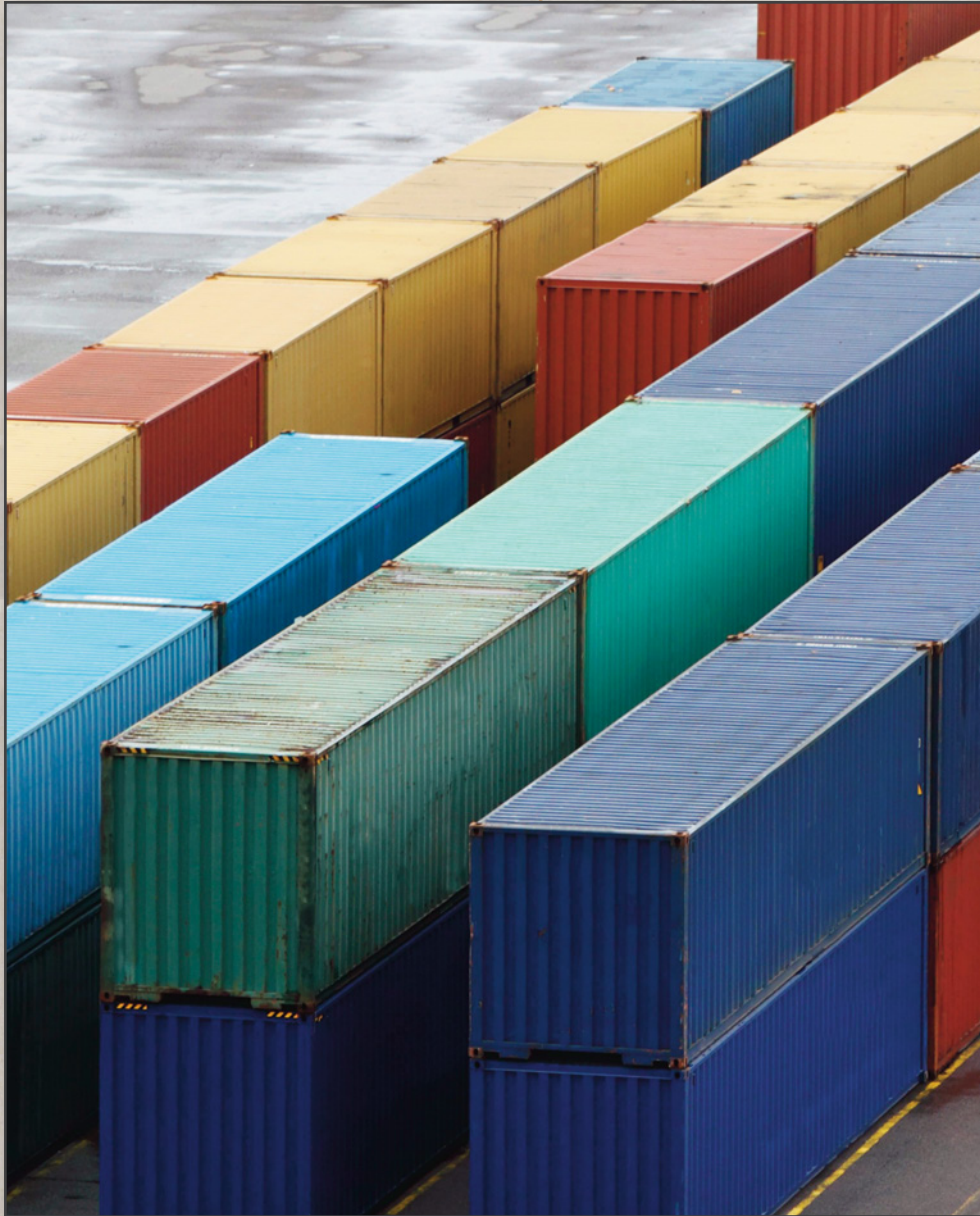


North Central Texas Regional Freight System Inventory

Executive Summary

May 2013



North Central Texas Council of Governments



Source: NCTCOG

Freight North Texas: The North Central Texas Regional Freight System Inventory

highlights policies, programs and projects needed to improve freight planning and operations in North Central Texas. Advancing the freight initiatives identified in this North Central Texas Council of Governments (NCTCOG) document can provide the region with many benefits, including improved safety, mobility and air quality.

