



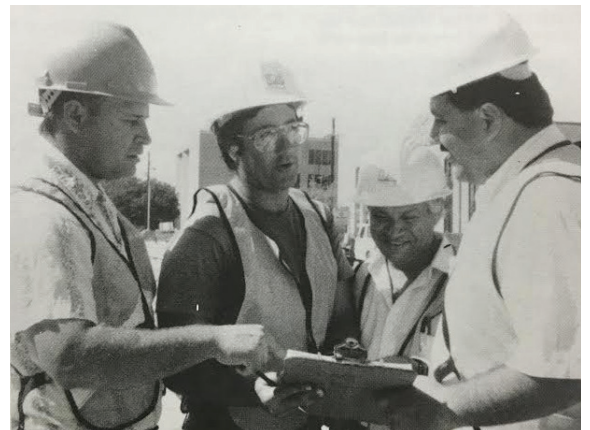
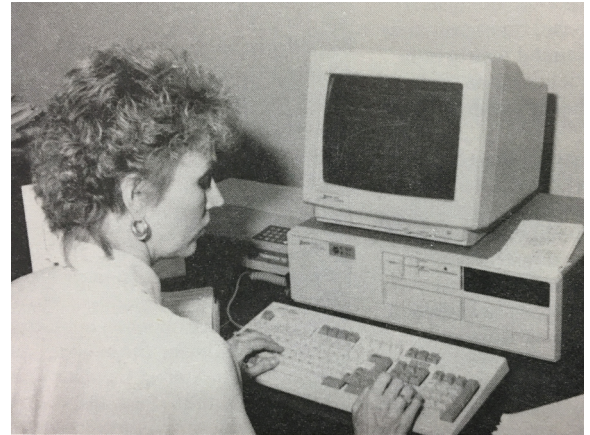
For over 30 years, the staff of LTRC has strived to merge resources of state government and universities to help identify, develop, and implement new technology to improve the state's transportation system.

LTRC *impact*

Technology Transfer & Training

1970-1985

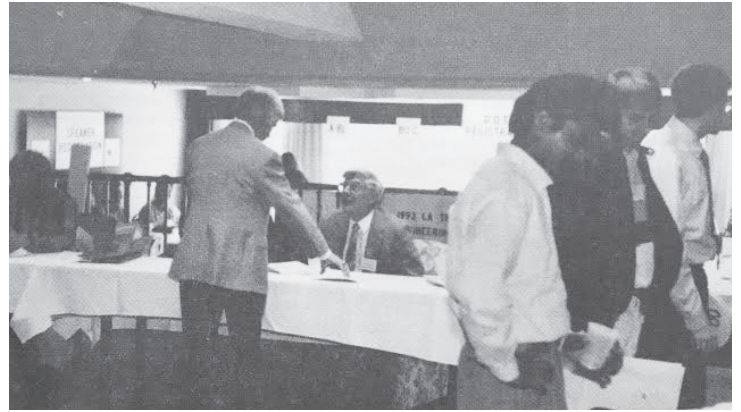
- During these years, the Department was committed to training its employees in the areas of construction and maintenance as well as offering classes and seminars for engineers and other professionals. The training scope was broadened and due to the need for training for more department disciplines and improvements in technology, more training programs were being implemented. Also during this time, computer training became available, we began to venture into video instead of 16-mm film, and the concept of mandatory training requirements was created.
- The External Training Program was established and has continued to thrive and expand over the years. The program is dedicated to the delivery of transportation training, professional development opportunities, continuing education, and technology transfer to engineers, technicians, and other professionals from Louisiana's public and private sectors. Program activities include: Individual Registrations; Workshops and Conferences; UNO Personal Computer Courses; LSU CADD; LSU Leadership Development Institute; Nuclear Gauge and Radiation Program; ArcGIS Program; and other classes, such as National Highway Institute (NHI).



