

TRIENNIAL STRATEGIC PLAN (TSP)

Period: 2017-2020

PART 1: Committee Name and Scope

Committee Code *	AW010
Committee Name *	Ports and Channels
- Date(s) reviewed	02/2014, 01/2017
- Change, if proposed***	N/A
- No. of official members approving change/total number of members **	N/A
Committee Scope *	This committee is concerned with issues of planning, financing, and management of coastal and Great Lakes ports and channels. Coverage includes port maintenance and development issues, technology relating to cargo handling and deep draft vessels, landside access, cruise operations, environmental issues, and other local, state, and national issues which contribute to the integration of water transportation into a multimodal transportation system.
- Date(s) reviewed	02/2014, 01/2017
- Change, if proposed ***	N/A
- No. of official members approving change/total number of members **	N/A

* Show current, as it currently appears in the [TRB Online Directory](#)

** Includes Chair, Standing Committee Members, Emeritus Members, and Young Members

*** Show proposed, or Not Applicable

PART 2: Committee History

NOTE: We have provided much of the information you need for boxes 2.2, 2.4, and 2.7 below and in attachments A, B, and C. We ask that you provide the remaining information.

2.1

Year	2015	2016	2017
Number of Members in Attendance at Annual Meeting	13	15*	17
Number of Visitors in Attendance at Annual Meeting	32	30*	36
Number of Papers Reviewed	21	24	15
Total Number in Attendance at Mid-Year Meeting	12		
<i>*Estimated</i>			

2.2

<p>Sessions and workshops sponsored/cosponsored at the Mid-Year meeting, including name of co-sponsoring committee(s) if applicable (by year):</p> <p>2015 Mid-Year Meeting</p> <ul style="list-style-type: none"> • Port Disruptions and Resilience (co-sponsored with Terminal Design and Operations Committee (AT050)) • Cargo Diversions Resulting from U.S. Port Disruptions Session (co-sponsored with Terminal Design and Operations Committee (AT050))

Annual Meeting Activities	
<u>2017</u>	
Session Number & Name	Number of Podium Sessions: 1 Number of Poster Sessions: 1 Workshops: 2
Session 816 (Lectern)	Research in Maritime Transportation
Session 266 (Poster)	Research in Ports and Channels
Session 150 (Workshop)	Mega-ships: Mega-solutions or Mega-problems?
Session 146 (Workshop)	Alternative Finance for Inland Waterways: What Are the Revenue Sources?
<u>2016</u>	
Session Number & Name	Number of Podium Sessions: 2 Number of Poster Sessions: 1 Workshops: 1
Session 296 (Lectern)	Current Research on Port Resilience, Disruptions, Vulnerability, and Cargo Diversion
Session 829 (Lectern)	Advances in Planning, Financing, and Management of Maritime Transportation
Session 328 (Poster)	Current Research Advances in Maritime Transportation
Session 145 (Workshop)	Funding Port and Freight Infrastructure Investments
<u>2015</u>	
Session Number & Name	Number of Podium Sessions: 2 Number of Poster Sessions: 1 Workshops: 1
Session 825 (Lectern)	Port Drayage and Chassis Management, Part 1: Current Issues (Part 2, Session 837)
Session 523 (Lectern)	Current Research and State of the Art in Port Operations
Session 191 (Workshop)	Freight Data Meets Innovative Technologies—An Interactive Workshop
Session 252 (Poster)	Contemporary Research in Port Operations
<u>2014</u>	
Session Number & Name	Number of Podium Sessions: 2 Number of Poster Sessions: 1 Workshops: 2
Session 375 (Poster)	Maritime Infrastructure: Funding, Performance, and Economic Impacts
Session 746 (Lectern)	Monitoring and Evaluating the Performance of Ports and Intermodal Transportation Networks
Session 544 (Lectern)	Freight Day, Part 2: Optimizing Freight Traffic in Congestion--Connected Trucks and Advanced Technologies (Part 1, Session 492; Part 3, Session 593; Part 4, Session 658)
Session 127 (Workshop)	One Hundred Years of the Panama Canal: Legacy and Future, Part 1 (Part 2, Session 182)
Session 182 (Workshop)	One Hundred Years of the Panama Canal: Legacy and Future, Part 2: Looking to the Future--Assets and Challenges (Part 1, Session 127)

