



Full Model Task Force Meeting

December 5-7, 2012
Orlando, FL

MEETING NOTES – December 6, 2012

Tri-chair Welcome/Meeting Objectives

Tri-Chairs

- All PowerPoint presentations are now available online at www.fsutmsonline.net
- Discussion items
 - Danny Lamb (FDOT D7) mentioned that there were three major things to think about: Activity based models (ABM), Freight model update, and travel surveys program. Also, there is a need to think about election of a new tri-chair since Larry Foutz has resigned. The new tri-chair can be from a MPO or DOT.

Action Items

- None

GIS Committee Update

Nellie Fernandez, Palm Beach MPO

- All PowerPoint presentations are now available online at www.fsutmsonline.net
- Discussion items
 - Dan MacMurphy (Traf-o-Data) asked if procedures were discussed for future roadways as part of MIXS? Nellie mentioned that it was not discussed yesterday but Ilir Bejleri (UF) can expand more on it at a GIS committee meeting.

Action Items

- Vote on GIS Committee resolution.

Data Committee Update

Gary Kramer, West Florida RPC

- All PowerPoint presentations are now available online at www.fsutmsonline.net
- Discussion items
 - Denise Bunnewith (North Florida TPO) commended the committee for the tremendous amount of work done. Need to look at the long term on how to have sufficient data.

Action Items

- None

Transit & Rail Committee Update

Scott Seeburger, FDOT D4

- All PowerPoint presentations are now available online at www.fsutmsonline.net
- Discussion items
 - Scott Seeburger (FDOT D4) mentioned that the committee are organizing themselves. Keeping the membership list up to date. Get transit properties represented on the committee. Put a list of presentations and started with a discussion of setting up a transit data library. Min-Tang Li (FDOT D4) gave a presentation of the various South Florida transit properties to get the data together. FDOT D5 has put together TransMap which is has transit reporting capabilities.



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- Scott Seeburger (FDOT D4) also appraised the meeting of the committee deliberations from Dec 5, 2012 and mentioned there is likely to be a white paper on deployment of the updated transit model and data needs for the same.
- Scott Seeburger (FDOT D4) suggested a new 3C process (Communication, Coordination, Cooperation) between various committees to understand what each committee is doing and see areas for collaboration, and cooperation.

Action Items

- Committee to decide how to incorporate T-BEST with FSUTMS
- Committee to decide strategies on how best to implement transit model updates.
- Next meeting in February/March

Advanced Traffic Assignment Subcommittee

Wilson Fernandez, Miami Dade MPO

- All PowerPoint presentations are now available online at www.fsutmsonline.net
- Discussion items
 - Wilson Fernandez (Miami-Dade MPO) was representing Neelam Fatima (St. Lucie TPO) who could not make the meeting.
 - Wilson Fernandez (Miami-Dade MPO) mentioned unanimous support for integration of DTA into FSUTMS. Great tool to bridge the gap between microsimulation and FSUTMS.
 - Wilson Fernandez (Miami-Dade MPO) gave an overview of the managed lane study done by PB. Completed phase 1 and reviewed by the subcommittee and after the discussion recrafted the resolution. Not yet up to speed with all the demand that is out there. The subcommittee's charge is to regroup in 60 days and take a look at the methodologies that will work for managed lanes.
 - Wilson Fernandez (Miami-Dade MPO) also talked about the speed/capacity work that has been by FSU and the committee is dealing with how to adjust volume-delay functions and the corresponding data needs.

Action Items

- Vote on DTA and Managed lanes resolutions
- Regroup in 60 days to determine the methodologies/case studies for managed lanes.

Advanced Model Structure Subcommittee

Milton Locklear, North Florida TPO

- All PowerPoint presentations are now available online at www.fsutmsonline.net
- Discussion items
 - Siva Srinivasan (UF) gave a presentation on how to move forward with ABM for non-urbanized area. North Florida, Tampa, and South Florida are building ABMs and expect it to be completed early next year on those models.
 - Some of questions when moving to ABM for smaller areas – Why do we need it? Do we need detailed land use data for ABM? And whether new software was needed?
 - Moving to ABMs helps get more accuracy for NHB trips. In terms of data and software, it was mentioned that existing data can be used and the methods will be incorporated into CUBE.
 - Mike Escalante (Gainesville MPO) expressed concerns about data especially wrt MAP21 performance measures requirements.

