Transportation Asset Management

New LTAP Workshops to be Hosted in the Fall

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Imagine that budget time has come once again, and you are being asked for an accounting of how you have managed assets in your areas of responsibility. Will you simply speculate on how bad the roads and signs you maintain are? Does anybody actually know how much it will cost to replace one of those signs, or will that too be a guessing game? If this sounds familiar, it's not surprising. Unfortunately, this scenario is played out over and over in a large percentage of public agencies across the USA. But what if there were a tool that could tell you the condition of your infrastructure elements and propose the right treatment and the right time for that treatment? You would then know how much money addressing your current need would require, correct?

April Commemorates Work Zone Awareness

Work Zone Safety Week Celebrated April 7–11, 2008

National Work Zone Awareness Week is a commemoration that draws attention to the hazards roadway construction crews encounter when motorists fail to heed safety warnings. The theme this year was "Slow for the Cone Zone." Today's work zone points to tomorrow's improved roadways for smoother rides, better traffic flow, and safer travel in the future. The purpose of the special work zone safety week is to increase awareness of the need to be especially attentive and safety conscious when operating in a work zone.

Standing in front of the Work Cone Memorial at the LADOTD Headquarters Building (l to r): Col. Mike Edmonson, State Police: William Ankner, LADOTD Secretary: Dr. Marie Walsh, Director, LA Local Technical Assistance Program; and Wes Bolinger, FHWA Division Administrator

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Take it one step further. What if this tool would help optimize a perpetually limited budget by illustrating to the governing body what would happen to the condition of your infrastructure if funding were to be cut as opposed to being increased?

Transportation Asset Management is not simply a computer program, although computers are often used to house the data, perform the analysis, and create reports. However, the computers are only as good as the information provided, based on your experience, and often with the help of other engineers skilled in management system implementation. The TAM is sometimes linked with other software, such as work order cost accounting systems and financial systems.

TAM is also not a onetime action. To be truly effective, the condition assessments should be performed on a cycle appropriate to the agency. For example, a rural parish with light traffic may perform a survey every five years, whereas an agency in the urban high traffic area may need to conduct a survey every two years. The TAM is a systematic approach to understanding budgetary needs rather than reacting to a “how-many-miles-can-we-overlay” approach.

If you would like to learn more, brief articles are available at www.tfhrc.gov/pubrds/july97/tam.htm (excellent first read). The Federal Highway Administration also has a Web site devoted to TAM available at www.fhwa.dot.gov/infrastructure/asstmgmt/assetmangement.cfm.

This fall, LTAP will host several six hour workshops presenting the details of the TAM—what it is, what it is used for, and what the steps for implementation are.

Carl Rascoe, P.E., has served as an instructor for LTAP’s pavement management classes over the past thirteen years. He received a B.S. from Louisiana Tech University and an M.S. in Civil Engineering from LSU and has extensive research and consulting experience. He is currently a staff researcher with the Center for Advanced Infrastructure and Transportation at Rutgers University in New Jersey.
Work Zone Safety Week (cont. from page 1)

In Louisiana, Work Zone Cone memorials were constructed in honor of those who have died or have been injured in a work zone; one was in the front of the LADOTD Headquarters facility; others were in Alexandria, Chase, Hammond, and Lake Charles, LA, at areas that have been designated as a high crash locations. The sites display cones for the 1,010 fatalities sustained in a work zone in 2006 nationally.

Put This in Perspective

• One work zone fatality every 8.7 hours (almost 3 a day)
• One work zone injury every 9 minutes (160 a day)
• More than 60 million vehicles per hour of capacity lost to work zones each day during the peak construction period

Despite these alarming statistics, the public generally doesn’t realize the extent of the situation, nor does it recognize that its actions could dramatically reduce these figures. Consider the work environment of a typical work zone. Motor vehicles zip by at speeds of 50 to 75 miles per hour, just inches from work space. In fact, speeding traffic is the number one cause of injury and death in our nation’s work zones. Simply slowing down and paying attention can and will save lives. Common sense may save a life.

