

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS

Special Committee on Transportation Security And Emergency Management

4th GENERATION STRATEGIC DIRECTIONS (2014-2018)

June 2014

Prepared for:

AASHTO Special Committee on Transportation Security and Emergency Management

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The information contained in the report was prepared as part of NCHRP Project 20-59(14B),
National Cooperative Highway Research Program

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1.0 INTRODUCTION TO THE PLAN

On May 5 and 6, 2014, the Special Committee on Transportation Security and Emergency Management (SCOTSEM) met in joint session with the NCHRP 20-59 (14)B Project Panel in Nashville, TN to discuss and develop 4th Generation Strategic Directions guidance for SCOTSEM's program and governance. Over 30 professionals and leaders participated in this two-day workshop. These attendees represented a cross-section of state DOTs, federal agencies, private sector companies and transportation industry associations which have been engaged in security, and emergency management activities for over 10 years.¹

The participants developed a consensus around a broad series of discussions and analysis that drive the 4th Generation Strategic Directions for SCOTSEM. These driving forces include:

- Significant current issues remain in the transportation security and emergency management areas that warrant a continued focus from AASHTO in their support of member DOTs.
- Emerging challenges related to cybersecurity and transportation system resilience require additional investigation, clarification, and communication to the state DOT professional community.
- The focus on these four emphasis areas - surface transportation security, emergency management, cyber security, and resilience can be best addressed by utilizing the knowledge, experience and skills sets developed by the Special Committee over the past decade of its existence.
- The Special Committee must aggressively pursue new and stronger partnerships with the six other AASHTO Committees and Subcommittees that form the nucleus of the Transportation Systems Management and Operations (TSM&O) community.
- The regional subcommittee structure established by the Special Committee over the last several years has developed an excellent peer exchange program. This program should continue and expand in the future.
- The consensus was that three technical working groups or subcommittees should be established in the next 12 months to deal with all hazards infrastructure protection, emergency management, and research identification and implementation. This structure may expand to include additional emphasis areas such as transportation security, research dissemination, cyber security, and other emerging topics of importance.
- The Special Committee needs to complement federal emphasis areas in resilience, all hazards infrastructure protection, and cybersecurity.

¹ The resource materials developed for this meeting are available from TRB Senior Program Officer Stephan Parker.

- The Special Committee is uniquely positioned within the AASHTO community to engage the Federal Highway Administration, Department of Homeland Security, Transportation Security Administration, and other agencies and associations that have common interests in all hazards infrastructure protection and emergency management.
- The Special Committee’s vision, mission, and goals need to be adjusted to reflect the AASHTO focus on committee purposes contained in the bylaws of the Association and the identified needs of the professional community.
- The role and focus of the Special Committee must shift to develop actions and action plans that support DOTs in accomplishing their missions in transportation security, infrastructure protection, and emergency management.
- The Special Committee needs to refocus its forward work on helping DOTs understand and embrace the body of knowledge developed over the last 10 years through the NCHRP 20-59 Program, associated Cooperative Research Programs, and research/guidance from FHWA and other federal agencies.
- The Special Committee wants to capitalize on the opportunity presented by the establishment of the National Operations Center of Excellence.
- The Special Committee Leadership Team needs to focus on long-term sustainability of its technical service initiatives and on additional or more efficient and effective mechanisms of peer exchange and education.
- There is a need to provide information to DOTs to assist them in designating appropriate agency participants on the Special Committee who can effectively assist with achieving revised Special Committee mission, goals, and work plans.

2.0 PURPOSE OF THE PLAN

Since 2001, the transportation community has developed a rich body of knowledge and research for use by agencies and transportation professionals responsible for the inter-related activities associated with transportation infrastructure protection and emergency management. While much of this knowledge has been absorbed and deployed by individual agencies, much has not. In 2010/11 a new effort was initiated to develop a systematic and ongoing deployment and implementation plan and approach. This strategic pivot – from a research and development focus to a more practical emphasis on deployment and implementation – represents a normal and common evolution of innovation within the industry.

The SCOTSEM leadership team is now engaged in a process to determine what alternatives exist for its programmatic mission and what organizational direction is best suited to carry out that mission as the Association, its partners, and committees move forward in the 2014-2018 timeframe. The vehicle chosen by SCOTSEM to facilitate this discussion and review of alternatives is **The 4th Generation Strategic Directions Plan**.

The purpose of this Plan is to define and document the future of the SCOTSEM initiative over the next five years and to define the actions required for achieving these goals. The Plan is intended to be the guiding document for the activities and future direction of the SCOTSEM. It is both visionary and action-oriented, and is meant to move the SCOTSEM forward quickly.

The Plan also identifies next steps for achieving these goals as well as organizational structures best suited to this new direction, concrete action steps to be taken, and performance measures of the plan to assess and report on its progress. Special Committee members will have direct responsibility for undertaking the specific actions detailed in the Plan.

Ensuring that success is in fact achieved requires continual attention to the goals and actions contained in this Plan, plus continuous evaluation of progress using identified performance measures. The plan must also be subjected to periodic reviews to ensure that it continues to be relevant to the needs of the SCOTSEM and the industry.

This Plan outlines the overall direction for the SCOTSEM. It follows a structured process that goes from the general to the specific. The steps in this process are:

- Vision – A broad statement about where the SCOTSEM wants to be;
- Mission – The purpose of the SCOTSEM, who it is, and the role it has in AASHTO;
- Strategic Goals – Multiple, relatively specific outcomes that outline what the SCOTSEM Leadership Team wants to accomplish by 2018;
- Actions – Specific activities that must be undertaken to meet the Strategic Goals; and
- Performance Measures – Metrics that assess the degree to which the Actions are successfully performed and the Strategic Goals are being achieved.

The actions in this process are the responsibility of several Working Groups defined later in this plan. The Working Groups are responsible for formulating and executing action plans that will be used by the SCOTSEM to achieve its strategic goals.

3.0 CONTEXT AND CHANGE DRIVERS

DOTs across the nation are dealing with a transition to a new way of thinking and approach to services. Public sector transportation agencies are no longer solely focused on building the nation's infrastructure, as they have been for nearly 100 years. Over the last 15 years, AASHTO and its member organizations have been focused on understanding, inventing, and implementing a refocused mission in serving the nation's transportation needs.

