Presentation Overview

- Capacity building and the ITS PCB Program
- What we currently do
  - T3 webinars
  - Courses
  - Technical assistance (P2P, HelpLine)
  - Knowledge resources
- ITS JPO Strategic Plan
- New opportunities for technical transfer and outreach
- Strategies for workforce of the future
The Concept of Capacity Building

- Goal: foster the development of an effective, adaptive workforce on matters related to transportation
- Not just training - application of learning theory
- Many methods – tailored and targeted

Traditional training
Distance learning
Peer exchange
Education
Technical assistance
Information clearinghouse
Research and innovation
The Need for Capacity Building

- Workforce shortages around the nation
  - Competing for knowledge workers with other industries
- Professional development and certification becoming more important
- Each legislation introduces new policies, regulations, authority to agencies, technologies, and more
- State DOTs and most agencies are unable to provide the basics
Goals of Capacity Building

• Knowledge and skill building (professional development)
• Knowledge exchange (leverage experience and expertise)
• Knowledge management (DOT messages)
• Organizational Excellence (both agency and job-level performance)
Capacity Building Program Cycle

Identify Audience & Assess Needs

- Needs assessment
- Program plan

Resources

- Program framework
- Websites
- Seminars / Webinars
- Peer exchanges
- Training / Workshops
- Scans / Databases
- Program pamphlets
- Annual reports
- Focus groups
- Program evaluation

Align Available Resources with Needs

Develop Learning Resources to fill gaps

Conduct Outreach and Deliver Learning Resources

Evaluate Program Impact
Legislative Basis for ITS Professional Capacity Building Program

• SAFETEA-LU:
  – SEC. 5303. GOALS AND PURPOSES.
    • (b) PURPOSES.—The Secretary shall implement activities under the intelligent system transportation program to, at a minimum—
      – (7) develop a workforce capable of developing, operating, and maintaining intelligent transportation systems;

• TEA-21:
  – SEC. 5203. GOALS AND PURPOSES.
    • (b) PURPOSES.—The Secretary shall implement activities under the intelligent system transportation program to, at a minimum—
      – (5) develop a workforce capable of developing, operating, and maintaining intelligent transportation systems;
How Preparing the Workforce Supports Deployment

- Technologies/operations now require funding through conventional transportation money streams (MPOs, TIP)
- Training topics include operational issues as well as technical information
- Deployment process is different than road construction projects
- Customers include federal, state, and local field staff, public and private deployers of ITS technologies
- ITS PCB program is evolving to serve people on as-needed basis
Classroom-Based Training—NHI and Resource Center

- Classroom-based NHI courses: ITS and Operations
- Several apply to “rural” including:
  - Improving Highway Safety with ITS
  - Road Weather Management
- Fees vary with course length ($220-$450)
- FHWA Resource Center provides some tailored instructor-led training
Web-Based Training—CITE and NHI

- Most FHWA-sponsored ITS web-based programs are offered by CITE (Consortium for ITS Training and Education)
- Over 30 courses, course list:
  - [http://www.citeconsortium.org/curriculum.html](http://www.citeconsortium.org/curriculum.html)
- Fees: $50-$200 for independent study; $250 for blended
- NHI is starting to offer web-based courses. Most are free in FY09; $50 FY10.
**Web-Based Training—CITE and NHI**

- Over 30 courses, to be taken asynchronously (self-guided) and/or as “blended-learning” courses
- Blended courses include:
  - Managing High Technology Projects in Transportation
  - Introduction to Systems Engineering
  - Improving Highway Safety with ITS
- Additional web-based training includes:
  - Rural ITS
  - Introduction to National ITS Architecture
**T3s: Talking Transportation & Technology**

- Free
- 90 Minute “Webinars”; teleconference with Powerpoint slides, ask questions by chat or orally at end
- Scheduled T3s:
  - 8/18/09 1-2:30pm ET  Where is the “IT” in ITS?
  - 8/26/09 12-3 pm ET  TSAG Case Studies Workshop & Webinar: A Rural Emergency Incident; Utah US Route 163 Motor Coach Crash
- Future Webinars:
  - ITS Standards training
  - Information about new initiatives
- All T3s are archived

