INSTITUTE FOR TRADE AND TRANSPORTATION STUDIES

PROMOTING REGIONAL AWARENESS FOR IMPROVING FREIGHT TRANSPORTATION

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NEWS UPDATE

- Over the past few months, I made several presentations, ranging from importing cargo from China for a class at LSU, and a presentation for the University of Wisconsin on the importance of the Mississippi River You can access all the presentations at the ITTS website.

- While at the AASHTO annual meeting, I spoke on the importance of Benefit Cost analysis for maritime studies and thoughts on linking corridor planning efforts to the proposed MAP-21 provisions.

- ITTS submitted comments for the "Interim Guidance on State Freight Plans and State Freight Advisory Committees" as released by US DOT. You can access all the comments on the guidance at http://www.regulations.gov

- I spoke at the Mississippi Water Resources Association (MWRA) on the value of waterways.

- Finally, work continues on organizing the ITTS/MAFC in Louisville, March 12-14. I hope to see you there!!

INSIDE THIS ISSUE

VISIT THE ITTS BLOG AT http://www.ittsresearch.org/blog/

Coal Exports

Over the past few years, United States coal consumption has declined steady from its 2007 peak (the US still ranks as the world's second largest producer of coal). While part of this decline could be attributed to changing domestic energy policies, the net effect is that coal producers must look for new markets to sustain mines. For much of the world, coal remains an important source of electrical and industrial production, as net coal demand continues to increase.

In 2011, the US exported $16 billion dollars of coal, a record, and YTD shipments in 2012 have declined slightly, but remain above historic levels. (Energy Information Agency (EIA) estimates that coal shipments will decline in 2013, but remain above historic levels.) The US ranked as the fourth largest coal exporter in 2010, behind Australia, Indonesia, and Russia.

The top markets for U.S. coal in 2011 are presented below, but the growth in coal demand in China (which traditionally sources coal from Indonesia and Australia) continues to increase. The EIA projects that China will build the equivalent of the US electrical capacity base within fifteen years, making the demand to secure coal reserves a priority, but this also increases competition for other major coal consumers. (This summer, India's Abhijeet Group and Kentucky-based Booth Energy Group and River Trading Co., signed a 25 year agreement to ship 9 million tons of coal annually from Appalachia to India.

PARTNER COUNTRIES	VALUE (MILLIONS)	SHARE
Brazil	1,715	10.7%
Netherlands	1,536	9.6%
Japan	1,182	7.4%
Korea	1,138	7.1%
Italy	985	6.2%
Ukraine	974	6.1%
India	927	5.8%
China	883	5.5%
United Kingdom	790	4.9%
Canada	728	4.6%
Other	5,109	32.0%
Total	**15,967**	

While coal is mined throughout the United States, the top five coal producing states (and their relative share) are Wyoming (40%), West Virginia (12%), Kentucky (9.9%), Pennsylvania (5.4%) and Texas (4.2%). While Western Coal is largely consumed within the Eastern United States and blended with Eastern Coal to meet emission standards,

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Institute for Trade and Transportation Studies

Bruce Lambert
Executive Director

(new address)
10 Veterans Boulevard
New Orleans, LA 70124
Phone: 540-483-8536
Alternate Phone:
504-483-8536
bruce@ittsresearch.org

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:

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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.

Over the past few years, there has been a barrage of pundits predicting that transportation infrastructure needs will lead to a widespread collapse of the American economy. In some cases, it is discussed in regards to animal images: such as "cooking the frog", where gradual increases in temperature result in the frog's demise, "Chicken Little", where the sky is falling, or that of the "elephant in the room", a problem so big that it is ignored.

While reflecting upon what is the true way to discuss the future of transportation, I was petting my three legged dog, Mr. Sweetie. (Yes, that's his name, and no, he is not named after me. My father, a veterinarian, rescued Mr. Sweetie after being injured in a car accident. Mr. Sweetie's front paw was beyond repair, which resulted in my father amputating Mr. Sweetie's limb.) Mr. Sweetie quickly adjusted to life on the farm, and while he can not run as fast as the other dogs, he gets around fairly well. In this regard, transportation is something like Mr. Sweetie: "We will never have the full dream of unlimited mobility with little costs", just as Mr. Sweetie remains unable to run as fast as the other dogs. Mr. Sweetie has adjusted to his limitations, and in many ways, we adjust to our own limitations concerning mobility.

