

AVIATION RESEARCH AND PLANNING

For more than three decades, the Texas A&M Transportation Institute (TTI) has been actively involved in the development and improvement of the Texas Airport System. TTI's contributions include activities related to planning and programming of airport projects, airport maintenance, and aviation education. TTI researchers have provided valuable guidance on a variety of issues to the Aviation Division at the Texas Department of Transportation (TxDOT) and to small and large airports across the state, including the Dallas-Fort Worth International Airport, Houston's George Bush Intercontinental Airport and small airports such as Bryan's Coulter Field.



Airport System Research and Technical Analysis

TTI's familiarity with the structure and function of the Texas Airport System and the issues it faces makes the Institute a clear choice in conducting research and technical analysis.



Airport System Planning

The cornerstone of TTI's statewide airport activities is participation in TxDOT's Regional Planning Meeting Program to develop and continuously improve the Texas Airport System Plan. TTI helps conduct public regional airport planning meetings across the state with elected and appointed city and county officials, airport businesses, tenants, users, and other interested parties. This continuous airport planning process helps ensure that airports are meeting the needs of the communities they serve, and that the communities are utilizing their airport as an economic generator. Participation in this program has provided TTI researchers with a keen understanding of and familiarity with the operations and challenges associated with the state's 292 airports.

Recent research and analysis projects undertaken by TTI staff include:

- Review of and Recommendations for Ground Communications Outlets (GCO) in Texas
- Exurban Airport System Development in Texas
- General Aviation and Tourism in Texas
- Wayfinding and Signing Guidelines for Airport Terminals and Landside (Airport Cooperative Research Program Report 52)
- Assessing Post-runway Extension Activity Changes in Demand Using Data from Instrument Flight Rules
- Evaluating the Impact of Airports on Surrounding Property Values
- Assessing Proposed Crosswind Runway Construction in West Texas
- Landside Freight Access to Airports: Findings and Case Studies
- Guidebook on Landside Freight Access to Airports
- Potential Development of an Intercity Passenger Transit System in Texas



Aviation Education

TTI is credited with bringing to the forefront the need in Texas to address aviation education in a university setting through its 2003 report, *Aviation in Higher Education: The Development of a Comprehensive Aviation Management and Commercial Pilot Program in Texas*. TTI research on aviation in the higher education arena during the last decade has led other organizations to further examine educational issues in other regions of the state. TTI's Summer Transportation Institute has also focused on aviation in an effort to bring attention to aviation educational and career opportunities available to Texas high school students. TTI staff are often called on to speak at aviation conferences and other educational activities around the state.

National Airport Cooperative Research Program

TTI researchers are active in the Airport Cooperative Research Program (ACRP), a federally funded research program administered through the Transportation Research Board of the National Research Council. TTI's human factors research staff recently completed a project on airport wayfinding and signage, while TTI's TransLink Research Center staff is examining the use of intelligent transportation systems to improve airport traveler information quality and access.

Aviation Publications

In collaboration with TTI researchers and communications staff, TTI produces *Wingtips*, the full-color, quarterly newsletter that serves as the official publication of TxDOT's Aviation Division. TTI serves as managing editor of the publication, producing original content and coordinating the design, printing and distribution for its 4,000 readers across the country. Since 2002, TTI staff have served as contributing writers for the, "Air Transportation in Texas" section of the *Texas Almanac*.

Texas Aviation Conference

TTI staff play major roles in the planning and execution of the annual Texas Aviation Conference sponsored by TxDOT, the Texas Airports Council and the Texas Aviation Association. This conference attracts approximately 500 aviation officials from more than 20 states and provides professional development on the current issues, trends

and challenges facing the aviation industry. TTI serves as technical program chair and handles major logistical responsibilities to ensure high-level speakers, sessions and workshops, as well as suitable facilities and resources for the conference.

Air Cargo

TTI research on air cargo activities dates back to the 1970s but more recently has focused on the level and types of air cargo activities found at airports in Texas. Researchers have focused attention on the landside access issues related to moving freight to and from airports throughout the state. Researchers are currently involved in examining air cargo activity in the 10-state Mississippi Valley Freight Coalition Region in a joint project with researchers at the University of Wisconsin–Madison.



About TTI

The Texas A&M Transportation Institute, established in 1950, seeks solutions to the problems and challenges facing all modes of transportation. The Institute conducts over 600 research projects per year for over 200 public and private sponsors. The comprehensive nature of the Institute ensures adequate resources in a variety of related and complementary areas of TTI, including:

- Center for Transportation Safety
- Center for Transportation Economics
- Multimodal Freight Program
- Center for Professional Development

TTI's Mission

To solve transportation problems through research, to transfer technology and to develop diverse human resources to meet the transportation challenges of tomorrow.

Contact

Jeffrey D. Borowiec, Ph.D.
Research Scientist
Aviation Practice Leader
Texas A&M Transportation Institute
College Station, TX 77843-3135
979-317-2283
jborowiec@tamu.edu
<http://tti.tamu.edu/aviation>