



**TRANSPORTATION SAFETY ADVANCEMENT GROUP
CASE STUDIES WORKSHOP SERIES**

**Report to the
US Department of Transportation
Research Innovation & Technology Administration
ITS Joint Program Office**

**WORKSHOP 1
2008 DEMOCRAT NATIONAL CONVENTION
A PLANNED SPECIAL EVENT**

May 2009

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Transportation Safety Advancement Group

CASE STUDIES WORKSHOP
2008 DEMOCRAT NATIONAL CONVENTION
A PLANNED SPECIAL EVENT

Introduction

On March 4, 2009 the Transportation Safety Advancement Group (TSAG) conducted its first Case Studies Workshop & Webinar in conjunction with its winter meeting in Washington, DC. The Workshop, hosted by Linda Dodge, US DOT, ITS Joint Program Office and moderated by Captain Raymond Fisher, Colorado State Patrol (CSP), reviewed transportation and select (CSP) law enforcement aspects of the Democrat National Convention (DNC) held in August 2008 in Denver, Colorado. The 2008 DNC involved Federal, State and Local agencies engaged in broader general public safety and security, VIP safety and security, management of civil demonstrations, and in the overall efficient operation and management of a major special event.

The Case Studies Workshop and this report are from the perspective of the Colorado State Patrol (CSP), with additional insight gained from DNC event leaders and coordinating agencies. Workshop presenter Ms Korby Johnson, CSP Project Manager, was supported by moderator Capt. Fisher, CSP Commander, Operational Development Section, and by Lt Col Scott Hernandez, CSP, Operational Services Branch.

TSAG wishes to thank the Colorado State Patrol, the US Department of Transportation, ITS Joint Program Office and US Department of Transportation, Volpe Center for their time, leadership and professional knowledge in making this inaugural workshop and associated webinar a success.

This report summarizes the workshop proceedings and proposes recommendations particular to the TSAG directive of *promoting technologies for public safety*.

DNC Event Management Strategy

From its initial planning stage, event planners and managers established that the management of this major event would focus on three key activities:

- Traffic Management
- Dignitary Protection
- Crowd Management

These focus areas would be managed while preserving the Colorado State Patrol core mission and core services, including:

- Retention of a force of 120 Troopers on normal daily patrol duty
- Preservation its normal level of responsiveness to day-to-day citizen needs
- Preservation of its strong focus on traffic injury and deaths reduction goals

Within these parameters, the Colorado State Patrol served a key DNC event management and support function.

Event Management Objectives

The DNC event was approached through a set of event management objectives, including:

- Gain an understanding of the government process associated with Projects
- Manage risk through employment of Risk Management techniques
- Optimize public safety and security through professional project management applications

Thus, the Colorado State Patrol pursued its support of DNC event management safety and security parameters through its broader enterprise project management process.

Technology Applications & Lessons Learned

The fundamental focus of this Case Study is the assessment of advanced technologies as tools for supporting the management of a major planned event, and the management of any unplanned incidents associated with the event. Specific technologies were employed and were determined to be functional and responsive to their intended purpose. The following technology applications and corresponding lessons learned were employed:

- **Land Line Communications** - - Land line networks served as the backbone for voice, data, and video communications. Serving as the primary network for the DNC event, land lines provided secure, reliable and efficient services to all users, including Colorado State Patrol Virtual Communications Centers and Center-to-Center command posts.

Lessons Learned

- Authorized secure line users should be provided Digital Directories and fast dial function training
- Some applications were assigned fiber links from existing fiber networks - - verifying the value of the availability of spare fiber throughout transportation communications networks
- **Wireless Communications** - - Secure wireless communications lines were made available to designated Command users through assigned unique Access Codes. These wireless communications links served important functions for field operations users. Portable cell communications towers and priority access cards for designated senior command users provided invaluable service to event management challenges.

Lessons Learned

- Portable cell towers were a key element of wireless communications infrastructure. Towers were easily deployable and did not interrupt public wireless / cellular communications services. This was a positive experience and lesson.

