

**TRIENNIAL STRATEGIC PLAN (TSP)**

**Outlook Period: February 1, 2020 - January 31, 2023**

**PART 1: Committee Name and Scope**

Committee Code *	AT045
Committee Name *	Intermodal Freight Transport
- Date(s) reviewed	Reviewed in person 1/13/2020; reviewed over email – multiple times; reviewed and approved at Mid-Year meeting on June 15, 2020
- Change, if proposed***	N/A
No. of official members approving change/total number of members **	N/A
Committee Scope *	The scope of this committee includes all aspects of research pertaining to intermodal freight transport. Attention will be given initially to rail-water, rail-highway, highway-water, and highway-air modal combinations, but other combinations may be considered later. As used here, intermodal freight transport includes all shipments that employ more than one mode in a single through movement from origin to destination; local pick-up and delivery by truck for others not included. Consideration of rates, routes, services, transfer facilities, containers, and other items that impact the movement of freight in intermodal transport are included.
- Date(s) reviewed	N/A
- 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**

**2.1**

Year	2017	2018	2019	2020
Number of Members in Attendance at Annual Meeting	16	16	16	19**
Number of Visitors in Attendance at Annual Meeting	16	19	30	25
Number of Papers Reviewed	11	15	10	14
Total Number in Attendance at Mid-Year Meeting	30	10	27*	26***

\*19 participants called in

\*\* 3 participants called in

\*\*\* Virtual meeting due to COVID-19

**2.2**

Sessions and workshops sponsored/cosponsored at the Mid-Year meeting, including name of co-sponsoring committee(s) if applicable (by year):

Annual Meeting Activities	
2020	
Session Number & Name	Number of Podium Sessions: Number of Poster Sessions:                      Workshops:
Session (Lectern)	<p><b>Current Intermodal Freight Systems Research (selected papers):</b></p> <p><b>20-05120: A Multi-Period Optimization Model for Siting Capacitated Intermodal Facilities.</b> Authors: Vishal Badyal, Clemson University College of Engineering Computing and Applied Sciences; William Ferrell, Clemson University College of Engineering Computing and Applied Sciences; Nathan Huynh, University of South Carolina; and, Bhavya Padmanabhan, University of South Carolina</p> <p><b>20-02219: Benefits of Technology Adoption for Enhanced Integration of Port-Hinterland Operations.</b> Authors: Agustina Calatayud, Inter-American Development Bank; Mario Monsreal, Texas A&amp;M University Transportation Institute; John Mangan, Newcastle University; and, Juan Villa, Texas A&amp;M University Transportation Institute</p> <p><b>20-03265: A Dynamic And Stochastic Shipment Matching Problem in Multimodal Transportation.</b> Authors: Wenjing Guo, Delft University of Technology; Bilge Atasoy, Delft University of Technology; Wouter Beelaerts van Blokland, Delft University of Technology ; and, Rudy R. Negenborn, Delft University of Technology</p>
Session (Lectern)	USDOT Session
Session (Poster)	<p><b>Reefers on Rails: Investigating User Perceptions and Technological Prospects (20-00518)</b> Bob Castelein, Erasmus University Rotterdam Harry Geerlings, Erasmus Universiteit Rotterdam Ron van Duin, Delft University of Technology</p> <p><b>Model for Collaboration among Carriers in Domestic Intermodal Freight Transport (20-02790)</b> Majbah Uddin, Oak Ridge National Laboratory Nathan Huynh, University of South Carolina</p> <p><b>A European Multimodal Freight Model Accounting for Under-Performing Countries (20-03595)</b> Paraskevas Nikolaou, University of Cyprus Loukas Dimitriou, University of Cyprus</p> <p><b>Intermodal Freight Network Design Model Considering Emission Levels and Time Constraints (20-05199)</b> Panagiota Goulianou, Florida Atlantic University Anastasios Charisis, Florida Atlantic University Dan Liu, Florida Atlantic University Evangelos Kaisar, Florida Atlantic University Mihalis Goliass, University of Memphis</p>
2019	
Session Number & Name	Number of Podium Sessions: 2 Number of Poster Sessions: 3                      Workshops: 0

<b>Session 1208</b> (Lectern)	Current Intermodal Freight Systems Research
<b>Session 1282</b> (Lectern)	Freight Systems and Marine Transportation Work in Progress—Hybrid Session
<b>2018</b>	
<b>Session Number &amp; Name</b>	<b>Number of Podium Sessions: 1</b> <b>Number of Poster Sessions: 1</b> <b>Workshops: 1</b>
<b>Session 235</b> (Lectern)	Intermodal Freight Systems in the United States
<b>Session 790</b> (Poster)	Quantitative Analysis of Intermodal Facilities
<b>Session 188</b> (Workshop)	Research Success: How to Create a Freight Research Community That Learns from Failure

**2.4**

**Provide** titles of new research need statements (RNS) posted in TRB’s RNS database (by year): None.

**2.5**

**Provide** title(s) of RNS submitted for funding consideration: None

**2.6**

**Provide** titles of synthesis topics submitted (by year): None

**2.7**

Membership Make-up: Please see Attachment C provided by TRB for summary details.

NOTE: **Comment** on demographics, balance or lack of balance of membership. Provide an action plan to address any deficiencies. See attachment C for summary details.

As of August 27, 2020, AT045 consisted of 36 members.

MEMBERSHIP TYPES	
Regular Member	28
State Department of Transportation Member	2
International Member	4
Young Member	2
GENDER	
Male	23
Female	13
DIVERSITY	
White	20
Black	3
Hispanic	2
Asian or Pacific Islander	8

American Indian	0
Two or More Races	0
Unknown	3
<b>MEMBER AFFILIATION</b>	
Public-Sector	12
Private-Sector	10
Academia	12
Nonprofit/Other	1

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. The 2020 Strategic Alignment of committees allows for additional members exceeding this limit until normalization during the next rotation.

