

# Technology

## Today

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### LTRC Foundation Seeks Partners for New Education and Training Facility



“We encourage the support of our transportation partners who will benefit from this facility.”

LTRC Director  
Joe Baker

The Louisiana Transportation Research Center Foundation has initiated its formal search for partners to develop the new Transportation Education and Training Center, a goal

of the recently incorporated foundation, formed to support and enhance LTRC.

“We strongly believe that education and training are the keys to the effective

progression of Louisiana to a position of leadership in transportation,” said LTRC Director Joe Baker. “This facility offers a unique opportunity to forge a true public/private partnership for the betterment of transportation in the state and the nation.”

Current plans are for a 12,000 square-foot facility to be constructed in Baton Rouge adjacent to the current LTRC office building. Included in the plans will be a lecture facility for 100

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### Technology Transfer and Training Advisory Committee

#### Provides Direction

LTRC’s Office of Technology Transfer and Training recently held the annual meeting of the Technology Transfer and Training Advisory Committee. The committee was established for the purpose of advising

and assisting LTRC in the identification, evaluation, and implementation of transportation related technology, training, and educational services for the Department of Transportation and

Development (DOTD) and the transportation industry.

Prior to the meeting, the LTRC Training and

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 **LTRC Foundation (cont. from page 1)**

people, a computer-based training classroom for approximately 30, and two general classrooms for about 40. Each of these will be equipped with state-of-the-art educational and training equipment including video conferencing and other distance learning capabilities to transmit training courses throughout the state.

The proposed facility will be dedicated to the delivery of training, professional development, continuing education and technology transfer to engineers, technicians, and other professionals of both the public and private sectors of the transportation industry. Through the facility, LTRC will have the ability to expand the scope of training while making it available to a larger population.

With the passage of Senate Concurrent Resolution 44, the Louisiana Legislature urged “the DOTD, the LTRC, the LTRC Foundation, Inc., Louisiana State University, and private transportation interests to effect a public-private part-

nership for the planning, financing, and construction of a transportation training and education facility to be operated under the jurisdiction of the LTRC and dedicated for the improvement of transportation systems in Louisiana.”

Both DOTD and LSU have enthusiastically supported the concept and have each set aside financial commitments equating to about one-third of the cost of the center.

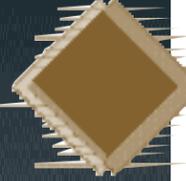
“Education and training are essential to the future of Louisiana and its economic development,” said DOTD Secretary Kam Movassaghi. “It is my vision that DOTD and Louisiana are recognized nationally as leaders in transportation by the end of the next decade. If we are to attain that stature, we need a well-trained and educated work force in the state.” Emphasizing the importance of the partnership, he further explained, “This concept will allow us to do things that we couldn’t do otherwise — to realize our dream to have a first-class, state-of-the-art edu-

cation and training facility, not just for DOTD but for the whole state and nation through distance learning.”

LSU President William L. Jenkins agreed. “I believe the development of such a facility will represent a progressive step in improving transportation systems in Louisiana. We are excited about the role this new facility will play in improving transportation in Louisiana and offer our continued support and assistance for this important initiative.”

With DOTD and LSU securing two-thirds of the financial commitment, the foundation will look to its partners for the remainder of the \$2.2 million needed to build the facility — roughly \$1 million.

“The suggested partnering of public, private, and academic interests will also serve to fulfill the objectives of both DOTD and state universities to make LTRC the focus for transportation research, education, and training in Louisiana,” Movassaghi concluded. “So

 **LTRC Foundation (cont. from page 2)**

**For more information on the foundation or the new education facility, contact LTRC Director Joe Baker at (225) 767-9131 (jbaker@dotd-mail.dotd.state.la.us).**

 **Urban Systems Workshop Scheduled**

we should proceed, full speed ahead.”

“Virtually all of us benefit from transportation systems,” said Baker, “but those of us who work in the industry have a special obligation to improve them.” Baker went on to stress the importance of such a supportive role in the new facility, “It offers the partners a number of opportunities: the ability to participate in a leadership role for the transportation industry; to provide technology transfer and training opportunities for both private and public sector and to supply contin-

uing educational opportunities at a reasonable cost. Through their participation in the operation of facility, the overall capabilities of LTRC, state universities, and private industry will be greatly enhanced.”

Guiding the foundation is its Board of Directors which is made up of the LTRC Policy Committee and LTRC’s top four administrative positions. Included in this group are representatives of seven Louisiana universities—the University of New Orleans, Southern University, University of Southwestern Louisiana, Louisiana Tech University,

McNeese University, Tulane University, and Louisiana State University—and three representatives of DOTD. Provisions have been made to add up to six additional appointments to the board to involve private industry.

