SPECIAL EDITION Summer –Fall 2006

20th Anniversary

Years of Excellence in Training Municipal and State Transportation Officials



2006

In This Edition...

This special edition, prepared for the 20th anniversary of the Center, describes in detail the principal accomplishments related to the Center's original tasks and also provides information on related activities in which the Center has played a significant role.

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20th Anniversary

Years of Excellence in Training Municipal and State Transportation Officials

On April 1, 2006 the Transportation Technology Transfer Center of the University of Puerto Rico at Mayagüez celebrated its twentieth anniversary providing training and technical assistance to local transportation officials from Puerto Rico and the United States Virgin Islands involved in the planning, design, construction, operations and maintenance of the transportation infrastructure. The Center is part of a network of 57 Centers established throughout the United States with funding from the Federal Highway Administration Local Technical Assistance Program and the state departments of transportation.

Since 1986, the Center's tasks have evolved considering our location within a university setting, our access to students in various specialties, our bilingual capabilities, and the ever changing local and international transportation needs. Thus, the Center has been involved in other projects and activities related to:

- the professional development of the next generation of transportation professionals,
- the planning and coordination of local, national and international conferences of significance and added value to the field of transportation,
- the provision of international technical assistance to Federal agencies dealing with public transportation problems and the creation of the Pan American Institute of Highways, and
- the involvement of students in various research projects with emphasis not only on the research results but also on developing skills to aid them in their future professional careers.

We are grateful to have been given the opportunity to make these contributions that would not have been possible without the funding received from the Federal Highway Administration, the Puerto Rico Department of Transportation and Public Works and the Virgin Islands Department of Public Works. We also acknowledge the excellent support provided by the University of Puerto Rico, Mayagüez Campus including its Research and Development Center, the Office of the Dean of Engineering, Department of Civil Engineering and Surveying and the College of Engineers and Surveyors of Puerto Rico.

Training, technology transfer and professional development is all about people, and those that train have the responsibility and play a vital role in the preparation of the transportation workforce and in motivating them to do a job of excellence. Recognition for a job well done to those instructors that have participated in our training program.

The Center's directors also have been blessed with an outstanding supporting staff throughout the twenty years. This staff has had the leadership, bilingual, interdisciplinary, human relation and managerial skills that are required to run a training and professional development program in transportation. Special gratitude to this supporting staff for its contribution towards achieving excellence serving our clients.

We want to thank all those individuals that have let us assist them in their training needs throughout the years, we hope that we have met their expectations and hope we can continue addressing their needs in the years to come.

We reiterate our thanks,

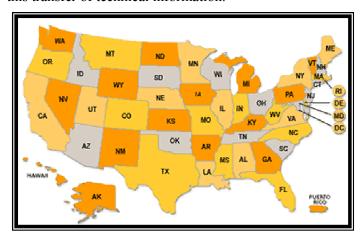
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Felipe Luyanda, DE, PE Director

INTRODUCTION

Technology transfer, as defined by the United States Department of Transportation is a mechanism by which existing research and knowledge and new technology are transferred into useful processes, products and programs. Transportation technology transfer centers, established throughout the United States at universities, state transpor- In order to facilitate these goals and objectives, the followtation departments or at tribal communities with partial funding from the Local Technical Assistance Program (LTAP) of the Federal Highway Administration facilitate this transfer of technical information.



Since 1986, the Transportation Technology Transfer Center at the University of Puerto Rico Mayagüez Campus has been providing training and technical assistance to local transportation officials from Puerto Rico and the United States Virgin Islands involved in the planning, design, construction, operations and maintenance of the transportation infrastructure. In addition to the LTAP funds provided by the Federal Highway Administration, the Center has been supported by Highway Planning and Research funds from the Puerto Rico Highway Authority of the Puerto Rico Department of Transportation and the Virgin Islands Depart- The Center has fully accomplished these goals and objecment of Public Works.

