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

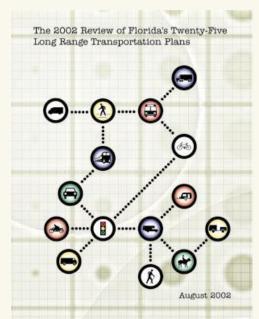
- Florida Transportation Commission
 Evaluation of Regional Planning
- FDOT Implementation of SB 360
- FDCA Transportation Concurrency and Impact Assessment
- Florida Transportation Commission
 Assessment of Growth Management





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:
 - 1997 \$22.3 billion (1995 \$)
 - 2002 \$37.7 billion (2000 \$)







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







Courtesy of PowerLinx, Inc.

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





Display Monitor on Dash Board of Truck





Source: PowerLinx Website

USF

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



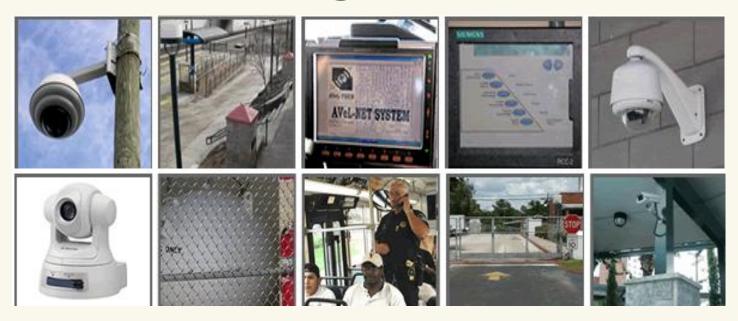


Photo of Helicopter



USF

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



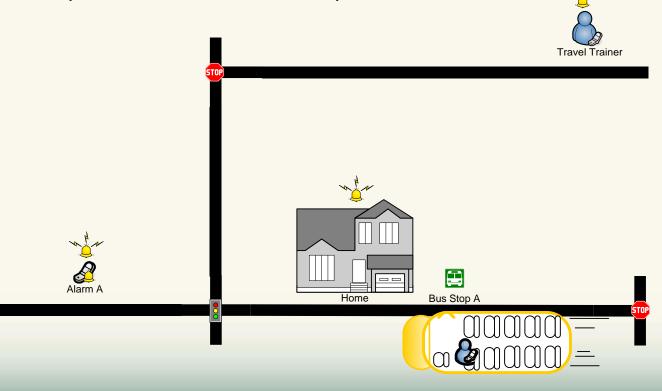
Center for Urban Transportation Research (CUTR) & Computer Science & Engineering (CSE)





"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

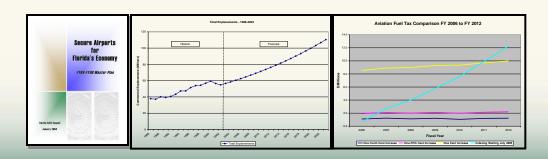






SAFE Council

- Legislatively created to recommend airport security enhancements
- Annual Master Plan required
- CUTR has prepared 1st 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*
- (webinars)



TDM Talk TDM Talk is a group blog

providing an outlet for discussion and debate about programs.

practices, and policies that

management (TDM). This blog

complements the TRANSP-TDN

istsery hosted by the National

Center for Transit Research

(NCTR)'s National TDM and

Telework Clearinghouse at

University of South Florida.

CONTRIBUTORS

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affect the impact of

transportation demand

TUESDAY, SEPTEMBER 26, 2006

In light of today's (Sept. 26, 2006) post on the true cost of driving, consider

without taking into account the need to secure access to oil. US domestic oil

discovery peaked in 1930. US domestic oil production peaked in 1970. In 1994,

the US began importing more oil than we could produce. Each year since 1994

the US has had to import more oil and spend more money to secure the supply

of oil. Andy Singer, a great editorial cartoonist, just came out with a new one

depicting how transportation policy begets energy policy begets foreign policy

Explain Relationship of Increasing Efficiency and

Keeping Traffic Moving and Win \$1,000

o comments

this editorial. In my opinion, the true cost of driving cannot be calculated

True Cost of Driving

What is your take on things'

posted by Chris Hagelin @ 5:55 PM

THURSDAY, AUGUST 31, 2006





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





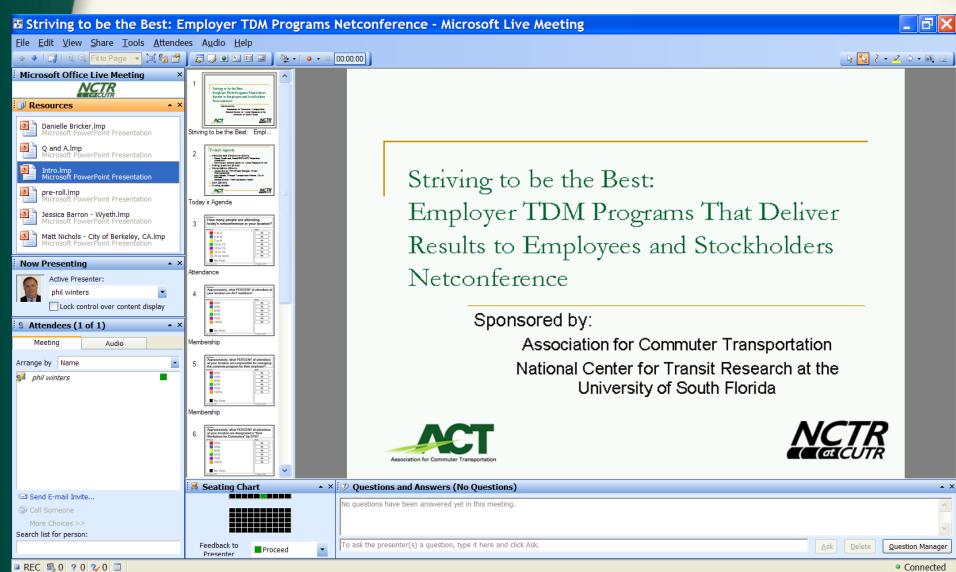


Live Meeting



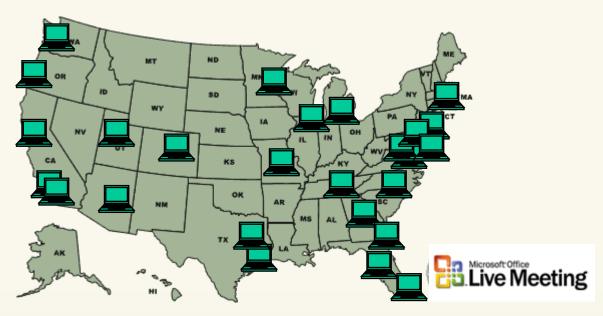


Presenter's View



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









