

# Building Resilient Regions & Infrastructure through Risk-Based Mitigation:

Determining the Priorities & Making the Investments

EM Forum  
January 22, 2014



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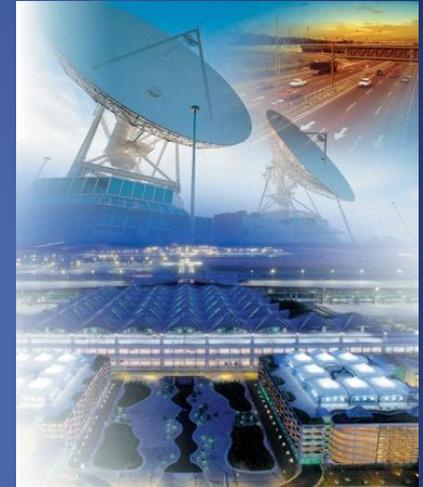
**THE INFRASTRUCTURE SECURITY PARTNERSHIP**

*"The Partnership Improving the Resilience of the Nation's Infrastructure" © 2001 - 2011* <sup>1</sup>



# Who is TISP?

- ❖ Established in 2001 by 11 professional and technical organizations and federal agencies.
- ❖ Leads public and private sector collaboration that advances the practice and policies of regional and infrastructure security and resiliency to sustain the nation's resources.
- ❖ Collectively, TISP represents nearly two million individuals with organizations that are involved in the planning, design, construction, and operation of infrastructure.
- ❖ Primary objective is to create a collaborative and coordinated environment to enable a more secure and resilient infrastructure.
- ❖ Our mission is to lead public and private sector collaboration to advance the practice and policy of regional and infrastructure security and resiliency.



*“Improving Resilience of the Nation’s Infrastructure”*



# Division of SAME

- Secretariat functions transferred to SAME in October 2008 include:
  - Staffing and performance measurement
  - Event development and marketing support
  - Budget and Revenue Management
  - Administrator of Membership Functions
- American Society of Civil Engineers (ASCE) served as the secretariat between 2001-2008
- Easier to say: *TISP is a division of SAME.*



# Society of American Military Engineers (SAME)

- Mission: to promote and facilitate engineering support for national security by developing and enhancing relationships and competencies among uniformed services, public and private sector engineers, and related professionals.
- *Formed “in the interest of National Defense... bringing together all phases of U.S. engineering, [in both the] civil sector and military, for the advancement of knowledge...and the rapid mobilization of engineering capabilities.” -The Charter of the Society of American Military Engineers, founded in 1920.*
- SAME has 112 Posts around the world
- SAME Readiness and Homeland Security Committee



# Primary Functions

- **Dialogue and Discovery.** In physical and virtual social functions, TISP convenes its partners with overlapping interests to collaborate and coordinate. Typically, conversations reveal opportunities to build consensus, address problems needing attention and uncover potential solutions.
- **Relationships and Information Exchange.** TISP activities include networking events, quarterly forums and conferences—such as The Critical Infrastructure Symposium, held annually in April—that bring together experts to showcase the latest developments in regional and infrastructure resilience.
- **Transfer Knowledge and Education.** One of the most important functions of the partnership is to develop resources that educate individuals on how to be more resilient and provide tools for implementing resilience strategies and programs, notably the 2011 edition of the Regional Disaster Resilience Guide.



# Members & Partners

- Over **445** active individuals who serve on the Board of Directors & Committees.
- **915** People on TISP LinkedIn Group
- Over **8,200** people receive our Newsletter
- **933** attendees at TISP events in 2013
- Over 500 organizations participate in TISP events and activities annually.
- Increasing number of Website visits, e-Newsletter recipients, and meeting attendees.
- Increasing requests for TISP technical publications (e.g. Regional Disaster Resilience Guide).





