

FHWA R&T Now ~ March 2012~

A news update of research, technology, and development from the U.S. Department of Transportation (USDOT), Federal Highway Administration (FHWA)

GENERAL/ADMINISTRATIVE

FHWA Begins to Implement SHRP2

The Second Strategic Highway Research Program (SHRP 2) has been underway since 2007, and over 50 percent of the research is finished or nearing completion. FHWA, working with the American Association of State Highway and Transportation Officials (AASHTO) has targeted seven early products as immediate priorities for the Agency to begin leading deployment efforts in 2012. FHWA and AASHTO, with assistance from the Transportation Research Board (TRB), are developing implementation plans for these joint priority products. The collaborative plans will establish deployment goals, strategies, costs, and measures. FHWA program and technical staff are closely engaged in TRB's SHRP 2 pilots, training, workshops, and webinars. This high level of involvement will expedite the transfer of knowledge from the researchers to the deployment agents and practitioners and serves to further refine or prepare these products for full-scale deployment.

For more information, contact Margie Sheriff, 202-366-1747, margie.sheriff@dot.gov

ADVANCED RESEARCH

New Exploratory Advanced Research (EAR) Fact Sheet on Preventing Fuel Tax Evasion

The Federal Highway Administration (FHWA) Exploratory Advanced Research (EAR) Program and Office of Highway Policy Information, in partnership with the U.S. Department of Energy's Oak Ridge National Laboratory (ORNL), aims to reduce or eliminate fuel tax evasion schemes. This research integrates multiple innovative measures to create the Fuel Tax Evasion Detection System including entirely new inline sensors are being developed, and other advances in sensor technology are being integrated to combine wireless communications, vehicle tracking, and information analysis.

A short description of the research project is located at <http://www.fhwa.dot.gov/advancedresearch/pubs/12020/index.cfm>.

Exploratory Advanced Research (EAR) Program Seeks Expertise on New Topics

To take advantage of a broad variety of scientific and engineering discovery, the Federal Highway Administration (FHWA) Exploratory Advanced Research (EAR) Program involves traditional and nontraditional stakeholders throughout the research process from topic identification and scoping through research project evaluation. For new topics, the EAR Program seeks advances in science and engineering that could but are not currently being considered in highway research. For example, the EAR Program is seeking advances related to

Virtual Worlds as an Experimental Research Tool – What research groups could address using virtual worlds for testing transportation and land use issues to develop data warehouses or synthetic data to conduct virtual world experiments?

Adaptive Materials – What researchers are investigating adaptive materials that could respond to dynamic and extreme loading conditions on structures (such as earthquakes, blasts, vehicle impacts, high winds, waves or water flow, etc.)? Likewise what adaptive materials could be considered for safety hardware? The materials must have the potential for being scalable and cost-effective, which may preclude consideration of some materials of interest to the defense industry.

People with knowledge or interest in these two topics or who want to suggest other topics for the EAR Program to consider should contact David Kuehn, 202-493-3414, david.kuehn@dot.gov.

INFRASTRUCTURE

Highways for LIFE Technology Partnerships Program Offers Additional Grants to Spur Innovation

FHWA is soliciting for proposals for a fourth round of grants under the Highways for LIFE Technology Partnerships Program. The focus of the 2012 Solicitation will be to work with the highway industry to accelerate the adoption of promising innovations that have the potential to directly reduce crashes or crash severity; or innovations that significantly enhance decisionmaking relative to the deployment of treatments to reduce crashes, crash severity, and the understanding of the effectiveness of the treatments. The program is intended to fund proven innovations that have been developed to a late-stage prototype with the proof of concept well established. Before they would be available for commercialization, these prototypes would require further development, testing, and evaluation in a real-world setting.

The closing date is May 3, 2012. Each grant award may range from \$250,000 to \$1,000,000 for up to 2 years of performance. Subject to available funding, FHWA anticipates awarding up to \$5 million through this solicitation. Competition is open to all sources. International companies may apply.

To download the solicitation, visit www.grants.gov and search by funding opportunity number: DTFH61-12-RA-00002. For more information, contact Julie Zirlin, 202-366-9105, julie.zirlin@dot.gov.