At the turn of the Century, recognizing that their mission was no longer building major transportation networks, transportation agencies began to explore what it would mean to be a **21st Century Operations-Oriented DOT**. The focus of this work has been on how to operate a transportation system and how to convert agency staffing and processes to support this emerging mission. This effort has resulted in a broad body of work in understanding organizational readiness, staff training programs, improving customer service, and traffic management programs. The end result of much of the effort is to improve the reliability of the transportation network through improved operations.

As a result of the attacks of 9/11 and a long-term commitment to the use of technology and the work surrounding improving operations, agencies are now implementing a new focus on emergency response and their role in homeland security. Transportation plays a critical and unique role in emergency response. As the National Response Framework (NRF) states, "The ability to sustain transportation services, mitigate adverse economic impacts, meet societal needs, and move emergency relief personnel and commodities will hinge on effective transportation decisions at all levels." Transportation's unique role stems from the broad range of capabilities and responsibilities a transportation agency has: large and distributed workforces, easy access to heavy equipment and a robust communications infrastructure. In most states the only other agency capable of mobilizing personnel and equipment, in quantity, to plan for or respond to any emergency may be the National Guard.

Fundamental responsibilities in security/emergency response:

- 1. Prevent incidents within your control and responsibility;*
- 2. Protect transportation users, agency personnel and critical infrastructure;*
- 3. All hazards vulnerability reduction through risk assessment and management*
- 4. Support regional, state and local emergency responders with resources including facilities, equipment and personnel;*
- 5. Recover swiftly from incidents; and*
- 6. Evaluate response(s) and continually improve plans, training, skills and protocols.*

Source: AASHTO

3.1 National Trends

Since 2010, four significant documents at the national level have been issued which are changing the focus for security and reshaping long-term directions that will influence activities within agencies and work plans of the associations supporting DOTs. These documents are:

- **Presidential Policy Directive 8: National Preparedness (2011)**
 - Strengthens security and resilience through five preparedness mission areas—Prevention, Protection, Mitigation, Response, and Recovery.
 - Integrates National Planning Frameworks - National Prevention Framework, National Mitigation Framework, National Response Framework, National Disaster Recovery Framework.
- **Presidential Policy Directive-21: Critical Infrastructure Security and Resilience (2013)**
 - Critical infrastructure must be secure and able to withstand and rapidly recover from all hazards. Resilient infrastructure systems are flexible and agile and should be able to bounce back after disruptions.
 - Integration with national preparedness system.
- **2013 National Infrastructure Protection Plan: Partnering for Critical Infrastructure Security and Resilience**
 - Identify, deter, detect, disrupt, and prepare for threats and hazards to the Nation’s critical infrastructure;
 - Reduce vulnerabilities of critical assets, systems, and networks.
 - Mitigate potential consequences to critical infrastructure of incidents or adverse events that do occur.
- **Executive Order 13636: Improving Critical Infrastructure Cybersecurity (2013)**
 - Develop a technology-neutral voluntary cybersecurity framework.
 - Promote and incentivize the adoption of cybersecurity practices.

These trends appear to outline an emerging focus for DOTs on infrastructure protection, understanding and assuring resiliency in the transportation network and investing in the cybersecurity protection of their roadside technology network.

3.2 State DOT Trends

In the last several years, state DOTs have broadened their use of the term “transportation security” to encompass the capability to prevent, prepare for, respond to, and recover from a wide range of emergencies natural or human that pose threats to the operation of the transportation system.

Transportation security is now viewed as part of a broader set of emergency management capabilities that DOTs are adopting to ensure the resiliency of the nation’s transportation network.

Anecdotal evidence suggests several important factors are at play in creating the surge of interest in emergency management as a day-to-day function within state DOTs:

- **Even Small Events Pose Threats of Great Consequences** - The impact of any emergency is magnified when a transportation network is operating at or past its capacity – as is the case in portions of many states as travel demand on their transportation networks grows.
- **DOTs Have the Institutional “Heft” to Solve Problems** - Surface transportation agencies are recognizing that they are uniquely positioned in terms of their broad policy

responsibility, public accountability, large and distributed workforces, heavy equipment, communications infrastructure, and in their ability to swiftly take direct action (akin to the private sector). This institutional heft provides a stable base for a campaign to systematically reduce risk exposure over time through hazards capital budgeting. No one else will do it for the DOTs.

- **Risk of Natural and Man-made Events Growing More Common** - Natural or man-made emergency events – ranging from floods to infrastructure failures – are possibly on the rise – with extreme weather and, other pressures including terrorism and aging infrastructure.
- **State DOTs have developed, or are developing key partnerships or collaborations** within their organizations, with their partner agencies at the state level, with federal agencies, and across borders on a regional basis. This trend appears to show a strong majority of a critical focus area over the last 10 years.
- **State DOT efforts in improved or newly developed emergency response planning and training** that is being deployed to improve personnel skills and agency readiness. Most if not all planning is in compliance with all-hazards, National Incident Management System, and Traffic Incident Management principles. Training is based on programs and courses that have been developed and fostered from various federal agencies and NCHRP project reports.
- **Many DOTs have recently undergone major reorganizations** to consolidate their emergency response and security staff and focus. Many noted that these consolidations resulted from economic downturns and staffing reductions experienced in their states and organizations. Some felt this was helping them improve, while others thought that it reflected changing priorities of their management.
- The most often reported challenge remains **staffing reductions**. State DOTs are losing critical staff, having to eliminate staffing needed in the various security and emergency response functions. All reported that they have had to assume additional duties with no increase in staffing.
- **State DOTs greatest concern is a loss of funding** needed to fulfill their missions. This concern appears to be a wider issue across all disciplines, not necessarily targeted at efforts to protect public safety.
- **There is significant** deployment of **new technologies** to support emergency response and security activities. Some respondents identified the emerging focus on cyber security as the next need for technology improvement.

