Center for Urban Transportation Research
College of Engineering
University of South Florida
Tampa
CUTR

- Established 1988 by Florida Legislature
- Applied research
- Technology transfer / training
- Education
- Multi-disciplinary
- “Real world” experience
CUTR Advisory Board

- John Beck, Esq., Chair
- William McDaniel, URS Corp., Vice Chair
- Denver Stutler, Secretary, FDOT
- Thaddeus Cohen, Secretary, FDCA
- Colleen Castille, Secretary, FDEP
- James Holton, Florida Transportation Commission
- Michael Blaylock, Jacksonville Transportation Authority
- Kimberlee DeBosier, Bayside Engineering
- Roosevelt Bradley, Miami-Dade Transit
- William Sheppard, Transportation Consultant
- Robert Skinner, National Academy of Sciences
- Norman Mansour, Commercial Real Estate
CUTR’s Research Program

- 140+ active research projects
- $8 million in annual research
- 50 full-time research faculty
- 25+ student researchers
Transportation and Growth Management

- Florida Transportation Commission Evaluation of Regional Planning
- FDOT Implementation of SB 360
- FDCA Transportation Concurrency and Impact Assessment
- Florida Transportation Commission Assessment of Growth Management
Comprehensive Assessment of 25 MPO Plans

- Evaluated all aspects of long-range plan documents
- Recommendations resulted in significant improvements to MPO planning process
- Estimated 20-year statewide financial shortfall:
MPOAC Institute

Develop and deliver an on-going training program for MPOs

- Phase I: Identify training needs
- Phase II: Develop/pilot test training
- Phase III: Deliver training
Evaluation of Power Line Motor Carrier Rear Vision System

- Explore the reliability, ease of installation, time-out-of-service and life-cycle cost for vehicles utilizing this technology
- Estimate cost saving from widespread use of video collision avoidance technology

Courtesy of PowerLinx, Inc.
Display Monitor on Dash Board of Truck

Source: PowerLinx Website
Real-time Video Data Collection Using Small Unmanned Helicopters

Deliver an Integrated and Functional Unmanned Helicopter with On-Board Vision System

Sponsor: Traffic Services Division, Hillsborough County Public Works
Identification of Cost Effective Methods to Improve Security at Transit Operating/Maintenance Facilities and Passenger Stations

University Consortium for Intermodal Transportation Safety and Security
Potential for Reserved Truck Lanes in Florida

- Determine Potential for Exclusive Truck Lanes or Truckways in Florida
  - Develop Methodology for Florida Site Selection
    - GIS used to identify priority locations
  - Detailed Evaluation of Selected Florida Sites for Potential Application
- Sponsor - Florida DOT
The Travel Assistant Device (TAD):
A Potential Technology Application
to Assist Transit Riders with Special Needs

Center for Urban Transportation Research (CUTR) &
Computer Science & Engineering (CSE)
“Travel Assistant Device” for Special Needs Riders

- Alarms could be triggered if a rider deviates from their planned route.
- Can use multimedia alarms & reminders:
  - Play a recorded audio message (e.g., parent’s voice).
  - Show a picture/video of the next stop or landmark.
Progress to Date

- Software in development
- Analyzed GPS signal accuracy
- Partnership with USF’s Successful Transition After Graduation for Exception Students (STAGES) and HART to pilot test
- Awarded another grant under Transportation Research Board’s Ideas Deserving Exploratory Analysis (IDEA)
National Center for Transit Research (NCTR)

- Congressional designation in 1991
- $2 million annual funding
- Partnership with FDOT
- Mission: “To enhance the relevance and performance of public transportation and alternative forms of transportation in urban areas”
- Largest concentration of public transportation researchers in a single university in the U.S.
USF Selected as a Tier I University Transportation Center

- CUTR’s National Center for Transit Research prevailed in a national competition of 36 universities for 10 positions as Tier I UTCs
Winners of the Competition

- Georgia Tech
- Iowa State University
- Rutgers, the State University of New Jersey
- San Jose State University
- University of Florida
- University of Idaho
- University of Maryland
- University of Michigan
- University of South Florida
- University of Southern California
Benefits to USF

- Will receive up to $1 million a year for three more years beginning July 2007 from USDOT
- Our tremendous partners at FDOT have provided match
- Allows NCTR at CUTR to continue conducting research, training, and information sharing
SAFE Council

- Legislatively created to recommend airport security enhancements
- Annual Master Plan required
- CUTR has prepared 1\textsuperscript{st} two plans
- Recently approved for Year 3
Tampa International Airport Economic Impact Study

- Part of Airport Master Plan update
- Collaboration across CUTR
- Conservative approach
- $2.54 billion/yr. to Hillsborough, Pasco & Pinellas Counties
National Bus Rapid Transit Institute

- Established by FTA
- USF/CUTR and UC-Berkeley
- BRT typically cost less than light rail
- $1.75 million/year next 4 years
Bus Rapid Transit (BRT)
Transfer of Knowledge Techniques in Use by CUTR

- Streaming presentations
- Listservs (email groups)
- Online courses
- Blogs
- Podcasts*
- Netconferencing (webinars)

* In development
NetConferencing/Webinars

• **Cost Control**
  - Less travel costs and associated downtime for attendees and speakers

• **Scheduling Events**
  - Better opportunity to find time to meet
  - Attract experts more easily as he or she can present remotely

• **Real-time collaboration**
  - More instant feedback
  - Polling
  - Q & A
  - White Board

• **Easy to use**
  - Works through firewalls
  - Requires only computer, Internet and phone
Striving to be the Best: Employer TDM Programs that Deliver Results to Employees and Stockholders Netconference

Sponsored by:
Association for Commuter Transportation
National Center for Transit Research at the University of South Florida

ACT

NCTR at CUTR
Results

- 14 netconferences completed at 20+ locations with 150 to 200 attendees per event
- Streaming recording for next day playback
CUTR Education Program
Education Program Activities

- Oversight of STC Student Program
- Support of student research assistants
- Teaching
- ITE student chapter
- Oversight of Graduate Interdisciplinary Transportation and Transportation Systems Analysis Certificate Programs
- Thesis and dissertation opportunities
CUTR Testimonials

• CUTR is a model center that has contributes within its state and at the same time has developed a national reputation for excellence.
  – Bob Skinner, Executive Director of TRB

• CUTR is rare in the urban transportation field. They have the theoretical knowledge and depth to move the state of the art forward; and they have the practical experience to help the Nation's cities solve real-world transportation problems. I cannot compliment CUTR enough.”
  – Sam Zimmerman, Urban Transport Advisor, World Bank
CUTR Testimonials

Everything I enjoy doing right now as a general manager of a local transit system I owe to my experience of being a student at USF and working with the faculty of CUTR. I couldn’t have asked for a better way to prepare for becoming a director of a local transportation agency.

– Jesus Gomez, Executive Director, Gainesville Transit System

• The diverse opportunities provided through CUTR afforded me wonderful insight into critical transportation issues. I take great pride in applying this knowledge to the challenges I work to address.

– Ben Walker, FDOT District 1 Modal Administrator
Vision

- To earn a national reputation through excellence and innovation in transportation research

- To help USF become a truly prominent national research university