



Technology Exchange

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Pay Me Now or Pay Me Later

By Dwight Hutchinson, LTAP Instructor

As a new year arrives, we all find ourselves asking questions about what we accomplished in the past year and what the future will look like. We can only spend a little time looking back because 2023 is here! The real question is: “What can we do better in the new year?”

In the fleet world, new challenges may look like vacancies to fill, budget constraints caused by inflation, equipment breakdowns, fuel cost, and most importantly, what we can do to lessen the effects of these challenges on our operation.

One simple, but cost-saving, step we can do is to look at our Fleet Maintenance Program (FMP). First, we ask ourselves if we have implemented a comprehensive Preventive Maintenance Program (PMP). If so, we should be making certain that we are following the program guidance. If we do not have a PMP in place, it is time that we do so.

For our PMP to be effective, we should keep records of everything we do, such as: our daily pre-trip inspections, fluid and filter changes, monthly inspections and annual inspections. If we need to add fluids, we write it down. If we need to make repairs, we write it down. Let’s just say it: if we don’t write it down, it didn’t happen. We use these records to check our progress.

I recently received a call from a representative of a local agency who told me his agency had implemented a PMP after attending LTAP’s “Roads Scholar 6: Heavy Equipment Safety and Maintenance” class. He said two important things: first, “It makes a difference in reference to break downs and safety.” However, “It doesn’t happen overnight.” It will take time to see the full effect of your PMP. Some things will start to show immediately. When you implement a pre-trip inspection, you will correct issues that would have likely caused lost time at some point that same day, and possibly prevent an accident. Those documented pre-trips are going to start out taking time to perform, and you are likely to get some pushback from your operators. Like any other task, repetition will become a routine that will pay big dividends in the form of reduced breakdowns, increased productivity, and increased safety. Not to mention, your operators will become more proficient and knowledgeable about the equipment that they operate.

Still not convinced that it is worth the time? Now is the perfect time to start a PMP on your mowing equipment. Most mowing operations have ceased for the winter. The equipment is going to sit around until March; then we suddenly decide it’s time to start mowing. Now is the time to go through all your mowing equipment. Start out by cleaning all your equipment. Grass and dirt on and under your mower decks will cause rust that will lead to major deck damage. As soon as cleaned and dried, lubricate the equipment. Spend some time sharpening or replacing mower blades, flail knives,

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Visit www.louisianaltap.org
for our current classes,
training requests,
free resources,
and much more...

Welcome, Victor!

By Steven Strength, PE, PTOE, LTAP Director



As we mentioned in our last Technology Exchange, several changes have been in the works at LTAP. Courtney Dupre has been promoted to LTAP Program Manager, and now we welcome Victor Lockwood as our new Business Manager. He will most likely be your first contact in the LTAP

office, answering the phone, helping with course registrations, and running the many business functions of the LTAP center. Stay tuned for more personnel updates in our next edition! Meanwhile, here is some information about Victor and his professional background.

Victor is an accomplished professional with over 20 years of experience in business and client relationship management, contracts administration, and financial collections and operations. He previously worked as Grants and Development Coordinator at LSU where he also served as Cost Center Manager for LTRC and assisted in all departmental sponsored projects.

He had an interesting beginning of his career as Finance and Human Resources Officer for the Central Intelligence Agency (CIA) in Washington D.C. where he earned five promotions and seven Exceptional Performance Awards. In 2000, he ventured into liaising with national insurance carriers and managing a team of 14 third-party claims specialists as Collections Supervisor for McKesson Specialty Pharmaceuticals in Harahan, LA. He successfully ran his own franchise of Snap Fitness clubs in four locations in Gonzales, Prairieville and Plaquemine from 2007 to 2014. He also showed his prowess as Proprietor of America's Swimming Pool Company in Baton Rouge that generated 85 monthly accounts and a revenue of over \$350,000 in less than three years.

In addition to his day-to-day business duties, he is looking forward to learning about the roles that our transportation and public works agencies play and seeing the results of our efforts to provide training and technical assistance services that make a difference for our locals. Welcome aboard, Victor!



Pay Me Now or Pay Me Later

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worn bolts, damage guards, and other items that you find in your inspection. It is inevitable that skid plates wear and need replacement; other dings and scrapes happen regardless how much we try to prevent them. Now is the time to perform these types of repairs. Don't overlook the need to paint scrapes and rust spots; it is much less expensive than replacing a section of mower deck because rust caused a deck failure.

Always run your equipment at least weekly. Sitting without being run is not good for a tractor or any other equipment. Make sure to drive your tractors around the yard; it will keep clutches from sticking.

