

NOTICE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

N 1100.336

National Policy

Effective Date:
11/18/11

Cancellation Date:
11/18/12

SUBJ: Assistant Administrator for NextGen

- 1. Purpose of this Notice.** This notice describes the Assistant Administrator for NextGen (ANG) and its mission, responsibilities, supplemental relationships, and lines of succession at the director level.
- 2. Audience.** This notice applies in general to the Federal Aviation Administration (FAA) and specifically to ANG employees.
- 3. Where can I Find This Notice?** You can find this notice on the MyFAA employee Web site at https://employees.faa.gov/tools_resources/orders_notices/ and on the public Web site at http://www.faa.gov/publications_policies/orders_notices/.
- 4. Explanation of Changes.** This notice reflects the organizational structure, roles, and responsibilities for the Assistant Administrator for NextGen and its Directors as of September 19, 2011.
- 5. Background.** The Assistant Administrator for NextGen was created based on recommendations from the FAA's Foundation for Success effort to be better positioned to set strategic direction, define operations requirements, and work critical issues end to end so that there is acquisition, integrations, and implementation accountability through the full life-cycle with all of the FAA's organization. The change was approved by Congress on September 19, 2011.

Assistant Administrator of NextGen

1. Mission. Realize the future vision of aviation by providing integrated strategies and solutions that achieve national and international goals. The NextGen Organization champions the evolution of the Next Generation Air Transportation System (NextGen) through technical and integration expertise, NAS-wide change stewardship, and an operating model that drives collaboration and accountability across FAA staff offices and staff offices and lines of business.

2. Responsibilities.

a. Assistant Administrator.

(1) Executes the mission of the FAA and the evolution of the FAA to the NextGen environment. Establishes goals, safety and security of National Airspace System (NAS) systems, long-term strategies, budgets, priorities and resource allocations that improve service and achieve performance targets. Ultimately accountable for ensuring NextGen benefits realization throughout the NAS lifecycle.

(2) Executes the mission of the NextGen Organization. Ensures its offices establish near- and mid-term goals, budgets and priorities and collaborates with the ATO and other FAA staff offices and staff offices and lines of business to provide a comprehensive and coherent plan for evolving the FAA to the NextGen environment. Allocates and manages resources and meets NextGen performance targets.

(3) Conducts research aimed at increasing safety, flexibility and sustainability of the future air transportation system.

(4) Transfers technology from research programs to federal agencies with operational responsibilities and to the private sector. This optimizes safety, capacity, and security, and reduces negative environmental impacts.

(5) Establishes requirements and implements technologies identified in the NextGen Implementation Plan to transition the NAS to meet forecasted demand.

(6) Maintains the NextGen Implementation Plan and the NextGen Segment Implementation Plan and develops planning documentation. Works closely with all FAA staff offices and staff offices and lines of business to ensure plans are executed. Informs internal and external stakeholders of NextGen status.

(7) Establishes and manages the NAS Concept of Operations, the Enterprise Architecture and the NAS Operational Portfolios to ensure they meet current and future service requirements.

(8) Develops plans to monitor and track execution of NextGen programs throughout the Idea to Implementation process. Through its NAS Lifecycle Integration Office, integrates initiatives, activities and capabilities to ensure implementation of the NAS of the future.

(9) Plans, analyzes, researches and develops advanced concepts, new technologies and prototypes, and conducts systems engineering to support initial and final investment decisions.

(10) Executes the corporate research, engineering and development planning and budget process for the Administrator.

(11) Ensures that laboratories, facilities and support services of the William J. Hughes Technical Center are available and meet the requirements of the FAA staff offices and staff offices and lines of business and external customers.

(12) Ensures that NAS systems and new acquisitions (equipment, hardware, software) receive test, evaluation, verification and validation services throughout their lifecycle.

(13) Ensures that NAS planning activities are synchronized with internal and external partners to support future operational requirements.

(14) Develops, enhances and validates fast-time modeling tools to simulate and analyze airport/airspace capacities and overall NAS performance.

(15) Manages and oversees the agency's research and development flight program.

(16) Serves on the NextGen Management Board, of which the Deputy Administrator is chair; serves on the Joint Resources Council; and the Strategy, Budget and Performance Committee.

b. Chief Scientist.

(1) Executes the mission of NextGen. Establishes integrated goals, strategies, budgets, and priorities. Allocates and manages resources, meets performance targets, and supplies services to meet requirements.

(2) Provides technical advice and expertise on all aspects of NAS lifecycle development, integration, and implementation to the Assistant Administrator of NextGen and other senior FAA executives.

