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Message from the President

Welcome to the ITS Rocky Mountain Chapter's Winter newsletter. The mission of the Rocky Mountain Chapter is to "develop partners for the effective deployment of ITS across all surface transportation modes, thus providing a viable and sustainable system for the Rocky Mountain Region that will benefit all users." This issue of the newsletter focuses on Work Zones.

Spring is upon us in the west. The days are starting to get a little longer in the Rocky Mountain region and it is just a matter of time before the first tender sprouts emerge from their hibernation. As our pavements begin to crumble from the annual freeze/thaw cycles, in the distance you can hear the faint rumble of road equipment and the sounds of travelers warming up their voices (and gestures) for the coming season of construction and repair. It is our responsibility in the ITS community to keep in mind the national ITS vision of zero delays and zero fatalities, and how the management of work zones is improved through the use of ITS technology.

Work zone management has changed significantly in recent years as public and political pressures to do more work, faster and with less community impact have grown. Numerous fine examples exist in the country of the effective use of ITS technology to help improve the safety of both workers and motorists in and near construction areas. Improved applications of technology make travel demand management easier and more effective for larger projects. The use of improved incident management patrols and tools have led to corresponding improved clearance times and reductions in secondary crashes. Camera surveillance and analysis has given engineers better tools to design and manage work areas, and improvements in travel information have made decision making easier for travelers.

This newsletter includes articles about traffic control in work zones from the Western Transportation Institute and a work zone tool box from the Utah Department of Transportation. We also have a wrap-up of Chapter elections, some national updates and a listing of upcoming Chapter events.

Finally, we would like all members to become involved in the chapter and help get the word out about the quality of work being done in our region. Please phone, fax or email any comments, suggestions and opportunities to me or to our Chapter web site www.itsrm.org.

- Richard Hodges, Chapter President (RHodges@uta.cog.ut.us)

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DOT Releases New Case Studies on ITS in Work Zones

WASHINGTON, DC, Jan. 11, 2005 - The US Department of Transportation has released three new reports summarizing case studies on various ITS solutions in Work Zones in Illinois, Michigan, and Arizona.

Using an Automated Traffic Information System to Reduce Congestion and Improve Safety During Reconstruction of the I-55 Lake Springfield Bridge in Illinois

www.itsdocs.fhwa.dot.gov/JPODOC/REPTS_TE/13984.HTM - This case study focuses on the use of ITS to support Illinois Department of Transportation (IDOT) work zone operations for a major bridge and highway reconstruction effort on Interstate 55 (I-55) just south of Springfield.

Reducing Congestion with the Use of a Traffic Management Contract Incentive During the Reconstruction of Arizona State Route 68 www.itsdocs.fhwa.dot.gov/JPODOC/REPTS_TE/14001.HTM - The Arizona Department of Transportation (ADOT) used ITS to support work zone operations during the reconstruction and widening of State Route 68 (SR 68) in northern Arizona.

Reducing Aggressive Driving and Optimizing Throughput at Work Zone Merges in Michigan www.itsdocs.fhwa.dot.gov/JPODOC/REPTS_TE/14011.HTM - This case study presents information gathered during interviews with key personnel involved with an Interstate 94 (I-94) reconstruction project in Detroit, Michigan, as well as information and photos obtained during a site visit.

Submit an Article...

You can submit an article for publication in the ITS Rocky Mountain Newsletter! Articles must be no more than 3 pages in length and must contain contact information for the author. While any article may be submitted, publication priority will be given to articles that match the respective Newsletter's theme. Graphics and photos are welcome!

