

TECHNOLOGY

eXchange



As Secretary of the Louisiana Parish Engineers and Supervisors Association (LPESA), LTAP personnel facilitated the LPESA spring seminar, held in Monroe on June 7th and 8th. At the seminar, attendees learned about a new set of tools that could be “a great boon to local governments” according to John Wells, engineer for the Louisiana Department of Transportation and

GPS/GIS - TOOLS FOR EFFICIENCY

Development (DOTD). Wells delivered a presentation on Global Positioning Systems (GPS) and Global Information Systems (GIS), technologies that DOTD is in the process of implementing for Louisiana.

GPS is a super accurate satellite-based system developed and maintained by the US Department of Defense. GPS consists of 25 satellites orbiting 12,000 miles above the earth. The satellites make one revolution around the earth every 12 hours. In order for GPS to work, a

unit on the ground has to receive information from the positioning satellites. The satellites locate the receiving unit's position on the earth. That information is then put into a GIS that stores the data. Accessing and transferring this data is almost instantaneous.

GIS stores many kinds of information (home locations, school districts, streets, zip codes, city limits, parish boundaries, etc.) and combines the separate kinds of data to be viewed as a whole.

Once finished, DOTD's GIS will show every road, bridge, ramp, and geographic feature of Louisiana. If Wells had to rely on his staff alone, the enormous quantity of data that goes in the GIS would take up to five years to compile. However, as Wells stressed in his presentation, this project should be a cooperative effort between all cities and parishes in the state. If they can locate the infrastructure features in their jurisdiction and give that information to DOTD, the process could be completed much more quickly.

For more information about DOTD's GPS/GIS, contact John Wells at (225) 274-4161.

GIS - LIMITLESS APPLICATIONS

The possibilities of ways to implement GIS data are endless. Jack Dangermond, president and founder of ESRI – the company that created GIS software for the commercial marketplace said, “The application of GIS is limited only by

the imagination of those who use it.”

The information this system provides can be used for planning/budgeting, facility inventory, and map production. GIS technology

can also be used by emergency response units to find the quickest routes to emergency sites; by utility companies

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A LOCAL TECHNICAL ASSISTANCE PROGRAM OF THE LOUISIANA TRANSPORTATION RESEARCH CENTER IN COOPERATION WITH DOTD, FHWA, AND LSU.

SUPERVISORS' CORNER WHO KNOWS YOU?

Two men sat at a table. One older and experienced, one young and ambitious. The younger man spent quite some time trying to impress the older man by dropping names of dignitaries and important people that he knew. The older man patiently nodded and let the younger man talk.

When the younger man finally finished, the older man placed his hands palm down on the table, fixed the youth with a gimlet eye and said, "In this world, it doesn't make a bit of difference who you know. It's who knows you that counts."

The young man was speechless, as most of us would be in the face of this obvious, but overlooked fact. The success of your agency, your program and your own reputation rests upon public opinion. Who knows you, and what do they think of you?

In most places, public opinion of public workers is low. Many taxpayers assume that anyone working for the city, parish, or the state is incompetent, corrupt, or both. Do you let them accept that misconception? What have you done to change public

opinion? What can you do to change public opinion?

Much can be done on a regular basis to change public opinion. When John Madden was coach of the world champion Oakland Raiders, he had three rules for his players:

- Show up on time.
- Be ready to play when you show up.
- Know the plays.

As a supervisor or crew chief, you can help to improve the image your crew gives to the public as well as the positive supervisory image you project to your superiors.

- Have your workers show up on time and ready to work.
- Be sure they know what their job is and the overall objective.
- Ask your crew what they need to do the job and make every effort to get it.
- Listen to your workers. They know the job better than anyone and may have some ideas you haven't thought of.
- Require your crew to act professionally, and to be neat and courteous with the public.
- Keep the equipment clean and in good repair. Taxpayers

- hate to see your people standing around waiting on a broken piece of equipment to be repaired or replaced.
- Make sure that your crew has been properly trained to do the job.
- Place special emphasis on safety.

With consistent effort on your part, both your boss and the public will come to know you and form a good opinion of you and your operation.