The original goals and objectives of the Puerto Rico Transthe original proposal submitted to the National Highway letter "El Puente".

They include the following:

- Transfer the significant findings of research studies that have been conducted in the United States and abroad to local municipalities in the Island in a concise format.
- Train personnel in highway related areas such as new construction and rehabilitation techniques, maintenance tips and pavement management.

Keep local highway and municipal officials up to date in the new technology that is already available in the areas of design, construction, programming, maintenance, evaluation and rehabilitation.

ing mechanisms were proposed:

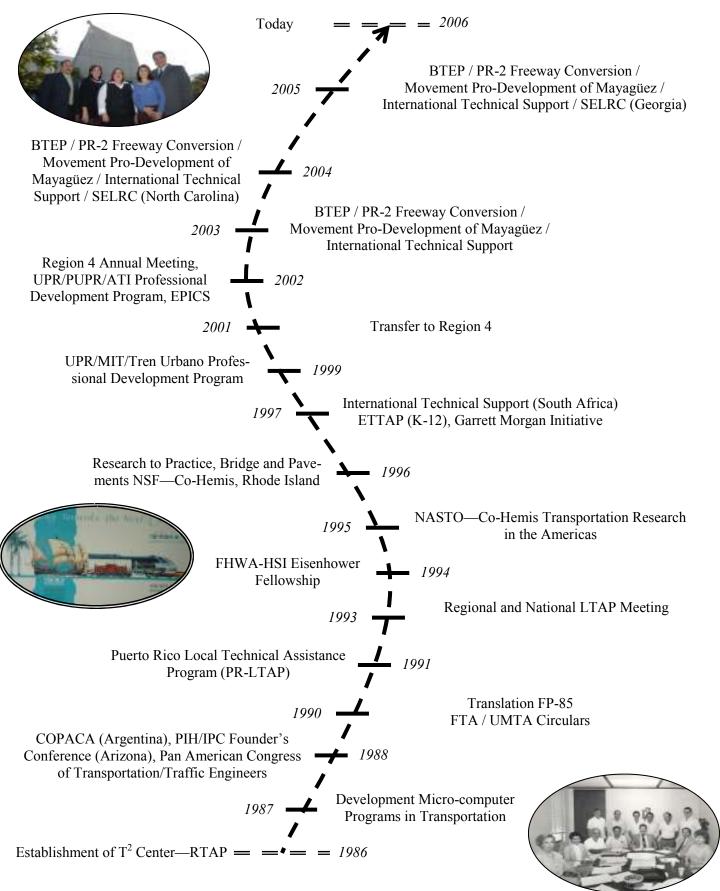
- Conduct seminars and workshops in Puerto Rico and the Virgin Islands,
- Develop an audio-visual library including Spanish/ English materials,
- Provide information through research reports and computer programs,
- Develop microcomputer modules in areas of interest to local agencies, and
- Publish a bilingual newsletter (English/Spanish) to aid technology transfer at all levels of readership and as a vehicle for reader response.



tives and has also evolved in other projects and activities including special short term special projects to complement the Center's daily technology transfer activities and others portation Technology Transfer Center are those outlined in related to the professional development of students; the planning and coordination of local, national and interna-Institute in 1986 and in the first issue of the Center's news-tional conferences; and the provision of international technical assistance. A graphical representation of the Center's evolution is presented in the next page.

EVOLUTION OF THE CENTER

Twenty Years of Excellence in Training and Professional Development



PUERTO RICO LOCAL TECHNICAL ASSISTANCE PROGRAM

Background

Initially our Transportation Technology Transfer Center in Puerto Rico, the Puerto Rico Department of Efficiency Act (ISTEA) in 1991, the program was changed participants. to the present Local Technical Assistance Program (LTAP) and included technical assistance to urban areas with an The seminar program can be classified into two major five in tribal communities and our Center).



