Securing our highways and bridges

The attacks of Sept. 11, 2001, ushered in a new era of security planning in transportation. The situation was urgent: State DOTs needed a coordinated effort to protect their infrastructure and the people who use it.

NCHRP responded with Project 20-59, which produced the Report 525 series—12 concise volumes, each focusing on a specific security issue. Published beginning in 2004, the series broke new ground for transportation agencies, providing guidance on integrating security into current practice for handling all hazards.

“Traditionally DOTs have not been among the leaders in getting into security and emergency management, and these reports provided the impetus for DOTs nationwide to begin doing that,” says Steve Mondul, former director of Virginia DOT’s Division of Security and Emergency Management. “And now the momentum is building.”

We couldn’t have gone through the process of identifying our most vulnerable infrastructure had we not had the workshops.”

Mondul says Virginia has used the 525 series as the basis for several security plans and policies, both at Virginia DOT and at other state agencies. And Volume 7, “System Security Awareness for Transportation Employees,” helped form the basis of an awareness training program for employees in all state agencies.

Workshops were vital

One volume that had immediate practical benefit to DOTs across the country was Volume 4, “A Self-Study Course on Terrorism-Related Risk Management of Highway Infrastructure.” Jeff Western, former manager of infrastructure protection for Wisconsin DOT, gave high marks to the infrastructure vulnerability assessment workshops that NCHRP held as a precursor to issuing Volume 4.

“By far, doing the assessments and having that strategy were critical,” Western says. “We couldn’t have gone through the process of identifying our most vulnerable infrastructure had we not had the workshops. They compiled strategies from other sectors—information that people in transportation didn’t know existed.”

Western says the 525 series reports have played a key role in helping Wisconsin DOT form strategies for security and infrastructure protection, develop staff training, and incorporate security into long-range planning.

“Holistically, the reports are well done and well thought out,” Western says. “They’re common-sense and practical, with diagrams, documents, and charts and graphs that you can pull out and use right away.”

Expanding staff awareness

The reports have given DOTs an important tool to raise awareness of security issues within their agencies, says Douglas Noble, senior director for management and operations with the Institute of Transportation Engineers.

“The series enables transportation professionals who are not in security roles to expand their body of knowledge.”

“By covering the breadth of surface transportation security issues, the series enables transportation professionals who are not in security roles to expand their body of knowledge so that they’re much better informed when dealing with emergency preparedness functions,” Noble says.

Volume 2, “Information Sharing and Analysis Centers,” was another document that introduced state DOTs to technology used in other sectors. That volume made recommendations on how DOTs could share information on security threats through ISAC systems.

“The report helped educate state DOTs about the systems that are available for exchanging information with other states on potential threats,” says safety and security consultant John N. Balog, who served as principal investigator for Volume 2. “Without sharing this information, each state is at a loss.”


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2 Information Sharing and Analysis
3 Incorporating Security into Planning
4 Terrorism-Related Risk Management
5 Managing Sensitive Information
6 Emergency Operations
7 Security Awareness for Employees
8 Continuity of Operations Planning
9 Emergency Drills and Exercises
10 Public Health Disasters
11 Disruption Impact Estimation
12 Tunnel Security Countermeasures

Volumes to Come
Agricultural Emergencies on Rural Roads (volume 13), Costing Asset Protection, Hazards Resources, Physical Security Standards

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