



TRB 86th Annual Meeting Announcement
MEETING REGISTRATION AND HOTEL RESERVATIONS

January 21–25, 2007 Washington, D.C.

TRANSPORTATION RESEARCH BOARD

86th Annual Meeting

On behalf of the Executive Committee of the Transportation Research Board (TRB), we invite you to participate in the TRB 86th Annual Meeting, an information-packed program that will attract 10,000 transportation professionals from around the world to Washington, D.C., January 21–25, 2007. You will gain an unparalleled opportunity to share your knowledge and perspectives with colleagues and to learn about the latest developments in transportation research, policy, and practice. Register today at TRB.org/Meeting.

The TRB Annual Meeting program covers all transportation modes, with more than 2,800 presentations in 500 sessions addressing topics of interest to all attendees—policy makers, administrators, practitioners, researchers, and representatives of government, industry, and academic institutions. This year's spotlight theme is "Transportation Institutions, Finance, and Workforce—Meeting the Needs of the 21st Century."

Specialty workshops, poster sessions, committee meetings, and the exhibits of TRB Sponsors and nonprofit transportation associations complement the formal sessions and provide a variety of opportunities for information sharing and interaction. All registrants will receive the TRB Annual Meeting Compendium of Papers CD-ROM containing more than 1,500 technical papers.

Visit the TRB Annual Meeting website (TRB.org/Meeting) in mid-November for session details and other program information. **Use the Interactive Preliminary Program on the website to conduct searches and to plan your itinerary.** If you register for the meeting in advance and provide an e-mail address, you will be able to gain access to session and meeting room locations when using the Interactive Preliminary Program.

Keep informed about the Annual Meeting through TRB's free electronic newsletter. The e-newsletter also provides information on federal, state, academic, and international transportation research activities. To subscribe, send an e-mail to RHouston@NAS.edu with "TRB E-Newsletter" in the subject area.

Register before November 30 to take advantage of the lower fees, to gain access to the enhanced Interactive Preliminary Program features, and to ensure that registration materials will be ready for you on-site. Registration by Internet and fax is encouraged. *If you are not a TRB Affiliate Member, enroll before November 30 to become an Affiliate and qualify immediately for lower registration fees (see information on page 1).*

Plan now to attend the TRB 86th Annual Meeting—we look forward to seeing you in Washington, D.C., this January.



Michael D. Meyer

Michael D. Meyer
Chair, Executive Committee



Robert E. Skinner, Jr.

Robert E. Skinner, Jr.
Executive Director

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TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

500 Fifth Street, NW
Washington, DC 20001
202-334-2934, Fax: 202-334-2030
TRB.org/Meeting

The Transportation Research Board is a division of the National Research Council, which serves as an independent adviser to the federal government and others on scientific and technical questions of national importance. The National Research Council is jointly administered by the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine. The mission of the Transportation Research Board—one of six major divisions of the National Research Council—is to promote innovation and progress in transportation through research.

Registration and Scheduling Information

The Transportation Research Board (TRB) 86th Annual Meeting will be held in Washington, D.C., at the Connecticut Avenue Collection hotels: Marriott Wardman Park, Omni Shoreham, and Hilton Washington. All sessions and meetings, except executive sessions, are open to registrants.

Registration and Tickets

Registration is required for all attendees, including those who attend any workshop; fees must accompany the Registration Form, page 13. The registration fee includes admission to no-fee workshops, sessions, and exhibits; a copy of the Annual Meeting Compendium of Papers CD-ROM; and use of the Annual Meeting shuttle service. The Human Factors Workshops (limited attendance) and the Chairman's Luncheon require an additional fee.

Register now by completing the registration form at the TRB website (TRB.org/Meeting). Internet and fax registrations are encouraged for immediate confirmation. **November 30 is the deadline for advance registration at the reduced fees.** Registrations received after November 30 are considered on-site registrations, and the higher fees apply. Online registration closes on December 31. Written confirmations will be sent within two weeks by e-mail, fax, or mail.

If you do not receive a confirmation, please check the status of your registration by contacting Customer Service:

301-694-5243 (9:00 a.m.–5:00 p.m., EST)
Fax: 301-694-5124

Advance registrants may pick up badges, tickets, the Compendium of Papers CD-ROMs, and Final Programs at the TRB Registration desk at any Connecticut Avenue Collection hotel. On-site registration for the no-fee categories is available at all hotels; fee categories may register only at the Marriott Wardman Park and Hilton Washington hotels.

Registration is open:

- Saturday, January 20 4:30 p.m.–7:30 p.m.
- Sunday, January 21 7:30 a.m.–6:30 p.m.
- Monday, January 22 7:00 a.m.–6:30 p.m.
- Tuesday, January 23 7:30 a.m.–6:00 p.m.
- Wednesday, January 24 7:30 a.m.–6:00 p.m.

Payment is required at the time of registration, by credit card (MasterCard, VISA, or American Express) or by check payable to TRB in U.S. funds drawn on a U.S. bank. Only government agencies and universities may submit purchase orders (Federal Identification 53-0196932).

Become a TRB Affiliate Member

Take advantage of reduced Annual Meeting registration fees by November 30, plus year-round benefits:

- **Individual affiliates** pay a \$94 annual fee. Benefits include information about TRB meetings; reduced meeting registration fees; subscriptions to TRB's bimonthly magazine *TR News* and the *TRB E-Newsletter*; a discount on most TRB publications and the subscription service; and use of the TRB Library.
- **Student affiliates** pay \$61. Affiliation is available to full-time students of accredited postsecondary institutions.

Information: Kelvin Jordan, 202-334-3216, TRBSales@NAS.edu.

Registration Classifications and Fees

	Advance—by November 30	After November 30 and On-Site
TRB Individual Affiliate Member	\$320	\$510
Nonmember ¹	\$500	\$750
One day	\$255	\$410
Member of TRB Technical Activities Division Group, Section, Committee, Task Force; Program Participant ^{2, 3} ; TRB-Appointed University Representative ² ; or Mentee ⁴	\$275	\$430
TRB Student Affiliate Member	\$ 35	\$ 45
Student (full time) ¹	\$105	\$120
TRB Executive Committee Member; Emeritus Member; Chair of TRB Technical Activities Division Group, Section, Committee, Task Force; TRB-Appointed Transit Representative ² ; Sustaining/Organizational Affiliate ² ; employee of TRB Sponsor ⁵ ; News Media	No Fee	No Fee

¹ Become a TRB Affiliate by November 30 and pay the reduced registration fee.

² Must receive special notice from TRB to qualify.

³ Making presentations at TRB sessions or presenting papers at TRB committee meetings.

⁴ Must be under 30 years old and from the same organization as the mentor; follow instructions on the Registration Form, page 13.

⁵ Private contractors may not register in this category.

TRB Sponsors

Employees of the following TRB Sponsors should register using category I on the Registration Form.

American Public Transportation Association
American Transportation Research Institute
Association of American Railroads
Federal Aviation Administration
Federal Highway Administration
Federal Motor Carrier Safety Administration
Federal Railroad Administration
Federal Transit Administration
National Aeronautics and Space Administration
National Highway Traffic Safety Administration
Research and Innovative Technology Administration
State Departments of Transportation, Puerto Rico, District of Columbia, and American Association of State Highway and Transportation Officials
U.S. Army Corps of Engineers
U.S. Coast Guard
U.S. Department of Transportation
U.S. Maritime Administration

Mentee/Mentor Registration

TRB offers Mentee/Mentor registration. A mentee who registers for the meeting with a mentor may qualify for a reduced fee. The mentee must be under 30 years old, from the same organization as the mentor, and must register on the same Registration Form as the mentor (who must register in a category A–H).

Registration Cancellation and Refunds

Cancellations received in writing (fax to Customer Service at 301-694-5124) by December 15 will be refunded less a \$50 processing fee. No refunds will be issued after December 15.

Have a Question?