South Carolina, and Tennessee. The Centers of this region aguez. collaborate in organizing regional meeting and conferences and in sharing technology transfer materials and instruc- Many of the seminar topics have been accredited by the tors. At the national level, the LTAP Centers are coordi- College of Engineers and Surveyors for its continuous nated by the Federal Highway Administration with the as- education program. sistance of the American Public Works Association Clearinghouse and the National Association of Transportation Technology Transfer Centers. At the local level, our Center receives assistance and guidance from an Advisory Committee consisting of members from the state transportation department, agencies that deal with municipal problems and the Virgin Islands.

Seminar Program

The principal activity of the Center is its seminar program for local transportation officials from the 78 municipalities

that was created on April 1, 1986 in the Civil Engineering Transportation and Public Works and the Virgin Islands and Surveying Department of the University of Puerto Department of Public Works. The annual program has Rico, Mayagüez Campus was part of the Federal Highway included at least 40 seminar days in Puerto Rico and 10 Administration Rural Technical Assistance Program seminar days in the Virgin Islands. The level of training (RTAP) that emphasized technical assistance to local and the selection of the instructor depend upon the topic transportation officials in rural communities. With the and the audience to be addressed but the Center assures the approval of the Intermodal Surface Transportation quality of the information and the materials provided to the

expansion of the network to 57 Centers (one in each state, categories: technical seminars and supporting tool related seminars. Technical related seminars correspond to topics of technical nature related to transportation, such as pavement design, pavement rehabilitation and management, materials, drainage, highway safety, traffic geographic information systems. engineering and Supporting tool related seminars include those that complement routine transportation related activities such as introduction to microcomputers, introduction to spreadsheets and databases, basic management concepts, ethics for engineers, basic statistics, basic supervisory skills, tort liability and guidelines in technical writing.

The seminars have been offered in several of the municipalities in the Island including Ceiba, Humacao, Mayagüez, Ponce and San Juan and in the Virgin Islands Our Center originally was part of the Region 1 of the specifically in St. Thomas and St. Croix. The facilities of Federal Highway Administration geographical division that the College of Engineers and Surveyors in Mayagüez, included the states located in the Northeastern portion of Ponce and San Juan, Puerto Rico Department of Transporthe United States. Since 1996, as part of the reorganization tation and Public Works, Virgin Islands Department of of the Federal Highway Administration the Center is part of Public Works, and the University of Virgin Islands have the Southeastern region with the states of Alabama, been used for the seminar program in addition to the con-Florida, Georgia, Kentucky, Mississippi, North Carolina, ference facilities of the University of Puerto Rico, Mav-



Newsletters El Puente

Spanish), known as "El Puente". The purpose of the videotapes developed by the International Road Federation newsletter, "El Puente," as the name implies, is to serve as (IRF) and the Federal Highway Administration (FHWA). a bridge ("Puente") of information between the Center and local transportation officials and as a vehicle for reader response. The current format of the newsletter keeps municipal and other transportation officials informed about the latest transportation related technology in a summarized and condensed format. Furthermore, it keeps the reader informed about the latest technical publications and audio-visual material available from the Center, and provides the topics and dates of the training opportunities sponsored by the Center.



Technical Library & Audiovisual Material

form of technical publications and videotapes to will also be used to handle any request. In certain cases, municipalities or to transportation officials when requested, the requests could be used to develop a seminar topic of In terms of publications, the Center maintains a library of interest to other officials from the municipalities. technical reports associated with the field of transportation. The library includes over 1,500 research reports, technical magazines. transportation and highway engineering textbooks. proceedings of transportation related conferences, and catalogues of information services that assist in the acquisition of technical information not available at the Center. This library is complemented with the newsletters received from the other LTAP Centers as well as CD's from the Transportation Research Board (TRB), the Institute of Transportation Engineers (ITE) among others.