This does not mean that we can not expect more of our transportation system. When I was younger, the future was to be like the Jetsons', with its world of flying cars (and traffic jams). At the same time, there were discussions on the ability of going anywhere in the U.S. as the interstates were connecting America. Transportation changed not only the U.S. but the global economy. But these changes also mean that more challenges lie ahead of us.

Despite these concerns of building out the nation's infrastructure, 2012 was a positive year in the transportation industry on a legislative front. The passage of MAP-21 shows the willingness of legislatures to talk about highway and transit needs, while assisting state/local investments. The bill began a process of considering the need to improve freight movement on the nation's highways and through major facilities. Also, discussions on the Water Resources Development Act have begun. In sum, the need for addressing transportation is slowly becoming seen as a question of improving America's economic fortunes (although funding issues continue to stifle the debate…). Ultimately, whatever the future of transportation becomes in twenty years, one thing is clear: there will still be mobility needs not addressed and people will adjust accordingly, just as Mr. Sweetie has in response to his own limitation. ■

What is … "National Economic Development" Benefits

When the Corps of Engineers considers a navigation project, the focus is on improving the net benefit to the nation that this project may generate. As such, the Corps will develop a without project condition, which serves as a baseline for additional comparisons. Once traffic flows, cargo, and costs are a developed, the Corps will begin estimating the benefit of various projects, including both their related costs and benefits, including changing traffic volumes and costs. In this context, the Corps, with a focus on the net benefit to the nation, constructs estimates of the National Economic Development benefits from a project. (For example, putting in a project in one location that will influence an existing Corps project would be seen as simply a transfer between regions, and not necessarily a net benefit to the nation if the Corps now must build, operate and maintain two projects were the one existing project was sufficient.)

The use of the Benefit Cost Ratio is to demonstrate if there is actually a net benefit for doing a project, namely that the benefits being considered are better than the costs. (Basically, for every dollar invested in a project, the project will return an anticipated return, such as a BC ratio of 2 suggests that for every one dollar invested, the nation would receive two dollars in benefits.) However, the evaluation of Benefit Cost ratios alone may not necessarily

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result in the best project being built from a national perspective. Based on the following figure from IWR Report 09-R 3 three projects are considered. Most people would say that Project A, with the higher Benefit Cost Ratio, should be selected. However, the Alternative A has both a relatively lower Benefits than the other alternatives, despite its lower cost. Alternative C, with its higher benefits than either Alternative A or B, generates the largest net economic return, and would be selected by the Corps of Engineers.

	Alternative A	Alternative B	Alternative C
Benefits	$500,000	$750,000	$1,000,000
Costs	$125,000	$500,000	$500,000
Net Benefits	$375,000	$250,000	$500,000
BCR	4.0	1.5	2.0

Benefit Cost Ratio

In many ways, the Corps includes many of the same elements used in highway and other infrastructure projects, with the basic steps of estimating costs and benefits. The differences center upon: the focus on national, rather than regional, benefits, managing not only the determination of what project is needed but the construction of that project at the same time, and the inability to consider as wide a range of benefits as is traditionally done in other infrastructure BC analysis. In sum, the Corps studies tend to be more broad and complex than other infrastructure investments, especially given that the project estimates are used throughout the entire review process and once approved, determine the project's scope and budget. ■