(3) Serves as technical expert informing the NAS Enterprise Architecture Board.

(4) Leads the NextGen Organization's International coordination.

(5) Oversees the Systems Analysis and Modeling directorate, which

a) Analyzes the impact of NextGen technologies, procedures, and infrastructure on overall NAS performance using simulation tools and techniques. Develops mathematical models to analyze the future operational performance of NextGen and the NAS.

- b) Coordinates with the Office of Environment and Energy to evaluate the environmental impact of NextGen technologies, procedures, and infrastructure.
- c) Performs pre-implementation operational analyses of NextGen technologies, procedures, and infrastructure.
- d) Develops life-cycle cost estimates, economic benefits estimates, and quantitative risk estimates in support of the Office of Research & Technology Development.
- e) Conducts performance and cost analysis in support of portfolio trade studies.
- f) Provides top-level NextGen cost and benefit estimates to support NextGen budget development.
- g) Develops integrated business cases in support of the NextGen Portfolio investments.
- h) Uses computer modeling techniques to assist in developing top-level NAS requirements.
- i) Supports evolution of the NAS by evaluating NextGen technologies and operational procedures through simulation and modeling techniques.

c. Chief Scientist – Software

- (1) Executes the mission of NextGen. Establishes integrated goals, strategies, budgets, and priorities. Allocates and manages resources, meets performance targets, and supplies services to meet requirements.
- (2) Provides technical advice and expertise relating to the development, integration and implementation of software in NAS components the Assistant Administrator of NextGen and other senior FAA executives.
- (3) Serves as the FAA's lead technical expert for NextGen software issues. Provides expert assistance to the NAS Lifecycle Integration Process Leads, ATO PMO and other staff offices and lines of business.
- (4) Serves as technical expert informing the NAS Enterprise Architecture Board.

d. Director, Management Services.

- (1) Executes the mission of NextGen. Establishes integrated goals, strategies, budgets, and priorities. Allocates and manages resources, meets performance targets, and supplies services to meet requirements.

(2) Provides services to the NextGen organization to enable efficient administrative, human capital, budget and contracting operations.

(3) Ensures efficient and effective operation of the NextGen Organization by establishing, implementing, and maintaining internal administrative, business, and logistical processes and ensuring adherence to policy.

(4) Enhances the leadership and mission of the NextGen Organization by supporting human capital management, succession planning, and technical training plans and requirements.

(5) Prepares and reviews special reports, projects, and presentations for NextGen Organization leadership. Develops, distributes, and maintains internal communications for employees in support of NextGen performance goals.

(6) Provides timely data, analyses, plans, justifications, and reports to FAA Finance for the NextGen budget to promote cost efficient financial management in the ATO.

(7) As NextGen communications focal point, tracks briefing papers, testimony, reports and responses prepared internally for the U.S. Congress, the DOT's Office of the Inspector General, and the Office of the Administrator.

(8) Distributes, manages and tracks all official correspondence for the NextGen Organization.

(9) Communicates FAA financial policies, processes, and requirements to the NextGen Organization.

(10) Provides technical services to study, analyze and formulate concepts for the modernization of NextGen. Manages all contracts within the NextGen Organization through a portfolio management approach; determining best-fit for the delivery of requirements, tracking performance metrics and ensuring the integrity of contractual information. Contract management includes overseeing the Systems Engineering 2020 (SE-2020) contract, the Centers of Excellence (COEs) and the Center for Advanced Aviation System Development (CAASD).

(11) Provides all administrative support, and funding, for FAA- based RTCA activities to support agency goals and activities.

(12) Budgets and monitors all NextGen programs ensuring their execution is congruent with NextGen implementation plans and approved NAS lifecycle planning products.

e. Director, Engineering Services

(1) Executes the mission of NextGen. Establishes integrated goals, strategies, budgets, and priorities. Allocates and manages resources, meets performance targets, and supplies services to meet requirements.

(2) Provides enterprise-level engineering support through configuration management of NAS process artifacts (ConOps, Enterprise Architecture, CRD, SEM), and through provision of safety and information security analyses and system engineering tools. Supports, through systems engineering, planning for future NAS cost efficiencies.

(3) Creates FAA policy and guidelines for the Concepts and Requirements Definition (CRD) phase of the Acquisition Management System (AMS).

(4) Develops and maintains the NAS operational requirements in coordination with appropriate stakeholders.

(5) Supports the NAS Lifecycle Integration office to develop and maintain functional requirements and track these requirements through to system requirements.

