

**Transportation Research Board  
Committee on Aviation System Planning  
(AV020)**

**Triennial Strategic Plan – 2016**

**Scope**

The Committee on Aviation System Planning (AV020) addresses aviation planning activities from airport master planning at the local level, through regional and state airport system planning, to national airport system planning. The scope of the committee's activities addresses the content of these planning activities and their interrelationships, as well as the role of airport system planning within the broader multimodal planning context.

**Goals**

1. Increase the understanding of the importance of effective aviation system planning
2. Promote the development and use of enhanced analytical techniques to support aviation system planning
3. Identify research needs to improve the aviation system planning process
4. Coordinate with other TRB committees with missions relevant to aviation system planning
5. Broaden awareness of international practices for aviation system planning
6. Identify best practices in aviation system planning
7. Effectively disseminate information relevant to aviation system planning
8. Develop effective communication strategies to improve communication within the committee and between the committee and the broader aviation community

**Organization and Membership**

Currently, the committee is comprised of 31 members from around the U.S. and other countries. In addition to its formal members, the committee benefits from the active participation of a number of friends of the committee who attend meetings and assist in organizing committee activities. The committee remains cognizant of the importance of diverse representation, including the participation of young members.

Informal subcommittees or program committees are formed on an ad-hoc basis to undertake specific activities such as managing the committee input to the TRB

Research Needs Database, issuing calls for papers, and organizing the Aviation System Planning Symposia.

In 2010, the following ad/hoc sub-committees were formed:

- **Communications:** This group has the charge of communicating interesting items from within the committee to the outside world, primarily via the TRB Aviation Facebook page.
- **Website:** This group has the charge of maintaining and updating our website.
- **Research Needs:** This group has the charge of being the committee's link to the TRB Research Needs Database. Tasks include parsing through the database for topics of interest to our committee, and to contribute ideas from the committee to the database.
- **Annual Meeting Sessions and Calls for Papers:** This group is charged with presenting possible Annual Meeting session topics to the committee, and assembling calls for papers, and then coordinating the organization of sessions for the meeting.
- **Symposium Planning:** This group will be responsible for planning future offerings of the National Aviation System Planning Symposium and other symposia organized by the committee.
- **Strategic Planning:** This group has the charge to evaluate and revise the committee's triennial strategic plan.
- **Membership:** This group has the charge to review the current committee membership, identify potential new members, and recommend new members

### **Committee Activities since the last TSP**

The committee has sponsored or co-sponsored between four and seven sessions at the last five Annual Meetings, as shown in Table 2. In addition, the committee has organized two National Aviation System Planning Symposia. Topics covered at the symposia included challenges to aviation system planning, aviation industry trends, and perspectives from the local, regional and federal levels.

The Eighth National Aviation System Planning Symposium (8<sup>th</sup> NASPS) was held on May 20-22, 2012 in Galveston, Texas. The symposium was organized in cooperation with the Texas Transportation Institute, the City of Galveston, and Galveston Scholes International Airport, and attracted 90 participants. The symposium program comprised six plenary sessions and four concurrent sessions.

The Ninth National Aviation System Planning Symposium (9<sup>th</sup> NASPS), was held May 17-19, 2015 in Charleston, South Carolina. It was organized in cooperation with the South Carolina Aeronautics Commission, the Charleston County Aviation Authority and

the City of Charleston. The symposium program consisted of seven plenary sessions and four concurrent sessions, and attracted over 100 participants.

The committee has participated in the review of Airport Cooperative Research Program (ACRP) Problem Statements, providing comments and recommendations to ACRP staff for forwarding to the ACRP Oversight Committee.

The committee formed the Subcommittee on Research Needs (AV020(1)), in partnership with AV010 – Committee on Intergovernmental Relations in Aviation. The sub-committee is currently chaired by a member or friend of AV020. Membership in the subcommittee is open to any member of an Aviation standing committee. The purpose of the subcommittee is to coordinate research interests among the Aviation Group, to facilitate populating the TRB Research Needs Statements (RNS) database, as well as to provide coordination with the TRB Airports Cooperative Research Program (ACRP).