1985-1990

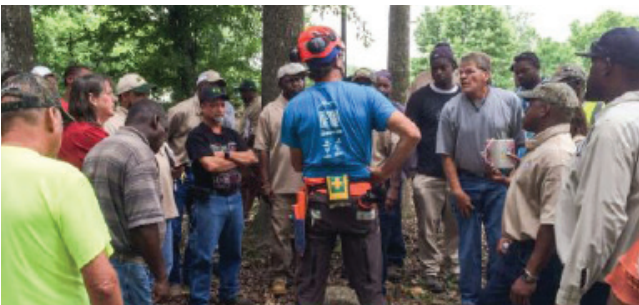
- The Office of Technology Transfer and Training moved from DOTD human resources to LTRC to fulfill a core goal of the center.
- In support of higher education with Louisiana universities, the DOTD CO-OP Program began in the early 1990s and is intended to enhance the education process by providing opportunities for participants to explore their interest in transportation engineering through practical experience. Since its inception, over 150 students have participated in the program.
- LTRC released its first logo, establishing its marketing presence.
- The Louisiana Local Technical Assistance Program (LTAP) was established in 1987 to provide transportation-related information and training to local road authorities. The Louisiana LTAP, originally known as the Louisiana Technology Transfer or T2 Center, has been located at LTRC since its inception. Since 1987, LTAP has offered or sponsored nearly 2,800 classes, workshops or events, interacting with over 76,000 people. Over 200,000 contact hours have been logged. LTAP has continued to evolve and adapt to meet the new benefits and challenges offered by technology and changing workforce needs.
- The DOTD CADD Structured Training Program contracts date back to 1987 and has impacted how the Department developed its current process for obtaining surveying information using Microstation, Inroads and Inroads Survey. The Department continues to identify trends and how newer software reacts to the current data collection process.

1990-2000



The 1993 Louisiana Transportation Engineering Conference

- In 1991, the Engineer Resource Development Program (ERDP) was established. This 32-week rotational program employs entry-level engineers that have their BS in engineering and FE certification, allowing them to have a comprehensive experience of all areas of DOTD engineering, spending 1-3 weeks in the various department sections, with a 7-week rotation at one of the 9 district offices in the state. Since its inception, over 95% of all engineer interns in the program have become full-time employees with DOTD. Approximately 90% have progressed in their careers and received certification as licensed PEs, with a large majority of those still with the Department in various engineering positions statewide.
- A certification and training program for laboratory personnel in the districts, the Materials Lab, and LTRC began as well as various course revisions in anticipation of the 1992 Standard Specifications book. A series of "Safe Operating Checklists" for maintenance mobile equipment that was supplemented by operator proficiency verifications forms to evaluation of equipment operator's skills was implemented. Research was begun to develop a proposal to upgrade workplace literacy skills in anticipation of the establishment of a statewide literacy program for DOTD.
- LTRC hosted its first official Louisiana Transportation Engineering Conference. The most recent conference, now known as the Louisiana Transportation Conference (LTC), was held in February 2016, attracted nearly 1,600 attendees/vendors, and featured 72 technical sessions, 8 professional development sessions, how-to clinics, and a myriad of alternative sessions dealing with various management and workplace issues.
- Under LTAP (or T² at the time), the Roads Scholar Program was implemented with a series of classes addressing all major areas of local road management including: the basics of a good road; pavement management; drainage, work zone and traffic safety; and bridge inspection and maintenance; among other core and elective classes.
- Approximately 150 department and non-department employees were certified per year at this time, at a cost of \$400 per certification. In 1995, new federal guidelines were introduced that required all states have a certification/qualification program for technicians that met certain guidelines by 2000. DOTD had a program in place but began making necessary changes to comply with the new rules. Once changes were made, a manual was created to outline our program and requirements. Since LTRC had expertise with certification training, other states without programs in place requested help, and we began partnering with several other DOTs to guide their efforts.
- The DOTD Nuclear Gauge and Radiation Program began in 1999 and has become a vital program that assists departmental employees who are authorized to use a nuclear gauge for density testing on Louisiana's highway construction projects. It is one of the most important quality assurance tools an inspector has to ensure that the foundation of the road will perform as designed. The use of any device containing nuclear material requires compliance with the federal Nuclear Regulatory Commission regulations and safety precautions, which is enforced by the Louisiana Department of Environmental Quality and DOTD.



