



LTAP

MATTERS

Montana's Answer To Technical Education of Roads & Streets

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PASS IT ON

We are condensing our mailing list and request after you have read this newsletter, pass it on to other interested readers in your department.

Rodeo Time in Montana

The 13th Annual Equipment Training and Snow Rodeo was hosted once again by the City of Great Falls. Marty Basta, Operations Manager, City of Great Falls, was pleased to report 80% of the participants were new.

Fourteen years ago, Basta attended the National Snow Rodeo held in Colorado where 47 states and 5 countries competed. He was surprised to learn Montana was not represented. Consequently, after generating interest, Basta and his staff planned this annual event providing training and competition among equipment operators.

Wednesday morning began with excavator training by Steve Green, T & E Company, for all participants

discussing the latest innovations of the CAT 318B Excavator, provided by T&E. The class then split to either hands-on equipment instruction with Steve Green or to forklift training and certification.

Steve Jenkins, LTAP Director,



Kevin O'Brien, City of Missoula, and Fred Rubino, T & E Company

and Sam Gianfrancisco, LTAP Instructor, emphasized to the forklift class the importance of safety.

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Rodeo *(continued)*

Gianfrancisco noted that 79% of forklift accidents occurred by operators with 12 or more years of experience. Do not become complacent! Ray Redding, U.S.A.F., and Steve Stanfield, City



Sam Gianfrancisco, LTAP Instructor, going through forklift check list

of Great Falls, received incentives for classroom participation. After the written portion of the forklift class was finished, the certification was completed with hands-on operation



City of Great Falls crew judging with Sam Gianfrancisco

on a Toyota 30-514 forklift. The morning session concluded for all participants with workshops on Snowplow Training and Snow & Ice Conditions by Jenkins and Gianfrancisco. After a picnic lunch, the participants continued their hands-on training and operation with Steve Green on a CAT 140H Motorgrader, a CAT 950G Front End Loader, a CAT 420D Backhoe, and snowplow.



Rodeo *(continued)*

Thursday morning started the Snow rodeo Competition on the Motorgrader, Front End Loader, Backhoe, and Snow Plow at the Great Falls Montana Expo Park. In addition to the obstacle courses on



equipment, participants were also required to complete a diagnostic test on equipment and a written test regarding snow removal safety. Fred Rubino, T&E Company, involved in equipment for 44 years, 28 years in sales, noticed one of the biggest changes in equipment design has been for operator comfort. Companies realized if the operator was comfortable, work efficiency increased. He felt there was a true interest in participants running something new such as the CAT 318B Excavator.

There were more counties looking at the excavator as a viable tool. "Insurance companies, as well as employers, realize that if their operators have more training there will be less trouble in the field," cited Rubino. At the end of the day while rodeo computations were being compiled, Steve Jenkins, LTAP Director, completed the training for participants with a seminar on Winter Maintenance in Montana.



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Comments from the Snow Rodeo:

"Steve Green was a great instructor, really helped you to get the hang of the new front end loader and excavator," explained Steve Lowrey, U of M Facilities Services, in construction for 25 years.

Dick Korn, City of Billings, past competitor and 1st Place Backhoe Division this year, "liked the changes in the obstacle courses in the equipment competition, made it more challenging."

Kevin O'Brien, city of Missoula, said the backhoe competition required "meticulous" handling of the bucket that had a large soup ladle attached to scoop out the colored balls in the water tub.

"Can't wait until next year," exclaimed first-year participant Daniel Berner, U.S.A.F.

Rodeo *(continued)*

Marty Basta then presented the awards to the 2002 Snow Rodeo winners. In addition to engraved plaques given to each division winner through third place, a traveling plaque went with each first place winner, listing previous champions. Basta noted that everyone was a winner who participated in the workshops and hands-on training provided at the event. He thanked the City of Great Falls, T& E, LTAP, and the Rodeo Sports Staff.

A new division entitled "1st Time Operator" was created this year for the four divisions, all won by Joe Miller, Missoula County Road Department. Miller, with fourteen years of equipment experience, also placed in open competition and managed to win All Around Champion.