2.3

Provide title(s) and presenter(s) for informal presentations made at Annual Meeting and Mid-Year Committee meetings:

2015 Annual Meeting:

- “Status of Maritime Related Legislation, WRDA/WRRDA, HMT, and National Freight Policy,” by Jean Godwin (AAPA), Allison Yoh (Port of Long Beach)

2016 Annual Meeting:

- “USDOT Freight Intermodal Connectors Project” by Stephen Shafer, MARAD
- “Impacts of FAST Act on Ports” by Paul Bea, PHB Public Affairs
- “Priorities and training needs on Health and Safety (H&S) issues in Ports” by Maria Boile, Centre for Research and Technology Hellas / Hellenic Institute of Transport Athens
- "Identifying Waterfront Development Opportunity Sites in Northern New Jersey" by Alan P. Meyers, Parsons Brinckerhoff
- "An Economic Impact and Cluster Analysis of Illinois River Lock and Dam Facilities for Beneficial Users" by Stephen Fitzroy, EDR Group

2017 Annual Meeting:

- “Port Performance Working Group” by Dan Smith and Allison Yoh
- “Lamar University Maritime Program” by Erik Stromberg
- “New Proposed Standards Development Activity: Design Standards for Piers and Wharves” by Tom Wakeman

2.4

Provide titles of new research need statements (RNS) posted in TRB’s RNS database (by year):

NOTE: Attachment B shows all statements currently posted in TRB’s RNS database.

N/A.

2.5

Provide title(s) of RNS submitted for funding consideration:

NOTE: If funded, include research project title/number and name of funding organization(s).

- Disruption Impact on US Exports, 2015 – not funded
- “Freight Resiliency: Dealing with Major Cargo Diversions in National Emergencies,” Project 50, NCFRP (funded)

2.6

Provide titles of synthesis topics submitted (by year):

NOTE: **List** any synthesis topic(s) funded in a research program.

N/A.

2.7

Membership Make-up:

As of January 2017, AW010 consisted of 30 members.

MEMBERSHIP TYPES	
Regular Member	23
State Department of Transportation Member	0
International Member	4
Young Member	3
GENDER	
Male	19
Female	11
DIVERSITY	
White	18
Black	0
Hispanic	1
Asian or Pacific Islander	3
American Indian	0
Two or More Races	0
Unknown	8
MEMBER AFFILIATION	
Public-Sector	10
Private-Sector	6
Academia	10
Nonprofit/Other	4

TRB’s committee rules allow for a total of 25 Regular Members, 2 State Department of Transportation Members, 5 International Members, and 4 Young Members (younger than 35 years old) for a total committee membership of 36 persons.

As of January 2017, AW010 could add 2 Regular Members, 1 International Members, 2 State Department of Transportation Member, and 1 Young Member. The committee membership’s next rotation will occur in April 2019.

2.8

Provide any of the following:

- Any special publications, such as TR circular, and conference proceedings
- Sponsored or co-sponsored specialty conferences, symposia, workshops, webinars or other joint efforts with other TRB committees, other TRB entities, or other organizations (i.e. AASHTO, FHWA, State DOTs, ASTM, ASCE, and/or other modes of transportation)

N/A.