3.3 TRB and AASHTO Trends

Since 2001, the Transportation Research Board, working with the American Association of State Highway and Transportation Officials (AASHTO), the American Public Transportation Association (APTA), and various federal agencies, have sponsored 147 projects designed to assist agencies in preparing for, preventing, mitigating, responding to, and recovering from transportation related

emergencies and security events. Of these projects, 113 have been completed, 20 are in progress and 14 projects have contracts pending or are currently in development. Additionally,

- 76 of these projects have been developed through the National Cooperative Highway Research Program (NCHRP) for a total of \$10,873,200;
- 49 of these projects have been developed through the Transit Cooperative Research Program (TCRP) for a total of \$6,176,000;
- 22 of these projects have been developed through the Airport Cooperative Research Program (ACRP) for a total of \$5,285,000

These projects have been a critical part of a national initiative in the area of transportation security and emergency management, supplementing work by other research programs, USDOT, USDHS, state DOTs, and local transportation agencies. This research has provided the transportation community with a solid foundation and understanding that preparation, response and recovery for an event is integrally linked to the skills and policies utilized in operations and emergency management. Understanding and communicating this rich body of research is critical to the success of implementing an **all-hazards NIMS² approach** adopted by SCOTSEM and its partner organizations.

More recently, AASHTO has been engaged in a significant updating of its programs. A new Executive Director was named in 2012 and senior staff began replacing the administration that had been in place since 1999. The Board of Directors has also initiated a process of updating its strategic plan, and is expected to complete this work by mid-2014.

Renewed emphasis on active traffic management, incidents, and freight as well as on providing road weather and real-time traveler information have already been identified in this process. Programs such as managed lanes, traffic signal operations, congestion mitigation and pricing; work zone mobility, and safety have been incorporated into these focus areas.

Products developed in the second Strategic Highway Research Program (SHRP2) will lead to the ultimate formation of a **National Operations Center of Excellence (NOCoE)**, which is expected to become **the centralized resource** for technical assistance, information, training, peer-to-peer exchanges, and best practices. With the support of the Federal Highway Administration, the American Association of State Highway and Transportation Officials (**AASHTO**), the Institute of Transportation Engineers (**ITE**), and the Intelligent Transportation Society of America (**ITS America**) have signed a Memorandum of Understanding (MOU) to establish a National Operations Center of Excellence.

² National Incident Management System

4.0 PROGRAM DIRECTION

Vision

A national transportation community focused on the all hazards infrastructure protection and emergency management of a resilient surface transportation system.

Mission

Serve state DOTs, other AASHTO committees, and partner organizations by developing, promoting, and supporting the coordinated implementation of all hazards infrastructure protection, emergency response, and related system operations/resilience programs.

Goals

1. Advocate for the role of all hazards infrastructure protection and emergency management in a resilient transportation system.
2. Assist in shaping and implementing national policy, legislation, funding, and regulatory development affecting transportation infrastructure protection and emergency management issues.
3. Investigate, develop, and report on recent advances in infrastructure protection, security, and emergency management issues in urban and statewide environments, including consideration of their social and economic impacts.
4. Advance the state-of-the-practice and awareness of transportation infrastructure protection and emergency management through training, technical assistance, and technology transfer activities.
5. Develop, promote and encourage effective working relationships among state transportation officials and other stakeholders responsible for various aspects of transportation infrastructure protection, emergency management and system operations.
6. Develop and promote a research and implementation plan for transportation infrastructure protection, security, and emergency management.

4.1 Tracking Progress in Attaining the Strategic Goals

Performance measures are essential for tracking the progress of the SCOTSEM toward achieving its goals. Definition of performance measures also requires an accompanying identification of the manner in which the data will be collected to support their application.

The selected performance measures and the manner in which they will be evaluated include:

- Engagement – The degree to which multiple states are engaged in activities. This would include multiple measures such as the number of states that participate in the meetings and the number of states that are engaged in the activities of the working groups. These statistics can be readily collected as a by-product of AASHTO’s involvement these events.
- Deployment – The extent to which states have adopted SCOTSEM tools as an integral element of their organization. One measure could be preparation of a colored map of DOTs that had adopted strategic program plans. This measure would be evaluated through surveys of members.
- Measures related to specific activities – The activities of the action plans as well as those adopted by the leadership team should each have associated measures. These measures would be defined by the appropriate working group or the leadership team as appropriate. The manner, in which this measure is evaluated as well as the evaluation itself, is the responsibility of the individual working groups and the leadership team for their respective measures.

Measures are to be collected, analyzed and reported annually.

5.0 GOVERNANCE

Much of AASHTO's work is done by committees comprised of member department personnel who serve voluntarily. The Association provides a forum for consideration of transportation issues and is frequently called upon by Congress to conduct surveys, provide data, and testify on transportation legislation.

Through AASHTO's policy development activities, member departments often address federal programs and provide guidance.

The Special Committee reviewed the AASHTO Committee structure to gain an understanding of the environment in which SCOTSEM has evolved. It was important to understand other committees that share similar, complementary, or overlapping focus areas with SCOTSEM. There are 5 other committees that closely relate to and complement SCOTSEM. The table below illustrates this analysis.

	SSOM	SCOM	SCOTE	SCOWCoT	SCOTSEM	SCOHT
SSOM		Technology TIM, ER	Critical Infra structure, ER 911, TOC	2 way Radios Equipment DSRC, ITS	Critical Infra structure, ER 911, TOC, ICS, TET - TIM	CVISN, Freight
SCOM	Weather, O & M, TOC, TIM,		Work Zones Traffic Signals Signing striping and Pavement Markings	Equipment Fleet management Snow and Ice, Hurricane Evac.	Snow and Ice, Hurricane Evac. All Hazard Events, Bridges, Tunnel	Rest Areas Heavy Vehicles Permits MCC
SCOTE	Traffic Signals Arterial ops	MUTCD Work Zones Safety		Safety, ITS	Evac Routes Planning	Freight Mobility
SCOWCoT	Gap filling comm. FCC ITS V-I V-V	2 way Radios and wi reless FCC licenses	Safety		ER, EOC Evac plannng.	E-seals DSRC CVISN
SCOTSEM	ER, IM, EOC, TOC	CI, Bridges and Tunnels	Evac. Routes	Comm. Plan Interoperability		
SCOHT	Freight Mobility	Permits Rest areas Truck parking	Security and vulnerability at border crossings	ITS, WIM and Tolling		

The above developed matrix of cross cutting operations elements to establish a Strategic Plan that serves as an overarching concept of security and emergency management to advance /mainstream programs at State DOTs and in AASHTO.

