

Welcome to the National Academies, TRB 94th Annual Meeting
"Corridors to the Future: Transportation and Technology"

**The National Academies
Transportation Research Board
(TRB)
EMS Transport Safety ANB10(5)
January 2015 Subcommittee
Meeting**




**Monday January 12th 8-9.45
Marriott Marquis, Eastern Market (M3)**

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Transportation Research Board 94th Annual Meeting,
National Academies Washington, DC, January 12th, 2015
"Corridors to the Future: Transportation and Technology"

**Emergency Medical Services Transport Safety
Subcommittee ANB 10 (5)
2015 January Meeting:
ANB10(5) – EMS Transport Safety
and developments in Technology
and Standards**



Nadine Levick, MD MPH
Chair Emergency Medical Services Subcommittee ANB10 (5), TRB
CEO, Research Director, EMS Safety Foundation
Eileen Frazer RN
Co-Chair ANB10(5) TRB
Executive Director of Commission on Accreditation of Medical
Transport Systems (CAMTS)  TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

**Emergency Medical Services Safety
Subcommittee ANB10(5)
of the Transportation Research Board
Monday January 12th, 2015
8.00 am – 9.45 am
also via Webinar, Washington DC**

Chair – Nadine Levick MD, MPH
Co-Chair – Eileen Frazer RN
Sponsored by Transportation Safety
Management Committee (ANB10) –

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

TRB Annual Symposium



**Inaugural 2008 ANB10(5) Subcommittee
meeting**



 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

94th TRB www.TRB.org



What is EMS?

- Emergency Medical Services – (EMS)
- Emergency medical care, public health, public safety and patient transport
- Bridge between the community and the hospital
- Volunteer – professional
- Urban – rural
- Disaster response
- Majority of transports NOT critical or life threatening – (<3% are critical)

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Transport related aspects of EMS

- dispatch of EMS vehicles
- transport policies and protocols
- vehicle fleets and vehicle design
- vehicle purchase standards
- Intelligent Transportation Systems technology
- driver training
- driver performance monitoring
- roadside and road design
- integrated traffic safety technologies
- scene safety and visibility
- safety data capture
- safety oversight

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

For the transportation folks...

Why is EMS Transportation Safety a focus

- Data state that per vehicle and per mile travelled high fatality rates
- Driven by drivers overrepresented in high risk group: under 25 years of age/male
- Designed outside of the automotive safety and occupant protection arena
- Dangerous driving practice: Travel at high speed and run red lights

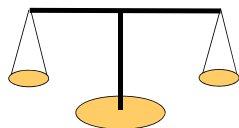
 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Yet....

- In less than 3% of transports is it a life threatening emergency

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

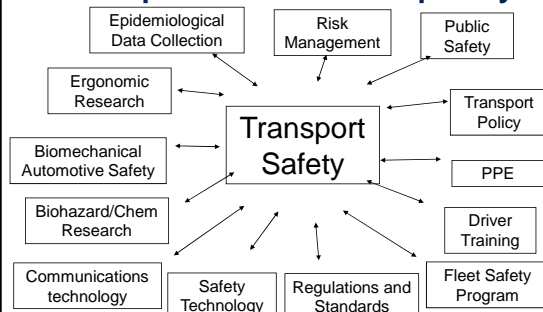
Balance of concerns and risk during transport



- Response and transport time
- Clinical care provision
- Occupant safety/protection
- Public Safety

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Ambulance Transport Safety IS Complex AND Multidisciplinary



 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Negative impact on system performance...

- A medical error may kill a patient
BUT
- An EMS crash can kill all those involved AND wipe out a rural EMS system AND negatively impact a regions response capacity.....

USA EMS transport safety data estimates

includes police report data* and estimates based on known data capture deficiencies

- ~ 81,000 vehicles
- upto 9,000 crashes a year
- ~ One fatality each week
 - ~ 2/3 pedestrians or occupants of other car
- ~10 serious injuries each day
 - >50% not ambulance occupants
- Cost estimates > \$500 million annually

*FARS/GES 2014 - <http://www.naemr.org/Files/HealthSafety/2014%20NHTSA%20Ground%20Ambulance%20Crash%20Data.pdf>

Ambulance transport a serious USA transport safety problem...

- the most lethal vehicle on the road both per mile travelled and per vehicle
- is exempt from federal commercial fleet safety oversight (FMCSA)
- 2/3 fatalities not in the ambulance
- More than half injuries are not in the ambulance
- Exempt from most FMVSS standards

In the USA there are more safety standards for moving cattle than for moving patients



Today's AGENDA

1. Opening Remarks - Nadine Levick and Eileen Frazer 8:00 -8:15 AM
2. Subcommittee Meeting 8:15 - 9:45 AM
 - 2.1 Introductions
 - 2.2 Review and Approval of Minutes from 2014
 - 2.3 Review of Subcommittee activities 2014
 - 2.4 Sub-committee work program updates:
 - 2.4.1 Ambulance Transport Safety Summit 2015
 - 2.4.2 Research Needs Statements - Research Topics Database
 - 2.4.3 Administrative issues
 - 2.4.3.1 Liaison organizations
 - 2.4.3.2 TRB Changes/Communications/Website
 - 2.4.3.3 Membership/Recruitment
 - 2.4.3.4 2016 TRB Session Topics and Calls for Papers
3. EMS National Updates –
 - 3.1 Standards developments in 2014
 - 3.2 TIMS
 - 3.3 NAEMT Safety Course Update
 - 3.4 VFIS
 - 3.5 Federal Projects
 - 3.6 New communications technologies
4. Research needs

Follow hashtags #TRBEMS15, #ANB10(5), #EMSSafety on twitter!

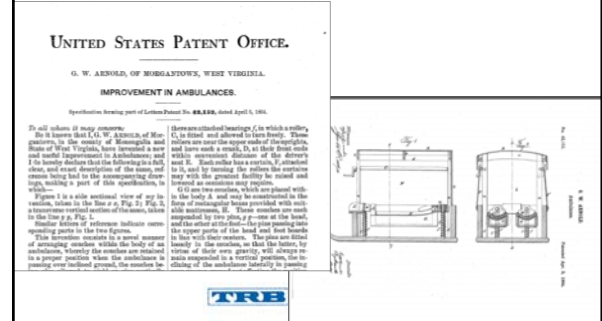


Letter to Abe Lincoln – 1864 re: safety of ambulance design



1864 Ambulance Design Patent and diagrams

Almost 150 years ago

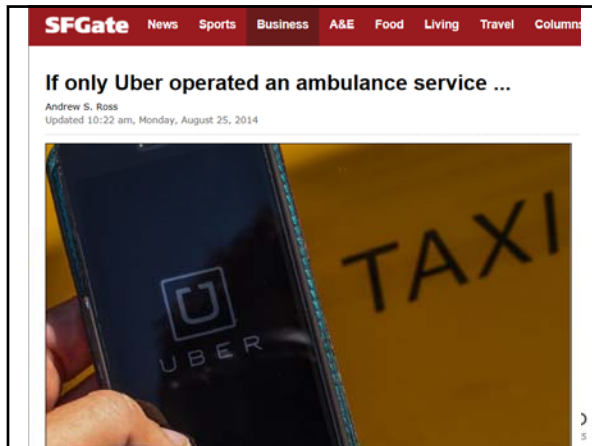


and tweeted...