PART 3: Committee Future Outlook Statement and Committee Three-Year Plan (Limit 1,500 words total)

Committee Future Outlook Statement

The committee future outlook statement should include a discussion of the primary factors and influences that will shape the transportation community and topic(s) within the committee's scope over the short- (one to three years) and long-term (four to seven years). This statement should include:

- *identification of emerging, critical, and cross-cutting issues **within the committee scope** (these issues could have been identified by the committee, Section, Group, Technical Activities Council, TRB Executive Committee, or other transportation committees and organizations);*
- *identification of emerging, critical, and cross-cutting issues **outside the committee scope** that provide opportunities for liaison and collaborative efforts (these issues could also come from a wide range of sources).*

Global seaborne trade has increased by an average 3.7 percent each year since 2000, reaching approximately 9.2 billion tons in 2012. At this growth rate, the volume of maritime trade is expected to double by 2031. As ports around the world handle this cargo (representing about 80 percent volume of total international trade), they contribute to the long-term growth of the economy and continue to serve as a critical link in the supply chain network. It is therefore essential to efficiently use and develop our ports and the related support infrastructure.

Keeping this in mind, the TRB Ports and Channels Committee's principal goals are:

- To continuously foster and contribute to the research, development, and implementation of best practices in ports and channels;
- To contribute significantly to improved communications and dissemination of research findings and best practices in freight movement (including international developments) that are applicable to ports and channels;
- To enhance the understanding and skills of transportation leaders and professionals in the art and science of ports and channels management and development; and
- To show how ports and channels are an integral component of an effective freight movement strategy, contribute to our national economic vitality, and help address critical transportation issues.

To achieve these goals, the committee will focus on the following emerging issues relating to deepwater port and channel operations and development in the next few years. Since the Ports and Channels Committee has been an integral part of collaborative efforts among many committees for whom "Freight" is an essential focal topic, it is anticipated that these emerging issues will provide opportunities for liaison and collaborative efforts, in particular with the TRB Committees noted in italics:

1. Strategic asset management of ports and channel navigation infrastructure for prioritizing investment and maintenance; (*ABC40 Transportation Asset Management*)
2. Institutional arrangements, governance mechanisms, and policies to address emerging financing challenges in ports and waterways infrastructure; (*AT010 Freight Transportation Economics and Regulation*)
3. Financial and business case strategies to incentivize use of coastal/inland waterways and ports; (*AT010*)(*AW020 Inland Water Transportation*)

4. The benefits and challenges of public-private partnerships, outsourcing and private investment in port and terminal development, improvement and/or operation; (AT010) (AT050 *Intermodal Freight Terminal Design and Operations*)
5. Economic and operational impacts of environmental policies and regulations on ports and harbors; (AT010)(AW030)
6. The environmental performance of port operations in order to avoid, minimize, or mitigate adverse impacts on public health and the environment; (AT050) (AW030 *Marine Environment*)
7. The development and commercialization of new engine technologies and alternative fuels (infrastructure and education); (AW030)(ADC70 *Transportation Energy*)(ADC80 *Alternative Transportation Fuels and Technologies*)
8. Implications of trends and policy changes in international trade and economic activity on ports, waterways, and related transportation infrastructure; (AT020 *International Trade and Transportation*)
9. Labor relations and technological advancement at ports/terminals; (AT050)
10. Multi-modal and logistics coordination between the commercial and the public sectors; (ABE30 *Transportation Issues in Major U.S. Cities*)(AR040 *Freight Rail Transportation*)(AT015 *Freight Transportation Planning and Logistics*)(AT025 *Urban Freight Transportation*)(AT045 *Intermodal Freight Transport*)
11. Feasibility and impacts of Marine Highway investments, operations, and policies on ports, related transportation infrastructure and the environment; (AW020 *Inland Water Transportation*)
12. Service delivery effectiveness of ports and channels in support of increasing supply chain competitiveness; (AT017T *Development of Freight Fluidity Performance Measures*)
13. Considerations and cost-effective approaches to port emergency preparation, response and recovery efforts; and (ABE40 *Critical Transportation Infrastructure Protection*) (AW040 *Marine Safety and Human Factors*) (AT065T *Task Force on the Logistics of Disaster Response and Business Continuity*)
14. Technological advancements (3-D printers) and vulnerabilities (cyber terrorism) that may impact how ports do business in the future. (AT065T)