For registration information, contact Customer Service, P.O. Box 590, Frederick, MD 21705 (301-694-5243, 9:00 a.m.–5:00 p.m., EST; fax 301-694-5124). For hotel reservations, contact the hotel of your choice (see page 12). For general information, check the TRB website (TRB.org/Meeting), call TRB staff (202-334-2934), or fax your request (202-334-2299).

Session Topics and Locations

The TRB 86th Annual Meeting includes more than 500 sessions and 350 meetings organized by TRB's standing committees and task forces. Following is a sampling of the major topic areas. Many sessions will be cross-disciplinary, spanning the purviews of several TRB groups, sections, and committees.

Also shown are the hotels that will serve as the locations for the majority of sessions and meetings for each topic. Session details and scheduling information will be posted on the TRB website (TRB.org/Meeting) in mid-November. Use the Interactive Preliminary Program on the website to conduct searches and to plan your itinerary.

Topic	Location
Aviation	Shoreham
Bituminous Materials	Marriott
Concrete Materials	Marriott
Construction	Marriott
Data and Information Systems	Hilton
Design	Marriott and Shoreham
Environment and Energy	Hilton
Freight Systems	Shoreham
Geology and Earth Materials	Marriott and Shoreham
International Activities	Hilton
Legal Resources	Marriott
Environmental; Transit	Hilton
Maintenance	Marriott
Management and Leadership	Hilton
Marine	Shoreham
Operations	Marriott
Pavement Management	Marriott and Shoreham
Pedestrians and Cycles	Marriott
Pedestrians	Hilton
Public Transportation and Ferries	Hilton
Rail	Marriott and Shoreham
Research and Education	Hilton
Roadway Pavement Preservation	Marriott
Safety	Marriott
Security	All Hotels
Social, Economic, and Cultural Issues	Hilton
Soil Mechanics	Marriott
Structures	Marriott and Shoreham
Systems Planning, Policy, and Process	Hilton
Taxation and Finance	Hilton
Transportation Institutions, Finance, and Workforce: Meeting the Needs of the 21st Century	All Hotels
Transportation Policy	Shoreham and Hilton
Travel Analysis Methods	Hilton
Trucking	Shoreham
Users	Marriott

Spotlight Sessions



This year's Annual Meeting will spotlight Transportation Institutions, Finance, and Workforce: Meeting the Needs of the 21st Century. The theme will be featured in sessions that cross all modes and disciplines, at all hotels.

Schedule at a Glance

	Sunday January 21	Monday January 22	Tuesday January 23	Wednesday January 24	Thursday January 25
8 a.m.		Sessions	Sessions	Sessions	Sessions
9 a.m.	Registration and Workshops				
10 a.m.					
11 a.m.					Sessions
Noon					
1 p.m.				Chairman's Luncheon	
2 p.m.	Presentation Training	Sessions	Sessions		
3 p.m.	New & Young Attendees Welcome Session				
4 p.m.					
5 p.m.				Sessions	
6 p.m.					
7 p.m.					
8 p.m.		Sessions	Sessions	Sessions	
9 p.m.					

Session Time Frames

The TRB Annual Meeting offers approximately 2,800 papers and presentations. Full details will be posted on the TRB website (TRB.org/Meeting) in mid-November. Following are the session time frames:

- 8:00 a.m.–9:45 a.m.
- 10:15 a.m.–noon
- 1:30 p.m.–3:15 p.m. (Wednesday, 2:30 p.m.–4:00 p.m.)
- 3:45 p.m.–5:30 p.m. (Wednesday, 4:30 p.m.–6:00 p.m.)
- 7:30 p.m.–9:30 p.m.

Workshops

Most workshops are held concurrently on Sunday. No-fee workshop attendees are required to register for at least one day of the TRB Annual Meeting. The Human Factors Workshops have limits on attendance and a separate fee to cover refreshments, lunch, and a reception. All workshops are listed by subject on pages 5–9. Descriptions of the Human Factors Workshops appear on pages 10–11. The workshop number (100 series) follows each title. Full workshop details are posted on the TRB website (TRB.org/Meeting).

Meet-the-Author Poster Sessions



Meet-the-Author Poster Sessions provide an opportunity to interact with authors in a more personal setting than the conventional lecture. Poster session papers meet the same review criteria as lecture presentations. Poster sessions are scheduled for half-day periods, Monday, January 22–Wednesday, January 24, 9:30 a.m.–noon and 2:30 p.m.–5:00 p.m. Poster session authors are available to provide details about their research and answer questions, 10:00 a.m.–11:00 a.m. or 3:00 p.m.–4:00 p.m.

Committee Meetings

TRB committees hold more than 350 meetings during the five-day event. Meeting schedules conform to the session time frames listed on page 2, unless otherwise noted in the Final Program.

Secure Your Visa

If you require a visa to enter the United States to attend the TRB 86th Annual Meeting, begin the application process now. Even if you did not need a visa for a previous Annual Meeting, double-check the current requirements. U.S. regulations require security checks for most visitor visas, which may take three months or more. Citizens of certain countries must have an invitation in hand before they can obtain a passport from their government and apply for a U.S. entry

visa. To request an Annual Meeting invitation letter, contact Rosa Allen at RAllen@NAS.edu. When requesting your letter of invitation, please provide your complete mailing address.

General information on the U.S. visa application process is available through the **National Academies' International Visitors Office**. Please note that citizens of Visa Waiver Program countries generally do not need a U.S. visa for business or tourism visits of less than 90 days unless they are receiving any compensation for services or activities, such as lectures or presentations. Official information on U.S. visa policies and procedures is available from the U.S. Department of State. Links to these resources are available from the International Section of TRB's Annual Meeting website at TRB.org/Meeting.

Special Events

Presentations That Won't Leave Your Audience in the Dark!

Workshop 147 • Sunday, January 21 • 1:30 p.m.–2:30 p.m.
Marriott

Learn speaking tips, techniques for preparing high-quality presentations, and on-site troubleshooting techniques from Patricia Lees of the Council for Adult and Experimental Learning. All Annual Meeting attendees are welcome.

New and Young Attendees Welcome Session

Sunday, January 21 • 2:30 p.m.–4:00 p.m.
Marriott

Attendees age 30 and under and everyone attending the TRB Annual Meeting for the first time—or for the first time in several years—are invited to attend this session and networking reception. The program offers a brief overview of TRB, tips on navigating the Annual Meeting, the role that TRB can play in career development, and an opportunity to become involved in TRB activities. Refreshments are provided after the program, with an opportunity for attendees to meet each other and TRB leaders from similar areas of interest, to become active in TRB committees. Please indicate on the Registration Form if you plan to attend.

International Participants Reception

Sunday, January 21 • 6:00 p.m.–8:00 p.m.
Hilton

International attendees at the Annual Meeting are invited to attend the International Participants Reception and to get involved in TRB committee activities. A no-host bar will be available.

Thomas B. Deen Distinguished Lecture

Monday, January 22 • 6:00 p.m.–7:00 p.m.
Marriott

The recipient of the 2007 Thomas B. Deen Distinguished Lectureship is Genevieve Giuliano, Professor in the School of Policy, Planning, and Development, University of Southern

California. Her topic is “The Changing Landscape of Transportation Decision Making.” The award recognizes the career contributions and achievements of an individual in areas covered by the Board's Technical Activities Division. Honorees present overviews of their technical areas, covering the evolution, status, and prospects for the future. A copy of the lecture will be available on the TRB Annual Meeting Compendium of Papers CD-ROM.

Dwight David Eisenhower Transportation Fellowship Program Research Showcase

Tuesday, January 23 • 8:30 a.m.–noon

FHWA's Universities and Grants Program is sponsoring the 14th Annual Dwight David Eisenhower Research Showcase. This year's showcase will feature an array of research on significant transportation topics presented by Eisenhower Fellowship recipients from universities across the nation. Panel presentations by undergraduate and graduate students will focus on FHWA's Vital Few goals of safety, congestion mitigation, and environmental stewardship and streamlining, as well as other engaging transportation topics. Related events following the showcase include the Eisenhower Research Poster Sessions from 2:30 p.m. to 5:00 p.m., and a networking reception from 5:30 p.m. to 7:30 p.m.