# Strategic Partnerships

Benefit: Collaboration for potential business development opportunities for building resilience; Connecting TISP with potential individual members; Wider audience to promote partner and TISP events;

- TISP joined the Regional Consortium Coordinating Council (RC3)
- National Academies
  - Sharing information regarding National Resilience dialogue
- Applied Physics Labs, John Hopkins University
  - Supporting strategy behind Resilience Implementation Process
  - Identify SMEs
- National Association of Counties
  - Support Conferences on resilience (promoting and speakers)
- Security Analysis and Risk Management Association (SARMA)
  - Co-founder of National Resilience Coalition
  - Supported NIPP Forum (ABS Consulting & ICF International)



# Strategic Partnerships

- Homeland Security Policy Institute
  - Provide TISP SMEs for Resilience Policy Roundtable
- Office of Infrastructure Protection, DHS
  - Educating and Revision NIPP 2013
  - Supporting State, Local, Territorial and Tribal Coordination Council
  - Supporting Regional Consortium Coordinating Council (RC3)
  - Establishing a monthly meeting to brief activities with Director of Implementation Policy
- American Bar Association
  - Supporting our Legal Issues Roundtable



# Strategic Partnerships

- Natural Hazards Mitigation Association (in process)
- National Institute Building Sciences (in process)
- An International Resilience Network (Not officially named yet - in process)

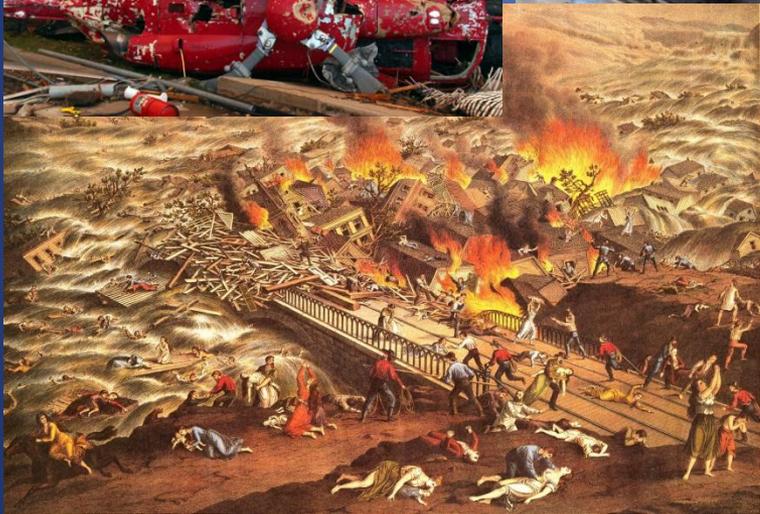


# What is Resilience?



THE INFRASTRUCTURE SECURITY PARTNERSHIP

# Why Do We Care?





# Cost of Disasters

- ASCE's 2013 Infrastructure Grade: **D+**  
**So What??????**
- 2009 – 2012: U.S. gov't spent an average of \$80 billion annually on rehabilitation (over \$321 billion in a four-year period)
- 2000 – 2010: Globally disasters have cost developed and developing countries over \$1.4 trillion & left 1.1 million people dead



# Transfer of Risk

- Taxes, Trust Funds, National Insurance Programs are failing: Tax Payer has less say in public safety & security
- Lack of time limits for project proposal approvals and assessments – increasing project costs and time – no clear process for assessing demand risks and environmental impacts
- Laws and regulations are not keeping up with PPPs – Newer Concession Contracts
- Transfer of liabilities from public sector to private sector
- Availability payment based projects dis-incentivizes developers directing resources to optimize asset use – minimal standards
- Private Sector Investors keep cost down at the expense of improved design, engineering, and lifecycle costs



# What is Resilience?

*Resilience* is a capacity to absorb or mitigate the impact of hazard events while maintaining and restoring critical services.