Coal Exports

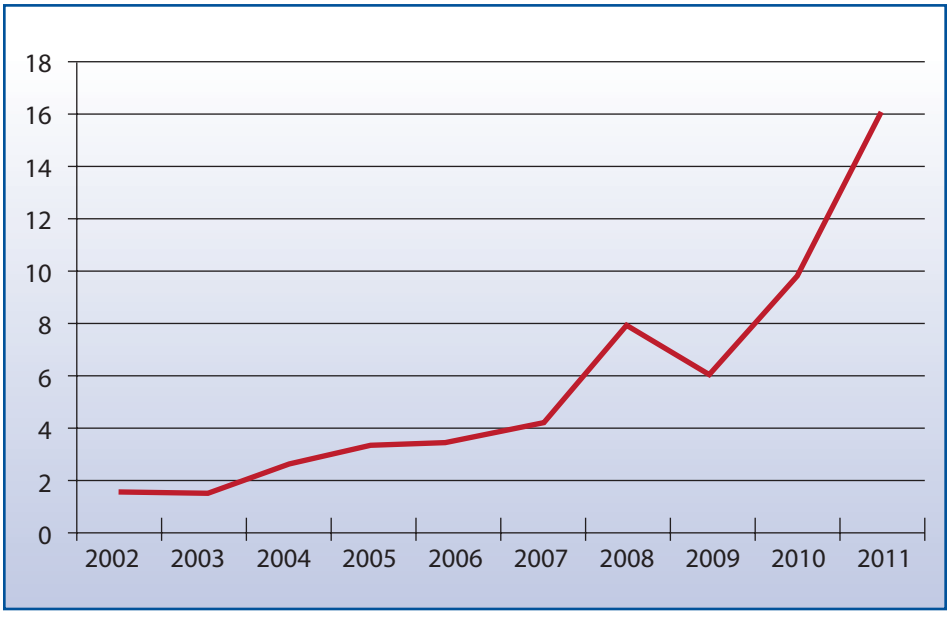
Continued from cover

most of the export coal comes from the Eastern U.S.

What does this mean for transportation? Based on the Shipment of Origin, the top states for export shipments are West Virginia (33%), Pennsylvania (17%), Alabama (14%), Louisiana (10%), and Virginia (8%). Of these top export regions, West Virginia led all states in net growth, with an almost doubling in the value of coal exports between 2010 and 2011. (The shipment of origin for exports is based on where the product began its international move. If coal was shipped to an export facility and blended, etc., it would be reclassified at the site where the storage and other activities began.) The regional tie of Appalachian coal to export markets is also highlighted by top gateways for US coal being Norfolk, Baltimore, Mobile and the Lower Mississippi River. (While there are plans to develop a mega bulk loading facility in the Pacific Northwest for mostly Western Steam coal, local groups are fighting the terminal's development. In part, shippers are also looking to expand coal exports from the lower Mississippi River.)

> The US ranked as the fourth largest coal exporter in 2010, behind Australia, Indonesia, and Russia.

At the same time, most of the nation's coal shipments move on rail, followed by barges, beyond drayage movements on truck. (The 2007 Commodity Flow Survey indicated that railroads handled 92.5% of the coal shipped on a ton-mile ranking, while waters and waterway intermodal accounted for 5% of the nation's ton-miles.) For both rail and water, coal remains a large commodity, and if either mode is unable to handle coal shipments (as demonstrated by the current low water conditions), this may result in enormous costs to utilities and other users, especially if these shipments are routed to trucks. ■



U.S. export of coal (billions of dollars)

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 speaking engagements

January 10-11, 2013
35th Kentuckians for Better Transportation Conference
Lexington, KY

January 13-17, 2013
TRB 92nd Annual Meeting
Washington, D.C.

Jan. 24-25, 2013
AAPA Shifting International Trade Routes
Tampa, FL

February 5-6, 2013
CFIRE Student Freight Symposium
Memphis, Tennessee

February 17-20, 2013
2013 Louisiana Transportation ConferencePartnerships for Progress in Transportation
Baton Rouge, LA

February 19 – 20, 2013
AASHTO Standing Committee on Rail Transportation
Washington Meeting

February 25-27, 2013
Delta Regional Leadership Institute
Natchez, MS

March 5-7, 2013
Inland Waterways Conference
Louisville, KY

SAVE THE DATE!