Information: Gwen Sutton, 703-235-0538,
TransportationEdu@FHWA.DOT.gov.

Chairman's Luncheon

Wednesday, January 24
Noon–2:00 p.m.
Shoreham

Advance registration
advised

\$55 **TICKET**

The Chairman's Luncheon, hosted by 2006 Executive Committee Chair Michael D. Meyer, includes the introduction of new Executive Committee members and officers; a featured speaker; and presentation of TRB's most prestigious awards. Seating is available for attendees who do not register for the lunch.

Interactive Preliminary Program

An advance version of the Final Program with full session and individual presentation information will be available in mid-November on the TRB website (TRB.org/Meeting). Use the **Interactive Preliminary Program on the website to conduct searches and to plan your itinerary**. If you register for the meeting in advance, you will receive access to the session and meeting room locations on the Interactive Preliminary Program. TRB will need your e-mail address to provide this special online access—therefore be sure to provide your e-mail address on the Registration Form.

Compendium of Papers CD-ROM

Papers in the Final Program accepted for presentation by a TRB review committee are designated with a paper number (07- followed by four digits). The CD-ROM containing the presented papers is included with each Annual Meeting registration. Additional CD-ROMs may be purchased for \$80 each—see the optional fee on the Registration Form.

Discussions

Attendees are welcome to submit written discussions of any paper presented at the Annual Meeting. See TRB.org/Meeting/Participants for detailed instructions.

Professional Development Hours

Nationally recognized Professional Development Hours (PDHs) are awarded for attending the Annual Meeting. Each hour of participation earns one (1) PDH; attendees must maintain their own records of attendance. TRB will confirm an individual's registration at the request of the licensing agency. The Final Program will include a credit statement form for PDHs.

Exhibits

Marriott Exhibit Hall

Plan to visit the TRB Sponsors and nonprofit transportation association displays on recent research projects and products. The TRB display features information about affiliate services, publications, the TRB website, the Cooperative Research Programs, the Transportation Research Information Service (TRIS), and the Innovations Deserving Exploratory Analysis (IDEA) Programs. In addition, this year's display will highlight the new Strategic Highway Research Program (SHRP II). Hours are

- Monday, January 22, and Tuesday, January 23 9:00 a.m.–5:30 p.m.
- Wednesday, January 24 9:00 a.m.–4:00 p.m.

Employment Opportunities

Marriott

The Employment Opportunities room offers a venue for matching positions and candidates. Job seekers supply résumés, and employers post vacancies:

- Sunday, January 21 noon–7:30 p.m.
- Monday, January 22– Wednesday, January 24 7:30 a.m.–7:30 p.m.

Speaker Ready Rooms

Facilities will be available at each of the three hotels to review visual aids during the following times:

- Saturday, January 20 4:00 p.m.–9:30 p.m.
- Sunday, January 21– Wednesday, January 24 7:00 a.m.–9:30 p.m.
- Thursday, January 25 7:00 a.m.–10:30 a.m.

News Rooms

The News Rooms in each hotel will be open:

- Sunday, January 21– Tuesday, January 23 7:30 a.m.–7:30 p.m.
- Wednesday, January 24 7:30 a.m.–6:00 p.m.
- Thursday, January 25 7:30 a.m.–11:00 a.m.

Cooperative Research Programs

The National Cooperative Highway Research Program (NCHRP), the Transit Cooperative Research Program (TCRP), and the Airport Cooperative Research Program (ACRP) will hold meetings during the Annual Meeting. Copies of NCHRP, TCRP, and ACRP information will be available at the TRB Exhibit in the Marriott and on the Terrace Level at the Hilton. For more information on the Cooperative Research Programs, visit TRB.org/NCHRP.

Accessibility



TRB uses only facilities and vendors complying with the Americans with Disabilities Act. If you have a disability that requires special accommodation, please describe it on the Registration Form.

The TRB website (TRB.org/Meeting) will have the Interactive Preliminary Program available in accessible HTML format. Sign language interpreters, auxiliary aids, materials in alternative formats, or special requirements for shuttle services are available if requested by November 30. Contact the TRB Meetings Department, 202-334-2382, or RGillum@NAS.edu.

Spouse and Guest Hospitality

Marriott

A hospitality suite for spouses and guests of Annual Meeting registrants provides an opportunity to learn more about TRB and Washington, D.C., and about local historic sites, cultural attractions, shopping, dining, and area transportation. The spouse and guest hospitality suite is open Monday, January 22, to Wednesday, January 24, 9:00 a.m.–11:00 a.m.

TRB E-Newsletter

Keep informed about the Annual Meeting through TRB's free electronic newsletter. The weekly e-newsletter also provides information on federal, state, academic, and international transportation research activities.

To subscribe, send an e-mail to RHouston@NAS.edu with "TRB E-Newsletter" in the subject area. Past newsletters are posted at TRB.org/News.

Workshops

Workshops are on Sunday, January 21, 2007, unless otherwise noted. See pages 10–11 for details on additional-fee workshops (TICKET).

Subject, Title	No.	Time	Hotel	Contact
Aviation				
A Dialogue on Multiple Stakeholder Participation in Regional Transportation System Planning	110	8:30 a.m.–noon	Shoreham	Christine Gerencher, 202-334-2970, FMorgan@NAS.edu
FAARFIELD: New FAA Design Software for Airport Pavement Thickness	112	8:30 a.m.–noon	Shoreham	Christine Gerencher, 202-334-2970, FMorgan@NAS.edu
Unscrambling the Alphabet Soup: An Overview of the Who, What, When, and Where of Research in Aviation and the Environment	114	8:30 a.m.–noon	Shoreham	Christine Gerencher, 202-334-2970, FMorgan@NAS.edu
Exploring the Environmental and Economic Implications of Alternative Fuels for Aviation	132	8:30 a.m.– 5:00 p.m.	Shoreham	Christine Gerencher, 202-334-2970, FMorgan@NAS.edu
Innovation in Air Traffic Flow Management	150	1:30 p.m.– 5:00 p.m.	Marriott	Christine Gerencher, 202-334-2970, FMorgan@NAS.edu
Measuring the Economic Impact of Airports	161	1:30 p.m.– 5:00 p.m.	Shoreham	Christine Gerencher, 202-334-2970, FMorgan@NAS.edu
Bituminous Materials				
Advanced Models for Asphalt Pavement Mixtures and Pavements: What Are They Good For?	102	8:30 a.m.–noon	Marriott	Frederick Hejl, 202-334-2952, MDecarmine@NAS.edu
Building Quality Hot-Mix Asphalt Longitudinal Joints: Point-Counterpoint	149	1:30 p.m.– 5:00 p.m.	Marriott	Frederick Hejl, 202-334-2952, MDecarmine@NAS.edu
Concrete Materials				
Approaches to Minimize Cracking in Concrete	103	8:30 a.m.–noon	Marriott	Frederick Hejl, 202-334-2952, MDecarmine@NAS.edu
Integrated Materials and Construction Practices for Durable Concrete Pavements	151	1:30 p.m.– 5:00 p.m.	Marriott	Frederick Hejl, 202-334-2952, MDecarmine@NAS.edu
Construction				
Using Lidar for Design and Construction	109	8:30 a.m.–noon	Marriott	Thomas Palmerlee, 202-334-2907, DFloyd@NAS.edu
AASHTO-NSBA Steel Bridge Collaboration Guide Specifications and Guidelines: Consensus Standards for Steel Bridge Design and Construction	148	1:30 p.m.– 5:00 p.m.	Marriott	Frederick Hejl, 202-334-2952, MDecarmine@NAS.edu
Integrated Materials and Construction Practices for Durable Concrete Pavements	151	1:30 p.m.– 5:00 p.m.	Marriott	Frederick Hejl, 202-334-2952, MDecarmine@NAS.edu
Using Information Technologies to Support Better Construction Management	155	1:30 p.m.– 5:00 p.m.	Marriott	Thomas Palmerlee, 202-334-2907, DFloyd@NAS.edu
Data and Information Systems				
Advanced Computing Applications in the Delivery of Flexible Transport Services	117	8:30 a.m.–noon	Hilton	Thomas Palmerlee, 202-334-2907, DFloyd@NAS.edu
GIS and Transit: Multiple Applications and Opportunities	121	8:30 a.m.–noon	Hilton	Thomas Palmerlee, 202-334-2907, DFloyd@NAS.edu
Linking ADUS, Performance Measures, and Freeway Operations to Improve Mobility	124	8:30 a.m.–noon	Hilton	Thomas Palmerlee, 202-334-2907, DFloyd@NAS.edu
Understanding Modern Survey and Mapping Tools: A Workshop for Geospatial Data Users	154	1:30 p.m.– 5:00 p.m.	Marriott	Thomas Palmerlee, 202-334-2907, DFloyd@NAS.edu
Using Information Technologies to Support Better Construction Management	155	1:30 p.m.– 5:00 p.m.	Marriott	Thomas Palmerlee, 202-334-2907, DFloyd@NAS.edu
Benchmarking for Data Stewardship in Asset Management	163	1:30 p.m.– 5:00 p.m.	Hilton	Thomas Palmerlee, 202-334-2907, DFloyd@NAS.edu
Critical Issues in Transportation: How Can AI and Advanced Computation Help?	166	1:30 p.m.– 5:00 p.m.	Hilton	Thomas Palmerlee, 202-334-2907, DFloyd@NAS.edu
International Standards for GIS and ITS	169	1:30 p.m.– 5:00 p.m.	Hilton	Thomas Palmerlee, 202-334-2907, DFloyd@NAS.edu
Knowledge Management	170	1:30 p.m.– 5:00 p.m.	Hilton	Martine Micozzi, 202-334-3177, FMorgan@NAS.edu
Tools for Transportation Research	176	1:30 p.m.– 5:00 p.m.	Hilton	Thomas Palmerlee, 202-334-2907, DFloyd@NAS.edu