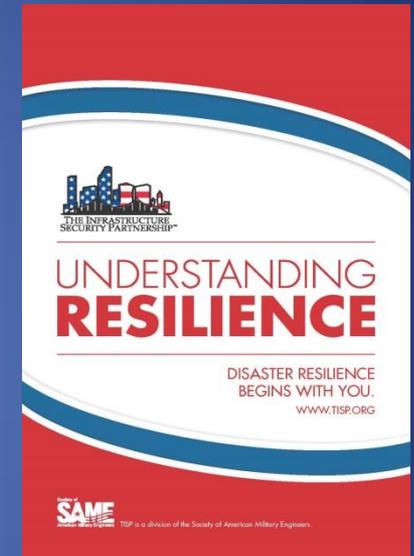
Optimizing resilience requires:

- identifying and understanding critical operations and functions,
- anticipating impacts of multi-hazard events,
- preparing for and adapting to manage a crisis or disruption as it unfolds,
- creating capacity to rapidly return to and/or reconstitute a more resilient “normal” operation,
- tolerating loss of some capacity for the duration of the response effort to a disruption, and
- partnering through communications, coordination and collaboration.



# Understanding Resilience Booklet

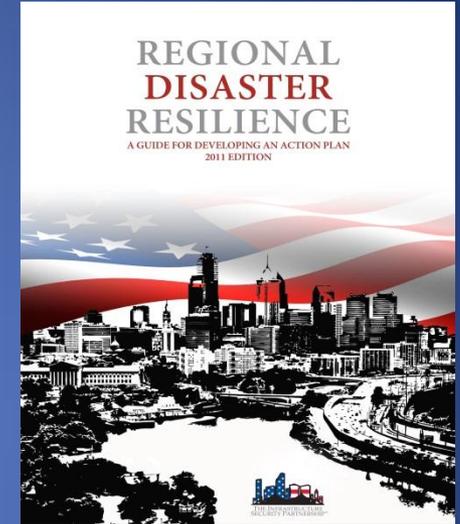
- Compendium for the 2011 edition of the *Regional Disaster Resilience Guide*
- Explains and Defines Resilience
- Educates TISP's focuses on Regional & Infrastructure Resilience levels
- Offers additional Texts/Readings from Partners to learn more about Resilience
- Early results: National dialogue questioning whether Resilience is a *Public Good*





# Regional Disaster Resilience

- Approach remains the same as 2006 ed.
  - holistic, systematic multistep process
  - provides a baseline of stakeholder-validated regional resilience needs and activities
  - covers preparedness through long-term restoration
- 2011 edition refinements include:
  - updates through numerous applications and pilot projects across the United States and in Canada
  - updates through lessons learned from the 2011 Japanese subduction zone earthquake and tsunami; the 2011 New Zealand, 2010 Chile, and 2010 Haiti major earthquakes; and the 2010 Deep Water Horizon oil spill disaster in the Gulf of Mexico
  - updates also includes new “best practices”



