



Meeting Highlights TPB Freight Subcommittee

Date: Thursday September 6, 2018

Time: 1:00 p.m.

Location: Room 1, First Floor, 777 North Capitol St NE, Washington DC

Acting Chair: Jon Schermann, MWCOG

Attendance:

Bala Akundi, Baltimore Metropolitan Council (phone)
Marlee Baucom, Norfolk Southern
Rick Crawford, Norfolk Southern
Richard Easley, E-Squared Engineering
Frederick Ferner, MCAC
Anna Fischer, Norfolk Southern
L'Kiesha Markley, Maryland State Highway Administration
Rahil Saeedi, CPSC Transcom (phone)
Kimia Soroush, Intus Windows, LLC (phone)
David Willauer, Cambridge Systematics

MWCOG Attendance:

Brandon Brown, MWCOG-DTP
Matthew Gaskin, MWCOG-DTP
James Li, MWCOG-DTP
Andrew Meese, MWCOG-DTP (phone)
Ray Ngo, MWCOG-DTP
Jon Schermann, MWCOG-DTP
Daivamani Sivasailam – MWCOG-DTP
Patrick Zilliacus, MWCOG-DTP

NORFOLK SOUTHERN IN THE NATIONAL CAPITAL REGION

Mr. Crawford and Ms. Fischer spoke to a PowerPoint presentation on Norfolk Southern's overall operations and its investments affecting the region, including the Heartland Corridor, the Crescent Corridor, the CRAETE project, the new Portageville Bridge in western New York, and the Pittsburgh Double-Stack project.

Heartland Corridor: The Heartland Corridor was the first multi-state intermodal rail corridor public-private partnership between FHWA's Eastern Federal Lands Highway Division, USDOT, Virginia, West Virginia, Ohio, and Norfolk Southern. The project removed 24 overhead obstructions and raised vertical clearances in 28 tunnels. It reduced the travel time between the East Coast and Chicago by 24 hours.

Crescent Corridor: The Crescent Corridor is a \$2.5 billion rail infrastructure project spanning 11 states. It provides one of the fastest, most direct routes from the Southeast to the Northeast with

connections to Mexico and Los Angeles and includes intermodal facilities in Birmingham, Memphis, Charlotte, and Harrisburg.

CREATE: CREATE is a \$3.2 billion public-private partnership that Norfolk Southern, CSX, BNSF, CP, CN, and Union Pacific railroads. It consists of many critically needed improvements to increase the efficiency of the nation's freight rail infrastructure.

Portageville Bridge: The new Portageville Bridge in western New York replaced a wrought iron structure built in 1875. This new structure enables Norfolk Southern to run industry-standard 286,000 lb. cars over the Southern Tier Line (up from the current 273,000 lb. limit). It also allows trains to run at 30 mph, up from 10 mph on the old span.

Pittsburgh Double-Stack Project: This proposed project will improve 9 bridge-track intersections to allow for double-stacked intermodal traffic to run on the Pittsburgh Line and will eliminated 4.7 million hours of delay and save \$164 million over 30 years.

Ms. Fischer then spoke to several slides about Norfolk Southern operations in Virginia and Maryland.

Virginia: Norfolk Southern employs over 4,000 people in Virginia and supports over 3,000 more retired employees. Pier 6 at Lamberts Point in Norfolk is the largest and fastest coal transloading facility in the Northern Hemisphere. Norfolk Southern operates nearly 2,000 miles of track with 1,240 bridges and 37 tunnels in Virginia. The ethanol bulk transfer operation in Alexandria allows non-rail served customers in Northern Virginia and DC the benefit of rail shipments of ethanol. Norfolk Southern services the Virginia Inland Port in Front Royal, VA. This enhances rail service between the National Capital Region and the Port of Virginia.

Maryland: Norfolk Southern employs 130 people in Maryland and supports 130 more retired employees. Norfolk Southern operates 233 miles of track with 47 bridges and 80 grade crossings. Bayview Yard, located in Baltimore, serves the Port of Baltimore and is Norfolk Southern's main classification yard in Maryland.

MODELING SUPPLY CHAIN TRANSPORTATION DISRUPTIONS

Mr. Willauer spoke to a PowerPoint presentation on the preliminary freight supply chain modeling findings of NCFRP 50 Improving Freight Transportation Resilience in Response to Supply Chain Disruptions project. The objective of the study is to develop guidance for stakeholders to mitigate and adapt to logistical disruptions to enhance freight transportation system resilience. The target audience is freight carriers and shippers, state transportation agencies, MPOs, freight advisory councils and other organizations interested in a resilient, sustainable and robust multimodal freight transportation system.

Freight supply chain models assume the origin of the freight is the shipper of the freight and the destination is the receiver of that freight. This is different from trip-based models, which usually maintain a single mode for each trip made by freight but then need to treat the transfer between modes as the origin of a new trip, typically as a special freight generator. U.S. freight supply chain models that have been developed rely on the Freight Analysis Framework (FAF) dataset rather than actual data from individual shippers and receivers. The total flows in FAF are used by the supply chain models, but FAF also reports on flows by mode which approximates supply chain families as used in the models. Several of the "modes" in FAF are either a combination of many supply chains,

or where the supply chain was not specified. Supply chain models have been developed to address long-term planning impacts of changes in the transportation system and were not developed as short-term operational models.

Mr. Willauer reviewed the pharmaceutical supply chain and reviewed the top ten US pharmaceutical markets. He then focused on the pharmaceutical flows between Miami and Houston and noted that air shipments different pathways utilized by truck and air modes. In the base case truck was the dominant mode by both tonnage and value accounting for 60 percent of the total tonnage and value moved, while air was the second top transportation mode with 40 percent share of tonnage and value. By adjusting the constant value to increase total logistics costs, the study team was able to change which mode path option was chosen by the model. This was illustrated in the real world last year when Texas was impacted by Hurricane Harvey and Florida was impacted by Hurricane Irma during the same month. In advance of each hurricane, a third-party logistics (3PL) company transferred supplies to ensure minimal supply chain disruptions.

Mr. Willauer then reviewed the Mid-Atlantic petroleum supply chain and noted that the Colonial pipeline delivers 2,200,000 bb/d from Texas to New Jersey and the Plantation pipeline delivers 700,000 bb/d from Louisiana to Virginia and Washington, D.C. There are several recent examples of disruption to the petroleum supply chain including the September 2016 Colonial pipeline leak event, hurricane Katrina, and hurricane Rita. For petroleum products travelling from the Gulf Coast to the East Coast, there are two alternatives to the Colonial system, 1) the Plantation Pipeline, or 2) maritime movement by tanker and barge. The Plantation Pipeline has a capacity of 700,000 barrels per day. Waterborne transport of fuels from the Gulf Coast to the East Coast can deliver approximately 500,000 barrels per day. Both alternatives have a significantly lower capacity than the Colonial Pipeline.

The next meeting of the TPB Freight Subcommittee will be on Thursday January 10, 2019.