The Marine Highway and The Mississippi River
The Perfect Waterway Needs Slide

- We are here
- It’s falling apart
- We need Federal money

Equivalent Units

1 Barge = 15 Jumbo Hoppers = 58 Semi Trucks

![Chart](chart.png)

Ton-miles Traveled per Gallon of Fuel
Outline

• The Marine Highway Question
• Linking logistics to waterways
• Can We Go Forward-
  – Technology
  – Public Debate
THE MARINE HIGHWAY QUESTION
Waterway Usage - Russia, Europe and U.S., 1970-2006

<table>
<thead>
<tr>
<th>Country</th>
<th>Kilometers</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>110,000</td>
<td>18%</td>
</tr>
<tr>
<td>Russia</td>
<td>102,000</td>
<td>16%</td>
</tr>
<tr>
<td>Brazil</td>
<td>50,000</td>
<td>8%</td>
</tr>
<tr>
<td>United States</td>
<td>41,009</td>
<td>7%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>21,579</td>
<td>3%</td>
</tr>
<tr>
<td>Colombia</td>
<td>18,000</td>
<td>3%</td>
</tr>
<tr>
<td>Vietnam</td>
<td>17,702</td>
<td>3%</td>
</tr>
<tr>
<td>European Average</td>
<td>52,332</td>
<td>8%</td>
</tr>
</tbody>
</table>
The Real Question about Marine Highways

• What is it? Name or outcome?
• Are we using our river resources
  – Improve system efficiency
  – Encourage freight mobility
  – Support economic growth
  – Connect to other modes
  – Support future cargo or vessels
The Benefits of discussing Marine Highways

- Connecting ports and hinterlands
- Connecting exports to trade markets
- Discussion of regional transportation needs
### Economic Impact 1996-2008 (in Millions)

<table>
<thead>
<tr>
<th>State</th>
<th>Direct</th>
<th>Indirect</th>
<th>Induced</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>$15,217.1</td>
<td>$550.3</td>
<td>$718.8</td>
<td>$16,486.2</td>
</tr>
<tr>
<td>Kentucky</td>
<td>$887.2</td>
<td>$163.1</td>
<td>$559.1</td>
<td>$1,609.4</td>
</tr>
<tr>
<td>Mississippi</td>
<td>$6,854.7</td>
<td>$1,333.0</td>
<td>$1,276.6</td>
<td>$9,464.3</td>
</tr>
<tr>
<td>Tennessee</td>
<td>$2,361.6</td>
<td>$38.1</td>
<td>$47.1</td>
<td>$2,446.8</td>
</tr>
<tr>
<td>Regional</td>
<td>$25,320.5</td>
<td>$2,093.3</td>
<td>$2,641.1</td>
<td>$30,054.9</td>
</tr>
<tr>
<td>United States</td>
<td>$25,320.5</td>
<td>$5,822.6</td>
<td>$11,380.6</td>
<td>$42,523.7</td>
</tr>
</tbody>
</table>

This table shows the impact from private investment and ports operating in the Tenn-Tom Waterway region.

### Employment Impact 1996-2008

<table>
<thead>
<tr>
<th>State</th>
<th>Direct</th>
<th>Indirect</th>
<th>Induced</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>8,384</td>
<td>3,879</td>
<td>7,567</td>
<td>19,830</td>
</tr>
<tr>
<td>Kentucky</td>
<td>8,046</td>
<td>1,201</td>
<td>5,850</td>
<td>15,097</td>
</tr>
<tr>
<td>Mississippi</td>
<td>12,145</td>
<td>7,858</td>
<td>13,440</td>
<td>33,443</td>
</tr>
<tr>
<td>Tennessee</td>
<td>507</td>
<td>271</td>
<td>493</td>
<td>1,271</td>
</tr>
<tr>
<td>Regional</td>
<td>29,191</td>
<td>13,292</td>
<td>27,806</td>
<td>70,289</td>
</tr>
<tr>
<td>United States</td>
<td>29,191</td>
<td>29,001</td>
<td>79,471</td>
<td>137,663</td>
</tr>
</tbody>
</table>

This table indicates the number of jobs that were directly and indirectly created based on industry-to-industry transactions, as well as the number of jobs that were created based on employee spending in the local economy.
LINKING LOGISTICS TO WATERWAYS
Key Points Driving Corridors

• Logistics and economic development
• Connecting ports and hinterlands
• Local and regional business
• The "Champion" – In or Out?

