

**AIRFIELD & AIRSPACE CAPACITY & DELAY COMMITTEE (AV060)**  
**STRATEGIC PLAN**  
**JANUARY 2014**

## **Background**

The ability of the international aviation system to accommodate continued growth in activity is heavily dependent on the capacity of the systems' airports and airspace. Capacity constraints in either area can result in delays, inability to meet passenger and shipper needs, and—in extreme cases—limit local and regional economic growth. Understanding the reasons for such constraints, the spectrum of alternatives to address them, and the consequences/likely outcomes if they are not addressed is essential to meeting global air transportation needs.

## **Mission**

The Airfield and Airspace Capacity and Delay Committee (AV060) promotes the development and dissemination of knowledge, as well as the diffusion of safe, sound, and innovative practice, pertaining to airfield and airspace capacity and delay.

## **Scope**

The Committee promotes innovation and progress in capacity enhancement and delay reduction in the short, medium, and long term. Short term actions promote more efficient and equitable use of existing capacity through air traffic management and improved resource allocation. Medium term actions range from developing new procedures to airfield and airspace enhancements, including new runways and airports. Long term actions focus on technological improvements that relax fundamental constraints on airspace and airfield capacity, such as separation requirements, minimum runway spacing, navigation precision, and tools that enhance controller capability.

It is also concerned with the development, evaluation and application of improved data and techniques for analyzing and measuring airfield and airspace capacity, delay, and aviation system performance, and with activities and actions that affect airfield and airspace capacity and delay. In the conduct of this mission the committee will consider the institutional, financial, environmental, energy and air traffic control issues which affect airfield and airspace capacity and delay.

The Committee also tracks major U.S. and international air traffic enhancement initiatives including the FAA Next Generation Air Transportation System (NextGen) program, the Eurocontrol Single European Skies ATM Research (SESAR) program, and the International Civil Aviation Organization (ICAO) Aviation System Block Upgrades initiative.

## **Research Areas**

Specific Research areas within the Committee's scope include, but are not limited to:

1. Capacity and delay performance metrics.
2. Air traffic control/management policies, procedures, technology that serve optimize capacity and reducing delay.

3. Capacity and delay estimation methods and tools, including airfield & airspace simulation models.
4. U.S. and international initiatives, legislation, and regulation that affect enhance airfield & airspace capacity & delay.
5. The role and use of airfield & airspace capacity & delay in airport and airspace planning and design.
6. Techniques for assessing and comparing the benefits and costs of capacity enhancement & delay reduction policies, procedures, infrastructure, or technologies as well as prioritizing these policies, procedures and technologies.
7. The impacts of capacity enhancement & delay reduction policies, procedures, or technologies on passenger, airport operators, aircraft operators, communities, and the environment.
8. Air traffic automation and traffic flow management (TFM) capabilities and processes including (1) probabilistic TFM and (2) improving the accuracy of predictions and reducing uncertainty in within airspace systems.
9. Airport surface management systems, processes and procedures.
10. Technological, procedural, and policy enhancements that minimize the impact of weather and other adverse factors on all aspects of aviation activities (safety, efficiency, traffic flow management, airport and en-route operations, passenger service), including during irregular operations events.
11. Collaborative decision making policies, procedures and requirements.

## Goals

1. **Foster Research:** To enhance the TRB's role in fostering and contributing significantly to research, development, implementation, and evaluation of new technologies and innovative practices dealing with the airfield and airspace capacity and delay.
2. **Promote National and International Collaboration:** To create and promote intermodal and cross-aviation collaboration, synergy, and syncretism throughout the TRB community, government, the business sector, and academia addressing and identifying common areas of concern and interest regarding airfield and airspace capacity and delay.
3. **Improve Communication:** To contribute significantly to improved communication and awareness of issues concerning airfield and airspace capacity and delay, disseminate research and ideas, and to solicit opinion broadly and globally.
4. **Provide an Independent Resource:** To make available objective information based on applied research on airfield and airspace capacity and delay challenges and related findings related to aviation.
5. **Encourage Optimal Practices:** To support applied research-based technology, plans, and programs that will reduce operational and economic impediments and improve the efficiency of airfield and airspace operations and reduce airfield and airspace delay.
6. **Identify Emerging Trends:** To create a forum for identifying and addressing emerging trends within applied research and needing applied research.

## Action Plan

In each of the next three years the Committee will:

1. Sponsor two or more sessions at each TRB Annual Meeting, targeted on specific issues of current, medium-, and long-term importance to airspace and airfield capacity and delay.
2. Co-sponsor at least one session at each TRB Annual Meeting with another TRB committee on a topic of mutual interest.
3. Sponsor or co-sponsor one or more workshops that will present in-depth technical knowledge and information on a topic of high relevance to airport and airspace capacity and delay.
4. Prepare and disseminate a "call for papers" every year, to encourage submission of papers relevant to identified short-, medium-, and long-term research needs.
5. Update items pertaining in airfield and airspace capacity and delay in the TRB research needs data base.
6. Assist TRB and Airport Cooperative Research Program (ACRP) staff with the review of ACRP problem statement submittals pertinent to airfield & airspace capacity & delay and promote ACRP research within the Committee's purview.
7. Develop at one to two ACRP problem statements per year for submittal to ACRP for consideration.
8. Meet, either in-person or by teleconference, at least two times annually, including once in-person at the TRB Annual Meeting.
9. Maintain a website containing presentations, papers, upcoming events, membership contact information, meeting minutes, and other information regarding committee activities and airfield and airspace capacity and delay.
10. Appoint members or friends to serve as liaisons to other committees in the TRB aviation section and other TRB sections.
11. Maintain an updated mailing list of committee friends and include friends in the activities of the committee to the fullest extent possible.
12. Sponsor a web-based seminar on a topic of interest to the Committee.
13. Establish more formal means of coordination with the FAA's Research, Development & Engineering Advisory Committee, NASA, and other advisory committees' that are involved in airport capacity & delay research. Foster collaborative relationships with international organizations involved in capacity & delay research (including ACRP research) and ATM program development (e.g., US/Europe ATM Seminar, SESAR, INFORMS, CANSO, ICAO).
14. Develop a Committee white paper regarding critical capacity & delay issues facing the aviation industry and aviation research community.
15. Continue to support the Young Members Council-Aviation and development of the International Members Council.
16. Assess how well we have performed relative to the action plan on an annual basis.