



Florida Department of Transportation Research

Integrating Data and Models for Analysis of Freight Movements on Multimodal Transportation Systems for Florida
BD015-13 (8/07)

Freight transportation in Florida occurs by truck, rail, barge, and air, alone and in any combination of these modes. The Florida Department of Transportation (FDOT) is working to develop its statewide Strategic Intermodal System transportation network in order to expand freight transport alternatives and significantly improve the safety and efficiency of the state's entire transportation system.

Researchers at Florida International University (FIU) and Oak Ridge National Laboratory developed an integrated freight modeling network (FMN) that includes roadways, railways, waterways, airway linkages, and intermodal facilities in Florida. They developed and implemented an internal routing procedure to establish multimodal freight flow patterns on the FMN database. The intermodal network and its associated routing procedure are collectively referred to as the Florida Multimodal Analysis Tool (FMAT).

Using the TRANSEARCH data, FMAT was able to



Container ship at Ft. Lauderdale port

model basic traffic patterns of freight transit flow along road, rail, water, and air routes, and through intermodal connector facilities. FMAT took into account factors of transportation distance, duration, and cost for the different modes and for combinations of modes.

FMAT is still in development. The highway data used in the model does not provide information about freight traffic within and between Florida's counties. FMAT will need additional data concerning congestion, the capacity of intermodal facilities, and other factors to model the different potential scenarios that can affect freight traffic. Better models facilitate the delivery of more effective transportation systems, and it is expected that FMAT will make positive contributions to Florida's Strategic Intermodal System.



Freight on I-75

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