SSOM – has now become TSM&O. Transportation System Management and Operations

SCOM – Subcommittee on Maintenance

SCOTE – Subcommittee on Traffic Engineering

SCOWCoT – Subcommittee on Wireless Communication and Technology

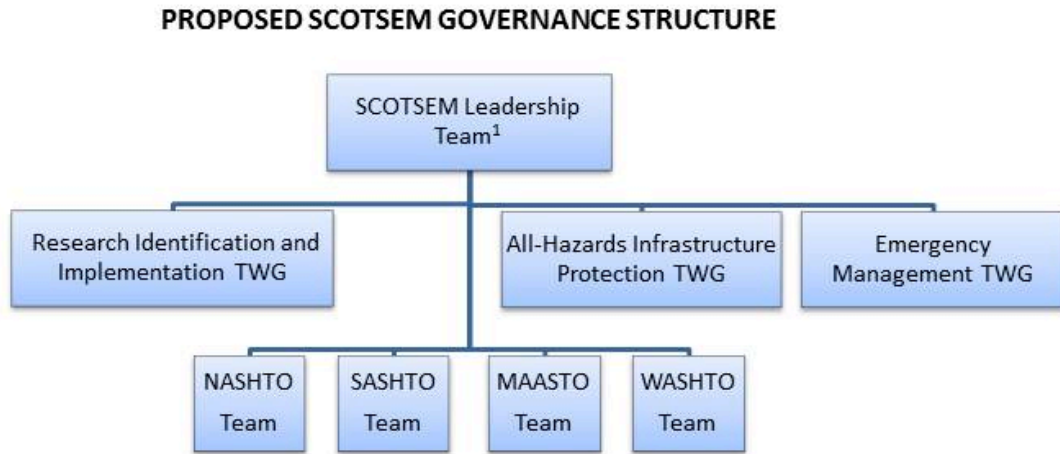
SCOTSEM – Special Committee on Transportation Security and Emergency Management

SCOHT – Special Committee on Highway Transport

The table should be read from left to right to find the areas of common interest between the subject committee and its other complementary committee.

5.1 Governance Structure 2014-2018

The Leadership Team considered several options in its deliberations about whether and how to adjust the organizational and governance structure moving forward. The proposed governance structure is shown in the following chart.



The SCOTSEM Leadership Team consists of the Chairperson, Vice-chairperson, Secretary, TWG and Regional Leaders, FHWA, AASHTO and TRB staff

TWG – Technical Working Group

NASHTO - CT, DE, ME, MD, MA, NH, NJ, NY, PA, RI, VT, DC, PR

SASHTO - AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV

MAASTO - IL, IN, IA, KS, KY, MI, MN, MS, OH, WI

WASHTO - AK, AZ, CA, CO, HI, ID, MT, NE, NV, NM, ND, OK, OR, SD, TX, UT, WA, WY

6.0 FORWARD ACTION PLAN

In order to move the Special Committee into its next generation of focus and activity a forward action plan is recommended in the following table. The leaders for each step will be assigned by the Chair and Vice-Chair.

SHORT TERM ACTIONS – COMPLETE BY OCTOBER 2014

ACTION STEP
Draft Final 4th Generation Plan for REVIEW
Circulate Plan to SCOTSEM membership for review
AASHTO conducted WEBINAR to gather input on plan
Meet with FHWA Leadership (Jeff Lindley) to discuss the strategic plan

Ballot 4 th Generation Plan to SCOTSEM
Ballot 4 th Generation Plan to AASHTO Board of Directors
Solicit DOTs for SCOTSEM membership changes
Solicit Chairs for the 3 new TWGs
Outreach by Chair/Vice Chair to promote SCOTSEM

INTERMEDIATE ACTIONS – COMPLETE BY JUNE 2015

ACTION STEP
Develop work plans for the new TWGs
Establish Planning Group for 2015 SCOTSEM Meeting
Establish Planning Group for 2016 Joint Meeting
Schedule and conduct regular leadership team meetings
Outreach by Chair/Vice Chair to promote SCOTSEM

LONG TERM ACTIONS – COMPLETE BY AUGUST 2015

ACTION STEP
Identify performance measures for SCOTSEM
Identify research needs for submission to NCHRP process
Develop transfer plan for moving completed NCHRP 20-59 research to NOCoE
Identify NCHRP 20-59 products for adoption by AASHTO
Outreach by Chair/Vice Chair to promote SCOTSEM

APPENDIX A

KEY DEFINITIONS FROM PPD-8/PPD-21

Definitions PPD-8

(a) The term "national preparedness" refers to the actions taken to plan, organize, equip, train, and exercise to build and sustain the capabilities necessary to prevent, protect against, mitigate the effects of, respond to, and recover from those threats that pose the greatest risk to the security of the Nation.

(b) The term "security" refers to the protection of the Nation and its people, vital interests, and way of life.

(c) The term "resilience" refers to the ability to adapt to changing conditions and withstand and rapidly recover from disruption due to emergencies.

(d) The term "prevention" refers to those capabilities necessary to avoid, prevent, or stop a threatened or actual act of terrorism. Prevention capabilities include, but are not limited to, information sharing and warning; domestic counterterrorism; and preventing the acquisition or use of weapons of mass destruction (WMD). For purposes of the prevention framework called for in this directive, the term "prevention" refers to preventing imminent threats.

(e) The term "protection" refers to those capabilities necessary to secure the homeland against acts of terrorism and manmade or natural disasters. Protection capabilities include, but are not limited to, defense against WMD threats; defense of agriculture and food; critical infrastructure protection; protection of key leadership and events; border security; maritime security; transportation security; immigration security; and cybersecurity.

(f) The term "mitigation" refers to those capabilities necessary to reduce loss of life and property by lessening the impact of disasters. Mitigation capabilities include, but are not limited to, community-wide risk reduction projects; efforts to improve the resilience of critical infrastructure and key resource lifelines; risk reduction for specific vulnerabilities from natural hazards or acts of terrorism; and initiatives to reduce future risks after a disaster has occurred.