2005 submission deadlines are as follows;

April/May/June (Spring) - April 29th. Theme: "Traveler Information"

July/August/September (Summer) - July 22nd. Theme: "ITS in Small Cities"

October/November/December (Fall) - October 14th. Theme: "Commerical Vehicle Operations"



Chris Siavrakas, PE
Utah Department of
Transportation

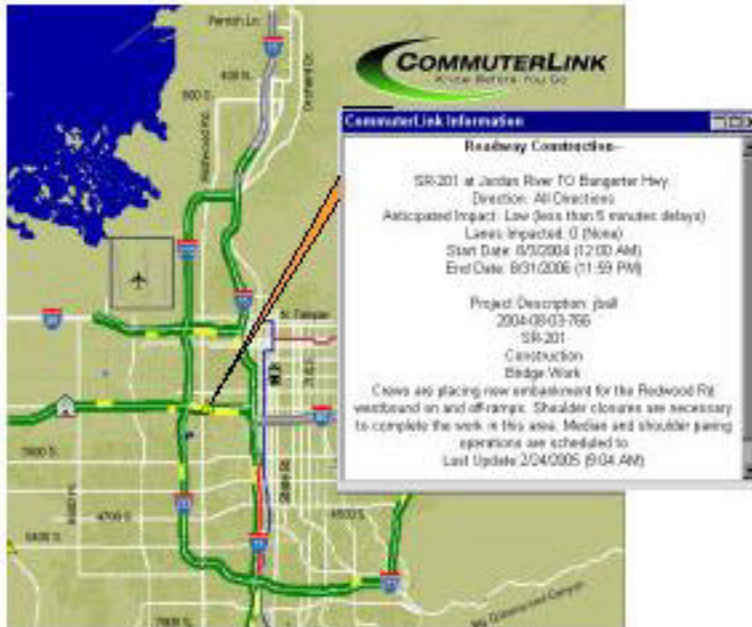
What Color is Your Work Zone Traffic Toolbox?

The Utah Department of Transportation (UDOT) uses a variety of tools to keep work zone traffic moving safely and efficiently. One of the most effective tools is reducing the number of vehicles entering the work zone. This is achieved through multi-level information delivery. We alert our customers before they enter the work zone - often before they leave their home or office.

The Traffic Operations Center (TOC) is the focal point of most of our tools. Let's pull that tray out of our toolbox and take a look ... The Control Room is staffed by one operator during off-peaks and as many as two operators plus a supervisor during peak commute times. These operators scan video images from over 260 Cameras placed around the freeway system and surface streets. The operators use 64 Variable Message Signs (VMS) to dispense immediate information to the traveling public. These signs post current and advance warnings of construction impacts. One of our most valuable tools is the Traffic Signal Staff in the Control Room. The Traffic Signal person on shift can control nearly all of the 690 traffic signals on the UDOT system.

The UDOT has a unique relationship with the Utah Highway Patrol (UHP); their Dispatchers are co-located in our building. This allows us to share real time information simultaneously. Another one of our most notable partners is the local

media. Radio stations place traffic reporters in our TOC, next to the Control Room; the reporters can immediately reach their listeners and explain how to avoid problems. Utah's television stations have direct video feed from our road cameras and use them in their traffic reports.



If we dig around our toolbox some more, we find some "eTools". There is <http://commuterlink.utah.gov>, UDOT's public interface to our eTools. Using our web based road map, customers can view current impacts as well as future planned construction locations. Planned event information is populated through our Event Tracking System. This is a GIS based software interface that allows UDOT staff to enter in details about traffic impacts and scheduled construction activities. Once an entry is made, it appears automatically on our web map as an icon; clicking it displays the details. Customers can also sign up for email and text message

alerts to receive real-time updates without having to search for the information. Planned system enhancements will enable a person to customize their settings to provide alerts exclusive to their travel routes. Rounding out our eTools inventory is the 511 toll free Traffic Conditions (or 866-511-UTAH) phone number that delivers statewide information over the phone.

Another corner of our toolbox reveals in-field devices. Included is a mixture of VMS'

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- both permanent and portable. A few Highway Advisory Radios (HAR) are tucked in there too.

One of our active freeway projects impacts traffic entering from several arterial streets where we do not have any permanent VMS's. In this situation we use Portable VMS's to advise traffic entering the project to avoid the construction zone. When commuters avoid a problem, it also helps those who do not have an alternate. In rural locations with no immediate alternatives, we have used, on an experimental basis, a Construction Travel Time, Portable VMS to let travelers know how long their delay will be.