(6) Manages the NAS EA to meet future operational needs through research and technical development services.

(7) Maintains NAS Concept of Operations documentation to provide comprehensive view of current and future NAS.

(8) Meets national and international safety and information security goals for all NAS systems and ensures a viable future for air transportation through comprehensive analysis.

(9) Integrates safety strategies that ensure strategic investments and developments reduce the potential for accidents and incidents, while maintaining the safety and integrity of the NAS.

(10) Develops information system security requirements, architecture, and assessments of information system security risks. Supports information system security certification and accreditation planning for the NextGen Organization's information technology systems.

(11) Uses computer modeling techniques to assist in developing top-level NAS requirements.

(12) Manages Engineering Services' and NAS Enterprise Architecture tools and business processes, supports Engineering Services configuration management activities, develops and maintains systems engineering and NAS Enterprise Architecture training.

(13) Manages the System Engineering Manual (SEM) and ensures SEM processes are communicated and observed.

f. Director, Advanced Concepts and Technology Development

(1) Executes the mission of NextGen. Establishes integrated goals, strategies, budgets, and priorities. Allocates and manages resources, meets performance targets, and supplies services to meet requirements.

(2) Manages, directs, and coordinates the agency's human factors research and engineering program.

(3) Develops human performance information used in reducing human error and in improving pilot, inspector, maintenance technician, air traffic controller, and system technician task performance.

(4) Manages cross functional portfolios within the Directorate, to assure proper alignment of program activities toward common objectives.

(5) Represents and coordinates work performed in these portfolios, internally within ANG, and externally to the ATO, FAA Staff offices and lines of business (LOB), and other Government Agencies.

(6) Developmental engineers support work across the idea to implementation process flow. Establishes, maintains, and configures ground and airborne test beds for collaboration with NextGen partners

(7) Manages the entry process of concepts into the NAS ConOps.

(8) Decomposes ConOps into operational requirements and works with Engineering Services to reflect updates in the NAS EA.

(9) Works with NAS Life Cycle Planning to reflect Operational Improvements and Operational Sustainments in NAS Portfolio and NSIP.

(10) Develops prototypes and demonstrates, validates, and transitions new air traffic technology. Develops demonstrations that mature concepts.

(11) Maintains and enhances a modeling and simulation infrastructure to validate operational concepts, procedures, and technologies.

(12) Enhances NAS weather capabilities to mitigate the impact of weather to NAS users by establishing and coordinating strategic direction for weather initiatives within the ATO, between FAA lines-of-business, with other relevant government agencies, and with the domestic and international aviation community.

(13) Plans, researches, develops, prototypes, and helps integrate into NAS new weather capabilities and technologies that enhance safety and capacity and meet current and future aviation needs.

g. Executive Director, NAS Lifecycle Integration.

(1) Executes the mission of NextGen. Establishes integrated goals, strategies, budgets, and priorities. Allocates and manages resources, meets performance targets, and supplies services to meet requirements.

(2) Provides enterprise-level (legacy, current, future) planning, programmatic tracking, integration and implementation oversight that drives the evolution of the FAA into the NextGen environment. Works across programs to ensure economies of scale with NextGen capability integration. Leads the Capture Team process and organizes responsible resources from involved organizations to engage in the end-to-end process.

(3) Manages Portfolio Process Leads who interface directly with the PMO, ATO Operations and other FAA staff offices and lines of business to ensure NAS operational capabilities, both improvements and sustainments, are executed in a comprehensive, integrated environment, and ensures operational and functional requirements are accurately translated into system requirements by the PMO.

(4) Responsible for enterprise-level integration of NAS lifecycle products that drive the evolution of the FAA into the NextGen environment.

(5) Provides cross-program system integration to support trade studies between and among programs resulting in functional and requirement allocations. Manages and coordinates changes to the trade studies, allocations, and system engineering as the programs evolve.

(6) Ensures that appropriate integration of systems and capabilities occurs across and within FAA staff offices and lines of business by collaborating with internal and external stakeholders to lead cross-domain systems engineering and to serve as NextGen steward for the NAS. Works closely with the ATO Program Management Office to support the alignment of cross-domain systems engineering with program function management.

(7) Ensures NAS Planning tools such as NAS ConOps, NAS Enterprise Architecture, NextGen Segment Implementation Plan and Integrated Master Schedule reflect current and future demands of the NAS by executing effective NAS lifecycle Planning. Also ensures the NAS Planning tools and results comply with OMB requirements

(8) Ensures that appropriate integration of systems, capabilities, and programs occurs across and within FAA staff offices and lines of business in support of NextGen. If required, establishes service level agreements with research partners and Agency staff offices and lines of business to conduct NextGen Implementation Plan activities and deliver required products

(9) Conducts programmatic performance and financial reviews of portfolios and service level agreements and tracks programmatic performance.

