# Meeting Notes:

MTF Transit Committee Meeting Teleconference

Meeting notes by Heather Lupton, AECOM

**Action items in bold**

Attendees:

|  |  |
| --- | --- |
| Scott Seeburger, FDOT District 4  Gabe Matthews, FDOT Central Office  Frank Tabatabaee, FDOT Central Office  Terry Corkery, FDOT Central Office  Chris Wiglesworth, FDOT Central Office  Bob Crawley, FDOT District 1  Min-Tang Li, FDOT District 4  Sarah McKinley, Hillsborough MPO  Bud Whitehead, Hillsborough MPO  Bolivar Gomez, Martin MPO  Ken Kaltenbach, Corradino Group | Sung-Ryong Han, BCC Engineering  Steve Polzin, USF/CUTR  Steve Ruegg, Parsons Brinkerhoff  Hoyt Davis, Gannett Fleming  Jerry Graham, Traf-O-Data  Dan Macmurphy, Traf-O-Data  Sheldon Harrison, Cambridge Systematics  Tom Rossi, Cambridge Systematics  Michael Escalante, NCFRPC  Ashutosh Kumar, AECOM  Heather Lupton, AECOM |

Scott Seeburger began the meeting. – 11:01am

## Item 1: Future Vision for Transit Modeling

* The objective of this meeting is to prioritize research and development topics that the Committee thinks the Model Task Force (MTF) should pursue. These topics were requested by the Tri-Chairs. The topics will be discussed at a MTF leadership meeting at the end of August.. General comments regarding research topics:
  + GTFS Networks
    - Networks are used as input and output for TBEST and STOPS. The Committee has discussed using GTFS data to construct and update FSUTMS transit networks.
  + Trip Purposes for Period Assignments
    - Transit work trips are currently less than 20% of all travel.
    - Approximately less than 40% of transit travel.
    - Need to be careful about putting too much stock in building behavior-based modeling for work-based commuting.
    - FSUTMS trip-based models use only home-based work trips to develop peak period trip tables and not all for off-peak tables.
  + STOPS
    - Caution for areas that are growing dramatically.
      * Based on 15 year old data.
      * Network development is onerous and incompatible with existing FSUTMS networks. Editors and visualizers are needed.
    - FTA is pushing STOPS as we go into the future.
      * You would want to use STOPS as well as your regional model.
        + Use each tool for different parts of the process.
        + Use STOPS to determine alternatives and once they’re narrowed down to a few, plug them into the regional model.
      * The advantage being that they have already pre-approved the model, unlike regional models that require validation and need to be approved/accepted by FTA.
    - STOPS may be a parallel track to improvement of the model.
      * There are times where STOPS is not the tool to use.
      * There are some over-simplifications in models (ex. peak vs. non-peak periods, average headways, special trip purposes, etc.).
  + Autonomous Vehicle Forecasting
    - The future of autonomous vehicles and the need and approach to model their effects should be addressed.
    - At a minimum, need to at least form an articulate response as to why the issue is or isn’t being addressed.
    - As a whole, it’s something that needs to be put in front of the Tri-Chairs.
    - Needs to be analyzed through research to determine the impact of these vehicles.
    - There are some individuals that are now trying to build these vehicles into a new mode choice option.
    - The data for the last mile to/from transit may change from these vehicles.
    - In terms of modeling, you’d need to calculate a percent saturation of the market for these vehicles.
    - May have an impact on capacity.
    - The committee should stay up to speed on the state of autonomous vehicles and their potential impacts and what the future direction should be and when to embark on it.
  + PNR/KNR
    - Bike access is not often addressed, but is currently growing.
      * Many systems have the ability to put your bike on the transit system, which increases the catchment area for transit.
    - Need to look at the difference between bike sharing and being able to take your bike onto the transit system.
    - Models that use the traditional straight-line method to determine TAZ-to-lot times and access points to transit should incorporate actual network times.
  + Should we forward additional enhancements to trip-based model processes beyond the Transit Model Update (TMU) improvements?
    - The TMU improvements have not been widely adopted around the state.
      * Is more promotion needed?
    - Currently many tools is use for transit modeling.
    - Need to incorporate more enhancements into the model.
    - Also need to help districts and MPOs implement the model.
  + Modeling of Transit Reliability Measures (TSP, Q-Jumpers)
    - It is important to assess, but currently there are other topics that are of a higher priority.
  + Fares
    - Is looking at student/senior trips asking too much of the model?