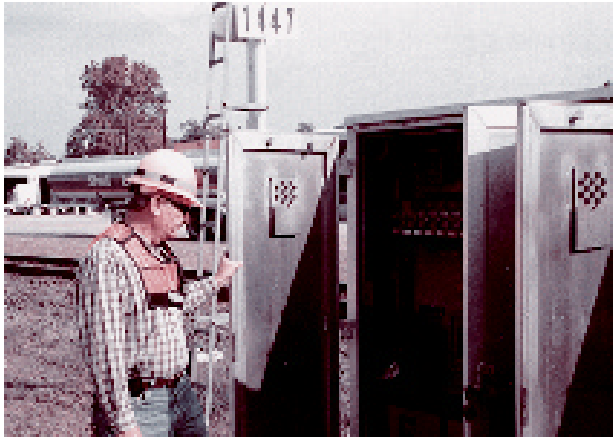
Who else is important? Your crew needs to know and respect you and your decisions. Quite often, workers joke about their bosses and have less than the highest respect for them. In most cases, this is because all the communication comes from the top down, with little regard for the experience and thoughts of the people who have to do the work. If you ask the people you supervise how to improve things, the automatic answer will usually be, "More money, more people working for me, better equipment, and better leadership." In most cases, the one you can affect is leadership. You can become an effective leader if you do a few

simple things on a regular basis:

- Ask for workers' ideas, needs, wants, and concerns.
- Listen to their answers. Take notes!
- Discuss problems and possible solutions.
- Give your workers feed-back. If you think they have an unworkable idea, tell them so and why. If they still think they have a better way of doing something, try it. You may be surprised.
- Tell your crew what needs to be done and ask how long it will take to do the job. They will usually set a tougher schedule than you would, and then they will fight to meet that schedule.
- If they do an outstanding job, write a letter or memo to your boss commending their efforts. Send it to their personnel file, so that it is on record.

These are simple things to do; none cost a dime. The reward is that you will be a better supervisor. Additionally, your crew will start thinking better of you and of themselves. Remember that nobody makes it to the top without support from below.

LTAP PARTNERS WITH OPERATION LIFESAVER



SIGNAL MAINTAINER SHOWING SIGNAL BOX/RECORDER.

Louisiana has one of the highest rates of vehicle/train crashes in the United States. Due to the huge weight differential between trains and vehicles (4000 to 1), these crashes are usually much more severe for automobiles than normal highway collisions.

In 1972, a concerned Union Pacific employee, working with the support of many Idaho communities, established a state-wide "Operation Lifesaver" (OL) program to encourage safety. The results were significant. Fatalities went down 46 percent! These statistics



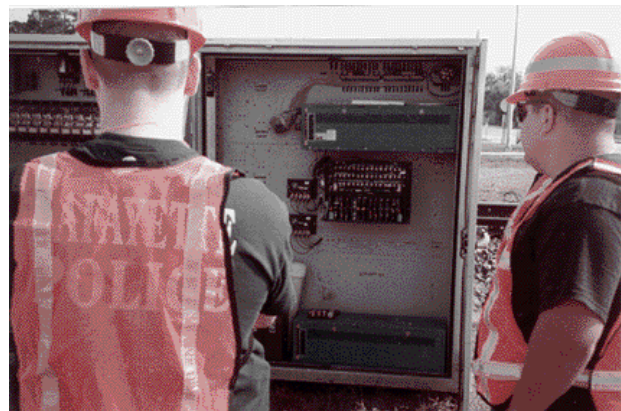
STUDENTS LEARNING THE CORRECT WAY TO CROSS BETWEEN RAIL CARS.

indicate that this program can really make a difference.

Operation Lifesaver is now a nationwide program supported by national and state organizations in all 50 states. For the last several years the Louisiana Local

grammar school students, high school students, bus drivers, truck drivers, older drivers, and law enforcement personnel.

Engineering
Engineering is responsible for keeping grade crossing as safe as possi-



STUDENTS GET A GOOD LOOK AT THE INSIDE OF THE SIGNAL CONTROL BOX.

Technical Assistance Program (LTAP) has partnered with Louisiana Operation Lifesaver to help reduce highway/railroad grade crossing collisions.

The program has three main objectives: education, engineering, and enforcement.

Education

The success of OL is based on educating people of all ages about grade crossing safety. OL programs are tailored to a wide cross section of society -

ble and making improvements where needed.

Enforcement

If existing laws governing grade crossings are not enforced, they will be ignored and broken and collisions will continue to happen. OL encourages an active enforcement effort.

As part of the education and enforcement objectives, LTAP helps coordinate OL's "Grade Crossing Collision Investigation" course.

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LTAP PARTNERS WITH OPERATION LIFESAVER, CONT. FROM PAGE 3



JIMMY DUNCAN, FEDERAL RAILROAD ADMINISTRATION; BETSEY WILLIAMS, OPERATION LIFESAVER; AND ALAN PEPPER, KANSAS CITY SOUTHERN RAILWAY.