(g) The term "response" refers to those capabilities necessary to save lives, protect property and the environment, and meet basic human needs after an incident has occurred.

(h) The term "recovery" refers to those capabilities necessary to assist communities affected by an incident to recover effectively, including, but not limited to, rebuilding infrastructure systems; providing adequate interim and long-term housing for survivors; restoring health, social, and community services; promoting economic development; and restoring natural and cultural resources.

Definitions PPD-21

The term "all hazards" means a threat or an incident, natural or manmade, that warrants action to protect life, property, the environment, and public health or safety, and to minimize disruptions of government,

social, or economic activities. It includes natural disasters, cyber incidents, industrial accidents, pandemics, acts of terrorism, sabotage, and destructive criminal activity targeting critical infrastructure.

The term "collaboration" means the process of working together to achieve shared goals.

The terms "coordinate" and "in coordination with" mean a consensus decision-making process in which the named coordinating department or agency is responsible for working with the affected departments and agencies to achieve consensus and a consistent course of action.

The term "critical infrastructure" has the meaning provided in section 1016(e) of the USA Patriot Act of 2001 (42 U.S.C. 5195c(e)), namely systems and assets, whether physical or virtual, so vital to the United States that the incapacity or destruction of such systems and assets would have a debilitating impact on security, national economic security, national public health or safety, or any combination of those matters.

The term "Federal departments and agencies" means any authority of the United States that is an "agency" under 44 U.S.C. 3502(1), other than those considered to be independent regulatory agencies, as defined in 44 U.S.C. 3502(5).

The term "national essential functions" means that subset of Government functions that are necessary to lead and sustain the Nation during a catastrophic emergency.

The term "primary mission essential functions" means those Government functions that must be performed in order to support or implement the performance of the national essential functions before, during, and in the aftermath of an emergency.

The term "national security systems" has the meaning given to it in the Federal Information Security Management Act of 2002 (44 U.S.C. 3542(b)).

The term "resilience" means the ability to prepare for and adapt to changing conditions and withstand and recover rapidly from disruptions. Resilience includes the ability to withstand and recover from deliberate attacks, accidents, or naturally occurring threats or incidents.

The term "Sector-Specific Agency" (SSA) means the Federal department or agency designated under this directive to be responsible for providing institutional knowledge and specialized expertise as well as leading, facilitating, or supporting the security and resilience programs and associated activities of its designated critical infrastructure sector in the all-hazards environment.

The terms "secure" and "security" refers to reducing the risk to critical infrastructure by physical means or defense cyber measures to intrusions, attacks, or the effects of natural or manmade disasters.

APPENDIX B

RESOURCE DOCUMENT BIBLIOGRAPHY

1. NIPP 2013: Partnering for Critical Infrastructure Security and Resilience
2. Presidential Policy Directive/PPD-21 – Critical Infrastructure Security and Resilience, February 2013
3. Executive Order 13636 – Improving Critical Infrastructure Cybersecurity, February 2013
4. Disaster Resilience: A National Imperative, The National Academies, 2012
5. Critical Infrastructure Resilience: The Evolution of Policy and Programs and Issues for Congress, Congressional Research Service, August 2012
6. Maintaining Strategic Direction for Protecting America’s Transportation System, AASHTO, May 2006
7. Transportation Vision and Strategy for the 21st Century Summit – Draft Vision Statements, AASHTO, July 2007
8. Roles and Implications of Transportation Systems in Homeland Security, High Street Consulting Group, January 2010
9. Options for Institutionalizing AASHTO’s Transportation Security Task Force, April 2003
10. DRAFT Subcommittee on Systems Operation and Management Strategic Plan, February 2014
11. DRAFT Operations Center of Excellence Business Plan, February 2014
12. Fundamentals of Effective All Hazards Security Management for State DOTs, December 2007
13. A Guide to Planning Resources on Transportation and Hazards – NCHRP RRD 333, September 2009
14. National Needs Assessment for Ensuring Transportation Infrastructure Security (2009 – 2015) NCHRP Project 20-59, Task 26, August 2008
15. All-Hazards Security and Emergency Management Research Implementation Plan NCHRP Project 20-59(29), November 2010
16. 2013 Transportation Hazards and Security Summit – Summary Report, August 2013
17. 2013 AASHTO Annual Meeting – Summary Report – October 2013

APPENDIX C

HISTORICAL SCOTS AND SCOTSEM STRATEGIC PLANS

AASHTO Special Committee on Transportation Security and Emergency Management
Vision, Mission, Goals, Objectives and Initiatives

2010-2015

FINAL

SCOTSEM's Vision: A secure transportation system that assures the mobility and prosperity of all Americans through resiliency to threats from all hazards.

SCOTSEM's Mission: Be the voice and leader for state DOTs in developing an all hazards approach to transportation security and emergency management among all modes through partnerships with AASHTO, its members, other agencies and professional organizations on security and emergency management advocacy, research program implementation, policy development, and training and awareness.

GOAL ONE: ADVOCATE FOR THE IMPORTANT ROLE OF RESILIENT TRANSPORTATION SYSTEMS IN SECURITY AND ALL-HAZARDS EMERGENCY MANAGEMENT

Objective 1.A. Develop and promote a clear and comprehensive definition of the state DOT role in security and all-hazards emergency management that highlights the full range of DOTs' prevention, protection, response, recovery, and mitigation functions.

Initiative: Develop a concise (one or two page) summary of state DOTs' security and emergency management roles that is based on the content of existing research and guidance materials in the fields of transportation security and all hazards emergency management. Use this document to promote internal consensus among state DOTs on a descriptive definition of their role in security and all-hazards emergency management.

Initiative: In advance of the August 2010 SCOTSEM meeting, conduct an electronic survey of state DOTs' security and all hazards emergency management activities.

Initiative: Send letter from AASHTO Executive Director to member CEOs encouraging them to have representatives at the summer 2010 SCOTSEM meeting.

Initiative: Identify ways to encourage greater security and emergency management partnerships among states.