Action Items

- None



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Managed Lanes Phase 1 Resolution

Wilson Fernandez, Miami-Dade MPO

- All PowerPoint presentations are now available online at www.fsutmsonline.net
- Discussion items
 - Wilson Fernandez (Miami-Dade MPO) presented the draft resolution.
 - Scott Leftwich (Leftwich Consulting) asked what is a reasonable runtime? Wilson mentioned that having a one size fit all may not work. Scott Leftwich (Leftwich Consulting) followed up with a question asking what would be considered reasonable in Miami? Wilson responded that it needs to be evaluated on a case by case basis and then decide when it is not viable. Shi-Chiang Li (FDOT D4) mentioned that run time is not an issue now. Jeannette Berk (API) chimed in that it will be tough to make a decision now since technology changes. Danny Lamb (FDOT D7) mentioned that it would depend on software enhancements and that it will evolve to be useful to policy makers. An audience member remarked that lot of consultants are required to do quick runs and it is necessary to make sure that it runs fast enough to meet client needs. Wilson Fernandez (Miami-Dade MPO) mentioned that it is necessary to be cognizant but not focus too much on the run time issues.
 - Dennis Hooker (Metroplan Orlando) mentioned that managed lanes are the future and capacity expansions are not going to happen. Therefore, there is a need to start the process soon.
 - Jeanette Berk (API) asked clarification for what happens if there is no single standard to cover the various managed lanes treatments. Wilson Fernandez (Miami-Dade MPO) mentioned that there was a lot of discussion about the tools and trying to make sure that we have the tool that would best address the needs for evaluating managed lanes. The paramount importance is to have a tool now so that we can address the needs of policy makers to endorse with the backing of various case studies. At this point it will be one standard and will be flexible enough to support various managed lanes treatments.
 - Vidya Mysore (FDOT CO) mentioned that the DOT is pushing towards developing a managed lanes policy. The direction is to have a consistent practice but that does not mean not to have various options. He suggested the MTF analyze the work done by PB and make sure that the community has confidence in the methods developed.
 - Mike Escalante (Gainesville MPO) mentioned that there is a lack of clarify and whether it covers both 4 step and ABM? Steve Ruegg (PB) said that phase 1 works in the context of a trip based approach but since it is assignment based it can be applied within an ABM context.

Action Items

- Dennis Hooker (Metroplan Orlando) moved to adopt the motion. Ken Kaltenbach (Corradino/SE Florida Model Users Group) seconded the motion. The resolution was passed unanimously.

Dynamic Traffic Assignment Resolution

Wilson Fernandez, Miami-Dade MPO

- All PowerPoint presentations are now available online at www.fsutmsonline.net
- Discussion items
 - Thomas Hill (FDOT D2) suggested that we replace "will not replace static models" and have it as "is not intended to replace static models". Denise Bunnewith (NFTPO) mentioned that the community is moving towards DTA.



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- Jeannette proposed amending the resolution it to change it from **not replace** to **not intended to**

Action Items

- Jeannette Berk (API) proposed the motion and Dennis Hooker (Metroplan Orlando) seconded it. The amended motion passed unanimously.

