FREIGHT TRANSPORTATION

Got Freight? TTI has freight solutions.

Freight mobility programs at the Texas A&M Transportation Institute (TTI) research technology, policy and operational issues associated with freight transportation as well as issues associated with the interconnection of modes. TTI researchers also have extensive experience solving freight mobility problems in a broad range of environments — from a congested roadway segment, to an intermodal facility and even at international borders.

TTI researchers tackle pressing issues with all modes of freight transportation. Selected areas of research and initiatives at TTI include:

- Freight Shuttle System
- Freeway Truck Operations
- Freight Rail
- Multimodal Freight Connections
- Ports and Waterways
- Supply Chain Management
- Trade Globalization
- Border Freight Mobility
- Intermodal Trucking
- Air Cargo
- Freight Mobility
- Hazardous Cargo Transport
- Environmental Impacts of Trucks

From the extensive list above it becomes clear that addressing the world’s freight transportation problems is an interdisciplinary research function. TTI’s unique team of researchers are recognized as national and international experts in the broad subject areas necessary to solve complex freight mobility problems. Their extensive experience is pivotal in allowing TTI the flexibility to tailor interdisciplinary teams to solve freight transportation problems for sponsors throughout the U.S. and internationally.
Freight Mobility
TTI researchers have evaluated freight mobility for a number of private and public sponsors. One example is TTI’s definitive national study documenting congestion costs and trends in U.S. urban areas. The 2011 Urban Mobility Report estimates that truck delay and wasted diesel fuel costs totaled $23 billion in these metropolitan areas in 2010. Researchers also estimated that $7 trillion worth of commodities were trucked on America’s urban streets and highways in 2010. TTI’s 2011 Congested Corridors Report identified the truck costs of delay and diesel fuel for specific congested corridors in the U.S.

Center for Ports and Waterways
Seaports and inland waterways play a vital role in Texas’ economy and throughout the U.S. To help preserve this vital economic component and to position the industry to take advantage of opportunities for growth, the Texas Legislature established TTI’s Center for Ports and Waterways (CPW) in 1995. The CPW provides invaluable applied research at the local, regional and national level benefiting both the State of Texas and the nation.

Rail Research
Rail is a critical component of our nation’s transportation system. TTI researchers are dedicated to exploring the future of freight and passenger rail. Other activities include the interaction of rail with other transportation modes such as intermodal trucking or ships and with traffic at highway-rail crossings. TTI’s Center for Railway Research (CRR) was recently established to identify emerging technology for the railroad industry and to bring together researchers and industry to form a pool of experts to coordinate and perform applied research for the rail transportation industry.

International Trade and Transportation
TTI performs applied research to improve trade and transportation conditions between the U.S. and its North American Free Trade Agreement (NAFTA) partners. TTI has developed and implemented systems to measure border crossing and wait times at international land border crossings. The information is being disseminated in close to realtime through a web-based tool that also has the capability of analyzing archived information for planning purposes. TTI has experience in analyzing freight corridors in North America and other trading blocks. In Canada, TTI developed two performance indicators termed “fluidity” measures. In Mexico, TTI participated in the development of the Multimodal Corridor Master Plan, which included both the actions and strategies to improve the multimodal transportation system in Mexico. TTI has experience in analyzing freight transportation issues and their implications to other related fields, such as climate change and air quality, economic competitiveness and infrastructure development.

Aviation Research
For more than three decades, TTI has been actively involved in the development and improvement of the Texas Airport System and other aviation research. TTI’s contributions include activities related to planning and programming of airport projects, airport maintenance, air cargo, airport access and aviation education. TTI has also provided recommendations for land access for freight at airports.

About TTI
The Texas A&M Transportation Institute, established in 1950, seeks solutions to the problems and challenges facing all modes of transportation—surface, air, pipeline, water and rail. The Institute works with nearly 200 sponsors in the United States and abroad at all levels of government and in the private sector and is recognized as one of the finest higher-education-affiliated transportation research agencies in the nation. TTI has saved the state and nation billions of dollars through strategies and products developed through its research program. TTI research has a proven impact — resulting in lives, time and money saved.

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