



GCM
Highway Freight Technology Security Showcase
Tuesday, May 11, 2004
Argonne National Laboratory, Argonne, IL

Showcase Summary

Presentations from this Workshop are available on the GCM Public Information Center (PIC).
(www.gcmcommunicator.com/public-library/pic-reports/pic-presentations)

1. Registration and Exhibitor Session I with morning refreshments in the lower level of the auditorium

Exhibitors included Argonne National Laboratory, Bio-Imaging Research, Illinois Tollway I-Pass, Mettler Toledo, U.S. Department of Energy, and VideoTec.

2. Showcase Kickoff and Welcome: Jeff Hochmuth, President ITS Midwest & Alan Foley, Associate Lab Director for National Security, Argonne National Laboratory

Jeff Hochmuth provided the showcase introductions and remarked on the relations between security and ITS. He thanked the exhibitors for displaying their technologies and the groups that sponsored breaks and refreshments (ITS Midwest, Mettler Toledo, TranSmart Technologies, and URS Corporation).

Alan Foley provided a general history of Argonne Laboratory. He discussed his background in the intelligence community and explained Argonne's charge to help develop national, long-term homeland security initiatives. He emphasized Argonne's focus on long-term sustainability for our homeland security plans and Argonne's scientific resources that are beyond commercially available technology.

3. Presentation Session I

Argonne National Laboratory Freight Security Technologies – Pat Wilkey and Dr. Tom Ewing, Argonne National Laboratory

Tom Ewing, Associate Division Director for Argonne's Nuclear Engineering Division, gave a brief presentation on the role of Argonne National Laboratory as a GCM Corridor partner and in security technologies. The presentation included a survey of technologies and different inspection technologies like FIGARO, GaAs Neutron Detectors, Ge Strip Detectors and Terahertz Detection.

Pat Wilkey, Central Director of Argonne's Environmental Restoration Systems, gave a presentation on some of Argonne's chemical detection technologies. He discussed sensing and communication technologies such as smart sensors and electronic noses and systems for in-container detection and

industrial chemical transport monitoring. He also talked about the importance of interior infrastructure protection. Argonne is trying to develop accurate sensors with lower cost so that they can be widely deployed.

Florida's VACIS System – Chief Jerry Bryan, Florida Department of Agriculture and Consumer Services

Chief Jerry Bryan gave a brief presentation on Florida's VACIS (Vehicle And Cargo Inspection System) program. The Florida Department of Agriculture's vehicle inspection sites are located mostly north of the peninsula and were originally situated to protect the agricultural areas from animals, plants, or viruses. They have since expanded their focus to include illicit cargo, and use the VACIS units to detect hidden cargo. The detection units allow Florida to use their resources more efficiently. Florida has 4 VACIS units to coordinate between 22 stations and the Department of Agriculture is trying to coordinate inspection efforts with the state DOT.

4. Exhibitor Session II

5. Presentation Session II

Washington State's E-Seal Project – Edward McCormack, Washington State Transportation Center

Edward McCormack gave a brief presentation on Washington State's testing of electronic container seals. The Washington/British Columbia crossing is the 4th busiest commercial crossing on the U.S./Canadian border, receiving 1 million trucks in 2002. Washington State started to develop a paperless system in 1997 to make the crossing more efficient, with security as a secondary factor. He briefly talked about benefits of coordinating the CVISN transponders and Free and Secure Trade System (FAST), which are not currently compatible. Coordinating these two systems would benefit both carriers and enforcement agencies by better monitoring cargo movement. He gave the difference between the two systems and why were they beneficial.

The U. S. Department of Agriculture tests e-seals on containers being shipped from Mexico to Canada through the United States and from Japan to U.S. ports. Transponders were able to track the containers throughout their trip. These tests showed that the electronic data increases accuracy, reduces paperwork, enables enforcement to identify cargo more accurately and focus enforcement resources. A different e-seal test is being coordinated with Washington State and Canada to test different seal technologies in the supply chain. While there is still much interest in e-seals, no commercial e-seal systems are in use.