Big Data and Mobile Health

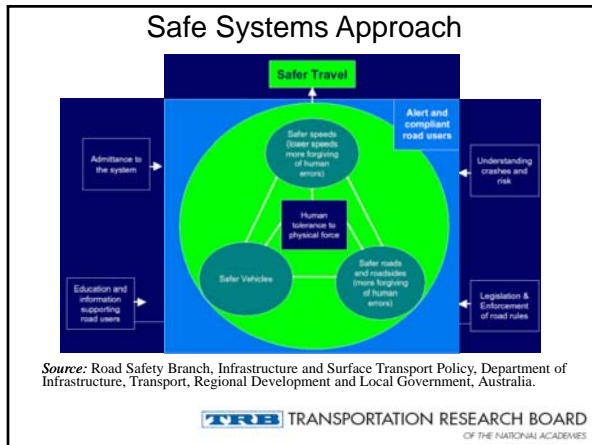




From our very first Subcommittee meeting


- facilitating translation of relevant related transportation safety research and knowledge to EMS

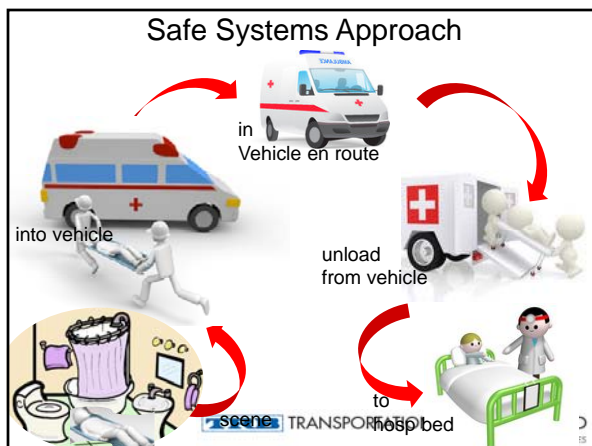
 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES



Systems safety of:


- Dispatching a vehicle
- Getting you, your patient and equipment to, in and out of the vehicle
- Providing patient care inside the vehicle
- Occupant protection in crash and near miss situations
- Public safety

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

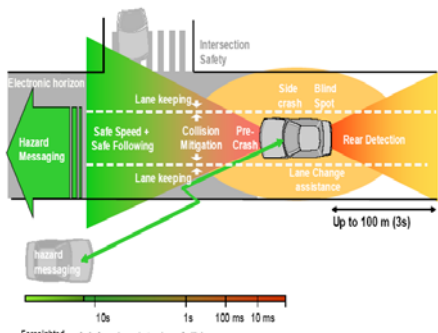


System Design Constraints

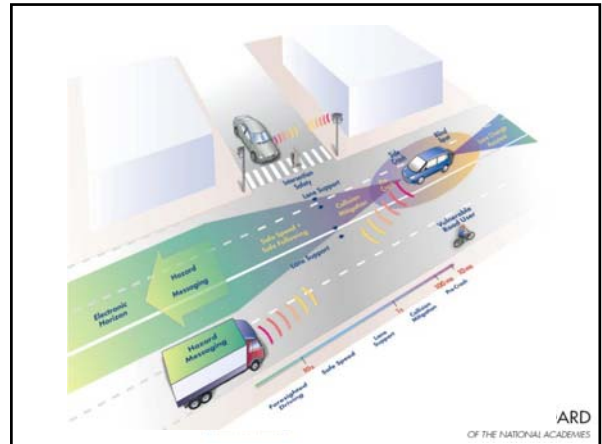
- Do the clinical work that is required and essential
- Not get hurt or killed
- Not hurt or kill anyone else
- So...
- Clinical need
- Human tolerance of injury

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Intelligent Transport Safety Systems



Prevent IP, 2005
JARD
 OF THE NATIONAL ACADEMIES



ARD
 OF THE NATIONAL ACADEMIES

Miniaturize this interface ?



Now can be done on a smartphone platform!!!



Much of this is now in our hands and on our heads!!



Wireless patient monitoring



July 17, 2014

<http://www.marketwatch.com/story/crowdoptic-signs-software-deal-with-protransport-1-to-install-google-glass-in-ambulances-2014-07-17>

July 17, 2014, 12:01 p.m. EDT

CrowdOptic Signs Software Deal With ProTransport-1 to Install Google Glass in Ambulances Companies Aim to Enhance Emergency Medical Services Using Google Glass



SAN FRANCISCO, CA AND SACRAMENTO, CA, Jul 17, 2014 (MarketWired via COMTEX) – CrowdOptic, a maker of mobile and wearable broadcasting solutions, and ProTransport-1, Northern California's premier medical transport provider, today announced a software sales agreement under which ProTransport-1 will deploy the CrowdOptic Google Glass broadcasting solution in its ambulances and mobile medicine units.

ProTransport-1 will use Google Glass to broadcast real-time video evaluations of patients from ambulances during transport to the receiving healthcare institutions. This technology solution will aim to improve documentation and expand medical consultative opportunities for patients en route.



July 22, 2014

<http://www.governing.com/news/headlines/paramedics-might-benefit-from-google-glass.html>

Why Paramedics Might Soon Get Google Glass

BY MCOLATCHY NEWS | JULY 22, 2014

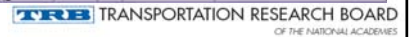
By Ameet Sachdev

While Google Glass' potential as a consumer device remains to be seen, Lauren Rubinson-Morris is excited about its possibilities in her workplace.

Rubinson-Morris is president and chief executive officer of MedEx Ambulance Service, a Skokie-based company that provides transportation to hospitals and other health care sites throughout the Chicago area.

The company has acquired two pairs of Google Glass installed with software and connected to the Internet, allowing paramedics to transmit live video and audio from an ambulance to a doctor in an emergency room who will be able to watch the video stream on a tablet or desktop computer.

The additional eyes on a patient can provide paramedics with advice, diagnosis and treatment options. MedEx plans to launch a test with Advocate Illinois Masonic Medical Center in Chicago



DriveSafe GLASS Home Add To Glass The Team Contact

An app to help you be a safer driver, exclusively on Google Glass.
"OK Glass, Keep me awake."

TRANSPORTATION RESEARCH BOARD OF THE NATIONAL ACADEMIES

TRANSPORTATION RESEARCH BOARD OF THE NATIONAL ACADEMIES

From Wired August 2014

This \$500 Display Makes Your Junker Car Feel Like a Fighter Jet

BY ALEXANDER GEORGE | 08.25.14 | 12:00 PM | PERMALINK



Breaking down the silos between:

- EMS practice
- Automotive occupant protection
- Fleet management
- Human factors and ergonomics
- New technologies in monitoring, communication
- Interoperability
- Fragmented oversight



The TRB and EMS

- **TRB Mission:**
To provide leadership in transportation innovation and progress through research and information exchange, conducted within a setting that is objective, interdisciplinary, and multi modal.
- Provides service to government, public, and scientific and engineering communities.
- **TRB Goals:**
 - Being prepared for challenges.
 - Conduct and promote knowledge.
 - Provide timely and informed advice.
 - Act as an effective and impartial forum.
 - Promote collaboration.
 - Contribute to the professional development
 - Conduct and promote communications efforts.
 - Contribute to public's understanding.
 - A resource to the nation and to the transportation community worldwide

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

What is ANB 10 (5)?

- ▶ **Emergency Medical Services Safety Subcommittee, ANB 10 (5)**
 - Subcommittee of the Transportation Safety Management Committee ANB 10, of the Transportation Research Board of the National Academies

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

EMS Safety Subcommittee ANB10(5)

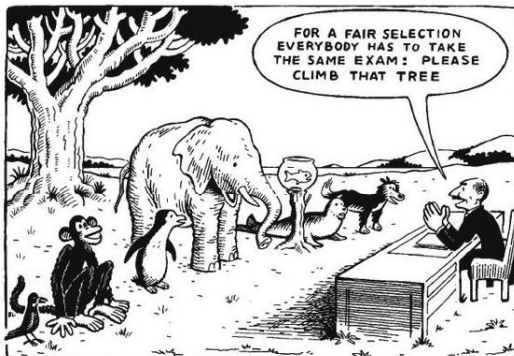
- Subcommittee supported by Transportation Safety Management ANB10
- Established July 2007
- First Subcommittee meeting – Jan 2008
- Chair, Nadine Levick MD, MPH
- Co-Chair, Eileen Frazer, RN
- Scope – Medical Transport Safety

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Multidisciplinary research

- Encompassing all aspects of transportation
- The expertise that EMS needs to address its transportation safety challenges includes:
 - Systems design
 - Transport systems safety
 - Human factors
 - Vehicles
 - Fleet operations
 - Air medical transport safety
 - Managing impaired operators
 - Road design and egress and access
 - Highway and operational hazards

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES



 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Fragmentation

- There are now numerous and variably sound or technically sophisticated events occurring sporadically on ambulance safety – none under a transportation umbrella

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

ANB10 (5) TRB EMS Subcommittee Mission

- *'Bridging the gap between what we do and what is known - Enhancing ambulance transport safety through shared knowledge of technical data'.*

Integration

ANB10(5) is an independent platform for:

- Bringing fragmented information together
- Uniting diverse disciplines
- Focus on technically robust information

The Transportation Research Board (TRB)

- History
TRB was established in 1920 as the National Advisory Board on Highway Research to provide a mechanism for the exchange of information and research results about highway technology.