Subject, Title	No.	Time	Hotel	Contact
Design				
Workshop on Interim Human Factors Guidelines for Road Systems	100	Saturday, January 20, 9:00 a.m.– 6:00 p.m.	Marriott	Richard Pain, 202-334-2964, JCole@NAS.edu
Performance-Based Analysis Approach to Geometric Design Decisions and Graduate Student Research Summaries	108	8:30 a.m.–noon	Marriott	Stephen Maher, 202-334-2955, MDecarmine@NAS.edu
Using Lidar for Design and Construction	109	8:30 a.m.–noon	Marriott	Thomas Palmerlee, 202-334-2907, DFloyd@NAS.edu
Research Needs for Mainstreaming Context-Sensitive Solutions in Transportation Project Development	113	8:30 a.m.–noon	Shoreham	Stephen Maher, 202-334-2955, MDecarmine@NAS.edu
Low-Volume Roads Engineering Best Management Practices	129	8:30 a.m.– 5:00 p.m.	Marriott	G. P. Jayaprakash, 202-334-2952, MDecarmine@NAS.edu
South African Highway Technology and Practice	153	1:30 p.m.– 5:00 p.m.	Marriott	Martine Micozzi, 202-334-3177, FMorgan@NAS.edu
Understanding Modern Survey and Mapping Tools: A Workshop for Geospatial Data Users	154	1:30 p.m.– 5:00 p.m.	Marriott	Thomas Palmerlee, 202-334-2907, DFloyd@NAS.edu
Context-Sensitive Design/ Context-Sensitive Solutions and Educational Voids	158	1:30 p.m.– 5:00 p.m.	Shoreham	Stephen Maher, 202-334-2955, MDecarmine@NAS.edu
Environment and Energy				
Early Lessons Learned in Implementing SAFETEA-LU Environmental Provisions	120	8:30 a.m.–noon	Hilton	Christine Gerencher, 202-334-2970, FMorgan@NAS.edu
Programs and Practices to Enhance Waste Management, Conserve Resources, and Practice Sound Environmental Management in DOTs	125	8:30 a.m.–noon	Hilton	Christine Gerencher, 202-334-2970, FMorgan@NAS.edu
Air Quality Transformations Around the World—Part I: Latin America; Part II: Istanbul at a Crossroads	133	8:30 a.m.– 5:00 p.m.	Hilton	Martine Micozzi, 202-334-3177, FMorgan@NAS.edu
Guidelines on Conducting Project-Level Air Quality Analysis	135	8:30 a.m.– 5:00 p.m.	Hilton	Christine Gerencher, 202-334-2970, FMorgan@NAS.edu
Community, History, and Highways: Community-Sensitive Design and Historic Preservation	165	1:30 p.m.– 5:00 p.m.	Hilton	Christine Gerencher, 202-334-2970, FMorgan@NAS.edu
Planning for the Green and the Grey: How Green Infrastructure Plans Can Help Advance Transportation Projects	171	1:30 p.m.– 5:00 p.m.	Hilton	Christine Gerencher, 202-334-2970, FMorgan@NAS.edu
Freight Systems				
Asset Management for Ports	156	1:30 p.m.– 5:00 p.m.	Shoreham	Joedy Cambridge, 202-334-2167, BSchwartz@NAS.edu
International Activities				
Transportation for Development: Past Performance and Strategies for the Future	127	8:30 a.m.–noon	Hilton	Martine Micozzi, 202-334-3177, FMorgan@NAS.edu
Air Quality Transformations Around the World—Part I: Latin America; Part II: Istanbul at a Crossroads	133	8:30 a.m.– 5:00 p.m.	Hilton	Martine Micozzi, 202-334-3177, FMorgan@NAS.edu
South African Highway Technology and Practice	153	1:30 p.m.– 5:00 p.m.	Marriott	Martine Micozzi, 202-334-3177, FMorgan@NAS.edu
Road Safety in Developing Countries	172	1:30 p.m.– 5:00 p.m.	Hilton	Martine Micozzi, 202-334-3177, FMorgan@NAS.edu
Maintenance				
Low-Volume Roads Engineering Best Management Practices	129	8:30 a.m.– 5:00 p.m.	Marriott	G. P. Jayaprakash, 202-334-2952, MDecarmine@NAS.edu
Work Zone Safety and ITS Countermeasures <small>TICKET</small>	146	9:00 a.m.– 5:00 p.m.	Marriott	Richard Pain, 202-334-2964, JCole@NAS.edu
Management and Leadership				
Accountability and Performance: How Select State DOTs Are Reporting on Performance and Results	115	8:30 a.m.–noon	Hilton	Martine Micozzi, 202-334-3177, FMorgan@NAS.edu
Tools for Transportation Asset Management	126	8:30 a.m.–noon	Hilton	Thomas Palmerlee, 202-334-2907, DFloyd@NAS.edu
Knowledge Management	170	1:30 p.m.– 5:00 p.m.	Hilton	Martine Micozzi, 202-334-3177, FMorgan@NAS.edu

