



MTF Transit Committee Meeting

February 23, 2005

1:00 PM – 4:00 PM

Orlando, FL

Attendees:

Kevin Feldt, Jacksonville Transportation Authority
Tara Bartee, FDOT Transit Office
Suraya Teeple, FDOT District 2
Shi-Chiang Li, FDOT District 4
Scot Leftwich, Leftwich (representing FDOT District 5)
Phil Steinmiller, FDOT District 6
Danny Lamb, FDOT District 7
Lina Kulikowski, Broward County MPO
Frank Baron, Miami-Dade MPO
Paul Larsen, Palm Beach MPO
Mike Maholtz, Sarasota-Manatee MPO
Mike Neidhart, Volusia County MPO
Xuehao Chu, CUTR
Ram Pendyala, USF
Dave Schmitt, AECOM
Jeanette Berk, API
Keli Paul, Cambridge Systematics
Rob Schiffer, Cambridge Systematics
Ken Kaltenbach, Corradino Group
Fang Zhao, FIU
Mary Ross, Gannett Fleming
John Boyle, RS&H
Dan MacMurphy, Traf-o-Data
Jerry Faris, TSG
Huiwei Shen, FDOT Central Office
Yongqiang Wu, FDOT Central Office
Terry Corkery, FDOT Central Office
Myung Sung, Gannett Fleming
Sung-Ryong Han, Citilabs



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Agenda Item 1: Welcome and Introductions, Kevin Feldt

Kevin Feldt welcomed the transit committee and introductions were made.

Agenda Item 2: Public Transit Office Update, Tara Barte

Presentation: Tara Barte gave an update on recent efforts of the FDOT Public Transportation Office (PTO) with respect to transit modeling.

- A goal of the PTO is to develop more accurate projections resulting in more Federal Transit Administration (FTA) New Starts funds in Florida
- Jim Ryan of the FTA had many comments last year on transit modeling in Florida in regards to whether projects meet their requirements for user benefits
- PTO working with SPO to coordinate transit modeling efforts and to provide Florida communities that want to establish fixed guideway transit with a better chance of success
- PTO is working with SPO on speed and delay study regarding assumptions on transit speeds and their relationships to highway speeds by facility type

Discussion:

- PTO will consider doing a survey on transit service planning and may be able to derive data from short-term operations and service methods to use in the models.
- The MTF was asked to formulate a plan to provide guidance to the MPOs on how to improve models based on transit research. Although it is beyond the PTO's scope, model developers can incorporate findings from the research. The MTF could also come up with boiler-plate scope for MPOs to address data needs based on previous discussions.
- Danny Lamb noted that a similar speed delay study was completed in Tampa a few years ago using GPS units to compare auto and transit times along several corridors of different facility types. Results indicated that some assumptions about highway transit speed curves were wrong. Some facility types had a much smaller difference between transit and auto travel times.

Action items:

- PTO will consider doing a survey on transit service planning
- Develop a boilerplate scope for MPOs to address transit data needs.

Task Assigned:

PTO

MTF

Deadline:



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Agenda Item 3: Transit Research Project Scope of Services, Ram Pendyala

Presentation: “Enhancement of Transit Modeling Methods in FSUTMS: Development of Guidelines for Best Practice,” and “Enhancement of Mode Choice Modeling Methods in FSUTMS: Development of Guidelines for Best Practice,” Presented by Ram Pendyala, USF

- Scope of Services and copies of presentations were distributed at the meeting.
- Due to increasing levels of transit planning in Florida metropolitan areas, the opportunity provided by the conversion to FSUTMS Powered by Cube Voyager, and the Federal Transit Administration’s (FTA) concerns with some Florida transit models, several transit modeling components are evaluated as part of a research project by USF for FDOT Central Office. These transit modeling components include transit network coding and attributes, transit path building, mode choice model and utility equations, transit assignment, and transit performance evaluation reports.
- SPO is working with PTO on a research project with USF to enhance the mode choice modeling:
 - Mode Choice Model Enhancement project - comprehensive examination of mode choice modeling procedures, issues, and data
 - Review best practices in mode choice modeling
 - Develop standards, enhancements, and guidance for mode choice modeling in FSUTMS
 - Specification, estimation, calibration, and validation of mode choice utility equations
 - USF researchers will undertake project with support from several modeling consultants
 - MTF Transit Committee has oversight role
- Mode choice research project deliverables:
 - Tech Memo – Project Study Plan and Detailed Methodology (month 2)
 - Interim Report – Mode Choice Model Structure and Specification (Month 8)
 - Final Report – Results of Entire Study with Standards, Enhancements, and Guidance (Month 12-14)

Discussion:

