

Commercial Vehicle Safety Alliance (CVSA)

Ad Hoc RAM/Security/Intelligence Transportation Systems (ITS) Committee

Meeting in Denver: Saturday, March 29, 2008

The CVSA Ad Hoc Committee on emerging technologies for tracking and monitoring radioactive materials transport met in Denver on March 29. The Committee is chaired by Bill Reese (ID), who also chaired the meeting. Larry Stern (CVSA) had kindly invited representatives of state regional groups; the meeting was attended by Cort Richardson (CSG-NE), Chris Wells (SSEB), Christina Nelson (NCSL), Alex Schroeder (WIPP-TAG), Fred Dilger (NV), and Jim Williams (WIEB). Another meeting, perhaps more oriented to rail applications, may be organized in the Fall.

Key presentation, each with substantial PowerPoint materials,¹ included:

- Overview of recent research and testing for technologies applicable to hazmat transportation.
John Allen, Battelle, VP for Transportation
- Review of the data base on commercially available hazmat technologies developed for the field operations test.
Toni Slavich, Battelle, Seattle Research Center
- Wireless technology for hazmat truck transport operations
Kris Zinszer, Engineering Manager, XscapeEz
- IRRIS role-based, secure access, integrated information systems, assessment, tracking, & reporting.
Jon Pollack, Senior Vice President, GeoSystems
- Hazardous Materials Cooperative Research Program (HMCRP)
HM-04: Emerging Technologies Applications to Hazmat transportation & Security
Bill Reese, for Bill Rogers, HMCRP Program manager
- US DHS Domestic Nuclear Detection Office
Southeast Transportation Corridor Pilot (SETCP)
Don Ponikvar, Special Assistant, DHS/DNDO Mission Management Directorate
- “Smart Credentials” developed under federal information processing standard (FIPS) 201.
Daniel Schleifer, CoreStreet Ltd.

A larger amount of material (1’ thick) was presented. Here are some preliminary impressions:

1. **Emerging capabilities for SNF shipment.** The technology for “smart” transportation tracking and monitoring is “emerging” rapidly, led by private (not federal government) initiatives. There is little question that the capabilities when spent fuel shipments begin (2017+) will be vastly different and more integrated than what is currently “in the field” (i.e. technologies presumed in most federal-state programs).
2. **The federal role: requirements & standards.** While the energy and innovation in technology development will come from the private sector, federal “ground rules” for such development are needed. Federal regulations must require shippers and carriers to provide specified data, and require that technologies developed for the purpose adhere to certain

¹ I can Xerox and mail on request.

standards—e.g. “open architecture,” interoperability, modular, field tested before deployment, role-based (discrimination regarding who has access to what, under what circumstances).

3. **State roles in adoption/application.** States will need to participate in the adoption and application of these technologies, reviewing and revising current requirements as they gain confidence in the reliability of the information received.
4. **Technology selection or winnowing.** In addition to setting general standards (#2 above), federal agencies may need to play a role in technology selection. An (already outdated) data base shows that 22 vehicle disabling products, 63 satellite tracking products, 11 cargo locking products, 52 truck/trailer tracking products etc. Which should be applied? Laissez faire leads to confusion, special dealing, and sub-optimal selection. Federal agency selection may adopt already out-dated, sub-optimal performers. A “DARVA” (open competition, with specified requirements) process could lead to better outcomes.
5. **Role-based access to integrated information.** While the information provided by emerging technologies may be highly integrated, access to the information must be “role-based,” with fairly elaborate control over who has access to what information (in what forms) under what circumstances. This will pose challenges for state agencies, which must develop confidence in the information base generally, including their own limited access to the whole.
6. **Exception-based monitoring.** Integrated information systems can provide better information (e.g. commodity flow data) at less cost. One example is to make monitoring “exception-based”: monitors are alerted when certain pre-specified kinds of incidents happen to certain types of shipments in certain locations, and then receive information relevant to addressing the particular situation (perhaps, given the resources available). This can save money and improve performance, but the savings may need to be re-directed to systems-support or other purposes.
7. **Current and prospective.** To say that the field is rapidly evolving is not to say that everything is available now. For example, monitoring/tracking of tractors is more advanced than that for trailers and casks. We should design applications based on what is in prospect while specifying what is still needed and processes for winnowing and adoption/application.