Technical Assistance

• Toll-free “ITS Help-line” at
  – Telephone: 1-866-367-7487
  – E-mail: ITS_HELP@dot.gov

• The Peer-to-Peer Program at
  – Telephone: 1-888-700-PEER or 1-888-700-7337
  – Email: p2p@dot.gov
Knowledge Resources

• Applications Overview

• Benefits Database
  – http://www.itsbenefits.its.dot.gov/

• Costs Database
  – http://www.itscosts.its.dot.gov/

• Deployment Statistics
  – http://www.itsdeployment.its.dot.gov/

• Lessons Learned
  – http://www.itslessons.its.dot.gov/

• Resource Guide
  – http://www.resourceguide.its.dot.gov/
For Example (Lessons Learned Database)
ITS JPO Strategic Planning

- ITS JPO Strategic Plan will be finalized later this year
- Goals, outcomes, and programs are related to the three areas: Safety, Mobility, and Environment
- New initiatives to be launched October 1
Strategic Initiatives – Goals and Outcomes

Vision for 2009 ITS Strategic Plan
A national, multimodal surface transportation system that features a connected transportation environment among vehicles, the infrastructure, and portable devices to serve the public good by leveraging technology to maximize safety, mobility, and environmental performance.

STRATEGIC INITIATIVES

SAFETY
Goal: Transformative safety through vehicle and infrastructure connectivity

MOBILITY
Goal (1): Capture complete, real-time information on all roads and all modes to support transformational system performance.
Goal (2): Achieve transformational transportation management and system performance through applications of vehicle and infrastructure connectivity.
Goal (3): Realize “next generation” electronic payment systems that support transformational system performance.

ENVIRONMENT
Goal: Enable environmental management through vehicle and infrastructure connectivity.

Policy Foundation for Deployment
Establish an institutional Foundation for deployment of safety, mobility and environmental applications based on vehicle and infrastructure connectivity.
### ITS JPO Strategic Plan Goals and Objectives

**Mission**

We improve the Nation’s surface transportation system by identifying and supporting transportation technology research & development opportunities, and by providing policies and institutional foundations to identify and promote new transportation technologies and trends.

**Vision for 2009 ITS Strategic Plan**

A national, multimodal surface transportation system that features a connected transportation environment among vehicles, the infrastructure, and portable devices to serve the public good by leveraging technology to maximize safety, mobility, and environmental performance.

#### Strategic Initiatives

<table>
<thead>
<tr>
<th>Safety</th>
<th>Mobility</th>
<th>Environment</th>
<th>Policy Foundation for Deployment</th>
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<td><strong>Goal:</strong> Transformative safety through vehicle and infrastructure connectivity</td>
<td><strong>Goal:</strong> Capture complete, real-time information on all roads and all modes to support transformational system performance.</td>
<td><strong>Goal:</strong> Enable environmental management through vehicle and infrastructure connectivity.</td>
<td><strong>Goal:</strong> Establish an institutional foundation for deployment of safety, mobility, and environmental applications based on vehicle and infrastructure connectivity.</td>
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<td><strong>OBJECTIVES</strong></td>
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<td>- Enable active and passive safety applications (i.e., applications designed to assist vehicle operators in avoiding imminent crashes and which require low latency communications).</td>
<td>- Capture real-time data from connected vehicles, mobile devices and infrastructure.</td>
<td>- Create interoperability of electronic payment systems across modes (parking, transit, pricing, tolls, etc.).</td>
<td>- Identify and research solutions to address institutional foundations, governance, privacy issues, potential regulations, and policies, both nationally and internationally, to implement transportation technologies.</td>
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<td>- Improve safety by providing in-vehicle advisories which do not require low latency communications.</td>
<td>- Capture real-time system cost information across all modes.</td>
<td>- Define technology framework to support emerging state and national policy for transportation financing.</td>
<td>- Address social equity in all goal areas to ensure that all users benefit from transportation solutions.</td>
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<td>- Perform testing necessary to support regulatory and advisory activities, evaluations of system performance effectiveness, and the development and validation of standards.</td>
<td>- Develop a technology framework that enables the integration of real-time data from all sources for use in transportation management and performance measurement.</td>
<td>- Create applications that use real-time data on environmental impact for use by transportation managers.</td>
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# Strategic Plan Goals and Programs (June 2009)