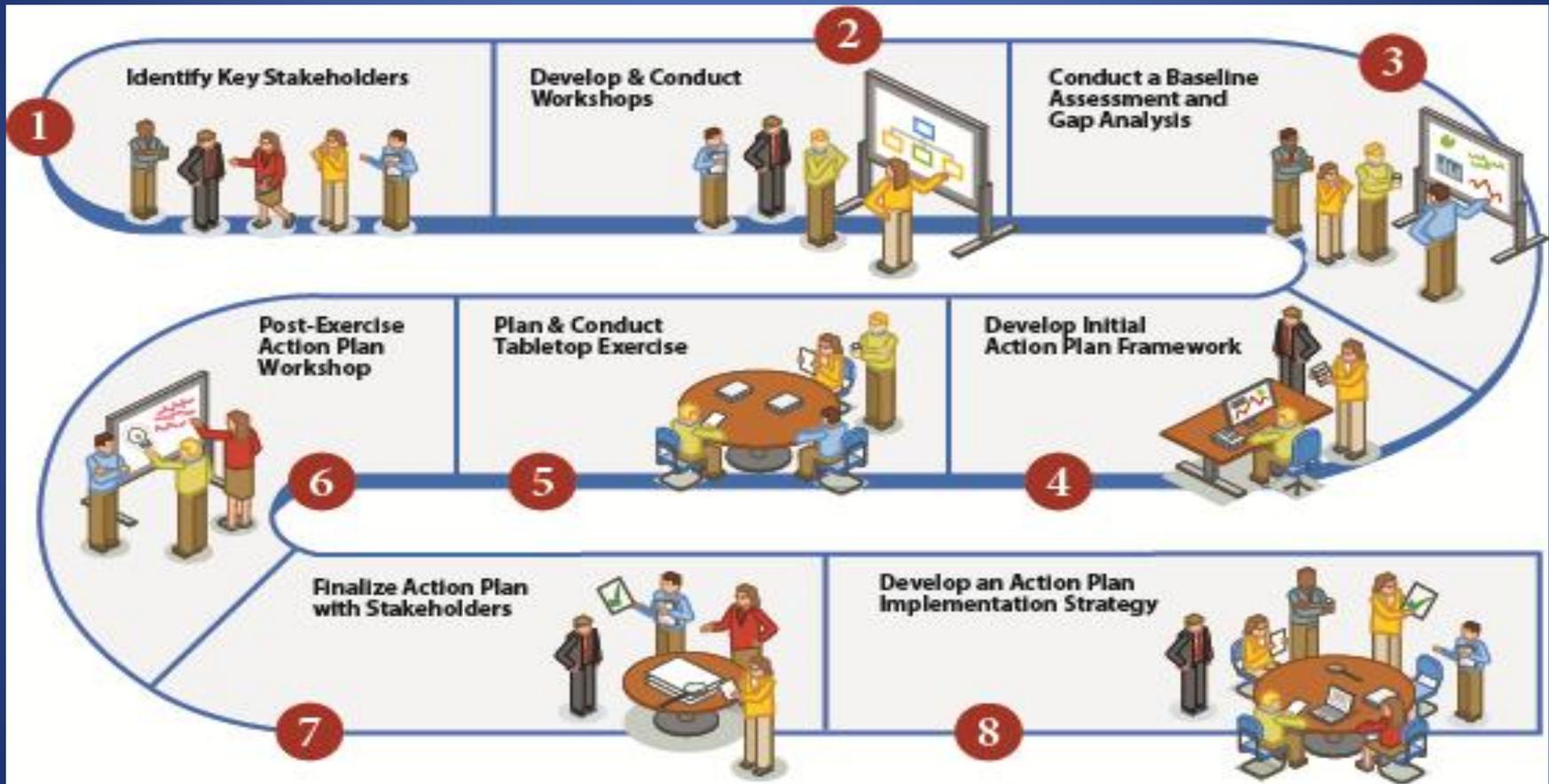


# Developing the Guide

- States – Maryland, Virginia, California, Oregon, Washington, Texas, New Hampshire, Illinois, etc.
- Not-for-Profits – National Academies, Chamber of Commerce, American Red Cross, Community and Regional Resilience Institute, Applied Physics Institute (JHU), Society of American Military Engineers, American Water Works Association, National Association of Counties, National Association Development Organizations, American Society of Civil Engineers, etc.
- Federal – U.S. Army Corps of Engineers; U.S. Military Academy at West Point; NIST and Office of Economic Development, DOC; Office of Health Affairs and Office of Infrastructure Protection, DHS; Environmental Protection Agency; The National Security Staff
- Chapter in *The McGraw-Hill Homeland Security Handbook* by David Kamien: available on Amazon.com



# “How To” Path to Resilience



**Walks through Multi-Step Process**



# “How To” Path to Resilience

- Lists 14 focus areas
  - respective priority needs covering all hazards
  - recommends short, medium, and longer-term activities to address the respective shortfalls
  - it does not recommend national and other public policies, nor government and commercially-developed tools and technologies.
- This Guide is intended to strengthen local and international infrastructure, organizational and regional resilience.
  - written with minimal acronyms
  - uses plain English
  - provides users with key definitions and fundamental principles