Use of HAR's has regained interest lately. Select projects utilize weekly or daily recordings that provide up to two minutes of information that could never be delivered on a sign. The recordings hit the target audience, and include information about our website as another source for details about the project. UDOT is continually looking for ways to deploy devices that help motorists make informed decisions about whether or not to stay in the queue, take a break, or notify someone of their delayed arrival.

UDOT has just completed the first round of policy planning for the 23 CFR Part 630, Work Zone Safety and Mobility. After discussing this new federal requirement in a UDOT committee it was comforting to learn

that we already perform nearly all of the required elements; we simply need to script our process and package our documentation according to the new Rule.

So what color is UDOT's Work Zone Traffic Tool Box...Well it is apparently not as Orange as one might think. There are many more tools in place than the driver sees while driving past orange barrels.

Chris Siavrakas is the Traffic Operations Center Control Room Manger for the Utah Department of Transportation. He can be reached via email at csiavrakas@utah.gov. ■

Student Scholarship Deadline Approaches

The ITS Rocky Mountain Chapter offers an annual Student Paper Award and Scholarship. The Award recipient will receive a \$500 travel award to be used to attend the Chapter's annual meeting and a \$500 scholarship. All winning essays will be published in the ITS Rocky Mountain Newsletter and on the Chapter website.

The paper must address an Intelligent Transportation System subject and be no more than fifteen double-spaced typed pages with one-inch margins. Papers for the upcoming award year must be received no later than **April 8, 2005**. Papers will be judged on their quality of composition, originality and depth of knowledge, and awareness of ITS issues and challenges. For eligibility criteria and submission requirements, please visit www.itsrm.org/studentinfo.htm.



Ahmed Al-Kaisy, Ph.D.
Western Transportation
Institute

*This article was adapted
from a paper presented at
the 84 Annual Transporta-
tion Research Board
Meeting by A. Al-Kaisy
and E. Kerestes.*

Efficiency of Single-Lane Two-Way Traffic Control at Work Zones

The aging of the existing highway system and the continuous growth in traffic demand require increasing maintenance and reconstruction. Those construction activities, which have become commonplace on the highway system, typically cause serious disruptions to traffic thus resulting in significant delays, increased fuel consumption, and negative impacts on air quality and traffic safety. The impact of construction work on traffic operations is particularly critical on two-lane highways with single lane closures. Besides the negative impacts on traffic safety, highway capacity at this type of lane closure is critically affected by the construction activity as it does not exceed in most situations 35%-40% of the normal highway capacity. Besides the many factors that affect work zone capacity in general (such as work intensity, weather, lane width, etc.), length of lane closure and traffic control strategies are important factors that are unique to this type of lane closure. Despite the significant advances in traffic control technologies in the last two decades, traffic control at single lane closure on two-lane highways is still carried out mainly through the use of flaggers and in fewer situations using pre-timed portable signals.

Current Research

Current research by Western Transportation Institute (WTI) and Montana State University (MSU) investigated the efficiency of various traffic control strategies at single-lane closures on two-lane highways (1). This investigation helped to provide insights into the most appropriate traffic control strategies at this type of lane closure and to evaluate the benefits of using the more advanced ITS technologies. Two different analytical approaches were utilized in this investigation; deterministic and stochastic. The first involved the use of spreadsheet application while the second involved the use of SimTraffic microscopic traffic simulation.

Traffic Control Strategies

Four traffic control strategies were investigated by the current research. The strategies (rules) could be as simple to relate to flaggers' common sense or as sophisticated as adaptive signal control.

Fixed-Time or "Periodic" Right-of-Way Allocation: the Right Of Way (ROW) is alternated between the two directions of travel using fixed time in a periodic manner.

Fixed-Queue Rule: using this rule, the ROW is given to traffic on each approach when queue on that approach reaches a predetermined length. While this rule is not typically used in automated signal control systems, it is technically feasible with the use of advanced sensor technologies.

