

Transportation Research Board 87th Annual Meeting,
National Academies Washington, DC, January 16th, 2008
"Partnerships for Progress in Transportation"

The National Academies Transportation Research Board (TRB) *What is it, what does it do – and what can it do for EMS/Medical Transport?*

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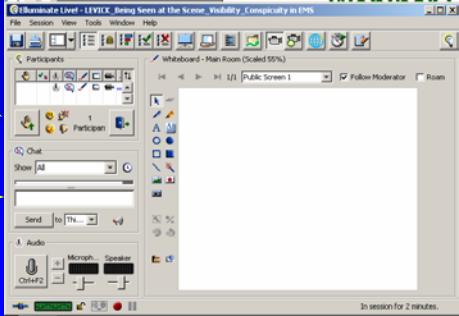
Welcome to the inaugural National
Academies –
Transportation Research Board
(TRB)
EMS Transportation Safety
Subcommittee meeting in
Washington, DC
Being held during the 87th Annual
TRB Symposium

So what is a Webinar?

A Webinar is:

- ▶ Real time interactive web technology
- ▶ No other hardware is necessary aside from a computer connected to the internet and a microphone- if you choose to speak
- ▶ These interactive seminars can also be stored for later asynchronous use


Webinar Basics



Annotations for the webinar interface screenshot:

- Raise Hand (points to the 'Raise Hand' button)
- Text messaging (points to the chat window)
- Type in your name and location (points to the name/location input field)
- The 'mic' (points to the microphone icon)

..use white board tools to mark your
location.....



Line tool (points to the line tool icon in the whiteboard toolbar)

Today's Webinar is recorded!

The presentation
and
all comments typed in the text box



will be available for viewing via the
www.objectivesafety.net
web site within 24 hours

This morning's Webinar

- ▶ Will cover:
 - ♦ An overview of the TRB and opportunities for EMS
 - ♦ Some automotive and transportation safety dimensions
 - ♦ EMS/medical aviation and ground transport safety challenges and opportunities
 - ♦ Some practical perspectives from the field
 - ♦ Research directions

The TRB

TRB MISSION

- ▶ To provide leadership in transportation innovation and progress through research and information exchange, conducted within a setting that is objective, interdisciplinary, and multimodal.

TRB

- ▶ One of 6 major divisions of the National Research Council a private, nonprofit institution
- ▶ principal operating agency of the National Academies in providing services to government, public, and scientific and engineering communities.
- ▶ The National Research Council is jointly administered by:
 - ♦ National Academy of Sciences
 - ♦ National Academy of Engineering
 - ♦ Institute of Medicine.
- ▶ Engages >7,000 engineers, scientists, and other transportation researchers and practitioners from public and private sectors and academia
- ▶ Supported by state transportation departments, federal agencies including U.S. Department of Transportation, and other organizations and individuals interested in the development of transportation.

TRB Goals

1. Anticipate future transportation challenges and provide leadership in promoting and conducting research and policy analysis to prepare the United States for meeting those challenges.
2. Conduct and promote knowledge creation and dissemination, especially on innovative practices and technologies in the transportation sector.
3. Provide timely and informed advice on transportation and transportation-related issues to decision makers and others who are responsible for the nation's multimodal transportation system.
4. Act as an effective and impartial forum for the exchange of knowledge and information, including transportation and its relationship with social, economic, environmental, and other issues.

TRB Goals

5. Promote collaboration on transportation research, education, and technology transfer at international, national, regional, state, and local levels; across public and private sectors; and with transportation providers, customers, and other stakeholders.
6. Contribute to the professional development of individuals currently working in transportation and to the education and enhanced diversity of the pool of individuals who will work in the field in the future.
7. Conduct and promote communications efforts to enhance the awareness of transportation research and its contributions to innovation and progress in transportation.
8. Contribute to the public's understanding of transportation and its significance to the nation.