- **Other Mobile Communications** - - Mobile Digital Radios were employed to provide secure and efficient mobile communications via hand held cellular devices. This allowed quick and effective communications between command centers and various field operations units, including standby emergency response vehicles, bus and automobile transport vehicles, and mobile command and supervisory personnel.

Lessons Learned

- Must define and test mobile-user policies early in the event planning stages
 - Must ensure that all users and agencies have digital radios that are compatible and capable of meeting interoperable and security encryption needs
 - Must define “interoperability” needs and requirements to be met through digital device setup processes
- **Emergency Communications (9-1-1)** - - Emergency 9-1-1 operations and call centers were maintained in normal operation throughout the event.

Lessons Learned

- Anticipate how the volume of 9-1-1 calls might differ from traditional or historical levels
 - Anticipate language and cultural variances associated with the event
 - Train 9-1-1 Operators to anticipate calls specifically related to the event
- **Communications Interoperability** - - Interoperable communications across event management agencies, event venues and emergency responders was viewed by event planners as a generally desirable function. Interoperability schemes were established for “talk groups” with group members provided specially programmed hand held radios.

Lessons Learned

- Identify appropriate “talk groups” authorized to enter established interoperable communications channels as part of the event planning process
 - Establish protocols for timing and execution of cutover processes for interoperable communications channels
- **Video Surveillance** - - Video surveillance served an important role in traffic management and crowd management services. Colorado Department of Transportation video cameras delivered traffic surveillance images, while backpack video cameras provided live video surveillance and monitoring images to a Unified Command Center.

Lessons Learned - - This technology should ensure that procurement and interface programming be advance tested.

- **License Plate Readers** - - License Plate Reader (LPR) technology played an important role in safety and security through its employment as a selective surveillance tool. As specific vehicles were identified for interdiction, mobile LPR devices read and matched these with a predetermined data base.

Lessons Learned - - Anticipate utility and fund LPR technology for desirable applications. LPR technology proved to be an effective and secure surveillance technology while protecting individual privacy

- **Traffic Management Systems** - - A range of conventional traffic management systems were employed to supplement event management technologies. These included:
 - √ Ramp Metering Systems - - employed during a full closure of 1-25
 - √ Variable Message Signs - - conveyed key advisories and regulatory messages
 - √ Signal Priority Systems - - assigned priority passage to specified vehicles
 - √ Video Surveillance Systems - - provided real-time images of event activity
 - √ Communications Centers - - actively engaged in event management tasks

Lessons Learned - - conventional traffic management systems play important roles in planned events and can be increasingly employed to support event management strategies.

- **Intelligent Transportation Systems** - - Beyond traditional traffic management systems, specific Intelligent Transportation Systems (ITS) applications supported the DNC event. These included:
 - √ Vehicle Infrastructure Integration - - Web based routing of Commercial Vehicle Operations (CVO) & Hazardous Materials (HazMat) was mandated for all traffic within defined event management zones
 - √ Public agencies were responsible for providing up to date and real time routing information such as planned road closures or unanticipated incidents
 - √ GPS based navigation and routing systems were an invaluable complement to CVO and HazMat routings

Lessons Learned - - ITS applications will serve increasingly important support roles to planned major events. Inter-agency and inter-discipline policies and protocols should be identified early in the event planning process

General / Transferable Event Management Lessons Learned

Recalling that the fundamental strategy for management of the DNC, a planned major event, was the employment of exact project management techniques, additional lessons learned included:

- **Fallback Plans** - - Identify and test fallback plans and implementation processes
- **Identify** in advance those elements that define the successful conclusion of the project.
- **Don't assume** - - that others know what you're talking about, but do ensure that those with whom you have had discussions to understand. Document, document.
- **Find time** - - expect that planned major events require up to a 14-month planning cycle
- **Business as usual** - - adopt a strategy that protects your day-to-day operations
- **Cost neutral** - - budget toward cost-neutral outcomes to preserve public trust
- **Peter Principle** - - expect the unexpected and plan to address last minute issues
- **Training** - - is key to real-time management. Train participants early and often. Document training activity.
- **Change Control** - - once a project plan is adopted, enforce an effective change control process. Employ strict change control and versioning processes.
- **Paper Trails** - - are key to all event planning and management processes. Record all activity through electronic and hard copy files.
- **Project Staffing** - - ensure adequate project staffing to support daily and hourly demand variations
- **Leaders and Managers** - - understand that not all leaders can manage, and not all managers can lead. Choose wisely.

