

TRIENNIAL STRATEGIC PLAN (TSP)**Period: 2017-2020****PART 1: Committee Name and Scope**

Committee Code *	AW040
Committee Name *	Marine Safety and Human Factors
- Date(s) reviewed	1/31/2017
- Change, if proposed***	
- No. of official members approving change/total number of members **	
Committee Scope *	The Committee on Marine Safety and Human Factors brings together safety researchers and operating personnel from the marine sector (including both deepsea and inland waterway operators, across all types of vessel service, harbor operations, as well as offshore industry operations) to identify critical issues and to define, support, and disseminate results of research aimed at enhancing the performance, safety, efficiency, and comfort of those involved in and/or using marine transportation systems. The scope encompasses: · The human's role in the operation and control of the full range of marine vessels, vessel management, maintenance, and protection of harbor, coastal and riverine areas · The health, safety, and quality of life of those who operate and maintain these vessels · The comfort and safety of marine transportation system users · The human impact of water transportation and port operations on neighboring communities.
- Date(s) reviewed	1/31/2017
- Change, if proposed ***	
- No. of official members approving change/total number of members **	

* 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	2015	2016	2017
Number of Members in Attendance at Annual Meeting	NA	NA	NA
Number of Visitors in Attendance at Annual Meeting	NA	NA	NA
Number of Papers Reviewed	14	16	13
Total Number in Attendance at Mid-Year Meeting	NA	NA	

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	
2017	
Session Number & Name	Number of Podium Sessions: 2 Number of Poster Sessions: 0 Workshops: 0
Session 762 (Lectern)	Waterway Throughput, Safety, and Resilience
Session 268 (Lectern)	Innovations in Navigation and Marine Safety
2016	
Session Number & Name	Number of Podium Sessions: 2 Number of Poster Sessions: 1 Workshops: 0
Session 635 (Lectern)	Using Data to Identify Waterway Risk Areas
Session 239 (Lectern)	Analyzing Marine Traffic
Session 331 (Poster)	Modeling Safety in Marine Transportation
2015	
Session Number & Name	Number of Podium Sessions: 1 Number of Poster Sessions: 1 Workshops: 1
Session 524 (Lectern)	Safety Risk Assessment and Modeling for Inland Waterways
Session 144 (Workshop)	Ensuring Ferry and Passenger Boat Safety in the Wake of Continuing Occurrences of Catastrophes
Session 254 (Poster)	Contemporary Research in Marine Safety
2014	
Session Number & Name	Number of Podium Sessions: 3 Number of Poster Sessions: 0 Workshops: 0
Session 658 (Lectern)	Freight Day, Part 4: Feeding and Care of the U.S. Transportation Workforce (Part 1, Session 492; Part 2, Session 544; Part 3, Session 593)
Session 829 (Lectern)	Risk Assessment and Levels of Safety in Waterways
Session 596 (Lectern)	Safety Requirements, Standards, Human Factors, and Costs

2.3

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

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:

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

2.6

Provide titles of synthesis topics submitted (by year):

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

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 January 2017, AW040 consisted of 24 members.

MEMBERSHIP TYPES	
Regular Member	20
State Department of Transportation Member	0
International Member	2
Young Member	2
GENDER	
Male	21
Female	3
DIVERSITY	
White	11
Black	0
Hispanic	0
Asian or Pacific Islander	2
American Indian	0

Two or More Races	2
Unknown	9
MEMBER AFFILIATION	
Public-Sector	9
Private-Sector	5
Academia	4
Nonprofit/Other	6

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, AW040 could add 5 Regular Members, 3 International Members, 2 State Department of Transportation Member, and 2 Young Member. The committee membership’s next rotation will occur in April 2017.

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)

AW040 collaborates closely with the annual TRB “Workshop on Human Factors in Transportation” Steering Committee in identifying and providing leadership and facilitation for a couple of the multi-modal, day-long Sunday workshop sessions featured.

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-term (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).*

Mission:

The mission of the Marine Safety and Human Factors Committee (AW040) is to advance and disseminate knowledge in the areas of marine safety and human factors that will benefit the transportation industry and government agencies.

AW040 Objectives:

- Provide a forum for sharing information and research related to marine safety and human factors in marine operations.
- Identify emerging performance and safety issues and technologies relevant to vessel and harbor operations, for both freight and passengers
- Act as a resource to the marine industry and other organizations involved in the safety, design, construction and operation of maritime transportation
- Develop technical exchange sessions to advance marine safety and better understand and address human factors issues
- Develop and disseminate research needs statements and coordinate with potential sponsors

AW040 Committee Functions:

Over the next three years the AW040 Committee functions will include:

- Conduct annual and periodic AW040 Committee Meetings
- Plan and conduction technical sessions in conjunction with the Annual