**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)

- The 2019 Mid-Year meeting took place in Galveston, Texas and included tours of the Ports of Galveston and Houston, as well as a day of plenary sessions in coordination with the AT020 Committee
- The 2018 Mid-Year Meeting took place at the TRB-sponsored Freight Data Workshop in Washington, D.C. at NAS
- Sponsored a webinar in September 2018 on Workforce Development in Logistics led by Tom O’Brien

## **PART 3: Committee Future Outlook Statement and Committee Three-Year Plan**

### **Committee Future Outlook Statement**

The Intermodal Freight Committee's future outlook is not much different than the past. The committee has been instrumental in bringing ideas from various stakeholders representing practitioners, policymakers, and educators. The sharing of ideas and knowledge has proven to be invaluable to members and friends of the committee, as well as to others who have had the opportunity to utilize research coming out of this committee. The committee's success has been due in part to the following three key goals:

- *Partner with other committees, AASHTO members, the research community, and industry to identify research needs and develop research statements that support those needs*
- *Ensure geographic and technical diversity*
- *Encourage more industry participation*
- *Continue to partner with other committees on joint task forces, workshops, and annual and summer meeting session planning*

### **Past Committee Successes**

The Intermodal Freight Committee has had success in completing some of their key goals efficiently by:

1. Identifying Committee Ambassadors/Liaisons to foster communication and share ideas between this and other committees. Examples of committees that we regularly engage with and support: AW010, AW030, AT025, AED70, AT015, and AT040.

The following action by the Intermodal Freight Committee had the greatest impact:

2. Jointly planned TRB Annual Meeting Session with FHWA on freight studies and policy changes
3. Webinars: conducted annually on topics ranging from skilled labor/educational training to transformative technology influences on freight
4. Topics of interest presented by industry, research or practitioner experts at our committee meetings that drive up attendance and spark ideas for new research

### **Committee Three-Year Plan**

**Mission** - Develop and advance research and knowledge transfer on intermodal freight transportation systems to support informed decisions within the United States and worldwide.

1. **Goal:** Develop valuable research to support improvements in national and international intermodal freight systems.
  - a. **Strategies:**
    - i. Develop, advance for funding, review and present research on intermodal freight systems.
      1. Coordinate with State DOT representatives and AASHTO to identify national intermodal freight research needs
      2. Coordinate with freight industry stakeholders to identify trends and innovations that may drive public agency research needs

3. Author Intermodal Research Problem Statements (jointly with other committee(s) to the extent possible) and submit to NCHRP for future funding by July 1st (see 2.d)
  4. Develop an annual Call for Research Papers and post it on the TRB website by May 1st
  5. Review TRB-assigned Intermodal Freight Research Papers, beginning in July, and submit reviews to TRB by October 1st
2. **Goal:** Educate transportation system stakeholders, committee members, and other TRB Committee on the value and application of intermodal freight system research, research completed and researched planned to be completed by the committee.
- a. **Strategies:**
    - i. Host webinar on research and efforts of the committee with stakeholders/public.
      1. Include information on goals and ways to get involved.
      2. Host one webinar by December 2021
    - ii. Send out a Newsletter to members and other committees every 3-6 months
      1. Include newsletter on website
    - iii. Use multiple on-line services to improve communication and collaboration among committee members and friends of the committee. Maintain the website as a front-door to the committee.
      1. Widely distribute the AT045 Newsletter
      2. Recruit two members with technical, social networking and/or communication management skills to serve on the Communications Subcommittee.
      3. Update the AT045 website, at least twice per year (December and May).
      4. To provide email/list serve capability, develop and maintain one Google group for members only, and one for friends of the committee
      5. Post topics to social networking and website regularly, with a focus on both professional, and research development
  - b. **Strategies:**
    - i. Identify mechanisms to encourage international collaboration in intermodal freight transport research.
      1. Appoint one liaison to the International Research and Technology Transfer Subcommittee and International Activities Committee
      2. Ensure that at least one member attend the International Participants' Reception at each of the Annual Meetings.
      3. By 2023, submit at least one research problem statement with a focus on international intermodal freight.
  - c. **Strategies:**
    - i. Identify and define emerging, critical, and cross-cutting Issues
      1. Distribute an annual survey to committee members to identify and define these issues. Develop the survey in coordination with related committees.
  - d. **Strategies:**

- i. Identify three committees with common issues and appoint committee liaisons (Freight Data, Ports and Channels, Urban Freight, etc.)
  1. Assign 1 person to act as liaison to the committee. They will be responsible for tracking efforts of other committees and reporting to the other committee the efforts and goals of this committee through regular meetings. Complete by August 2020
  2. Host 2 cross-committee webinars and attend 2 cross-committee webinars in 2020
- ii. Author Intermodal Research Problem Statements and submit to NCHRP for future funding by July 1<sup>st</sup>
  1. Aim to work with another committee on this.
- e. **Strategies:**
  - i. Organize intermodal freight policy and research presentations and sessions for the TRB annual meetings.
    1. Plan and manage two Intermodal Freight sessions at the TRB Annual Meeting, session to be reserved for presentation of the committee's top-rated research papers.
    2. With other TRB committees, identify and support (using 0.2 TRB points) additional sessions of interest to the committee
3. **Goal:** Meet professional development goals of committee members
  - a. **Strategies:**
    - i. Encourage research and participation in committee
      1. Showcase award winners through
        - a. Website
        - b. Newsletter