



TENNESSEE TRANSPORTATION NEWS

Fall 2001

Volume 6, Issue 2

All Aboard! TSITE, ALSITE Come to Chattanooga

The fall meeting of TSITE will be held on November 1-2 in Chattanooga. The section will be joined by members of Alabama ITE at the famous Holiday Inn Choo-Choo. Eight speakers in four technical sessions will present a variety of topics including Corridor X, Railroad Preemption at Signals, and Airport Issues for DOTs.



Come catch up with and get to know our colleagues to the south. Please notify Craig Hanchey if you plan on attending (615-383-8420 or chanchey@neel-schaffer.com).

TRB Launches Transportation Security Web Site

AASHTO Journal 9-21-01

The Transportation Research Board has established a new web page on transportation security in response to the tragic events of September 11, 2001. TRB expects that enhancing the security of the nation's transportation system will be one of the highest priorities of transportation agencies. TRB and the National Research Council have generated extensive information on this issue in recent years. The website, <http://www4.nas.edu/trb/homepage.nsf/web/security>, offers this information along with links to other related web sites that contain discussions of issues, actions that can be taken, guidance, and training opportunities.

The web site is sponsored by the TRB Task Force on Critical Infrastructure Protection, and will continue to be expanded as more information comes to the task force's attention. Contact TRB's Joedy Cambridge <mailto:jcambrid@nas.edu> with comments or recommendations on other items that should be included on the transportation security web site.

More security initiatives on Page 4.



Making Progress: A Look At ITE in 2000

The following article was adapted from a message by SDITE International Director Richard Atkins of North Carolina.

The year 2000 was an exciting year for ITE. Highlights of actions taken, information shared and committee activities discussed during these meetings are as follows:

New Headquarters - We opened our new office headquarters located at 1099 14th Street, NW, Washington, DC in early December 2000.

2001 Budget -The 2001 budget of approximately \$8,400,000 was approved.

Annual Meeting Site Selection Committee - The Board approved St. Louis, MO as the site of 2011 Annual Meeting.

Honorary Membership - Georgia Section Member John Edwards was elected to Honorary Membership in ITE.

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TIME TO... CHECK YOUR CALENDAR!

TCAPWA Annual Conference
Chattanooga, TN October 27-30, 2001

TSITE/ALSITE Joint Meeting
Chattanooga, TN November 1-2, 2001

81st TRB Annual Meeting
Washington, DC January 13-17, 2002

ITE Spring Conference & Exhibition
Tampa, FL March 24-27, 2001

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<i>(Security in transportation)</i>	

Summer Meeting in Townsend

The Tennessee Section of ITE gathered in the foothills of the Smokies in July for the annual Summer Meeting and auction. Excitement ran high as the quick-tongued auctioneers (Alan Cantrell and John Hall) moved items of all kinds across the auction block. Handsome ITE license plates were among the most popular articles. Thanks to everyone who participated as a total of \$2400 was raised for the TSITE Scholarship Fund.



Auctioneer Cantrell incites a bid-frenzied crowd with a striking black tote.

New Officers Elected

Votes from the past election were tallied at the Summer Meeting with the following results:

President:	Cindy Pionke
Vice President:	Anthony Todd
Secretary/Treasurer:	Bill Kervin
Section Rep.:	John Gould

These individuals will be sworn into service at the Fall Meeting in Chattanooga. Congratulations!

TSITE MEMBERSHIP INCREASES BY 9%

Contributed by Preston Elliott

In August, the Tennessee Department of Transportation (TDOT) joined ITE through ITE's agency membership program raising ITE membership in the State of Tennessee to 240 members.

As an agency member 20 TDOT employees are now members of ITE and serving on seven ITE Councils (ITS, Goods Movement, Public Agency, Traffic Engineering, Transportation Expert Witness, Transportation Planning, and Transportation Safety).

For sometime only a handful of staff at TDOT have been members of ITE. While the vast majority of these new members are located in TDOT's headquarters in Nashville,

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AWARDS!

Winners of the 2001 TSITE Scholarship were presented in Townsend.