In terms of audio-visual material, the Center has developed a technical library that currently consists of over 350 videotapes in VHS format. The topics include administration and management, asphalt, bridges and structures, design and construction, equipment and vehicles, geotechnology, drainage, maintenance and operation, pavements and traffic

The Center publishes a bilingual newsletter (English, safety. The Center also distributes, on a loan basis,



Information Service

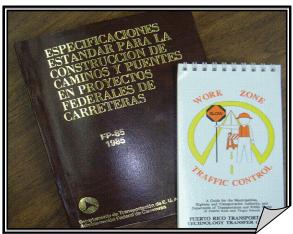
The Center provides technical information services to municipalities as requested using university staff, Center's Co-Directors and through its web page (www.uprm.edu/prt2). The information provided is in terms of advice, guidance, or referral to published materials, new video releases associated with safety, drainage, pavement maintenance, traffic congestion, environmental issues associated to transportation and other relevant areas associated to the built transportation infrastructure in Puerto Rico and the US Vir-The Center provides technology transfer materials in the gin Islands. Telephone, letter and electronic mail (e-mail)



Special Projects

The Center participates in short-term projects to complement its daily technology transfer activities. These projects • are of interest to the municipalities, Puerto Rico DTPW, and the Virgin Islands Ministry of Public Works. A sample list of special projects that the Center has participated are listed below:

- Development of microcomputer software associated with transportation.
- Translation of technical material of transportation related topics to Spanish.
- Identification of municipalities needs related to transportation.
- Development of guidelines for the municipalities on how to prepare Request for Proposal (RFP) related to public transportation projects.
- Translation and adaptation of Federal guidelines related to different aspects of the mass transportation program.
- Development of technical videos regarding the proper use of asphalt, concrete and soils, in road and bridge construction.
- Spanish translation of Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects (FP-85).
- Development of technical guidelines for traffic control Feasibility Study for the Conversion of PR-2 to Freein construction zones.



Participation in the Strategic Highway Research Program (SHRP) Assessment Project regarding the documentation of successful stories associated to the implementation of safety products in highway construction zones, and the inventory of existing pavement distresses.

- Surveys to determine the need of municipalities with a population less than 50,000.
- American with Disabilities Act (ADA) and its legal implications.



- Evaluation of existent transportation facilities in municipalities with a population less than 50,000.
- Evaluation of marketing methods to promote public transportation in municipalities with a population less than 50,000.

way: Hormigueros to Añasco

The Center director with the collaboration of the Institute of Transportation Engineers (ITE) Student Chapter, provided technical assistance to the Civic Organization entitled Movement Pro-Development of Mayagüez, in the Feasibility Study for the Conversion of PR-2 to Freeway: Hormigueros to Añasco. This feasibility study included a preliminary analysis and evaluation of the conversion to freeway of Highway PR-2, from Hormigueros to Añasco, passing through Mayagüez. The study concentrated on operational analysis of critical intersections in the PR-2 corridor with emphasis on safety and congestion.



Public Administration Seminar for Municipalities Addressing Best Practices in Anti-Corruption

tion with the Center has held since 2002, one day training, of the effectiveness of the program is a continuous process. aimed to newly appointed Majors, Public Works Directors, Sub-directors and Supervisors, of all the municipalities of Collecting accurate and complete data is essential to cap-Puerto Rico. The training seminars held in the University ture the aggregate efforts of Centers within the national of Puerto Rico, Mayagüez and Cayey Campus were aimed LTAP program. The LTAP Centers collect data of each at addressing best practices in public administration to calendar year and submit this information to FHWA in two avoid corruption activities with public and federal funds, quantitative tools known as Program Assessment Report The Puerto Rico Transportation Technology Transfer Cen- (PAR) and Center Assessment Report (CAR). These reter made technical presentation regarding the services of- ports provide both FHWA and program stakeholders with fered by the Center and how the municipalities can benefit an up-to-date view of the quality of the LTAP/TTAP profrom them. The Center also provided instructors to address gram and its impact on the surface transportation commubest practices in Construction Management and Construc- nity. tion Projects in municipalities.

corruption training initiative and over 1400 participant livery. hours.



