



INSTITUTE FOR TRADE AND TRANSPORTATION STUDIES

PROMOTING REGIONAL AWARENESS FOR IMPROVING FREIGHT TRANSPORTATION

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NEWS UPDATE

ITTS presented a brief update at the ITTS Board of Directors meeting. I discussed some of the recommendations from the ITTS summer meeting, including reviewing the LATTTS network for member states and data sharing partnerships. As always, it was great catching up with everyone at SASHTO.

Also, we have two calls for papers. The International Association of Maritime Economists will hold its annual meeting in Norfolk, Virginia, July 15-18, 2014. The deadline for submission of papers is October 1, 2013. (<http://iame2014.org/>) I am also working with the University of Southern Mississippi/National Center for Freight and Infrastructure Research and Education (CFIRE) on its Logistics, Trade, and Transportation (LTT) Symposium, to be held February 26-27, 2014, in Gulfport, MS. Their deadline for industry presentations is November 15, 2013. See www.usm.edu/cltt for more details.



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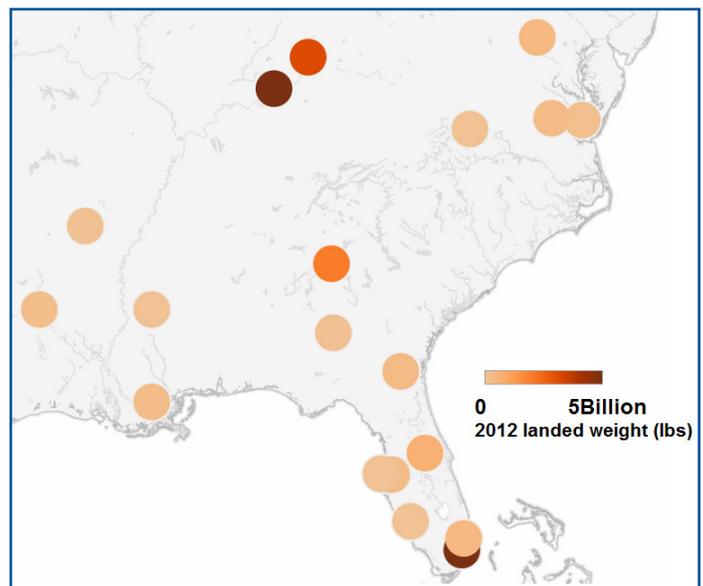
Air Freight in the Southeast

Air freight remains an important part of the U.S. transportation system, although we normally think about air shipments in terms of passengers. There are generally two types of air cargo shipments: freight either moves in the lower hold (belly) of a plane or on dedicated air cargo carriers. Over the past ten years, commercial freight carriers have increased their share of air freight, carrying around 88% of the air freight market in 2012, but as passengers switched from checked to onboard bags, commercial airlines have created more belly cargo space for freight shipments.

The following map shows the commercial airports in the ITTS region based on the Bureau of Transportation Statistics Airline database (The report did not list any West Virginia airports.) Overall, tonnage increased slightly for the ITTS member states, although the increases were fairly uneven amongst specific airports. Of the top five airports, only Miami and Cincinnati increased on a year to date basis, while Louisville, Atlanta and Orlando witnessed declining traffic.

Air cargo follows general economic conditions fairly closely. While domestic air cargo is expected to remain fairly flat in 2013, international air cargos are projected to increase in the near future (FAA Aerospace Forecast Fiscal Years 2013-2033).

Most of these airports were identified by the ITTS member states as being critical airports (see the LATTTS Strategic Airport paper and regional investment needs, available on the ITTS website). As air freight increases, especially from international shipments, the question of improving airport access through highway connectors will remain a critical part of servicing the region's transportation needs. ■



| Landed Cargo Weight, 2011-2012 (In 1000's of Short tons) | | | | | | | |
|--|----------|---------|---------|----------|-----------|-------------|----------|
| | Arkansas | Florida | Georgia | Kentucky | Louisiana | Mississippi | Virginia |
| 2011 | 74 | 4,419 | 1,410 | 6,900 | 308 | 37 | 568 |
| 2012 | 73 | 4,635 | 1,093 | 7,056 | 284 | 59 | 589 |
| %Change | -1% | 5% | -22% | 2% | -8% | 60% | 4% |



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The Institute for Trade and Transportation Studies provides research data and expert opinions to its members concerning the effects of commercial freight movements on domestic and international activities, with reference to infrastructure and transportation needs, and safety implications.