Saturation Operation or "Convoy" Rule: using this rule, the ROW time provided in each direction of travel is just enough to allow full dissipation of queue. In other words, the ROW indication in one direction changes as the last vehicle in queue enters the work zone. Traffic moves in "convoys" or "platoons" from one end of the work zone to the other.

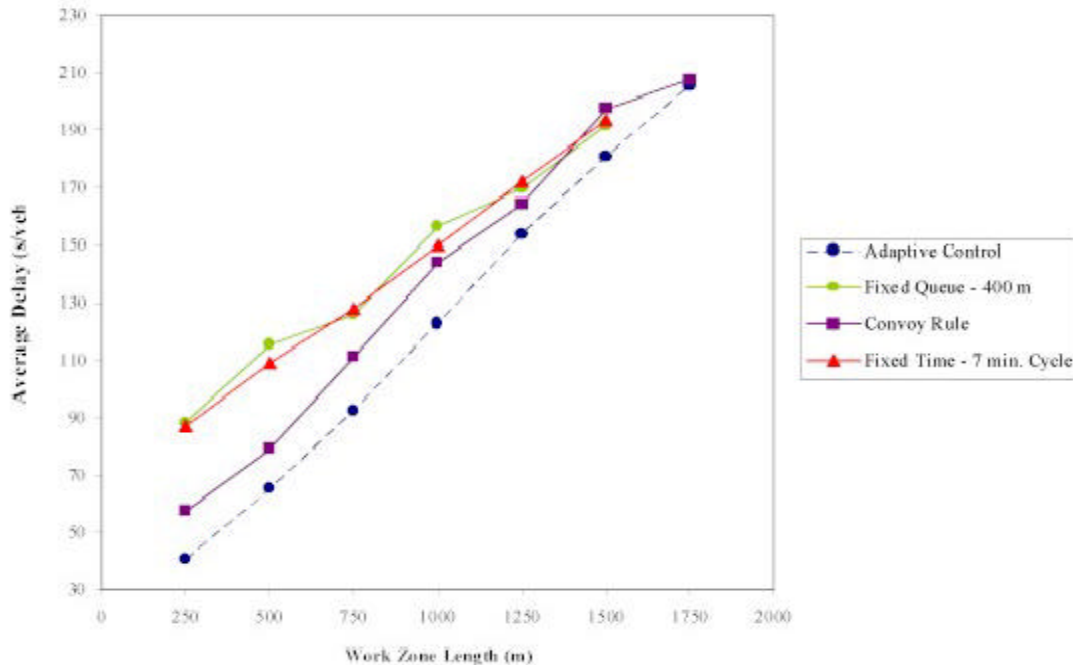
Adaptive Control Rule: the adaptive rule is relatively similar to the convoy rule except that the ROW in either direction is extended upon detecting an arrival that is close to the end of the discharged queue.

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“Common Sense” Versus Advanced Rules

Parametric analyses were used to investigate the effect of several important variables on the efficiency of the different traffic control strategies. Those variables mainly involved work zone length, average speed, traffic volume and directional split. While detailed results of this investigation are included in reference 1, a comparison between the efficiency of different traffic control strategies is presented here.

The figure below illustrates average delay per vehicle at various lengths of work zone for the four different traffic control strategies using results from SimTraffic simulation modeling.



At a glance, this figure shows that the two simple rules “fixed time” and “fixed queue” yield higher average delay per vehicle than the more advanced rules, the “convoy” and “adaptive control.” This is despite the fact that the curves used for the simple rules represent the most favorable scenarios investigated in this research.

The convoy traffic control rule largely outperforms the two simple rules when the length of work zone is

Figure 1: Traffic Performance Using Various Traffic Control Strategies

relatively short, i.e. less than one kilometer. For example, for a 250 meter long work zone, the savings in delay by switching from the fixed-time rule (concept used in pre-timed portable signals) to the “convoy” rule is in the order of 35%. However, as work zone length increases, the difference in performance gradually diminishes. One possible explanation is that at longer work zones, the two simple rules with 7-minute fixed cycle and 400 meter fixed queue length would be close to saturation conditions, i.e. the proportion of unused ROW time is small. As for the adaptive control, the figure shows that this control strategy outperforms all other rules including the “convoy” rule. The savings in delay are greatest at shorter lengths of work zone and they decrease as length increases. For the same previous example with 250 meter long work zone, those savings will be in the order of 53% compared with the fixed-time rule and 29% compared with the convoy rule. Also, the figure clearly shows that the adaptive rule still provides notable savings in delay at longer work zones.

