NextGen Working Group

Fall 2011 ACI-NA
Operations & Technical Affairs Committee Seminar
San Diego, CA
October 15, 2011
Presentation Outline

-
NextGen Working Group scope
-
Leadership team/key points of contact
-
Current NextGen activities
-
2011/2012 work plan
-
How the airport community can be involved
Working Group Scope and Objectives

- Advise ACI-NA Members and Staff Involved in NextGen Advisory Committees, Working Groups, etc. of airport NextGen priorities and issues
- Identify and communicate opportunities for ACI-NA members to play meaningful roles in on-going NextGen development and implementation activities
- Monitor and disseminate information on NextGen development and implementation activities and their implications for airports
- Serve as industry subject matter experts and provide representation at NextGen-related events and conferences
- Assist ACI-NA staff with informing the industry and public about airports’ necessary role in NextGen development and implementation
- Develop and maintain a list of research needs and opportunities for NextGen technologies at airports and communicate them to on-going research programs
Working Group Leadership Team

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Major Changes with NextGen

A Fusion of Legacy Air Transportation with Modern Technology:

How NextGen will transform today’s air transportation system:

<table>
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<tr>
<th>Current System</th>
<th>NextGen</th>
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<tbody>
<tr>
<td>• Ground-based navigation and surveillance</td>
<td>➡ Satellite-based navigation and surveillance</td>
</tr>
<tr>
<td>• Air traffic “control”</td>
<td>➡ Air traffic “management”</td>
</tr>
<tr>
<td>• Voice communications</td>
<td>➡ Datalink</td>
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<tr>
<td>• First come, first served</td>
<td>➡ Best equipped, best served</td>
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Why Do Airports Need to Be Involved in NextGen?

- NextGen is airport-centric – Need for collaboration is recognized and desired by FAA
  - Begins and ends at Airports
  - Airports are the face of NextGen to the community
- FAA initiatives are integrating NextGen into airport processes
  - Master planning, environmental planning and sustainability planning; EMS; SMS; eALP/AGIS; future airport design criteria
- Involvement in new airport surface operations technologies and associated situational awareness and collaborative decision-making processes
- Potential new opportunities for new airside capabilities and capacity (and the need to balance with landside capacity)
- Potential new opportunities for noise abatement, and reductions in energy consumption and emissions
FAA/Industry NextGen Activities

- NextGen Advisory Committee and RTCA
- FAA “Implementation Portfolios”
- Phased Implementation
  - Initial Transitional Phase – Technology Development and Demonstrations, deployment of current systems to leverage available capabilities (PBN, ADS-B, WAAS), and Metroplex airspace studies
  - Thru 2018 – Full implementation of basic system concept of operations
  - Post 2018 – System enhancements and capability expansion
- Challenges
  - Maintenance of adequate levels of Federal funding, management and committment for complex program
  - On-board “Equipage” of Aircraft with PBN, ADS-B and Data Comm
  - Addressing Regional Local Concerns – Primarily Environmental
The RTCA and the NextGen Advisory Committee

NextGen Advisory Committee (NAC)

NAC Subcommittee (NACSC)

- Airspace & Procedures Working Group (APWG)
- Integrated Capabilities Working Group (ICWG)
- Business Case & Performance Metrics Working Group (BCPMWG)

Regional Working Groups
Current NAC Activities

- Three initial taskings and Focus Areas from the FAA
  - Equipage incentives
  - Operational capability identification and prioritization
  - Metroplex prioritization

- Deliverables Considered at September Meeting:
  - NextGen equipage incentives: who, what, when, and how much
  - NextGen performance metrics/data sources
  - Defining needed NextGen capabilities in busy metroplexes
  - Airspace optimization – ATL, SoCal, NoCal, CLT and IAH
  - Trajectory operations concept of use
Metroplex: PBN Airspace Optimization

Study Teams will examine operational flow patterns and en route access to address connectivity.
Currently Identified ACI-NA NextGen Working Group Tasks and Planned 2011-2012 Activities

- “NextGen 101” airport industry briefing paper
- Guidance on NextGen integration to airport planning processes and related FAA documents
- Guidance on how airports can and should coordinate with NextGen airspace re-design efforts
- Policy paper on how critical operational data regarding air traffic movements on the air and on the airport surface should be shared among FAA, airports and aircraft operators
- Policy paper on how to engage with FAA Air Traffic in seeking local community input and support
- White paper regarding issues with funding NextGen-driven airport improvements
- Help refine airport concept of operations under NextGen and opportunities for partnering with FAA and aircraft operators
- List of airport-centric NextGen research needs
Additional Help Needed

- We need airport subject matter experts
  - Airspace optimization efforts
  - NAC NextGen capability mapping exercises
- We also want you to share your NextGen implementation experiences
  - Airspace redesign
  - New flight procedures
  - Surface surveillance/management
  - How you’re considering NextGen in your planning & environmental efforts