Iransportation Research Board (TRB)

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2007 National Center for Transit Research GIS in Transit Conference

November 6-8, 2007

USF Embassy Suites Hotel & Conference Center Tampa, Florida







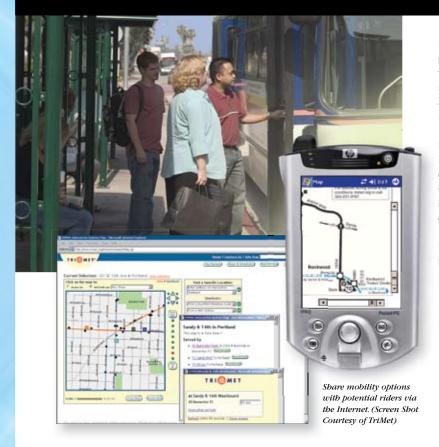
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# **Do Your Current Routes Generate Maximum Ridership?**



For years, retailers have used geographic analysis tools to evaluate the potential demand of proposed retail sites. Now transit planners are using these tools to determine optimal stop and route configurations to maximize ridership. For example, you may want to compare your current routes against employment centers or new retail locations to understand how to increase your existing ridership.

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On behalf of the Federal Transit Administration and the National Center for Transit Research, welcome to the 4th **GIS in Transit Conference** hosted by the Center for Urban Transportation at the University of South Florida. Participants at past conferences were asked how often we should hold this conference. The overwhelming response was that the information provided is so valuable, and the progress being made in GIS applications so substantial, that the conference should be held every two years rather than every three. Hence, we are happy to be able to hold this conference again in 2007.

The value you will receive from this conference will depend not only the information provided in the many presentations you will see, but on the amount of interaction you engage in with your fellow professionals. Please take advantage of this opportunity to network with your counterparts and with industry experts. Thank you for choosing to attend this conference, and please let us know of any way that we may be of assistance while you are here in Tampa.

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Joel Volinski, Director National Center for Transit Research at CUTR



## Tuesday, November 6, 2007

12:00pm-1:15pm	Opening Session Luncheon <i>What Google Brings to Transit</i> —Naomi Bilodeau, Google Transit	Salon F&G
1:30pm-2:45pm	Internet Mapping and Online Trip Planning	Salon A&B
3:00pm-4:30pm	Service Planning	Salon A&B
Nednesday, I	November 7, 2007	

9:00am-10:15am	Census Data Transit Planning (A)	Salon A&B
10:30am-11:45am	Bus Stop Inventory Collection and Management	Salon A&B
10:30am-11:45am	Transit Data Standards	Salon C
12:00pm-1:15pm	General Session Lunch A Cross Between the Twilight Zone and Star Wars? —Lawrence Harmon, GeoGraphics	Salon F&G
1:30pm-2:45pm	Census Data and Transit Planning (B)	Salon A&B
1:30pm-2:45pm	GIS Transit Application Emergency Planning & Preparedness	Salon C
3:00pm-4:15pm	Automatic Passenger Counters (APC)	Salon F&G

### Thursday, November 8, 2007

8:00am-9:15am	Open Sourced and Web-Enabled GIS	Salon F&G
9:30am-10:45am	Transit Modeling Applications	Salon F&G
11:00am-12:00pm	Conference Closing Session	Salon E

Plotting Stop-Level Transit Usage with GIS, Mike Horsting, AICP Principal Planner Lee County Transit

 Uses of APC Data in GIS Analysis of Bus Stop Re-spacing & Consolidation, Steve Lewandowski, GIS Planner, MARTA

## Thursday, November 8, 2007

#### 8:00am-9:15am

**Open Source and Web-Enabled GIS** Moderator: Martin Catala, GIS Manager USF Center for Urban Transportation Research

Salon F&G

Salon F&G

- The System Map: An Interactive, Open Source Approach, Nathan Banks, GIS Data Analyst, TriMet
- Integrating Legacy Intermodal AVL from Transit and Intercity Passenger Services to Real-Time Web Maps and PDAs for Low Cost Customer Information, Lawrence J. Harman, Co-Director, GeoGraphics Laboratory, Moakley Center for Technological Applications, Bridgewater State College
- The Open Source Timetable Publisher–A No-Cost, Low-Overhead Solution for Transit Schedule Publication, Nathan Banks, GIS Data Analyst, TriMet

