

AASHTO Subcommittee on Transportation System Management & Operations (STSMO) Overview

July 16, 2016

2015-2018 STSMO Strategic Plan

Vision:

Transform the national transportation community to a TSM&O culture that focuses on effectively managing and operating the surface transportation system.

Mission:

Reduce crashes, injuries, fatalities and improve network efficiency and system mobility by engaging state DOT's, other AASHTO committees and partner organizations in support of increasing agency capability and utilization of TSM&O strategies.

Four Principles:

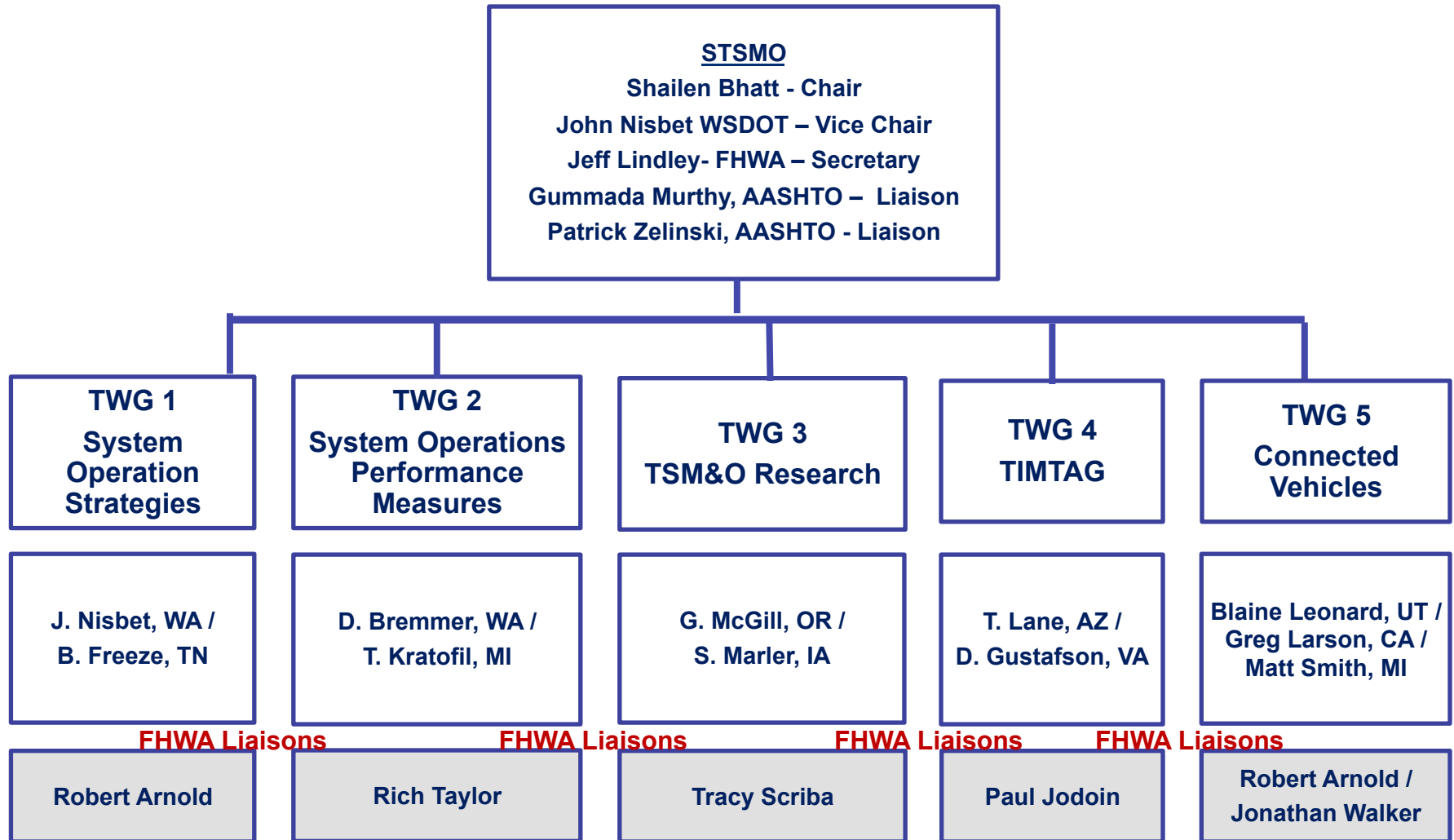
1. Boldness, 2. Practicality, 3. Visibility, 4. Connectedness

STSMO Strategic Plan (cont.)