SAFETY

FHWA Releases Update for 2011 Version of Interactive Highway Safety Design Model

The Federal Highway Administration (FHWA) released version 7.0.1 of the Interactive Highway Safety Design Model (IHSDM), a suite of software analysis tools for evaluating safety and operational effects of geometric design decisions. This is an update for the 2011 release and will support the American Association of State Highway and Transportation Officials' (AASHTO's) Highway Safety Manual (HSM) Part C: Predictive Method. Additions include the recently published 2011 AASHTO Policy on Geometric Design of Highways and Streets (aka the "Green Book") to accompany the Policy Review Module and Intersection Review Module. The new version also includes an updated Crash Modification Factors per HSM Errata for the Crash Prediction Module. The 2011 AASHTO Green Book can now be selected and set as the default (either U.S. Customary or Metric, depending on the project units) for IHSDM.

The 2011 IHSDM release covers two-lane rural highways, multilane rural highways, and urban and suburban arterials. It includes six evaluation modules: crash prediction, policy review, design consistency, intersection review, traffic analysis, and driver/vehicle.

The software is available for free download at www.ihsdm.org.

For more information, please contact Clayton Chen, 202-493-3054, clayton.chen@dot.gov.

Roadway Safety Data Partnership Capability Assessments Almost Complete

All but four States have either completed or scheduled their roadway safety data capability assessments. The project team anticipates completion of all assessments by the end of April. Following this, we will complete a national gap analysis based on common themes across the State assessments. Additionally a series of 4 peer exchanges will be held to continue to engage States in the development of action plans and identification of opportunities to improve roadway safety data. The project midpoint report (available at the website) identified initial common themes including the desire on the part of States to improve their data, the need for more coordinated efforts by federal agencies addressing data improvement, a need for improved resources related to data management, and identification of the importance of local/regional data in roadway safety data programs.

More information, including the midpoint report, can be found at <http://safety.fhwa.dot.gov/rsdp/>.

OPERATIONS

Federal Highway Administration Issues a Presolicitation for Support and Research in the Saxton Transportation Operations Laboratory

This is a Federal Highway Administration presolicitation notice (synopsis) for a full and open competition. The Office of Operations Research and Development (R&D) at Turner-Fairbank Highway Research Center (TFHRC), McLean, Virginia, needs technical support to conduct research, development, test, and evaluation activities that meet the growing demands for smoother running transportation systems.

Go to this solicitation at [FedBizOps](#)

RECENT PERIODICALS

***Public Roads*—March/April 2012**

This issue includes: Recruiting the Next Generation; Nurturing the Next Big Thing; Best of the Best: America's Transportation Awards!; Proven Countermeasures for Pedestrian Safety; and Spotlight on Benefit-Cost Analysis.

It is available online via <http://www.fhwa.dot.gov/publications/publicroads/12marapr/index.cfm>

For more information, contact Paula Magoulas, paula.magoulas@dot.gov.

***FOCUS* Newsletter March 2012**

The March issue includes: The Place to Go for Bridge Preservation; Redesigning the Bridge: Undated Course Offers Comprehensive Training on Bridge Safety Inspections; Don't Barrel Through Work Zones: National Work Zone Awareness Week 2012; Infrastructure Innovation Webinars; A Guide to Conducting An Independent Assurance Program; and, Highway Technology Calendar.

The issue is available online via <http://www.fhwa.dot.gov/publications/focus/12mar/12mar00.cfm>

For more information, contact Lisa Pope, lgpope@woodwardcom.com.

LTPP Newsletter – Fall 2011

This issue includes: LTPP Products Online 2.0 "Next Generation"; LTPP Webinar Update; and, In Brief: LTPP Meetings at the TRB 91st Annual Meeting.

<http://www.fhwa.dot.gov/publications/ltpnews/12026.cfm>

Links:

Turner-Fairbank Highway Research Center: <http://www.fhwa.dot.gov/research/>

Resource Center: <http://www.fhwa.dot.gov/resourcecenter/>

National Highway Institute: <http://www.nhi.fhwa.dot.gov/home.aspx>

Please forward this newsletter to others you think might find it interesting and/or useful.

Suggestions may be submitted to: FHWA_Now@fhwa.dot.gov