Dallas-Fort Worth's location at the center of one of the nation's major trade corridors provides the freight industry access to different modes of transportation for moving goods. This access permits the timely and efficient delivery of goods, which helps reduce costs, thereby increasing savings for the region's consumers. Additionally, the region's employees benefit from the high-paying jobs that are provided.

Freight North Texas is organized into five chapters:

- *Introduction to Freight Planning*
- *Overview of Freight in North Central Texas*
- *The Regional Freight System*
- *Freight in the Future*
- *Where Do We Go from Here?*

The overarching **Freight North Texas** goal is to enhance the safety, mobility and air quality of regional freight movements by completing a comprehensive freight-system review and recommending future policies, programs and projects.

Nationally, successful freight programs focus on a regional approach to addressing needs. **Freight North Texas** seeks to provide the framework for such an approach.

NCTCOG freight staff worked with local partners and colleagues from metropolitan planning organizations across the country to develop **Freight North Texas**. The process began in July 2010, when NCTCOG, in partnership with the Federal Highway Administration, called on staff from MPOs with completed freight plans to provide input regarding issues North Texas should address. NCTCOG took the lessons from this discussion and incorporated the advice into a document specifically tailored to the Dallas-Fort Worth area.

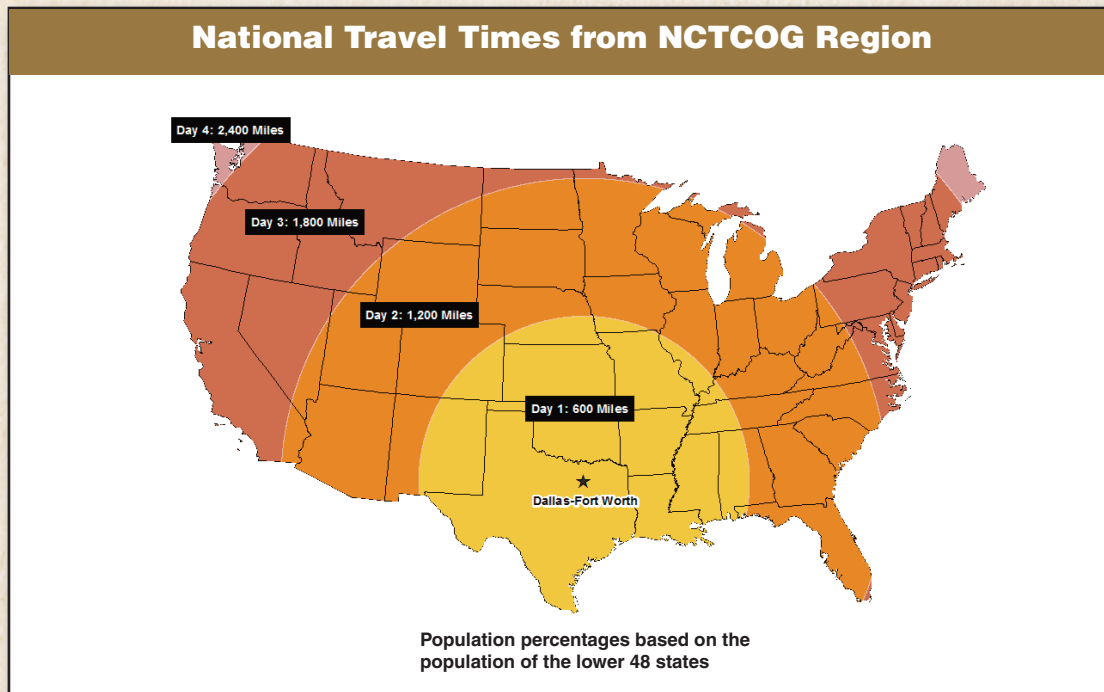
Freight North Texas includes a current system assessment and future needs analysis. As part of this effort, staff brought together regional freight professionals for the Regional Freight Advisory Committee (R-FAC). The R-FAC provides guidance to NCTCOG staff regarding freight activities and strategic product and project review.