MID-AMERICA FREIGHT COALITION

INSTITUTE FOR TRADE AND TRANSPORTATION STUDIES

2013 JOINT MAFC/ITTS ANNUAL MEETING

LOUISVILLE, KENTUCKY ▪ MARCH 12-14, 2013

HOSTED BY THE KENTUCKY TRANSPORTATION CABINET

MIDAMERICAFREIGHT.ORG/EVENTS/2013AM

March 11-13
National Waterways Conference Legislative Summit
Washington, DC

March 12-14, 2013
2013 Joint MAFC/ITTS Annual Meeting
Louisville, Kentucky

March 19-21, 2013
Inland Rivers, Ports and Terminals (IRPT) Conference
New Orleans, LA

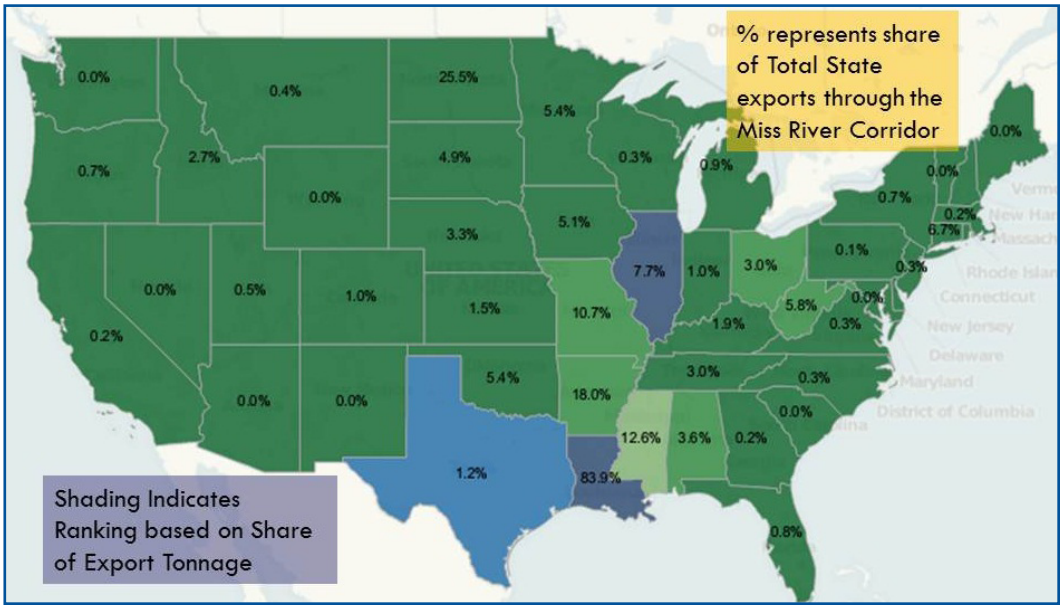
March 19-20, 2013
Georgia Logistics Summit, Center of Innovation for Logistics
Atlanta, GA

The Mississippi River and Low Water

Today we are talking about record lows in the Mississippi River value with its implications on restricting shipping, while in the recent past we were talking about record high water. In both cases, this complicates navigation, as mariners must respond to changing waterway conditions.

While the Mississippi River is generally recognized as a key commercial corridor for the United States, it is normally not understood how that system relates to the modal systems until something happens that forces people to consider its importance to the nation. In the case of low water, navigation channels become both shallower and narrower. This means that towing companies tend to load lighter or with less total barges, leading to additional costs to both barge operators and shippers. In response to these lower levels, portions of the Pinnacles will be removed to allow for navigation. A second rock removal project is planned to begin in February.

Regarding trade, the Mississippi River is a large gateway for U.S. exports, as agricultural products, petroleum products and chemicals comprise the bulk of the export traffic. (Figure 1. shows the sources exports that leave the Lower River, and each state's estimated share of exports that depart from the Lower Mississippi River.) However that corridor remains very dependent upon barge traffic to bring exports downriver (and imports northwards). ■



Exports by State of Origin, 2011 through the Lower Mississippi River, 2011.