#### 9:30am-10:45am

**Transit Modeling Applications** 

Moderator: Dr. Steve Polzin, Mobility Program Director USF Center for Urban Transportation Research

- Using Public Transport Potential Maps to Estimate Bus Route Alternatives, Peter van der Waerden, Research Associate, Eindhoven University of Technology
- Using GIS to Model Short Term Transit Ridership Activities-TBEST, Rodney Bunner, Senior Applications Developer, Geo Decisions
- Variable State Space Dynamic Programming Optimization for Transit Stop Spacing Analysis, Maaza Mekuria, PhD Candidate, Northeastern University

#### 11:00am-12:00pm Conference Closing Session

The NCTR GIS in Transit Conference closing session will include discussions of the future of GIS in transit, the implications of Google and Microsoft in transit and the recent developments of open source GIS software. Representatives from the Federal Transit Administration (FTA) will be leading the discussion and discussing FTA's role in the future of GIS in Transit.

## Salon E



## Wednesday, November 7, 2007 (cont'd)

#### 12:00pm-1:15pm **General Session Lunch**

A Cross Between the Twilight Zone and Star Wars?—Lawrence Harmon, Co-Director, GeoGraphics, Moakley Center for Technological Applications, Bridgewater State College, will discuss the current integration and benefits of Google and Microsoft discovering transit.

#### 1:30pm-2:45pm

#### Census Data and Transit Planning (B)

#### Moderator: Joel Volinski, Director

National Center for Transit Research, USF Center for Urban Transportation Research

- Demographic Data in Transit Planning, Kris Bezdecny, Associate Professor, Geography, University of South Florida
- Propensity to Use Transit-A GIS Based Model, Vikas Jain, Planner, Carter & Burgess, Inc.
- Service Planning Using Geospatial Analysis of On-Board Transit Survey Data, Richard Roisman, Program. Manager, TRB Bus Transit Committee; Frank Spielberg, Program Manager, TRB Bus Transit Committee
- 1:30pm-2:45pm **GIS Transit Application Emergency Planning & Preparedness** Salon C Moderator: Amber Reep, Senior Research Associate USF Center of Urban Transportation Research
  - Synergies between NYC Transit GIS and New York City GIS Development, Alan Leidner, Booz Allen Hamilton; Dan McHugh, GIS Director, NYC Transit Authority
  - A Web-Based GIS System for Visualization, Retrieval, and Analysis of Special Population Data, Albert Gan, Associate Professor, Florida International University; Kaiyu Liu, Senior Software Engineer, Florida International University

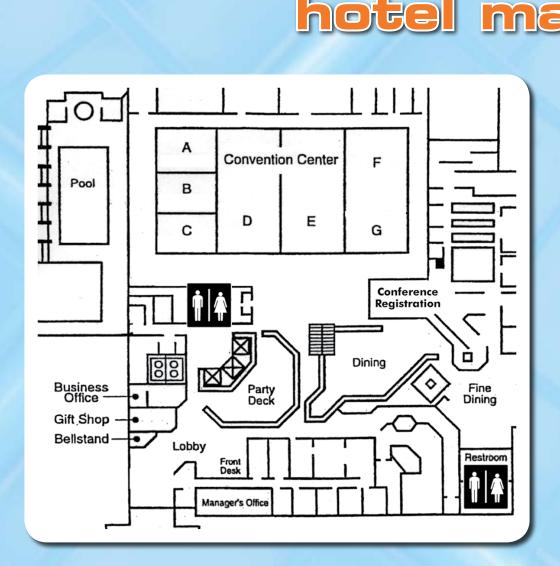
#### 3:00pm-4:15pm

#### Automatic Passenger Counters (APC)

Moderator: Kris Bezdecny, Visiting Instructor, Geography University of South Florida