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 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.

TRB research programs

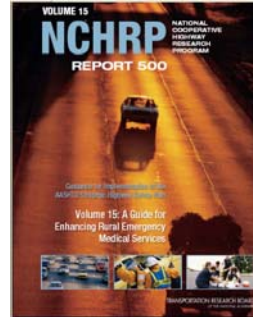
- Cooperative Research Programs manages
 - National Cooperative Highway Research Program - NCHRP
 - Transit Cooperative Research Program - TCRP
 - Airport Cooperative Research Program - ACRP
 - National Cooperative Freight Research Program - NCFRP
 - Hazardous Materials Cooperative Research Program - HMCRP
- Strategic Highway Research Program 2 (SHRP-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.

Special role for EMS at TRB

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

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Transportation Research Board is an excellent resource... we should be using it!!



 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Emergency Medical Services Response to Motor Vehicle Crashes in Rural Areas

<http://www.trb.org/Main/Blurbs/169523.aspx>



 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

In Summary 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
 - Publications and access to research information from around the world.

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Who is attending the 94th TRB meeting

- >12,000 transportation related researchers and technical personnel from all over the globe

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

TRB 2015

- Making Ambulances Safer for EMS Personnel
 - James Green, National Institute of Occupational Safety and Health
 - P15-6240
- A Mathematical Formulation and Heuristic Method for Relocation and Dispatching of Heterogeneous Fire Department Fleet
 - Eiham Sharifi, University of Maryland, College Park
 - Ali Haghani, University of Maryland, College Park
 - Hadi Sadrsadat, University of Maryland, College Park
 - 15-0492
- A Double Standard Model For Emergency Medical Services Allocation Considering Resource Uncertainty
 - Yi Liu, Illinois Institute of Technology
 - Zongzhi Li, Illinois Institute of Technology
 - Harshingar Patel, Illinois Institute of Technology
 - 15-4705

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

TRB Resources and Structured Transportation Research Programs

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

TRB Resources

Resources and Databases

TRB maintains a number of databases and other resources designed to help researchers identify existing, ongoing, needed, and potential areas for fund webinars and recorded sessions that are available for download.

Webinars and Conference Recordings

TRB webinars provide transportation professionals a conference-like atmosphere to share and receive information, while remaining in the comforts of their sessions from our Annual Meeting, and topics requested by TRB committees.

Research in Progress (RiP) database

The Research in Progress (RiP) database contains more than 8,400 current or recently completed transportation research projects. Most of the RiP record transportation research is also included. The RiP Database now serves as a clearinghouse of University Transportation Centers ongoing research. The U.S. Department of Transportation, and University Transportation Centers to add, modify and delete information on their current research projects.

Research Needs Statements (RNS) database

An important function of the Transportation Research Board is to stimulate research that addresses concerns, issues, or problems facing the transportation committees identify, develop, and disseminate research need statements for use by practitioners, researchers, and others.

TRID, the TRIS and ITRD database

TRID is a newly integrated database that combines the records from TRB's Transportation Research Information Services (TRIS) Database and the OECD (ITRD) Database. TRID provides access to over 900,000 records of transportation research worldwide.

Practice Ready Papers (PRP) database

Each year standing committees in the Technical Activities Division identify peer-reviewed papers that could be of potential interest to practitioners as practitioners make a contribution to the solution of current or future problems or issues for practitioners. Information presented in these papers is ready.

Transportation Research Thesaurus (TRT)

The Transportation Research Thesaurus (TRT) is a tool designed to improve the indexing and retrieval of transportation information. The thesaurus covers consistent language between producers and users of transportation information.

Online Directory

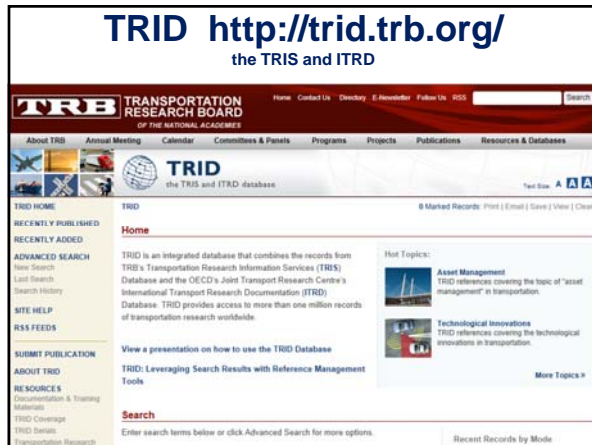
The TRB Online Directory allows you to browse or selectively search through TRB's committees structure to find detailed information on committees, included in the directory are standing committees, project-based committees, and TRB governing committees.

Library

The TRB Library is the primary archive for publications of the Transportation Research Board, Highway Research Board, Strategic Highway Research P to TRB staff, sponsors, TRB committees and panels, and researchers.

Research Funding

TRB's Funding Sources for Transportation Research, Competitive Program is designed to help researchers identify potential organizations where they may



TRID <http://trid.trb.org/>
the TRIS and ITRD

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Home | Contact Us | Directory | E-Newsletter | Follow Us | RSS | Search

About TRB | Annual Meeting | Calendar | Committees & Panels | Programs | Projects | Publications | Resources & Databases

TRID
the TRIS and ITRD database

TRID HOME | 0 Marked Records | Print | Email | Save | View | Close

RECENTLY PUBLISHED

RECENTLY ADDED

ADVANCED SEARCH
New Search
Last Search
Search History

SITE HELP
RSS FEEDS

SUBMIT PUBLICATION

ABOUT TRID
Documentation & Training Materials
TRID Coverage
TRID Databases
Administrative Information

Home


TRID is an integrated database that combines the records from TRB's Transportation Research Information Services (TRIS) Database and the OECD's Joint Transport Research Centre's International Transport Research Documentation (ITRD) Database. TRID provides access to more than one million records of transportation research worldwide.

Hot Topics:
Asset Management
TRID references covering the topic of "asset management" in transportation.
Technological Innovations
TRID references covering the technological innovations in transportation.

View a presentation on how to use the TRID Database
TRID: Leveraging Search Results with Reference Management Tools


Search
Enter search terms below or click Advanced Search for more options.

Recent Records by Month

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES


Transportation Research Information Services (TRIS)

- Online Research Information
- TRB produces and maintains the Transportation Research Information Services (TRIS), the world's largest and most comprehensive online bibliographic database of published and ongoing transportation research.
- Through a cooperative agreement with the Bureau of Transportation Statistics, the TRIS Database is available on the Internet through the website of the National Transportation Library. This service, TRIS Online, can be accessed through the TRB homepage at www.TRB.org. TRIS is also available through two fee-based services, Dialog and Silverplatter's TRANSPORT CD-ROM.

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Other TRB Online Resources

- Research in Progress (RiP) Database
- RiP provides access to more than 10,000 descriptions of current or recently completed transportation research projects from federal and state transportation agencies, universities, and international organizations
- The TRB Publications Index is a searchable index of the Board's papers and reports.