The ITTS members include the:

Arkansas State Highway and Transportation Department

Florida Department of Transportation

Georgia Department of Transportation

Kentucky Transportation Cabinet

Louisiana Department of Transportation and Development

Mississippi Department of Transportation

Virginia Department of Transportation

West Virginia Department of Transportation

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▶ LAMBERT'S LAGNIAPPE

la-gniappe |lan'yap|:
something given as a bonus or extra gift.

In Lewis Carroll's *Alice in Wonderland*, Alice and the Cheshire Cat argue about the direction she should take. "Then it doesn't matter which way you go," says the cat, to which Alice responds, "—so long as I get SOMEWHERE." This question of goals and objectives remains one of the challenges facing implementation of performance measures. Everyone recognizes that performance measures are critical, but it remains unclear how to relate these to infrastructure planning.

For example, should we allow for congestion on the nation's interstate system? The American Transportation Research Institute released "Freight Performance Measures Analysis of Freight Significant Highway Locations – 2013," that documents the top 100 bottlenecks in the U.S. system. Also, the Texas Transportation Institute's Urban Mobility Study annually reports on the system costs related to congestion. No one can build the infrastructure to allow free flow conditions

24 hours a day across the entire national system, but we don't want congestion to choke our nation's economic competitiveness. But infrastructure usage, conditions, and connectivity are becoming more important for businesses and are seen as a competitive asset to attract and retain jobs (such as the US Department of Commerce's Advisory Committee on Supply Chain Competitiveness).

As such, performance measures are seen as one tool in assisting in transportation decisions, but questions remain: Who is responsible for the transportation system in the short and long term? And what is the objective we are trying to solve nationally? Often, the answer depends upon who is asking the question.

The states and local planning groups are responsible for solving issues of connectivity and regulations. This involves building infrastructure and long term planning on expanding capacity and prioritizing other system improvements. In some cases, priori-

continued

What is ... A Maritime Pilot

Due to uncertain local navigation conditions (traffic, sand bars, congestion, narrow channels, currents, etc.), international maritime vessels require pilots on board to assist the captain in moving the vessel within a navigation harbor. Piloting is a tradition as old as maritime transportation, as mariners knew that local knowledge can avoid danger to the vessel and others during the most critical point of a journey, from ocean to dock. While the pilot is on board, they do not necessarily take control of the vessel but provide recommendations to the captain.

An inbound move often requires that the pilot board the vessel in open sea before the vessel moves into the harbor or to an anchorage. When the vessel is moving into a berth, the pilot may call for "assist" tugs, which control both the vessel's speed (acting as a brake) and direction (pushing the vessel against a berth). Clearly, moving a massive vessel gently against a dock so that it can be moored is not an easy task, and damages to the vessel, berth, or personnel can happen quickly. The photo shows a tug assisting in docking a vessel at a grain terminal along the Mississippi River.

In the United States, most pilots operate as private contractors through a local or state association. Mariners often require extensive training on vessels or tugs (or lengthy apprenticeships) before being accepted as pilots, as they must be able to handle a variety of ship types and be experts in local conditions. ■



Domestic Waterway Traffic in the Southeast

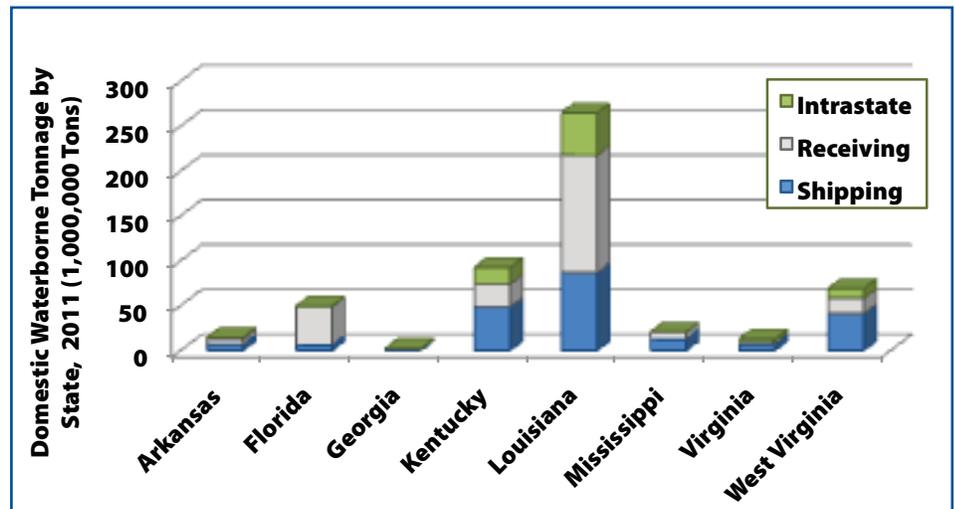
Given the discussion on the passage of the Water Resource Development Act, the ITTS Region would clearly gain from any improvements in inland navigation. In 2011, the ITTS member states handled roughly half of all domestic waterborne movements within the United States. (This estimate does including some double counting.)