2000-2005

- DOTD/LTRC hosted the 59th Annual Southeastern Association of State Highway and Transportation Officials (SASHTO) Conference in New Orleans. Over 1,000 delegates attended, including the chief administrative officers and top assistants from the DOTs.
- The LTRC website was updated to give the center the online presence it needed. In addition, 2004 marked the beginning of online event registration.
- PPM No. 59, Work Force Development, was created, which affected over 1,150 DOTD employees. After an extensive review, 49 structured training programs were revised and PPM No. 59 consolidated all existing policies governing structured training programs under one directive.
- In 2004, LTRC began hosting seminar series, providing technical leadership through a forum that demonstrates new technologies, publicizes LTRC research, discusses problems, and imports the best practices of others and transportation partners.
- In 2005, after hurricanes Katrina and Rita hit Louisiana, the LTAP Center began conducting after-action reviews with local agencies and developing new programs to enhance preparedness of local agency personnel. Classes were taught statewide in cooperation with state and parish emergency response agencies using materials adapted from FEMA and other sources. The all-time most "popular" course offering, "Chain Saw Safety and Precision Felling After Storms," was delivered statewide to hundreds of state and local road agency public works employees and other first responders.

2005-2010

- TTEC opened to the public and received Tier 2 Center designation. The additional LTRC facility is dedicated to the delivery of transportation training, professional development opportunities, continuing education, and technology transfer. The TTEC Center hosts approximately 10,000 individuals (state, local, federal, and industry) each year. In addition, approximately 1,000 individuals outside of the TTEC facility take part in these DOTD-specific programs annually.
- In 2006, LTRC became a Southeast Regional National Highway Institute (NHI) Center, serving as an important educational resource that offers NHI courses and other programs sponsored/offered by NHI. The program has had over 5,000 people participate in the various program activities.
- The LTRC Library at TTEC was established with the goal of supporting researchers at LTRC, DOTD, LSU, and other DOTs across the nation in their transportation-related research. The library coordinates access to ASTM Standards and AASHTO Standards and Manuals for all of DOTD staff, collects and maintains collection of core materials, and assists with research needs of LTRC and all of DOTD staff.
- In 2006, LTAP became a member of the state Strategic Highway Safety Plan (SHSP) Team and began the Local Road Safety Program. This level of involvement of an LTAP in state and local road safety was relatively unique nationally at the time and was the start of a strong partnership between DOTD and LTAP. LTAP efforts have included crash and road characteristic data analysis, technical assistance, training and project development for local road safety projects, as well as outreach and coordination with the locals. The partnership between DOTD and Louisiana LTAP has been cited as a model of collaboration and included in a number of national best practice studies and peer exchanges.
- The LTRC Publications and Electronic Media Department redesigned publications and transitioned to electronic publication/distribution of its publications, saving the center thousands of dollars in printing costs. An updated logo was launched, better reflecting the center's drive for research and Louisiana roots. LTRC also joined social media (Facebook and Twitter) to share projects, events, and center updates.
- During this time, LTRC's certification program underwent two important changes: recertification, which had previously been every two years, was changed to five years and required that the applicant pass a comprehensive exam; certification fees for industry personnel were raised from \$400 to \$800.
- The first structured training program for engineer interns was implemented in March of 2004 and required all engineer interns from that time forward to take "Introduction to Standard Specification, Highway Plan Reading, and Work Zone Safety and Awareness."
- In 2010, PPM No. 47 established the Transportation Curriculum Council. This council was formed to advise and assist LTRC in the areas of technology, transfer, and training. The council is composed of members from various technical disciplines throughout the department as well as members from LSU and industry.
- Revisions for three quality assurance manuals and six certification tests were finalized to coincide with the implementation of the 2006 Standard Specifications. "Introduction to Transportation Permits" was developed and training for the Automated Profiler was conducted. In order to make testing for course materials more efficient, iq-Box was chosen as an online testing platform.
- Passing under Act 782 in 2010, the DOTD ArcGIS Program began, guided by Map 21 and is federal-regulations based. These regulations and Map 21 moved state transportation agencies into a GIS-based environment for asset management, performance management, inventory, and operations. The department embarked on a three-year, multimillion-dollar project to implement new GIS technology to be able to fulfill the impending federal mandates. This program impacted the training that DOTD staff received on how to use GIS to do their jobs.