North Central Texas Regional Freight System

Freight Distribution

North Central Texas is a national leader and innovator in transportation policy and programs. NCTCOG oversees the freight system in the 12-county metropolitan planning area (MPA), made up of Collin, Dallas, Denton, Ellis, Hood, Hunt, Johnson, Kaufman, Parker, Rockwall, Tarrant and Wise counties. **Freight**

North Texas and the R-FAC will advise NCTCOG staff, the Regional Transportation Council's (RTC) Intermodal/Multimodal/High Speed Rail/Freight Subcommittee and the RTC on freight plans, policies, programs, projects and partnerships.



Dallas-Fort Worth's location allows a large majority of the country's population to be reached by truck within three days. This map provides an estimate of how long it takes to deliver goods throughout the contiguous US.

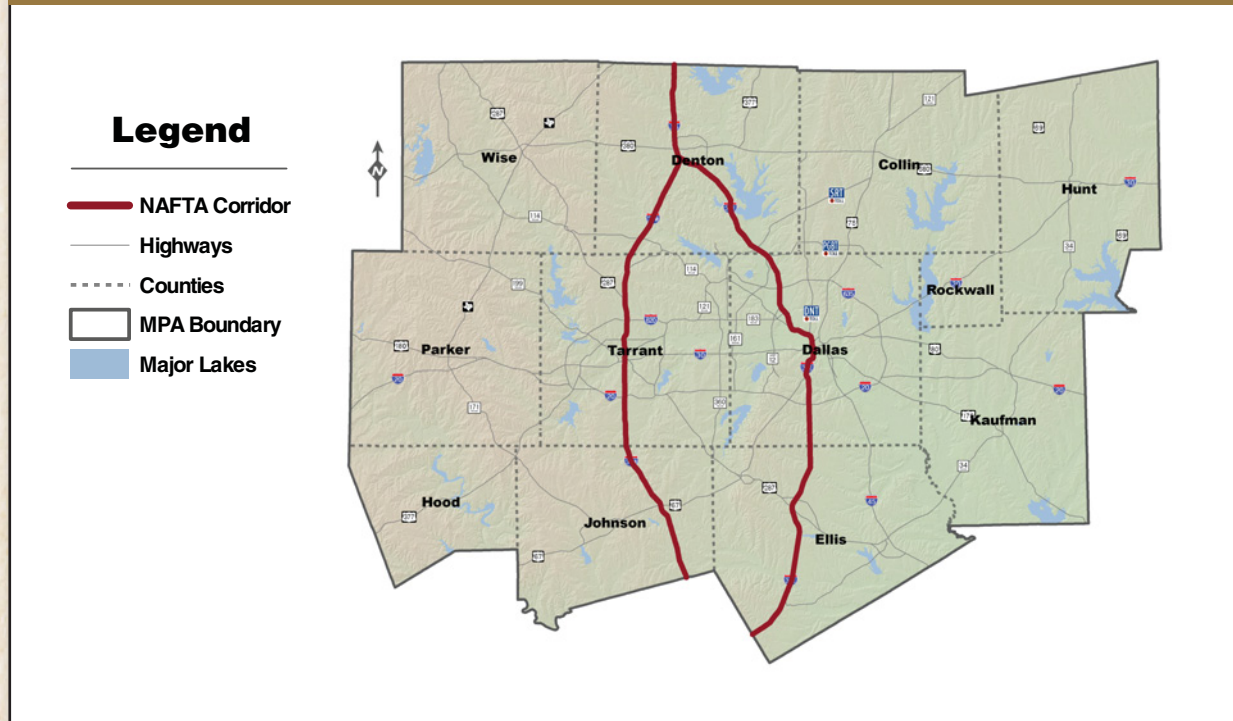
Freight transportation is an important component of the North Central Texas economy. The region is located at the junction of four major interstate highways (IH): 20, 30, 35 and 45. But there is more to the industry than trucks. The region is a national railroad crossroads, as well as a national and international air cargo nerve center, making the region a logistics hub. The freight industry is not only vital to the regional and state economies, but also the national economy. North

Central Texas is one of the largest inland ports in the nation (the largest without a seaport) where freight is moved, transferred and distributed to destinations across the nation and around the world. The region also has extensive surface- and air-transportation networks, providing numerous trade opportunities for the hundreds of freight carriers and forwarders operating in the region.