He was awarded the silver belt buckle, provided by LTAP. Congratulations to Joe and the rest of the winners at the 2002 Equipment Training and Snow Rodeo event!



Miller Korn Fox Moore Henman Kurk

Winners' Circle

Front End Loader

- 1st Place - Joe Miller, Missoula County Road Dept.
- 2nd Place - Tim Chute, City of Missoula
- 3rd Place - Tom Fox, City of Billings/Street Division

Backhoe

- 1st Place - Dirk Korn, City of Billings, Street Division
- 2nd Place - Tom Fox, City of Billings, Street Division
- 3rd Place - Joe Miller, Missoula County Road Dept.

Motorgrader

- 1st Place - Del Henman, Yellowstone Cty Road & Bridge
- 2nd Place - Tom Fox, City of Billings, Street Division
- 3rd Place - Joe Miller, Missoula County Road Dept.

Snowplow

- 1st Place - Clay Moore, Yellowstone County Road & Bridge
- 2nd Place - Del Henman, Yellowstone Cty Road & Bridge
- 3rd Place - Steve Kurk, City of Bozeman

1st Time Operator

- Front End Loader, Backhoe, Motorgrader, Snowplow - Joe Miller, Missoula County Road Dept.
- All Around Champion - Joe Miller, Missoula Cty. Rd.Dept.

Pedestrian Safety

New Users Guide Focuses on Creating Pedestrian Safety

In 2000, more than 4,739 pedestrians were killed and 78,000 were injured in U.S. motor vehicle crashes. These figures point toward a need to increase pedestrian and bicycle safety and mobility. Whether it's making improvements in crosswalks, sidewalks, walkways and pedestrian technologies, or expanding public education and safety programs, Federal Highway Administration's (FHWA) Pedestrian and Bicycle Safety Research Program strives to pave the way for a more walkable future.

A part of a larger FHWA study, *Evaluation of Pedestrian Facilities*, the Pedestrian and Bicycle Safety Research Program recently published the *Pedestrian Facilities Users Guide—Providing Safety and Mobility*, to help transportation engineers, planners, and safety professionals make cities more pedestrian-friendly and safe. The Guide offers plenty of useful information about safe walking environments, and highlights the main causes of pedestrian crashes and strategies for countering them. *Pedestrian Facilities Users Guide—Providing Safety and Mobility* is also a tool for enabling professionals to identify pedestrian safety needs within roadway rights-of-way. It defines 13 pedestrian crash-type groupings and the types of possible safety countermeasures for each group in different crash situations. Along with this information, the guide also includes the purpose, considerations, and estimated costs for each countermeasure.



This intersection illustrates the use of several safe features including the "Walking Pedestrian" signal and a pedestrian crosswalk. Notice that several of the pedestrians crossing the street fail to remain within the "safe" crossing zone.

The *Pedestrian Facilities Users Guide* also supplies a number of case studies which highlight success stories in Asheville, NC; Cambridge, MA; Boulder, CO; Fort Pierce, FL; and Portland, OR; including traffic calming, reducing speed through neighborhoods, revitalizing downtown areas, and improving safety for children near schools.

A printed version is not yet available; however, the *Pedestrian Facilities Users*



This photo shows pedestrians standing on a depressed median, four-lane separator. It might be safer under certain traffic conditions for the pedestrians to wait for the light to change on the corner of the road.

Guide, is currently available online by visiting the following website: http://safety.fhwa.dot.gov/fourth-level/design_p.htm#crosswalk.

Reprinted with permission from the Federal Highway Administration "Research & Technology Reporter," March 2002

Welcome to the LTAP Lending Library where publications, videos, and software marked *Lending Library may be borrowed for two weeks and then returned to the Library. Call Donnetta Bohman, LTAP, 1-800-541-6671 for more information.

