Illinois Marine Transportation Initiative

ILLINOIS STATE FREIGHT ADVISORY COUNCIL (ISFAC)

OCTOBER 2018
Talking Points

- Background and Drivers
- Guiding Principles
- Channeling Collaboration
- Success
- Next Steps
Illinois Marine Transportation System (IMTS)

- Lake Michigan
- Illinois River
- Chicago Area Waterway Canal System
- Mississippi River
- Kaskaskia River
- Ohio River
IMTS Facts

- 1,118 miles of navigable inland waterways pass through or border the state
- 28 lock and dam facilities
- 19 public port districts
- 350+ active terminals
- 1.7 million jobs
- 102.5 billion in total wages
IMTS FACTS

- 108 million tons of freight valued at nearly $32 billion
- Freight moving on the system accounted for 8.8% of the total Illinois freight volume in 2014
IMTS Freight Flows
COMPARE ...

CARGO CAPACITY

ONE BARGE
1,750 TON
58,355 BUSHELS
1,555,000 GALLONS

ONE 15-BARGE TOW
26,250 TON
874,995 BUSHELS
23,375,000 GALLONS

ONE RAIL CAR
110 TON
4,000 BUSHELS
33,870 GALLONS

ONE 108-CAR TRAIN
11,880 TON
400,000 BUSHELS
3,387,000 GALLONS

ONE LARGE SEMI
25 TON
910 BUSHELS
7,865 GALLONS

EQUIVALENT UNITS

ONE BARGE
16 RAIL CARS

ONE 15-BARGE TOW AND TOW BOAT
6 LOCOMOTIVES AND 216 RAIL CARS

70 LARGE SEMIS/TRACTOR TRAILERS

1,050 LARGE SEMIS/TRACTOR TRAILERS

EQUIVALENT LENGTHS

ONE 15-BARGE TOW
0.25 MILE

TWO 108-CAR TRAINS
2.6 MILES

1,050 LARGE SEMIS/TRACTOR TRAILERS
13.9 MILES (BUMPER TO BUMPER)
Transporting freight by water is also the most energy-efficient choice. Barges can move one ton of cargo 647 miles per gallon of fuel. A rail car would move the same ton of cargo 477 miles, and a truck only 145 miles.
Barges have the smallest carbon footprint among other transportation modes. To move an identical amount of cargo by rail generates 30% more carbon dioxide than by barge, and 10 times more emissions by trucks than by barge.
Inland waterways transport moves hazardous materials safely. Overall, spill rates remain low. Trucks lose 6.04 gallons per one million ton-miles, rail cars 5.95 gallons and barges 2.12 gallons per one million ton-miles.
Inland waterways transport has a low injury record compared to rail or truck.

For each injury involving barge transportation, there are 80.44 injuries related to rail and 824 truck-related injuries.
Inland waterways transport has a low fatality record compared to rail or truck.

Ratio of Fatalities in Freight Transportation

For each barge transportation fatality, there are 21.9 fatalities related to rail and 79 truck-related fatalities.
Average Daily Long-Haul Truck Traffic 2011 on U.S. Highways
(Federal Highway Administration)
Rivers run through it… waterways are where the congestion is!
1995

Background - 1995

- IDOT Division of Water Resources transferred to Illinois Department of Natural Resources (IDNR)
Background - 2012

- MAP 21
- Freight performance requirements
- Panama Canal expansion
- Inland waterway transportation system reliability
- IDOT explores reintegration of ports and waterways activities
Drivers – 2012 to Now

- Low water events associated with drought of 2012 and subsequent outages due to flooding and lock and dam failures continued to drive reintegration vision

- 5-day delay at Lock 27
  - 63 vessels – 455 barges
  - Equivalent of 6,100 railcars or 26,400 semi-tractor trailers

Drought Monitor Archives

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http://droughtmonitor.unl.edu/
Re “vision”

- Forward Strategic Vision Plan “Building a Better IDOT”

- ...build, operate, maintain, and fund/finance **ALL** modes of transportation
  - Prioritize multimodal assets
  - Mitigate congestion
  - Strive for sustainability

- Task
  - Reinvigorate Navigable Waterway Activities
The Illinois Marine Transportation Initiative

- Office of Planning and Programming
  - Bureau of Planning

- Empowered through IDOT Vision Plan task and development of 2017 Long Range Transportation Plan

- Channel collaboration, coordination, and planning
Guiding Principles

1. Prioritize intermodal and/or multimodal assets;
2. Mitigate congestion;
3. Increase sustainability (economic and environmental);
4. Increase system utility;
5. Better leverage the overall Illinois Freight Transportation Portfolio; and,
6. Avoid introduction of additional burden
Channeling Collaboration