Effectiveness of the Program

The effectiveness of the program is evaluated on a continuing basis with the evaluation forms distributed in each seminar, and comments received from members of the Advisory Committee and participants of the Center's activities. In addition, the web page is used as a mechanism to receive continuous feedback from our customers not only from the seminar program. The web page also includes information on new technical publications, videotapes, link to other web pages, newsletter articles, upcoming events

and tips/checklist of interest to our local constituents. Through this mechanism and following the guidelines of the Strategic Plan of National Association of Transporta-The Office of the Comptroller of Puerto Rico in collaboration Technology Transfer Centers (NLTAP), the evaluation

The CAR addresses specific success and challenges, gen-The Center distributed a questionnaire to all participants eral program and center management and overall program that was aimed in identifying their short and medium term and center management. The PAR includes the data of the training needs. Personnel from the Office of the Comptrol-major activities conducted by the Center that are associated ler made presentations about laws and regulations applica- with the performance measures incorporated in the Cenble to municipalities in administering public funds. In cal- ter's Strategic Plan. The focus area are Safety, Infrastrucendar year 2005, over 280 officials participated in this anti- ture Management, Workforce Development and Value De-

> During calendar year 2005, in excess of 1,000 participant hours in highway safety, 475 hours in worker/workplace safety training, 4,825 hours in infrastructure management training and 1,270 hours in workforce development: management/leadership and soft skills.

> During the twenty years of operation of the Center, over 20,000 transportation officials of Puerto Rico and the Virgin Islands have participated in the training program.

PROFESSIONAL DEVELOPMENT PROGRAMS



UPR/MIT/Tren Urbano

Institute of Technology (MIT), Tren Urbano (TU), global impacts, Professional Development Program was in operation since contemporary issues, and communication skills. the summer of 1994. The Center's participation began staff began administering the program.

Professional Development Program at the University of reers. Puerto Rico in Mayagüez (UPRM), it emphasized the interdisciplinary nature of the Tren Urbano, a heavy rail Over 250 research projects have been performed in this infrastructure project constructed in the San Juan MIT and other supporting universities. Metropolitan Area (SJMA). The students from different disciplines learned the importance of analyzing and Many of the students that participated in the program are planning, safety, and public participation.

interaction among professionals, multidisciplinary setting the knowledge gained in math, science and engineering, to conduct experiments, and identified, formulated and solved engineering, architectural and planning problems.

The University of Puerto Rico (UPR), Massachusetts The students were also exposed to the latest technologies, ethics to and professionalism.

then with the involvement of the Center's Directors as part Furthermore, the dynamics of this program resulted in of the engineering faculty and in 1999 the Center and its highly trained motivated professionals sensible to environment and to needs of their constituents on a short, medium and long-term horizon that are ready to face similar chal-During the ten (10) years of the UPR/MIT/Tren Urbano lenges of mega projects in their future professionals ca-

public transportation project and the largest transportation professional development initiative in partnership with

evaluating all the aspects of a project, such as engineering, now working with Alternate Concepts Inc. (the firm that is transportation systems, architecture, social factors, urban operating the Tren Urbano), the Office of the "Alternativa de Transporte Integrado" (the government office in charge of supervising the Tren Urbano operation and its integra-Both undergraduate and graduate students learned about the tion to other transportation modes, or other local governapplied in a ment and private transportation offices.



UPR/PUPR/ATI

The UPR/PUPR/ATI Professional Development Program has been in operation since the summer of 2004. The contract involves the University of Puerto Rico, Mayagüez and Río Piedras Campus, Polytechnic University of Puerto Rico and ATI through the umbrella of the DTPW - Puerto Rico Highway and Transportation Authority (PRHTA).

