

# Truck & Bus Safety Research Need Statements

ANB70 Committee on Truck & Bus Safety  
October 30, 2013

## TRB Vision:

- Each committee will:
  - Generate and manage a robust portfolio of Research Needs Statements (RNSs) for its discipline.
  - Assure that research organizations are aware of identified research needs.
  - Monitor status of identified research.
- Each committee member will contribute based on his/her areas of expertise.

<http://rns.trb.org/>

- >1,000 RNSs
- Sort by recency, subject, committee
- Can sign up for automatic alerts
- Enhancements underway; e.g.,:
  - New set of checkboxes to better link RNSs to funding sources and researcher interests
  - Cross-committee endorsements.



## RNS Content

- Should state *what, why, how* (if known), *how much \$* (if known), but not *who*.
- Suggested subheadings:
  - Problem [Background]
  - Project Objective
  - Key Words
  - Related Work
  - Urgency/Priority
  - Cost
  - User Community
  - Implementation
  - Effectiveness [Outcomes]
  - Writer/proponent contact information [OPTIONAL]
  - Cited References
- **BUT YOU CAN USE ANY FORMAT YOU WANT!!!**



## ANB70 Research Needs Statements

- 16 Current RNSs
- Topical relevance (can be several areas per RNS):
  - Problem Assessment & Data (9)
  - Carrier Safety Management (8)
  - Driver Performance & Behavior (7)
  - Vehicle Design & Technology (5)
  - Enforcement & Compliance (4)
  - Driver Health & Wellness (4)
  - Driver Training (2)
  - Roadway Design & Operations (1)
  - Motorcoach Safety (Specifically) (1)
  - Occupant Protection (1)
  - Motorcoach Safety (1)
  - Alternative Compliance (1).

## ANB70 Research Needs Statements 1-5

1. Identifying Trailer Loading Best Practices [Archived]
2. Exposure Data to Support Improved Truck Crash Risk Estimates
3. CMV Crash Risk by Time-of-Day
4. Indirect Visibility Systems (IVSs) on Buses
5. Investigating School Bus Driver Distraction



## ANB70 Research Needs Statements 6-9

6. Measuring the Effectiveness of Professional Driver Training [Archived]
7. Commercial Driver Health and Wellness Programs to Impact Driving Safety
8. Crash Harm per Freight Ton-Mile for Different Large Truck Configurations
9. Technical Characteristics of Paratransit Buses Currently Built In The U.S.

## ANB70 Research Needs Statements 10-13

10. Survey Methodologies for Motor Carrier Research
11. Single-Vehicle Crash Involvement as a Commercial Driver Risk Indicator
12. Case Studies of Carrier Safety Advancement
13. Carrier Based Validation of Driver Selection Tools



*New:*

## (14) Traffic Violation-Triggered Carrier Audits

- **Objective:** Assess the merits of initiating carrier audits following extreme traffic violations such as overspeeding, based in part on the Australian experience using this approach.
- **Relevance:** Enforcement & Compliance
- **Prepared by** Lori Mooren,  
<lori.mooren@unsw.edu.au

## ***New:* (15) Understanding What Violations Report on the CDLIS**

- **Objective:** Examine state and other jurisdictional practices (e.g., reporting criteria) and performance (e.g., completeness, accuracy) in reporting traffic convictions to other states and to CDLIS.
- **Relevance:**
  - **Problem Assessment & Data**
  - **Enforcement & Compliance**
- **Prepared by Andrea Sequin,**  
**[sequina@schneider.com](mailto:sequina@schneider.com)**

*New:*

## (16) Women Commercial Drivers & Safety

- **Objective:** Examine the safety and operational performance of women commercial drivers with the potential outcome of increasing their numbers.
- **Relevance:** Driver Human Factors, Carrier Safety Management
- **Prepared by** Ellen Voie, [ellen@womenintrucking.org](mailto:ellen@womenintrucking.org); and Ron Knipling, [rknipping@verizon.net](mailto:rknipping@verizon.net)



## **New: (17) Work-Related Distress & Mental Disorders in Commercial Drivers**

- **Objective: Determine the prevalence, health effects, and safety effects of work-related distress and mental disorders among CMV drivers.**
- **Relevance:**
  - **Driver Health & Wellness**
  - **Carrier Safety Management**
- **Prepared by Jeff Hickman, [jhickman@vtti.vt.edu](mailto:jhickman@vtti.vt.edu)**

## **New: (18) Multi-Dimensional, Omnibus Crash Problem Size Analysis to Support Countermeasure Assessments**

- **Objective:** Generate *en masse* a huge number ( $\geq 10,000$ ) of specific, countermeasure-relevant crash problem size statistics on different crash types, causes, other factors, vehicle types, etc. to support countermeasure assessments.
- **Relevance:**
  - Problem Assessment & Data
  - Driver Performance & Behavior
  - Vehicle Design & Technology
- Prepared by Ron Knipling, [rknippling@verizon.net](mailto:rknippling@verizon.net)

## Other Suggestions, Not Yet Written (1 of 2)

- **Assessment of Truck Stop Rest & Hygiene Services**
- **Why Are Commercial Drivers So Unhealthy?**
- **Health & Safety Communication Strategies with Commercial Drivers**
- **Using Electronic Media to Communicate with Drivers and Small Carriers**
- **Improving Carrier Risk Management Practices**



## Other Suggestions, Not Yet Written (2 of 2)

- Effects of Unstable Traffic Flow on Truck and Bus Safety
- Optimized (Traffic vs. Roadside) CMV Enforcement Field Test
- State Practices Relating to Exempt Motor Carrier Operations
- Return-on-Investment from CMV Vehicle-to-Vehicle Communications
- Assess Foundation Brake Performance Monitoring Systems

## Planned/Suggested Future Actions

- ANB70 subcommittees:
  - Identify priority research needs
  - Write new RNSs
  - Update current RNSs.
- Greater cross-committee communication & coordination (especially ANB70 & AT060).
- Concerted outreach to organizations performing research; e.g., agencies, universities.
- ***Individual and/or organizational initiative: If you think it should be done, write it up and submit it! (Even a short statement could stimulate further action.)***





***Thanks for your attention!***

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