Tips for Driving in Work Zones

• Drive within the posted speed limits.
• Dedicate full attention to the roadway.
• Disengage from distracting activities, such as changing radio stations and using mobile phones.
• Pay close attention to merge signs and flaggers, and don’t change lanes within the work zone.
• Watch out—not only for workers in the zone, but also for their equipment.
• Turn on the vehicle headlights to become more conspicuous to workers and other motorists.

Resources

Public Roads, FHWA, March/April 2000, Vol. 63/No. 5


To schedule work zone related training programs such as Temporary Traffic Control, Worker Safety in Work Zones, and Flagger Training, call David McFarland of LTAP at 225-767-9118, or email dmcfar@ltrc.lsu.edu.

Louisiana’s Click It or Ticket Campaign

By Lt. Col. John LeBlanc
Louisiana Highway Safety Commission

More than 40,000 people are killed on America’s highways each year. In Louisiana alone 979 people were killed in crashes last year. Sadly, 65 percent of those killed on Louisiana highways were not buckled up. Wearing a seat belt improves by 45 percent your chance of surviving a crash. It doesn’t take a mathematician to figure out that a lot of the people who died in crashes would be alive today if they had worn their seat belts.

Last year, officers issued more than 35,000 citations during our Click It or Ticket campaign. Those of us in highway safety wish that no tickets had to be written because everybody buckled up. Unfortunately, that’s not the case in Louisiana.

Don’t be a statistic, either as a crash fatality, injury or as one who was ticketed for violating the state’s seat belt law. Bucking up takes a few seconds and is the most effective and simple step you can take to keep safe while driving. For those who refuse to obey the law, our Click It or Ticket campaign will greatly increase the odds that they’ll be pulled over and ticketed.
Hurricane season is a certainty each year; it’s that period of time between June 1 and November 30. Whether or not we actually have a hurricane come ashore in Louisiana remains to be seen; however, after the ravages of Katrina and Rita, we are no longer as complacent about hurricane watches and warnings as we were in the past.

History teaches that a lack of hurricane awareness and preparation is a common thread among all major hurricane disasters. By knowing your vulnerability and what actions you should take, you can reduce the effects of a hurricane disaster.

The Federal Emergency Management Agency (FEMA) and the Department of Homeland Security have been working closely with state and local governments and relief organizations to remind residents and businesses in coastal areas to make emergency preparations.

State and Local Preparedness

People on the state and local level are closest to those affected by natural disasters and have always been the lead in response and recovery. The federal government acts in a supporting role, providing assistance, logistical support, and certain supplies.

- Local government is responsible for providing for the safety and security of citizens in advance of a hurricane. That means it is in charge of developing emergency plans, determining evacuation routes, providing public transportation for those who can’t self evacuate, and setting up and stocking local shelters with relief supplies.

- State government is responsible for mobilizing the National Guard, prepositioning certain assets and supplies, and setting up the state’s emergency management functions. It is also in charge of requesting federal support through the formal disaster declaration process.

Pre-hurricane Season

With June 1 marking the beginning of the 2008 hurricane season, begin preparations.

Review:
- the Hurricane/Storm Preparation Procedures and Auxiliary Services Hurricane Procedures;
- personnel classifications to determine which personnel will ride out the storm, who will be the second shift, and who is considered nonessential personnel;
- internal department call down process, including
updates to the procedure for actually calling employees;

- procedures for backing up computer systems and protecting critical equipment within your own department;

- the communications plan and the hierarchy of department decision makers;

- procedures for moving essential items away from windows and covering critical, unmovable equipment;

- conduct a list of critical supplies/equipment location;

- define or review a location for employees to assemble for instructions during storm watch/warnings;

- make sure all emergency radios/chargers are operational and dedicated to storm logistics and associated channels; and

- determine/order number of sandbags to have on hand.

**Federal Preparedness**

The Federal government is responsible for meeting requests from the state – before, during and after the disaster. This includes:

- providing logistical support for search and rescue;

- providing food, water, and ice,

- establishing disaster centers and processing federal disaster claims, and

- participating in short term and long term public works projects, such as debris removal and infrastructure rebuilding.