Webinar Methodology Observations and Lessons

Under the sponsorship of the US DOT, ITS Joint Program Office and its *ITS Professional Capacity Building Program* and its *Talking Technology and Transportation (T3) Webinar Program*, the TSAG Case Studies Workshop was also presented to a remote *Webinar* audience. The T3 Program is administered by the Volpe National Transportation Systems Center, which managed *Webinar* noticing and registration, coordinated onsite audio and web conferencing requirements, and compiled post-*Webinar* feedback summaries. Some 100 advance registrations were received with 70 of these actually participating in the *Webinar*. See **Appendix A** for detailed summaries of *Webinar* audience feedback.

Observations and Lessons

- **Webinar Duration** – Despite its unusually long 3-hour duration, *Webinar* registration and attendance was encouragingly high. Moreover, 90% of these remote attendees stayed connected to the *Webinar* through its conclusion. This demonstrates that individuals are willing to participate in prolonged special-interest events of through the *Webinar* format.
- **Ensure Quality Audio** – The *Webinar* success in participant retention can in large measure be attributed to its high-quality audio feature. Conversely, poor quality audio and electronic interfacing can be expected to lose participation. Solid and smooth-functioning audio enhanced the learning value of the workshop for the remote group and clearly merged the remote and onsite audience into a unified learning environment. Additional related lessons:
 1. **Specify** the Workshop and *Webinar* audio requirements to the hotel / facility conference organizer.
 2. **Utilize** professional technical staff to set-up the audio and pre-test and ensure that the requirements have been met.
 3. **Provide** ample time to test and troubleshoot the audio connections (morning of, for afternoon sessions; evening before for morning sessions).
 4. **Budget** for additional charges to have an AV technician in “trouble-shoot mode” present at the workshop.
- **Engage Your Webinar Audience** – A disappointing aspect of this Case Studies *Webinar* was the dearth of questions from the remote audience during the *Webinar*. This was likely due to the workshop format which employed a single speaker with only two built-in breaks for taking questions. Organizers of future Case Studies *Webinars* should employ techniques for engaging the remote audience. These might include:

1. Pre-arrange “question asking” with select *Webinar* attendees¹ and prompt the audience for questions between presentations or at logical breaking points within a presentation.
 2. Give *Webinar* registrants the ability to submit questions in advance of the *Webinar*. This could be done most easily by modifying the *Webinar* registration form to invite advance questions.
 3. Employ “polling” during the *Webinar* to capture real-time audience feedback and to prompt more active participation.
- **Set Participation Ground Rules** – Audience participation ground rules provide important structure for both the workshop and *Webinar*. Rules should be included in the *Webinar* announcement and reiterated by the workshop facilitator at the beginning of the event. Ground rules might include:
1. Promote the event as an interactive workshop and *Webinar*
 2. Invite advance questions or recommendations for event content
 3. Establish specific times for Q&A breaks, but do not discourage interactive points of clarification or comment
 4. Consider setting up for text-based questions from remote participants