Eight Strategic Goals

1. Encourage adoption of proven TSM&O concepts and strategies
2. Support DOTs in implementation of system performance measurement and management to tie in with TSM&O
3. Develop and evolve a workforce that is fully capable of accommodating and expanding TSM&O through development of needed skillsets and training.
4. Continue to make the business case for TSM&O.
5. Strengthen relationships and processes among the AASHTO groups and external organizations involved in TSM&O.
6. Guide and support the programs and services of the National Operations Center of Excellence, in collaboration with ITE and ITS America.
7. Build on and expand the use of the capability maturity model to improve agency TSM&O capability and expertise.
8. Encourage and facilitate the development and deployment of connected vehicle infrastructure and applications, including elements that support automated vehicle features.

2015 STSMO Leadership Team



STSMO Recent Accomplishments

- Continued support and leadership with the NOCoE (*In Collaboration with FHWA, ITE, ITSA*)
- Participated in the TSMO Workforce Development Summit
- Developed NCHRP 20-7 Project for initial scoping of a TSMO guidebook and standards similar to the AASHTO Green Book
- Developed a webinar to share best practices for TIM towing and emergency relocation practices
- Participated in the review and response to FHWA NPRM for System Performance
- Co-sponsored Pre-TRB and Post TRB webinars on current TSMO research
- Connected/Automated Vehicle Outreach, Education & Development:
 - Survey on V2I Applications, Pilot Site Presentations, Patent Infringement Issues Discussion, Benefit / Cost Tools Exchange of Information, Initiated the SPaT Challenge