Signing the SHSP in 2006.



LTRC is committed to industry-leading technology in all of its TTEC learning environments.

2010-2015



- DOTD/LTRC welcomed over 1,270 southeast transportation officials and professionals to the Sheraton in New Orleans, during the annual SASHTO Conference. Section 33 staff designed the event logo and created all print and promotional items.
- In 2013, LTRC began hosting TRAC and RIDES workshops for area teachers. Since then, 132 teachers representing 56 schools have received RIDES training and materials, and 45 teachers representing 26 schools have received TRAC training and materials. The curriculum for both the TRAC and RIDES programs are aligned with the National Standards for Math and Science (STEM), 21st Century Skills, and Core Curriculum Standards for Math. Teachers receive reference guides, software and supplies, and two days of training conducted by National Board Certified Teachers provided by AASHTO.
- In 2012, the DOTD Leadership Development Institute began, which strives to develop leaders of the next generation in line with a positive culture and strategic agenda. Since 2014, a total of 160 classes have been held and 2,273 people have participated in the classes.
- LTAP received the 2013 Transportation Excellence Award from DOTD for Special Achievement in Customer Satisfaction for Improving the DOTD/LPA Partnership. LTAP worked with FHWA and DOTD Local Public Agency (LPA) program managers to develop a series of classes to introduce the many requirements of applying for and utilizing federal aid dollars on the local level. Over 1,700 local and state representatives have participated in the LPA Core training program for nearly 10,000 contact hours since 2012. Changes in inspection and reporting procedures as well as new performance metrics prompted the DOTD Bridge Sections and LTAP to partner together along with the Louisiana Parish Engineers and Supervisors Association (LPESA) to design and deliver new and updated training and outreach programs.
- LTRC created a training partnership with the Baton Rouge Community College to develop a curriculum geared toward engineering technicians.
- The move from the learning management system, ETRN, to an LSO, the new statewide learning management system was completed. In conjunction with that effort, the Transportation Curriculum Council tasked the structured training unit with the revision of approximately 150 structured training programs. The Management Development structured training program was revised to include Civil Service Supervisory requirements. By 2015, the 150 structured training programs were reduced to 94 newly revised programs. Also during this time, LTRC's on-line testing platform was changed to test.com, a less expensive, more user-friendly platform.

2015-Present

- LTRC's YouTube page began actively producing high-quality videos, focusing on subjects and problems important to the Department and center alike. LTRC also began creating "Transportation Talk," a monthly short-video series from the Secretary's office, addressing current issues or new trends in regard to Louisiana highways and infrastructure.
- With the launch of the free LTRC app, users are able to instantly reference publications, class information, contact information, as well as view the center's most recent videos on LTRC's revamped YouTube channel.
- The strong partnerships with different DOTD Divisions and Offices is supported by the strength of LTRC. LTAP has also expanded its relationships with customer groups such as the LPESA, American Public Works Association, Institute of Transportation Engineers and the DOTD supported Regional Safety Coalitions. LTAP looks forward to working with the State Transportation Innovation Council to identify and implement new and innovative practices at the DOTD and local level and to support the deployment of the FHWA sponsored Every Day Counts (EDC) initiatives.
- LTRC will continue to use leading-edge technology to facilitate training within the TTEC facility. Our classroom and meeting spaces are controlled by industry leading Crestron control systems and utilize an all-digital interface. Instructors are able to use and display multiple sources on the main screens with dual confidence monitors for the presenter. All of our spaces support video conference capabilities as well as web-based meeting and webinars. We are always looking to remain current in using the best technologies that facilitate a productive learning environment.

BY THE NUMBERS

Final reports published: 500+
People attended TTEC classes: 33,449
TTEC classes offered: 2,240
Conferences hosted: 17