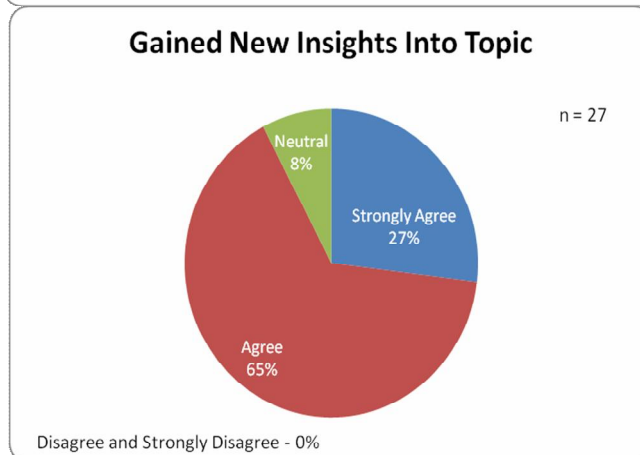
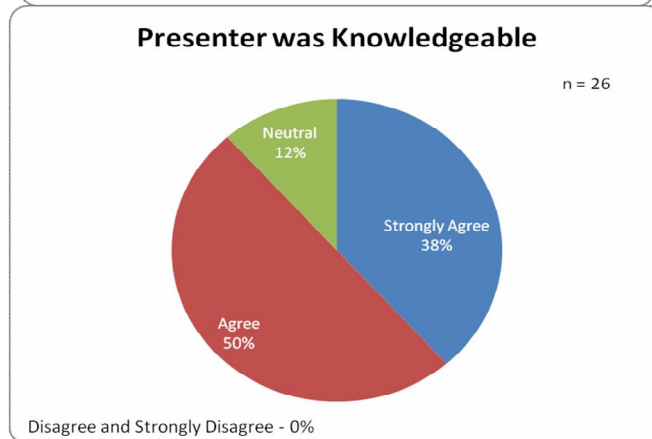
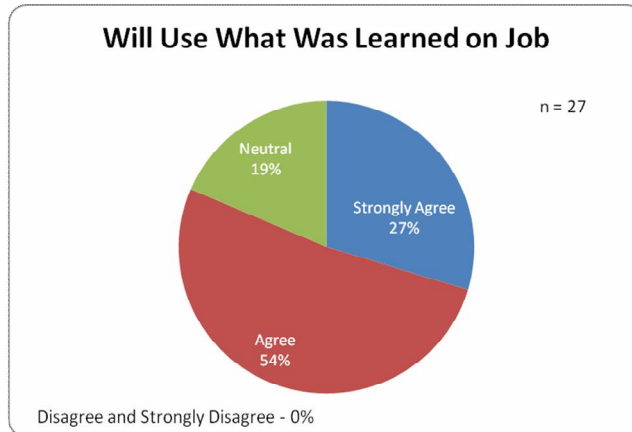
¹ This is not to suggest that specific questions be given to webinar attendees but only to encourage colleagues or associates who will be attending the webinar to ask questions. This could help break the ice and stimulate additional questions from both the webinar and onsite audience.

APPENDIX A

Webinar Feedback Data

The 2008 Democrat National Convention, Denver, Colorado

Total Webinar Participants: 70 / Feedback Rate: Approximately 38%



APPENDIX B

Webinar Administration Lessons

The 2008 Democrat National Convention, Denver, Colorado

Webinar Administration

- Devise ways to involve the webinar audience in the workshop proceedings:
 - Consider breaking down presentations into shorter segments to allow for more Question and Answer periods.
 - Instruct the facilitator to engage periodically with the remote audience.
 - Encourage questions by pushing out “prompts” to the remote audience using the webinar software.

- Describe ground rules for audience participation in the webinar announcement, instead of waiting until the opening remarks of the webinar. Describe the webinar as an interactive discussion between the presenters and the audiences (live and remote).

- Ensure a quality audio set-up:
 - Always describe the workshop/webinar’s audio requirements to the hotel/facility’s conference organizer.
 - Always use professional technical staff to set-up the audio and then test and confirm that requirements have been met.
 - Always provide ample time to test and troubleshoot the audio connections (morning of, for afternoon sessions; evening before for morning sessions).
 - Always pay the additional charge to have an AV technician in “trouble-shoot mode” present at the workshop.

- Make time for pre-webinar planning:
 - Develop and communicate the workshop/webinar agenda and schedule to webinar participants ahead of the event.
 - Leave time for a dry-run.
 - To an extent possible, presentations should include content about how ITS and technology advance safety goals.