Leveraging CVISN: Highway Freight Security – Ron Char, Johns Hopkins University, Applied Physics Laboratory

Ron Char gave a presentation on using Commercial Vehicle Information Systems and Networks (CVISN) initiatives for Highway Security. The presentation included a CVISN description, comparing CVO safety and highway security problems, leveraging CVISN for highway security, and expanding CVISN. Char discussed how CVISN provides capabilities in electronic screening,

credentialing, and safety information exchange. He then described areas of overlap between CVO Safety and Highway Security and how CVISN infrastructure could be used to enhance highway security through testing. He noted that several security projects using CVISN compatible e-seals are underway.

U.S. Attorney's Offices' Anti-Terrorism Advisory Councils, John Walsh, U.S. Attorney's Office

John Walsh, Intelligence Officer for the U.S. Attorney's Office, gave a brief presentation on the U.S. Attorney's Offices' actions in the area of security, including Anti-Terrorism Advisory Councils (ATAC) and the Joint Terrorism Task Force (JTTF). The ATAC was developed to help build relationships between different groups, move information to fill information gaps, and enhance critical infrastructure protection. The U.S. Attorney General's Office priorities include prevention through increased risk of failure and disruption. The Attorney General's Office is using ATACs and JTTFs to quickly move information through existing communications networks in order to coordinate responses. Walsh met with the Great Lakes Partnership (a public-private partnership) to address security.

6. Buffet Lunch in the Exhibitor and Poster Display area in the lower level of the auditorium

Technical posters were displayed by Argonne National Laboratory, Oak Ridge National Laboratory, SAIC, TranSmart Technologies, and the U.S. Department of Energy during the lunch break.

7. Presentation Session III

FMCSA Safety & Security Project Initiatives – Amy Houser, FMCSA

Amy Houser gave a presentation on Hazardous Materials Safety & Security Technology Operational Test and Untethered Trailer Tracking and Control tests. The HazMAT operational test's goals were the demonstration of an approach that uses existing technology to improve the safety and security of Hazmat while quantifying the benefits and costs of this process. The test included four scenarios to address as many weaknesses as possible and to give a cross-section of industry needs.

The Untethered Trailer Tracking and Control test tried to develop voluntary requirements for a tracking system and test that system. The system developed used cargo sensors, door sensors, terrestrial tracking system, and geofencing. The test should be completed by March 2005.

Oak Ridge National Laboratory Security Project – Randy Walker, ORNL

Randy Walker gave an overview of the goals, critical components, and major technologies used by stakeholders in the Identification and Monitoring of Radiation Shipments (IMRicS) project. IMRicS is intended to identify shipments that are not compliant with select federal and state regulations. In the current concept of operations, commercial vehicles pass through radiological sensors prior to stopping on static scales and then if an alarm is detected, they are subjected to further inspection. The system can detect the radiation signature of non-radioactive material, such as tobacco, as well as radioactive material. The project is also looking at loading configuration and using thermal imaging.

I-95 Corridor Coalition CVO & Freight Initiatives – Marygrace Parker, I-95 Corridor

Marygrace Parker gave a presentation on freight and CVO initiatives in the I-95 Corridor. Current coalition activities include a Container and Truck Security Initiative, PortPass, e-screening, license plate reading technology, regional interoperability in electronic tolling, and Freight Information Real-time System for Transport (FIRST). The scanning phase of the Container and Truck Security Initiative highlighted a number of issues related to policy, responsibilities, and resources. The next step will use group consensus to identify corridor activities.

Parker noted that the Corridor is trying to address private carrier concerns and not slow the flow of goods while enhancing security. It also realizes it must coordinate information with ports and border crossings.

Illinois Highway Watch Program – John Maes, Highway Watch

John Maes, Program Instructor for Highway Watch, gave a brief presentation on the Highway Watch Program, a national program to recruit truck drivers to notice and report suspicious activity and vehicles on highways. The program is funded by the American Trucking Associations and the Federal Motor Carrier Safety Administration. He mentioned that the program was started to save lives by increasing the number of eyes and ears on the road. Truck drivers could report suspicion activity to improve safety and promote the image of trucking industry. The Highway Watch Program offers free training and a certification program for trucking companies that sign up. The program is looking at including bus drivers and more commercial carriers.

