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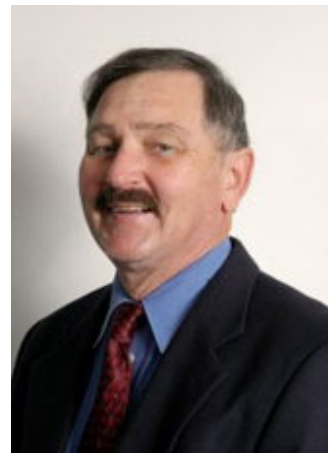


2010 Spring E-Newsletter

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Freight Issues in Memphis, Tennessee

Mention Memphis, Tennessee, to most people and they think first of Elvis, the Blues, or great barbecue. However, most people are unaware that Memphis is one of the leading freight transportation and logistics centers in the United States. Known as "America's Distribution Center", Memphis is a focal point for intermodal transportation. Strategically positioned with five Class 1 railroads, crossed by several Interstate highways, and home to the world's largest air cargo airport and the nation's fourth busiest inland waterway port, it is a major intermodal hub. Goods of all types ranging from small, high-value products such as computer components and medical devices shipped by air, to low-value bulk commodities like coal, grain and petroleum shipped via barge, either have origins or destinations in the region or pass through Memphis. The two major western railroads, BNSF and Union Pacific have their eastern terminals in the Memphis region where they interface with the Norfolk Southern, CSX and Canadian National railroads. I-55 and I-40 cross at Memphis. Both carry substantial truck volumes, servicing the entire region as well as the nation as a whole. The I-69 NAFTA corridor, connecting Canada and Mexico, will pass through the region and become an important transportation asset. In addition, U.S. Highway 78 connecting Memphis to Birmingham, Alabama, is being upgraded to interstate standards and will become I-22.



The world headquarters of Federal Express is located in Memphis, and its presence has spawned a vibrant warehousing-distribution industry. Global companies such as Nike and Williams-Sonoma as well as bio-medical firms like Medtronic and Wright Medical have established major facilities in Memphis. Located to the west in neighboring Arkansas is a significant collection of trucking firms and the headquarters of Wal-Mart, a leader in logistics and supply chain management innovation.

The role of Memphis in the movement of freight in the US is demonstrated by the level of investment of the railroad industry in the region. Within the past decade, the railroads have made over \$500 million in investments to expand their intermodal facilities. In the late 1990's, the Union Pacific constructed a major

intermodal terminal in Marion, Arkansas, across the Mississippi River from Memphis. This was followed by the development of a joint project by the Canadian National Railway (CN) and the CSX Railroad of a joint intermodal facility. The CN has regularly scheduled intermodal service from their new west coast port of Prince Rupert in British Columbia through Chicago to Memphis. The CN has also invested heavily in improvements to their traditional classification yard. Most recently the BNSF has completed a major expansion to their intermodal facility. It encompasses 185 acres and can accommodate trains up to 7,500 feet long. It is equipped with 8 total electric, rail-mounted gantry cranes. These cranes are environmentally friendly, because they do not produce any emissions, and the number of container lifts per year can be tripled from the existing number of containers (around 300,000 per year) handled by previous intermodal facility. Figure 1 shows the cranes being constructed in place. The enhancements also include advancements in the application of cutting-edge technology to improve gate operations.

The Norfolk-Southern (NS) is beginning construction of a new intermodal yard at the eastern edge of the region in Rossville, TN. This facility is being built as part of the NS Crescent Corridor improvements and will support overnight intermodal service between Memphis and Harrisburg, PA.

In recognition of the important role of the airport and air freight to the region, created by the presence of FedEx, the region has focused on implementing the concept of Memphis as a major Aerotropolis. The Aerotropolis is a term developed by Professor John Kasarda describing "A new type of urban form comprising aviation intensive businesses and related enterprises extending up to 25 km outward from major airports." Examples of such developments globally include Hong Kong and Bangkok, Thailand. Figure 2 illustrates the Aerotropolis area surrounding Memphis. Memphis is the ideal location to apply this concept because of the existing importance of the airport to the regional economy. Planning activities underway as part of this effort include comprehensive land use planning and studies of the roadway infrastructure needs to provide the needed connectivity to industry.

In the Memphis region, effective working relationships focusing on facilitating the movement of freight have been developed between the private sector, government and The University of Memphis. A recent example of this partnership has been with a study of the Memphis Freight Infrastructure, a project funded by the Greater Memphis Chamber of Commerce with financial support from the Memphis MPO, the Memphis Airport Authority, the Tennessee Department of Transportation, and other governmental entities. The study was completed by a team led by IHS Global Insight and included The University of Memphis Intermodal Freight Transportation Institute, and Wilbur Smith and Associates.

