



HELP operators patrol interstates in Knoxville and Nashville, assisting stranded motorists.

HELP has arrived!

By Frank Horne, TDOT

The Tennessee Department of Transportation (TDOT) has initiated a popular new program aimed at reducing traffic congestion in large urban areas, while at the same time, assisting motorists disabled by automobile breakdowns and other minor incidents.

Simply called HELP, the program was officially dedicated by Commissioner Saltsman on June 30 in Nashville and on July 1 in Knoxville. On those dates, sixteen trained HELP operators and four supervisors began roving the most congested segments of the interstate system in those cities, from 6 a.m. to 8 p.m. each weekday. The HELP teams will also be on patrol during special heavy traffic generating events, as necessary. The operators and trucks were on the highway for popular Fourth of July events in Nashville and Knoxville, which were held on Sunday in 1999. The operators provide roadside assistance with specially equipped heavy-duty vehicles, as well as assisting other emergency responders, such as

police, fire, and medical technicians in all types of incidents that tie up traffic on interstates. Since the trucks are on the interstates continuously, they are usually the first to arrive at the scene of accidents or other highway incidents.

The HELP vehicles are painted a very recognizable lime green for optimum visibility. The trucks are diesel-powered Ford F-350 four-wheel drive vehicles with push bumpers, roof mounted arrow boards, built-in generators and air compressors, multiple radio equipment, traffic control equipment, and various supplies to handle almost any roadside emergency.

The program is funded through the Federal Highway Administration's Congestion Mitigation and Air Quality Program (CMAQ), so the main objective is to make noticeable improvements in those two areas. For the general public, however, HELP operators are being viewed as knights in shining armor, as the specially trained operators come to the rescue of stranded motorists in a very desperate time of need. Whether it is a flat tire,

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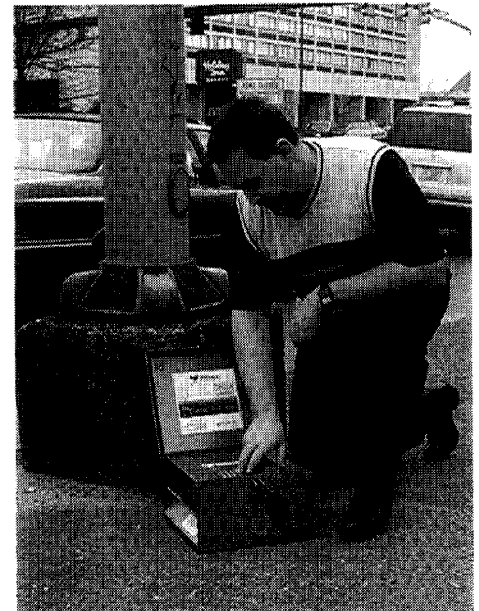
Need Traffic Data? TTAP Can Help.

Many of the decisions made in the transportation profession require accurate traffic count data. This data is used in signal warrant analyses, route location and planning, construction and maintenance prioritizing, and evaluating accident data. Often, this data can be difficult to obtain due to the expense of the equipment required.

TTAP assisted the Tennessee Department of Transportation (TDOT) in gathering traffic data in several locations across the state. We have gained valuable experience with traffic counters and would welcome the opportunity to share this knowledge with you.

As a part of our work with TDOT, they have provided us access to several traffic counters/classifiers. These can be used to gather count informa-

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ROADTALK

is a publication of the Tennessee Transportation Assistance Program (TTAP). TTAP is part of a nationwide effort financed jointly by the Federal Highway Administration (FHWA) and Tennessee Department of Transportation (TDOT). Its purpose is to translate into understandable terms the latest state-of-the-art technologies in the areas of roads, bridges, and public transportation to local highway and transportation personnel.

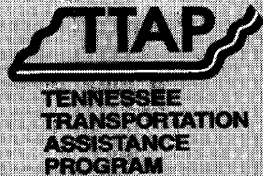
The views, opinions, and recommendations contained within this newsletter are those of the authors and do not necessarily reflect the views of FHWA and TDOT.

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Help is Only a Phone Call Away!
(1-800-252-ROAD)

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From the Director

By now the buzz of the new millennium has passed and we have all gotten used to writing all those zeros in the new decade. Another exciting year is upon us at TTAP in training, technical assistance, and technology transfer.