One of the concerns about inland navigation is that over the past ten years, total domestic maritime trade has declined. (Total domestic waterway tonnage in the U.S. declined from 1.02 billion tons to 887 million tons in 2011. For the ITTS states, tonnage declined from 579 million tons to 526 million tons over the same period.) This may be partially due to changing coal shipments and other regional traffic patterns, but this does not mean that waterways are becoming less important. They can respond to changing markets, as a recent Reuters' article discussed concerning the dynamic shifts of changing natural gas shipments.

Louisiana, with its access to the Gulf Intercoastal Waterway and the Mississippi River, remains the leading state for domestic traffic in the ITTS region, though every ITTS member state receives waterway traffic. For example, Florida depends upon barges to carry petroleum from Texas

and Louisiana, while coal dominates shipments along the Ohio (Kentucky and West Virginia). Sand, gravel and aggregate, chemicals, and a variety of bulk products, such as grains, are carried through the region for both

recently completed a Waterways Works Profile for each state, which includes both coastal and inland navigation benefits.) Furthermore, the member states identified a strategic port network, which included both inland



domestic use and for movement overseas. For most of the ITTS states, domestic maritime traffic declined, although in some cases, such as in shipments to/from Arkansas and intrastate movements within several states, volumes actually increased.

Waterways, as well as all maritime activity, contribute to the U.S. economy. (The U.S. Chamber of Commerce

and deep-sea ports in the LATTs Study. (The LATTs Strategic Port System report is available on the ITTS website.) In sum, waterways represent a critical link in the region's transportation network, but any disruptions in service (from water conditions to lock failures or to closures) can lead to economic costs imposed on firms throughout the region. ■

Lambert's Lagniappe

Continued from page 2

tization and funding for federal, state and local agencies are still evolving in the aftermath of the passage of MAP-21, especially as related to freight investment.

Carriers are responsible for issues related to operational strategies. These businesses determine both their services and where these services occur. They may change transportation options to avoid congestion or other operational bottlenecks, but they usually pass these costs back to the shipper. However, they may not necessarily want to discuss transportation needs with the public sector without some expectation that a beneficial project will be completed in a reasonable time or that changes will be as equitable as possible.

Finally, shippers are responsible not just for packaging, but for site locations and expectations concerning delivery needs. Limited delivery windows and the increased focus on "just in time" inventory controls can push traffic back onto

other parts of the system. At the same time, shippers are increasing using multichannel supply chains and integrated equipment flows into their warehouse operations, creating physical supply chains of not only materials but also transportation equipment.

So when discussing freight performance measures (or Alice arriving at the Mad Hatter's party after leaving the Cheshire Cat) we may not end up where we wanted to go in the first place, although we can end up "somewhere." In some ways, performance measures can provide useful insights (TRB Circular E-C169: Measuring the Transportation System from a Supply Chain Perspective), but without managing expectations concerning how they will be used to prioritize infrastructure programs, they may lead to more concerns that we may never actually improve transportation, and be counterproductive in communicating the importance of strategic freight investments. ■

▶ ITTS CALENDAR

This list highlights upcoming conferences related to transportation that may be of interest to the ITTS member region. For any corrections or suggestions, please contact Bruce Lambert at bruce@ittsresearch.org.