North Central Texas Regional Freight System

North American Free Trade Agreement (NAFTA)

Interstate Highway 35 Corridor



IH 35 is an important corridor along which goods are delivered between the US and Mexico. The North American Free Trade Agreement encourages the free flow of goods throughout North America.

In 2010, North Central Texas accounted for 34 percent of Texas' gross domestic product.

Major east-west and north-south highways make the region a hub for transportation activity. The governments of the US, Canada and Mexico established the North American Free Trade Agreement in 1994 to encourage the free flow of goods throughout the continent. IH 35 serves as a transportation vein from Minnesota to South

Texas and is therefore important to the transportation of goods both throughout the nation and North America. The split of IH 35 into eastern and western corridors in North Central Texas allows goods to be moved through Dallas and Fort Worth along the highway.

North Central Texas Regional Freight System

Freight Modes



Source: NCTCOG

Truck

Hundreds of local and national trucking companies operate within the region. Trucks are an essential component of the supply chain.

Trucks carry products during the supply chain's critical first and last miles.

Approximately 83 percent of all goods transported to and from the region are on trucks.

First/Last Mile: Highway connections to distribution points key to the efficiency of the freight system.

Class I Railroads: The largest freight railroads based on operating revenue.

Train and Railroad Crossing Facts

- The average train weighs 12 million pounds.
- A train traveling 50 mph and pulling 100 cars takes one mile to stop.
- The weight ratio of a train to a car is the same as a car to an aluminum can.
- The majority of vehicle-train collisions occur when trains are traveling less than 35 mph.
- Nearly two-thirds of collisions occur during daylight hours.

Source: Tennessee Department of Transportation



Source: Thinkstock

North Central Texas' rail network consists of more than 2,300 miles of track, linking the region with the nation's major shipping routes.

Rail

Three Class I Railroads (BNSF Railway, Kansas City Southern Railway and Union Pacific Railroad) and two regional railroads (Dallas Garland and Northeastern Railroad and Fort Worth and Western Railroad) operate in the region. BNSF Railway's headquarters are located in Fort Worth, making the company an important regional asset.

Freight is not a transportation mode, but rather the material transported by rail, truck, air and water.

North Central Texas Regional Freight System

Freight Modes

Source: NCTCOG



Nearly all of North Central Texas can be accessed by truck from the region's intermodal facilities within one hour.

Intermodal

The region is home to three major intermodal rail yards, BNSF Railway's AllianceTexas facility in Fort Worth, Union Pacific Railroad's Dallas Intermodal Terminal in Wilmer and Hutchins and UPRR's Mesquite Terminal. Combined, these facilities handle over 1 million cargo container lifts annually.

Lift: The process of moving a container or trailer to and from a rail car.

**Table 1:
Dallas-Fort Worth
Intermodal
Facilities**

Name	City	Annual Lift Capacity
Alliance Intermodal Facility	Fort Worth	600,000
Dallas Intermodal Terminal	Wilmer-Hutchins	365,000
Mesquite Intermodal Terminal	Mesquite	225,000

Source: IANA, 2011

Pipelines

Pipelines and pipeline facilities throughout the region transport petroleum, natural gas and other hazardous materials necessary to industry and the public.

The oil and natural gas industries are integral to the region's economy. The Dallas-Fort Worth area is located atop the Barnett Shale, a natural gas field stretching across the region. Regional commercial pipelines total approximately 16,000 miles, roughly the same distance as six roundtrip flights between D-FW and Washington, D.C. The Barnett Shale covers 5,000 square miles and eight of the 12 counties in the metropolitan planning area: Dallas, Denton, Ellis, Hood, Johnson, Parker, Tarrant and Wise.



Source: Thinkstock

The region's pipeline network is approximately 16,000 miles long, roughly equal to six round trip flights between D-FW and Washington, DC.

The regional pipeline network moves 62.8 million tons annually, second only to trucks in tonnage transported.

