

National Infrastructure Advisory Council (NIAC)

The Critical Infrastructure Resilience Study Working Group

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Overview

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- Scope
- A Working Definition for Resilience
- Study Approach
 - Key Information Sources
 - Sample of Key Questions
 - Panel Discussions and Interviews
 - CEO Interviews
- Areas for Potential Recommendation
- Study Timeline
- Questions

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Objective

- Examine opportunities to integrate and encourage resilient practices and strategies within critical infrastructures. In particular, NIAC will examine:
 - How resilience is defined and practiced within the various critical infrastructure sectors
 - The role of government in developing policies and programs to promote/encourage resilience
 - Options for improving current infrastructure resilience to achieve national homeland security policy goals

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Scope

- Examine *critical infrastructure* resilience, as opposed to community resilience
- Examine current government *policies and programs* affecting the 18 critical infrastructures and key resources (CIKR) sectors
- Emphasize the resilience of *national* infrastructures and *cross-sector* issues rather than the resilience of individual enterprises
- Examine both *near-term and long-term* resilience opportunities

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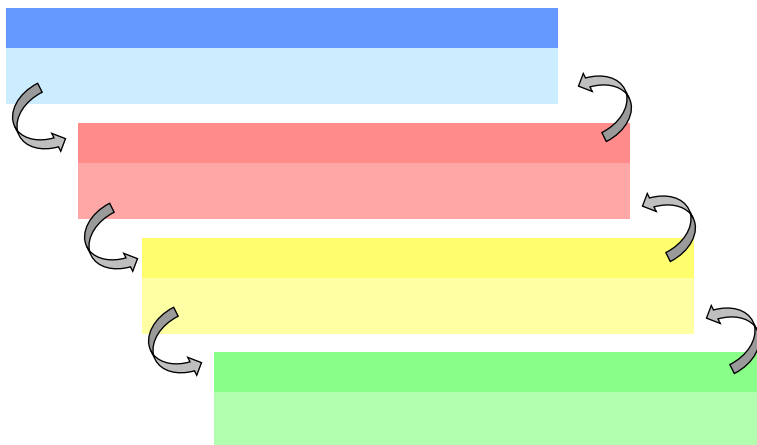
Working Definition of Resilience

- ❑ **Infrastructure resilience** is the ability to reduce the magnitude and/or duration of disruptive events. It is the ability to *anticipate*, *absorb*, *adapt to*, and/or *rapidly recover* from a potentially disruptive event. It has three key features:
 - **Robustness**: the ability to maintain critical operations and functions in the face of crisis
 - **Resourcefulness**: the ability to prepare for, respond to, and manage a crisis or disruption as it unfolds
 - **Rapid recovery**: the ability to return to and/or reconstitute normal operations as quickly and efficiently as possible after a disruption
- ❑ **Protection** and **resilience** represent complementary elements of a comprehensive risk management strategy

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Study Approach

- ❑ Successive iterations of feedback from activities allow refinement of scope, objectives, and recommendations



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Key Information Sources

- Panel Discussions with Key CIKR Sectors and other Groups
 - *how resilience is practiced within different sectors*
- CEO Interviews on Resilience
 - *strategy and the business case for resilience*
- Survey of Government Policies and Programs
 - *how government encourages/discourages CIKR resilience*
- Review of Resilience Studies and Literature
 - *resilience best practices, case studies, and theory*
- Subject Matter Expert Interviews on Resilience
 - *resilience vulnerabilities and best practices*

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Sample of Key Questions

- How is resilience defined and practiced by each of the CIKR sectors?
- What inhibits private industry's ability to implement resilience strategies?
- How well do companies understand cross-sector interdependencies and risks that may affect their resilience?
- How do existing government programs help or hinder private-sector resilience efforts?
- What steps might the government take to encourage critical infrastructure resilience in the private sector?

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Panel Discussions and Interviews

- Key Sector Panel Discussions
 - Banking and Finance
 - Communications
 - Energy – Electricity (planned)
 - Energy – Oil and Natural Gas
 - Transportation

- Outreach to other efforts and organizations
 - ASIS CSO Board (American Society for Industrial Security)
 - ASME (American Society of Mechanical Engineers)
 - Conference Board of Canada
 - Council on Competitiveness
 - PCIS Interviews
 - Port Authority of NY and NJ
 - UK Government Authorities and CIKR Operators
 - Various Study Authors

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CEO Interviews on Resilience

- Sector CEOs
 - Banking and Finance
 - Chemical
 - Defense Industrial Base
 - Energy - Electricity (planned)
 - Energy - Oil and Gas (planned)
 - Healthcare (planned)
 - Nuclear
 - Postal and Shipping (planned)
 - Transportation - Rail
 - Water

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Areas for Potential Recommendations

Policy Framework and Governance

- ❑ Fortify Policy Framework to Strengthen CIKR Resilience
- ❑ Clarify Roles and Responsibilities of CIKR Partners
- ❑ Improve Government Coordination to enhance CIKR Resilience

Mechanism to Achieve CIKR Resilience:

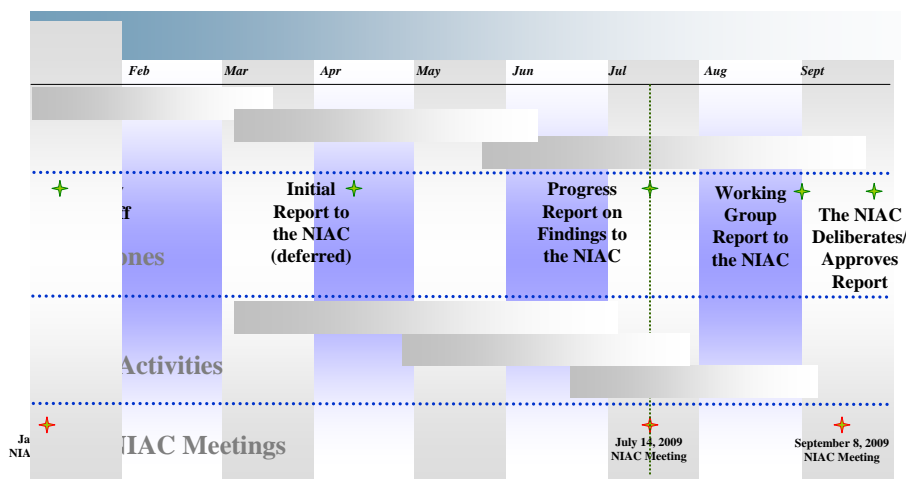
- ❑ Strengthen and Leverage Public-Private Partnerships
- ❑ Encourage Resilience Using Appropriate Market Incentives and Mechanisms
- ❑ Implement Government Enabling Activities and Programs in Concert with Owners and Operators (e.g., goal-setting, cross-sector studies, exercises, education and training, metrics, best practices, etc.)

Key Issues to Strengthening Private Sector CIKR Resilience:

- ❑ Improved Understanding of Cross-Sector and Supply Chain Risks
- ❑ Strengthened Information Sharing on Risks and Dependencies
- ❑ Improved Incident Management and Rapid Response
- ❑ Stronger Trust and Relationships Between Executive Leadership in Government and Industry

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Study Time Line



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Questions?