8. Exhibitor Session III with refreshments in the lower level of the auditorium and optional tour of Argonne Advanced Photon Source facility

Showcase Attendees

| First Name | Last Name | Company |
|------------|------------|---|
| J.B. | Alonzo | City of Chicago - DOT |
| Martin | Anderson | Illinois DOT |
| Bill | Beckford | Indiana State Police |
| John | Benda | Illinois State Toll Highway Authority |
| Jerry | Bryan | Florida Department of Agriculture and Consumer Services |
| Elizabeth | Byrne | Illinois Commerce Commission |
| Kevin | Campbell | UPS |
| Ronald | Char | Johns Hopkins University, Applied Physics Lab |
| Alan | Conway | Mettler Toledo |
| Joe | Crabtree | Kentucky Transportation Center |
| Paul | Czak | Illinois State Police |
| Bruce | Dahnke | Dahnke Consulting |
| Phil | DeCabooter | Wisconsin DOT |
| John | Devona | TSA |
| Warren | Dunham | Warren B. Dunham Associates |

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|-----------|--------------|---|
| Dave | Eggers | Indiana State Police |
| John | Ellis | TranSmart Technologies, Inc. |
| Tom | Ewing | Argonne National Laboratory |
| Robert | Fee | Videotec Corporation |
| Alan | Foley | Argonne National Laboratory |
| Jay | Franke | Northwestern University Transportation Center |
| Jeff | Gage | Praxair |
| Ujaval | Gandhi | University of Wisconsin |
| Dominick | Gatto | Wilbur Smith Associates |
| Sandra | Geib | US Department of Energy |
| Kenneth | Glassman | Illinois State Toll Highway Authority |
| Travis | Gordon | MIDWEST Reg. University Transportation CTR. |
| Dick | Hayworth | Indiana Department of Revenue |
| Jeff | Hochmuth | Wilbur Smith Associates |
| William | Honan | Federal Motor Carrier Safety Administration |
| Amy | Houser | FMCSA |
| Lisa | Irwin | Michigan Dept. of Information Technology |
| Mark | Jensen | SAIC |
| Chris | Kopp | Cambridge Systematics |
| Laura | Krooss-Wiley | Schneider National Carriers, Inc |
| Paul | Lamb | URS |
| Andrew | Lawrence | Illinois State Toll Highway Authority |
| Dave | Lazarides | Illinois Commerce Commission |
| Joseph | Ligas | Transportation Consulting Services |
| Raymond | Lukesic | Federal Motor Carrier Safety Administration |
| Warren | Lutz | Federal Highway Administration |
| John | Maes | Highway Watch Illinois |
| Gaetano | Martino | Wisconsin State Patrol |
| Harold | Masse | Illinois State Police |
| Edward | McCormack | Washington State Transportation Center |
| Jeff | McSpaden | Federal Highway Administration |
| Bradley | Micklich | Argonne National Laboratory |
| Richard | Moldstad | Gallagher Transportation Services |
| Martin | Monahan | PB Farradyne |
| Terry | Moore | Illinois DOT |
| David | Nisius | BIR, Inc. |
| Dan | Noncek | Apogee Industries, Inc. |
| Promise | Otaluka | Federal Highway Administration |
| Marygrace | Parker | I-95 Corridor Coalition |
| Paul | Pershing | Illinois State Police |
| Steven | Peters | Illinois DOT |
| Tim | Peters | Illinois DOT |
| Brian | Quirke | US Department of Energy |
| John | Rattigan | Illinois State Police |
| Mark | Rinnan | Edwards & Kelcey, Inc. |
| Carmen | Robinson | TSA |
| David | Runnells | Videotec Corporation |

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| Gary | Schenkel | TSA |
| Chuck | Sikaras | Illinois DOT |
| Gregg | Sloan | Fed Ex Ground |
| Brian | Smith | Labelmaster |
| Ray | Snisko | Illinois State Police |
| Dan | Stock | SAIC |
| Allison | Stutes | Labelmaster |
| Rich | Telford | Illinois DOT |
| Adrian | Tentner | Argonne National Laboratory |
| Kevin | Triggs | East West Gateway Coordinating Council |
| Stephen | Trudell | NYSDOT Passenger + Freight Safety Div. |
| Jacek | Tyszkiewicz | Illinois DOT |
| Christine | Van Horn | US Department of Energy |
| Randy | Walker | Oak Ridge National Laboratory |
| John | Walsh | U. S. Attorney's Office |
| Erik | Wik | SAIC |
| Pat | Wilkey | Argonne National Laboratory |
| David | Williams | Battelle Memorial Institute |
| Sam | Wolfe | Indiana DOT |
| David | Zavattero | Illinois DOT |