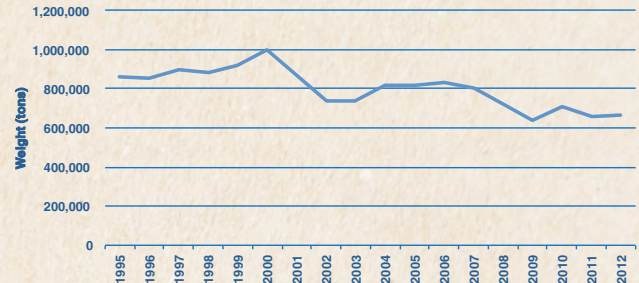
North Central Texas Regional Freight System

Freight Modes

Air Cargo

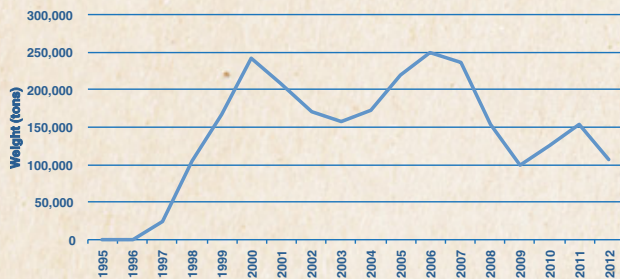
Air cargo is the freight and mail moved by air. This mode typically consists of high-value or high-priority items and represents only a small share of the total tonnage shipped annually in the US. In 2006, air transportation carried 15.4 billion tons, or 0.3 percent, of the total cargo shipped in the US.

DFW International Airport Air Cargo Tonnage



Source: DFW and Alliance Airports

Alliance Air Cargo Tonnage



These graphs illustrate the total air cargo tons processed per year at Dallas/Fort Worth International Airport and Fort Worth Alliance Airport since 1995.

In North Central Texas, all scheduled regional air cargo is handled at one of three airports:

- *Dallas/Fort Worth International Airport*
- *Dallas Love Field*
- *Fort Worth Alliance Airport*

Ports

While the North Central Texas region does not have direct access to a water port, the region is one of the largest inland ports in the nation. Freight is moved, transferred and distributed to destinations across the state and nation and around the world. The region's extensive surface and air transportation networks provide numerous trade opportunities for freight carriers and forwarders operating in the region and collectively serve as an inland port.



Inland Port: A site without direct access to water, operating in a similar capacity to that of a seaport

North Texas is one of the largest inland ports in the nation, in both size and the amount of freight processed.

Source: AllianceTexas

North Central Texas Regional Freight System

NCTCOG Freight Program

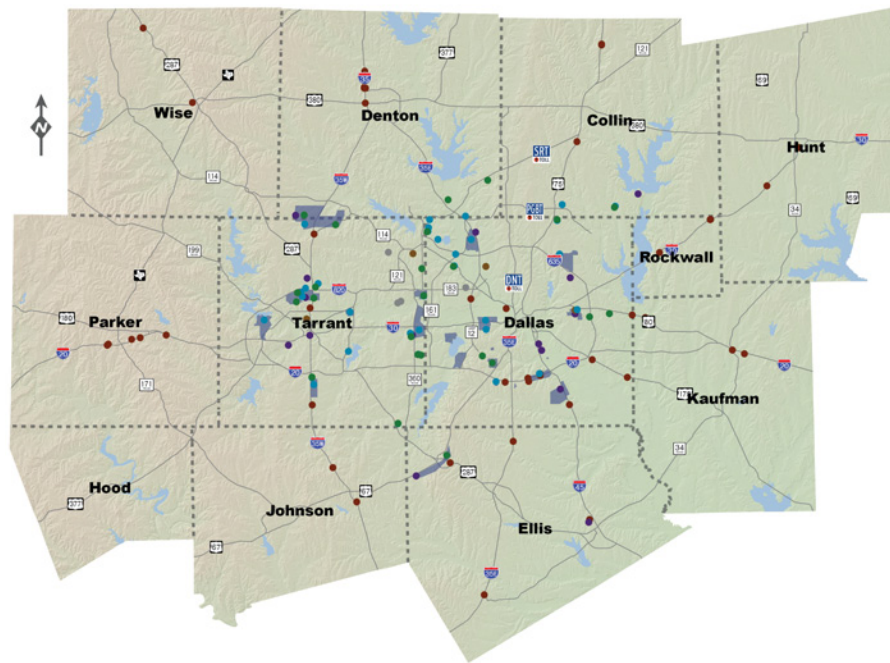
The purpose of NCTCOG's Freight Planning Program is to enhance the regional freight system, both within the North Central Texas region and at its national and international connections. Close coordination with regional partners on operational and mobility analyses of air cargo, freight rail, truck and pipeline activities helps NCTCOG accomplish these goals. The region's central location, extensive highway and freight rail systems, and strong aviation presence make it a logical