You should have received our new training catalog for the year 2000. You can access it on the Web at www.ra.utk.edu/tc/ttap if you haven't received one. It is now possible for you to register online, and we suggest that you do so early to ensure a seat. If you have any suggestions for workshops other than those listed, please let us know so that we can plan for them in the future.

As part of TTAP's ongoing effort to provide technical assistance to local road authorities, we have 15 traffic counters that we can lend to interested city or county road personnel to gather traffic data before making decisions on road improvements. Jason Crouch, who coordinates our technical assistance, will be happy to help you set the counters up and download data as needed. Please see Jason's article on page one.

We are happy to include two articles on technology transfer from TDOT personnel. On page four, Ben Tolar brings us up to date on GIS, EDMS, and CADD being used by TDOT. Frank Horne, also from TDOT, has written an article on a popular new program initiated by TDOT aimed at reducing traffic congestion in large urban areas. His article appear on page one.

Our "On the Road" column resumes with Tom Copas interviewing John Woodall, the Road Superintendent of Franklin County. Please see page three.

We look forward to working with all of you to foster a safe, efficient, and environmentally sound transportation system in Tennessee.

Zach
Zach Zacharia

The Sixth Annual Southeastern Local Roads Conference

with
TOM COPAS,

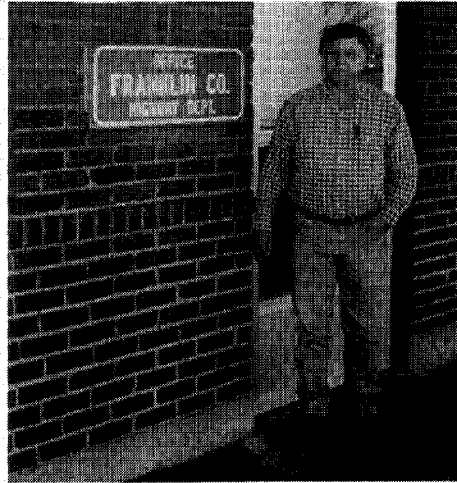
Visit To Franklin County With John Woodall

John Woodall is rightfully proud of his accomplishments as Road Superintendent of Franklin County. His ability to get the county commissioners to share equally the repayment of a loan has made the purchase of much needed equipment for the department possible. The loan is almost repaid and has made savings in operation that exceed the amount of the loan possible.

John was appointed to his present position in 1994 and has sought both quantity and quality in the administration of the department. He has one principal assistant for overall operation and a second assistant with major responsibility for bridges. Retirement by many of the senior equipment operators has resulted in a relatively young crew; however, John is pleased with their training progress. He takes every opportunity is taken to send individuals to TDOT and TTAP training sessions.

Franklin County is one of the few counties operating a stone quarry. The department can produce about sixty thousand tons of a controlled crusher run for about \$2.75 per ton. A jaw crusher is the primary unit with a hammer mill serving as the secondary unit. Back dump quarry trucks are loaded by a large articulated loader. Drilling and blasting is contracted with all shots monitored for blast and vibration.

New regulations for subdivision developers now require an eight inch compacted base under the plant mixed surface. Drainage is now designed by a professional engineer and all seeding, sodding, and rip-rap is completed. Traffic lanes must be painted and required signs must be in place before the project is accepted. Department officials scheduled regular inspections.



Franklin County Superintendent John Woodall

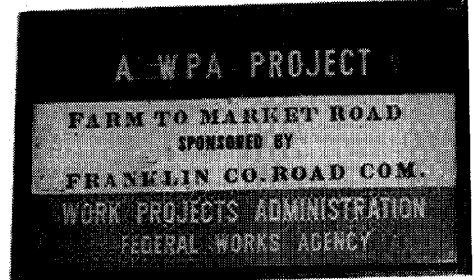
John is proud to complete his last bridge on the first list. However, he can not relax. He has several large structures built as a part of the Corp of Engineers Tim Ford Dam Project. They must be inspected and repaired to defer any major and expensive repairs or rehabilitation.

Franklin County has used many safety grants to make spot improvements with site grading, guardrail installation, and protected lanes for school children.