**Action Item:**

* **Scott Seeburger will modify the list of research topics based on this discussion (see below).**
  + **Will then send modified list to committee members to provide feedback on the updates.**

Meeting adjourned – 12:00pm

**FUTURE DIRECTIONS FOR TRANSIT MODELING**

**(DRAFT SUMMATION OF PRIORITIES)**

1. **GTFS-FSUTMS Transit Networking and Pathing**

A priority of the MTF should be the development of processes to integrate GTFS data into FSUTMS transit networking and path building. In addition, processes should be developed to enable conversion of transit network data between software platforms.

GTFS provides a ready source of transit system data available in many urban areas. These data are updated periodically and can economize the updating of base year transit networks and creation of build networks.

The growing use of STOPS for transit projects in Florida emphasizes the need for tools to facilitate network editing and conversion. TBEST data available in many areas of the state and adapted to FSUTMS TAZ zone systems could be converted for STOPS purposes. Also, as experience grows in the use of STOPS on projects, it is likely that both STOPS and FSUTMS models will be needed for project planning and justification purposes.

Pathing description needed here

A problem statement should include conversion of network data between platforms, assessment of capabilities of commercial editors and visualizers for adaption to STOPS and FSUTMS data editing requirements, licensing of commercial editors, issues with integrating FSUTMS highway network with GTFS, converting GTFS to FSUTMS INET formats versus adapting path builders/skimmers to process GTFS directly, specification data needed for FSUTMS that is not included in GTFS, conversion of TBEST to STOPS, conversion of between STOPS and FSUTMS.

1. **Model Process Advancement**

The Transit Model Update project developed recommended methodologies and processes to advance FSUTMS trip-based models to the then current state of the practice. These recommendations addressed improvements to the entire model stream and could improve the performance of both highway and transit modeling processes. Two issues are 1) the recommended improvements have not been widely disseminated and encouraged for incorporation into urban and regional models throughout the state, and 2) there is still a need to improve on model processes, particularly for trip-based models that may be used. These improvements include:

* 1. Download appropriate ABM processes into the trip-based models
  2. Effective methodologies for modeling express toll lanes particularly transit in express lanes
  3. Expand the capabilities of Tier A/B/C models to address more than only peak and off-peak periods and be consistent with at least the four-period highway assignment
  4. More realistically handling of transit mode split and assignment by expanding the trip purposes used to develop peak period (more than only HBW) and off-peak trip tables (include HBW)
  5. Add the capability to test alternate hours of services for transit services
  6. Add composite impedancing (or probabilities) to distribution and add feedback capabilities in any effective way that does not add days to run times
  7. Consider improving the handling of fares to be sensitive to important markets (students, seniors) that are consistent with trip generation classifications
  8. Investigate reducing the segmentation in the mode split model based on FTA comments

1. **STOPS**

A growing need in the state is for advancing the knowledge in the use of STOPS. Interest and use of STOPS has accelerated since its first release last year. FTA is making periodic refinements to the software and informed modelers at the 2014 MTF meeting that the agency is ready to assist in education STOPS users. Work is being organized for BRT projects and potential users are now focusing on learning about STOPS use and application.

1. **EMERGING TECHNOLOGIES**

The MTF should assess the potential need to include emerging technologies in Florida modeling processes by keeping abreast of the current thinking on its future growth and effects on travel, what methodologies are being thought about and developed, and learning from possible practitioners that have begun introducing methodologies in working or research models. Autonomous vehicles, UBER services, bicycle access, and car-sharing services might have potentially significant ramifications to roadway capacity, parking demand, last-mile convenience for transit users, cost of travel, dispersion of development, and other issues.