In summary, the previous comparison shows that delay at work zones can be reduced significantly by moving towards the more advanced traffic control techniques. Those techniques attempt to optimize the allocation of ROW between the two directions of travel. As such, there is a great potential for developing an advanced mobile traffic control system at work zones using Intelligent Transportation Systems (ITS) technologies. ■

REFERENCES

1. Al-Kaisy, A. and Kerestes, E. (2005) “Evaluation of the Effectiveness of Single-Lane Two-Way Traffic Control at Maintenance & Reconstruction Zones” Presented at the Transportation Research Board 84th Annual Meeting, Washington, D.C., 9-13 January.



2004/2005 Election Results

ITS Rocky Mountain Welcomes New Board Members

The property, affairs, and business of the ITS Rocky Mountain Chapter are managed and controlled by its Board of Directors (Board). This Board is made up of no more than sixteen (16) individuals including the President, Vice President, Secretary/Treasurer, Immediate Past President (known collectively as Officers), and up to twelve (12) State Senators (Senators). At least one (1) and no more than two (2) Senators represent each state.

For the 2004/2005-election year, the following individuals were reelected to the Board:

- **Office of President** - Richard Hodges, ITS Project Manager, Utah Transit Authority
- **Office of Vice President** - Mark Owens, Vice President, Meridian Environmental Technology, Inc.
- **Office of Secretary/Treasurer** - Brandi Tesch, Travel Information Coordinator, Montana Department of Transportation
- **Colorado Senator** - Robert Kochevar, PE, Director of Traffic Engineering Services/City Traffic Engineer, City and County of Denver
- **Colorado Senator** - Marilyn Kuntmeyer, PE, Senior Transportation Engineer, David Evans and Associates
- **Idaho Senator** - Jim Larsen, Congestion Management Supervisor, Ada County Highway District
- **Utah Senator** - Richard Manser, PE, ITS Deployment Engineer, Utah Department of Transportation
- **Wyoming Senator** - Keith Trimels, PE, Western Regional Manager, Mixon/Hill, Inc.

The Board also welcomed five (5) new members. A brief bio for each follows:

Idaho State Senator

Bob Koeberlein, PE, ITS Coordinator
Idaho Transportation Department



Bob earned his Bachelors degree in civil engineering at the University of California, and his Masters degree in Engineering Science from the University of Santa Clara. He joined the Idaho Transportation Department in 2001.

Prior to joining ITD he spent 15 years with the Federal Government, at the Voice of America (VOA), managing design and construction of radio relay stations throughout the VOA worldwide telecommunications network. He completed international projects in Botswana, Kuwait, and Saipan, plus domestic projects in California and Ohio.

He also spent several years in the consulting engineering world, in California, Florida, South Carolina and Massachusetts. Bob is a Registered Professional Engineer in California and Idaho.

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Utah State Senator

Bryan Chamberlain, PE, Traffic Operations Engineer
Utah Department of Transportation



Bryan Chamberlain has been with the Utah Department of Transportation (UDOT) for 10 years. He is currently the Traffic Operations Engineer at the UDOT Traffic Operation Center. Previous ITS related experience includes: Control Room Manager of the UDOT Traffic Operations Center and Advanced Traveler Information Services (ATIS) Project Manager. Bryan currently serves as a member of the National 511 Deployment Working Group Committee. He graduated from the University of Utah with a BS in Civil Engineering and is a licensed Professional Engineer in the State of Utah.

