Advanced Technology Use and Inter-Agency Cooperation for Commercial Vehicle Security

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Outline

- Background and Motivation
- Survey Methodology
- Survey Results
- Conclusions
Truck Freight Industry

- Security Challenges
  - Expansive system
  - Multiple responsible agencies
  - Little uniformity

- Trends
  - Trade growth
  - Increasing globalization
  - Rising fuel costs

Previous Truck Security Research

- Carriers
  - ATRI
  - University of Minnesota

- Technologies
  - FMCSA Field Operational Tests
  - State Technology Tests
Survey Design

- 25 Questions
- Online and paper surveys
- Key issues
  - Security practices
  - Advanced technology use
  - Inter-agency cooperation
  - Changes since 9/11
  - Barriers to improvement

Survey Responses

- 19 States
  - 2 DOT
  - 2 DMV
  - 15 Police Agencies

- Ports/POEs
  - 7 land border
  - 10 major marine
CV Security Planning and Procedures

- Few comprehensive plans (4 of 19)
- Elevated alert procedures
  - Increased inspection
    - 24/7 weigh station operations
    - Checkpoints
    - Increased and “geographically aligned” mobile patrols
    - Increased presence at POEs
    - 100% hazmat pull-in
  - Increased permit reviews
  - Security audits

CV Weighing and Inspection

- All respondents
  - Static weighing
  - Portable weighing
  - Mobile inspection
  - Interstates and major state highways
  - In proximity to land POEs (7 of 7)
- Most respondents
  - Cargo inspections (18 of 19)
  - Additional hazmat inspections (16 of 19)
  - Secondary roadways (18 of 19)
  - In proximity to marine POEs (9 of 10)
- A few respondents
  - Agricultural inspection facilities (3 of 19)
Advanced Technology Use

- Weigh-in-motion (WIM)
- RFID pre-clearance
- Camera/OCR vehicle identification
- Electronic credentialing
- GPS tracking
- Radiation detection
- Chemical/Biological detection
- Infrared break monitors (IBM)

Advanced Technology Use (2)
Inter-Agency Communications

- Federal
- State
- Local
- International
- Industry

### Cooperating Agencies

<table>
<thead>
<tr>
<th>Cooperating Agencies</th>
<th>Percent of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMCSA</td>
<td>57.9</td>
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<tr>
<td>FHWA</td>
<td>26.3</td>
</tr>
<tr>
<td>TSA</td>
<td>36.8</td>
</tr>
<tr>
<td>U.S. Customs</td>
<td>36.8</td>
</tr>
<tr>
<td>Foreign Customs</td>
<td>10.5</td>
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<tr>
<td>State DHS</td>
<td>42.1</td>
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<tr>
<td>Additional In-State Authorities</td>
<td>26.3</td>
</tr>
<tr>
<td>Local Authorities</td>
<td>28.3</td>
</tr>
<tr>
<td>Authorities in Neighboring States</td>
<td>15.8</td>
</tr>
<tr>
<td>National Trucking Associations</td>
<td>26.3</td>
</tr>
<tr>
<td>State Trucking Associations</td>
<td>47.4</td>
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<tr>
<td>CVSA</td>
<td>42.1</td>
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<tr>
<td>Individual carriers</td>
<td>15.8</td>
</tr>
<tr>
<td>Individual Shippers</td>
<td>5.3</td>
</tr>
<tr>
<td>Individual Receivers</td>
<td>0.0</td>
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<tr>
<td>No agency</td>
<td>31.6</td>
</tr>
<tr>
<td>Other</td>
<td>15.8</td>
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</table>
Operational changes since 9/11

Bars and percentages showing changes in:
- Weigh station hours of operation
- Number of different types of inspection
- Number of stationary weigh stations
- Number of portable scale units
- Number of mobile inspection units
- Number of staff
- Training for inspectors
- Technology use

Percent of States

Barriers to Improvements

- High cost
- Inadequate infrastructure
- Logistics concerns
- Unproven technology
- Lack of demonstrated benefits
- Privacy concerns
- Data/system insecurity
Acceptable Technology Data Use

<table>
<thead>
<tr>
<th></th>
<th>Percent of Responding Authorities</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Electronic Toll Collection</td>
</tr>
<tr>
<td>Locate a vehicle during routine operations</td>
<td>82.4</td>
</tr>
<tr>
<td>Locate a stolen vehicle</td>
<td>100.0</td>
</tr>
<tr>
<td>Monitor vehicle routes</td>
<td>70.6</td>
</tr>
<tr>
<td>Monitor driver speeds</td>
<td>82.4</td>
</tr>
<tr>
<td>Monitor driver hours of operation</td>
<td>70.6</td>
</tr>
<tr>
<td>Track vehicle mileage for charging of weight-distance tax</td>
<td>23.5</td>
</tr>
</tbody>
</table>

Increased Cooperation Since 9/11

- **Federal (13 of 19)**
  - Carrier security
  - Cargo inspections
  - Driver screening
  - Inspector training

- **State (13 of 19)**
  - Joint border inspections
  - Regular meetings
  - Information sharing
  - Technology systems

- **Industry (14 of 19)**
  - Highway Watch®
  - Education
  - Enforcement details
Future Needs

- All respondents
  - Increase staff (18 of 18)
- Most respondents
  - Increase weigh station hours (15 of 18)
  - Increase training for inspectors (12 of 18)
  - Increase number of mobile inspection units/portable scales (14/11 of 18)
  - Increase federal/state/industry communications (13/10/11 of 19)
  - Increase technology use (16 of 18)

Conclusions

- Improvements have been made
- Significant advancement is still needed
- Financial and technological barriers must be overcome
- Enforcement agencies should actively pursue communications improvements
- Coordination on specific issues has been most successful
- A stronger federal role could improve operational and technological interoperability
Thank You!

Questions?

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