TRB divisions

- ▶ Technical Activities supports standing committees and task forces.
- ▶ Studies and Special Programs convenes specially appointed expert committees to conduct policy studies and program reviews, maintains the TRIS database, provides library services, prepares synthesis reports on behalf of the Cooperative Research Programs, and manages the Innovations Deserving Exploratory Analysis (IDEA) programs.

Structured Transportation research programs and agendas

TRB research programs

- ▶ Cooperative Research Programs manages
 - National Cooperative Highway Research Program
 - Transit Cooperative Research Program
 - Airport Cooperative Research Program
 - National Cooperative Freight Research Program
 - Hazardous Materials Cooperative Research Program.
- ▶ Strategic Highway Research Program 2 manages a targeted, short-term, results-oriented program of contract research designed to advance highway performance and safety for U.S. highway users.
- ▶ Administration and Finance provides financial, information technology, and other administrative support, including financial oversight of the contracts and grants that support the work of TRB, administration of publications sales and distribution, and maintenance of benefits and services for sponsor and affiliate organizations.

TRB SERVICES

- ▶ A resource to the nation and to the transportation community worldwide
 - Opportunities for information exchange on current transportation research and practice,
 - Management of cooperative research and other research programs,
 - Analyses of national transportation policy issues and guidance on federal and other research programs, and
 - Publications and access to research information from around the world.

Special role for EMS at TRB

- ▶ One of the Key 4 E's
 - ◆ Engineering
 - ◆ Education
 - ◆ Enforcement
 - ◆ Emergency Medical Services

SAFETEA-LU

Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users

- ▶ Highway Improvement Program (HIP)
- ▶ Strategic Highway Safety Plans (SHSP)

State Strategic Highway Safety Plans

- ▶ Required as part of the SAFETEA-LU legislation
- ▶ Effective October 1st 2007
- ▶ Focus is the 4 'E's
- ▶ EMS is a core theme



State SHSP EMS Focus*

STATE SHSP	AREA of EMS FOCUS
New York EMS Section 6 of 43 pages	<ol style="list-style-type: none"> 1. Emergency Medical Services Dispatch Services 2. Emergency Medical Services Partnerships 3. Pre-hospital Training Programs 4. Road Condition and Incident Response 5. EMS Responder Crash Prevention
Montana EMS Section 4 of 36 pages	<ol style="list-style-type: none"> 1. Establish EMS Legislation and Regulation 2. Provide EMS Funding 3. Enhance Capabilities for Medical Response to Disaster 4. Expand EMS Human Resources 5. Enhance EMS Education System 6. Expand EMS Services 7. Facilitate EMS Communications 8. Conduct EMS Public Education and Information Programs 9. Conduct Injury Prevention Public Awareness Efforts 10. Enhance Medical Direction 11. Provide Enhanced Trauma System and Facilities 12. Establish an EMS Information System 13. Evaluate and Monitor EMS Programs
Alabama EMS Section 8 of 47 pages	<ol style="list-style-type: none"> 1. Identify and Analyze Performance Data 2. First Responders 3. Identify Crash Location 4. Statewide assessment and Plan 5. Improve EMS Rural Access

*Cordi H. Levick N. Strategic Highway Safety Plans –Where is EMS?, Jan 2008

Strategic Highway Safety Plans

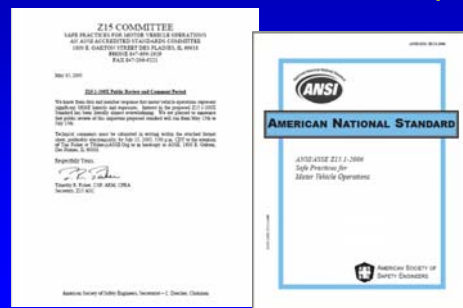
- ▶ Background info



Valuable information from the transportation industry



American National Standard ANSI/ASSE Z15.1-2006 Safe Practices for Fleet Motor Vehicle Operations



International Approaches ASSE Transactions, Fall 2007

International Leading Practice in Ambulance Vehicle Safety Testing

While the Department of Ambulance Vehicle Safety has several international members in the U.S., Europe and Australia, ASSE

dynamic crash testing activities are conducted for ambulance vehicles in the U.S., Australia



At European conferences, the most common standard used is the EN13654 standard for ambulances. Many Australian ambulance vehicles meet this

A 4575 1999 standard. Although the crashworthiness testing requirements to be met are more stringent and comprehensive, with a range of crash test cases required from 90% frontals to 90% frontals and higher impact tests. The importance of ensuring the performance of the design of these vehicles is clear from published data on emergency vehicle crashes.