Subject, Title	No.	Time	Hotel	Contact
So You Want to Be a Transportation Professional?	179	4:00 p.m.– 5:45 p.m.	Marriott	Richard Cunard, 202-334-2965, FMorgan@NAS.edu
Marine				
Perspectives and Best Practices for Human Systems Integration <small>TICKET</small>	140	9:00 a.m.– 5:00 p.m.	Marriott	Richard Pain, 202-334-2964, JCole@NAS.edu
Asset Management for Ports	156	1:30 p.m.– 5:00 p.m.	Shoreham	Joedy Cambridge, 202-334-2167, BSchwartz@NAS.edu
Operations				
Doctoral Student Research in Transportation Operations and Traffic Control	104	8:30 a.m.–noon	Marriott	Richard Cunard, 202-334-2965, FMorgan@NAS.edu
Performance-Based Analysis Approach to Geometric Design Decisions and Graduate Student Research Summaries	108	8:30 a.m.–noon	Marriott	Stephen Maher, 202-334-2955, MDecarmine@NAS.edu
Actively Integrating Traffic Management Centers into the Incident Command System	111	8:30 a.m.–noon	Shoreham	Joedy Cambridge, 202-334-2167, BSchwartz@NAS.edu
Linking ADUS, Performance Measures, and Freeway Operations to Improve Mobility	124	8:30 a.m.–noon	Hilton	Thomas Palmerlee, 202-334-2907, DFloyd@NAS.edu
Operating Traffic Signal Systems in Oversaturated Conditions	130	8:30 a.m.– 5:00 p.m.	Marriott	Richard Cunard, 202-334-2965, FMorgan@NAS.edu
How to Coordinate Planning and Operations	136	8:30 a.m.– 5:00 p.m.	Hilton	Richard Cunard, 202-334-2965, FMorgan@NAS.edu
There Goes the Sun: Driver Vision and Behavior During Dusk and Darkness <small>TICKET</small>	145	9:00 a.m.– 5:00 p.m.	Marriott	Richard Pain, 202-334-2964, JCole@NAS.edu
Context-Sensitive Design/ Context-Sensitive Solutions and Educational Voids	158	1:30 p.m.– 5:00 p.m.	Shoreham	Stephen Maher, 202-334-2955, MDecarmine@NAS.edu
Emergency Management Training Tools: National Incident Management System and Transportation Training Drills and Exercises	159	1:30 p.m.– 5:00 p.m.	Shoreham	Joedy Cambridge, 202-334-2167, BSchwartz@NAS.edu
Simulation Practices, Needs, and Challenges for Corridor Management	162	1:30 p.m.– 5:00 p.m.	Shoreham	Richard Cunard, 202-334-2965, FMorgan@NAS.edu
Doctoral Student Research in Transportation Modeling	167	1:30 p.m.– 5:00 p.m.	Hilton	Kimberly Fisher, 202-334-2968, FMorgan@NAS.edu
Pavement Management				
DAWG Forum on Pavement Performance Data Analysis	101	Saturday, January 20, 9:00 a.m.– 6:00 p.m.	Shoreham	Frederick Hejl, 202-334-2952, MDecarmine@NAS.edu
Long-Term Pavement Performance State Coordinators' Meeting	106	8:30 a.m.–noon	Marriott	Frederick Hejl, 202-334-2952, MDecarmine@NAS.edu
Reliability in the Mechanistic-Empirical Pavement Design Guide	152	1:30 p.m.– 5:00 p.m.	Marriott	G. P. Jayaprakash, 202-334-2952, MDecarmine@NAS.edu
Pedestrians and Cycles				
Reducing Impacts of Aggressive Driving on Pedestrians, Bicyclists, and Drivers <small>TICKET</small>	142	9:00 a.m.– 5:00 p.m.	Marriott	Richard Pain, 202-334-2964, JCole@NAS.edu
Public Transportation				
GIS and Transit: Multiple Applications and Opportunities	121	8:30 a.m.–noon	Hilton	Thomas Palmerlee, 202-334-2907, DFloyd@NAS.edu
Rail				
Training New Engineers in Railway Design and Maintenance	131	8:30 a.m.– 5:00 p.m.	Marriott	Elaine King, 202-334-3208, DFloyd@NAS.edu
Proactive Risk Management Safety Approaches for Managing Human-Factors-Caused Accidents in the Railroad Industry: Alternatives to Compliance <small>TICKET</small>	141	9:00 a.m.– 5:00 p.m.	Marriott	Richard Pain, 202-334-2964, JCole@NAS.edu
Research and Education				
Presentations That Won't Leave Your Audience in the Dark!	147	1:30 p.m.– 2:30 p.m.	Marriott	Julie Miller, 202-334-2362, JMiller@NAS.edu
Transportation Research by Eisenhower Graduate Fellowship Recipients	173	1:30 p.m.– 5:00 p.m.	Hilton	Kimberly Fisher, 202-334-2968, FMorgan@NAS.edu

Subject, Title	No.	Time	Hotel	Contact
The Use of Technologies in Communicating	175	1:30 p.m.– 5:00 p.m.	Hilton	Kimberly Fisher, 202-334-2968, FMorgan@NAS.edu
Tools for Transportation Research	176	1:30 p.m.– 5:00 p.m.	Hilton	Thomas Palmerlee, 202-334-2907, DFloyd@NAS.edu
Safety				
Workshop on Interim Human Factors Guidelines for Road Systems	100	Saturday, January 20, 9:00 a.m.– 6:00 p.m.	Marriott	Richard Pain, 202-334-2964, JCole@NAS.edu
Human Factors in Enforcement Effectiveness <small>TICKET</small>	137	9:00 a.m.– 5:00 p.m.	Marriott	Richard Pain, 202-334-2964, JCole@NAS.edu
Licensing Authorities' Options for Managing Older Driver Safety: Practical Advice from the Researchers <small>TICKET</small>	138	9:00 a.m.– 5:00 p.m.	Marriott	Richard Pain, 202-334-2964, JCole@NAS.edu
Looking Backward, Thinking Backward: Hindsight Judgment of Human Error in Accident Investigation <small>TICKET</small>	139	9:00 a.m.– 5:00 p.m.	Marriott	Richard Pain, 202-334-2964, JCole@NAS.edu
Perspectives and Best Practices for Human Systems Integration <small>TICKET</small>	140	9:00 a.m.– 5:00 p.m.	Marriott	Richard Pain, 202-334-2964, JCole@NAS.edu
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Reducing Impacts of Aggressive Driving on Pedestrians, Bicyclists, and Drivers <small>TICKET</small>	142	9:00 a.m.– 5:00 p.m.	Marriott	Richard Pain, 202-334-2964, JCole@NAS.edu
Teen Driving: Simulation, Other Technologies, and Knowledge Advancements for Training Novice Drivers <small>TICKET</small>	143	9:00 a.m.– 5:00 p.m.	Marriott	Richard Pain, 202-334-2964, JCole@NAS.edu
The Human Factors of Commercial Driving <small>TICKET</small>	144	9:00 a.m.– 5:00 p.m.	Marriott	Richard Pain, 202-334-2964, JCole@NAS.edu
There Goes the Sun: Driver Vision and Behavior During Dusk and Darkness <small>TICKET</small>	145	9:00 a.m.– 5:00 p.m.	Marriott	Richard Pain, 202-334-2964, JCole@NAS.edu
Work Zone Safety and ITS Countermeasures <small>TICKET</small>	146	9:00 a.m.– 5:00 p.m.	Marriott	Richard Pain, 202-334-2964, JCole@NAS.edu
Road Safety in Developing Countries	172	1:30 p.m.– 5:00 p.m.	Hilton	Martine Micozzi, 202-334-3177, FMorgan@NAS.edu
Transportation Issues for Elderly and Disabled Persons	177	1:30 p.m.– 5:00 p.m.	Hilton	Martine Micozzi, 202-334-3177, FMorgan@NAS.edu
Security				
Actively Integrating Traffic Management Centers into the Incident Command System	111	8:30 a.m.–noon	Shoreham	Joedy Cambridge, 202-334-2167, BSchwartz@NAS.edu
Bridge and Tunnel Security	157	1:30 p.m.– 5:00 p.m.	Shoreham	Joedy Cambridge, 202-334-2167, BSchwartz@NAS.edu
Emergency Management Training Tools: National Incident Management System and Transportation Training Drills and Exercises	159	1:30 p.m.– 5:00 p.m.	Shoreham	Joedy Cambridge, 202-334-2167, BSchwartz@NAS.edu
Social, Economic, and Cultural Issues				
Transportation for Development: Past Performance and Strategies for the Future	127	8:30 a.m.–noon	Hilton	Martine Micozzi, 202-334-3177, FMorgan@NAS.edu
The Hurricanes of 2005: Perspectives and Future Implications for Transportation and Land Use Planning	174	1:30 p.m.– 5:00 p.m.	Hilton	Kimberly Fisher, 202-334-2968, FMorgan@NAS.edu
Soil Mechanics				
Load and Resistance Factor Design Method for Bridge Substructures	128	8:30 a.m.– 5:00 p.m.	Marriott	G. P. Jayaprakash, 202-334-2952, MDecarmine@NAS.edu
Reliability in the Mechanistic-Empirical Pavement Design Guide	152	1:30 p.m.– 5:00 p.m.	Marriott	G. P. Jayaprakash, 202-334-2952, MDecarmine@NAS.edu
Structures				
Load and Resistance Design of Concrete Bridge Superstructures	105	8:30 a.m.–noon	Marriott	Stephen Maher, 202-334-2955, MDecarmine@NAS.edu