(10) Ensures that the integration and implementation of operational changes are orchestrated across field operations, programs, and other staff offices and lines of business from concept development through post implementation analysis. Ensures appropriate participation by internal and external stakeholders in NAS lifecycle planning, development, implementation and execution.

h. Executive Director, William J. Hughes Technical Center.

(1) Executes the mission of NextGen. Establishes integrated goals, strategies, budgets, and priorities. Allocates and manages resources, meets performance targets, and supplies services to meet requirements.

(2) Manages, operates, maintains, and provides engineering services within the FAA's NAS laboratories. Supports research, development, testing, upgrades, and second-level field support of new, potential, and existing NAS systems.

(3) Conduct analyses and evaluations from comprehensive air transportation system, local airport, airspace and user perspectives.

(4) Characterizes performance of current system and effects of proposed Next Generation Air Transportation System changes on pilots, controllers, aircraft and related system components.

(5) Transfers technology to aviation industry partners in a timely and cost effective manner. Develops partnerships with academia, industry, government agencies and professional societies to ensure smooth transition.

(6) Maintains facilities and support services for all properties at the William J. Hughes Technical Center including land, buildings and infrastructure.

(7) Manages, formulates and coordinates the FAA's research and development program. This includes strategic planning and direction, policy formulation, program assessment and development, and acquisition.

(8) Supports NextGen and other FAA goals through research and development projects with research organizations, industry, and academia.

(9) Aligns research programs with the FAA Flight Plan and the NextGen Implementation Plan. On behalf of the Administrator, prepares the National Aviation Research Plan (NARP) for submission to Congress.

(10) Services and develops technologies, test methods and procedures, analytical tools and models, and technical data and criteria for the Associate Administrator for Aviation Safety (AVS) and the Associate Administrator for Airports (ARP).

(11) Tests, evaluates, verifies, validates, and monitors performance of NAS components, services, and procedures through the solution implementation phase of the acquisition lifecycle and other lifecycle phases.

(12) Establishes aviation research investment priorities, along with other agencies, advisory boards, and international organizations, to identify research gaps, reduce duplication of efforts, leverage available resources, and maintain US leadership.

(13) Supports rule development for aircraft, airport certification and operation, associated advisory materials and means of compliance.

i. Director, Performance and Outreach.

(1) Executes the mission of NextGen. Establishes goals, strategies, budgets, and priorities. Allocates and manages resources, meets performance targets, and supplies services to meet requirements.

(2) Works with FAA staff offices and lines of business and stakeholders and staff offices and lines of business to gather, integrate and report out performance metrics by which NextGen benefits can be measured.

(3) Supports the NextGen Management Board and subordinate teams in its role in setting strategy, vision, and policy and provides commitment assurance for key elements of NextGen.

(4) Provides coordination for FAA-based RTCA NextGen Advisory Committee activities to support agency goals and activities.

(5) Develops and publishes the annual NextGen Implementation Plan.

3. Supplemental Relationships. Members of senior staff represent NextGen in the following groups:

a. NextGen Management Board

b. Joint Resources Council

c. Strategy, Budget and Performance Committee

d. NextGen Review Board

e. Research, Engineering and Development Advisory Committee.

f. Representative for Department of Transportation on the Federal Committee for Meteorological Science and Support Research (FCMSSR).

g. Representative to the Interdepartmental Committee for Meteorological Science and Supporting Research (ICMSSR).

4. Line of Succession. In the absence of the Assistant Administrator, the following individuals, in order, direct the NextGen Organization.

a. Executive Director, NAS Lifecycle Integration

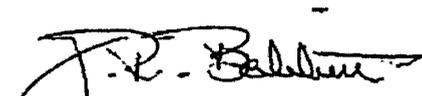
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- b. Executive Director, William J Hughes Technical Center
- c. Director, Advanced Concepts and Technology Development
- d. Director, Engineering Services
- e. Director NextGen Performance and Outreach
- f. Director, Management Services

5. Organizational Chart. ANG Organization Chart at Appendix A.

6. Distribution. This notice is distributed to the division level in Washington, and field offices



J. Randolph Babbitt
Administrator

Appendix A. Assistant Administrator for NextGen (ANG) Organizational Chart