\$1000 Award: *Heather Ostertog*
Heather is a graduate student at the University of Tennessee and works with the Knoxville MPO.

\$500 Award: *Jacinda Russell*
Jacinda is also a student at UT, working with Allen & Hoshall in Knoxville.

Thanks to Hollis Loveday (chair) and the Scholarship Committee for recognizing these well-deserving students.

Congratulations also to Jonathan Cate and Shannon Fain who won respective 1st and 2nd Prizes in the Southern District ITE Student Paper competition. Both are graduate students at the University of Tennessee. Presentations of these papers were given at the Summer Meeting.



Heather Ostertog, Shannon Fain, and Jonathan Cate of UT.

MEMBER MEMOS

We welcome 20 "new" members from TDOT. They are **Steve Allen, Ken Anderson, Matt Ashby, PE, Mark Best, PE, Ralph Comer, Dennis Cook, PE, Don Dahlinger, PE, Preston Elliott, Ali Farhangi, Gerald Gregory, Pete Hiett, PE, Bill Jacobs, Jeff Jones, PE, Charles King, PE, Bill Moore, PE, Amanda Snowden, EIT, Mike Tugwell, PE, Joe Warren, PE, Allen Wolfe, PE, and Jim Zeigler, PE.**

Jeff Hammond's article entitled "Daytime Effects of Raised Pavement Markers" was published in the August's *ITE Journal*.

Good luck to those taking the Principles and Practice of Engineering Exam October 26th!



Spotlight Project



Highlighting Unique Accomplishments Across the State

In this issue we head to west Tennessee to check out I-69. For those not in on the interstate boom of the sixties and seventies, this is an interesting project on new and existing locations requiring the cooperation of nine states. And part of it's in our own back-yard!

In an effort to promote improved interstate trade and economic development, Congress first identified a route between Indianapolis and Memphis as Corridor 18. This corridor was defined by the 1991 ISTEA legislation as a "high priority" corridor. Indianapolis to Memphis became Indianapolis to Houston in 1993; two years later, the National Highway System Designation Act stretched the southern limit all the way to the Mexican border. In 1998, TEA 21, helped by the 1992 trade agreement NAFTA, again redefined Corridor 18, pushing the northern terminus to the Canadian border. TEA 21 also formally designated the route

as an extension of Interstate 69. Currently, the proposed I-69 corridor extends from the Canadian border at Port Huron, Michigan to the Mexican border at Brownsville, TX.

Of the 1650-mile corridor across Mid-America, approximately 1250 miles will require construction on new location or the upgrading of existing route segments to interstate standards. The three segments in Tennessee -- segments 7, 8, and 9 -- make up approximately 150 to 170 of these miles, depending on the route selected.

Section 7 through northwest Tennessee begins at the northern border at Fulton, KY, and extends approximately 46 miles to Dyersburg. This section has been estimated to cost \$130-170 million. Currently, 2.4 million federal dollars have been received for location and environmental studies and survey and design.

Dyersburg to Millington is designated as section 8, and is 65 miles long. Of the total \$490 million estimated to complete the project, \$500,000 has been received by the state in National Corridor Planning and Development (NCPD) program funds.

An alignment for Section 9 from Millington to just south of Memphis in Hernando, MS has not yet been selected.

Depending on its route through Memphis, the total length for this section is 35-60 miles.

A preferred alignment has not yet been selected for any of the three Tennessee sections,

but are expected to be by the end of 2002. TTN will periodically revisit this project as progress is made.

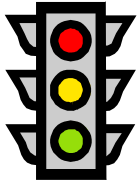
More information can be found at TDOT's website: www.tdot.state.tn.us/information-office/I69/



Upcoming public meetings for I-69:
November 13, 14 – Memphis
November 15 - Arlington, Byhalia



Thanks to Jane Craig of TDOT for contributions.



WORD ON THE STREET

CURRENT ISSUES IN TRANSPORTATION

Due to the September 11th attacks on our country through our transportation system, this edition of TTN highlights several responsive measures being undertaken. Now, it seems, the role of the transportation engineer is changing along with the rest of society. In addition to our responsibility of providing the public with operationally safe and efficient transportation systems, we now work towards their security against those who would use them against us.