This is also a great time to determine if your maintenance program is adequate. Are you catching the little things before they become big problems? Remember: a preventive maintenance program means we are going to prevent costly repair maintenance. Compare the equipment that you know has been getting proper maintenance with equipment that perhaps you know has not. Is there a difference in the breakdowns? Check the records if the fluid changes have been performed in a timely manner.

Also, remember the most important resource in your mowing operations are your employees. Now is the time to invest in training that will enhance their abilities to safely maintain and operate equipment. Show your employees you believe in the program. Show them you are investing in their safety and their health. Have a discussion with your employees; find out what they feel is important. Perhaps there is something that needs to be added to your maintenance program that you are missing; listen to them because they are there every single day with the equipment doing the job. Get them to be invested in the program!

New equipment is expensive, so we must invest in proper maintenance; invest in operator training; and expect to reap the benefit of lower repair cost, less breakdowns, more productivity, and less lost days of work due to accidents. Set your organization up for a safe and productive mowing season! *See Page 6 for a list of Tractor Mower Safety classes we have coming up!*

Pictured at left: Victor Lockwood, LTAP Business Manager

Ball Banking for Slower Speeds, Safer Streets

Louisiana LTAP coordinated a field trip as part of our Combating Rural Roadway Departures Workshop held in cooperation with the nine regional safety coalitions that work toward the realization of Louisiana's Strategic Highway Safety Plan's (SHSP) vision of Destination Zero Deaths. The focus of this field trip was a field review and ball-bank study for curves with overrepresented roadway departure crashes.



What is ball banking?

A ball-bank study is a method used for establishing advisory speeds on curves using a ball-bank indicator device. According to FHWA's *Procedures for Setting Advisory Speeds on Curves Manual*, this method determines the advisory speeds in the field using a vehicle equipped with a ball-bank indicator and an accurate speedometer.

The ball-bank indicator is mounted in a vehicle, and as the vehicle travels around a curve, the ball floats outward in the curved glass tube. The movement of the ball is measured in degrees of deflection, and this reading is indicative of the combined effect of super elevation, lateral (centripetal) acceleration, and vehicle body roll. The amount of body roll varies somewhat for different types of vehicles, and may affect the ball-bank reading by up to one degree, but generally is insignificant if a standard passenger car is used for the test. Therefore, when using this technique, it is best to use a typical passenger car rather than a pickup truck, van, or sports utility vehicle. Also, the ball-bank indicator test is normally a two-person operation—one person to drive and the other to record curve data and the ball-bank readings, especially if advisory speeds are being determined for a series of curves.

The ball-bank indicator method requires multiple runs through the curve to get the correct advisory speed. In addition, reading the ball-bank indicator to determine the maximum degree of lean can be subjective.

The MUTCD 2003 edition indicates that the advisory speed may be the speed corresponding to a maximum 16-degree ball-bank indicator reading. However, the MUTCD 2009 edition (3) modified the criteria as following:

- 16 degrees of ball-bank for speeds of 20 mph or less,
- 14 degrees of ball-bank for speeds of 25 to 30 mph, and
- 12 degrees of ball-bank for speeds of 35 mph and higher.

The manual mentions that research has shown that drivers often exceed existing posted advisory curve speeds by 7 to 10 mph. The MUTCD 2009 edition (3) references posted advisory speeds determined by ball-bank values of 16, 14, and 12 degrees to address such driver behavior. Learn more at <https://safety.fhwa.dot.gov/speedmgt> or call LTAP for more assistance.

LTAP 2022 Review

It has been a hectic year for Louisiana LTAP. We hosted two conferences and three virtual showcases for the Louisiana Parish Engineers and Supervisors Association (LPESA). We taught over 10 Work Zone Safety mini-workshops, two legs of our Local Public Agency (LPA) Core Qualification Training, and a total of 36 Roads Scholar courses on temporary traffic control, heavy equipment safety, pavement preservation, and bridge inspection, maintenance and repair. We conducted more field visits than we've ever had: ball banking on curves as part of Combating Rural Roadway Workshops in nine locations; inspecting local bridges now that it's offered as a full in-person class again since 2015; and assisting with pavement assessments as part of our holistic approach to promoting pavement preservation programs. The staff are now all-hands-on-deck preparing for tractor/mower safety courses offered from January to March 2023 as well as planning for LTAP Cornucopia sessions at the biennial Louisiana Transportation Conference 2023.