During first two years of the UPR/PUPR/ATI Professional Development Program, undergraduate and graduate students with faculty mentorship from three campuses, learned about the interaction among professionals and focused on the integrated operation of the Tren Urbano. The program is similar to the previous UPR/MIT/ Tren Urbano Professional Development Program with an emphasis on analyzing the effectiveness of the public transportation system in the San Juan Metropolitan Area since the Tren Urbano is already operating. The program provides a unique opportunity to obtain data on the many impacts that the new heavy rail is having on the metropolitan area and on its integration to other public transportation modes.

Over thirty research projects associated as part of this professional development initiative are included.

The University of Puerto Rico at Mayagüez (UPRM) is continuing this success venture, as the lead university of the contract with the Puerto Rico Highway and Transportation Authority (PRHTA). The contract is administered through the Transportation Technology Transfer Center at the UPRM.









D.D. EISENHOWER

(ISTEA) in 1991. The objectives of the Program are to:

- transportation,
- enhance the careers of transportation professionals by encouraging them to seek advanced degrees, and
- retain top talent in the transportation industry.

The Program is intended to help upgrade the scope of knowledge of the entire transportation community in the United States and encompasses all modes of transportation. The purpose of the Eisenhower Graduate Transportation Fellowships is to sponsor persons interested in pursuing a Master's, Doctorate (or equivalent) degree in a field of study that is directly related to transportation. In response to the Nation's goal of improving highway safety and reducing fatalities, additional consideration is given to highway safety related study and research.



Appropriate topics include, but are not limited to:

- traffic safety
- human factors
- crash data analysis
- roadside safety
- interaction of safety and the environment
- safety information systems
- safety enforcement
- countermeasure selection
- safety conscious planning
- safety administration
- safer designs & traffic control
- roadway safety improvement programs
- safety software and models

The Dwight David Eisenhower Transportation Fellowship Within this program, there is a component directed at iden-Program was established by the Intermodal Efficiency Act tifying talent from Hispanic Serving Institutions including the University of Puerto Rico Mayagüez campus.

attract the nation's brightest minds to the field of Since 1994, the Center has been administering the program that has successfully benefit over 50 students many of which are currently leaders within the local transportation field.



ETTAP

The Center with the collaboration of the Office of Small and Disadvantaged Business Utilization, participated since 1997 in the Entrepreneurial Training and Technical Assistance Program (ETTAP). The program, through partnership agreements with Minority Educational Institutions (MEIs) including Historically Black Colleges and Universities and Hispanic Serving Institutions, combines the efforts of MEIs, government, and the private sector to focus on providing transportation—related assistance and procurement information to small, women owned and disadvantaged business.

The program also provides training and development to students in transportation—related fields through the use of internships and fostering interdisciplinary opportunities for students in the field of transportation.





ETTAP focuses on three transportation related areas:

- Training and technical assistance on the use of and access to electronic commerce and the Internet.
- Transportation-related student internships.
- Information dissemination and outreach activities regarding the Presidential Welfare to Work Initiatives to hire individuals off the welfare rolls and to support the U.S. DOT Garrett A. Morgan Technology and Transportation Future Programs.



The ETTAP program agreement plans to elevate the skills and understanding of technical issues and research skills of students, including students with disabilities, promote and otherwise encourage the participation of students with disabilities in transportation related contracts and foster interdisciplinary opportunities for college students in the field of transportation.