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES



RiP <http://rip.trb.org/>

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Home | Contact Us | Directory | E-Newsletter | Follow Us | RSS | Search

About TRB | Annual Meeting | Calendar | Committees & Panels | Programs | Projects | Publications | Resources & Databases

Research in Progress

RiP HOME | 0 Marked Records | Print | Email | Save | View | Close

RECENTLY ADDED

MAPS
TRB's 2007 Research in Progress Database

ADVANCED SEARCH
New Search
Last Search
Search History

SITE HELP
ALERTS
RSS FEEDS

ABOUT TRIS
Documentation & Training Materials
TRIS Coverage
TRIS Databases
Administrative Information

Home

The Research in Progress website allows users to:

- Search the entire Research in Progress database by various fields
- Browse project records by subject category
- Use a link-up for searching by index terms, individuals, organizations or location
- Subscribe to receive a mail notification of new RiP records in specific subject areas

Authorized individuals can also:

- Add, modify, and delete RiP records
- Import files for batch load

Keywords

Advanced Search

Advanced Search

Authorized Users
Click to Login

About RiP
The Transportation Research Board's Research in Progress (RiP) website contains the Research in Progress (RiP) Database and a data-entry system to allow users in State Departments of Transportation, the U.S. Department of Transportation, University Transportation Centers and other US DOT Federal laboratories to add, modify, and delete information on their current research projects. The RiP database now contains over 12,000 current or recently completed transportation research projects. Most of the

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Research Approaches

- Submission avenues:
 - Synthesis topic - NCHRP
 - SHARP 2 – Safety
 - Research questions/Problem statements

Sample Research Question

TEMPLATE AND EXAMPLE

Title

The purpose of the study is to explore roadway engineering improvements that can be implemented to reduce drunk driving crashes. It is generally accepted that most DWI crashes are behavioral in nature, one or more drivers being intoxicated with alcohol or other drugs. Yet, studies on the locations of DWI crashes do find specific locations where a disproportionate number of such crashes occur. The purpose of the study will be to identify potential roadway engineering improvements that could reduce DWI crashes, including changes in roadway geometry, signaling, signage, creation of obstacles to slow drivers, automated detection systems for erratic driving, adaptive signage to slow vehicles, and other roadway technologies.

The research study will accomplish three tasks. First, the researcher will review the literature on engineering features to identify possible improvements and roadway technologies that could reduce DWI crashes. Second, the researcher will conduct interviews with knowledgeable individuals about each of the technologies to explore benefits, problems and potential costs. Third, the researcher will produce a report comparing the technologies and will estimate the likely benefits and costs of each of the technologies and will produce a prioritization.

Objective

The objective is to increase the range of tools available for departments of transportation and public works and local police to reduce DWI crashes.

Key Words

Safety engineering, DWI, Behavior modification

Related Work

Studies have been conducted that demonstrate concentrations of DWI crashes (hot spots).

There is a long history on mitigating crash hot spots.

Implementing improvements could reduce DWI and other behavioral induced crashes.

Very important. This study is very important because drunk driving is the major cause of motor vehicle fatalities in the United States which, in turn, places a huge cost on our society, both monetary and in terms of the public good.

Cost

\$75,000 - \$125,000

User Community

FHWA, NHTSA, ITE, AASHTO, AMPO, NARC, IACP, USDOJ, NJ

Implementation

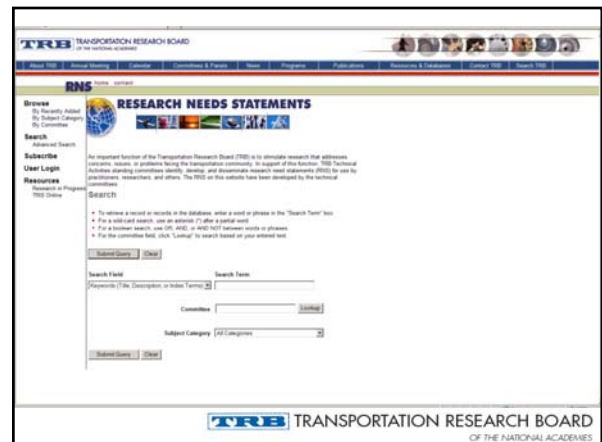
The study will involve a literature review, interviews with experts, and a conceptual evaluation.

Effectiveness

This would be a first step in identifying new or overlooked technologies that could reduce DWI crashes.

ANB10(5) Umbrella Committee is ANB10 Transportation Safety Management

How do TRB Subcommittees work?




DETERMINATION OF CURRENT STATE BASED EMERGENCY VEHICLE CRASH DATA CAPTURE AND ANALYSIS POLICY, FEE AND EMS

- I. **PROBLEM TITLE**
Description of current state based emergency vehicle crash data capture and analysis, policy, fee and EMS.
- II. **RESEARCH PROBLEM STATEMENT**
A paper that describes the current state of emergency vehicle crash data capture and analysis across each of the 50 states, including a comparison of current state based emergency vehicle crash data capture and analysis to other states. This is a first step in developing a meaningful national picture of the state of emergency vehicle crash data capture and analysis. The proposed study should be done by a recognized or approximately 120 hours of professional time.
- III. **OBJECTIVE**
To identify the current state based emergency vehicle crash data capture and analysis policy, fee and EMS across each of the 50 states, including a comparison of current state based emergency vehicle crash data capture and analysis to other states. This is a first step in developing a meaningful national picture of the state of emergency vehicle crash data capture and analysis. The proposed study should be done by a recognized or approximately 120 hours of professional time.
- IV. **RESEARCH PROPOSED**
Provide a summary of the current state based emergency vehicle crash data capture and analysis policy, fee and EMS across each of the 50 states, including a comparison of current state based emergency vehicle crash data capture and analysis to other states. This is a first step in developing a meaningful national picture of the state of emergency vehicle crash data capture and analysis. The proposed study should be done by a recognized or approximately 120 hours of professional time.
- V. **ESTIMATE OF THE PROBLEM FUNDING AND RESEARCH PERIOD**
Recommendation: Provide an estimate of the total cost to complete the research and an estimate of the total cost to complete the research. The research should be completed within 12 months of the start of the project. The research should be completed within 12 months of the start of the project. The research should be completed within 12 months of the start of the project.
- VI. **URGENCY AND PAYOFF POTENTIAL**
Include a statement regarding the urgency of the problem. Identify and, if possible, quantify the potential and magnitude of the problem and the potential benefits of the proposed research. The research should be completed within 12 months of the start of the project. The research should be completed within 12 months of the start of the project. The research should be completed within 12 months of the start of the project.
- VII. **RELATIONSHIP TO FTA STRATEGIC GOALS AND POLICY INITIATIVES AND TCRP STRATEGIC PRIORITIES**
Compare the problem statement using the FTA strategic initiatives and the TCRP Strategic Priorities.
- VIII. **RELATED RESEARCH**
Identify, provide information on other research in progress, or pending, or that is closely related to the proposed problem.
- IX. **PERSONS DEVELOPING THE PROBLEM**
Provide the names (i.e., name, title, address, telephone, and fax number) for the person(s) who developed the problem.
- X. **PROCESSED TO DEVELOP PROBLEM STATEMENT**
The ARD Safety Improvement team discussed and resolved.
- XI. **DATE AND REQUESTED BY**
Provide the specific (see Section II) of the person(s) who submitted the problem and the date of submission.
Requested by: Christopher M. Sudo, Oregon TCRP Transportation Research Board 1000 NE Oregon St., SE

ARD IDEAS

Problem statement development in progress from 2008-2014

- Development and application of standardized definitions to capture EMS transport data across all agencies.
- Identifying ambulance fleet mix by state
- Determination of current state based emergency vehicle crash data capture and analysis; police, fire and EMS.
- Identifying the regional essential and optional equipment payload for ambulances
- Evidence for ambulance visibility and conspicuity
- Effectiveness and cost effectiveness of real time driver monitoring feedback devices for EMS services

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Home Contact Us Directory E-Newsletter Feedback RSS

About TRB Annual Meeting Committees & Panels Programs Projects Publications Resources & Databases

NCHRP Synthesis 20-05/Topic 43-15 [Active (Synthesis)]

Models for Effective Emergency Medical Services Response to Motor Vehicle Crashes in Rural Areas
[NCHRP 20-05 Synthesis of Information Related to Highway Problems]

Project Data	
Year:	2011
Staff Responsibility:	Jill Allen Drake
Effective Date:	7/3/2011
Fiscal Year:	2011


Final Scope

Approximately 23% of the U.S. population lives in rural areas, yet rural crashes account for 56% of highway fatalities. The average fatality rate for rural roads is more than twice the rate for urban roads—2.4 per 100 million VMT for rural roads compared to 1.0 per 100 million VMT average fatality rate for urban roads. There are many factors contributing to these high figures, such as the challenge for emergency medical services (EMS) to be notified, locate, respond, stabilize, transport, and care for patients in definitive care facilities in a timely and effective manner.