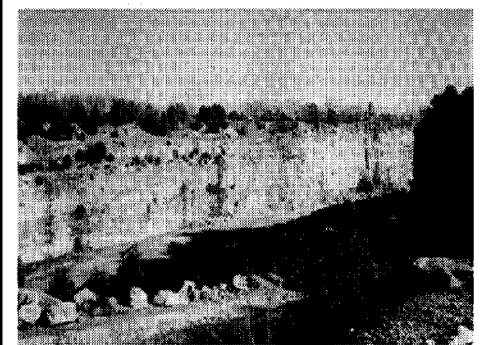
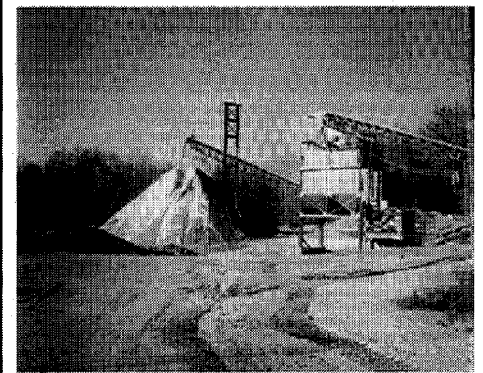
A balance between new industry and traditional farming has provided an excellent economic base for Franklin County. However, the rapid growth of subdivisions has taken some farms out of production.

With the Cumberland Plateau to the Southwest and a beautiful valley containing a large lake and reservoir to the west and north, Franklin County has proven to be an attractive place to work and live. John is a native of the county and after employment with two large construction firms is delighted to be working at home. He is smarter than an earlier resident of the county, Davy Crockett, who left for Texas. Davy's wife, Polly, is buried at the west end of the county and a well that was hand dug by Davy is still present.

John has maintained a pothole free system of some 700 miles of roadway with only about 100 that have a crushed stone surface. Several miles of the crushed stone roads serve



They remember the good ol' days in Franklin County.



Franklin County operates a stone quarry.

only a family or so with a near zero daily count.

John has developed a program of good service to the county at a cost that is affordable. He has supported the County Highway Official Association and has served as president of Region II.

New Technology at TDOT

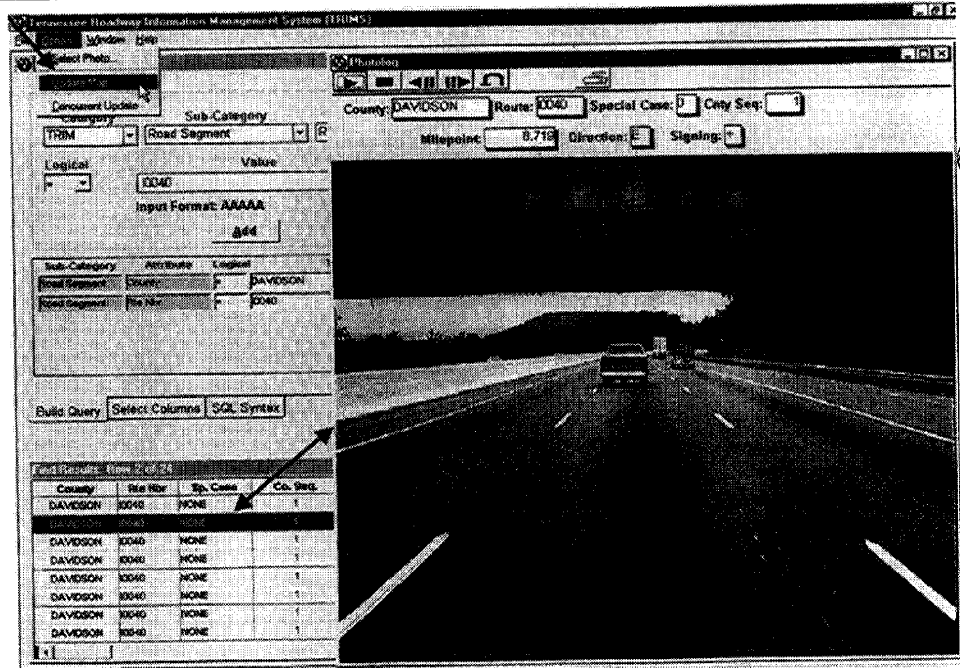
By Ben Tolar, TDOT

The Tennessee Department of Transportation (TDOT) is responsible for maintaining and managing an integrated transportation network. Technological advances, our desire to shift from a function-oriented to a process-oriented environment, and an increasing workload are some of the issues the department is currently addressing with the Business Process Reengineering (BPR) of the Project Development Process (PDP).