Land Use Subcommittee Resolution

Wade White, Whitehouse Group

- All PowerPoint presentations are now available online at www.fsutmsonline.net
- Discussion items
 - Dennis Hooker (Metroplan Orlando) clarified that the original FLUAM was developed by Metroplan Orlando.
 - RSG developed Turnpike land use allocation model was integrated fully into FSUTMS (new FLUAM).
 - LandSys could not be integrated fully into FSUTMS w.r.t. the mechanics of the software design.
 - New FLUAM has user interface that is functional and tested on actual projects.
 - Jeanette Berk (API) asked how good were the results. Wade White (Whitehouse Group) clarified that it did not do it exactly as advertised but the differences were minimal.
 - Terry Corkery (FDOT CO) mentioned that it was just information update and not an action item that needed resolution.
 - Terry Corkery (FDOT CO) mentioned that this came about based on a needs of a survey of model users. FDOT CO is going to expand the development of the tool and hopefully have an update at the next MTF.
 - Denise Bunnewith (NFTPO) asked if it can do alternate scenarios and how easy to do it. Wade White (Whitehouse Group) mentioned that it can do so and the ease of use depends on the alternative. Both provide adequate framework but more work is needed to make it policy sensitive.
 - Elaine Martino (FDOT D7) asked for clarification as to why the need for both new FLUAM and LandSYS. Wade clarified that new FLUAM is more implementable but LandSYS is more theoretical and suggested going with both and trying to extract the best features of each.
 - Steve Lawe (RSG) mentioned that there is value in training and documentation of these models and there is slightly different approach than traditional transportation models.
 - Thomas Hill (FDOT D2) mentioned that it was done when the models were static and how does it work with larger datasets and ABM. Wade mentioned that new FLUAM and LandSYS are more traditionally based but all output can be integrated into ABMs.
 - Jeannette Berk (API) asked if it made a difference based on geography? New FLUAM is acting on a zonal level, LandSYS is operating on a user defined level, and CommunityVIZ is operating at the parcel level data. New FLUAM can be done at the parcel level data. Dennis Hooker (Metroplan Orlando) mentioned that original FLUAM works on parcel level and LandSYS did not have a specific geography. And he needed documentation on how it worked.
 - Steve Lawe (RSG) clarified that the FLUAM mentioned here is the one built for the turnpike and not the one developed by Metroplan Orlando. The design is the need to be consistent with the statewide model and available at the TAZ level.
 - Scott Seeburger (FDOT D4) mentioned that the name be changed to from FLUAM to Turnpike Landuse model.



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- Danny Lamb (FDOT D7) mentioned that it might be worth taking a look at the original FLUAM.
- Terry Corkery (FDOT CO) clarified that LandSYS was based on Metroplan's FLUAM.
- Mike Escalante (Gainesville MPO) wondered if there is a need for action on adopting a resolution about the designated statewide landuse model.
- Jeannette Berk (API) asked if Dennis Hooker (Metroplan Orlando) had tested LandSYS. Dennis Hooker (Metroplan Orlando) said he did not have a clear understanding of how it works. Wade White (Whitehouse Group) mentioned that LandSYS used Metroplan data for estimation and is a land cover model which is cellular automata based.
- Danny Lamb (FDOT D7) asked for clarification on the scope of work? Wade White (Whitehouse Group) clarified that it was to test and evaluate the various land use models.
- Vidya Mysore (FDOT CO) mentioned that there are plenty of land use models and he said that the direction to the research team was to take a look at what is done within the state and take it from there. There is room to grow and limited budget to evaluate new FLUAM in depth.
- Dennis Hooker (Metroplan Orlando) suggested that a white paper be put out on what has been done to date.
- Vidya Mysore (FDOT CO) asked for suggestions to be sent to Terry Corkery (FDOT CO). Terry mentioned that adopting new FLUAM and enhancing it for the statewide model. And in the future have more models.
- Thomas Hill (FDOT D2) asked if land use allocation is based on large zones and not at the parcel level. So how does it impact ABM?
- Dennis Hooker (Metroplan Orlando) commented that FLUAM is a strictly trend based model. But if looking at smart growth scenarios they are not looking only at FLUAM but also expert judgment.

Action Items

- White paper summarizing the work done.
- New name for land use tool.

GIS Committee Resolution

Nellie Fernandez, Palm Beach MPO

- All PowerPoint presentations are now available online at www.fsutmsonline.net
- Discussion items
 - Nellie Fernandez (Palm Beach MPO) suggested putting project information on FSUTMSONLINE and asked how it is disseminated.
 - Dennis Hooker (Metroplan Orlando) suggested that MTF identify what the standard should be. Dennis Hooker (Metroplan Orlando) mentioned a tool developed as post processor that takes jobs and housing as input and shows changes to travel time.
 - Nellie Fernandez (Palm Beach MPO) mentioned that the resolution is to encourage sharing of information across the state.
 - Dennis Hooker (Metroplan Orlando) mentioned that there should be a push towards post processors that use the outputs of the models.

Action Items

- Scott Seeburger (FDOT D4) proposed to adopt the motion and Paul Larson (Palm Beach MPO) seconded it. The resolution was adopted unanimously.



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SERPM Model Update

Rosella Picado, PB

- All PowerPoint presentations are now available online at www.fsutmsonline.net
- Discussion items
 - Tom Rossi (CS) asked if other models were being reestimated? Rosella Picado (PB) mentioned that for the other models it will be transferred from San Diego because of sample size issues.