This two-day course is designed to acquaint state and local law enforcement personnel with all aspects of grade crossing safety and accident investigation. Participants will be familiarized with railroad laws, equipment, and personnel. This course has been devel-

oped specifically for state and local law enforcement personnel whose jurisdiction includes rail grade crossings.

Day one of the course is spent in the classroom. Day two is in the field and includes a ride in

the locomotive cab to give the students a first hand, "bird's eye" view of what the train crew deals with on a daily basis. Conditions permitting, an "emergency stop" is demonstrated to emphasize the distance and time required to stop a train. Up to one mile may be needed to stop a train traveling at 50 plus miles an hour.

Students are also shown the various types of train cars and hazards that might be encountered during a derailment or around a rail yard.

In addition, students are shown how the grade crossing signals (lights/gates) operate and how to report problems to the railroad.

Many pedestrians are also injured each year while trespassing on the railroad right-of-way, i.e. its private property. Students are made aware of this problem. All instructors are experienced railroad police, locomotive engineers, conductors, and Federal Railroad Administration employees.

This year eight classes have been conducted throughout the state. For more information, please call Bob Breaux at 225-767-9117 or 800-256-1567.

GIS APPLICATIONS, CONT. FROM PAGE 1

to pinpoint problems with telephone, electrical, gas, or water systems; and by engineers in planning and record keeping. Its signals are free of charge, and it has no limit to its number of users. The system allows accurate and precise data to be recorded

in layers over a map, so that drainage systems, sewer systems, roads, bridges, utilities, and even individual houses can be plotted.

The city of Yakima, WA used GIS technology to plan the best location for a new ballpark. They

produced a map used to classify and display preventable crimes, analyze trends, and look for correlations between crimes and areas with "block watch" programs in place to identify the safest place to build the new park.

Other cities have used GIS information to evaluate traffic flow problems or distinguish roadways that could become problematic because of flood, fire, or pollution.

SCHEDULE OF UPCOMING ROADS SCHOLAR COURSES: JULY - DECEMBER 2001

RS #9 - THE ROAD TO BETTER SIGNING: This course will help local highway personnel understand the Manual on Uniform Traffic Control Devices (MUTCD) and give them additional detailed information about using common local road signs. Examples of improper signing will also be discussed.

September 11 - Jefferson
September 12 - Baton Rouge
September 18 - Alexandria
September 19 - Sulphur

September 20 - Lafayette
September 25 - Bossier City
September 26 - Ruston

RS #13 - BRIDGE MAINTENANCE AND SAFETY INSPECTION: Techniques of minor bridge maintenance including structural elements of a bridge, the importance of safety bridge inspections, and who should perform inspections.

November 6 - Jefferson
November 7 - Baton Rouge
November 13 - Alexandria
November 14 - Sulphur

November 15 - Lafayette
November 27 - Bossier City
November 28 - Ruston

SCHEDULE OF ROAD MASTER COURSES: JULY - DECEMBER 2001

Road Master #6 - DEALING WITH THE GOVERNMENT: GASB-34, 404 permits, Emergency Response, Hazardous Materials, Superfund Sites, OSHA, EPA, Corps of Engineers, DNR, DOTD, Wildlife and Fisheries. Many state and federal agencies have permitting and regulation authority as well as the authority to shut your project down for non-compliance. Learn how to unwind the red tape in these agencies and how to keep your work on track. Some agencies even have money to spend on off-system bridges, enhancement programs, and safety. Discover how to find these programs and use them to accomplish your goals.

October 2 - Baton Rouge
October 3 - Jefferson
October 16 - Alexandria
October 17 - Sulphur

October 29 - Lafayette
October 30 - Bossier City
October 31 - Ruston

OTHER CONFERENCES/SEMINARS TO BE HELD

International Transportation Technology Transfer Symposium	July 29 - August 2 - St. Petersburg, Florida
LPESA Fall Conference	September 6-7 - Houma
Grade Crossing Collision Investigation Course	September 11-12 - Lafayette October 17-18 - New Orleans
Advanced Grade Crossing Collision Investigation Course	November 5-6 - Monroe

TV CAMERAS? NO PROBLEM!

If someone put a microphone and television camera in your face and started firing difficult questions about your job, what would you do?

Most people would not know how to act or worse, completely freeze up. Some would want to answer the questions, but not know how or even if he or she should. Psychologists say that speaking in public is most people's greatest fear, even greater than the fear of death, because people are afraid of looking foolish in front of a crowd. When public speaking becomes a television event, the threat grows even greater because the audience is an entire city or parish.

During April and May, the LTAP taught the Louisiana Road Master course, Number 5, "Communications and Your Public Works Image," to over 100 participants throughout the state. The class was intended to help participants understand when and to whom they should speak and earned the participants six professional development hours.