As part of the strategic planning efforts for the department, the reengineered PDP has identified several information technology projects and applications, including enabling technologies and infrastructure, which are required to support the reengineered process. Once implemented departmentwide, the new applications, enabling technologies, and increased network infrastructure will provide the necessary tools for TDOT staff to automate the new process. The increased availability of information on the enterprise-wide level will ultimately increase the delivery of services to customers of the department.

TDOT has been developing the Geographic Information System (GIS) as an enabling technology over the past few years. The recent initiatives to expand this technology and development of several related technologies requires TDOT address and update data requirements and the data acquisition process. Past data gathering programs are entirely too inefficient to provide the volume and quality of data required to support the new initiatives.

As a result, TDOT authorized a departmentwide Functional Requirements Study with a focus on GIS which involved receiving input from



TRIMS user interface

staffers across the state. This study was followed by small focus group meetings to acquire more detailed information defining the data needs of the department and GIS capabilities necessary to provide staff the best tools to manage, analyze, and display data in map format. The study will be complete in late March 2000.

At TDOT, most decisions are based on data with a location component (i.e. a bridge is located on a particular road, at a unique log mile location, within a certain county). The saying *a picture is worth a thousand words* holds true for TDOT decision-makers. A feature such as a bridge should be locatable using multiple location descriptions. GIS provides this capability. Over the years much effort was required to produce maps manually for use by upper-level management. That task is more efficient with GIS as the core interface to the Department-wide Information System. Managers are able to retrieve and display enormous amounts of information required to make informed decisions affecting the statewide transportation system. One high level executive said TDOT was "data rich and information poor." With GIS technology, TDOT is changing data into information.

Several applications will provide core capabilities for the Department-wide Information System. The current Tennessee Roadway Information Management System (TRIMS) is a collection of database tables developed over the past thirty years. With GIS, you can now display highways and view traffic volume for any route, determine the history of construction performed on the route, view a digital photograph of the roadway as if you were riding in your automobile on any state-maintained route in the state, locate where high incidence of crashes occur, view the latest pavement condition information, and view many other layers of information about the route. Through query tools and GIS, the system offers the capability to perform analysis of the data to isolate conditions based on very specific parameters. This provides decision-makers a powerful capability when faced with difficult decisions related to future direction of the transportation planning, construction, and maintenance programs.

Electronic Document Management System (EDMS) technology is being developed and implemented throughout the Department to provide access to the large number of documents needed to move projects through

the system. Computer Aided Design and Drafting (CADD) technology has been in use for many years. The new integrated system approach with GIS will make this data available to a larger group of users.

This transition would not be complete without the use of Web-based solutions. TDOT is committed to the use of Web technology for expanding the information system throughout the department's four regional offices and twenty-two district offices. The departmentwide GIS Functional Requirements Study is using Web technology to receive input from participants in the study. Also, the department receives input from TDOT staffers statewide to update the Interstate Highway conditions map on the TDOT Internet site.

This technology will be important for acquiring data necessary to maintain the Information System and will encourage partnerships that will help TDOT acquire, manage, and maintain these large databases. These partners should be counties, cities, development districts, local planning offices, utility districts and operators, and of course, other agencies of state government. A primary objective of this effort is to develop a strategy for sharing as much data as possible with other users that require the same data. With the requirements study nearing completion, the data requirements have been identified. Once the system capabilities are defined and the technical support is in place, TDOT can then begin actively developing partnerships with many agencies across the state.

