



# MTF Model Advancement Committee Teleconference

November 24, 2008  
10:00 AM EST

## MEETING NOTES

### Attendees List:

| Name             | Agency/Firm                      |
|------------------|----------------------------------|
| Wilson Fernandez | Miami-Dade MPO                   |
| Danny Lamb       | FDOT District 7                  |
| Elaine Martino   | FDOT District 7                  |
| Terry Corkery    | FDOT Systems Planning            |
| Diana Fields     | FDOT Systems Planning            |
| Vidya Mysore     | FDOT Systems Planning            |
| Bud Whitehead    | Hillsborough MPO                 |
| Ming Ma          | North Florida TPO                |
| Mohammed Hadi    | Florida International University |
| Fang Zhao        | Florida International University |
| Siva Srinivasan  | University of Florida            |

| Name                 | Agency/Firm                 |
|----------------------|-----------------------------|
| Abdul Pinjari        | University of South Florida |
| Keli Paul            | Cambridge Systematics       |
| Tom Rossi            | Cambridge Systematics       |
| Rob Schiffer         | Cambridge Systematics       |
| Krishnan Viswanathan | Cambridge Systematics       |
| Ken Kaltenbach       | Corradino Group             |
| Sunil Saha           | Corradino Group             |
| Mike Neidhart        | Gannett Fleming             |
| Marie-Elsie Dowell   | Parsons Brinckerhoff        |
| Dan Beaty            | PBS&J                       |
| Jerry Graham         | Traf-O-Data                 |

### Welcome and Introduction

- Vidya Mysore, Systems Planning Office, FDOT
- Danny Lamb, MTF Tri-Chair
- Introduced Wilson Fernandez as new Model Advancement Committee Chair

### Activity-Based Modeling Research Findings, *Tom Rossi, Cambridge Systematics*

- PowerPoint presentation available online at [www.fsutmsonline.net](http://www.fsutmsonline.net)
- Discussion items:
  - ABM Report
    - FDOT just received comments on activity-based modeling report from MTF Committee Chairs and will provide to Tom to address shortly.
    - FDOT to distribute ABM report to Model Advancement Committee members for further comments.
    - ABM report will be on the agenda for the MTF Leadership meeting December 15-16, 2008.
    - ABM report will be part of full MTF program in the Spring of 2009.
  - Tampa Bay Regional Planning Model
    - FDOT District 7 is beginning the development of an activity-based model (ABM) for the Tampa Bay region. The model will be developed with the idea of transferring it to other areas in Florida that are interested in transitioning to an ABM.



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- The Tampa Bay Regional Planning Model (TBRPM) is one of the largest scale models in Florida and may be appropriate to serve as a Model Task Force ABM demonstration project.
- Although existing ABMs in the U.S. are run in-house, efforts will be made to reduce the run time and space requirements of the Tampa Bay ABM as it will be run by consultants.
- A working ABM for the Tampa Bay region is expected during the summer of 2010 and it is expected that the last half of the year will be spent tweaking the ABM.
- Demonstration Project
  - Support Tampa Bay ABM as a large area test case and possibly a separate small to mid-size MPO as a second test case.
  - If two test cases, incorporate discussions on flexibility v. standardization.
  - The development of the Tampa Bay ABM is currently funded solely by District planning dollars. If the MTF adopts the Tampa Bay ABM as a statewide priority, as well a separate small to mid-size MPO as a second test case, maybe Central Office can assist with securing research dollars.
  - MTF may decide not to include intra-household interactions which would reduce run times. Tampa Bay ABM will include SOME intra-household interactions. The Columbus, Lake Tahoe, and Atlanta ABMs all include intra-household interactions.
- Transferability
  - There are more data components that require validation in ABMs. One can always take any model and calibrate it to another area and make the statistics look good but it doesn't necessarily show transferability is valid. There is more work to be done.
- Land Use Integration
  - The need to integrate our travel demand and land use models in order to dynamically forecast induced demand as a result of transportation changes on land use and vice versa was discussed.
  - The TASHA model (University of Toronto ABM research model) has integrated land use. Other ABMs work with separate land use models.
  - ABMs lend well to working with integrated land use.
  - The MTF may decide to work with ABM and land use integration in parallel.
- Time-of-Day
  - All ABMs include time-of-day assignment in units of hours or half hours.
  - Anywhere between 3 to 10 time-of-day periods are summed up to get daily results.
  - Difficult to model time-of-day without a tour or ABM (improved accuracy over 4-step modeling).
- Are ABMs better than 4-step models?
  - ABMs are a more accurate way of representing behavior because they are based on the person level, however, implementation can muddle up the results.



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- There has been no rigorous study comparing 4-step models with ABMs yet, however, Chandra Bhat at the University of Texas at Austin is starting one in Ohio.
- ABMs may be better in some cases but not all. Larger areas may find the additional expense worth the improved accuracy. However, smaller areas may not.
- National Household Travel Survey (NHTS)
  - NHTS data can be used for the development of ABMs.
  - The NHTS add-on for Florida is over 50 percent complete for the entire state (7,500 surveys complete).

## **ITS Sketch Planning Tool, *Dr. Mohammed Hadi, Florida International University***

- PowerPoint presentation available online at [www.fsutmsonline.net](http://www.fsutmsonline.net)
- Discussion items:
  - FIU will complete the software and guidebook for the ITS sketch planning tool in one month and will provide to Citilabs for inclusion as an extension in Cube.
  - FIU will provide the draft guidebook and software to Doug Sallman, Cambridge Systematics (CS) and the Federal Highway Administration (FHWA), for review prior to submitting to Citilabs as they can inform FIU and FDOT of where the Intelligent Transportation System (ITS) Deployment Analysis System (IDAS) tool is now in regard to its capabilities.
  - Current ITS sketch planning tool uses old Mobile6 emission factors to calculate emission reductions. Emission factors will need to be updated for newly designated ozone nonattainment areas.

## **Model Advancement Committee Priorities**

- Support Tampa Bay ABM as a large area test case and possibly a separate small to mid-size MPO as a second test case.
- Identify incremental improvements to existing 4-step models as it could be 18-24 months before the Tampa Bay ABM is complete.

## **Next Steps**

- MTF Leadership Meeting is scheduled for December 15-16, 2008 in Orlando (includes tri-chairs and each committee chair).
  - Each committee chair will present their respective committee priorities for discussion.
  - MTF Leadership will establish MTF priorities for the next 2-3 years.
- Next full MTF meeting in early 2009.

## **Action Items**

- FDOT to compile list of all committee priorities based on their respective teleconferences and submit to committee chairs for review prior to December 15-16 MTF Leadership meeting.
- FDOT to distribute ABM report to Model Advancement Committee members.