“The LTRC Foundation and the proposed new Education and Training Facility are a progressive step for the center and will provide an excellent partnership opportunity for DOTD, state universities, and the private sector,” Baker said. “We encourage the support of our transportation partners who will benefit from this facility.”

The Louisiana Department of Transportation and Development and LTRC are planning an Urban Systems Program Workshop. The workshop will be presented in the following cities:

- Baton Rouge: October 5 and 6
- New Orleans: October 26 and 27
- Bossier City: November 2 and 3

The purpose of the workshop is to provide information to the cities, DOTD districts, metropolitan planning officials, and consultants on the procedures used in the program. Presentations will be given by DOTD sections involved in the program.

There will be no cost for attending the workshop. For additional information concerning this workshop, contact Ann Wills at (225) 379-1358.

Development program managers worked with the heads of the major divisions of DOTD to establish tentative work plans for the year. In addition, the DOTD administrators were surveyed for their input into the need for professional development courses such as those offered through the National Highway Institute and the Federal Highway Administration (FHWA).

Particular areas of discussion included the development of a Construction Management Certification Program and a DOTD Management Development Program. The committee also reviewed the status of and provided suggestions for the section's strategic planning efforts and the development of the construction project management training program.

The committee represents a cross-section of the various technical and supportive disciplines of the department and reflects the diverse needs of the overall organization. The committee is chaired by Kirt Clement, LTRC associate

director of technology transfer, and consists of the DOTD deputy secretary; undersecretary for management and finance; assistant secretaries for planning and programming, operations, and public works and intermodal transportation; the chief engineer; the chiefs of the project development, construction, and maintenance divisions; the directors of information services and human resources; a district administrator; and the materials engineer administrator.

**Presentations were made regarding the LSU Training Needs Assessment project, the SASHTO 2000 Annual Meeting, the 1999 Louisiana Transportation Engineering Conference, and the LTRC Education and Training Facility.**

For the needs assessment project, LTRC coordinated a contract between the Division of Administration and Louisiana State University School of Vocational Education to assist the department in determining how employee training might be used to improve job and organiza-

tional performance and delivery of services.

LTRC's technology transfer and training program chose four areas to assess: management skills, supervisory skills, barriers to learning transfer, and basic skills. The training needs assessment process identified possible performance problems. The results have been transmitted to the DOTD administration and are being analyzed and used to make program modifications.

Plans were presented for the creation of a management development program that would include all transportation professionals. Plans include some basic courses, determining what training is available through the Certified Public Training Program, and supplementing with external resources.

The advisory committee also concurred with the developed work plan for construction, maintenance, design, and professional development offerings.

## NAFTA: Opening the Trade Floodgates through Louisiana

The North American Free Trade Agreement (NAFTA) has had its share of both champions and detractors, but there is no denying that the free trade treaty has opened the gates to an increasing flood of goods and services funneling an incredible amount of capital through the three largest North American markets.

NAFTA opened tariff-free trade between the United States, Canada, and Mexico in 1994—creating a free market that extends from the Yucatan Peninsula in Mexico to the Yukon region of Alaska with a trade volume totaling \$341 billion by the end of the first year of the agreement.

NAFTA-induced restructuring for north-south movements of cargo has substantially increased the lev-

els of trade between Louisiana and Mexico. This expanded trade volume will benefit the Louisiana ports and maritime sectors that are capable of absorbing the increased trade activities.

Land transportation, especially trucking, remains the dominant choice of shippers in the movement of general cargos between the U.S. and Mexico, but water-based transport is likely to increase in the Gulf as shippers move to take advantage of lower costs for some segments of the trade as well as to avoid congestion and delays at key U.S.-Mexican land border crossings. A wide and varied port structure already exists in both the U.S. and Mexican Gulf regions to accommodate such intermodal movements.

LTRC has sponsored research by the National Ports and Waterways Institute into how the implementation of NAFTA has created unique opportunities for Louisiana's ports and waterways as key portals for trade. From 1993 to 1994, Louisiana's exports to

Mexico grew by over 50 percent to \$753 million to rank tenth among all U.S. states in exports by value to Mexico.

LTRC-sponsored research identified NAFTA-induced market opportunities for Louisiana's maritime sector and defined the strategies and maritime services necessary to exploit these opportunities. Additionally, the study clearly referenced any deficiencies that could prevent or hinder Louisiana ports from the pursuit of these opportunities. The research provides Louisiana's maritime interests with sufficient information to focus their marketing and development efforts on potential NAFTA trade opportunities.

The research approach included two distinct components: opportunities by port type and range and opportunities for specific ports. Each of these components was analyzed in conjunction with the five types of maritime services currently operating or being considered for the U.S. Gulf



For more information, contact Dr. Anatoly Hochstein, director of the National Ports and Waterways Institute and one of the principal investigators for the project, at (225) 388-2771.