<table>
<thead>
<tr>
<th>Goal Area</th>
<th>Proposed Programs</th>
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<tbody>
<tr>
<td>SAFETY</td>
<td>1. Intellidrive℠ Vehicle to Infrastructure (V2I) Communications</td>
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<td>2. Intellidrive℠ Vehicle to Vehicle (V2V) Communications</td>
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<td></td>
<td>3. Harmonization of International Standards</td>
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<td>4. Vehicle Control Assistance for Safer Travel</td>
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<td></td>
<td>5. Human Factors for Intellidrive℠</td>
</tr>
<tr>
<td>MOBILITY (Data)</td>
<td>1. Real-Time Data Capture and Management</td>
</tr>
<tr>
<td>MOBILITY (Applications)</td>
<td>1. ADAPT—Achieving Dynamic and Proactive Transportation</td>
</tr>
<tr>
<td>MOBILITY (Payment)</td>
<td>1. MBUFT—Mileage Based User Fee Technology</td>
</tr>
<tr>
<td></td>
<td>2. Multi-Modal Integrated Payment System</td>
</tr>
<tr>
<td>ENVIRONMENT</td>
<td>1. AERIS—Applications for the Environment: Real-time Information Systems</td>
</tr>
<tr>
<td></td>
<td>2. Community Transit Services</td>
</tr>
</tbody>
</table>
Possible Technology Transfer and Outreach

• Technology Transfer Website providing information about the new federal ITS programs
• Electronic newsletter sharing program information and the availability of new resources
• Field or virtual testbeds demonstrating the latest program developments
• Expanding internal and external partners
• Communities of Practice (using SharePoint or other Wikis)
Strategies for Workforce of the Future

• Just-in-time information to be accessed as needed
• Expanding web-based material and delivery options
• Leveraging resources from other DOT PCB/training programs
• Training and assistance related to the new federal ITS programs
• Training and assistance related to systems engineering and better project management
• Training and assistance related to operational issues as well as technical information
Welcome to ITS Professional Capacity Building

The ITS Professional Capacity Building (PCB) Program provides comprehensive, accessible, and flexible ITS learning for the transportation industry. By using the program's public agencies can build and sustain a capable and technically proficient ITS workforce and transportation professionals can develop their knowledge, skills, and abilities while furthering their career paths.

News

- Added to the T3 Archives: 5/21/09 Webinar: Next Generation 9-1-1 (NG 9-1-1) Summit for Large Cities
- Added to the T3 Archives: 5/19/09 Webinar: Performance Measures — A Case Study in Progress Webinar
- View CITE's current offering of blended courses
- Added to T3 Archives: 1/03/09 Webinar: Arizona E-VII Program: Strategies for Improving Emergency Response to Traffic Incidents while Enhancing Safety for Emergency Responders
- TMC Simulation Program available from I-96 Corridor Coalition

More News... __

ITS Learning Resources

Courses: View course calendar

Search the course list by type or program partner:

<table>
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<td>National Highway Institute</td>
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<tr>
<td>Blended Courses</td>
<td>National Transit Institute</td>
</tr>
<tr>
<td>Certificate Programs</td>
<td>Institute of Transportation Engineering</td>
</tr>
</tbody>
</table>

ITS Technical Assistance

The ITS PCB Program offers technical assistance resources to State and local transportation agencies, and to FHWA Field Offices.

- ITS Peer-to-Peer Program helps resolve ITS challenges by speaking to your peers.
- The ITS Help Line provides technical support by e-mail at technical.support.byemail@dot.gov or telephone 866-367-7487.

Scheduled T3 Webinars

- August 18, 2009, 1:00 - 3:00 PM ET: T3 webinar on "Where is the IT in ITE?"
- August 26, 2009, 12:00 - 3:00 PM ET: T3 webinar on "T800 Case Studies Workshop and Webinar: A Rural Emergency Incident Utah US Route 183 Motor Coach Crash"

View T3 webinar archives
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