center for logistics. A variety of freight facilities, from distribution centers and intermodal hubs to pipelines, contribute to the region's status as an industry leader. The map below illustrates the diversity of North Central Texas' freight industry. The region compensates for no direct access to a water port by relying on other modes of freight transportation to move goods to their destinations.

Freight Transportation Facilities

Legend

- Foreign Trade Zones
- Industrial Parks
- Parcel Shipping
- Pipelines
- Rail
- Truck Stops
- Freight Oriented Developments
- Highways
- - - Counties
- Major Lakes



North Central Texas has many transportation assets making the region an important logistics hub. As this map shows, the region's freight facilities are spread across several counties. North Central Texas' transportation system and location also have contributed to its status as an employment center.

Freight Program Prioritization

A process to prioritize freight programs is important to ensure the most critical infrastructure and capacity issues are resolved quickly and cost effectively.

Ranking projects and programs by benefit and cost will ensure limited resources are used where they will have the greatest impact. The collection of accurate freight data is crucial to the success of NCTCOG's Freight Planning Program. Accurate data will allow NCTCOG staff to forecast and plan for the region's future freight traffic needs. As the metropolitan area continues to grow, reliable forecasts will become increasingly important to the companies transporting goods, the

entities receiving them, and – ultimately – consumers.

Table 2 outlines efforts required to improve data available to NCTCOG staff for each freight mode.

Obtaining the identified information will provide NCTCOG staff with an accurate indication of needed infrastructure improvements and capacity issues faced now and in the future. Goods transported to Dallas-Fort Worth and beyond, whether by air, road, rail or pipeline, must share finite capacity with people working in and visiting the region every day, making an accurate inventory important.

Table 2. NCTCOG Freight Program Needs

Freight Planning Program Area	Data and Information Needs
Freight	<ul style="list-style-type: none">• An advisory committee of key freight stakeholders to offer feedback and provide guidance• A forecasting model of freight movements into and out of the region using all modes
Intermodal	<ul style="list-style-type: none">• Trains per day• Containers per day• Trucks per day• Lifts of containers from rail to truck, rail to rail and truck to rail
Pipelines	<ul style="list-style-type: none">• Location of pipelines in the region• Daily freight traffic numbers
Rail	<ul style="list-style-type: none">• Average daily number of trains originating in, passing through or destined for the region
Trucks	<ul style="list-style-type: none">• Trucks per day• Origin and destination information• Number of trips for local truck traffic• Truck type (tanker, container, delivery, etc.)

Freight Program Prioritization

Freight North Texas Program and Project Goals

In addition to the overarching goal, NCTCOG's Freight Planning Program has several goals to advance and enhance freight planning within the region, including:

- Improve freight movement efficiency
- Establish processes for freight community input
- Promote safety and mobility projects
- Continue MPO involvement with freight industry groups
- Monitor freight traffic throughout the region
- Improve and ensure safe freight movement
- Reduce freight movement air quality impacts
- Evaluate freight facility accessibility
- Review intermodal and freight factors in project selection for rail and other investment studies

Table 3. NCTCOG Freight Program Recommendations

Recommendations	
1	Collect and manage innovative performance measures.
2	Coordinate regional freight planning between local governments and the freight industry.
3	Regional Transportation Council (RTC) adoption of regional freight agenda.
4	Publish county-level freight fact sheets for all 12 counties within the MPA.
5	Publish a quarterly freight newsletter.
6	Publish a regional freight fact book.
7	Publish mode-specific freight fact sheets.
8	Conduct a freight summit every two years.
9	Complete follow-up studies recommended in Freight North Texas .

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