Subject, Title	No.	Time	Hotel	Contact
Making Sense of Sensors Used to Monitor Bridges	107	8:30 a.m.–noon	Marriott	Stephen Maher, 202-334-2955, MDecarmine@NAS.edu
Bridge and Tunnel Security	157	1:30 p.m.– 5:00 p.m.	Shoreham	Joedy Cambridge, 202-334-2167, BSchwartz@NAS.edu
Load and Resistance Factor Design of Skewed and Curved I and Box Girder Bridges	160	1:30 p.m.– 5:00 p.m.	Shoreham	Stephen Maher, 202-334-2955, MDecarmine@NAS.edu
Design and Behavior of Steel Bridges Strengthened with Fiber-Reinforced Polymer Materials	178	1:30 p.m.– 5:30 p.m.	Marriott	Stephen Maher, 202-334-2955, MDecarmine@NAS.edu
Systems Planning, Policy, and Process				
How to Decide Between Good but Competing Ideas Without Bloodshed: Problem-Solving Techniques That Work	122	8:30 a.m.–noon	Hilton	Kimberly Fisher, 202-334-2968, FMorgan@NAS.edu
How to Coordinate Planning and Operations	136	8:30 a.m.– 5:00 p.m.	Hilton	Richard Cunard, 202-334-2965, FMorgan@NAS.edu
Taxation and Finance				
Innovations in Transportation Finance	123	8:30 a.m.–noon	Hilton	Martine Micozzi, 202-334-3177, FMorgan@NAS.edu
Emerging Issues in Transportation Pricing and Finance	134	8:30 a.m.– 5:00 p.m.	Hilton	Martine Micozzi, 202-334-3177, FMorgan@NAS.edu
Transportation Policy				
Innovations in Transportation Finance	123	8:30 a.m.–noon	Hilton	Martine Micozzi, 202-334-3177, FMorgan@NAS.edu
Travel Analysis Methods				
Activity-Based Models Currently Under Development	116	8:30 a.m.–noon	Hilton	Kimberly Fisher, 202-334-2968, FMorgan@NAS.edu
Dynamic Assignment Models for Practitioners	119	8:30 a.m.–noon	Hilton	Kimberly Fisher, 202-334-2968, FMorgan@NAS.edu
Emerging Issues in Transportation Pricing and Finance	134	8:30 a.m.– 5:00 p.m.	Hilton	Martine Micozzi, 202-334-3177, FMorgan@NAS.edu
Bringing Activity-Based Models to Maturity	164	1:30 p.m.– 5:00 p.m.	Hilton	Kimberly Fisher, 202-334-2968, FMorgan@NAS.edu
Doctoral Student Research in Transportation Modeling	167	1:30 p.m.– 5:00 p.m.	Hilton	Kimberly Fisher, 202-334-2968, FMorgan@NAS.edu
Integrating Demand and Supply Travel Models	168	1:30 p.m.– 5:00 p.m.	Hilton	Kimberly Fisher, 202-334-2968, FMorgan@NAS.edu
Trucking				
The Human Factors of Commercial Driving <small>TICKET</small>	144	9:00 a.m.– 5:00 p.m.	Marriott	Richard Pain, 202-334-2964, JCole@NAS.edu
Users				
Teen Driving: Simulation, Other Technologies, and Knowledge Advancements for Training Novice Drivers <small>TICKET</small>	143	9:00 a.m.– 5:00 p.m.	Marriott	Richard Pain, 202-334-2964, JCole@NAS.edu
Transportation Issues for Elderly and Disabled Persons	177	1:30 p.m.– 5:00 p.m.	Hilton	Martine Micozzi, 202-334-3177, FMorgan@NAS.edu

**Plan to attend the
TRB 87th Annual Meeting
January 13–17, 2008**

137–146

Human Factors in Transportation

Sunday, January 21 • 9:00 a.m.–5:00 p.m. • Marriott

Advance registration and fee required **TICKET**

This program of participatory workshops covers topics chosen for timely insights into current practice and ongoing research. Users of information on human factors; researchers studying human factors in transportation system design, safety and operations; and practitioners involved in the design and operation of transportation systems should attend. The fee includes coffee service, luncheon, and a reception. Dr. **Alison Smiley**, President of Human Factors North, Inc., will be the keynote lunch speaker; her address is titled, “Driver Behavior: A Moving Target.”

The Human Factors Workshops are sponsored by the following committees: Safe Mobility of Older Persons; Vehicle User Characteristics; User Information Systems; Simulation and Measurement of Vehicle and Operator Performance; Visibility; Pedestrians; Railroad Operational Safety; and Alcohol and Other Drugs in Transportation.

Workshop sessions run concurrently—use the Registration Form to select one of the following 10 sessions. Tickets received on site will indicate the room locations.

137 Human Factors in Enforcement Effectiveness

\$200 **TICKET**
Limit 25

David F. Preusser, Preusser Research Group Inc., presiding

This session will explore ways to increase the effectiveness of enforcement programs by integrating human factors concepts. Strategies will address the following:

- Different behavioral theories relevant to traffic enforcement, such as deterrence theory in criminology; the economics of crime and punishment; and operant conditioning in psychology;
- How to optimize enforcement with different deployment styles, such as visible or hidden; random or regular; targeted or general; increasing returns or diminishing returns; and
- Adaptations for different kinds of offenders—for example unintentional violators suffering from lapses or judgment errors versus intentional violators, who may be sensation seekers, social deviants, or Type A personalities; or young males versus soccer moms.

138 Licensing Authorities' Options for Managing Older Driver Safety: Practical Advice from the Researchers

\$200 **TICKET**
Limit 25

James Langford, Monash University Accident Research Center, presiding

Research findings related to the assessment and management of older driver safety have produced substantial advances in the past decade. Many licensing authorities, however, continue to implement the same procedures that have been in place for many years—some of which are contradicted by the research. This occasional reluctance to respond to the latest knowledge can be attributed in part to the lack of clear messages from researchers. Clearer communication from the research community to licensing authorities is an urgent need—specifically to provide practical advice from the growing body of research knowledge about the assessment and management of older driver safety.

139 Looking Backward, Thinking Backward: Hindsight Judgment of Human Error in Accident Investigation

\$200 **TICKET**
Limit 25

Michael Dilich, Foresight Reconstruction, Inc.; Neal Roese, University of Illinois, Urbana–Champaign, presiding

Although most transportation accidents are attributed to human error, establishing what qualifies as an error, what errors constitute unreasonable conduct, and what causes errors relies heavily on an investigator's expert judgment. Accident investigators have a public duty to determine the causes of accidents objectively, without bias, as a part of larger societal concerns. The reliable identification and understanding of errors that cause accidents are clearly prerequisites to the fair attribution of fault and to the development of countermeasures for safer roads. This workshop will address hindsight bias—a powerful, natural, but not deliberate bias that poisons the way after-accident observers think about cause, fault, and preventability. Related biases known as counterfactual thinking and the actor–observer effect also will be addressed in the context of transportation accidents.

