Award est. Fourth Quarter 2008.
- **Status:** Statement of Work (SOW) has been drafted by the JPDO in collaboration with the Working Groups.
The SOW is in final review and will be posted as a Request for Proposal (RFP) upon completed of the review and coordination.

Question and Answer Session