TRANSPORTATION RESILIENCE STUDY

NATIONAL INFRASTRUCTURE ADVISORY COUNCIL
QUARTERLY BUSINESS MEETING

MARCH 20, 2015

Jack Baylis
President and CEO
The Baylis Group, LLC
Co-chair

Glenn S. Gerstell
Managing Partner
Milbank, Tweed, Hadley, & McCloy LLP
Co-chair

Dr. Beverly Scott
CEO/General Manager
Massachusetts Bay Transportation Authority
Co-Chair
AGENDA

1. Study Charge and Status
2. Study Group Findings and Conclusions
3. Schedule for Completion
STUDY CHARGE

Apply the NIAC-recommended framework for establishing resilience goals\(^1\) to the Transportation Sector in order to:

- Test and validate the usefulness of the framework in another lifeline sector
- Uncover key transportation resilience issues
- Identify potential opportunities to address them

\(^1\)Developed in the 2010 NIAC study of the electricity and nuclear sectors
STATUS OF ACTIVITIES AND PROGRESS

**Data and Info Sources**
- **Working Group**
  - WG SME Interviews
  - Govt. Presentations
  - Key Published Reports
- **Study Group**
  - SG SME Interviews
  - Panel Discussions
  - Comprehensive Research
  - Case Study

**Deliberations**
- WG Findings
- WG Recommendations
- WG Report to the Council
- Submission of Final Report to the Council for Approval

- ✓ Completed activities
WORKING GROUP MEMBERS

- **Dr. Beverly Scott**, *CEO/General Manager*, Massachusetts Bay Transportation Authority (Co-Chair)

- **Jack Baylis**, *President and CEO*, The Baylis Group, LLC (Co-chair)

- **Glenn S. Gerstell**, *Managing Partner*, Milbank, Tweed, Hadley, & McCloy LLP (Co-chair)

- **Margaret Grayson**, *President*, MTN Government Services

- **Connie Lau**, *President and Chief Executive Officer*, Hawaiian Electric Industries, Inc.

- **James Nicholson**, *President and Chief Executive Officer*, PVS Chemicals, Inc.
WORKING GROUP UPDATE

Nine Working Group interviews completed:

- Mr. Mortimer Downey, Senior Advisor, Parsons Brinckerhoff
- Dr. Stephen Flynn, Director, Center for Resilience Studies, Northeastern University
- Ms. Deborah Matherly, Principal Planner, The Louis Berger Group
- Mr. Jeffery Morales, Chief Executive Officer, California High-Speed Rail Authority
- Dr. Julie Rosati, Research Engineer, U.S. Army Corp of Engineers
- Dr. Michael Meyer, Consultant, Parson Brickenhoff; Eno Center for Transportation
- Ms. Patricia Mutschler, Senior Policy Advisor, Committee on the Maritime Transportation System
- Mr. Steve Heminger, Executive Director, San Francisco Metropolitan Transportation Commission
- Mr. William Golden, Executive Director, National Institute for Coastal and Harbor Infrastructure

Conducted three rounds of public sector briefings
STUDY GROUP TASKING

1. Identify **baseline resilience** for each transportation mode

2. Identify **cross-modal resilience plans and practices**

3. Conduct **case study scenarios** focused on intermodal and cross-sector interdependencies

4. Conduct an executive-level roundtable to analyze results of scenarios and identify **resilience gaps** and potential fixes

5. Prepare a **summary report** of Study Group findings and conclusions to the Working Group
STUDY GROUP MEMBERS

- Ted Basta, Massachusetts Bay Transportation Authority *(Chair)*
- Rick Houck, Hawaiian Electric Company *(Vice Chair)*
- Cherrie Black, Idaho National Laboratory
- Leslie Blakey, Coalition for America's Gateways and Trade Corridors
- John Contestabile, Johns Hopkins University
- Joan Gehrke, PVS Chemicals, Inc.
- Brian Kane, Massachusetts Bay Transportation Authority
- Catherine Melquist, MTN Government
- Frances Paulson, FedEx Express
- Cosmo Perrone, Cosmo Perrone and Associates
- Tamara Powell, Massachusetts Bay Transportation Authority
- Martin Rojas, American Trucking Associations, Inc.
Eight panel discussions completed:
- Port Operations at the Port of Los Angeles and the Port of Long Beach (10/9)
- Pipeline and Surface Transportation Planning and Policy (10/23)
- General Port Operations and Intermodal Transportation (10/30)
- Aviation and Airfreight, and Postal And Shipping (11/6)
- Mass Transit and Highway (11/13)
- Resilience and Cybersecurity (11/20)
- Supply Chain and Rail (12/4)
- Freight Rail (2/19)

Case study of Ports of Los Angeles and Long Beach disruption scenarios
- Scenarios: earthquake, tsunami, nuclear device, cyber attack, and terrorist attack

Review of 150+ reports, testimonies, and government documents
STUDY GROUP FINDINGS AND CONCLUSIONS TOPICS

1. Complexity of the national transportation system
2. Resilience in the early stages of project development
3. Cross-sector dependencies and vulnerabilities
4. Cross-modal coordination and planning
5. Cross-jurisdictional coordination and planning
6. Cyber and cyber/physical systems
7. Current regulatory approaches
STUDY GROUP FINDINGS

1. Complexity of the national transportation system
   - The national transportation system is extraordinarily complex, making the integration of resilience a daunting challenge across highly diverse transportation assets and ownership structures.

2. Resilience in the early stages of project development
   - Resilience, employed during the early stage of project development, offers the best opportunity to “build-in” resilient characteristics into systems and their operations—rather than simply patching failures as they occur.

3. Cross-sector dependencies and vulnerabilities
   - Cross-sector dependencies and systemic vulnerabilities affecting the transportation sector are not well understood.
4. Cross-modal coordination and planning

- Cross-modal coordination and planning is lacking throughout most of the transportation system.

5. Cross-jurisdictional coordination and planning

- Cross-jurisdictional coordination and planning is limited, creating disjointed and potentially conflicting resilience decisions within regional transportation systems.

6. Cyber and cyber/physical systems

- Cyber and cyber/physical systems are an area of significant and growing risk, which owners and operators may not fully comprehend or have the processes to mitigate.

7. Current regulatory approaches

- Current regulatory approaches may hinder effective resilience practices.
## Schedule

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<tr>
<th>Month</th>
<th>Event Description</th>
<th>Date</th>
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<td>May 2014</td>
<td>NIAC Quarterly Business Meeting</td>
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<td>Conduct Federal information gathering</td>
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<td>August 2014</td>
<td>Establish Study Group</td>
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<td>Oct 2014</td>
<td>Interviews with national SMEs and leaders</td>
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<td>Feb 2015</td>
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<td>Mar 2015</td>
<td>Study Group submits final report to</td>
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<td>Mar 20, 2015</td>
<td>NIAC Quarterly Business Meeting</td>
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<td>Apr 2015</td>
<td>Working Group develops Initial</td>
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<td>Findings and Recommendations</td>
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