Transport, Talent and Taxation Top Factor List
Site Selection's October survey of corporate real estate executives reveals which factors on average are most important to them when they are involved in location decision making.

1. Transportation infrastructure
2. Existing work force skills
3. State and local tax scheme
4. Utility infrastructure
5. Land/building prices and supply
6. Ease of permitting and regulatory procedures
7. Flexibility of incentives programs
8. Access to higher education resources
9. Availability of incentives
10. State economic development strategy
Mercedes Benz Supply Chains for Alabama
What will you build/operate?

- What is your market? Expand or Cannibalize
- What type of facility/services are needed?
- Develop densities and services
  - Service Requirements (cargo or regulatory)
  - Drayage and equipment issues
  - Domestic and international
  - Shippers bear costs?
  - Vessel and fleet structures
What is needed

**Non-Corps Industry**
- Fleet
- Ports
- Cranes
- Development facilities

**Other Market Conceptions**
- Density versus Elasticity
- Chassis and container availability
- Drayage management
- Reliability
CAN WE GO FORWARD WITH TECHNOLOGY
Technology Can Help Promote the Waterway Industry

- Demonstrate Economic Importance
- Demonstrate Waterways Reliability
- Improve Safety and Emergency Response
- Manage and Gauge System effects of closures
Closures Cost Money!

NETS (IWR-USACE)

– Greenup 2003 Closure (52 days)- $42 Million
– Hannibal Locks 2005 Closure (5 days)-$5 Million
– Lock 27 Closures
  • (August 2007)-$3.9 Million
  • (Oct 2005-Feb 2006)- $2.7 Million
– McAlpine (August 2004)-$6.3 million

GLOBAL Insight – Upper Miss 90 Day Closure

• $118.6 million for Waterway freight
• $482.8 million by rail
• $1.50 billion by truck
PIANC Report – 111-2010
Performance Indicators for Inland Waterways Transport

1. Infrastructure
2. Ports
3. Environment
4. Fleet and Vehicles
5. Cargo and Passengers
6. Information and Communication
7. Economic Development
8. Safety
9. Security
CAN WE GO FORWARD WITH PUBLIC DEBATE
Corridors will be more important in the future

- Panama Canal Expansion
- Emerging corridors/hubs
- Densities critical in determining new sites
- More intermodal locations may develop
- Will we choke on congestion first?
- Legacy concerns
Can Marine Highways be a part of a Freight Strategy?

- Balance with international/ coastal flows
- Recognize multimodal corridor tradeoffs exist
- Work with states/cities for truck congestion
- Multiagency planning, data, analysis
- Efficiency versus equity
- “3I’s” - Infrastructure, Information, Institutions
Who Are the Players?

Private
• Shippers
• Carriers
• Developers

Public
• State, local, national
• Civic Groups
Public Sector Role in Marine Highways

Agency
- Most operate as landlords
- Not planning agency
- Economic Development “Catalysts”
- Transparency and merit based
- Performance metrics

Political
- Civic Pride and Competition
- Election cycle versus life cycle
- Accountability
- Conflicts over local objectives
- Willing for Public Private Partnerships
Some State Responses

- Louisiana
- Mississippi
- Arkansas
- Tennessee
- Kentucky
- West Virginia
The new standard waterway presentation

• We are doing business now
• We represent a modern, innovative partner
• We support modern logistics
• We can grow with linkages to other markets and modes
Thank you

Contact Information
Bruce Lambert
Executive Director
Institute for Trade and Transportation Studies
540-455-9882
bruce@ittsresearch.org
http://www.ittsresearch.org

Related events
FREIGHT IN THE SOUTHEAST
Moving Our Region’s Business
Feb 9-11, 2011
Charlotte, NC

Smartrivers
Sept 13-16, 2011
New Orleans, LA
Call for Abstracts out now