There is also a growing emphasis on building ambulance vehicles. One is a variety of existing EMS commercial vans as in the one vehicle described here, the other is the building of an alternative "new" bus or from standard for a standard light- or heavy-duty truck vehicle chassis.

continued on page 10

Transactions 10

Transportation Safety to the Rescue in 2007

Emergency medical services (EMS) transportation safety has seen some significant developments this year. In addition to the establishment of a new branch for EMS transport at the National Academies Transportation Research Board (TRB),

TRB, reflects the growing importance of EMS transport safety (ANSI 1017), many new initiatives have taken place to advance EMS transport safety.

EMS is a unique transport environment that bridges public health and safety, acute health care, emergency services and disaster management. It is performed in a spectrum of environments—rural, urban and suburban—and is staffed by health care workers and professionals. Thus, EMS has its own set of transportation safety challenges.

It has been an important year for EMS transportation safety. National interest in infrastructure and research issues related to ambulance transport safety has increased.

renewing and feedback intelligence. Optimizing practice and professional education to improve safety and minimize risk was also discussed.

TRB Annual Symposium

TRANSPORTATION RESEARCH BOARD OF THE NATIONAL ACADEMIES

87th Annual Meeting
January 13-17, 2008
Washington, DC

TRB 87th Annual Meeting

Multidisciplinary research

- ▶ Encompassing all aspects of transportation
- ▶ The expertise that EMS needs to address transportation safety challenges
 - ◆ Systems design
 - ◆ Human factors
 - ◆ Vehicles
 - ◆ Vehicle operations
 - ◆ Impaired drivers
 - ◆ Highway Hazards

What is ANB 10 (5)?

- ▶ Transportation Safety Management Committee ANB 10
 - ◆ Emergency Medical Services Safety Subcommittee, ANB 10 (5)

How do TRB Subcommittees work?

Who is attending the general TRB meeting

Who is here in this EMS Subcommittee meeting this year

What is the plan for today

- ▶ This brief introduction re: the TRB
- ▶ A presentation from Prof Raphael Grzebieta – Chair of Road Safety UNSW
- ▶ Presentation on the achievements and milestones of aviation medical Transport Safety – Eileen Frazer
- ▶ An overview of EMS transport safety issues and research – Nadine Levick
- ▶ Policy perspectives
- ▶ An update on some research underway
- ▶ Some perspectives from an EMS Medical Director – John Russel MD
- ▶ Discussion and workshop on research perspectives and needs

Who oversees safety performance and safety research for EMS/Medical Transport

- ▶ Aviation - FAA, NTSB,
- ▶ Ground -

Ambulance Transportation Safety (ATS) Task Force

- ▶ Ad Hoc Committee from across EMS/Medical Transport practice and operations
- ▶ Officially appealing to the NTSB:
 - ♦ to investigate the July 20th Antwerp Ohio crash
 - ♦ To investigate serious ambulance crashes

Prof. Raphael Grzebieta BE, M.Eng.Sci., PhD – Technical Expert Panel

- ▶ Automotive Safety and Crashworthiness Engineer
- ▶ Professor & Chair of Road Safety, Injury Risk Management Centre, University NSW
- ▶ Published over 160 papers in structural crashworthiness research, accident investigation, failure analysis, numerical modeling and experimental crash testing.
- ▶ Team has carried out dozens of crash tests and numerous computer modeling and theoretical studies investigating and mitigating injuries in truck under-run, far-side impact, roll-over and roadside barrier crashes, and numerous accident reconstruction analyses for insurance companies, legal firms, and for criminal and coronial inquests.