🌐 ITTS participation or speaking engagements

October 1-3, 2013
Waterways Council, 10th Annual Waterways Symposium
 Memphis, TN

October 2-4, 2013
2013 Propeller Club
 Arlington, Virginia

October 21-22, 2013
Trucking Industry Mobility and Technology Coalition meeting
 Orlando, Florida

Oct. 13-17, 2013
102nd Annual AAPA Convention and Exposition
 Orlando, FL

Oct 22-25, 2013
2013 AMPO Annual Conference
 Portland, OR

🌐 **October 17-21, 2013**
AASHTO Annual Meeting
 Denver, CO

October 21-22, 2013
Innovations in Freight Modeling and Data: Integrating Supply-Chain Models and Data into Public-Sector Freight Demand Modeling
 Herndon, Virginia

October 27-29, 2013
The 9th Annual Preserving the American Dream Conference
 Washington, DC

November 6-8, 2013
Mississippi Water Resources Association Annual Conference
 Vicksburg, MS

November 13-14, 2013
2013 Global Appalachia Winter working session
 Washington, DC

December 4-6, 2013
Commonwealth of Virginia Governor's Transportation Conference
 Richmond, VA

🌐 **January 12-16, 2014**
TRB 93rd Annual Meeting
 Washington, D.C.

🌐 **Feb 26-27, 2014**
Logistics, Trade and Transportation (LTT) Symposium
 Gulfport, Mississippi

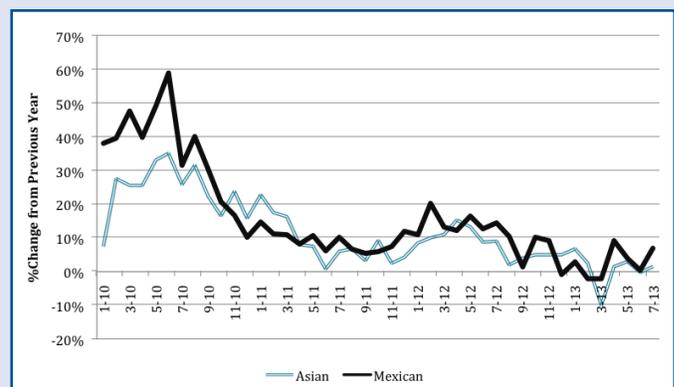
March 13-15, 2014
55th Annual Transportation Research Forum
 San Jose, California

▶ TRADE PROFILE ... Mexcian Reshoring

Reshoring has been discussed over the past few years, as firms are relocating some of their Asian production back to North America due to changing labor conditions, rising transportation costs, lower domestic energy prices and improved quality control. While the U.S. has benefitted from reshoring, it is Mexico, with its proximity and integration with the U.S. market, who is acknowledged to have been the biggest beneficiary.

Imports from Mexico have steadily increased over the past few years. In 2012, total imports from Mexico amounted to \$277.8 billion, an 11% increase. Manufacturing as a share of imports from Mexico, based on value, has ranged between 60-64% for the past few years. The top three industrial groups (based on Harmonized Codes) are Electrical Machinery, Vehicles and parts, and Industrial Machinery.

To examine the implications of reshoring in manufacturing products, imports of electrical machinery and industrial machinery were compared between Mexico and Asia (excluding the Middle East and Turkey). The chart shows that Mexican trade did enjoy strong growth in 2010, partially due to a stronger rebound in early 2010 from 2009 levels. However, import volumes moved similarly between the two regions, although for most of the period, Mexican imports tended to



track slightly higher on a month over month basis.

The implications for the U.S. transportation system are varied. Manufacturing trade with Mexico tends to be land based, involving rail and highway transportation, largely through Texas and California border crossings, before traveling throughout the United States. These cargos compete against Asian cargos that largely arrive by water or air. As such, reshoring serves as a reminder about how global supply chains can change, with potential implications on aligning infrastructure needs to accommodate traffic flows. ■

| Description | ANNUAL 2010 | ANNUAL 2011 | ANNUAL 2012 | JUL 2012 YTD | JUL 2013 YTD |
|--|-------------|-------------|-------------|--------------|--------------|
| Total commodities | 229.65 | 263.11 | 277.65 | 162.85 | 162.07 |
| TOTAL Manufacturing Imports (HS Codes 84-93) | 143.69 | 156.62 | 173.60 | 100.50 | 103.35 |
| Electric Machinery Etc; Sound Equip; Tv Equip; Pts | 53.87 | 54.31 | 56.81 | 31.86 | 32.96 |
| Vehicles, Except Railway Or Tramway, And Parts Etc | 40.21 | 45.80 | 53.51 | 30.55 | 32.95 |
| Industrial Machinery, Including Computers | 33.61 | 38.57 | 42.32 | 25.94 | 24.81 |
| Optic, Photo Etc, Medic Or Surgical Instrments Etc | 8.80 | 9.74 | 10.36 | 6.11 | 6.14 |
| Furniture; Bedding Etc; Lamps Nesoi Etc; Prefab Bd | 5.65 | 6.29 | 7.84 | 4.50 | 4.84 |