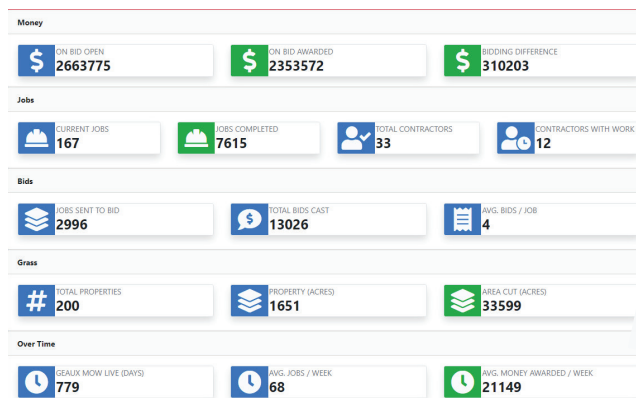
LTAP Highlights Two Innovations Submitted by Lafayette

In the last round of FHWA's Build a Better Mousetrap (BABM), Louisiana submitted two entries. Thanks to Lafayette's two innovative solutions, Geaux Mow and Storm Mode!

BABM shines a spotlight on those frontline workers who use their expertise and creativity to solve everyday problems that improve safety, reduce costs, and increase efficiency. While Lafayette's innovations didn't emerge as this past year's winners, they're recognized as honorable mentions in the recent BABM Booklet, which will be posted on <https://www.fhwa.dot.gov/clas/ltap/> soon.

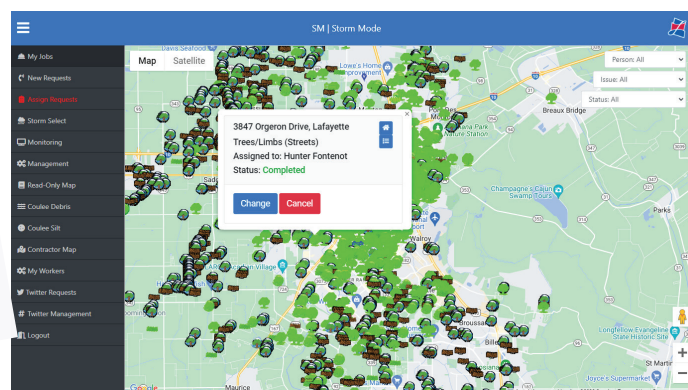
Geaux Mow—Submitted for Pioneer Award

The Lafayette Consolidated Government (LCG) built the Geaux Mow web application that stored all of the grass cutting locations virtually and could bid them out to vendors in an open bidding system. The system runs efficiently, and LCG has enough grass cutting vendors to assist them with obtaining good prices on cuts. Even though the cuts are now cheaper, they are actually spending more money as a city on grass cutting. Since they now have a convenient and manageable solution to cut grass efficiently, their city and parish councils voted to increase money allocated to grass cutting. As a result, they now cut more grass than expected for eight different divisions of Lafayette Consolidated Government, and the city looks much better and cleaner for it. View the demo video on: <https://bit.ly/geauxmow>



Storm Mode—Submitted for Bold Steps Award

LCG's staff from the Traffic Roads and Bridges Department built the Storm Mode platform with an online map where dispatchers could place and assign requests. The Storm Mode system was tested during Hurricane Delta. LCG received 2,414 requests, including 690 trees/limbs down. The system greatly improved operational and response capacity for LCG and provided a framework for historical data collection. The data are used to make improvements to LCG's roads and drainage systems to reduce future hazards. View the demo video on <https://bit.ly/stormmode>



Leadership Spotlight: Richard Savoie, Ethics Trainer and Senior Transportation Engineer

In this edition of *Technology Exchange*, we are aiming the spotlight on Richard Savoie, who taught the Ethics session at the last LPESA Conference in West Monroe.

Savoie has over 40 years of professional experience in the Louisiana transportation industry. He was previously the chief engineer for the Louisiana DOTD's Office of Engineering and served on the Louisiana Professional Engineers and Land Surveyors (LAPELS) Board from 2007 to 2013. He currently works for Gresham Smith as a Senior Transportation Engineer, managing projects for the East Baton Parish MOVEBR program, the DOTD, the City of Gonzales, and the MOVE Ascension Roadway improvement program. Gresham Smith is one of the associate members of LPESA and a retained consultant for the Local Road Safety Program.

How would you define leadership?

Leadership is not about being the best; it's about making everyone else better.

Tell us some highlights of your professional career and how those roles helped you develop your leadership skills.

Working in DOTD's Road Design Section was when I believe my leadership skills started to take shape. I wanted to be a squad leader supervising employees doing design work for the department. It was a daunting task as we had employees with varying skill levels and lots of conflicts between each other. Dealing with this cast of "characters" helped me to be a coaching, democratic, and bureaucratic leader while still focusing on the realization of departmental and project goals.

If you were to pick three characteristics a leader should have in order to successfully lead a team, what would they be?