There is limited evidence-based research on practices in state, local, and local agencies that improve EMS systems and patient outcomes. However, there are many innovative practices in place today that can serve as models for other rural EMS practices to follow. For this study, EMS includes incident detection and notification, emergency dispatch (e.g., 911), first responders, ground and air ambulance services, other local EMS agencies, intermediate community and rural hospitals, and trauma centers. The study will focus on rural roads in rural regions.

The objective of this study is to obtain information on effective rural emergency medical systems. The study will gather information on effective EMS practices and system deficiencies as reported by agencies. This information includes, but is not limited to:

- Measurable quality of care and health outcomes.
- Collection and analysis of response and transport times.
- Evaluation of cost effectiveness of EMS practices.
- Integrated partnerships between key stakeholders, such as state DOTs, public health agencies, state and local EMS agencies, other rural hospitals, and trauma centers.

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Home Contact Us Directory E-Newsletter Feedback RSS

About TRB Annual Meeting Committees & Panels Programs Projects Publications Resources & Databases

NCHRP 17-51 FRAMEWORK PROJECT

PUBLIC PROJECT WEBSITE

Home About Program Topics Resources Build research ideas Comments Contacts FAQs

ABOUT THE PROJECT

6/27/10 2:01 PM

Background: Project Objective - The Project Team

Background: Over the last few years, more than 470 thousand people died on public roadways in the United States. Motor vehicle crashes remain one of the leading causes of death including the cause of death ages 1 through 34 (CDC, 2010). The annual number of motor vehicle crashes is estimated at 6.5 million (FHWA, 2010). The number of motor vehicle deaths is also high. In 2009, nearly 33,000 people were killed in motor vehicle crashes on motor vehicle-related crashes (Police, Localities, and Health, 2010). Motor vehicle crashes are the leading cause of death for children and young adults in the U.S. (NHTSA, 2008) and the leading cause of human death (NHTSA, 2008) related to road use.

Highway deaths were first recognized as a national problem in the 1950s, and efforts to reduce highway deaths were established in the 1960s. The industry through highway safety plan and NHTSA's 10 program was aimed at addressing the problem. Implementation of short-term, low-cost countermeasures and investments in safety programs have led to a significant reduction in highway deaths. The reduction in deaths since 2001 is attributed to the implementation of short-term countermeasures in highway safety plans that focused strategies to reduce fatalities. We are here to support the continuation of the program that has been successful over the last few years. This is because road deaths are still a significant public health problem.

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

NCHRP 17 - 51

- The Framework developed by NCHRP 17-51 will be a tool that Stakeholders can use to formulate their Highway Safety Plans which integrate EMS, at the National, State, or Local Level. More information about the Framework Project is available at: <http://www.strategicsafetyplan.com>

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Home Contact Us Directory E-Newsletter Feedback RSS

About TRB Annual Meeting Committees & Panels Programs Projects Publications Resources & Databases

NCHRP 17-51(04) [Completed]


Development of a National Strategy on Highway Safety — TZD Framework

Project Data	
Year:	2011
Research Agency:	CH2M HILL
Principal Investigator:	Todd R. Neuman
Effective Date:	5/22/11
Completion Date:	6/29/11

BACKGROUND
The American Association of State Highway and Transportation Officials (AASHTO), with the help of other highway safety stakeholders, developed and adopted a strategic highway safety plan (SHSP) in 1997 and updated this plan in 2005. NCHRP Report 500: Guidance for Implementation of the AASHTO Strategic Highway Safety Plan has been published in 2007 to address the objectives of the AASHTO plan. Furthermore, each state has its own SHSP, as do many safety stakeholder organizations. Over the history of these plans, there would be benefit to examining the experiences that led to implement these plans. Strategies most effective and promising action to achieve, or at least address, intended goals and objectives need to be evaluated and highlighted. More recently, the U.S. Department of Transportation identified through the Federal Highway Administration and several highway safety-related professional associations have initiated an effort to develop a National Strategic Highway Safety Plan to be titled "Toward Zero Deaths: A National Strategy on Highway Safety." The national strategy is intended to be a guide or framework for safety stakeholder organizations to enhance current national, state, and local safety planning and implementation efforts. The plan will provide a wide array of accepted strategic and innovative new strategies directed at institutional and cultural changes through the 4 E's (education, enforcement, engineering, and emergency medical services). Identifying commonly accepted and successful strategies would contribute to the development of a national strategy by these stakeholder organizations. Unlike the earlier AASHTO plan, this national strategy will not be "owned" by any one organization. The strategy will cover a broad range of issues and can be utilized as a guide and framework for safety stakeholder organizations to enhance current state and local safety planning and implementation efforts. To assist in implementation of existing individual plans and serve as a resource for those interested in developing effective statewide emergency response, it is necessary to identify successful strategies already deployed and to incorporate innovative countermeasures that go beyond the countermeasures already known to be effective.

OBJECTIVE
The objective of this research is to identify strategies, existing and proposed, to achieve various safety-related goals over an extended period of 25 years. An array of potential strategies will be organized into a framework based on the desired safety outcome and the expected degree or rate of success. Via the framework, stakeholders will be presented with options for formulating their highway safety plans to address national, state, or local needs effectively. Strategies may also include new directions for needed research.

TASKS
(1) Review existing literature associated with highway safety programs and countermeasures. In addition, review information gathered from (1) the Toward Zero Deaths: A National Strategy on Highway Safety, (Strategic Highway Safety Plan, August 2005, 2011), (2) include the white papers prepared at AASHTO and the national stakeholders' conference on the white papers, (3) a stakeholder...

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

TRB TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Home Contact Us Directory E-Newsletter Publications RSS FEED Search

About TRB Annual Meeting Calendar Committees & Panels Programs Projects Publications Resources & Databases

NCHRP 17-51(03) [Active]
Communication Plan for the National Highway Safety Strategy

Project Code:	17-51(03)
Staff Responsibility:	Jack E. Bost
Research Agency:	Penn State/Dan Hayes
Effective Date:	02/20/11
Completed Date:	02/20/12
Comments:	Research in progress

The communications plan has been tentatively completed. The project is still active to be in alignment with NCHRP 17-51.
To create a link to this page, use the URL: <http://trb.org/projects/17-51-03-03/17-51-03-03/>

Transportation Research Board, 500 Fifth St. NW, Washington, D.C. 20001
Copyright © 2013, National Academy of Sciences. All Rights Reserved.

TRB TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

TRB TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Home Contact Us Directory E-Newsletter Publications RSS FEED Search

About TRB Annual Meeting Calendar Committees & Panels Programs Projects Publications Resources & Databases

NCHRP 17-57 [Active]
Development of a Comprehensive Approach for Serious Traffic Crash Injury Measurement and Reporting Systems

Project Code:	17-57
Staff:	Jack E. Bost
Staff Responsibility:	Jack E. Bost
Research Agency:	University of Michigan
Principal Investigator:	Jonathan D. Rupp
Effective Date:	02/20/12
Completed Date:	02/20/14

BACKGROUND
Currently, severity of injuries is estimated by police on the scene of a traffic crash. A very simple rating scale is employed by many states or communities, i.e., the KABCO injury scale or a comparable variant. Basically, the police officer codes the overall level of injury each person receives as fatal, incapacitating, non-incapacitating, possible, or no injury. Each of these levels has a definition and criteria for rating. However, what the officer observes at a crash scene can differ substantially from what is found by medical personnel. The National Highway Traffic Safety Administration (NHTSA) utilizes the Crash Outcome Data Evaluation System (CODES). State CODES programs conduct a probabilistic matching of statewide health records with crash reports. However, a limited number of states are participating in this system, and the technical process is complex. Using correct police reports with any further medical outcome or cost data can be technically difficult. Also, organizational and other barriers may exist for making such linkages within states. Performance measures are extensively referenced in draft proposals for the Surface Transportation Reauthorization Bill. For the measurement of safety performance, both fatal and non-fatal serious injuries are emphasized on these proposals. NHTSA and the Governors Highway Safety Association recently developed a series of safety performance measures that include use of fatalities and serious non-fatal injuries. The American Association of State Highway and Transportation Officials has also been working to develop similar performance measures. If serious non-fatal injuries and crashes are to become major performance measures for states, then an accurate and feasible method for determining level of injury severity based on a medical assessment is needed.