Initiative: Establish stronger working relationships with AASHTO's Subcommittee on Systems Operation & Management, including efforts such as inclusion of all-hazards emergency management in implementation of the National Unified Goal for Traffic Incident Management.

Objective 1.B. Promote a clear consensus about the DOT role in security and emergency management via strategic alliances between SCOTSEM and pertinent federal, state, local and tribal agencies; the Transportation Research Board (TRB) and National Academies; and other transportation partners.

Initiative: Find ways to maintain state DOTs' commitment to supporting implementation of the National Response Framework, National Incident Management System, and National Infrastructure Protection Plan.

Initiative: Coordinate outreach presentations at regional meetings, other events, and with other committees and organizations.

Initiative: Seek greater inclusion of public transit and towing/recovery operators in DOTs' prevention, protection, response, recovery and mitigation activities.

GOAL TWO: ASSURE A COMPREHENSIVE PROGRAM OF RESEARCH AND DEVELOPMENT TO ACHIEVE SECURITY AND ALL HAZARDS EMERGENCY MANAGEMENT SOLUTIONS

Objective 2.A. Work with the National Cooperative Highway Research Program (NCHRP), the Transit Cooperative Research Program (TCRP), the TRB, the Federal Highway Administration (FHWA), the Department of Homeland Security (DHS), and the Transportation Security Administration (TSA) and other partners to ensure continued growth of a comprehensive and effective transportation security and emergency management research program that supports all SCOTSEM goals and includes study of best practices and solutions.

Initiative: By the end of 2010, develop a plan for the 2012-2014 NCHRP transportation-related security research program.

Objective 2.B. Operationalize appropriate security and emergency response and management research results into the practices of state DOTs and their partners.

Initiative: By the end of 2010, create a research implementation plan that addresses the 100+ research products produced as part of the Cooperative Research Program series and puts the results of this research in practitioners' hands.

GOAL THREE: ASSIST IN SHAPING AND IMPLEMENTING NATIONAL POLICY, LEGISLATION, FUNDING, AND REGULATORY DEVELOPMENT ON SECURITY AND ALL-HAZARDS EMERGENCY MANAGEMENT ISSUES

Objective 3.A. Provide a vehicle for coordinating proactive state DOT action on relevant national federal policy matters.

Initiative: Keep AASHTO members and committees informed about opportunities to influence legislation, regulation, and policy.

Initiative: Define and implement an outreach and advocacy program targeted to Congressional and federal agencies.

Initiative: Incorporate results of NCHRP Legal Digest Report 20-6 Topic 17-3/NCHRP project 20-59(41) "Legal Definition of "First Responder" into SCOTSEM.

Objective 3.B. Support state DOTs in securing federal funding for key security initiatives on modal transportation systems and help with issues related to reimbursement by FEMA & FHWA for costs incurred.

Initiative: Address recently adopted FEMA policies on federal cost reimbursement to states for snow and ice removal, which were developed without input from the state DOT community.

GOAL FOUR: ADVANCE DOTS' STATE-OF-THE-PRACTICE IN AND AWARENESS OF SECURITY AND ALL HAZARDS EMERGENCY MANAGEMENT EDUCATION, TOOLS AND TECHNICAL ASSISTANCE

Objective 4.A. Establish a capability to share security-related information among state DOTs, AASHTO committees and private partners to encourage greater awareness about security infrastructure protection, and all hazards emergency response and management.

Initiative: Hold regular SCOTSEM leadership team conference calls.

Initiative: Update SCOTSEM's AASHTO website.

Initiative: Hold SCOTSEM 2010 annual meeting in Irvine, CA.

Initiative: Ensure every state DOT is a member of its interoperable communications-related Regional Planning Committee and Statewide Interoperability Executive Committee, so the state DOT voice is heard as statewide interoperable communications plans are developed.

Objective 4.B. Develop a comprehensive strategy for building consensus among AASHTO members on integrating security and emergency management processes and procedures into formal AASHTO documents, such as appropriate design manuals and guides, specifications, and other information documents.

Initiative: Build awareness among other AASHTO committees and sub-committees by developing a set of security and all hazards emergency management guidelines and case studies, such as a project design phase "checklist" for security, using existing research results and new research as needed.

Initiative: Begin work on a formal update to AASHTO's design guidelines that includes information about security and emergency management issues.

Objective 4.C. Participate in, develop, sponsor, or lead security and emergency response and management training for state DOTs and their partners.

Initiative: identify opportunities for grants from non-transportation sources that can be used to support training.

Initiative: Promote ways for state DOTs to participate in training and exercises with other emergency management and security federal, state, and local agencies.

AASHTO Special Committee on Transportation, **Emergency Management and Security**

Vision, Mission, Goals, Objectives and Strategies

2005-2007

Prepared: January 26, 2005

Edited at SCOTS Annual Meeting, Irvine CA, August 2007

Edited at SCOTS Annual Meeting, Washington, DC August 2008 (Changes in **Yellow**)

Mission: The Special Committee on Transportation, **Emergency Management and Security (SCOTS)** is the voice and leader for state departments of transportation (DOTs) to improve transportation resiliency, security and emergency management across all modes.

SCOTS advocates for a secure transportation system by coordinating and collaborating with AASHTO, its members, and other agencies and professional organizations in achieving an all hazards approach.

GOAL ONE: ESTABLISH THE KEY ROLE OF TRANSPORTATION IN HOMELAND SECURITY **AND EMERGENCY MANAGEMENT**

- Objective 1.A. Achieve internal consensus among SCOTS members on a comprehensive, yet clear, definition of state DOTs' role in homeland security that acknowledges their role as initial responders
- Objective 1.B. Promote external awareness about DOTs' role in homeland security via strategic alliances between AASHTO/SCOTS and federal agencies and all other stakeholders

GOAL TWO: ASSURING A COMPREHENSIVE PROGRAM OF RESEARCH AND DEVELOPMENT

- Objective 2.A. Work with National Cooperative Highway Research Program (NCHRP), Transit Cooperative Research program (TCRP), Transportation Research Board (TRB), Federal Highway Administration (FHWA), Department of Homeland Security (DHS), Transportation Security Administration (TSA) and other partners to ensure continued growth of a comprehensive and effective transportation security research program that supports all SCOTS goals and includes study of best practices and solutions
- Objective 2.B. Incorporate and implement appropriate security research results into AASHTO specifications, guides, and other information documents

