Chapter 15
Efficient Freight Movement
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EFFICIENT FREIGHT MOVEMENT

The economic well-being of the Ohio-Kentucky-Indiana (OKI) region depends in part upon the reliable and efficient movement of freight and goods between producers and markets. An efficient transportation system minimizes the time and costs involved in moving freight. The OKI region is an important location in the nation’s freight transportation network.

Based on national statistics, trucks carry more freight in value and by weight than any other mode. In 1998, trucks carried nearly 80% of the value of all U.S. freight shipped and 70% of the weight of all U.S. freight shipped. Figure 15-1 shows U.S. freight shipments by mode for 1998.

Freight activity is also expected to increase nationally by approximately 70% through the year 2020. Figure 15-2 shows freight movements in 1998, 2010 and 2020 by weight.
The movement of freight-carrying vehicles of various modes affects the amount of urban congestion and air and noise pollution. Problems or inefficiencies with the transportation system can significantly affect a region’s overall economic vitality. Congested or deteriorating roads may slow truck travel, making delivery times longer and less reliable. This may force companies to maintain larger inventories that would increase their cost of doing business and eventually make them less competitive. This is especially true given the trend of many companies using the “just in time delivery” practice exemplified by the high percentage of freight being moved by trucks.

FREIGHT TRANSPORT MODES

The OKI region includes major lines, yards and facilities for numerous freight transport modes. Figure 15-3 shows freight facilities in the region. The following section describes each of the freight transport modes.

Roadway Transport
For moving goods produced or distributed in the region, private trucks and for-hire carriers are the primary mode of transport for market areas within 300 miles. Trucks are also used extensively for carrying goods produced from outside the region to local destinations or for moving them through the region to other markets. Because of its five interstate freeways, this region serves as a gateway for trucks with out-of-region destinations or passing through the region between markets.
Figure 15-3
Freight Facilities

Legend
- Air Transport Facility
- Railroad Yard
- Pipeline Intermodal Facility
- Water Transport Facility
- For Hire Trucking Companies
- Railroad

Map showing various transportation facilities and locations.
Motor carriers provide the most flexible service of any transportation mode. Door-to-door service can be provided to almost all points. A large number of for-hire trucking companies are scattered throughout the region. There are also many smaller private companies that maintain their own fleets of trucks. Figure 15-3 shows for hire trucking companies with 20 or more employees.

**Rail Transport**
Railroads in the OKI region address both national and regional transportation needs. On the national level, the region serves as an important point for consolidating and rerouting rail freight. Regionally, the railroads provide the area with access to the national rail system for outgoing goods and a terminal for goods with local destinations. Rail sidings permit door-to-door service to many points, while other locations require an intermodal connection.

The north-south rail corridor, which passes through the region, has the most activity. Within this corridor, trains from two railroad companies, CSX and Norfolk Southern, have lines connecting Detroit with Atlanta; and one railroad, Indiana & Ohio, connects Detroit to Cincinnati. Although not as busy as the north-south corridor, the east-west corridor is used by several trains that pass through the region on a daily basis. These trains have destinations to such cities as St. Louis and Newport News.

CSX Transportation and Norfolk Southern operate truck-to-rail intermodal hub facilities in the region. CSX’s Queensgate Yard, which includes an intermodal facility and a classification yard for sorting freight cars for continued travel, can handle about 5,000 freight cars per day. This facility is one of the nation’s largest classification railroad yards. Norfolk Southern’s Gest Street Yard, located south of Queensgate Yard, is also a combination of an intermodal and classification facility.

**Water Transport**
Within the OKI region there are 79 water transport facilities. Most serve intermodal purposes, with transfers between barge and rail, barge and truck, or barge and pipeline. The region’s water terminals provide shippers access to all of the country’s major river communities and the Gulf of Mexico.

Barge is the primary mover of goods produced in the OKI region to market areas within a 500-700 mile radius. It is the most energy efficient mode for carrying large quantities of bulk commodities. A typical barge can carry as much coal or grain as 15 rail cars for a little more than one-fourth the energy per ton-mile. The number of barges in a tow ranges from four to 30, with the typical Ohio River tow consisting of 15 barges.
Barge facilities provide local industries an opportunity for the bulk shipment of dry or liquid commodities. Coal, one of the major commodities shipped by barge, is both transported through and consumed locally in the region. One important local coal user in the region is Cincinnati Gas and Electric (CG&E), a subsidiary of the Cinergy Corporation. Other commodities such as chemicals, grains, construction materials, metals, salt for roads, and a variety of general freight items are brought into the region by barge for local consumption.

**Air Transport**

DHL Worldwide Express (DHL), a major air cargo company, has a hub at the Cincinnati/Northern Kentucky International Airport. Nearly one million pounds of cargo are unloaded, sorted and reloaded onto DHL’s fleet of planes each night destined for all parts of the world. DHL’s Cincinnati Hub employs about 2,000 people.

Federal Express also utilizes the Cincinnati/Northern Kentucky International Airport as part of its worldwide service. The major airlines also provide some air cargo services at the Cincinnati/Northern Kentucky International Airport.

**Pipeline Transport**

Pipelines are generally the lowest cost, highest volume, and least flexible mode of goods transport. Natural gas and petroleum products are the primary commodities delivered by a local pipeline distribution network. The BP Oil Company has a pipeline intermodal facility in Bromley, Kentucky.

**FREIGHT RECOMMENDATIONS**

It is recommended that OKI:

- Make a continued effort to include representatives of the freight industry in planning efforts (especially if they are a major user of a facility being studied) on technical committees and/or transportation corridor study committees.
- Study ways to move freight efficiently in all multimodal corridor studies as recommended in the Board adopted North/South Transportation Initiative.
- Update the OKI travel demand model to effectively predict future truck volumes as recommended by a peer review panel in 2003. Due to the impact that trucks can have on roadway pavements and roadway capacity, the prediction of future truck volumes is important.