OBJECTIVES
The objectives of this research are to:
(a) identify an injury scoring system for further consideration; Analyze the advantages and disadvantages of conventional injury scoring systems based on International Statistical Classification of Diseases and Related Health Problems (ICD) codes and IARC/OCC; Document advantages and disadvantages of various definitions for a serious injury metric; Develop a method to record states in developing and implementing an injury system to measure and report injury severity using accepted injury scoring systems based on ICD codes. The intent of the working is to enable year-to-year performance assessment by states using a standard measure. As a minimum, the method should document a common, standard, and feasible approach to measure injury severity based on a medical assessment.

TRB TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

2.3 Review of Subcommittee activities 2014

- EMS Today, 2014
 - INDEMO & Outreach with TRB Summit multimedia info
- EMS World Expo 2014
 - INDEMO & Outreach with TRB Summit multimedia info
- Input to NAEMSP Transport Safety Position Statement

TRB TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Subcommittee Meeting stats

Sure took us by surprise!

- >11,300 downloads of Subcommittee meeting handout
- >50,300 downloads of Synopsis of the 2012 Safety, Systems, Strategies and Solutions Summit handout
- >10,100 Fleet Tech Innovation handout
- >9,200 Standards Update handout

TRB TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

The Safety Systems, Strategies and Solutions Summit Feb 2012

- ~50 onsite – lead representatives
- Live online participation with international representation
- 7 focus areas and a panel
- >120,000 downloads of presentation handouts
- Multi-Media 'e-document' with QR tags
- You tube overview

TRB TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

TRB TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

EMS Safety Systems Strategies and Solutions Summit, February, 29, 2012

- What are global best practice models
- Making it happen
- How can we translate global interdisciplinary best practice initiatives to North American EMS

TRB TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

2012 EMS Safety Systems, Strategies and Solutions Summit

<http://www.emssafetyfoundation.org/2012TRBSummitMultimediamwithLinksBW.pdf>

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Your TRB EMS Safety Systems Strategies and Solutions Summit Multimedia Document

<http://www.emssafetyfoundation.org/2012TRBSummitMultimediamwithLinksBW.pdf>




TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

2012 TRB Summit opening address

For the audio track either:
- click on the 'Audio' links below with your mouse, or
- capture the QR codes below with your smart phone of any type (after downloading any free QR reader)

Agenda
[Biosketches of Presenters and Moderators](#)

Audio 1
Opening Address: [A.J. Heightman](#) 8:00-8:15

 Introductions and Safety Developments Update 8:15-8:30
[Nadine Levick, MD, MPH](#), [Rick Pain, PhD](#),
[Research needs assessment forms explained](#) – E. Frazer

Session 1: Data and Recent Initiatives – moderator – C. Cobb - 8:30 – 9:15

- Safety data update - [N. Levick](#) 8:30 – 8:45
- Bureau of Labor Statistics data- [J. Windau](#) 8:45 – 8:55
- NTSB/NEMSAC/NIST/DHS Update – [E. Frazer](#) 8:55 – 9:10
- NAEMT Safety Course - [G. Luedtke](#) 9:10 – 9:15

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

2.4 Sub-committee work program updates:

2.4.1 Ambulance Transport Safety Summit April 2015

2.4.2 Research Needs Statements - Research Topics Database

2.4.3 Administrative issues

- 2.4.3.1 Liaison organizations
- 2.4.3.2 TRB Changes/Communications/Website
- 2.4.3.3 Membership/Recruitment
- 2.4.3.4 2016 TRB Session Topics & Calls for Papers

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

2.4 Sub-committee work program updates:

2.4.1 Ambulance Transport Safety Summit 2015

- Synopsis of 2008, 2009, 2012 Summit resources
- Focus on: A Road Map to Safety
 - Integrating existing data, knowledge and resources
 - A systems engineering approach to applying safety concepts
 - Data supported practices, policies and standards
 - Fleet operations/transport clinical aspects
 - New technologies
 - Fleets/vehicles/human factors/patient monitoring/communications

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

2.4 Sub-committee work program updates:

2.4.2 Research Needs Statements - Research Topics Database

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Research Problem Statements

Developed 3 small and 2 larger project outlines

1. Data definitions of:
 - i. ambulance
 - ii. emergency response
 - iii. ambulance crash
2. Essential/Optional Ambulance Equipment
What does each state require? Expert panel to identify -:
 - i. essential equipment
 - ii. optional equipment
 - iii. equipment specific to regional needs
3. Fleet mix, by state

Research Problem Statements

2 larger project outlines

4. Effectiveness and cost effectiveness of EMS monitoring feedback devices
5. Determination of State based emergency vehicle data capture and analysis: police, fire and EMS

2.4.3 Administrative issues

- 2.4.3.1 Liaison organizations
- 2.4.3.2 TRB Changes / Communications / Website
- 2.4.3.3 Membership/Recruitment
- 2.4.3.4 2016 TRB Session Topics and Calls for Papers

ANB10 Committee

<https://sites.google.com/site/trbcommitteeanb10>



3. EMS National Updates

- 3.1 Standards developments in 2014
- 3.2 TIMS
- 3.3 NAEMT Safety Course Update
- 3.4 VFIS
- 3.5 Federal Projects
- 3.6 New communications technologies

3.1 2014 Standards developments

National Association of State EMS Officials

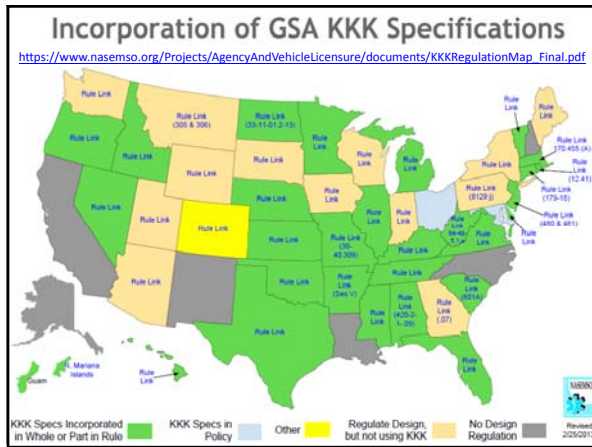
State EMS Offices' Typical Roles

- Setting EMS educational standards
- Licensure of EMS personnel
- EMS response data collection
- Trauma system regulation
- Licensure of EMS agencies, including requirements for the design of ambulances
- Enforcement, inspections, investigations, sanctions

National Association of State EMS Officials

States Regulate the Design of Ambulances

- 14, 500 ambulance services licensed in the US (2011)
- State approaches fall into 5 categories: (2012)
 - KKK specs incorporated in whole or part in rule
 - KKK specs in policy
 - Regulate design, but not using KKK specs
 - No design regulation
 - "Other"



Society for Automotive Engineers - SAE

SAE INTERNATIONAL

HOME AIRSPACE AUTOMOTIVE COMMERCIAL VEHICLE TOPICS SHOP MY SAE LOGIN

The ultimate knowledge source for mobility engineering.

Event SAE 2014 Commercial Vehicle Engineering Congress

Bringing together a global assembly of both on- and off-road professionals, providing solid, profitable interaction with engineers, supply managers and executives.

