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

SHRP2

Quarterly Update

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SHRP 2 Research Springs Ahead with March Release of Six New Requests for Proposals

Twenty-one proposals for six new research projects were received by the April 22, 2008, deadline in response to the requests for proposals issued in March. Proposal review and contractor selection will be completed in June for the six new projects, which are briefly described in Table 1. Currently there are 31 active research contracts in SHRP 2.

Technical Coordinating Committees Hear from Contractors

In April, the Technical Coordinating Committees (TCCs) for Capacity, Reliability, and Safety each met to review early results of research projects and to hear progress updates from contractors. These committees meet twice a year to guide the conduct of research projects within each focus area. Research teams are required to report on their progress, including any problems or surprises encountered in the conduct of their research, for evaluation by the TCC that guides their focus area. A total of 11 contractors presented at the three meetings, and updates on other projects were provided to the TCCs by staff.

The first project to be completed in SHRP 2 is Renewal Project R06, in which a plan was designed for developing high-speed, nondestructive testing procedures for both design evaluation and construction inspection. Acceptance of the revised final report for R06 will be on the agenda when the Renewal TCC meets in May.

Hans Jeekel of the Netherlands' Rijkswaterstaat discusses goals for travel time reliability in Europe during a meeting of the Joint Transport Research Centre Reliability Working Group and the SHRP 2 Reliability Technical Coordinating Committee.

TRANSPORTATION RESEARCH BOARD
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Road Data Collection "Rodeo" Planned for Safety Project S04

The research team for SHRP 2 Safety Project S04: *Acquisition of Roadway Information* will conduct a road course testing "rodeo" to explore the existing capabilities of commercial mobile roadway safety data collection vendors and to examine the precision and accuracy of these systems. The rodeo will also help pre-qualify commercial data collection vendors for bidding on SHRP 2's project on the acquisition of roadway information (Project S-04). Project S-04 will produce a geographic information system database of roadway and roadside characteristics and features that can be linked with the SHRP 2 in-vehicle driving behavior field study (Project S-07).

Potential rodeo participants are asked to hold September 14-20, 2008, and October 5-11, 2008, on their calendars as potential dates for this event. Once the final date and location for the rodeo have been selected, an announcement will be made in TRB's E-Newsletter, on the TRB and SHRP 2 websites, and on the rodeo's website. Additional information on the rodeo is available online at: http://www.s03rodeo.com/. Questions about the rodeo may be addressed to info@S03rodeo.com.

Driving Behavior Studies Prompt International Exchange

A Canadian naturalistic driving study of how driver behavior influences crash risk was proposed at a March 2008 meeting of the Engineering Research and Support Committee (ERSC) of the Canadian Council of Deputy Ministers Responsible for Transportation and Highway Safety in Vancouver, Canada. Ralph Hessian, on loan to SHRP 2 as a visiting professional from the Nova Scotia Department of Public Works and Transportation reports that the ERSC supported the proposal and that a Canadian inter-agency project team will be formed to prepare the business case for the study, which would be similar to, although much smaller than, the SHRP 2 Safety field study. The Canadian project would address a key specific domestic road safety topic.

In a different part of the world, similar activities are taking shape. The Vehicle and Traffic Safety Centre at Chalmers University in Gothenburg, Sweden, known as SAFER, is a joint research unit where partners from academia, industry, and authorities cooperate in the design of future vehicle and traffic safety systems. SAFER is currently developing a natura-

TABLE 1 SHRP 2 Projects to Begin in 2008

CAPACITY

C06(A): Integration of Conservation, Highway Planning, and Environmental Permitting Using an Outcome-Based Ecosystem Approach ($700,000; 30 months)

C06(B): Development of an Ecological Assessment Process and Credits System for Enhancements to Highway Capacity ($800,000; 24 months). These two projects are intended to develop the tools needed to implement the outcome-based ecosystem approach to conservation put forward in the Federal Highway Administration document Eco-Logical: An Ecosystem Approach to Developing Infrastructure Projects.

RELIABILITY

L10: Feasibility of Using In-Vehicle Video Data to Explore How to Modify Driver Behavior that Causes Non-Recurring Congestion ($300,000; 12 months).
The objective of this project is to determine whether it is feasible to extract useful information from in-vehicle video and complementary data to make inferences about driver responses to factors that influence non-recurring congestion, for example, incident scenes or work zones. If the feasibility is established, then detailed investigations are warranted in follow-on contracts.

L11: Evaluating Alternative Operations Strategies to Improve Travel Time Reliability ($1M; 18 months). The focus of this project is to provide practical tools to satisfy the travel time reliability requirements of users of the roadway network—those engaged in both freight and person transport in urban and rural areas. The strategies must serve the near and more distant future and incorporate current and innovative approaches, both low-tech and high-tech.

L13: Requirements and Feasibility of a System for Archiving and Disseminating Data from SHRP 2 Reliability and Related Studies ($300,000; 12 months). The project will study how to make the data from SHRP 2 Reliability projects and related projects readily available to researchers and practitioners. It will determine the feasibility of developing, operating, and maintaining a data system and the basic requirements and lifecycle costs over 25 years for storing and delivering such data.

RENEWAL

R19(B): Bridges for Service Life beyond 100 Years: Service Limit State Design ($1M; 42 months) The objectives of this project are to develop new design codes, performance measures, and comprehensive design procedures for bridge components such as joints and bearings that are the leading maintenance costs for highway bridges. If these weaker components could be more durable, or if they could be hardened, protected, or eliminated, the resulting structures could last longer before requiring renewal.

listic driving study to be conducted in Europe. Trent Victor, Competence Area Leader for Road User Behavior and Research Leader for Field Operational Tests and Naturalistic Driving Studies at SAFER and Senior Researcher at Volvo Technology, visited the SHRP 2 offices in early April to exchange information on meeting the challenges of studies of this type, including the technologies for tracking drivers' eye movement.

These exchanges have the potential to deepen the knowledge gained on both continents and lead to countermeasures that improve road safety wherever there are drivers.

South Korea Shares Interest in Renewal Research

During a visit in March, President Chang-se Kim of the Korea Institute of Construction and Transportation Technology Evaluation and Planning (KICTEP) signed a memorandum of understanding with TRB's executive director Robert E. Skinner, Jr. Under the agreement, SHRP 2 and KICTEP will exchange background information and regular progress reports at least once every six months. TRB will host a discussion among the researchers working on projects of mutual relevance to KICTEP and SHRP 2 once each year at the TRB Annual Meeting in Washington, DC.