



Accelerating solutions for highway safety, renewal, reliability, and capacity

SHRP 2 Safety  
Making a Significant Improvement in Highway Safety

Lifesaver's Conference  
Solutions in the 21<sup>st</sup> Century  
March 31, 2009

Ken Campbell  
Chief Program Officer for SHRP 2 Safety

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SHRP 2 Safety Research Program

GOAL

Greatly increased knowledge of *driver behavior*

- How the driver interacts with and adapts to the vehicle, roadway characteristics, traffic environment, traffic controls, weather, etc.
- Differences in *crash risk* associated with these interactions
- Proposed countermeasures based on the findings



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SHRP 2 Safety Research Program

Two Tracks

- Naturalistic Driving Study – Instrument 2,500 vehicles and observe and record *driver behavior*, roadway, surrounding traffic, environment, etc.

Separately collect and link roadway data.

- Site-based Risk Study – Instrument series of locations (e.g., intersections, curves) and observe and record *vehicle interactions* under different roadway, traffic, and traffic control/warning conditions



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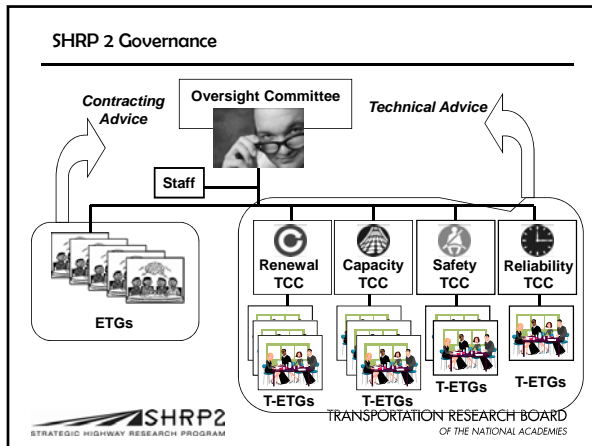
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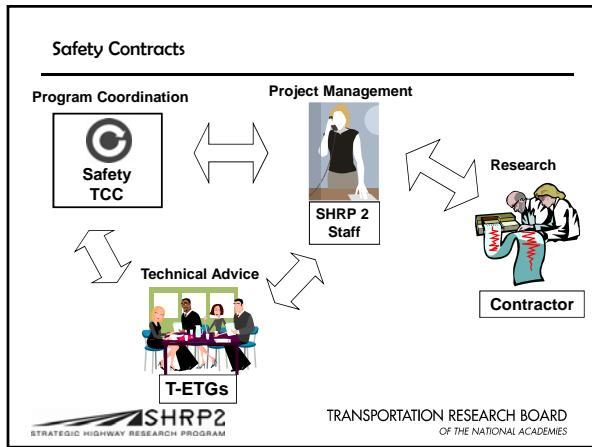
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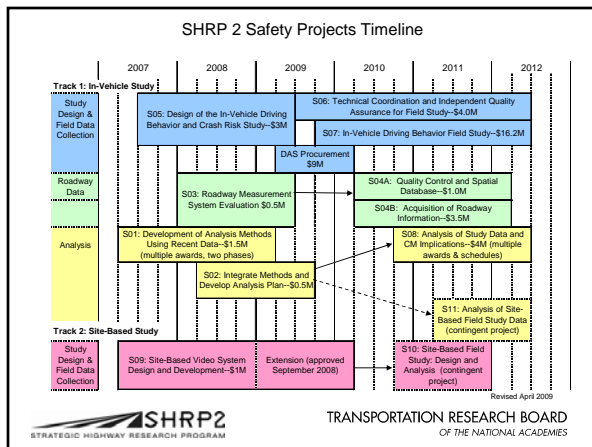
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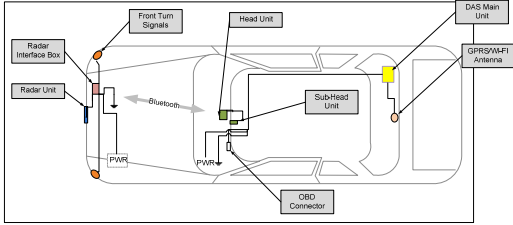
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## Components and Locations



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## Head Unit



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## Two Rodeo Survey Routes Northern VA (survey both directions)



Leesburg Route  
(41 miles each direction)



Arlington Route  
(urban canyon)  
(11 miles each direction) ↑



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SHRP 2 Analysis Projects

S01: Development of Analysis Methods (4 contracts):

- A) University of Minnesota Center for Transportation Studies
- B) Pennsylvania Transportation Institute
- C) University of Michigan Transportation Research Institute (UMTRI)
- E) Iowa State University Center for Transportation Research and Education (CTRE)

Products: Draft Final Reports due later this year

S02: Development of Analysis Plan:

Contractor: University of Iowa  
 Events: Fourth SHRP 2 Safety Symposium July 23-24, 2009  
 Product: Analysis Plan for the SHRP 2 Naturalistic Driving Study



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SHRP 2 Analysis Projects

Project S08: Analysis of Driving Behavior Field Study Data

Budget: \$4,000,000

RFP Release: March & July 2010

Objective:

Quantify the contribution of relevant driver, roadway, vehicle and environmental factors to the research questions selected using the naturalistic driving and roadway data collected under Projects S04 and S07.

- Analysis Plan is under development in Project S02
- Multiple projects and awards are anticipated
- Early projects may address video analysis and the development specialized databases to support analysis and public access



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Fourth SHRP 2 Safety Symposium  
July 23-24, 2009

Focus:

- Progress implementing the naturalistic driving study
- Results from the development of analysis methods
- Analysis plan (developed by University of Iowa)
- International panel
- Discussion of the analysis plan and ability to address the priority research questions

Organized by the University of Iowa and SHRP 2 staff



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Ken Campbell  
SHRP 2 Chief Program Officer  
Transportation Research Board  
(202) 536-5187  
[kcampbell@nas.edu](mailto:kcampbell@nas.edu)  
<http://www.trb.org/shrp2/>



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