FEMA and the Department of Homeland Security began preparations for this hurricane season months ago and continue to refine processes to become better prepared. Steps taken include:

- working with coastal states on more detailed commodity staging plans so federal commodities delivered in support of state supplies are directed by states to the most valuable predecided locations (States take ownership of federal commodities and are charged with distribution to individuals),

- replenishing stocks of critical response commodities and assets to support state response, and

- working with other federal agencies to review and refine coordination of response activities.

**Individual Preparedness**

- Prepare an emergency supply kit and family emergency plan: Individuals and families should prepare emergency supply kits with food, water, battery operated radios, and medicine. Families should also make emergency plans that include how and where they would evacuate, shelter in place, and communication with one another. For more information on preparing for emergencies, please visit [ready.gov](http://ready.gov).

- Listen to local authorities: Individuals should pay careful attention to the advice of local authorities. By self evacuating, the able-bodied can allow authorities to devote resources where they are needed the most.

As hurricane season progresses, to learn more about hurricane preparedness and Hurricane Preparedness Week, visit the National Hurricane Center Web site at [www.nhc.noaa.gov](http://www.nhc.noaa.gov).
Protecting Workers from Effects of Heat

Workers performing a variety of jobs are required to work in hot environments, sometimes for extended periods. Because the extreme effects of heat can be so devastating, making workers keenly aware of the dangers, how to ward off potential problems, and how to act quickly to save the life of someone who has suffered from a heat stroke is important.

When the body is unable to cool itself by sweating, several heat induced illnesses can occur and result in death. The following information will help workers understand what heat stress is, how it may affect their health and safety, and how it can be prevented.

Factors Leading to Heat Stress

A number of factors can lead to heat stress: high temperature and humidity, direct sun or heat, limited air movement, physical exertion, poor physical condition, some medicine, inadequate tolerance for hot workplaces, and insufficient water intake.

What kind of heat disorders and health effects are possible, and how should they be treated?

• Heat Stroke — MEDICAL EMERGENCY — may result in death! Occurs when the body’s temperature regulation fails and body temperature rises to critical levels.
  Primary signs and symptoms: confusion; irrational behavior; loss of consciousness; convulsions; a lack of sweating (usually); hot, dry skin; and an abnormally high body temperature.
  What to do: Professional medical treatment should be obtained immediately. Until professional medical treatment is available, place worker in a shady, cool area and remove outer clothing. Douse worker with cool water and circulate air to improve evaporative cooling. Provide worker with fluids (preferably water) as soon as possible.

• Heat Exhaustion — due to exhaustion and the combination of excessive heat and dehydration.
  Primary signs and symptoms: headache, nausea, dizziness, weakness, thirst, and giddiness.
  Fainting or heat collapse is often associated with heat exhaustion.
  What to do: Remove worker from the hot environment and give fluid replacement, encourage to get adequate rest, and when possible, apply ice packs.

• Heat Cramps — usually caused by performing hard physical labor in a hot environment and normally attributed to an electrolyte imbalance caused by sweating and the lack of water replenishment.
  What to do: Imperative that workers in hot environments drink water every 15 to 20 minutes and also drink carbohydrate electrolyte replacement liquids (e.g., sports drinks) to help minimize physiological disturbances during recovery.

• Heat Rashes — most common problem in hot work environments where the skin is persistently wetted by unevaporated sweat.
  Primary signs and symptoms: Looks like a red cluster of pimples or small blisters, most likely to occur on the neck and upper chest, in the groin, under the breasts, and in elbow creases.
  What to do: Best treatment — provide a cooler, less humid environment, and keep the affected area dry. Use dusting powder to increase comfort, but avoid using ointments or creams—they keep the skin warm and moist and may make the condition worse.

Administrative or work practice controls to offset heat effects

• Acclimatize workers by exposing them to work in a hot environment for progressively longer periods.
• Replace fluids by providing cool water or any cool liquid (except alcoholic and caffeinated beverages)
to workers, and encourage them to drink small amounts frequently, e.g., one cup every 20 minutes. Place ample supplies of such close to the work area.