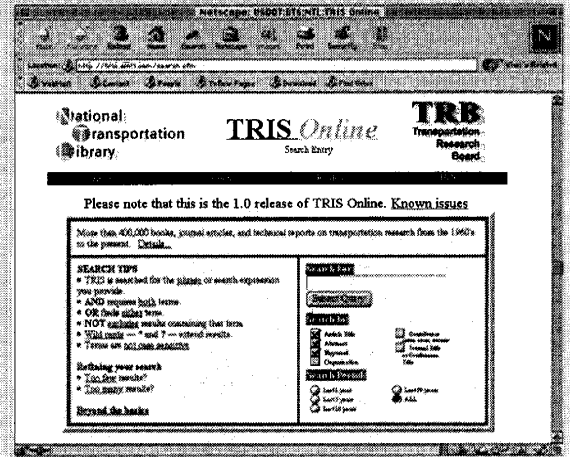
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TRIS Online Now on NTL Web Site

The U.S. Department of Transportation's Bureau of Transportation Statistics (BTS) and the Transportation Research Board (TRB) announced the availability of TRIS Online on the National Transportation Library's (NTL) Internet site.

The Transportation Research Information Service (TRIS), the world's largest and most comprehensive bibliographic database on transportation, has been developed by TRB over the past 30 years with support from state and federal agencies. The TRIS database contains more than 500,000 records of published and ongoing research on all modes of transportation. TRIS Online can be found on the Internet site <http://ntl.bts.gov/tris>

The NTL makes available major transportation materials from around the world, indexes transportation Web pages, and will ultimately provide a national union catalog of the country's major public and private transportation library collections and statistical databases. The NTL's site is <http://ntl.bts.gov/>.



HELP, continued from page 1

overheated engine, or empty gas tank, HELP is just a few minutes away.

While operations and management for the program are based in the Regional and Headquarters Maintenance Divisions, personnel from all areas of the Department contributed to the development of the TDOT HELP Program. In all, approximately 150 TDOT employees played a part in what many professionals outside the Department are calling one of the best trained and best equipped freeway service patrols in the country.

As for public relations for TDOT, the department has been flooded with cards and letters of praise and thanks. In addition, reactions from local police and fire departments are very positive; these departments welcome the arrival of the HELP vehicle and operator on the scene. Plans are under development to implement the program in Memphis and Chattanooga early in the summer of 2000.

Need Traffic Data, continued from page 1

tion, vehicle classification data, and spot speed data. TTAP also has turning movement count boards, which allow for easy collection of turning movement data at intersections. This data could be used to evaluate signal timing or perform signal warrant analyses.

TTAP continues to make these tube counters and turning movement counters available to local road agencies for a four-week loan period. Due to limited resources, we cannot loan the counters to private companies and consultants.

Our staff will be happy to provide any training and support for use of these counters by any local road agency in Tennessee. Please contact Jason Crouch at 1-800-252-ROAD if your city or county is interested in borrowing traffic counters from TTAP or for more information.



Education and training opportunities are available through the University of Tennessee Center for Transportation Research (CTR), Southeast Transportation Centers (STC), and Tennessee Transportation Assistance Program (TTAP).

This listing of courses currently available includes both TTAP and TATE courses that are offered in conjunction with the University of Tennessee Department of Civil and Environmental Engineering and the Tennessee Section of the Institute of Transportation Engineers. Local roadway departments can benefit from all of the workshops. Because of this, we ask that you please share this listing with others who might be interested in our workshops. The Center for Transportation Research is always eager to meet your research and training needs. If you have a special course in mind or would like a course held on site especially for your employees, please contact Jean Spangler at (800) 252-ROAD.

*CEU and PDH credit hours available.