Wyoming State Senator

Kevin Cox, PE, Systems Engineer
Wyoming Department of Transportation



Kevin has 11 years experience in the field of transportation engineering in both the public and private sector. He currently serves as the Systems Engineer for the Wyoming Department of Transportation (WYDOT) Intelligent Transportation Systems (ITS) Program. Before returning to WYDOT two years ago, Kevin worked in the private sector as a roadway designer and traffic engineer. He also spent three years serving in the United States Air Force on tours of duty in Texas and the Middle East. Today, he continues to serve part-time in the Wyoming Air National Guard as a C-130 Navigator.

Kevin holds a BS in Civil Engineering from the University of Wyoming and is a registered Professional Engineer in Wyoming. He is a member of ITE and participates in numerous community organizations in Cheyenne. His greatest joy in life is fulfilling his role as a dedicated husband and father to his wife, Christine and their six-year old twins, Graham and Abigail.

Montana State Senator

Steve Keller, PE, ITS Coordinator/Traffic Signal Operations Engineer
Montana Department of Transportation

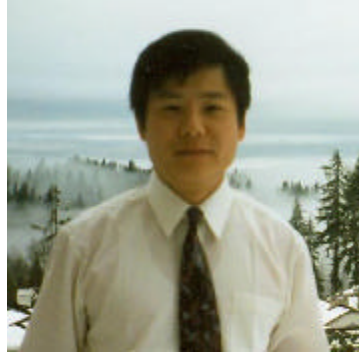
Steve Keller is a Montana native, born and raised in Billings. He attended Montana State University and graduated with a B.S. degree in Electrical Engineering. He began work for the Traffic Engineering Section of the Montana Department of Transportation (MDT) in 1993 as a design engineer for lighting and traffic signal systems. He became the pre-construction/construction liaison for all electrical devices installed by MDT in 1995. In 2003 he became the Assistant State Traffic Engineer for the department. In the fall of 2004 he became the ITS Coordinator/Traffic Signal Operations Engineer for MDT.

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Steve's responsibilities while working with MDT have included plan design, specification writing for the procurement of traffic signal equipment, construction oversight, maintenance and operation of traffic signal systems.

New Mexico State Senator

Wei Zhang, PE, Research and Technology Engineer
FHWA – New Mexico



Wei has a master degree in both structural engineering and software systems. He has also earned his Ph.D. in geotechnical engineering from the University of Minnesota. Since January 2004 he has been employed as the Research and Technology Engineer for the New Mexico Division of FHWA. Prior to this he worked in both the private and public sector. Project experience includes consulting, design and development of distributed database applications and business process automation, traffic simulations (metered freeway and signalized

intersections), signal justification and warrant analysis, and deployment of non-intrusive traffic counting technology.

Wei is excited to be in New Mexico and envisions the state becoming an active player in developing regional ITS architecture and deploying viable ITS technologies to make the state's transportation network safer, less congested, and more secure.

In addition to those individuals listed above, Mike Bousliman, Montana Department of Transportation continues to serve as a Senator from the State of Montana. ■

Classifieds

If you would like an ad placed in the ITS Rocky Mountain Newsletter and/or the ITS Rocky Mountain website please email employment@itsrm.org.

WESTERN TRANSPORTATION INSTITUTE. For more information about WTI, visit our website at www.coe.montana.edu/wti. The following positions are currently open (**ADA/AA/EO/Veteran's Preference**):

Western Transportation Institute (WTI), Montana State University (MSU) is seeking **Transportation Research Professionals** at all levels. Research interests should include highway safety, public transit, materials and corrosion, intelligent transportation systems, or transportation systems development and integration. Positions require a graduate degree and experience in an engineering or scientific field related to surface transportation. P.E. licensure is a plus. For information about WTI, visit our web site at <http://www.coe.montana.edu/wti/>. For job descriptions and application information, visit the MSU web site at <http://www.montana.edu/level2/jobs.html>. Screening of applications will begin February 25, 2005, and continue until the positions are filled. Contact Dr. Michael Kelly, WTI, mkelly@coe.montana.edu, (406)994-7377. ADA/EO/AA Veterans Preference. In compliance with the Montana Veteran's Employment Preference Act, MSU provides preference in employment to veterans, disabled veterans, and certain eligible relatives of veterans. MSU makes accommodation for any known disability that may interfere with an applicant's ability to compete in the hiring process or an employee's ability to perform the duties of the job. To claim veteran's preference or request accommodation, contact Affirmative Action, Montana Hall, MSU, Bozeman, MT 59717, 406-994-2042 (TDD 406-994-4191).