140 Perspectives and Best Practices for Human Systems Integration

\$200 **TICKET**
Limit 25

J. Robert Bost, Naval Sea Systems Command; Rajiv Khandpur, U.S. Coast Guard, presiding

Human systems integration (HSI) is the systematic application of principles of behavioral science to improve systems throughout their life cycle. This workshop session will explore best practices from the military and the commercial worlds. Determining when, where, and how to apply HSI to achieve successful transportation usually requires out-of-the-box thinking, with innovative training and career progression. Brief presentations of case studies by session leaders and participants will review and stimulate discussion. The session will produce a prioritized list of best practices and ideas for applying human behavioral sciences effectively in transportation systems for improving safety, reliability, efficiency, quality of life, and effectiveness.

141 Proactive Risk Management Safety Approaches for Managing Human-Factors-Caused Accidents in the Railroad Industry: Alternatives to Compliance \$200 **TICKET** Limit 25
 Michael Coplen and Thomas Raslear, Federal Railroad Administration;
 Joyce Ranney, Volpe National Transportation Systems Center, presiding

Despite technological achievements in the rail industry that have improved safety significantly, human-factors-caused accidents have remained relatively stable, with human factors accounting for approximately 38 percent of train accidents—the leading cause. Traditional approaches for managing human-factors-caused accidents typically emphasize rules compliance, regulatory oversight, accident investigations, or systematic monitoring of accident and injury data. These approaches are reactive, often involving disciplinary and punitive responses after an accident has occurred and suppressing information that could improve understanding of why an accident happened. The railroad industry has been embracing more proactive and preventive safety approaches to address human-factors-caused accidents. This workshop will discuss innovative proactive risk management initiatives in the railroad industry, such as the Close Calls Confidential Reporting System, behavior-based accident prevention methods, the development of leading indicators, and fatigue risk management systems in the context of traditional reactive approaches. The focus will be on the common elements of proactive risk management and continuous improvement processes, why these approaches are important, and how they fit in the context of a regulatory environment.

142 Reducing Impacts of Aggressive Driving on Pedestrians, Bicyclists, and Drivers \$200 **TICKET** Limit 25
 Gihon Jordan, Transportation Consultant, presiding

This interactive workshop will focus on defining and understanding effective countermeasures against aggressive driving and the impacts on drivers, pedestrians, and bicyclists. Speakers will address such topics as behavioral psychology, advertising and the media, traffic law enforcement, training, technology, peer pressure, and advocacy. Participants will gain and offer insights through presentations and brainstorming, questions and answers, and discussion. Relationships among illegal, aggressive, reckless, distracted, and bad driving will be discussed, along with the lack of enforcement, respect for pedestrians, and responsible advertising.

143 Teen Driving: Simulation, Other Technologies, and Knowledge Advancements for Training Novice Drivers \$200 **TICKET** Limit 25
 Daniel V. McGehee, University of Iowa;
 Loren Staplin, TransAnalytics, LLC;
 Donald L. Fisher, University of Massachusetts, Amherst, presiding

Training novice drivers—particularly in the context of graduated driver licensing—continues to attract attention as one of a portfolio of methods to reduce teen driving crashes. This session

will explore the uses of simulation, vehicle monitoring, and crash avoidance technologies as possible new tools in driver training. New insights into the adolescent brain, as well as its cognitive and affective development, will be discussed to determine how these could shape new training regimes in concert with the new technologies. Extensive group interaction and participation is planned for formulating new ideas and directions.

144 The Human Factors of Commercial Driving \$200 **TICKET** Limit 25
 Ronald R. Knipling, Consultant, presiding

Many human factors differences distinguish commercial from noncommercial driving. These include differences in the driving task and the associated safety hazards; interactions with other traffic; driving patterns, such as long-haul versus commuting and other general driving; the driver's behavioral and medical characteristics; and macroergonomics, or the operational milieu, motivations, and regulatory structure. This workshop will attempt to identify and articulate the similarities of commercial and noncommercial driving, as well as the many differences.

145 There Goes the Sun: Driver Vision and Behavior During Dusk and Darkness \$200 **TICKET** Limit 25
 John D. Bullough, Rensselaer Polytechnic Institute;
 James R. Sayer, University of Michigan Transportation Research Institute;
 David M. Burns, 3M Company, presiding

This session will cover visual performance at night and in twilight, along with system improvements to enhance visibility and driver performance. Topics include adaptation of rod and cone systems; peripheral and foveal visual performance and the driving task; and the impact of the light spectrum on peripheral visual performance at mesopic light levels. The effects of age on different visual capabilities—particularly in mesopic or twilight conditions—also will be considered. Participants will work in small teams to propose testable hypotheses and experimental methods to determine the relative importance of different types and methods of illumination on visual system functions in nighttime conditions. Teams also will discuss potential new approaches to nighttime and mesopic illumination that address drivers' visual requirements more effectively.

146 Work Zone Safety and ITS Countermeasures \$200 **TICKET** Limit 25
 John Sullivan, University of Michigan Transportation Research Institute, presiding

This session will explore the use of information technology systems and other ITS devices in work zones and incident areas. Examples include intelligent portable traffic management systems, variable speed limits, and automated speed enforcement in work zones. Applications, problems, and successes with these and other innovative technologies will be shared.

Hotel Accommodations

Hotel rooms sell out quickly. Make reservations with the hotel of your choice by Internet or telephone.

Marriott Wardman Park Hotel

2660 Woodley Road, NW, Washington, DC 20008
Reservations 202-328-2900, fax 202-387-5397
MarriottHotels.com/WASDT
Group code: trbrba
 Guest phone 202-328-2000; guest fax 202-234-0015

Note: Construction will be in progress at the Marriott during the Annual Meeting.

Omni Shoreham Hotel

2500 Calvert Street, NW, Washington, DC 20008
Reservations 202-234-0700, 1-800-THE-OMNI,
fax 202-756-5145
Link from TRB.org/Meeting
 Guest phone 202-234-0700; guest fax 202-265-7972

Hilton Washington Hotel

1919 Connecticut Avenue, NW, Washington, DC 20009
Reservations: 202-797-5820, 1-888-DC-HILTON,
fax 202-797-5755
www.Washington.Hilton.com
Group code: TRB
 Guest phone 202-483-3000; guest fax 202-232-0438

Make reservations as early as possible at the Connecticut Avenue Collection hotels, which frequently have all rooms booked by October for the TRB Annual Meeting. If all rooms are booked, ask the hotel reservationist to place your reservation on a wait list; reservationists also will provide information about overflow accommodations. (Look for the list of overflow hotels on the website, TRB.org/Meeting, when the three hotels have sold out.)

Space is limited, and reservations are processed in the order received or until the block of rooms is sold out. The TRB Annual Meeting group rate is \$181 single and \$201 double until December 21. Each additional person in a room (after the first two) is \$25; children under 18 stay free. Specify special requests (bed size, no smoking, accessibility needs, etc.) when making reservations. The hotel reservationist can provide Towers and suite information. Rates do not include the current 14.5% Washington, D.C., hotel tax. The hotels may not be able to provide rooms at the group rate after the block of rooms is sold out.

Reservations must be guaranteed for arrival with a first night deposit of \$207 per single or \$230 per double, charged to your credit card when the hotel reservation is made. The group rate also is offered for extended stays based on availability. Check-in time is 3:00 p.m.; check-out time is noon.

Cancellations

Don't be a "no show." If a reservation is canceled in time, another registrant can use your hotel room. Deposits on guaranteed reservations canceled 72 hours before arrival are fully refundable. When canceling a reservation by telephone, record the date, the cancellation number, and the name of the person accepting the cancellation. The deposit will be forfeited if you are a no-show or if notice of cancellation is not received more than 72 hours before the date of arrival. TRB staff cannot make, change, or cancel reservations but will be available to assist after the meeting if you encounter difficulty receiving a refund and if records of the cancellation information are available.