Course Title	Date	Location	Instructor
Work Zone	Mar. 2	Jackson	Tidwell
Work Zone	Mar. 3	Nashville	Tidwell
State Funding	Mar. 7	Chattanooga	Sartor
State Funding	Mar. 9	Knoxville	Sartor
Pot Hole Patching	Mar. 14	Knoxville	Copas
Pot Hole Patching	Mar. 16	Nashville	Copas
Traffic Engineering I	Mar. 22,23,24	Knoxville	Han/Chatterjee/Wegmann
Storm Water Drainage	Mar. 28	Knoxville	Kervin
Storm Water Drainage	Mar. 30	Chattanooga	Kervin
Planning and Engineering for New Highways	Apr. 3,4	Nashville	Beckwith/Wallace
Installation and Maintenance of Small Drainage Structures	Apr. 11	Murfreesboro	Jones
Navigating the Internet	Apr. 17	Knoxville	Zacharia
Basic Roadway Surveying	Apr. 25,26	Knoxville	Kervin
Landslides and Sinkholes	May 2	Murfreesboro	Jones
TEA 21 for Local Roads	May 10	Knoxville	Elizer
Highway Capacity Workshop	May 23,24,25	Nashville	Ismart
Design of Soil Erosion and Sediment Control Practices	May 30,31, Jun. 1	Nashville	Smoot
Basic Roadway Surveying	Jun. 6,7	Jackson	Kervin
Overview of Transportation Simulation Software	Jun. 13,14	Nashville	Franzese/Han
Commercial Drivers' License	Jul. 11	Chattanooga	Gregory
Commercial Drivers' License	Jul. 13	Jackson	Gregory
Basic Roadway Surveying	Aug. 3,4	Nashville	Kervin
Transportation Data Collection and Analysis	Aug. 8,9,10	Nashville	Chatterjee/Wegmann
Basic Roadway Surveying	Aug. 31, Sept. 1	Chattanooga	Kervin
Winter Maintenance	Sept. 5,6	Memphis	Jones
Soil Erosion and Sediment Control Practices	Sept. 11	Knoxville	Smoot

Soil Erosion and Sediment Control Practices	Sept. 13	Nashville	Smoot
Soil Erosion and Sediment Control Practices	Sept. 14	Jackson	Smoot
Traffic Sign and Pavement Markings	Sept. 19,20	Nashville	Sullivan
MUTCD Signing	Sept. 25	Jackson	Kervin
MUTCD Signing	Sept. 26	Nashville	Kervin
Basic Geotechnical Engineering Concepts	Sept. 27	Nashville	Drumm
MUTCD Signing	Sept. 28	Knoxville	Kervin
General Construction	Oct. 3	Murfreesboro	Jones
Highway Design	Oct. 4,5	Nashville	Sullivan/Tidwell
Traffic Engineering II	Oct. 11,12,13	Knoxville	Han/Chatterjee/Wegmann
Advanced Work Zone Traffic Control Training	Oct. 17,18	Nashville	Lerch
Traffic Signals: A Manager's Perspective	Oct. 24,25	Knoxville	Sullivan
Bridge Inspection	Oct. 31	Knoxville	Hearn
Bridge Inspection	Nov. 1	Nashville	Hearn
Bridge Inspection	Nov. 2	Jackson	Hearn
Work Zone	Nov. 7	Chattanooga	Tidwell
Work Zone	Nov. 9	Jackson	Tidwell
Work Zone	Nov. 10	Nashville	Tidwell
Traffic Calming	Nov. 14	Memphis	Elizer
Roadside Design Guide	Nov. 16	Jackson	Brunelle
Utility Accommodations Manual	Nov. 28	Jackson	Tidwell
Utility Accommodations Manual	Nov. 29	Nashville	Tidwell
Utility Accommodations Manual	Nov. 30	Chattanooga	Tidwell
Utility Accommodations Manual	Dec. 1	Knoxville	Tidwell
Site Impact Analysis	Dec. 5,6	Knoxville	Ismart
Roadside Design Guide	Dec. 7	Knoxville	Brunelle

TRB Annual Meeting/ National LTAP Meeting

By Jason Crouch

January usually brings two events to Washington, D.C. The first is a snow-storm that inevitably blankets the northeastern United States this time of year. The second is the annual meeting of the Transportation Research Board (TRB). However, only one came to pass this year, as the weather was outstanding for the 79th Annual Meeting of TRB held January 9-13.

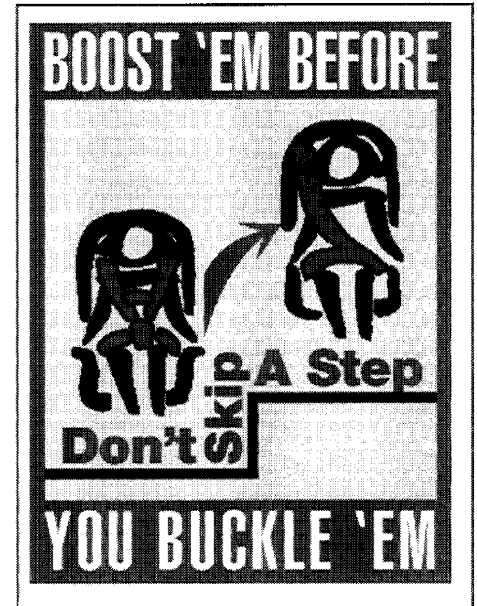
Over 490 sessions covered all transportation modes and a variety of topics including highway and traffic operations, bridge and culvert design, information systems, pedestrian and bicycle traffic, ITS...the list seems endless! I was able to attend several sessions including those pertaining to pavement management for local agencies, traffic control devices for low-

