

# FAA-Aviation Community Engagement Strategy for Implementing NextGen



## Introduction

The Next Generation Air Transportation System, or NextGen, enables increased efficiency, capacity, and access for users of the National Airspace System while addressing our societal objectives for increased safety, security, and reduced environmental impacts. The FAA is committed to doing its part to update policies, procedures, and technology to enable these benefits. While the FAA is responsible for a significant number of new capabilities, the FAA cannot implement NextGen alone – NextGen is truly a collaborative undertaking.

In January 2010, we released our response to the recommendations of the RTCA Mid-Term Implementation Task Force. The recommendations were a powerful statement of the aviation community’s consensus on the needs for NextGen as well as a clear indication of the intent to be partners in realizing NextGen benefits, in both planning and execution. Included in our response was the commitment to “provide a comprehensive proposal for future NextGen engagement with the aviation community.” This proposal is intended to be the start of dialogue to identify the best ways and venues to work together in planning and implementing NextGen, recognizing the responsibilities, objectives, and resources of all parties.

Building NextGen will require collaboration and investment among the FAA, other federal government agencies and a wide range of participants, including commercial, private, and government flight operators; airport operators, labor, researchers, the manufacturing community, and local communities. The breadth and complexity of NextGen, however, means that there is no one-size-fits-all approach to engaging with the community or individual organizations. Overall, engagement needs can be described in three general categories:

- *Executive-Level Engagement:* The FAA needs community input on establishing overall priorities across capabilities, locations, and timeframes. This input needs to be from executives who can represent their organizations’ needs and interests.
- *Implementation Engagement:* Implementing specific NextGen capabilities requires joint planning and investments with members of the community to be successful. For these capabilities, the FAA needs to work with aviation community members who understand operations and technologies to fully define a capability; especially with stakeholders who need to invest money, resources, and human capital.
- *Dialogue on Performance Metrics:* The FAA is committed to keeping lines of communication open between the agency and the aviation community. The FAA needs to create a performance management framework that assists future conversations.

There are a wide variety of venues and methods that already exist for collaboration. In developing this overall engagement strategy, the FAA intends to use existing forums that are effectively helping to implement NextGen; the FAA will initiate new forums only when necessary. Different kinds of engagement will occur depending on the specific activity, the skills and perspectives needed, and the maturity of the overall capability. For example, development of

concepts may require working with a different set of people than the establishment of joint equipage requirements.

This proposal lays out overall principles for engagement and for collaboration. It is not intended to be an exhaustive description of every joint activity done with the community. Each individual capability will have unique needs for collaboration that will evolve over time and may not be anticipated now.

## **Executive Engagement: Collaboration on NextGen Priorities and Overarching Issues**

The FAA has heard from the Task Force on overall aviation community priorities and has updated the NextGen Implementation Plan to incorporate those priorities. As implementation progresses, the FAA needs continued collaboration with the aviation community to explore tradeoffs and sequencing of capabilities and sites, and to address emerging or changing needs. To do this, the FAA needs an “executive level” venue where the FAA can continually receive advice on community priorities and assess the FAA’s overall research, development, and implementation strategy to ensure it is consistent with overall community priorities.

To prioritize the near-term research activities that support longer-term goals, FAA intends to continue to interact with its federal advisory committee, the Research, Engineering, and Development Advisory Committee (REDAC). REDAC is tasked to provide advice on the FAA’s R&D for NextGen, addressing aviation research, aviation security, and future technology as captured in the FAA’s National Aviation Research Plan (NARP).

For addressing implementation strategies and priorities, the FAA does not currently believe any single existing venue meets all of the needs for the breadth of NextGen. Since 2004, the RTCA Air Traffic Management Advisory Committee (ATMAC) has provided valuable community advice and consensus-based implementation priorities related to air traffic management needs. In light of the broader scope of NextGen, we have requested that RTCA disband the ATMAC and in its place form a new advisory group with a broader aviation community membership, including industry participants who speak for the interests of safety, airport, environment, and global harmonization, as well as air traffic.

The role of the new board will be to advise the FAA as we continue to foster a shared vision of NextGen in the domestic and global arenas. It will:

- Facilitate and identify opportunities for industry participation in NextGen implementation
- Provide consensus aviation community priorities in context of overall NextGen capabilities, community objectives, and implementation constraints
- Review performance objectives (including metrics) and development milestones.

We will expect the members of this committee to represent their own organizations and be able to commit the time and resources needed to have an open, public dialogue on the above objectives. Transparency in the committee’s deliberations and products under consideration will be critical to ensure that all interested community members and interests have an opportunity to express their views.