### **Committee Communications**

The committee meets twice a year during the TRB Annual Meeting in January and mid-year to plan for up-coming TRB meetings. In addition to these meetings, the principal means to communicate activities of the committee to members and friends include the committee members' mailing list, a web page at <http://sites.google.com/site/trbcommitteeav020>, and the new myTRB web portal.

As expected, the committee's internal email mailing list is the most actively used means of communicating within the membership. It is used to plan for up-coming TRB meetings, keep members updated on activities of AV020 sub-committees and important developments related to aviation systems planning. The committee intends to convert the management of its e-mail distribution list to the myTRB site. The committee has a communications coordinator (CCC) position.

### **Critical Issues Identified by the Committee**

As part of the committee's triennial strategic planning update, the committee engages in discussion to identify and discuss issues that are critical to the future of aviation system planning. As a result of the most recent series of discussions, the following issues were identified. These issues may form a basis for developing research statements, calls for papers, and presentation sessions at the TRB Annual Meeting, the National Aviation System Planning Symposium, and committee hosted webinars and other activities.

- Emerging Technologies: (suggested coordination with committee AV060- Airfield and Airspace Capacity and Delay)

How will emerging technologies in aviation, navigation, communication, and data dissemination and analytics affect the strategic operation of airports and the National (and International) airspace system? Specific technologies to consider include:

- “NextGen” Air Traffic Management Technologies
- Arrival & Departure flow metering technologies
- e-Loran
- ADSB-In / Out
- Alternative Position, Navigation, and Timing (APNT)
- Alternative aircraft taxi systems
- Fiscal, Economic, and Intermodal Issues  
(Suggested coordination with committee AV010 – Intergovernmental Relations in Aviation and committee AV040 – Aviation Economics and Forecasting)
  - Sustainable funding models for aviation systems
  - Understanding the economic impact of aviation/airport systems
  - How do airports integrate with other modes within the system
- Issues affecting the General Aviation Sector  
(Suggested coordination with committee AV080 – Light Commercial and General Aviation)
  - The challenge of tracking activity at non-towered general aviation airports
  - Pilot supply challenges
  - Issues concerning the preservation of general aviation airports
- Environmental Issues in aviation system planning  
(suggested coordination with committee AV030 – Environmental Impacts of Aviation)
  - Increasing challenges with air quality and climate change
  - Airport generated noise impacts
  - Water quality issues
  - Wildlife hazard management
- New Aircraft in the Airspace  
(suggested coordination with committee AV070 – Aircraft/Airport Compatibility)
  - Unmanned Aerial Systems
  - Commercial Space Transportation
- Does the new DOT 30 year vision impact our thinking on future trends?
  - <http://www.dot.gov/BeyondTraffic>

## **Planned Activities for the Next Triennium**

The committee has identified the following traditional ongoing activities as well as the following new activities to pursue over the next triennium.

### Traditional Activities

- Continue to identify critical transportation issues affecting aviation system planning on an annual basis
- Continue to sponsor paper and conference sessions at TRB Annual Meetings
- Continue to identify potential topics for TRB Annual Meeting sessions at committee meetings and issue appropriate Calls for Papers
- Recommend papers for consideration for TRB-sponsored awards
- Continue periodic committee-sponsored symposia and/or workshops, including organizing the 9<sup>th</sup> and 10<sup>th</sup> National Aviation System Planning Symposia.
- Prepare a TRB E-Circular documenting the results of the 9<sup>th</sup> National Aviation System Planning Symposium
- Continue to develop research problem statements to be submitted for consideration under the ACRP and review and comment on ACRP problem statements relevant to aviation system planning submitted by others, including the creation of a “Recommended but Not Funded” research needs database.
- Encourage participation on ACRP project panels
- Continue to identify and document research needs
- Continue to encourage diverse participation in committee membership and activities
- Continue to enhance the committee communications strategy, consider the committee website and use of social media to increase the visibility of committee activities and encourage more active participation in the work of the committee by members and friends