Coast/east coast of Mexico trade. Those five types of services are deep sea conventional, short sea coastal, feeder, river/ocean, and water bridge.

Ports in Louisiana are in a difficult competitive position to expand current container volumes within the close proximity of modern high-volume container facilities at both Houston and Miami. However, the handling of niche cargos such as perishables and steel or providing emerging maritime services such as trailer ferry operations or river/ocean services from the state's ports as alternatives to land

based transportation systems may provide the most effective means of maintaining a competitive advantage for Louisiana's ports with trading partners such as Mexico.

The state's deep-draft ports such as New Orleans, Baton Rouge, St. Bernard, and Lake Charles seem well positioned to concentrate on short sea coastal services for general cargos and forest products.

The introduction of new point-to-point services such as a "Gulf trailer ferry," suggested as an emerging general cargo NAFTA

opportunity with Mexico, may help Louisiana's ports to enjoy a growing market share of container and trailer north/south general merchandise cargo movements between the U.S. and Latin America.

Louisiana has superior intermodal connections (rail and highway) from the Port of New Orleans that would provide a Gulf region "gateway" to the central and eastern portions of the U.S. for cargos going to and from Mexico and the U.S., the Caribbean Basin, Puerto Rico, Central America, and the rest of Latin America.

DOTD is in progress of making some major modifications to its inspector/technician certification program.

These changes are designed to bring the program into compliance with FHWA guidelines which take effect June 29, 2000.

In 1995, Congress made modifications to the Code of Federal Regulations, specifically the section that deals with Quality Assurance Procedures for Construction.

Quality Assurance procedures are all the actions used to determine the acceptability of a project and are divided into two

categories: Quality Control, commonly referred to as QC, and Quality Assurance, called QA. QC sampling and testing is performed by

the contractor and QA actions are historically performed by the state highway department.

The new federal regulations allow the use of QC results in the acceptance decision, as well as allowing the state to contract with the private sector for acceptance testing.

In permitting added flexibility to state highway departments, the FHWA has developed some requirements aimed at ensuring the continued quality of projects funded with federal dollars. These requirements include the development and use of approved qualification programs for testing laboratories and QC/QA personnel, as well as Independent Assurance Programs and a state verification program for sampling and testing.

Anyone who intends to perform QC/QA sampling and testing for record will be expected to complete the program; "grandfathering" will not be allowed. Lifetime

qualifications will not be granted.

In order to update the existing certification/authorization program for engineering technicians and provide the Louisiana transportation industry with more flexibility in using employees during their training period, DOTD intends to introduce two new levels of QC/QA technician qualification. The lowest level will be that of a trainee. The trainee would be a beginner, requiring no prior experience to start, and will participate in on-the-job training under a certified technician or authorized tester until proficient in performing sampling and testing procedures. When the trainee is ready, the department will evaluate the trainee for specific procedures. Once the trainee has successfully completed each evaluation, he can begin to perform the procedure as part of the QC/QA program.

The next level will be that of an authorized tester. The authorized tester will have

The FHWA has issued guidelines to the states to ensure that their individual QC/QA personnel qualification programs meet the parameters established for federal approval. These parameters include:

- formal training
- period of on-the-job training with qualified personnel
- written exams
- performance demonstrations
- re-qualification every 2-3 years
- decertification process for substandard performance.

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**Dee Jones, construction, materials, and design training program manager, served on the NQI committee for developing QA/QC personnel certification programs and the FHWA Multi-Regional Training and Certification group (M-TRAC). For further information contact Jones at (225) 767-9130.**

spent at least three months as a trainee and have successfully completed all the basic sampling and testing evaluations for that certification area. The authorized tester can train new personnel and perform any QC/QA sampling or testing procedure for that certification area.

The final level will remain the certified technician/inspector. The requirements to become a certified QC/QA technician will remain the same (six months experience as an authorized tester or trainee, successful completion of all prerequisite training courses, successful completion of the written exam and performance evaluation, and recommendation of supervisor). The certified QC/QA technician/inspector will continue to be qualified to perform all QC/QA procedures, to know appropriate department specifications, policies,

and procedures, for troubleshooting and remedies, project and plant inspection and operations, to sign and approve documentation and to train and supervise subordinates.

In order to meet the new federal requirements, DOTD will need to expand the qualification procedures now offered to provide objective, standard evaluations for QC/QA sampling and testing below the level of certification. It will also need to adjust the current method of continuing certifications and authorizations. LTRC Technology Transfer and Training intends to design a program that will meet all FHWA requirements, yet be practical for use. The program will be designed to cause the least disruption to the existing system and will take into account the personnel available for program administration. The re-certification process is being evaluated with emphasis on

updated materials, specifications, and procedure. LTRC will also develop an administrative manual, explaining the new program and publishing program regulations, as soon as the complete program is approved and ready for implementation.