APPENDIX C

Webinar Participant Feedback

The 2008 Democrat National Convention, Denver, Colorado

Participant Comments:

- This is a webinar I would come back to and listen to the rest of. Please notify me when the session or at least the PowerPoint is available online. Excellent presentation!
- The webinar should have been preceded by a discussion of what was to be accomplished. There was no broad overview which would have tied the presentation to the overall plan.
- There was no agenda or Table of Contents, it was a long webinar and it would be nice to have the topics by time presented so that we could log in for our topic. I was only interested in the transportation element but sat through the entire webinar to hear only a little about traffic control. The beginning portion was very interesting but wasn't directly related to my job and time is valuable.
- I am a transportation planner and I'd like to see more about transportation and safety by all modes. This presentation only dealt slightly with this.
- Start at the top with the "broad view". Then cover the individual component(s). I would also like to see a presentation by the transportation folks covering their efforts in the same event.
- It would have been a nice feature to have video of the speaker.

What topics would you like covered in future T3 Webinars?

- Pedestrian Safety on high volumes roads and around schools
- Traffic and traffic planning type of webinars
- Communications technologies for ITS
- Integrated incident/event response

Appendix D

TSAG CASE STUDIES WORKSHOP SERIES

Background / Purpose / Objectives

March 2009

INTRODUCTION

The Transportation Safety Advancement Group (TSAG) is administered on behalf of the US Department of Transportation (US DOT) Research, Innovation and Technology Administration (RITA), and its ITS-Joint Program Office, (ITS-JPO). Through its members and allied stakeholder groups, TSAG considers surface transportation-based technologies and applications for the purpose of advancing a national dialogue on first hand experiences and corresponding lessons-learned, and for providing this first hand feedback and guidance to the ITS-Joint Program Office. In recent years, important transportation technology events are driving a growing interest and need for knowledge transfer mediums. Among these:

- An increasing mainstreaming of Intelligent Transportation Systems and technologies across varying transportation operations, applications, conditions, modes, and policies
- A national focus on transportation infrastructure investment, particularly in technology based systems
- A corresponding focus on benefit and performance based outcomes from public investments

From its inception, TSAG has dedicated its efforts to gaining insight and knowledge of transportation safety challenges and opportunities, and how these may be met through proven and emerging technologies. Through its roster of nationally recognized transportation and public safety experts, TSAG has emerged as a key advocate for a *safety-through-technologies* approach for managing our nation's transportation networks and for supporting its day to day transportation operations and public safety services providers.

TSAG CASE STUDIES WORKSHOPS SERIES

During 2008 TSAG conceived and tested the concept of a Case Studies Workshop series intended to assess, from a transportation operations and public safety perspective, specific outcomes of incidents and events with transportation and/or public safety focus. Within a workshop setting, TSAG members and guest reviewers would pursue in depth assessments of technology applications and their roles and functions in managing a specific incident or event. In October 2008, TSAG tested the workshop concept and from its original approach refined specific format, presentation and reporting approaches. Through the support of US DOT, TSAG also expanded the workshop audience by opening the series to its popular and highly successful T3 Webinar program.

On March 4, 2009, the first TSAG Case Studies Workshop, the 2008 DNC, A Planned Special Event was presented to an in-house audience of 28, and an on-line Webinar enrollment of 70. Hosted by ITS Joint Program Office Chief of Staff Linda Dodge and moderated by Colorado State Patrol Captain Ray Fisher, the Workshop, achieved its declared learning objectives and goals, including:

Learning Objectives

The broad learning objectives of the TSAG Case Studies Workshop series include:

- Identify transportation-safety technologies and their real-time applications to actual event or incident identification, response and management
- Identify inter-agency and inter-discipline coordination successes and failures
- Identify technology successes, failures, and lessons-learned

Workshop Presentation Goals

The goals identified for workshop presenters included:

- ✓ Clarify actual circumstances of the event / incident
- ✓ Discuss established response protocols and procedures
- ✓ Review public safety technology applications
- ✓ Identify unique management and response circumstances and challenges
- ✓ Review successes, failures, and lessons-learned

Workshop reports will summarize outcomes and proposes recommendations relating to lessons learned and recommendations for advancing the national dialogue on *technologies for public safety*. More detailed outcomes are posted in the RITA T3 Webinar project website.