Improving Surface Transportation Security Through Research and Development

Daniel F. Morgan and H. Norman Abramson
TR NEWS 211 NOVEMBER–DECEMBER 2000
<http://www.nas.edu/trb/publications/security/dmorgan.pdf>

In 1995, a terrorist group killed 12 and injured thousands in a nerve gas attack on the Tokyo subway. In 1985, terrorists seized control of the Italian ship *Achille Lauro*, executed a passenger, and threw the body overboard. In some countries, bombings of highways, bridges, pipelines, buses, and railway stations are daily news. Worldwide, hundreds of surface transportation targets are attacked each year. In the United States, the threat has been minor, but security concerns are now attracting more attention. The threat is real, but response is difficult.

Terrorists disrupt vital services to create fear and havoc. Familiarity and visibility make surface transportation an attractive target. Attacks could strike at local points, with bomb blasts or with the release of chemical or biological agents, or at systems, disrupting computer controls or damaging the power or communications infrastructures.

The surface transportation system has some protection in redundancy—the variety of alternate routes and modes. Rapid recoveries after major natural disasters have demonstrated the transportation system's resilience.

Goals, Values, and Priorities

The first step in responding to a threat is understanding the problem. The U.S. Department of Transportation (DOT) is assessing the surface transportation system's vulnerability to attacks. Additional work is needed on chemical, biological, and cyber attacks and on vulnerability due to the interdependence of system elements. The surface

transportation system itself is interdependent with other infrastructures, such as electric power and telecommunications.

Understanding the problem should generate a response. A recent article in *TR News* (May–June, p. 12) focused on emergency preparedness; this article addresses another facet of the national response—research and development (R&D).

In May 1998, the National Research Council formed a committee to examine vulnerabilities of the surface transportation system, identify ways to improve security, and recommend an R&D strategy for U.S. DOT. The committee consisted of 14 members with diverse expertise in science, technology, and policy.

An R&D strategy first defines goals, values, and priorities. The range of security technologies and processes is broad, the threats diverse, and the problem complex; the study therefore focused on long-term strategy and how to achieve it. The sidebar on page 30 presents four recommended system level goals.

Systematic Strategy

The surface transportation security problem is still new and not well defined. U.S. DOT's ongoing assessment therefore should extend beyond local damage and disruption to examine vulnerabilities in the system itself. Intelligence efforts should continue to identify likely threats. An analysis of responses to natural disasters and major accidents—which have many similarities to intentional attacks—should identify best practices and technology needs. R&D must be part of this process.

The study recommended that U.S. DOT adopt a systematic, five-step strategy:

1. Clearly define the problem and the objectives,
2. Identify a variety of possible solutions,
3. Rigorously evaluate the alternatives,
4. Decide carefully, and
5. Implement effectively.

The sidebar below suggests some criteria for setting priorities and evaluating alternatives for R&D projects. U.S. DOT should implement security R&D across transportation modes, not separately for each mode. The department should coordinate its efforts proactively with other agencies and should understand and delineate its own role. A variety of stakeholders from inside and outside the government should be involved. Most importantly, the strategy must involve the owners and operators of surface transportation—their participation and acceptance of the objectives will determine whether

the results are implemented and security is improved.

Predominant Themes

The study identified six ways that R&D can improve security:

1. Prevention: stopping an attack from occurring.
2. Mitigation: reducing harm from an attack in progress and its aftermath.
3. Monitoring: recognizing an attack, identifying its type and magnitude, and predicting and tracking its development.
4. Recovery: returning to normal conditions after an attack.
5. Investigation: identifying what happened in an attack, how it happened, and who was responsible.
6. Systems responses: ensuring that system elements function properly and that system effectiveness is improving.