- Network and pathing issues are relatively easy to address by looking at what tools are available in Cube Voyager. Mode choice models will be more difficult to address, as we will need to reconsider the entire process. Jim Ryan of FTA focused his comments on Florida mode choice models. He also mentioned that our pathing and mode choice steps were inconsistent. The lack of on-board survey data that goes into mode choice was also an issue raised by FTA.
- The FDOT Systems Planning Office (SPO) noted that once funding is obtained, network and pathing issues would also be addressed. In the interim, mode choice will be researched in detail.
- USF is also conducting a parallel research project on the development of standardized survey instruments and mechanisms in Florida, which will be placed on a new website, www.floridatravelsurveys.org. It will consist of a repository of all household travel survey, external



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travel survey, and on-board survey datasets in Florida along with basic analysis of datasets.

- This contract does not include implementation of the recommendation into FSUTMS Cube. The outcomes of the study will be considered by the MTF Transit Committee for incorporation into FSUTMS Cube.
- No additional data will be collected as part of the mode choice research study.
- CTPP, household travel surveys, and on-board travel surveys should all be used to develop mode choice model.
- USF was asked to evaluate the suitability of mode choice outputs for input into TQLOS and coordinate with the PTO.
- If existing data is determined insufficient, MTF and Central Office should be notified immediately to determine if additional data should be collected.
- USF was asked to coordinate with the Data Committee and determine what groups make similar types of trips.

Action items:	Task Assigned:	Deadline:
• Evaluate suitability of mode choice outputs for input into TQLOS and coordinate with PTO.	Ram Pendyala, USF	
• Coordinate with Data Committee and determine what groups make similar types of trips.	Ram Pendyala, USF	

Agenda Item 4: T-Best Presentation, Ram Pendyala

Presentation: “T-BEST Arc 2.1: A Comprehensive Stop-Level Transit Boardings Estimation and Simulation Tool,” FDOT Public Transit Office, 2005, Presented by Ram Pendyala

- Version 2.1 will be released next week on www.t-best.org
- T-BEST estimates the number of boardings at an individual stop defined by route, direction, and time period. T-BEST also differentiates between direct boardings (walk/bike/auto access) and transfer boardings (transit access).
- Other than the Census population, InfoUSA employment, and GDT highway network data already included with the T-BEST software, the only user data required is transit route and stop attribute data by time of day.
- Discussed the methodology used in T-BEST and conducted a demonstration of T-BEST.
- Discussed enhancements to T-BEST 3.0 and 4.0, as listed in the Conclusions section of these meeting minutes.

Discussion:

- Jacksonville T-BEST results were not compared to NERPM travel demand model since T-BEST focuses on short-term improvements. However, T-BEST results were validated at the daily route



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level compared to JTA’s sample APC data. Validation statistics will be included in the User’s Guide distributed next week.

- ArcView part of ArcGIS 9 or higher (\$1,500) is required. T-BEST is free.

Conclusions:

- Enhancements for T-BEST 3.0:
 - Separate AM and PM peak periods
 - Automated calibration and scaling procedures
 - Refined set of equations for estimating boardings
 - Interface with FSUTMS-Cube
 - Enhance stop-level accessibility measure using alternative methodologies
- Enhancements for T-BEST 4.0:
 - Develop sets of equations for different urban area sizes and trip purposes
 - Spatial distribution of boarding to develop stop-to-stop O/D matrix
 - Interface with FTIS to draw up-to-date census, employment, and transit network information
 - Greater sensitivity to route type, technology type, park-n-ride facilities, and special generators

Agenda Item 5: Transit Data Needs

Presentation: Frank Baron, Chairman of Data Committee, discussed transit data needs.

- Participation on the Data Committee was invited
- The need for quality data was discussed, including survey consistency, standardization, and archival.
- Urged MPOs and Regional Planning Councils to make funding for data a higher priority.
- Mr. Baron suggested that the Data Committee make a recommendation on standard data outputs
- The suggestion was also made by Mr. Baron that each dataset include metadata and a glossary
- Non-responses to surveys need to be addressed. What is different about the non-responders and how do we systemically attack that?

Action items:

- Evaluate standard data outputs
- Research characteristics of non-responders to surveys

Task Assigned:

Data Committee
 Data Committee

Deadline:



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Agenda Item 6: Next Steps/Action Items

Discussion:

- The NTI Multimodal Travel Forecasting course will be held in Tampa March 7-9, 2005

Action items:

Action items:	Task Assigned:	Deadline:
• Provide mode choice deliverables to Transit Committee for review	SPO	March 2006?
• Send comments on scopes to Ram Pendyala or Huiwei Shen	Transit Committee	April 1, 2005
• Will need face-to-face meeting around July once have interim deliverables	Transit Committee	August 1, 2005