Featuring forums, presentations, discussions by industry leaders and innovators, focusing on global technology and business issues relative to process and challenges; cutting-edge tech sessions for engineers to learn, discuss, and benefit from the latest trends, technologies, and potential solutions; and networking opportunities and special events to promote professional interaction and collaboration.

Join us in Rosemont, IL, on October 7-9. Register now...

TRANSPORTATION RESEARCH BOARD OF THE NATIONAL ACADEMIES

For restraint systems – not vehicle design & not based on crashworthy vehicles

Testing Criteria – Frontal & Side Impact

SAE J2917-Ambulance Patient Compartment Frontal HYGE Sled Pulse, May 2010

SAE J2956-Ambulance Patient Compartment Lateral HYGE Sled Pulse, June 2011

CDC Mosh ARD ACADEMIES

Again, for equipment anchors, NOT vehicle crashworthiness

Testing Criteria – Rear Impact

Crash response of two vehicles used to develop new SAE Recommended Practice for Rear Impact Testing

SAE Recommended Practice

CDC Mosh BOARD OF THE NATIONAL ACADEMIES

SAE International

HOME | ADVISORY | AUTOMOTIVE | COMMERCIAL VEHICLE | TOPICS | SHOP | MY SAE | LOGIN | SEARCH

LEARN

Articles

Events

Publications

Standards

Students

Training/Education

Webcasts/Videos

SAE International Publishes Series of Technical Reports that Help Improve Ambulance Patient Compartment Safety

WARRENDALE, Pa., Aug. 27, 2014 -

With the recent publishing of four technical reports, SAE International now offers a series of recommended practices designed to enhance overall ambulance safety in several areas, including patient compartments and occupant restraint.

The four newly published recommended practices include:

- **"J3026 - Ambulance Patient Compartment Seating Integrity and Occupant Restraint"** - This SAE Recommended Practice describes the testing procedures that may be used to evaluate the integrity of ground ambulance-based occupant seating and occupant restraint systems for workers and civilians transported in the patient compartment of an ambulance when exposed to frontal or side impact.
- **"J3027 - Ambulance Litter Integrity, Retention, and Patient Restraint"** - This SAE Recommended Practice describes the testing procedures required to evaluate the integrity of a ground ambulance-based patient litter, litter retention system, and patient restraint when exposed to a frontal or side impact.
- **"J3043 - Ambulance Equipment Mount Device or Systems"** - This SAE Recommended Practice describes the dynamic and static testing procedures required to evaluate the integrity of an equipment mount device or system when exposed to a frontal or side impact (i.e. a crash impact).
- **"J2044 - Occupant Restraint and Equipment Mounting Integrity - Rear Impact System-Level Ambulance Patient Compartment"** - This SAE Recommended Practice describes the test procedures for conducting rear impact occupant restraint and equipment mounting integrity tests for ambulance patient compartment applications.

These recommended practices join two already existing ones, including "J2917 - Occupant Restraint and Equipment Mounting Integrity - Frontal Impact System-Level Ambulance Patient Compartment," and "J2956 - Occupant Restraint and Equipment Mounting Integrity - Side Impact System-Level Ambulance Patient Compartment."

**2014 New Organization in the field
CAAS Ground Vehicle Standard (GVS-2015)**
<http://www.groundvehiclestandard.org>

Home | Ground Vehicle Standard | About GVS | Steering Committee | Meetings | About CAAS

Ground Vehicle Standard (GVS-2015)

The Commission on Accreditation of Ambulance Services (CAAS) is asking for public comment on its draft Ground Vehicle Standard (GVS-2015) for ambulances. The deadline for public comment is **Monday, December 1, 2014**.

The CAAS Ground Vehicle Standard (GVS-2015) identifies the minimum requirements for new ambulance (Emergency Medical Services (EMS) ground ambulances built on Original Equipment Manufacturer's Chassis (OEM) that are prepared by the OEM for use as an ambulance. This Standard applies to new vehicles only.

The CAAS Ground Vehicle Standard (GVS-2015) does not apply to the following vehicle categories:

- Military Vehicle/Combat Support Ambulances
- Infant Care (used transport vehicles)
- Motor Casualty Vehicle/Ambulance Buses
- Ambulances in Remote/Isolated Areas
- Fire Apparatus

The purpose of the CAAS Ground Vehicle Standard (GVS-2015) is to test new patients by providing ground ambulances that are safe, nationally recognized, properly constructed, easily maintained, and when professionally staffed and provisioned, will function reliably in pre-hospital or other mobile emergency medical service. The CAAS Ground Vehicle Standard (GVS-2015) establishes minimal requirements, performance parameters and essential criteria for the design of ground ambulances and to provide a practical degree of interoperability.

Energy transfer is not a consensus process

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Opinion Consensus

vs

Technical Science

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

3.2 TIMS

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

TIM <http://timnetwork.org>

Home | Job Post | NHTSA | Partners | The Incident | Contributors | Request/Reply.com | January 15, 2014

About TIM

Initiated by the Traffic Incident Management (TIM) Research Board, The TIM Network is a member of the National Traffic Incident Management Coalition (NTIMC). The goal of the TIM Network is to connect and coordinate emergency responders from diverse disciplines in each other, provide a unified for the professionals to create better, and provide a way to be effective in their jobs.

Emergency Responder Safety Institute | National Traffic Incident Management Coalition | NHTSA: Forums & Traffic Signal Library Blog

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

the tim NETWORK

Traffic Incident Management


- Planned and coordinated multi-disciplinary process to detect, respond to, and clear traffic incidents so that traffic flow may be restored as safely and quickly as possible. Effective TIM reduces the duration and impacts of traffic incidents and improves the safety of motorists, crash victims and emergency responders.
 - Emergency Medical Services
 - Fire and Rescue
 - Law Enforcement
 - Towing and Recovery
 - Transportation
 - Medial Examiners/Coroners
 - Metropolitan Planning Organizations
 - Public Emergency Access Points (911 centers)



the tim NETWORK

National Unified Goal for Traffic Incident Management

- 18 Cross-cutting strategies to support three overarching goals
 - Responder Safety
 - Safe Quick Clearance
 - Prompt, Reliable, Interoperable Incident Communications
- Basis for TIM Network activities




the tim NETWORK


Where can I find the TIM Network?

- Look for Tim Shareswell
- On the web – www.timnetwork.org
- On Facebook – “Tim Shareswell” and “National Traffic Incident Management Coalition”
- Twitter – “The_TIM_Network”


3.3 NAEMT Safety Course Update



Glenn Luedtke NREMT/P
Immediate Past Chair NAEMT Safety Course



- 50 Years in EMS/Public Safety
- Director, Sussex County EMS (retired)




EMS SAFETY COURSE

National Association of
 Emergency Medical Technicians





Course Design

- One-day program
- Interactive lecture, discussion, group activities
- Case studies using real incidents
- 8 hours continuing education credit (CECBEMS)
- Presented in 8 modules

EMS Safety Course Committee



Course Leadership

- Chairman, Mike Szczygiel (Segal)
 - Over 40 years experience in EMS
 - Nationally Registered Paramedic
 - Senior Loss Control Representative, Thomco Insurance
 - Part of the original design team for the EMS Safety Course



Course Revision

- Revision project in progress
- Jones & Bartlett will produce all course materials
- Increased student participation
- Additional video and new photos
- Rollout planned for EMS World Expo
 - September, 2015
 - Las Vegas, NV
- Remains a one-day course



NAEMT EMS Safety Course


For more information on how to sponsor a course,

- ✓ go to www.naemt.org, click "EMS Safety"
- ✓ call 1-800-346-2368 (1-800-34NAEMT)
- ✓ email info@naemt.org
- ✓ visit "NAEMT EMS Safety" on Facebook



3.4 VFIS

https://www.nasemso.org/Meetings/Annual/Presentations2014/documents/Promoting_Safety-in-EMS-What-States-Can-Do-2014.pdf