Developers of an R&D strategy for surface transportation security should ask the following questions in setting priorities:

- 1) *If a threat materializes, how serious is its potential impact on people, property, and society?*
- 2) *Would the consequences be so disastrous that the threat cannot be ignored even if it appears unlikely?*
- 3) *Where can additional R&D resources produce the most improvement per dollar? Is the rate of progress in this area limited by technology or by funding?*
- 4) *Would a modest R&D investment make a significant advance in this area?*
- 5) *Would R&D in this area have other benefits—such as improving security against theft and robbery or preventing accidents—even if the threat never materializes? (Dual-use results might have greater likelihood of acceptance and implementation by transportation owners and operators.)*
- 6) *Would R&D in this area respond to one type of vulnerability or to many?*
- 7) *Are other agencies already investigating related topics that U.S. DOT could build on to increase the return on its own R&D investment?*
- 8) *What topics that include transportation specific needs have other agencies decided not to investigate, and should U.S. DOT assume responsibility for the R&D?*
- 9) *Have other agencies already developed useful technologies that require adaptation before transfer to the transportation system?*

The report identified R&D topics for each activity. U.S. DOT will conduct its own evaluation before deciding on a specific R&D program. Nevertheless, some important themes emerged in the study:

- A dual-use approach—achieving security objectives along with other transportation goals can facilitate implementation of security technologies and processes.
- Modeling can improve understanding of a security problem's scope.
- U.S. DOT can play an important role in developing and disseminating the best practices that use available security technologies and processes, including low-technology alternatives.

Integrating Security Concerns

In some ways, the security of surface transportation is a new concern, but in other ways it is not. Prevention and mitigation of accidents, recovery from natural disasters, and safe handling of hazardous materials are familiar problems for the transportation system. Working from past solutions will make the security task more tractable and less daunting. Transportation system designers must integrate security into their plans. Developers of security features should recognize other goals of the transportation system, selecting dual-use alternatives that offer additional benefits to transportation owners and operators. Viewing security as part of a broader picture will make the task far easier.

The NRC report, *Improving Surface Transportation Security: A Research and Development Strategy*, contains the complete findings and recommendations of the study. To order a copy, contact National Academy Press [www.nap.edu, (202) 334-3313, 1 (800) 624-6242]. The NRC National Materials Advisory Board is distributing a limited supply of free copies [nmab@nas.edu, (202) 334-3505]

AASHTO Offers Action Plan to Assist in Fight Against Terrorism

AASHTO Journal 9-21-01

"Many experts warn that terrorists may strike next where we expect it least," (AASHTO Executive Director John) Horsley said. "AASHTO believes we need to do several things to prepare for, prevent, or be ready to respond to acts of terrorism which threaten such systems as roads, tunnels, bridges, rail lines and licensing agencies for which state DOTs are responsible. We plan to cooperate with the U.S. Department

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of Transportation and to name an AASHTO Security Task Force."

AASHTO will establish this Security Task Force drawing from member departments in each region, made up of operational and emergency-response experts. In cooperation with the U.S. DOT and others, they will assess information on threats, vulnerabilities, operational techniques, communications and other procedures. A plan will be developed to share this information with all member departments. A model plan we believe holds great potential is the Emergency Management Assistance Compact (EMAC) Transportation Response Plan through which member departments share resources and equipment in time of disaster. About half of AASHTO's member departments currently participate.

Alternate Transportation Modes Take up the Slack

AASHTO Journal 9-21-01

One unforeseen effect of the Sept. 11 terrorist attacks on New York and Washington has been at least a temporary shift in transportation from airlines to trains and other ground-based modes. It remains to be seen whether the effect will be long-lasting.

Amtrak, which has been viewed for months as in jeopardy of not achieving a congressionally mandated to become financially self-sufficient by 2003, absorbed an estimated 40 percent increase in passengers between Sept. 12 and Sept. 17, according to the *CQ Daily Monitor*. The surge in ridership was largely comprised of travelers unable to reach their destinations by air due to the grounding of U.S. aviation for days following the attacks.

The *Washington Post* reported that Amtrak officials have decided to seek \$3 billion from Congress to help upgrade escape and other life-safety features in the tunnels leading into New York's Pennsylvania Station. The DOT Inspector General's office has called such work a pressing necessity. The bid apparently has the backing of 16 members of the U.S. Senate.