News and Events from around the Region...

3rd Annual Spring Transportation Symposium

DENVER, CO -- Sponsored in part by the Colorado-Wyoming Section of ITE, the Women's Transportation Society and the ITS Rocky Mountain Chapter, the *Spring Transportation Symposium* is a one-day event held in Denver, on Friday, **April 1st**. For more information go to www.itsrm.org/meetings.htm.

Intelligent Transportation System Workshop

BOISE, ID -- A pre-conference workshop on Intelligent Transportation Systems (ITS) has been scheduled for Tuesday, **April 5th** in Boise, Idaho. It is being held just prior to the Idaho Transportation Department's *Project Development Conference*. This one-day workshop is an excellent introduction to ITS. For registration, lodging and cost information, download the conference announcement by going to www.itsrm.org/meetings.htm.

2005 National Rural ITS Conference Issues Call for Presentations

SPOKANE, WA -- Scheduled for September 11-14, 2005 in Spokane, Washington, the *National Rural ITS Conference* promises to provide a unique opportunity to learn first hand about new and innovative approaches to solving the challenges facing rural transportation. The planning committee recently issued an invitation for individuals to submit presentations for review and consideration by the National Rural ITS Conference Advisory committee. Seventeen (17) rural topics have been identified and submissions must be received by **April 25th**. For more information <http://depts.washington.edu/trac/nrits2005>.

Pilot Program uses Signs to Display Estimated Travel Times

SALT LAKE CITY, UT -- Utah drivers now have a new tool to help with the rush-hour traffic commute. As of January 24th, the Utah Department of Transportation now uses the electronic message signs along I-15 to show estimated travel times.

The signs located between Sandy and downtown Salt Lake City use the new feature during morning and evening commutes. Each sign lists two destinations - a nearby exit and an exit representing the end of a typical driver's commute. Under extreme congestion or when crashes occur the signs may also suggest alternative routes.

The six-month pilot program could become a permanent feature depending on its effectiveness and public response. The signs could also be extended to I-80 in Salt Lake and Summit counties, I-215 in Salt Lake County and on I-15 in Davis and Utah Counties.

ITS as a Business Investment - Making the Case for Technology Investments



SALT LAKE CITY, UT -- Richard Hodges, the ITS Project Manager at Utah Transit Authority in Salt Lake City, Utah and the ITS Rocky Mountain Chapter President has designed a workshop to help transit agencies focus their technology investments on results. It will provide the skills needed to identify and justify high-value project investments. It will identify the range of project benefits and provide information needed to build support for a program. It will help to develop a program that fits within budget and provides value to the agency and its customers.

The workshop will be based on developing an analysis of real-world applications of technology and be tailored to the needs of the participants. Participants are invited to bring projects and challenges to the workshop. Analytic

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tools that allow one to plan and conduct program and project-level analysis will be used. These techniques will help to prioritize and justify technology investments and use those investments to support business goals.

The workshop will include the basics of benefit/cost analysis, risk assessment, sensitivity analysis and evaluation approaches for technology (and other) projects.

The audience for this workshop is persons responsible for developing, planning and implementing technology projects and could include managers, planners, project managers, analysts or those with technology oversight responsibilities. Peer staff from MPO and DOT departments will also benefit from the workshop. The participants will gain insight whether they are just beginning a technology program or assessing an existing program.

At the completion of the course, participants will be able to:

- Use a set of tools that will help in program-level analysis of technology (and other) investments
- Use a framework to analyze and justify the program
- Identify the elements of projects that bring greatest return to the agency
- Assess the risks to a project
- Explain why some projects are more likely to succeed than others, and present compelling reasons to decision makers.