## **Implementation Engagement: Collaboration on Defining and Implementing NextGen Capabilities**

Implementing NextGen capabilities involves a range of activities at all stages, including concept maturation; definition of standards, procedures and (if necessary) rules; definition of forecasted benefits and impacts to stakeholders; all the way to the specific investment by stakeholders in deploying procedures and systems for use by operational personnel trained in the new mode of operations.

Some implementation collaboration activities result in recommendations of a general nature, such as recommended standards for new avionics. The development of those recommendations occurs under the authority of the Federal Advisory Committee Act (FACA). To define a capability, the FAA uses various venues in an advisory or collaborative capacity to ensure that aviation community perspectives inform concepts, requirements, rules, and any needed policy. Typical venues include RTCA special committees, which fall under the purview of the FACA; aviation rulemaking committees (ARCs), which are designated by the Administrator; and other effective venues such as the Air Transport Association (ATA) Collaborative Decision Making (CDM) Working Group or the Commercial Aviation Safety Team (CAST) where multiple perspectives can come together and provide advice.

The FAA also collaborates with members of the community to implement specific capabilities already incorporated in the agency's plan. In this case, the engagement venue needs to ensure joint decision-making and accountability among all key stakeholders to synchronize investments leading to the implemented capability at designated locations (or NAS-wide) and to address and mitigate implementation risks. Key stakeholders include operators, manufacturers, labor representatives, airport authorities, service providers, or other organizations investing their own resources to achieve success. When these types of implementation activities fall under a contract or other transaction authority, some discussions may be closed to enable sensitive information sharing among all direct partners.

There are a number of general categories of venues in which the FAA collaborates with the aviation community on implementing NextGen improvements, as described below.

**Aviation Rulemaking Committees (ARCs):** ARCs are used to develop consensus advice to the FAA concerning a proposed rule, and are used to provide input to the FAA early in the development stage, reducing the probability of receiving nonsupportive public comments when a document is published. The exchange of ideas in an ARC process gives the FAA additional opportunities to obtain firsthand information and insight from those parties most affected by existing and proposed regulations and other regulatory information. The Performance-Based NAS ARC (PARC), for example, has been used by the FAA to engage with the community on Area Navigation and Required Navigation Performance-related rules and procedures. This has been an important step in implementing a key building block of NextGen; continued work with PARC is expected.

**RTCA Special Committees:** The FAA often relies on RTCA special committees to develop technical specifications guiding the requirements for aircraft avionics and ground systems directly interfacing with avionics. The primary products of special committees are Minimum

Operational Performance Standards (MOPs), Minimum Aviation System Performance Standards (MASPSs), and guidance material. RTCA special committees operate under the FACA, and their consensus products ensure that the concerns of all participants are addressed. Special Committee 214, *Standards for Air Traffic Data Communication Services*, for example, is tasked to complete standards for air traffic control digital communications in a timeframe consistent with delivery of capabilities by 2016, as defined in the NextGen Implementation Plan.

**Operational Working Groups and Teams:** The FAA often relies on working groups to discuss operational considerations for NextGen capabilities including development of concepts and identification of operational issues to resolve, and to understand operator priorities and needs. Working groups, which typically do not operate under FACA, also are used to coordinate implementation activities. For example, the FAA participates in CAST and ATA's CDM Working Group. New working groups will be created as needed for coordinating implementation.

## **Collaboration on Measuring Our Collective Progress**

The FAA is committed to keeping lines of communication open between the agency and the aviation community, and we recognize the need for a common framework to guide the continued dialogue. The RTCA Task Force called on FAA to initiate work to determine which metrics to use to track NextGen performance, both from a programmatic and an operational perspective. These metrics would be developed with input from the community, and used thereafter to frame future discussions with the community.

To support this activity, FAA has established a new organization in NextGen and Operations Planning, to be known as the NextGen Implementation Performance & Reporting Office. This office will have three major functions:

- To develop NextGen performance objectives and metrics, in coordination with the aviation community
- To serve as the secretariat of FAA's NextGen Management Board, the senior-level body charged with monitoring overall NextGen progress
- To serve as the agency's interface with the new RTCA advisory committee and other bodies, as part of a larger task of leading NextGen aviation community outreach.

Because this office is charged with both developing the performance framework for NextGen implementation, and with facilitating dialogue within FAA and outside with the community, the office is positioned to be a direct conduit for the open sharing of information between the FAA and the aviation community.

In total, the FAA's efforts in collaborating with the community and continuing to participate in a variety of outreach forums will ensure the transparency needed for successful NextGen implementation.