### Proposed New Activities

- Creation of a committee mentorship program
- Create a white paper on critical issues in aviation system planning
- Identify stakeholders and information needs for aviation system planning
- Participate in creating the 2016 Transportation Research News special Aviation edition
- Deliver at least one webinar each year, perhaps based on one of the critical issues

- Explore the feasibility of establishing a blog on issues relevant to aviation system planning as a forum to encourage greater interaction among committee members and friends and involve the wider aviation system community in committee activities

**Table 1: Composition of Committee Membership, as of January 2015**

State / Country	Number	Organization Type	Number
Alabama	1	Airport	1
Alaska	2	Consulting	8
California	3*	Federal Government	2
DC	2	Non-Profit	1
Florida	2	Other	2
Georgia	2	Professional Organization	1
Massachusetts	2	Regional Agency	1
Missouri	1	State Government	6
Nebraska	1	University	9
Ohio	2		
Oklahoma	1		
Pennsylvania	2		
South Carolina	1	Young Members	4
Texas	3*	Emeritus Members	2
Virginia	1	International Members	2
Virginia	2		
Washington	1		
Brazil	1		
Turkey	1		
* California and Texas counts include 1 Emeritus member each			
** Other includes retirees and international agency representatives			

**Table 2: Recent Committee Sponsored and Co-Sponsored Sessions**2011 Annual Meeting

- Workshop - Aviation Data: Developments in Availability, Timeliness, and Scope\*
- International Developments in Aviation System Planning
- Integrating High Speed Rail with Airports: Implications for Airport Systems Planning
- Airport System Performance Measurement
- Integrating High Speed Rail with Airports: Intergovernmental Relations Issues\*
- Airport Hazard Management: Wildlife and Foreign Object Debris \*

2012 Annual Meeting

- Workshop - Aviation System Planning: Roles, Resources, and Responsibilities\*
- Current Issues in Airport Strategic Planning
- Commercial Space Transportation: The Endless Frontier\*
- Balancing Accessibility with Sustainability in Aviation System Planning

2013 Annual Meeting

- Rethinking the Fundamentals of Aviation System Planning
- Aviation System Planning: Considering the Return on Investment\*
- What's Happened to General and Business Aviation? Understanding the Implications of Recent Trends\*
- Commercial Space Transportation Past and Present: Money Wasted or Opportunities Galore?\*

2014 Annual Meeting

- Workshop - Aviation 101: How to Get Involved and Make a Difference
- Workshop - What's the "Big Data" Deal for Aviation?
- Reorienting Aviation System Planning: It's not just for Facility Planners Anymore\*
- ACRP Projects that Have Positively Affected Aviation System Planning\*
- Social Media Use in Aviation\*
- Workshop - Preparing for the Near Future of Aviation with Integrated NextGen and Unmanned Aerial Systems\*
- Commercial Space Transportation\*

2015 Annual Meeting

- Workshop – NextGen Part 1: Portfolios, Plans, and Performance\*
- Workshop – NextGen Part 2: The Road Ahead\*
- Viewpoints of the Emerging Ridebooking Phenomena\*
- Impacts of Airline Consolidation on Airport System Planning\*
- International Aviation and Global Connectivity\*
- The Latest in General Aviation System Planning\*
- Funding Shortfalls and New Mechanisms to Address Changing Aviation Financial Dynamics\*

2016 Annual Meeting

- Workshop – Unmanned Aircraft Systems Part 1\*
- Workshop – Unmanned Aircraft Systems Part 2\*
- Workshop – Commercial Space: Exploring the Path Forward\*
- The Human Side of Aviation: Exploring Next-Generation Workforce Challenges
- How Megatrends Affect Aviation Systems Planning
- Underlying Factors Affecting General Aviation
- Airports and NextGen: Updates on Airport Cooperative Research Program NextGen Projects
- Evolving Commercial Ground Transportation Services: Implications for Long-Term Airport Planning\*
- Multimodal Connections: Passenger Accessibility\*

\* Co-sponsored session