Amtrak officials said the train line increased its passenger capacity by 25 percent in some areas of the country following the disruption of air

service; Amtrak supporters in recent days have pointed to this quick response in arguments to Congress that Amtrak should receive permanent federal assistance and that passenger rail service in the U.S. should be expanded, *CQ Daily Monitor* reported.

In and adjacent to Washington, D.C., the Virginia Railway Express or VRE reported record ridership -- with 13,900 passengers on Wednesday -- and a need to add capacity as new riders sought to avoid ground-traffic tie-ups on roads approaching the nation's capital; several roads near the attacked Pentagon remain closed or have limited access during recovery work. VRE is negotiating with the CSX freight railroad for the right to run more trains on the CSX-owned track and is adding shuttle-access parking to its Woodbridge, Virginia station.

Also in connection with the Pentagon road closures, U.S. Department of Defense officials asked the Washington Metropolitan Area Transit Authority (WMATA), which operates the region's subway system, to open subway stations a half-hour earlier than normal -- at 5 a.m. instead of 5:30 a.m. -- to allow Pentagon employees to use the subway to get to work during the recovery effort. The huge building has remained open and business continues to be conducted in other wings even as work continues on the impact-shattered western wing. Bus service in the Springfield/Franconia area of Virginia also has been expanded to help Pentagon employees remain on the job.

WMATA told the *Washington Post* yesterday that it is seeking \$20 million from Congress to help it serve new customers following the Sept. 11 events. WMATA officials also said they have had in place for months special security measures, and the agency's board this week voted to spend \$2.3 million to buy recording devices for the cameras that monitor subway station activity. Since 1999, WMATA also has been testing a \$17 million system in conjunction with the U.S. Department of Energy and other federal agencies that would help detect chemical contamination in the subway system.

Washington's subway system reported thousands of new riders, particularly at locations near the Pentagon, as people accustomed to using other methods of getting to work - including "slug lines," or pickups of people to allow single drivers in vehicles to use high-occupancy vehicle lanes - were curtailed following the attack.

From Front Page.

Millennium Fund Contributions - Executive Director Tom Brahms advised us that contributions to this fund have surpassed \$300,000. I wish to express my appreciation for the generation support of our Sections and to many individual members in the Southern District. (All Sections in the Southern District either contributed to the Millennium Fund or pledged to contribute in early 2001).

Professional Traffic Operation Engineer - We presently have a total of 548 PTOE's certified. A review of the 2001-2005 financial projections of the Transportation Professional certification Board, Inc. indicate that we must aggressively promote this program in order for this program to be financially successful. The Certification Board has announced plans to go to a web based testing process with two test administrations at approximately twenty test sites per administration (15 US sites and 4 Canadian sites and 1 site in Melbourne, Australia.) Under this process, applicants will receive immediate on-line reporting of the test results. The Chicago exam has been cancelled. Details of the upcoming exams are forthcoming.

Traffic Operations Practitioner Survey - The Board reviewed the results of approximately 200 responses to the survey by the Transportation Professional Certification Board, Inc. The preliminary concept of the Traffic Operations Practitioner certification is to offer certification in the areas of Traffic Operations, Geometric Design, and Traffic Control Devices. Traffic studies and safety subject content will be integrated in the areas listed above. It was determined that ITE would focus its efforts on providing training for the Traffic Operations Practitioner and other transportation professionals.

Training for Traffic Operations Engineers - The Board approved the development of an on-line professional education program for traffic operations engineers. It is proposed that modules in the subject areas of Traffic Operations Analysis and Traffic Safety with at least eleven sub-topics (modules.) The first module should be deployed during 2001. It is estimated that this on-line delivery approach will reach 75-80% of our members. Each module is expected to equate to approximately eight hours of participant study. The first on-line pilot module is expected to be ready to launch in August at the ITE 2001 Annual Meeting & Exhibit.