Instructor Bob Hearn, who is well known to participants of "Successful Supervision," Roads Scholar

course, Number 8, believes that the better informed a person is, the better that person will communicate with the public. Mr. Hearn's years of experience, including his position as head of the Shreveport Department of Public Works, makes him the



INSTRUCTOR BOB HEARN TEACHING COMMUNICATIONS AND YOUR PUBLIC WORKS IMAGE CLASS.

perfect instructor for this class. He is presently Vice-President of Neel-Schaffer, Inc.

Participants in the class had a chance to see how they looked and sounded on television. They discussed who should speak with the media and under what conditions. By the end of the day-long class, the participants had developed a greater understanding of how images are built and damaged, as well as who decides what information is given to the

public and how it should be disseminated.

One of the most challenging and satisfying parts of the course was when a group spokesperson was interviewed by the rest of the class on a pre-determined subject. The

interview was video taped, and discussion followed about how the spokesperson handled the situation.

Students in the classes were very enthusiastic and found the information extremely useful. Typical comments of class participants were: "Excellent!" and "All public employees need this course!"

For more information about how to attend the class, contact the Louisiana Technology Transfer Center 1-800-256-1567 and another class can be scheduled.

TECHNOLOGY *exchange*

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PUBLICATION STATEMENT

Technology Exchange is published quarterly by the Louisiana Transportation Research Center. It is the newsletter of the Louisiana Local Technical Assistance Program.

Any findings, conclusions, or recommendations presented in this newsletter are those of the authors and do not necessarily reflect those of LSU, DOTD, or FHWA.

NACE GUIDES AVAILABLE



As one of LTAP's national partners, The National Association of County Engineers (NACE) announces the availability of two new action guides through LTAP centers across the nation. An action guide is a pocketbook of infor-

mation on various topics including financial management, maintenance management, administration, transportation, etc. *NACE Action Guide Volume III-4, Roadway Safety, and NACE Action Guide Volume III-5, Stormwater Management and Drainage*, are free and available to local governmental agencies through the Louisiana Technology Transfer Center.

NACE first began publishing action guides in 1965. They were revised and expanded in 1972.

At that time they were entitled the "NACE Action Guide Series." Because of the success of the series, they went through two more revisions before 1995, when seven action guides and one training guide were reviewed, revised, and updated.

In 1998 and 1999, an update of the *Drainage and Soil Erosion and Water Pollution Prevention Action Guide* was undertaken by a committee consisting of county engineers, county water managers, local

technical assistance program (LTAP) center representatives, and the Federal Highway Administration (FHWA). The revised action guide, titled *Storm Water Management and Drainage*, is now available.

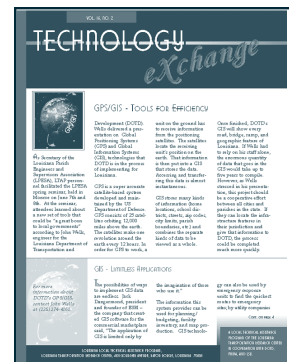
If you have any questions about the NACE guides, call the Technology Transfer Center at 225-767-9117 or 800-256-1567.

TECHNOLOGY EXCHANGE ON-LINE

Technology Exchange, the quarterly newsletter of the Louisiana Technology Transfer Center, can now be accessed through the Louisiana Transportation Research Center (LTRC) web-site: <http://www.ltrc.lsu.edu>. The full text and photographs of the newsletter can be downloaded and printed by clicking on

the "Publications Link." *Technology Today*, the newsletter of LTRC, is also available at the same site, along with project capsules and technical summaries of LTRC's research projects. Also available through the site are LTRC's publication guidelines for research studies.

If you are on the *Technology Exchange* mailing list, you will still receive a hard copy of the newsletter each time it is published. The electronic copy of *Technology Exchange* will make the information available to a greater number of readers all over the world.



MAILING LIST UPDATE/ORDER FORM

Please use this form to update your mailing address, to request to be added to or deleted from the mailing list, or to order a publication/video.

- ◇ Please change my address, as indicated below.
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 Title: _____
 Organization: _____
 Address: _____
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◇ I have the following suggestion(s) for newsletter articles:

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 transportation,
- ✦ provide a lending library service of audio/visual programs on a variety of transportation topics,
- ✦ provide technical assistance through phone and mail-in requests relating to transportation technology,
- ✦ and undertake special projects of interest to municipalities in Louisiana.

NEED TECHNICAL HELP?.....CONTACT OUR LTAP CENTER STAFF:

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