Transportation to Hotels

Ronald Reagan National Airport (DCA)	8 miles (13 km)/20 min* away; Metro (subway) is accessible, airport shuttle is \$12, and a taxi is approximately \$15 one way.
Dulles International Airport (IAD)	30 miles (48 km)/50 min* away; airport shuttle is \$25, and a taxi is approximately \$58 one way.
Baltimore-Washington International Airport (BWI)	45 miles (72 km)/1.25 hr* away; airport shuttle is \$30, and a taxi is approximately \$70 one way. MARC from BWI to Union Station (40 min) is \$6 one way; Metrobus B30 is \$3 one way to Greenbelt Metro station.
Union Station	25 min* by Metro or taxi.

* Add at least 20 min to taxi and airport shuttle trip times during peak hours. Taxis have higher peak-hour fares.

Hotel Parking

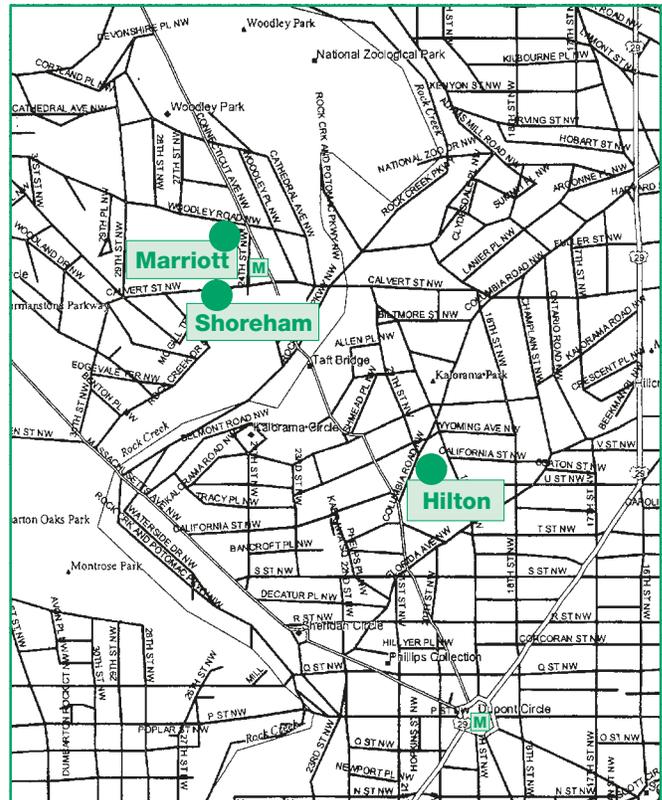
Self-parking is available at the Connecticut Avenue Collection hotels currently at \$23 per day.

TRB Shuttle



Complimentary shuttle service operates approximately every 20 minutes between the Marriott, Shoreham, and Hilton hotels for Annual Meeting registrants. Shuttles are wheelchair accessible.

Hotel Area Map



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Transportation Research Board
86th Annual Meeting • January 21–25, 2007
Registration Form

Please print.

Reduced Fee Deadline: November 30

Confirmation will be sent within two weeks—if not received, call 301-694-5243.

Internet or Fax – credit card only, TRB.org/Meeting or fax to 301-694-5124.

Mail – check or credit card information to TRB, P.O. Box #590, Frederick, MD 21705.

Questions? Telephone (9:00 a.m.-5:00 p.m. EST) 301-694-5243.

First Name _____ Last / Family Name _____

Title _____

Nickname for Badge _____ Telephone _____ Fax _____

Organization _____

Address _____

City _____ State/Province _____ Zip/Postal Code _____

Country _____ E-mail (Required for full access to the Interactive Program) _____

Mentee First Name _____ Mentee Last / Family Name _____

Mentee Nickname _____ Mentee E-mail _____

I. Registration Fees (must select one)	Advance— by November 30	After November 30 and On Site
<input type="checkbox"/> A. TRB Individual Affiliate Member	\$320	\$510
<input type="checkbox"/> B. Nonmember ¹	\$500	\$750
One Day Registration (select one)	\$255	\$410
<input type="checkbox"/> C1. Sun <input type="checkbox"/> C2. Mon <input type="checkbox"/> C3. Tue <input type="checkbox"/> C4. Wed		
<input type="checkbox"/> D. TRB Executive Committee; Emeritus Member; Chair of TRB Technical Activities Division Group, Section, Committee, Task Force	No Fee	No Fee
<input type="checkbox"/> E. Member: TRB Technical Activities Division Group, Section, Committee, Task Force; TRB-Appointed University Representative ²	\$275	\$430
<input type="checkbox"/> F. Program Participant ^{2,3}	\$275	\$430
<input type="checkbox"/> G. TRB-Appointed Transit Representative ²	No Fee	No Fee
<input type="checkbox"/> H. Employee of Sustaining/Organizational Affiliate ²	No Fee	No Fee
<input type="checkbox"/> I. Employee of TRB Sponsor (see page 1) ⁴	No Fee	No Fee
<input type="checkbox"/> J. TRB Student Affiliate Member	\$35	\$45
<input type="checkbox"/> K. Student (full time) ¹	\$105	\$120
<input type="checkbox"/> L. Mentee (under 30 years old) ⁵	\$275	\$430
<input type="checkbox"/> M. Media	No Fee	No Fee

Check if you **do not** want to receive the free weekly Transportation Research E-Newsletter.

If you have a disability that requires special accommodation, please describe: _____

III. Organizational Type

- Check only one:
- U.S. Registrants:**
- 1. U.S. DOT
 - 2. Other Federal Agency
 - 3. State Transportation Department
 - 4. Other State Agency
 - 5. Local or Regional Government Agency (city, county, or MPO)
 - 6. University/University-Based Research
 - 7. Student
 - 8. Consultant
 - 9. Industry/Commercial
 - 10. Association/Nonprofit
 - 11. Other (specify) _____
- International Registrants:**
- 12. Government
 - 13. Nongovernment

¹ Become a TRB affiliate (select M1 or M2 **below** by November 30 and pay the reduced registration fee).
² Must receive special notice from TRB to qualify.
³ Making presentations at TRB sessions or presenting papers at TRB committee meetings.
⁴ Private contractors may not register in this category.
⁵ Must be from the same organization as and register with A–H registrant to qualify.

IV. Optional Information

Check all that apply:
 1. Male 2. Female 3. New Attendee 4. Minority

II. Affiliate Membership/Optional Fees

<input type="checkbox"/> M1. Individual Affiliate	\$94	\$ _____
<input type="checkbox"/> M2. Student Affiliate	\$61	\$ _____
<input type="checkbox"/> M3. Chairman's Luncheon Quantity _____ x	\$55	\$ _____
<input type="checkbox"/> M4. Annual Meeting CD-ROM (additional) Quantity _____ x	\$80	\$ _____
Human Factors Workshops (select one)		
<input type="checkbox"/> 137 <input type="checkbox"/> 138 <input type="checkbox"/> 139 <input type="checkbox"/> 140 <input type="checkbox"/> 141		
<input type="checkbox"/> 142 <input type="checkbox"/> 143 <input type="checkbox"/> 144 <input type="checkbox"/> 145 <input type="checkbox"/> 146	\$200	\$ _____
<input type="checkbox"/> New and Young Attendees (< age 30) Welcome Session, Sunday, 2:30 p.m.	No Fee	
Subtotal		\$ _____

V. Payment

Transfer from I and II:
 TRB 86th Annual Meeting Registration Fee (from I) \$ _____
 Optional Fees Total (from II) \$ _____
Total Payment \$ _____

Check or money order (payable to TRB in U.S. funds drawn on U.S. bank)
 Mastercard VISA American Express

_____ / _____
 Card # _____

 Signature _____ Expiration Date _____