This workshop is offered through the National Transit Institute 's Fellows program. Fellows are industry standouts selected through a national nomination process, and act as NTI "Adjunct Faculty," sharing their experiences with transit-related implementations at professional workshops and at selected transit-related organizations exploring the adoption of new technologies or innovative practices.

You can find booking information for this workshop at <http://www.ntionline.com/Fellows.asp>. Each NTI Fellow will give at least four free half-day workshops over the next two years.

US DOT's ITS Program Announces New Exploratory Initiatives

WASHINGTON, DC -- The U.S. Department of Transportation's Intelligent Transportation Systems program was reorganized in 2004. Under the direction of the ITS Management Council, nine new major initiatives were approved for funding. The Management Council also identified six issues that warranted further study before decisions on funding could be made. The intent of these exploratory initiatives is, as the term implies, to explore promising, unevaluated ITS strategies where ITS might make a major impact in improving safety, relieving congestion and enhancing productivity, but for which not enough is known to make that determination or to clearly determine exactly how to proceed.

The 2005 exploratory initiatives are:

- Vehicle Infrastructure Integration (VII) for Mobility
- Vehicle Assist and Automation Systems
- ITS Technologies to Reduce Pedestrian Injuries and Fatalities
- ITS to Improve Unsafe Driver Behavior
- Teen Driving Electronic Report Card
- Wireless Truck and Bus Inspection

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Common characteristics among these diverse explorations are an opportunity for wide-spread input from both the public and private sector, a desire for creative and innovative solutions, short time frame (a year or less) and minimal initial investment. The intent is to explore each of these issues to further determine their scope and opportunities for further investment and, if warranted, to develop a preliminary program plan for further investment. At the end of their terms, the findings of each exploratory analysis will be evaluated by the ITS Management Council. The potential for significant impact on safety, mobility and productivity, within available resources, will be the basis for determining whether any of these exploratory initiatives should be expanded to become a major initiative within the USDOT ITS Program. For more information <http://www.its.dot.gov/initiatives/exploratory.htm>.

U.S. Department of Transportation Opens Two New Agencies

WASHINGTON, DC -- The two new agencies created by Congress last November began operation in late February – the Research and Innovative Technology Administration (RITA) and the Pipeline and Hazardous Materials Safety Administration (PHMSA).

RITA is composed of staff from the Research and Special Programs Administration and will include the Volpe National Transportation Systems Center in Massachusetts and the Transportation Safety Institute in Oklahoma. It will also house the Secretary's Office of Intermodalism and the Bureau of Transportation Statistics.

The establishment of RITA will enable the Department to more effectively coordinate and manage the Department's research portfolio and expedite implementation of crosscutting innovative technologies. It is dedicated solely to the advancement of DOT priorities for innovation and research in transportation technologies and concepts.

PHMSA was formed using staff from the RSPA Office of Hazardous Materials Safety and Office of Pipeline Safety. It will oversee the safety of the 800,000 daily shipments of hazardous materials nationwide and the operation of the nation's energy pipelines.

FTA and FHWA Announce New Planning and Operations Website

WASHINGTON, DC -- FHWA and FTA have jointly undertaken an effort to facilitate integration between planning and operations. The announcement, in early 2005, includes a newly established website, www.plan4operations.dot.gov. The goal of the website is to promote multimodal planning practice that supports 21st century transportation system management and operations. In order to link 21st Century operational services into the transportation planning and programming process, transportation planners and operators should have a common understanding of the mobility, safety, and efficiency benefits of linking planning and operations.

This website also contains numerous resources to help planners and operators gain insight into the linkage between the two fields. This site has a resource library of documents, presentations, and reports on current practices. It also contains a toolbox that gives examples of best practices, a calendar of upcoming relevant events, a listing of courses that span the two disciplines, a "What's New" section that will be updated monthly, and links to other sites that should be of interest. The following section helps answer the questions of what is meant by linking planning and operations, why link the two topics, and what are some mechanisms to link the two.