First, always treat your people with respect and kindness because they may become your supervisor one day. This did happen to me as Sherri Lebas Firnberg, former DOTD Secretary, was one of my employees who later chose me to be the Chief Engineer. Second, be a champion for your employees by encouraging them, boosting their morale, and supporting their aspirations. Third, realize the differences and demographics between your employees, as they are all not alike and require different things from you.

How do your colleagues view your leadership style as?



Photo courtesy of Gresham Smith

I would hope as a servant leader building my team's morale while earning their respect.

What has been the most challenging task you've ever had to overcome? How did you tackle it?

It would have to be counseling employees on their behavior at work. When I called my team member into my office, I asked him to sit behind my desk, and I would sit across from him. I asked him to become the supervisor, and I would be the employee. Then I asked him to tell me how he would handle the situation. It opened his eyes to see his behavior from behind my desk. He became one of my most productive and respectful employees.

Who is your model leader? Why?

It would be my grandfather, my mother's father. He was a sharecropper who taught me about hard work and how to treat people right. He didn't have much money but had a lot of pride in what he did as a farmer. He and I would drive around Opelousas selling watermelons and cantaloupe from the back of his 1962 Chevrolet pickup. He would drive, and I would tell the residents what we were selling and how much they cost. One day, there was an older lady standing on her front porch, and she asked how much the watermelons were. I told her they were 50 cents each. She replied that it was too expensive. My grandfather told me to get a watermelon out of the truck and give it to her with no charge. She was so taken aback by the generosity that she asked me to wait at her door, and she returned with \$2 for the watermelon I had brought her. I share this story as often as I can because it was a real-life teaching lesson that he left me with.

Upcoming LTAP Classes

Tractor/Mower Safety Training



This three-hour training is designed for operators, foremen, and supervisors who are responsible for the safety, maintenance, and operation of industrial and agricultural tractors and mowing equipment used for cutting interstate highways, state and local road rights-of-way, levees and servitudes.

Lake Charles – January 19 and 31
Luling – January 25
Gray – January 26
Patterson – February 1
Lafayette – February 2
Port Allen – February 8
Baton Rouge – February 9
West Monroe – February 14
Natchitoches – February 15
Alexandria – February 16
Covington – February 28
Amite City – March 1
Bridge City – March 2
Shreveport – March 7

To register for a class, visit
www.louisianaltap.org

LTAP Instructor Kent Hardin Shares Bridge Inspection Is Critical

By Rudynah Entera Capone

LTAP's "Road Scholar #13: Inspection of Local Bridges" class returned to being a full in-person class since its last run in 2015. Although it was taught in a hybrid format in 2021 (with Part 1 being virtual and Part 2 being in-person), it was only this past December when the course was finally taught physically as a two-day training providing 12 PDH credits to those who completed it.

Course instructor Kent Hardin shared that the course was designed to provide basic training for local agency personnel to conduct special inspections of bridges owned by parishes and municipalities.

"Inspecting bridges is critical in itself because there are policies, guidelines, and standards that you have to comply with," says Hardin, who is certified by DOTD as a Bridge Inspection Team Leader and by the National Institute for Certification in Engineering Technologies innovation(NICET) as a Senior Engineering Technician in Bridge Safety Inspection.

In this course, participants are reminded as to how local bridge owners are responsible for conducting special inspections of bridges. It's not only to monitor known or suspected deficiencies, but it's also to ensure they adhere to the National Bridge Inspections Standards (NBIS) and DOTD requirements. These inspections do not necessarily require a certified inspector, but according to the *AASHTO Manual for Bridge Evaluation*, they should be conducted by a "qualified person familiar with the bridge" who has been provided with the "guidelines and procedures on what to observe and measure." Visit www.louisianaltap.org/RS13.html for more info.



Kent Hardin takes the class to a bridge inspection activity near the LSU campus in Baton Rouge.

LPESA Fall 2022 Conference Bits and Pieces



Approximately 120 people attended the Louisiana Parish Engineers and Supervisors Association (LPESA) fall 2022 conference held this past November at the Ouachita Parish Fire Department Training Center in West Monroe. It kicked off with a touch of patriotism through a Presentation of Colors by Ouachita High School ROTC members and vocal rendition of the National Anthem by Addalyn Day.



Everyone got up and shared their various local innovations on Day 2.



Discussion on funding opportunities relevant to the Bipartisan Infrastructure Law was facilitated by our FHWA partners, Mary Stringfellow and Betsey Tramonte.



Twenty LPESA associate member companies sponsored the conference and interacted with the participants. Visit www.lpesa.org to learn more about sponsorship and partnership opportunities for the future conferences.



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The purpose of the Local Technical Assistance Program 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.