Transportation Planner - Discussions have taken place between ITE, AICP and APA. Representatives of both the AICP and APA Board have expressed a desire to pursue a partnership with ITE in developing a Transportation Planner Certification. ITE is awaiting formal action from the AICP and APA Boards.

Transportation Career Video - The Board voted to fund the development and distribution of a transportation career video that is to be targeted towards freshmen and sophomore college students. This video will be available Fall 2001.

Transportation Career Brochure - The Board voted to fund the development and distribution of a transportation careers brochure with the primary target of junior high

and high school students plus student chapter members. The brochure will also be available in the fall of 2001.

Web Enhancements - The Board approved additional funding for expanding the ITE website. Our objective is to make www.ite.org the website of choice of the transportation profession providing a resource library of ITE published documents, positions available, products and services, meeting and training opportunities. It is the Board's intent to develop revenue form services provided on www.ite.org that is at least sufficient to offset the associated direct and indirect expenses. Planned project for 2001 include: Parking Occupancy Data Collection Form, Restricted Access Groups, MUTCD Updates Toolbox, Hosting of Chapter and Section websites, and Employment Center Marketing.

Public Information Committee - The Public Information committee, appointed by the Board in Nov. 2000, met for the first time in Monterey. Prior to the next meeting in Chicago, the committee plans to consider these questions:

- What do our members rally want?
- Who is out targeted audience?
- What are out common problems?
- What do other organizations need?

It is the intent of this committee to develop a toolbox of products once out needs are known. The committee has not established a schedule for developing this toolbox.

2002 Nominating Committee - This committee has been appointed and is responsible for nominating two candidates to run in 2002 to serve as International Vice President in 2003. I serve as your representative on this committee.

ITE Coordinating Council Updates

- The Coordinating Council has recommended the formation of a Pedestrian and Vehicle Council beginning in 2002. The group has a potential membership of 2000.
- The Coordinating Council further anticipates the establishment of a Parking Council in 2002.
- The Geometric Design Task Force has recommended that a Geometric Design Council not be formed. However, they recommend that the Task Force be continued as a Geometric Design Handbook Committee.

Section Meetings - I wish to remind all Sections to notify ITE headquarters staff and Southern District officers of your 2001 and 2002 meetings. As International Director, I would be more than happy to attend a Section meeting during the year. Other SDITE officers are also available to attend Section Meetings.

Continued from Page 2.

five employees are located in the Department's regional offices (Knoxville, Chattanooga, Nashville, and Jackson).

The Department's leadership is excited about the opportunity to have membership in ITE and the opportunity to expose a greater number of its staff to current and emerging practices in the field of transportation through ITE. This is a real win-win for both TDOT and the Tennessee Section of ITE.

Contract Awarded to Rework Smokies Tunnels

\$7.4 million project will close road from Thanksgiving to mid-March Tennessee Department of Transportation

GATLINBURG - The Federal Highway Administration has awarded a \$7.4 million contract for work on two tunnels in the Great Smoky Mountains National Park, officials announced Thursday.

The tunnels on Newfound Gap Road (U.S. 441) through Morton and Chimney Top mountains will be heightened by lowering the level of the roadway. The work will be overseen by Charles E. Blalock and Sons, Inc.

Preparation will begin in October, and most of the disruptive construction will occur between Thanksgiving and March 15, a slow time in the park.

Work will stop between Dec. 22 and Jan. 2 to accommodate holiday travelers. Weather permitting, Newfound Gap Road will be open 16 miles north of the park's Cherokee, N.C., entrance to the Newfound Gap parking area during the road closure.

On the Tennessee side, the road will be closed 2 miles south of Gatlinburg near the Sugarlands

Visitors Center. Visitors will be able to reach the park's high-elevation overlooks, trailheads and the Appalachian Trail from the Cherokee entrance.

Little River Road and Cades Cove will not be affected.



TTN Needs You!

All ideas and contributions are welcome and should be sent to:

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Also, any notables appropriate for the **Member Memos** section are appreciated.

Color reprints of this newsletter are available in PDF format at www.tsite.org.

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