New Publications

p-64 Woods in Transportation Publication List

This is a guide to the publications available from the National Wood In Transportation Information Center--the Nation's Clearinghouse for information about Woodin Transportation Applications)

p-368 Crack Seal Application This checklist is one of a series created to guide State and local highway maintenance and inspection staff in the use of innovative pavement preventive maintenance process.

p-385 Guidelines on the Use of Thermistor and Time Domain Reflectometry Instrumentation for Spring Thaw Road Management on Low Volume Asphalt Roads

These guidelines are a followup to the parent time domain reflectometry (TDR) project report (Hanek, Truebe, and Kestler 2001) and provide recommendations on installing and using thermistor and TDR technology for spring-thaw road management.

p-386 Asphalt Pavement Maintenance-Field Guide

This field guide provides guidelines for preventive asphalt pavement maintenance techniques for a variety of distresses and conditions.

p-411 Accelerated Aging of Concrete: A Literature Review

This literature review describes the general concept of aging of materials and defines accelerated aging. It describes accelerated aging procedures and applications of accelerated aging, and discusses thermal aging, the most common accelerated aging technique.

p-432 Service Life Prediction Based on Sorptivity for Highway Concrete Exposed to Sulfate Attack and Freeze-Thaw Conditions

This report documents a study that investigated permeability as an indicator of the general durability of hydraulic cement concrete.

p-450 Blading Aggregate Surfaces

This guide provides tips for grader operations on blading aggregate surfaced roads and can be especially helpful for training on the grader at the job site.

p-638 Evaluation of the Tricon™ Retained Soil Wall System

This report describes a HITEC evaluation designed to determine the basic capabilities and limitations of the Tricon System for use as a technically viable precast MSE retaining wall system.

p-639 Evaluation of the Geo-Con Vert Wall System

This report describes a HITEC evaluation designed to determine the basic capabilities and limitations of the Geo-Con Vert Wall for use as a technically viable permanent excavation support retaining wall system.

p-640 Evaluation of the Inter-Lok™ Retaining Wall System This report describes a HITEC evaluation designed to determine the basic capabilities and limitations of the INTER-LOK System for use as a technically viable precast MSE retaining wall system.

p-715 Dust Control on Low Volume Roads – A Review of Techniques and Chemicals Used

This report is intended to serve as a practical dust control guide for low volume roads.

p-826 Pedestrian Facilities Users Guide: Providing Safety and Mobility

This users guide provides useful information on how to identify the safety and mobility needs of pedestrians within roadway rights-of-way.

p-858 Wildlife Habitat Connectivity Across European Highways

This report addresses how habitat and wildlife resources around the world have diminished to the point that transportation agencies are being asked to address impacts to these resources when implementing improvements to transportation systems.

p-860 Identification of Driver Errors: Overview and Recommendations

This report describes an effort to gather more specific information about the driver errors that lead to crashes including recommendations for improvements to traffic control devices, roadway delineations, and accident reporting forms.

p-1030 Maintenance of Signs and Sign Supports for Local Roads and Streets – A Guide for Street and Highway Maintenance Personnel

This handbook is intended to help maintenance workers understand the importance of well maintained signs and provide information that will help them in accomplishing that task.

p-2033 Risk Management Guidelines for Roadway Tort Liability – LTAP MSU

This workshop notebook is to acquaint roadway engineers, technicians, supervisors and public officials with the legal responsibilities of public service and to further present some guidelines for the protection of agencies and individuals in the area of tort claims.

p-2551 Evaluation Findings for Seismic Energy Products, L.P. Elastomeric Isolation Bearings

This Evaluation Findings Report summarizes and presents data collected during the HITEC Isolator and Energy Dissipater Characterization Program (HITEC Evaluation Plan) on the five isolators submitted by Seismic Energy Products, L.P. (SEP), and describes the performance characteristics of the units that were evaluated.