TRB Meeting

- Coordinate call for papers for the Annual Meeting and subsequent paper reviews
- Develop, identify and coordinate research needs for the committee and attempt to link up possible research sponsors both internal and external to TRB.
- Sponsor and/or support special activities

AW040 Committee Leadership:

The AW040 Committee will form and utilize a leadership team to help facilitate, promote, foster and further its activities. The Leadership team will consist of the following:

- Committee Chair: Todd Ripley
- Committee Vice-Chair: Rajiv Khandpur
- Secretary/Freight Day Coordinator: Doug Scheffler
- Research Paper Coordinator: Jennifer Lincoln

- Research Need Coordinator: Joseph Myers
- Marketing/Outreach Coordinator: ?
- Young Member Coordinator: Rachel Liu
- Past Committee Chair (2011-2016): Alexander C. Landsburg
- TRB Staff Representatives

AW040 Liaison and Assistance:

AW040 provides liaisons and works with other TRB Committee and organizations in an effort to identify and further maritime safety research. Liaisons will coordinate and inform pertinent members of AW040 of upcoming meetings, conferences, and other events that may be of interest to them. These TRB Committees and organization include:

- TRB Ports and Channels Committee (AW010)
- TRB Inland Water Transportation Committee (AW020)
- TRB Marine Environment Committee (AW030)
- TRB Ferry Committee (AP085)
- TRB Rail Safety Committee (AR070) , Jennifer Lincoln
- TRB Transportation Education and Training (ABG20), Rachel Liu
- TRB Human Factors Workshops, Alex Landsburg
- Freight Day 2018, Doug Scheffler -- send Doug any ideas for topics
- Harbor Safety Committee & Conference, Todd Ripley and Rajiv Khandpur
- Marine Board, Todd Ripley
- AASHTO SCOR, Todd Ripley
- Committee on the Marine Transportation System, Rajiv Khandpur
- DOT Human Factors Coordinating Committee, Doug Scheffler
- SOCP, Todd Ripley
- SNAME, Alex Landsburg
- PVA, Eric Christensen
- CLIA, Kierstin Del Valle
- National Cooperative Freight Research Program (NCFRP) project team overseeing the research project “Enhancing Sleep Efficiency on Vessels in the Tug/Towboat/Barge Industry”
- Other required committee liaisons

AW040 Critical Issues:

Critical issues being considered by AW040 to determine interest, need, and rationale include the following:

- Voyage Data Recorder (VDR) deployment and use
- Automated Identification System (AIS) safety applications
- Autonomous and automated vessel operations safety
- Human Systems integration in vessel design and automation
- Human Factors Issues in Implementing Advanced Technologies in Maritime

Transportation Operations

- Cultural and Communication Issues Affecting Maritime Operational Safety
- Human Fatigue, Alertness and effects of substances (such as alcohol, controlled medications, recreations drugs, and others)
- Identify the Risk Factors for Mariner Injury in Both Ship- and Shore-Based Activities
- Identify Risk Precursors for Maritime Accidents and Incidents

Planned Committee Activities:

Planned Committee activities include the following:

- Facilitate sharing marine safety and human factors information within the TRB, government and industry
- Sponsor sessions and coordinate paper presentations for TRB Annual Meetings, midyear conferences, and specialty workshops. The AW040 Paper Coordinate will lead and coordinate

paper reviews for the committee.

- Support the planning and development of the Annual Harbor Safety Committee (HSC) Conference
- Serve as a point of contact for the TRB, government agencies, and industry for issues relating to marine safety and human factors
- Develop a brochure describing the purpose and capabilities of the Committee and work proactively with organizations to engage with them to address safety issues. This will include development of a marketing strategy in support of the TRB call for papers to encourage maritime safety focused paper submittals, in addition to marketing the committee and its activities in general. The AW040 Marketing and Outreach Coordinator will lead and coordinate marketing and outreach efforts for the committee.
- Identify, document, and develop research opportunities for marine safety and human factors in the maritime sector. Develop, identify and coordinate research needs for the committee and attempt to link up possible research sponsors both internal and external to TRB. This will be part of a multi-modal to foster and address maritime safety needs. The Research Needs Coordinators with work with the committee, manage the RNS database, facilitate RNS discussions with potential sponsors for funding consideration. Possible committee research opportunities include:
 - o Synthesis research topics
 - o Automated and autonomous vessel operations
 - o Voyage Data Recorders (VDR) deployment and utilization
 - o Automated Identification Systems (AIS) utilization to improve safety
 - o Voluntary safety reporting
 - o Safety cultural and communication issues
 - o Ship design and construction safety
 - o Human systems integration

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

The Committee plans to pursue the activities outlined above in a similar manner to that accomplished over the years that have passed already (including those when operating as a Task Force). We do intend to be more proactive and institute an outreach program with others and to work with other organizations (TRB and other professional Societies) to coordinate and facilitate events that assist with the goals and objectives of the Committee.