- Reduce the physical demands by reducing physical exertion such as excessive lifting, climbing, or digging with heavy objects. Use relief workers or assign extra workers, and minimize overexertion.
- Provide recovery areas such as air conditioned enclosures and rooms, and provide intermittent rest periods with water breaks.
- Reschedule hot jobs for the cooler part of the day; schedule routine maintenance and repair work in hot areas for the cooler seasons of the year.
- Monitor workers who are at risk of heat stress, such as those wearing semi-permeable or impermeable clothing when the temperature exceeds 70°F, while working at high energy levels. Personal monitoring can be done by checking the heart rate, recovery heart rate, and oral temperature.

**What personal protective equipment is effective in minimizing heat stress?**

- Reflective clothing, worn as loosely as possible, can minimize heat stress hazards.
- Wetted clothing, such as terry cloth coveralls or two piece, whole body cotton suits are another simple and inexpensive personal cooling technique. It is effective when reflective or other impermeable protective clothing is worn.
- Water cooled garments range from a hood, which cools only the head, to vests and "long johns," which offer partial or complete body cooling. Use of this equipment requires a battery driven circulating pump, liquid-ice coolant, and a container.

**Source:** *OSHA Fact Sheet*, Occupational Safety and Health Administration, U.S. Department of Labor

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**Additional Information**

For more information on this and other health related issues affecting workers, visit OSHA’s Web site at [www.osha.gov](http://www.osha.gov).

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**NHI Certificate in Work Zone Safety**

NHI is offering certificates of accomplishment to recognize individuals who have successfully completed and achieved passing grades in selected groupings of related NHI course offerings. The certificate program features suites of complementary NHI courses bundled to enable participants to enhance their depth and breadth of knowledge and expertise in specific disciplines or topic areas. Visit NHI, or download a PDF description at: [http://www.nhi.fhwa.dot.gov/downloads/other/certif_wk_zn_safety.pdf](http://www.nhi.fhwa.dot.gov/downloads/other/certif_wk_zn_safety.pdf).

The Certificate of Accomplishment in Work Zone Safety features the following four NHI courses:

- Design and Operation of Work Zone Traffic Control
- Work Zone Traffic Control for Maintenance Operations
- Construction Zone Safety Inspection
- Advanced Work Zone Management and Design
Upcoming Events

June 30–July 2, 2008
Roadway Departure Countermeasures Workshop
TTEC Building, Baton Rouge, LA

July 13–17, 2008
National LTAP Convention
Brekenridge, CO

August 7–8, 2008
LMA Conference
Lafayette, LA

August 16–20, 2008
APWA National Convention
New Orleans, LA

QuickTips from OSHA
Impaired Workers

Potential injuries, illnesses and fatalities may not always result from workplace equipment and materials. Employees who are impaired from the use of alcohol or drugs threaten the safety and well being of everyone at their worksite. OSHA understands that a drug free work environment can improve the safety and health of employees and add value to American businesses. In recognition of Alcohol Awareness Month, OSHA reminds employers to develop and implement a drug free workplace program. OSHA works closely with the Department of Labor’s Working Partners for an Alcohol- and Drug-Free Workplace program (http://www.dol.gov/workingpartners/welcome.html) to raise awareness about the impact drugs and alcohol have on the workplace. Working Partners has collaborated with OSHA to develop a Safety and Health Topics web page (http://www.osha.gov/SLTC/substanceabuse/index.html) addressing substance abuse. Through these programs and products, OSHA is committed to helping employers promote safe and healthy working conditions.

Need Technical Help?
Contact LTAP

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www.ltrc.lsu.edu/ltap/cu.html

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The Louisiana Local Technical Assistance Program was established at the Louisiana Transportation Research Center on the LSU campus in 1986. The purpose of the center is to provide technical materials, information, and training to help local government agencies in Louisiana maintain and improve their roads and bridges in a cost effective manner. To accomplish this purpose, we publish a quarterly newsletter; conduct seminars, workshops, and mini-workshops covering various aspects of road and transportation issues; provide a lending library service of audio/visual programs; provide technical assistance through phone and mail-in requests relating to transportation technology; and undertake special projects of interest to municipalities in Louisiana. LTAP also coordinates the Louisiana Local Road Safety Program.