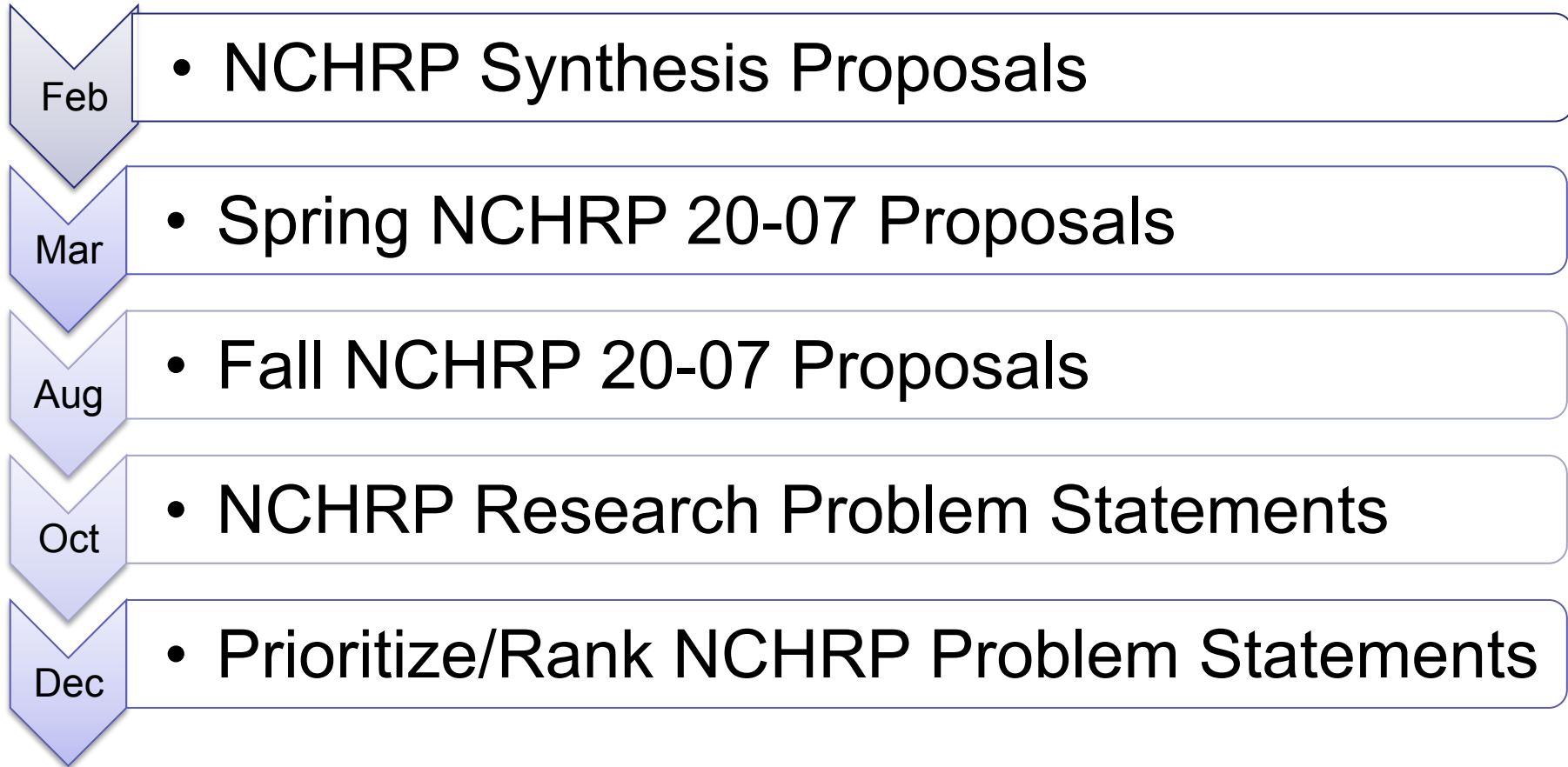
STSMO Research Working Group

- Objective:
 - Coordinate, support, and promote TSMO related research through the development of research problem statements, prioritization of research needs, implementation of research products, and dissemination of research results.

STSMO RWG Functions

- Develop & Prioritize TSMO Research Needs
 - Collaborate with other STSMO Working Groups and other AASHTO committees on research
 - Collaborate with TRB Committees and other organizations on TSMO Research
- Facilitate TSM&O Research Implementation
- Facilitate Peer exchange among state DOTs on TSM&O research & project evaluations
- Promote TSMO participation on NCHRP projects

STSMO RWG Schedule



2016 Work Plan & Activities

- Collaboration with TRB RTSMO and Freeway Ops Committees and others
- Focus on moving from research to implementation
 - NCHRP 07-20 Guidance on the Implementation of TIM Performance Measures
 - NCHRP 03-114 Planning and Evaluating Active Traffic Management Strategies
- Collaboration with NOCoE
 - Research Repository
 - TSMO Work Force Development Summit
 - Research Discussion Forum

2016 Work Plan & Activities

- 20-7 Projects
 - TSM&O Standards for Highway Infrastructure
 - Developing a Next Generation Transportation Systems Management & Operations (TSM&O) Research Agenda
- Research Proposals submitted
 - Operational Standards for Highway Infrastructure
 - Developing Decision Support Systems for Transportation Systems Management and Operations Performance Management

2016 Work Plan & Activities

- Synthesis Projects
 - Asset Management for TSM&O
 - State DOT Organizational Structures and Funding Mechanisms for TSM&O
 - Planning for Resiliency for Operations: Lessons Learned from Current Practices

TSM&O Research Themes

- TSM&O and Decision Support Systems
- TSM&O for Sustainability & Resilience (Bridging between “Macro & Micro” Operations)
- Workforce Development for TSM&O
- Vehicle Technology Impacts (including CV/AV) to Fleet Operations and Associated Impacts to TSM&O

Research Theme	1-Not important/not applicable	2-Less important	3-Somewhat important	4-Very important	5-Most important	Rating Average	Rank
Workforce Development for TSM&O	1	5	8	11	10	3.69	1
TSM&O and Decision Support Systems	0	4	10	14	7	3.69	1
Vehicle Technology Impacts to TSM&O	0	5	13	7	10	3.63	3
TSM&O for Sustainability and Resilience	0	8	14	10	3	3.23	4

Other Projects/TSMO Themes

- Advancing Connected Vehicle Enabled Weather Responsive Traffic Management
- Weather Based Active Traffic Management
- Transportation Agency ITS Infrastructure Decisions Considering V2I Deployment(NCHRP 20-07/365)

Other Projects/TSMO Themes

- TSM&O University Research Network (TURN)
- SHRP 2 Implementation
- Integrated Mobile Observations

Moving Forward

- TSM&O Research Themes
 - ❖ TSM&O and Decision Support Systems
 - ❖ TSM&O for Sustainability & Resilience
 - ❖ Workforce Development for TSM&O
 - ❖ Vehicle Technology Impacts (CAV)
- Next Generation TSM&O Research Plan
- National Operations Center of Excellence (<http://www.transportationops.org>)