SOLUTIONS

Montana Department of Transportation

serving you with pride

RESEARCH PROGRAMS

Fall 2006

IN THIS ISSUE

PROJECT HIGHLIGHTS

EFFECTS OF DEFENSIVE VEHICLE HANDLING TRAINING ON NOVICE DRIVER SAFETY

http://www.mdt.mt.gov/research/projects/safety/defensive.shtml

New teenaged drivers have the highest accident rates of any group of drivers. Research shows that drivers under the age of 19 have a crash rate that is four times that of the general driving population. The youngest drivers have a higher accident rate yet.

Several organizations in the United States offer training in advanced vehicle handling for novice drivers. Such training typically includes vehicle control on skid pads, obstacle avoidance, rapid deceleration braking, and maneuvering near the vehicle performance limits. Evaluations of these programs have found mixed results with several showing improved safety records by their graduates and others showing little improvement.

The Montana Department of Transportation, in cooperation with the Montana Office of Public Instruction and the Western Transportation Institute, is conducting a controlled study of benefits from a one-day intensive safety workshop. The course syllabus presented recent high school driver education graduates with a training program designed to address the primary causal factors in novice driver accidents in Montana.

In the initial phase, accident records for young Montana drivers were analyzed and a defensive driving curriculum was crafted to address the most common risks. The training included elements of situation awareness, decision making, and vehicle handling. Maneuvering using the SkidMonster® device trained the young drivers to maintain the control and balance of their cars.

CONTINUED ON PAGE 2

WTI and the Montana Office of Public Instruction recruited approximately 400 young drivers from central Montana to take part in the study. Half received the one day mixed-media and behind-the-wheel advanced defensive driving training at the Montana DRIVE facility in Lewistown during the summer of 2005. All students filled out questionnaires about their driving habits and problems.

The accident and violation records of both groups are now being tracked annually to see whether the trained drivers show a safety benefit. While it is too early to reports findings, at least one young driver wrote to report that steering and braking skills learned during the training had prevented a serious accident on icy roads.

For more information, contact Sue Sillick at 406-444-7693 or ssillick@mt.gov, or Dr. Michael Kelly at 406-994-7377 or mkelly@coe.montana.edu.

SOLICITATION FOR RESEARCH PROJECT IDEAS

We need your ideas by December 31, 2006!

The Montana Department of Transportation (MDT) conducts research to discover, develop, or extend knowledge needed to operate, maintain and improve the statewide multimodal transportation system. Specific goals include: evaluation and advancement of new technologies, materials and methods; development of design and analysis techniques; and study of current transportation challenges.

Every year, Research staff solicits for new research topics. Topics can be submitted at any time; however, they may only be considered once a year and are due by December 31st of each year. New topics are chosen in February of each year and proceed to technical panels, which determine if a research need exists and the most effective and efficient manner in which to conduct the research. Further information and solicitation problem statement forms can be found at http://www.mdt.mt.gov/research/unique/solicit.shtml. Information on various past and current research projects can be found at http://www.mdt.mt.gov/research/projects/sub_listing.shtml.

LIBRARY CORNER

THE TRANSPORTATION INFORMATION SUPERHIGHWAY

Bonnie Osif, an engineering librarian at Pennsylvania State University, has noted that the Interstate Highway System enriched the quality of life for all Americans, saved lives, prevented injuries, returned value for investment, and positioned our nation for international competition (*Fast Lines on the Transportation Information Superhighway: Tips for Efficient, Comprehensive Internet Research*, TR News 243, March/April 2006).

She points out that at this same time, rudimentary computer networks were making their appearance, and now in parallel ways, have grown to be a huge part of life in America today, enriching our lives by making quality information available. The internet is now inextricably linked to information that is growing exponentially, and is somewhere near eight billion web pages today.

FINDING TRANSPORTATION INFORMATION

How is it possible to find reliable transportation information on the web? Most people start with a search engine like Google or AltaVista, but more applicable content may be found with Google Scholar or Google U.S. Government Search. Another resource is the deep web, which are web pages that can't be accessed by a web crawler. Special search engines that can now find much of this deep web are FindArticles, Resource Discovery Network, and Complete Planet.