Engineering Projects in Community Service (EPICS)

The Center director and Civil Engineering and Surveying Department of the University of Puerto Rico at Mayagüez, in collaboration with Purdue University participated in the Engineering Projects in Community Service (EPICS) Program. This is an innovative program that creates partnerships between teams of undergraduate students and local community not-for-profit organizations to solve engineering-based problems in the community. During the years of 2002 to 2003, the engineering students collaborated in team work with students from the Department of Social Sciences, Humanities and other disciplines from UPR-Mayagüez and UPR-Aguadilla, and with the University Institute for the Development of the Communities, in community service projects in over 35 communities in the western region of Puerto Rico. Example of communities in which engineering projects were applied includes: (See exhibit)

- La Via, Aguadilla
- Trastalleres, Mayagüez
- Balboa, Mayagüez
- Añasco Playa, Añasco
- Cuesta Las Piedras, Mayagüez
- Puerto Real, Cabo Rojo

Surveys, inspections documenting the deficiencies, in the built infrastructure, and coordinating social activities to improve the self-esteem of the community were conducted. Posters, technical presentation and oral presentations were made by the students in the communities and to local transportation officials, of which many of the recommendations has been implemented.



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University of Rhode Island (URI) Summer Internship Program

On July 19, 2005 the summer interns from University of Rhode Island presented their research work and an overview of their Summer Exchange Internship Experience dur- The Center has collaborated with international organizaing the summer of 2005 at the University of Puerto Rico at tions and governments to provide information on the Fed-Mayagüez. The Summer Exchange Student Program is eral Highway Administration Transportation Technology sponsored by URI Transportation Center and the Eisen- Transfer Program and of the Puerto Rico public transportahower Fellowship Program. Students from URI conducted tion system including the characteristics of the "Público" research work in Mayagüez, Puerto Rico under the supervi- system and the "Tren Urbano". Several of these are desion of professors from the College of Engineering at the scribed below: University of Puerto Rico Mayagüez.



On July 29, 2005 the summer interns from the university of Puerto Rico Mayagüez presented their research work done at URI during the summer of 2005. Students from UPRM • have conducted research work related to URITC funded projects under the supervision of professors from the College of Engineering.



INTERNATIONAL COLLABORATION

- The "Congreso Panamericano de Carreteras" (COPACA) in 1988 requested several presentations in Buenos Aires, Argentina, about the Rural Technical Assistance Program (RTAP) and specifically about the tasks, organizations and accomplishments of our Center to consider extending the transportation technology transfer concept throughout Latin America.
- COPACA and the Federal Highway Administration in 1988 requested the assistance of the Center's Directors in the Founder's Conference of the Pan American Institute of Highways, that was held in Phoenix, Arizona. The participation of the Directors, due to their bilingual capabilities, was instrumental in the development of formal documents that led to the creation of the Pan American Institute of Highways that extended the RTAP concept to countries in the Caribbean and South America.
- The Federal Transit Administration in 1997 requested the assistance of the Center's Directors to provide technical information on the Puerto Rico "Público" system to the government of South Africa since the kombi system was experienced major operational problems. Presentations were made in Pretoria, South Africa to government officials from their Department of Transportation and the professors from the University of Pre-
- Since 1996, due to involvement of the Center's Directors in the UPR/MIT/Tren Urbano Professional Development Program, and now the UPR/PUPR/ATI Professional Development Program, the "Asociación Latino Americana de Metros y Subterráneos" (ALAMYS) has invited professors to participate in its Annual Conferences held in cities in Latin America. Presentation have been made regarding the public transportation system of the San Juan Metropolitan Area that led to ALAMYS accepting the Puerto Rico Highway and Transportation Authority as a full member of this prestigious organization.

CONFERENCES

such congresses are:

- V Pan-American Congress of Traffic and Transportation Engineering, 1988
- Region 1 and National LTAP Conference with the theme "Moving Towards the Next Century in Technology Transfer", 1993
- Northeastern Association of State Transportation Officials Annual Conference, Transportation Research in the Americas, 1995
- Research to Practice Symposium on Repair and Rehabilitation of Pavements and Bridges, 1996
- Region 4 Annual LTAP Conference, 2002

V PAN-AMERICAN CONGRESS OF TRAFFIC AND TRANSPORTATION ENGINEERING

The Pan-American Congress on Traffic and Transportation Engineering started in Mexico in 1980, as a scientific fo- NASTO-NSF rum to address traffic and transportation engineering stud- RESEARCH TO PRACTICE ies of relevant significance to Pan-American countries. SYMPOSIUM The congress was also conducted in Colombia in 1982, Brazil in 1984 and Chile in 1986. The congress held in The Symposium of Research-to-Practice on Repair and and included simultaneous translation in Spanish, English purpose of informing bridge and pavement engineers from and Portuguese.