volume roads, and new approaches to traffic volume estimation. The traffic volume meeting was a good opportunity to meet colleagues and discuss current research and how it will shape the future of transportation policy and practice.

Jim Hall, chairman of the National Transportation Safety Board (NTSB), addressed a gathering of students and faculty of the Southeastern Transportation Center at Ronald Reagan National Airport. Chairman Hall discussed the role of the NTSB and answered many questions from the students about the board's activities.

At the conclusion of the TRB meeting on January 13, the National LTAP Association met. Peer exchange programs used in state DOTs to review management process and organizational structure were discussed. LTAP centers were encouraged to participate with other centers to review their own processes. Also, the Annual

LTAP Conference was announced for July 30-August 2, 2000 in Boise, Idaho. This will again be a great opportunity for LTAP centers across the country to share their ideas and gain valuable expertise from others in the transportation profession.



TALK TO TTAP

We are always looking for your comments, ideas and suggestions to help make the TTAP program more useful to you.

1. Please send me more information on the following articles mentioned in this newsletter.

2. Please list any additional training workshops you would be interested in attending.

3. Please list topics for videos you would like TTAP to obtain.

4. Please list any other ideas or suggestions on how TTAP could assist you.

5. Please list your name and organization to verify for TTAP's mailing list.

Name _____
Address _____
Title _____
Organization _____
Phone _____
Fax _____ Email _____
Are you currently on TTAP's mailing list? yes no

Please fax your form to TTAP at (865) 974-3889 or mail to TTAP, Suite 309 Conference Center Building, Knoxville, TN 37996-4133.

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ROUTING SLIP

April 3-7 Designated Work Zone Safety Week

To help reduce injuries and fatalities in highway construction areas, the Federal Highway Administration (FHWA), the American Traffic Safety Services Association (ATSSA), and the American Association of State Highway and Transportation Officials (AASHTO) signed an agreement to designate April 3-7 National Work Zone Safety Awareness Week.

In the past decade more than 8,000 fatalities were reported in work zones. Fatalities in 1998 rose to 772, reversing a three-year decline in work zones fatalities from 1995 to 1997. Approximately 37,000 people were injured in work zones in 1998.

This agreement between the three organizations provides the framework for implementing the nationwide awareness week which will seek to increase awareness of work zone safety among the driving public and construction workers and generate dia-

log among highway program managers in the public and private sectors.

The goals and objectives of the memorandum of understanding are

- Increase public awareness of the need for greater caution and care while driving through work zones to reduce fatalities and injuries in work zones.
- Establish and promote a common set of safety tips for motorists.
- Increase public sector, industry, and worker awareness of the value of training and best practices regarding work zone safety.
- Establish a nationwide program for promoting work zone safety.
- Communicate to workers and contractors the effects of motorists' frustration with delays on their driving behavior and suggest possible actions to alleviate that behavior.
- Engage as partners interested parties involved in work zone safety.

Visit the DOT Public Affairs Web site.

DOT Public Affairs Web site:
<http://www.dot.gov/briefing.htm>

Web Site Offers Work Zone Answers

When you have work zone questions and need answers fast, be sure to contact the National Work Zone Safety Information Clearinghouse Web site. <http://wzsafety.tamu.edu>. It's free!

You may search the site yourself or ask specific questions of the expert Clearinghouse staff via email (workzone@tamu.edu) or phone (888-447-5556).

The Web site is now receiving over 5,000 hits a month! The site includes five searchable databases on key contact personnel, safety practices, available technologies, research results, and safety training courses and programs. Besides links to related sites, the site now offers many materials and even some full reports online, including the "Best Practices Report."

National Work Zone Safety Information Clearinghouse Web site:
<http://wzsafety.tamu.edu>.