Action Items

- None

Jacksonville & Tampa Bay Model Update

John Gliebe, RSG

- All PowerPoint presentations are now available online at www.fsutmsonline.net
- Discussion items
 - Mike Escalante (Gainesville MPO) asked if there was any type of stratification done to the ACS to populate the synthetic population. John Gliebe (RSG) said that sampling is from PUMS data. The population is stratified by household size, workers, age. Mike Escalante (Gainesville MPO) followed up with whether any ground truthing done to the data? John Gliebe (RSG) said that the agencies did an extensive review of the data and found it acceptable. Denise Bunnewith (NFTPO) mentioned that the data analysis was similar to a Zdata review.
 - Mike Escalante (Gainesville MPO) also asked if they did any transit analysis. John Gliebe (RSG) mentioned that it is part of the wishlist.
 - Dan Morgan (Caliper) asked how productive was the model in terms of running time. Rosella Picado (PB) mentioned that for the base year runs, so far it is working as expected. John Gliebe (RSG) mentioned that they are the middle of the calibration phase.
 - Srinivas Varanasi (Corradino) asked if the SHRP2 C10 project report is available? John Gliebe (RSG) mentioned that the project is complete and the final report is being written. Vidya Mysore (FDOT CO) mentioned that the final report is being reviewed now.
 - Dennis Hooker (Metroplan Orlando) asked if the synthetic population stratified by household income? John Gliebe (RSG) clarified again that sampling is done from PUMS data and has a structure similar to household and person file from a household survey data.
 - Wonghoo Lee (JTA) asked if Daysim covers similar steps to a 4 step model. John Gliebe (RSG) said that the models predict activity and tour patterns and has similarities to a trip based model.
 - Wonghoo Lee (JTA) also asked if RSG established any new standards for validation/calibration. John Gliebe (RSG) answered that they were validating to the same counts as in a 4 step model.
 - Wonghoo Lee (JTA) asked if the data was sufficient. John Gliebe (RSG) said it was not as adequate as expected.
 - Sue Faulkner (Collier MPO) was not sure about the data for the daily activity patterns? John (RSG) said that the tours are processed from the survey trip data.

Action Items

- None



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ABM Survey Discussion

Steve Ruegg, PB

- All PowerPoint presentations are now available online at www.fsutmsonline.net
- Discussion items
 - None

Action Items

- None

ABM Expert Panel Discussion

Tom Rossi (CS), Steve Lawe (RSG), Bill Davidson (PB)

- All PowerPoint presentations are now available online at www.fsutmsonline.net
- Discussion items
 - Mike Escalante (Gainesville MPO) said that mode choice was determined by auto ownership. It does not identify the transit coerced. How is ABM addressing these concerns. Tom Rossi (CS) mentioned that ABM will not solve all the problems. However it can include a lot more information. Specific to parking, it is possible to include parking in the models and using a time of day component will make it easier to estimate. Steve Lawe (RSG) mentioned that ABM can track trips and not lead to illogical trip chains. Steve Lawe (RSG) also mentioned that we do trip generation around land use and the TAZ has no parking available it is possible to represent constraints on both ends (costs and availability of parking).
 - Ken Kaltenbach (Corradino) said that he had built 4 step models with parking constraints.
 - Dan MacMurphy (Traf-o-Data) asked if there is a temptation to microcode the data since parcel data is available? Bill Davidson (PB) said that it is necessary to represent the supply side as much as the demand side. ABM can do a better job of assigning transit demand. Tom Rossi (CS) mentioned that it is better to use disaggregate and small changes can have big effects.
 - Shi-Chiang Li (FDOT D4) asked about intra-household interactions? Tom Rossi (CS) mentioned that there is tradeoff between intra-household affects and incorporating these things lead to costs in terms of data, run time etc. The question is what are you trading off and what are trying to achieve. Bill Davidson (PB) mentioned that children are the most important members of the household as there are a lot of escort trips.
 - Dan MacMurphy (Traf-o-Data) asked about the level of effort and run time involved to calibrating tours. Bill mentioned that it is necessary to spend more or as much time in calibrating and validating models as estimating the models. ABM requires more careful attention. Steve Lawe (RSG) said that run time comparisons don't make sense since the results and time periods are different. Tom Rossi (CS) mentioned that it is necessary to validate every component of the model and more work to validate the model since the model is sensitive to more parameters. To take an example, ABM can help with distributed values of time to distinguish between identical persons who have different policy scenario responses.
 - Krishnan Viswanathan (CDM Smith) asked about the validity of transferring parameters and what does the research indicate. The panel indicated that in terms of transferability it is a hard question to answer and more research is needed. Model parameters are best transferred when most of the work is done by the structure and because more richer description of modules is available then it is easier to transfer parameters.
 - Scott Seeburger (FDOT D4) asked for insights on transit riders on the home end but also how to get a good handle about transit use and feel confident about the numbers. Bill