The highlights of this study included a review of the trends in the global supply chain such as production shifting from China to countries such as India and Vietnam and possible shifts in trade patterns resulting from the expansion of the Panama Canal, and the potential impacts of these trends on freight movements in the Memphis region. In addition, all transportation facilities were inventoried, including all modes, intermodal facilities, trucking companies and warehouse/distribution space. Freight flows were mapped (Figure 3 for example), and recommendations were developed. These included: highway improvements, specifically those focused on improving connectivity between modes; rail network enhancements; and expansion of container on barge operations.



Figure 1 - New Intermodal Cranes Under Construction at the BNSF Intermodal Facility, Memphis, TN

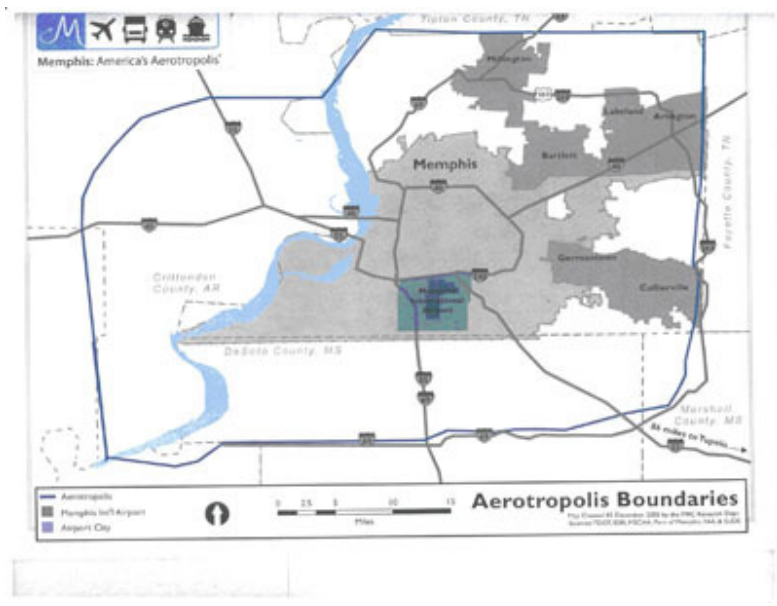


Figure 2 - The Memphis Aerotropolis Area

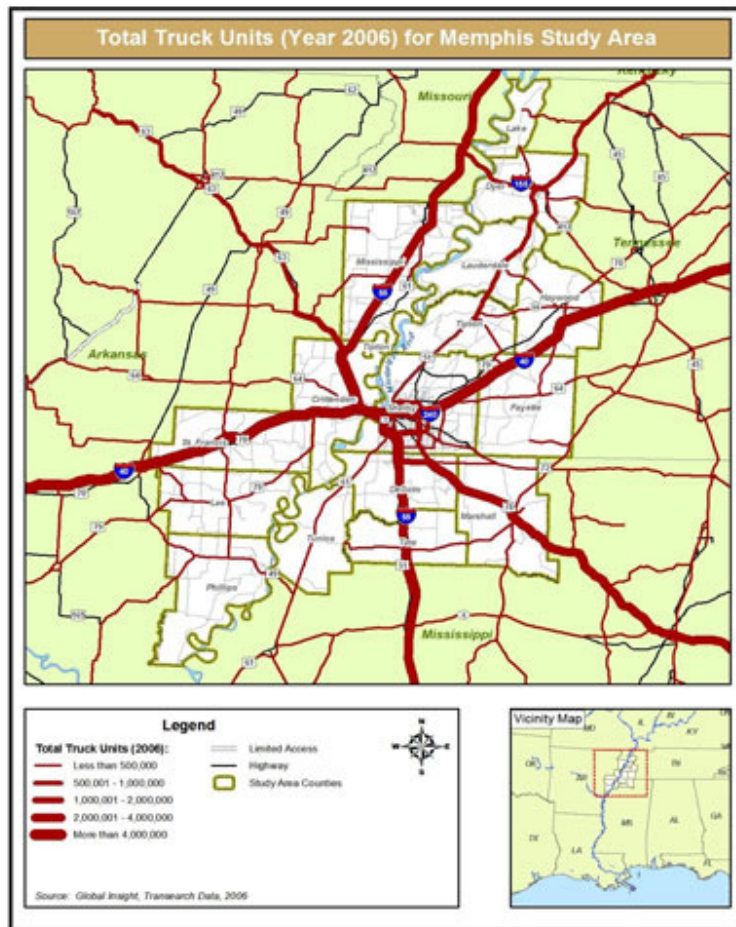


Figure 3 - Existing Truck Flows, Memphis, TN Region

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