**Promoting Safety in EMS
What States Can Do?**

**NAEMSO
October 8, 2014**

Dave Bradley, B.S., NREMT-P

3.5 Federal Projects

- FHWA Strategic Highway Safety Plans & EMS
- Culture of Safety
- NIST/NIOSH/DHS
- DHS wireless
- NEMSAC

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

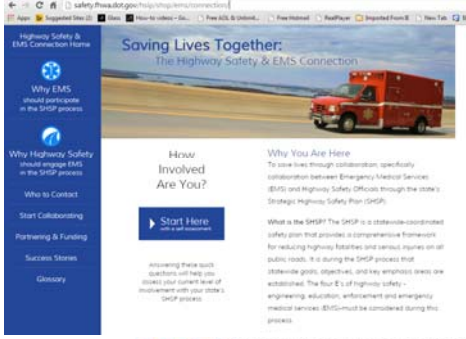
<https://www.nasemso.org/Meetings/Annual/Presentations2014/documents/Federal-EMS-Agencies-and-National-EMS-Resources-2014.pdf>

Federal Agencies and National Organizations

**Dia Gainor, MPA, QAS
Executive Director
NAEMSO**


 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

<http://safety.fhwa.dot.gov/hsip/shsp/ems>




**Saving Lives Together:
The Highway Safety & EMS Connection**

How Involved Are You?

Why You Are Here

Start Here

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

<http://www.emscultureofsafety.org>
Final document released



National EMS Culture of Safety

HOME EXECUTIVE SUMMARY LEADERSHIP CONTACT

FINAL STRATEGY DOCUMENT

Download the Final Strategy for a National EMS Culture of Safety document here

Download Final Draft

Alex Roman
President, American College of Emergency Physicians

Copyright © 2013 American College of Emergency Physicians

NIOSH

Workplace Safety & Health Topics

Workplace Safety and Health Topics

Industries & Occupations

Hazards & Exposures

Diseases & Injuries

Safety & Prevention

Chemicals

Emergency Preparedness & Response

EMERGENCY MEDICAL SERVICES WORKERS

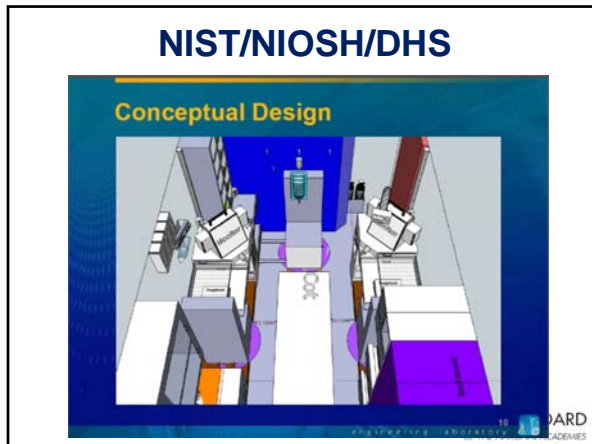
NIOSH EMS Projects

Occupational injuries and illnesses among emergency medical services (EMS) workers

This is a collaborative project with the National Highway Traffic Safety Administration (NHTSA) Office of Emergency Medical Services. The purpose of this project is to conduct research to provide a detailed description of non-fatal occupational injuries and illnesses incurred by EMS workers, including the nature, circumstances, and outcomes of the injuries and illnesses and the characteristics of the injured or ill workers.

Project contact: Audrey Reichard
Division of Safety Research
(304)285-6019
Project period: 2009-2016


 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES



Automotive Safety & occupant protection remain unresolved, with serious automotive safety concerns

First Responders Group
Second Draft
Ambulance Patient Compartment Human Factors Design Guidebook
April 30, 2014
DHS SAT Logo

DHS Wireless Patient Monitoring

TRANSPORTATION RESEARCH BOARD OF THE NATIONAL ACADEMIES

TSAG
<http://www.tsag-its.org/>

Working Together
Projects

RD
IMES

www.EMS.gov

TRANSPORTATION RESEARCH BOARD OF THE NATIONAL ACADEMIES

3.6 New Safety Communication Technologies

TRANSPORTATION RESEARCH BOARD OF THE NATIONAL ACADEMIES

New Tech

- **36% of Google Ventures' investments in 2014 were in healthcare and life sciences.** Upping its funding in the sector from just 9% in 2013, the tech giant plans to continue exploring the area with an emphasis on big data next year. [Wall Street Journal](#)

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

- **Ambulance drones could be saving lives soon!** Earlier this year, the Netherlands developed a prototype that can deliver a defibrillator to a patient suffering a heart attack. Once it lands, the drone uses live stream video conferencing to connect emergency responders to people on the ground

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

And even now AED Drones!

Ambulance Drone Delivers Defibrillator by Air (VIDEO)
by SPOTVIEWS on March 3, 2014 - 4:28 pm



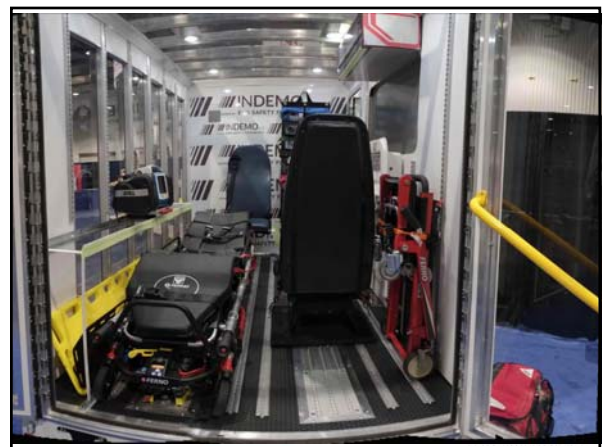
Automatic external defibrillators (AEDs) are now a common sight at airports and sports venues, but they're nowhere near to being ubiquitous. Alex Mommot, a graduate industrial design student at TU Delft University in Holland, developed a drone with a built-in defibrillator that can quickly fly exactly to where it's needed.

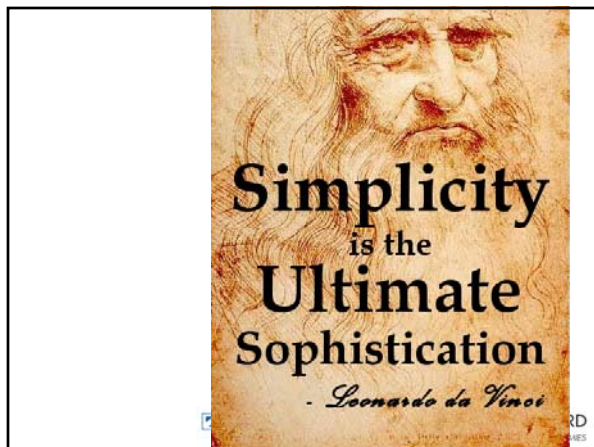


EMS Safety Foundation's new demonstration Project: Ambulance Safety INDEMO 1.0

- Designs so that you can do your work with optimum safety and efficiency.
- Based on state of the art science, practice and input from the world's leading experts in automotive safety and human factors.
- Designs that are cheaper, better, safer.

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES





www.INDEMO.info



 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Would you like a virtual tour of
INDEMO 1.0
or
an onsite
to visit your site/conference
?

<http://www.emssafetyfoundation.org/INDEMOScheduleForm.htm>

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Deploying new virtual tools for sharing
innovation in design globally



 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

And even mobile Virtual
presence



 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES



Virtual presence

 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

TRB ANB10(5) 2015



 TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Forthcoming ANB10(5) 2015 Plans:

- White paper focusing on Technical Science underpinning guidelines and standards
- Minitopic seminars
- Preparation for Safety Systems Strategies & Solutions Summit April 2015
- Enhance social media foot print

Proposed mini session topics

- Data driven transport related practices:
 - Fleet
 - Clinical
- Pediatric/Neonatal transport safety
- Motorcycles in EMS

Sign up for ANB10(5) here...

<http://www.objectivesafety.net/TRBSubcommitteeSignup.htm>



New Business

- New projects
- Task Force?

Any questions or comments?