GOAL THREE: HELP ALL STATES TO COMPLETE MULTIMODAL **ALL-HAZARDS RISK ASSESSMENT APPROACHES AND EMERGENCY MANAGEMENT STRATEGIES THAT ADDRESS SECURITY AND RESOURCES. SUPPORT APPROPRIATE PARTICIPATION BY DOTs IN RESPONSE TO EFFORTS BY DHS TO DEVELOP AND IMPLEMENT THE NATIONAL RESPONSE **FRAMEWORK** AND NATIONAL INCIDENT MANAGEMENT SYSTEM (NIMS)**

GOAL FOUR: SHAPE NATIONAL POLICY, LEGISLATION, FUNDING, AND REGULATORY DEVELOPMENT

Objective 4.A. Define and implement an outreach and advocacy program targeted to Congressional/federal agencies

Objective 4.B. Support state DOTs in securing federal funding for key security initiatives on modal transportation systems

GOAL FIVE: DEVELOP AND PROMOTE ALL HAZARDS AWARENESS, EDUCATION, AND TECHNICAL ASSISTANCE (TOOLS)

Objective 5.A. Share security-related information among state DOTs, AASHTO committees to encourage greater awareness about security and infrastructure protection. Keep AASHTO members and committees informed about opportunities to influence legislation, regulation, and policy

Objective 5.B. Coordinate outreach presentations at regional meetings, other events, and other organizations

Objective 5.C. Participate in, sponsor, or lead a variety of training for state DOTs and their partners

AASHTO Special Committee on Transportation Security Vision, Mission, Goals, Objectives and Strategies

2005-2007

Prepared: January 26, 2005

Edits are from SCOTS Annual Meeting, Irvine CA, August 2007

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GOAL FOUR: SHAPE NATIONAL POLICY, LEGISLATION, FUNDING, AND REGULATORY DEVELOPMENT

Objective 4.A. Define and implement an outreach and advocacy program targeted to Congressional/federal agencies

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GOAL FIVE: DEVELOP AND PROMOTE ALL HAZARDS AWARENESS, EDUCATION, AND TECHNICAL ASSISTANCE

Objective 5.A. Share security-related information among state DOTs, AASHTO committees to encourage greater awareness about security and infrastructure protection. Keep AASHTO members and committees informed about opportunities to influence legislation, regulation, and policy

Objective 5.B. Coordinate outreach presentations at regional meetings, other events, and other organizations

Objective 5.C. Participate in, sponsor, or lead a variety of training for state DOTs and their partners

APPENDIX D

AASHTO 2014-2019 STRATEGIC PLAN OVERVIEW

AASHTO Strategic Plan

Overview of Draft Plan

presented to

AASHTO Members

presented by

Cambridge Systematics, Inc.

Lance Neumann

May 30, 2014

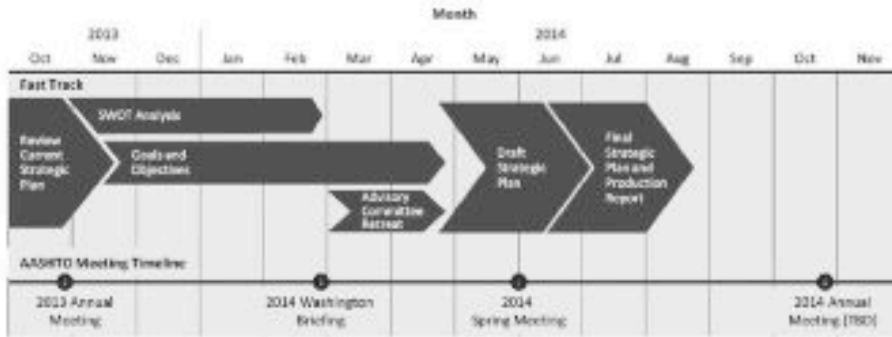
CAMBRIDGE
SYSTEMATICS

Updating the Strategic Plan

- To cover 2014-2019
- Includes 1-year implementation plan
- Guided by Plan Update Committee of 17 State DOT Execs
- Conducted under NCHRP Project 20-24(94)
- Focus on AASHTO actions, not state DOT actions



Plan Update Schedule



3

The Context for the Plan

Transportation Environment

- Prepare for increasing transportation system demands with fewer financial resources
- Prepare for a more connected tomorrow
- Prepare for an environmentally conscious world
- Prepare for an uncertain tomorrow



6

AASHTO's Strengths, Weaknesses, Opportunities, and Threats

<p>Strengths</p> <ul style="list-style-type: none"> • "Go to" source for information • Valued technical services • Access to and influence on Congress and Exec Branch 	<p>Weaknesses</p> <ul style="list-style-type: none"> • Unwieldy committee structure • Slow to adapt to change • Members uninformed about AASHTO as organization
<p>Opportunities</p> <ul style="list-style-type: none"> • Expanded partnerships • Performance reporting 	<p>Threats</p> <ul style="list-style-type: none"> • Transportation funding model not sustainable • Partisan, politically divided environment • Technical services delivery suffers from lack of tools • Other organizations seek to represent state DOTs

6

The Issues to Address

1. Technical services valued (but there are concerns)
2. Considered "go to" information source by some but not all
3. More and stronger external partnerships are desired
4. Funding is the most important external issue to members
5. Technology resources need to be upgraded
6. Committee structure needs attention
7. Members need education about AASHTO
8. Need to become more nimble and adaptable

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Draft Strategic Plan

AASHTO Draft Vision

The American Association of State Highway and Transportation Officials supports members in the development of transportation solutions that create economic prosperity, quality of life, and safety in our communities.

AASHTO Draft Mission

The American Association of State Highway and Transportation Officials supports its members through policy development, advocacy, technical services, and leadership development and through advancing partnerships and promoting innovation.