REGION 1 AND NATIONAL LTAP CONFERENCE

In 1993 the Puerto Rico LTAP Center hosted the Region 1 and Annual National LTAP Conference with the theme "Moving Towards the Next Century in Technology Trans-

The Center has planned and coordinated several congresses fer". The conference included concurrent sessions, exhibits and symposiums of local, national and international signifi- from the LTAP Centers and FHWA, new products, and cance in areas associated with transportation. Example of speakers addressing cultural barriers and team work strategies to improve technology transfer and information shar-



Puerto Rico in 1988 provided a forum to bridge transporta- Rehabilitation of Bridges and Pavements held in Warwick, tion research projects between North and South America, Rhode Island, and sponsored by NSF was conceived for the NASTO-affiliated highway agencies of new techniques and materials for the rapid repair and rehabilitation of bridges and pavements. Recent laboratory work and field test from SHRP, and other recognized research institutions can offer the practitioner in the highway agencies solutions that are superior to standard practices in performance and costefficiency.



NASTO CoHEMIS NSF: TRANSPORTATION RESEARCH IN THE AMERICAS CONFERENCE

Research in the Americas was held in Fajardo, Puerto Rico nology Exchange Program (BTEP), in the planning, coorfrom July 17 to 19, 1995, within the context of the 1995 dination and moderator of two Technology Transfer Con-Northeastern Association of State Transportation Officials ference held in Monterrey, México in years 2002 and 2005. Conference (NASTO '95). The main objective of the Co- BTEP was founded to provide opportunities for technology Hemis-NSF Conference was to gather transportation ex- and information sharing between the U.S. Border States perts from different countries of the Americas to report on and their counterparts in Mexico and Canada. current research projects, recommend on future priorities. and discuss state-of-the-art practices in their respective The BTEP program seeks to: countries and institutions with respect to five main areas: innovative financing, privatization, intermodalism, plans on • intelligent transportation systems, and transportation management systems. The presenters came from eight countries representing the Americas: Argentina, Chile, Colombia, Costa Rica, Mexico, Puerto Rico, Venezuela, and the USA. They discussed the impact that transportation issues • have had in their particular setting and made recommenda- • tions on regional research priorities.

REGION 4 ANNUAL LTAP CONFERENCE

In 2001 FHWA transfer the Puerto Rico LTAP Center from Region 1 to Region 4 to make it strategically accessible to the Southeastern Centers of the United States. During this transition and to become better acquainted to the training initiative in this region, our Center hosted the Region 4 Annual Meeting. The meeting addressed ongoing issues associated with the new legislation and the experiences with implementation of the strategic plan.

BTEP TECHNOLOGY TRANSFER CONFERENCES **MONTERREY, MEXICO**

CoHemis-NSF Conference on Transportation The Center director has collaborated with the Border Tech-

- Create a permanent technology exchange process.
- Increase technical understanding to an institutional, technical and legal level.
- Improve transportation systems along the border region.
- Strengthen professional and cultural understanding.
- Improve professional and technical aptitude among participants.



This meeting was a first in that it brought together representatives from the Border States and federal governments to discuss success, progress and future of the Border Technology Exchange Program's (BTEP) development of Technology Transfer.

PHOTO GALLERY



The Center's staff welcomes your questions and suggestions. To contact portation Technology Transfer Center, the Center, please send all correspon- College of Engineering, University of dence to the following address:

Puerto Rico. The opinions, findings,

PR LTAP

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Departamento de Transportación y Obras Públicas







Autoridad de Carreteras Y Transportación