# Scope of Resilience Action Plan

- Encompasses all elements of the disaster lifecycle (Preparedness, mitigation, response, recovery, protection/prevention)
- Addresses situational awareness, ConOps, BusCont, tactic operations, human factors, public education and communication, professional training, and exercises
- Highlights infrastructure interdependencies – lifelines supporting essential operational – core functions and core services



# Scope of Resilience Action Plan

- Covers all natural and manmade hazards – including aging infrastructure, systems, and components
- Incentivizes cross-sector, multi-jurisdiction, and cross-discipline collaboration and cooperation which is foundation for lasting public private partnership to enhance regional resilience



# 2014 Activities: Operationalizing Resilience



# Incorporating Regional Partnerships in NIPP 2013

Benefit: Enhanced TISP's relationship with OIP/DHS & increased roles for non-federal government partners;

- July 25 / Washington, DC – Forum sponsored by ICF International (90 – 100 attendees)
- Provided written comments and meeting proceedings to the Office of Infrastructure Protection, DHS
- Wrote an article promoting the forum discussion and highlighted comments submitted to DHS
- Facilitated a NIPP Review Committee of TISP members
- Participated in numerous public meetings and met with DHS staff independently
- Submitted two rounds of official comments address draft versions of the NIPP
- Establishing a monthly meeting to brief activities with Director of Implementation Policy/OIP/DHS



# NIPP Forum Results: TISP Recommendations

1. The relevancy of the original national policy framework. The original national policy framework built on sector coordinating councils of industry and government representatives is still relevant. It should be enhanced by linking with regional, state, and local public-private sector collaborative efforts.
2. The continued need for public-private partnerships. Regional public-private partnerships are needed to address the integration of cross-sector dependencies and operations, and to collaborate on setting priorities to withstand the consequences of manmade and natural hazards and rapidly bounce back for failures, disruptions and destruction.
3. Focused strategy that includes transfer of knowledge. The document should be concise and brief, yet explain the national strategy for critical infrastructure security and resilience as well as transfer knowledge to state and community leaders for establishing their critical infrastructure security and resilience programs.



# NIPP Forum Results: TISP Recommendations

4. The importance of a united effort.  
The document should include and fully explain the benefits for government and business participation in a national “unity of effort” to mitigate risks, build resilience and sustain our resources.
5. Action items to improve security and resilience.  
The document should include actions that can be taken to improve the security and resilience of buildings, systems, communities, states, regions, federal agencies). The document should motivate these stakeholders to develop infrastructure protection, continuity of operations, emergency preparedness, and disaster recovery plans.



# NIPP Forum Results: TISP Recommendations

6. The development of educational training and certification programs.  
DHS' Office of Infrastructure Protection should encourage the development of educational, training and certification programs to drive the increase of human resource capabilities within the engineering, design, construction and security operations competencies.
7. Networking and relationship building.  
The NIPP should support networking and relationship building through sharing lessons learned and best practices from exercises and disasters. Building relationships before a disaster strikes speeds up response times, saves lives and reduces costs.



# Value of NIPP 2013

- Repeatedly calls for voluntary analysis and evaluation of local infrastructures, governments and communities. Moreover, about one-fourth of the document lays out highly specific federal actions in terms that can be readily be monitored. These federal actions contain numerous points of interaction with the sectors, states and local governments and community coalitions, inviting their *voluntary* collaboration, carefully avoiding “unfunded mandates” or requirements for which there is no federal authority. NIPP 2013 is a national plan defined in terms of federal commitments to action and voluntary participation of others.
- Explicitly calls for close integration the cybersecurity Executive Order and with the National Preparedness Goal and System established under Presidential Policy Directive 8 and even to the extent of integrated field demonstrations and shared risk/resilience methods at the state, local and community levels.
- State and local governments and regional coalitions are now more clearly recognized for their cross-sector, integrating roles. Regional public-private partnerships are needed to address the integration of cross-sector dependencies and operations, and to collaborate on setting priorities to withstand the consequences of manmade and natural hazards and rapidly bounce back from failures, disruptions and destruction.