AASHTO's Draft Core Values

- Safety-Focused
- Innovative
- Collaborative
- Accountable
- Adaptable
- Service-Oriented

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Draft Plan Goals

- Provide Value to Members
- Provide Innovative Technical and Professional Services and Products
- Be a Leader in National Transportation Policy Development
- Communicate the Value of Transportation

Provide Value to Members

Draft Plan Strategies

- Regularly self-assess AASHTO value to members
- Identify and address the unique needs of all members
- Promote awareness of AASHTO resources, including its technical services
- Develop and cultivate future leaders and core competencies of member agencies
- Ensure alignment of organizational activities to the strategic plan

Provide Innovative Technical and Professional Services and Products

Draft Plan Strategies

- Make technical service and product areas self-supporting
- Identify improvements to technical service delivery

Be a Leader in National Transportation Policy Development

Draft Plan Strategies

- Monitor and share national and state policy and legislation
- Explore innovative policy areas and challenges
- Enhance AASHTO's policy effectiveness through collaborative partnerships
- Support members in developing multimodal transportation solutions

Communicate the Value of Transportation

Draft Plan Strategies

- Provide members with the tools to tell the transportation story
- Facilitate broad understanding of the link between transportation investment and economic prosperity and quality of life

Draft One-Year Implementation Priorities

- Create an annual process to review AASHTO value to members
- Expand new member education and initiation on-boarding programs
- Review committee structure
- Review existing partnerships
- Develop tool kit for the engagement of partners (including private sector partners)
- Identify audiences and opportunity areas for telling the transportation story
- Develop a communication plan

Next Steps

- Hold a Strategic Plan review session at each Regional Meeting over the summer
- Synthesize comments received and develop final draft Strategic Plan in September, 2014
- Distribute the final draft to CEOs (October, 2014)
- Approve the Strategic Plan at the Annual Meeting (November 2014)

APPENDIX E

AASHTO OPERATING PROCEDURES

Operating Guidelines

The following guidelines are consistent with AASHTO's "Operating Policy Manual" and define how the Special Committee will conduct its activities.

A. Membership

Members of the Special Committee are named by the Chief Executive Officers (CEO) of the member departments, acting in their capacities as members of the AASHTO Board of Directors. All member departments may nominate up to three persons to serve on the Special Committee. AASHTO Headquarters requests that each member department CEO furnish the names of their department personnel serving on AASHTO committees once each year. Subcommittee membership changes should be transmitted by the member State CEO, or designee, to AASHTO Headquarters with a copy to the Subcommittee chair and secretary.

Membership records for the Special Committee are maintained by AASHTO Headquarters and the Special Committee chair. This information is published annually in the AASHTO Reference Book and on the AASHTO website. The Special Committee chair will furnish updated membership information to AASHTO Headquarters, Special Committee officers, steering committees, and working group chairs in July of each year.

B. Voting Rights

Members evaluate and vote on proposed policies, standards and guidelines that are developed by working groups and working groups. Although there may be three members per member department, only one vote is permitted from each member department on ballots.

C. Officers and Leadership Team

Officers are appointed by the AASHTO President and include:

- The Chair and Vice Chair, who shall provide the function of the Chair in his or her absence, or as specifically delegated by the Chair; and
- Secretary who shall provide for record keeping as specified by the Chair

In addition, the Federal Highway Administration (FHWA), in consultation with the Chair will appoint a liaison (if the Secretary is not from FHWA) and may also appoint working group liaisons.

These officers, liaisons, working group chairs and regional leaders shall constitute the Leadership Team. The purpose of the Team is to provide a nucleus of experienced members to advise the Chair and encourage all members to promote and participate in activities to satisfy the SCOTSEM mission.

The Leadership Team members' duties and responsibilities shall include the following:

- Exercise initiative to encourage all members to promote and participate in activities to satisfy the Association's charges to the Special Committee;
- Exercise initiative in advising and assisting the Chair in developing programs, goals, and general direction;
- Assist the officers in obtaining a membership consensus on technical matters;
- Assist the Chair in selecting a host State for the annual summer meeting;
- Assist the host member in developing a program agenda for the annual summer meeting and selecting participants in keeping with the objectives as outlined by the Chair;
- Propose research problem statements for eventual submission to the National Cooperative Highway Research Program (NCHRP); and
- Carry out special work and projects as might be assigned by the Chair.

D. Working groups

The Chair in response to key technical and programmatic concerns shall appoint working groups.

Working group members are not required to be Special Committee members. Working group membership includes:

- State department of transportation professionals with expertise in the subject area of the working group, and representing a diverse geographic distribution; and
- Liaison members from related public or private stakeholder entities or from other AASHTO committees or Subcommittees, as approved by the Chair.

Working group size is governed by workload. Some working groups are joint working groups with other AASHTO committees. In some cases, membership includes representatives from groups outside AASHTO. Unless specifically provided for, these representatives do not have voting rights. Working group chairs, vice chairs, and secretaries are appointed by the Chair, based on recommendations of the working group members and Secretary.

E. Task Forces

The Special Committee may have task forces, which are temporary task-oriented entities that sunset at the determination of the Chair. The membership and officers of task forces are designated by Chair.

F. Meetings

The Special Committee shall meet at least once each year. The Leadership Team meets as needed by teleconference and may meet at the January meeting of the Transportation Research Board (TRB). The Chairperson or designee should coordinate all meeting dates through AASHTO Headquarters so meetings can be included in the AASHTO meeting calendar to avoid conflicts.

The Special Committee may establish an operating expense revolving fund to assist the host State in making advance meeting arrangements and financing “up front” commitments. It is imperative that these funds not be deposited in interest earning accounts in the name of AASHTO, since AASHTO is a non-profit organization, and AASHTO staff cannot exercise any management control over such accounts. These accounts should be sustained at minimal levels.

The host State can elect to have AASHTO Headquarters handle their financial and other meeting arrangements.

G. Publications

Four types of AASHTO publications exist: committee report, guide or manual, technical report, and voluntary standard or policy.

The Special Committee Chair will coordinate publication reviews by the appropriate working groups. Assistance may be available for finalizing complex and/or voluminous publications through AASHTO Headquarters.

AASHTO Headquarters maintains and publishes a listing of all AASHTO publications and has a review process to maintain the credibility of its publications. The committee responsible for each publication should review the document at least every five years. This review should result in a recommendation to retain the publication, revise it, drop it, or reassign it to a different committee as appropriate due to committee responsibility changes.