Salon F&G

Utilizing APC Data Collection for Validation of LYNX Bus Stop Information, Mira Bourova, GIS Analyst, LYNX Planning Department



Salon F&G

Salon A&B

**FIRST LEVEL** 



## Tuesday, November 6, 2007

### 12:00pm-1:15pm Opening Session Luncheon

The opening session will focus on the ever-changing world of geographic information systems (GIS) in transit, particularly *What Google Brings to Transit*. Keynote speakers will include Joel Volinski, Director of the National Center for Transit Research (NCTR), Ed Mierzejewski, Director of the Center for Urban Transportation Research, and representatives from the Transportation Research Board (TRB). Naomi Bilodeau from Google Transit will discuss what Google brings to transit and will specifically discuss the features, challenges, and opportunities of Google Transit. Ms. Bilodeau's presentation will also discuss the requirements for implementing Google Transit at the transit agency level.

# 1:30pm-2:45pmInternet Mapping and Online Trip Planning<br/>Moderator: William P. Morris, Senior Research Associate<br/>USF Center for Urban Transportation ResearchSalon A&B

- Tracking Transit through the Dimensions of Space and Time-Retrospect and Prospect—Conference participants will be treated to a visually-focused presentation on web-mapping through innovation and a demonstration of the historical underpinnings of transit technology.
- Transit 2.0: A New Model for Transit Trip Planning Services, Chinedu Echeruo, CEO, HopStop.com

3:00pm-4:30pm

Service Planning Moderator: Martin Catala, GIS Manager USF Center for Urban Transportation Research

- Bus Service Planning on the Web, Bruce Aquila, Transportation Consultant, Intergraph Corporation
- Using GIS to Restructure San Diego's Transit System, Brent Boyd, Senior Transportation Planner and Anika Smart, Associate Transportation Planner, San Diego Metropolitan Transit System
- GIS as a Data Tool for Transit Network Realignment, William P. Morris, USF Center for Urban Transportation Research
- GIS Techniques for Transit System Planning, Chris Kopp, Senior Associate, Cambridge Systematics, Inc.; Tewjaswi Tharakabhushanam, Senior Professional, Cambridge Systematics, Inc.

## Wednesday, November 7, 2007

#### 9:00am-10:15am

Census Data Transit Planning (A)

Moderator: Dr. Steve Polzin, Mobility Program Director USF Center for Urban Transportation Research

Estimating Service Area Population for Transit, Rick Pascoe, Planner, Tindale-Oliver & Associates, Inc.

- Transit Accessibility Modeling, Santanu Roy, Transportation Planner, HDR; Jason McGlashan, Vice President/Planning Section Manager, HDR
- Identifying Transit Dependent and Choice Riders through Conditional Discrete Choice Models: Influence on Motorized Travel and Walking, Ugo Lachapelle, Urban Planning PhD candidate, University of British Columbia

10:30am-11:45am

#### Bus Stop Inventory Collection and Management

Moderator: Kris Bezdecny, Visiting Instructor, Geography University of South Florida

- Transit Stop Access Management, Michael Haney, Director of Strategic Planning, Reynolds, Smith & Hills, Inc.; Steve Arrington, Director of Strategic Planning, Reynolds, Smith & Hills, Inc.
- Developing a Stand-Alone Mobile GIS System for Bus Stop Data Collection and Maintenance, Albert Gan, Associate Professor, Florida International University; Haifeng Wang, Senior Software Engineer, Florida International University
- Application of Open Source Tools to Transit Data Collection and Processing, Marcelo Gurgel Simas de Oliveira, Director of Software Development, GeoStats; Jesse Cases, Director, NuStats

#### 10:30am-11:45am

#### Transit Data Standards

Moderator: Martin Catala, GIS Manager USF Center for Urban Transportation Research

- Salon C
- A Proposed Standard for Transit Data, J. Allison Butler, Managing Member, MilePost Zero, A Division of Butler and Butler, LLC.
- Transit Standards and the GOS Experience, Mark Bradford, Geospatial Transportation Specialist, Office of Research and Innovative Technology Administration, Federal Transit Administration

#### Salon F&G

Salon A&B

Salon A&B

Salon A&B