However, the best place to start to look for transportation information is at a specialized web portal. This will be narrowly focused on the topic, thereby decreasing the number of hits. Some specialized web portals are:

- National Transportation Library: NTL hosts Transportation Research Information Service (TRIS). The NTL/TRIS Integrated Search is a newly combined database and is freely available.
- Techxtra: Techxtra links to engineering, science and computing information.
- Internet Public Library (IPL).
- Science.gov: This web portal is a gateway to government science and technology information.

These sites are now available through MDT's Library Web Portal; click on More Resources, World Wide Web.

For more information, contact Lisa Autio at 406-444-6125 or lautio@mt.gov.

DID YOU KNOW?

STRATEGIC HIGHWAY RESEARCH PROGRAM II

America's highway system includes more than 3.9 million miles of highways, arterials, and local roads and streets. These roads, which carry more than 90% of passenger trips and account for some 84% of freight value, are critical to meeting the mobility and economic needs of local communities, regions, and the nation. In addition to commercial and private vehicles, the roadways accommodate buses, bicycles, and pedestrians and provide vital links to all other modes of transportation. To address these challenges, Congress established the second Strategic Highway Research Program.

SHRP II is a targeted, short-term, results-oriented program of strategic highway research designed to advance highway performance and safety for U.S. highway users. SHRP II will focus on applied research in four areas in order to meet the following goals:

- Prevent or reduce the severity of highway crashes by understanding driver behavior (Safety);
- Address the aging infrastructure through rapid design and construction methods that cause minimal disruption and produce long-lived facilities (Renewal);
- Reduce congestion through incident reduction, management, response, and mitigation (Reliability); and
- Integrate mobility, economic, environmental, and community needs in the planning and designing of new transportation capacity (Capacity).

Each state has a SHRP II coordinator. Sue Sillick is the SHRP II Coordinator for Montana. For more information, contact Sue Sillick at 406-444-7693 or ssillick@mt.gov, or visit http://trb.org/shrpii.

CALENDAR OF EVENTS

December

MDT RRC Meeting-12/12
MDT Research Project Problem Statements-Due 12/31
NCHRP Ballot on New Projects Distributed to SCOR and RAC

January

RAC/SCOR Meeting at TRB Annual Meeting-1/21
TRB Annual Meeting in Washington, D.C.-1/21-25
MDT RRC Meeting – Solicitation Research Ideas to be Ranked-1/31
TCRP Panel Nominations Due

February

MDT RRC Meeting-3/1
NCHRP Ballots on New Problem Statements Due
NCHRP Synthesis of Practice Topics Due
Obligation of NCHRP Funding Due

March

MDT RRC Meeting – Champion Presentation of Research Proposals-3/30
AASHTO TIG Topics Due
NCHRP Summary of Ballots Distributed to SCOR
Schedule and Guidance for TRB Annual State Visits Distributed
SCOR Meeting to Select New NCHRP Projects
TCRP Synthesis of Practice Topics Due
TRB Core Program Contributions Due

April

MDT RRC Meeting-4/24
Preliminary NCHRP Program Announced

May

MDT RRC Meeting-5/29
NCHRP Panel Member Nominations Due
NCHRP Synthesis of Practice Topics Selected
TCRP Synthesis of Practice Topics Selected

NEW RESEARCH REPORTS

Preventive Maintenance Treatments of Flexible Pavements: A Synthesis of Highway Practice

Potential Effects of Highway Mortality and Habitat Fragmentation on a Population of Painted Turtles in Montana

A listing of all past and current projects can be found at www.mdt.mt.gov/research/projects/sub_listing.shtml.

NEW RESEARCH PROJECTS

Business Market Analysis

Developing a One-Stop Shop for Public/Specialized Transportation Information in Montana

Wildlife-Highway Crossing Mitigation Measures and Associated Costs/Benefits: a Toolbox for Montana Department of Transportation

A listing of all past and current projects can be found at:
www.mdt.mt.gov/research/projects/sub_listing.shtml.

REMINDER

Information on research services and products, such as research and experimental project processes and reports, and technology transfer services, including our library catalog can be found on the Research web site at www.mdt.mt.gov/research.

CONTACT US

Sue Sillick – Research Manager
406-444-7693
ssillick@mt.gov

Craig Abernathy – Project Manager
406-444-6269
cabernathy@mt.gov

Lisa Autio – Librarian
406-444-6125
lautio@mt.gov

Jeanne Nydegger – General Assistance
406-444-6338
jnydegger@mt.gov