# SAME & TISP Regional Workshop: Venues

Benefit: Providing support to Post with technical content; Making connections outside of SAME's regional network; Educational and providing PDHs; helping Posts earn EP&IR Streamer

- February – St. Louis, MO – **Scotts Field Post** (70 Attendees)
- April – Dallas, TX – **Dallas Post** (80 Attendees)
- May – **SAME JETC** – San Diego, CA
  - Committee Meeting (55 attendees) & Facilitated Session (70??? attendees)
  - TISP Booth
- October – Davenport, IA – **Great Lakes and Midwest Posts** (60+ attendees in TISP sessions – TISP Booth)
- October – Detroit, MI – **Detroit Post** (65 - 75 attendees)
  - Handed out 50 copies of the RDR Guide plus additional requests to mail more
  - Wrote an article outlining meeting outcomes and proceedings
- November - Joint Base McGuire/Dix/Lakehurst, NJ – **Philadelphia, New Jersey and New York City Posts** (110 attendees)
  - Handed out 50 copies of the RDR Guide plus additional requests to mail more
  - Wrote an article outlining meeting outcomes and proceedings



# SAME & TISP Regional Workshop: Findings

- Strategy and Frameworks
- Policy and Legislation
- Finance and Partnerships
- Risk Assessment and Information Sharing
- Civic and Cultural Factors

*“Think of Resilience as the Immune System of our Nation.” ADM Thad Allen*



# SAME & TISP Regional Workshop: Recommendations

- States and communities need an inventory of infrastructure as a first step to setting infrastructure priorities
- Revise community policies and processes for planning and project analysis to consider dependencies of lifeline infrastructures and supply chain logistics infrastructure
- Develop Regional Resilience Principles based on a Regional Development Plan that advocate mitigation prioritization to increase protection/prevention and reduce cascading consequences
- Rework the project proposal phase to include all hazard, economic and environmental impact (resilience) assessments and time limits for reviewing proposals to approve them within a one-year or two-year period
- Educate public-private, private-private, and public-public cost sharing models that address interdependencies and advocates the development of professional development courses and MBA courses around this topic



# Critical Infrastructure Symposium 2014

*Colorado Springs Conference Center, April 7 & 8*

- **Call for Papers** is OPEN – **Deadline January 29**
- **Program Committee Planners:** USNORTHOCM, West Point, USACE, SAME, Colorado Technical University, Penn State University, Office of Infrastructure Protection in DHS, Colorado Emergency Preparedness Partnership, and Carleton University (Canada)
- 1/3 Government – 1/3 Academic – 1/3 Companies
- Positive results from attendees for jammed-packed 2 Days
  - **15** Technical Sessions (**NEW**: Infrastructure Assurance Track)
  - 1 Workshop on Developing and Value of PPPs
  - **NEW**: 2 Training Courses and a Tour of CO Fire Damaged Areas
  - **NEW**: Sponsor and Exhibitor Networking Epicenter
  - Table top Exercise
  - 2 Keynote speakers
  - Closing Plenary Session
- **All of that for under \$300 = BIG BIG VALUE**



# Primary Events

- A/E/C TISP Founders Round-up (Quarterly)
- Convening Resilience Stakeholders Monthly
- February Webinar: Operational Plan for Critical Infrastructure Security and Resilience
- May/June Congressional Event: Initiatives for Implementing Disaster Resilience
- SAME Post and TISP Joint Events
  - South Center and South Atlantic Regional Conference
  - Northwest SAME Regional JETS
  - Mid-Atlantic SAME Regional JETS
- Regional Resilience Workshop Series



# Operationalizing Resilience: SME Roundtables

- **Legal Issues around Building Resilience Roundtable**
  - First meeting and call on November 5<sup>th</sup> at SAME HQ
- **Resilience Standard and Measures Roundtable**
  - First meeting and call on November 7<sup>th</sup> at SAME HQ
- **Mission Assurance and Regional Resilience Roundtable**
  - First Meeting planned for January 2014
- **Climate Change Adaptation, Sustainability and Resilience Roundtable**
  - First meeting planned for January 2014