Committee Three-Year Plan

*The committee plan is a short, focused statement of where the committee wants to go and how to get there. The committee plan may include, but is not limited to: **projects, activities and products** that the committee will undertake during the next three years to address the emerging, critical, and cross-cutting issues identified above;*

- *How the current or proposed changed membership composition will respond to issues identified above;*
- *strategies to encourage significant involvement by the committee's Young Members, state DOT members, and other key constituents, both during committee meetings and at other times;*
- *committee's communication activities, and efforts to provide assistance and technology transfer to the transportation community;*
- *research – for the TRB committees, “research” is a very broad concept that can begin with providing the user perspective on research needs, writing research needs statements, tracking research, understanding the funding available for research in their topic area, developing case*

studies, lessons learned, disseminating research, technology transfer, and other activities that will advance the state of the practice. Potential research activities are:

- *research directions, results, and needs or gaps;*
- *plan for maintaining and augmenting the Research Need Statements (RNS) database;*
- *efforts to address research implementation and user needs, and ways to identify research use and implementation.*

Our committee seeks to broaden the understanding of supply chain issues as they relate to ports and channels, among TRB membership. The committee will encourage dialogue between users, planners, builders and owners of our transportation infrastructure. We will do this by issuing annual research priority statements, hosting poster and paper sessions at the TRB Annual Meetings, and by hosting workshops, websites and forums to improve communication and collaborative efforts. Research to explore better performance measures, discover potential operational efficiencies, foster improved use of infrastructure, gather better information, and create better forecasting techniques will help us all better utilize our existing infrastructure and design new methods for moving projected cargo flows more efficiently. Our committee will also support research to explore technology and policies that could help reduce congestion and/or level demand over our nation's infrastructure.

The committee will undertake the following strategies and actions to address the emerging, critical, and cross-cutting issues identified above:

Strategy 1 - Promote rigorous basic and applied research

Tri-Annual Actions:

- 1.1 Develop and submit research problem statements for consideration under the various TRB cooperative research programs
- 1.2 Issue a "Call for Papers" highlighting research interest areas
- 1.3 Co-sponsor paper and poster sessions at TRB Annual Meeting
- 1.4 Solicit and review research papers in conjunction with the Annual Meeting
- 1.5 Provide opportunity for selected papers to be presented at joint Committee meetings
- 1.6 Post papers on committee website for member review and reference
- 1.7 Support establishment of subcommittees/task forces as appropriate to focus on areas of critical interest/concern to the marine transportation community
- 1.8 Coordinate research activities with associations and other affiliations including the AAPA, MARAD, the AASHTO Standing Committee on Water Transportation (SCOWT), the International Navigation Association (PIANC), and other industry groups, as well as the Coalition on America's Gateways & Trade Corridors (CAGTC), the MTS National Advisory Council, the Committee on the MTS and the National Freight Advisory Committee.

Strategy 2- Increase understanding of logistics issues by promoting and encouraging public and private collaboration

Tri-Annual Actions:

- 2.1 Organize sessions at the TRB Annual Meeting;
- 2.2 Sponsor summer sessions and workshops with other TRB committees;
- 2.3 Bring freight and logistics spokespersons to TRB meetings. Put a "face" on freight;
- 2.4 Broaden membership and friends of the committee and encourage their active participation in committee activities to recruit young members and achieve a diverse port representation from all regions of the United States and abroad; and

- 2.5 Encourage research, panel sessions and papers on collaborative processes involving the public and private sectors.

Strategy 3 - Provide a forum for state-of-the-art initiatives, "best practices" and research results for areas addressed under Strategy 1.

Tri-Annual Actions:

- 3.1 Solicit papers for publication;
- 3.2 Hold special conferences and workshops every two to three years;
- 3.3 Sponsor at least one session in the annual TRB winter meeting and in relevant summer meetings;
- 3.4 Create and publicize a committee website to showcase our activities; and
- 3.5 Highlight annual awards of excellence.

An annual implementation plan will be prepared that will identify tasks to accomplish specific strategies or action items, the committee member(s) willing to complete the task and a time horizon indicating when each task is expected to be completed.