- Connected with public ports and other applicable stakeholders
- Called for projects in anticipation of a Federal or State Capital Program
- Projects throughout the state system were submitted in excess of $100 million dollars
- Used process to make key connections
Key Contacts

- Illinois Department of Natural Resources (IDNR)
- US Department of Transportation Maritime Administration (MARAD)
- US Committee on the Marine Transportation System (CMTS)
- US Army Corps of Engineers (USACE)
- US Coast Guard (USCG)
- Transportation Research Board (TRB) and related committees
- Public ports and private terminals
- Inland Rivers Ports and Terminals Association (IRPT)
- Council of Great Lakes St. Lawrence Governors and Premiers (CGLSLGP)
- Upper Mississippi River Basin Association (UMRBA)
- Waterways Council Inc. and commercial operators
- Regional/metropolitan planning organizations and local units of government
Channeling Collaboration, cont.

- Commissioned report: An Analysis of the Illinois Maritime Transportation System
- Built upon prior preliminary analysis on “Developing Performance Measures for IMTS” in response to MAP 21 and FAST Act
- Used recommendations for further collaborative efforts
Collaborative Tasks

1. Full integration of marine transportation planning within IDOT
2. Formalize research activities
3. Foster positive relationship and industry promotion
IDOT Integration

**COMPLETED**

- Report continued progress via Vision Plan
- Include IMTS into Illinois Freight Plan
- Include IMTS into Long Range Plan
- Include IMTS into FY2019-2024 Proposed Multimodal Improvement Program
- Provide technical assistance and funding for port master planning, market analysis, and feasibility analysis
- Develop job descriptions and structure
- Memorandum of Agreement between IDOT and IDNR

**TARGETS**

- Complete Marine Transportation System Plan Scope in development
- Annual Statewide Transportation Improvement Program (TIP) Submittals
- Seek annual appropriation for capital improvement program
- Clean up legislative language regarding IDOT and IDNR responsibilities and authorities
Formalize Research Activities

**COMPLETED**

- Study on Developing Performance Measures for IMTS (2015)
- An Analysis of the IMTS (2017)
- Maritime Fright Data Collection System and Database to Support Illinois Efforts (Ongoing)
- Participation with TRB and membership with Inland Water Transportation Committee as Research Coordinator
- Participation on AASHTO Standing Committee on Water Transportation

**TARGETS**

- Study on beneficial use of dredge materials
- Explore potential for creation of Maritime Cooperative Research Program under TRB
- Peer exchanges with other States and other Countries
- Pooled Fund Program potentials via FHWA
Foster Positive Relationships and Industry Promotion

**COMPLETED**

- Nurture development of Illinois Public Ports Association
- Establish working relationships with partner and governing agencies
- Inclusion of IMTS information and visuals at IDOT events and on IDOT publications
- Continual participation with trade organizations and stakeholders, including regular port site visits
- Coordination on major statewide maritime issues such as the Illinois Waterway Consolidated Closure

**TARGETS**

- Formalize interagency transportation working group with IDNR, IDCEO, and IEPA
- Coordinate with IDOT Aeronautics for high quality aerial visuals and imagery
- Create Marine Highway and port signage for surface system
- Publish guidance and information on program and technical assistance available from IDOT and other agencies
- Continued coordination on statewide issues
Success

- **Freight Plan and Illinois Competitive Freight Program**
  - Greater than 15 Million Granted to port projects for construction
  - Additional funds granted to port and waterway related projects

- **Illinois International Port District**
  - Rail and roadway improvements at Butler Drive

- **America’s Central Port**
  - Entrance/frontage road improvements to reduce truck delay
  - Dock improvements
Success

- **Long Range Planning**
  - Included specific objectives, performance measures, and implementation tasks relating to the IMTS

- **Local Technical Assistance and Planning**
  - 2 port master plans in process
  - 1 port feasibility study in process
  - In discussion with another port interested in developing a master plan
Next Steps

- Scope development and procurement of professional services for Illinois Marine Transportation System Plan
- The planning process and product will be utilized for a variety of purposes
Preliminary System Plan Objectives

▪ Inform capital needs and priorities
▪ Increase intermodal connectivity and capability
▪ Identify engineering, policy, funding, and partnership solutions to meet current and emerging challenges
▪ Strengthen support programs and technical assistance to waterborne-related transportation businesses and facilities
▪ Provide business development mechanisms
System Plan Scope Elements

1. Executive summary
2. Study design
3. State, regional, and local maritime issues
4. Inventory of system condition and performance
5. Activity forecasts
6. System Requirements
7. Development standards and sustainability considerations
8. Analysis of system alternatives
9. Multimodal integration
10. Public consultation
11. Development priorities and justification (programmatic)
12. Policy recommendations for all levels (local/state/fed)
13. Economic impact profiles for public ports and navigation facilities
Questions?