New Publications, Software, & Videos

p-2577 Evaluation of Measurement Specialties, Inc. Piezoelectric Weigh-in-Motion Sensors

This report describes the results for the sensors manufactured by Measurement Specialties, Inc.

p-2578 Evaluation of Thermocoax Piezoelectric Weigh-in-Motion Sensors

This report describes the results for the sensors manufactured by Thermocoax.

p-2580 Corrosion Costs & Preventative Strategies in the United States

This technical summary announces the key findings of a Federal Highway Administration study that is fully documented in P-2581.

p-2581 Corrosion Costs & Preventative Strategies in the United States

This report describes the annual total cost of metallic corrosion in the United States and preventive strategies for optimum corrosion managements.

p-2582 Basic Guide for GASB-34 – Phase III Local Governments

This handbook describes Government Accounting Standards Board's requirements under Statement 34 for state and local governments on infrastructure investments and accounting.

p-2585 ITS/Operations Resource Guide 2002

This guide provides the many available ITS and Operations resources in over 300 documents, videos, websites, training courses, software tools, and points of contact related to innovative transportation operations strategies.

p-2590 International Conference on High-Occupancy Vehicle Systems – 2 part: Conference Proceedings and Compendium of Technical Papers

These reports document the proceedings and technical papers from the 10th International High-Occupancy Vehicle Systems Conference held in Dallas, Texas on August 27-30, 2000.

p-2600 4th Integrated Transportation Management Systems (ITMS) Conference – A Key Strategy to Optimize Surface Transportation System Performance – 2 part: Conference Proceedings and White Papers

These reports document the proceedings and technical papers from the 4th ITMS Conference in Newark, New Jersey on July 15-18, 2001.

p-3105 Asphalt Recycling & Reclaiming Association Directory

This 1999-2000 directory is a reference for members in Asphalt Recycling and Reclaiming Association.

p-3106 Asphalt Emulsion Manufacturers Association

This 1999-2000 directory is reference for members in the Asphalt Emulsion Manufacturers Association.

p-3530 Rural ITS Solutions – Rural ITS Toolbox

This document is intended to support agencies and groups that are beginning the process of rural or statewide ITS deployment by making the body of experience associated with various ITS application deployments accessible to potential new users.

SW-179 Basic Guide for GASB-34 –Phase III Local Governments

This software describes Government Accounting Standards Board's requirements under Statement 34 for state and local governments on infrastructure investments and accounting.

Software

SW-179 Basic Guide for GASB-34 - Phase III Local Governments

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SW-180 Culvert Installation and Maintenance Workshop

This powerpoint workshop is designed to cover permit applications and information in a workshop format.

SW-182 Work Zone Safety – for Roadway Maintenance Operations –“RoadSafe”

This software is an interactive media online training course.

Videos

EO145: Load Securement Program - 58 minutes

PROMO: Making Small Rocks...Out of Big Rocks //

RM210: Better Ways to Build...With Cement Treated Base - 10 minutes

PROMO: Pennsylvania Bridges: Maintaining the Past-Preserving the Future - 7 Minutes

RM318: Gravel Road Maintenance: (Set of 5 videos)

1. Forest Roads and the Environment - 18 minutes
2. Reading the Traveled Way - 16 minutes
3. Reading Beyond the Traveled Way - 16.30 minutes
4. Smoothing and Reshaping the Traveled Way -17.30
5. Maintaining the Ditch and Surface Cross Drains -16

SG185: Power Line Hazard Awareness 17.36 minutes

SG184: Driven to Extremes: The Myths and Realities of Aggressive Driving - 12.20 minutes

SG195: The Last Shot - 14.28 minutes

Up to three videotapes may be borrowed from the LTAP Lending Library rent-free for two weeks. Some publications are free or for a nominal charge upon request. Call Donnetta Bohrman, 1-800-541-6671 for information or check out procedures.



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The Local Technical Assistance Program Newsletter is published quarterly. Funding for this program is provided by the Federal Highway Administration through the Montana Department of Transportation, Montana State University and a portion of Montana's gas tax revenues. This newsletter is designed to keep you informed about new publications, new techniques and new training opportunities that may be helpful to you and your community. Individuals wishing to receive future copies of the newsletter at no cost may send their request to LTAP, 416 Cobleigh Hall, PO Box 173910, Montana State University-Bozeman, Bozeman, MT 59717-3910, or call 1-800-541-6671.

Editorial Contributions Welcome

LTAP welcomes contributions to **LTAP Matters**. Those wishing to submit relevant material to be published in the next newsletter can submit their ideas/articles to:

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