# Online Tools and Information

- Resilience Resource Center and Library
- Portal for Regional Networking
- Committee and Board activities
- Membership materials
- Partner Events Calendar
- Speakers Bureau
- Interactive Peer Review of Resilience Concepts and Articles
- News and Announcements



## 2014 Committee Activities



# REGIONAL AND INFRASTRUCTURE RESILIENCE COMMITTEE

Co-Chair: Ed Hecker, U.S. Army Corps of Engineers

Co-Chair: Mohan Singh, AECOM

TISP maintains a unique position as a national leader in regional and infrastructure resilience with a diverse knowledge base and membership of organizations representing businesses, infrastructure owners, local, state and federal agencies, as well as academic institutions and not-for-profit professional societies. The RIRC brings leaders and experts together to perform as a national asset facilitating dialogue on security and resilience, including public policy and technical solutions. The committee is responsible for the activities to achieving the TISP Strategic Goal 1. Some the activities include:

- Organize TISP collaboration with federal government partners via such meetings as the Federal Resilience Programs Briefing events.
- Develop the agenda for each of the Regional Resilience Workshop Series
- Assemble Principles for Regional and Infrastructure Resilience.



# PUBLIC PRIVATE COLLABORATION COMMITTEE

Chair: Jay Manik, CDM and Paula Scalingi, Bay Area Center for Regional Disaster Resilience

TISP mission includes providing leadership in national public and private sector collaboration to advance the practices and policies of regional and infrastructure security and resilience. The PPCC seeks strategic partnerships and relationship to integrate new ideas and knowledge on the topics of security and resilience from a broad range of stakeholders. The PPCC collaborates on issues and leverages the collective technical expertise and research and development capabilities of the TISP membership covering all areas including planning, design, and construction. The committee is responsible for the activities to achieving the TISP Strategic Goal 2. Some the activities include:

- Educating methods and benefits of public-to-private and private-to-private collaboration and coordination
- Identify core attributes for partnerships addressing risk mitigation and building resilience
- Supporting the TISP staff in implementing it Marketing Plan and making new strategic relationships with not-for-profits, companies, and agencies.



# KNOWLEDGE, SKILLS, AND EDUCATION COMMITTEE

Chair: Lt. Col. Steve Hart, U.S. Military Academy at West Point

The KSEC is concerned with the teaching, training, and research of what makes our regions and infrastructure secure and resilient to all forms of hazards and threats. The committee will explore how Full Spectrum Resilience can be implemented to enable physical, socio-cultural, financial and natural systems to adapt in order function at all times. The committee will also raise awareness and promote a common understanding among stakeholders of the importance of disaster resilience education and training. The committee is responsible for the activities to achieving the TISP Strategic Goal 3. Some the activities include:

- Working with our partners, develop certification programs for building resilient infrastructure and developing a cross-training emergency management professional and volunteer.
- Conducting The Critical Infrastructure Symposium as a collaborative learning community comprised of students, educators, practitioners and government officials all engaged in developing the next generation of critical infrastructure protection and resilience leaders, technologies and strategies.
- Coordinate the development of an online knowledge resource center and gateway library for regional and infrastructure resilience.



# INFRASTRUCTURE STANDARDS & MEASURING RESILIENCE COMMITTEE

Chair: Eve Hinman, Hinman Engineer Consultants

The ISMRC brings together leaders in the design, construction and management of commercial, federal and institutional infrastructure (including facilities) to collaborate on the implementation of safety, security, and sustainability measures; to facilitate discussion of safety and security standards harmonization; and to collaborate on security design criteria for new construction, repair, rehabilitation and modernization projects. The committee is responsible for the activities to achieving the TISP Strategic Goal 3. Some the activities include:

- Collaborating with standard setting organization on developing a framework of technical and procedural standards for implementing resilience and working with agencies to develop policies and local codes.
- Develop a guide offering principles and practices for resilient building system design.



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