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Davidson (PB) said that it is about data and FTA is trying to do a good job about before and after studies and mentioned a study where the HBW trips were as predicted but NHB trips were off. New on-board survey techniques allow better understanding of riders. Scott Seeburger (FDOT D4) mentioned that his need was to understand choice riders better at the home end. Steve Ruegg (PB) said that we need a better handle on understanding travel behavior and be able to distinguish between different travel markets. Tom Rossi (CS) mentioned that the bad side of using ABM for understanding transit side since the data is inadequate from a tour point of view. The good side is that we can put more information in the model and allows for finer grained control in the model.

- Shi-Chiang Li (FDOT D4) asked if anybody done a survey of choice riders in transit on-board surveys? Bill Davidson (PB) mentioned that there have been attempts to do it but the response rate was not adequate.
- Scott Leftwich (Leftwich Consulting) asked if the validation results are better from ABM. Tom Rossi (CS) mentioned that having various market segments allows for disaggregate validation. Also more sensitivity testing can be done for ABMs. In an ABM we are more likely to get the right results for the right reasons. Bill Davidson (PB) mentioned that MTC has a white paper comparing ABM and trip based models.
- Dan MacMurphy (Traf-o-Data) asked if you can do a subarea study with an ABM. Bill Davidson (PB) mentioned that it can be easier to run a small sample of households to get the desired results. Scale is not really an issue and run times are not an issue. Steve Lawe (PB) mentioned that it might be better to run the model multiple times and get a distribution of results around an easily explained variable. It is critical to represent uncertainty.
- Dan MacMurphy (Traf-o-Data) also asked if you can use the data to go into DTA? Steve Lawe (PB) mentioned that it is possible because you can use the disaggregated results and feed them directly into DTA.
- Srinivas Varanasi (Corradino) asked if there is any effort to get stable results and forecasts seem to fluctuate between managed and general purpose lanes. He also mentioned that post processing efforts are resource intensive to get stable results. The panel mentioned that they have found there are fewer iterations between demand and supply in ABM than a trip based model. The supply side is much more difficult and more research is needed on how supply side characteristics influence travel behavior. The panel mentioned that ABM models produce similar base year results as from a trip based model but hopefully the results are better because the trip tables were developed after taking how person and travel characteristics influence travel behavior into consideration.

Action Items

- None

Tri-Chair Nominations

Danny Lamb, FDOT D7

- All PowerPoint presentations are now available online at www.fsutmsonline.net
- Discussion items
 - Wilson Fernandez (Miami-Dade MPO) was nominated by Dennis Hooker and seconded by Paul Flavien (Broward MPO).
 - Nellie Fernandez (Palm Beach MPO) was nominated by Andrew Tyrell (FDOT D7) but she declined the nomination.

Action Items

- Wilson Fernandez (Miami-Dade MPO) was elected unanimously.



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Freight Plan Update & Discussion

Juan Flores, FDOT CO

- All PowerPoint presentations are now available online at www.fsutmsonline.net
- Discussion items
 - Vidya Mysore (FDOT CO) gave an overview of the importance of freight.
 - Juan Flores (FDOT CO) gave an overview of the freight development plan and suggested www.galogistics.com as a model for the virtual logistics hub.
 - Pamela Richardson (Sumter County MPO) asked about the brochure and what are the sources of the data. Vidya Mysore (FDOT CO) answered that it was obtained by working with DEO and local chambers of commerce. Juan Flores (FDOT CO) said that representatives loved the concept of the freight brochure.
 - Alex Trauger (Metroplan Orlando) commented that commodity information is available for public consumption.

Action Items

- None

Statewide Multi-modal Freight Model

Colin Smith, RSG

- All PowerPoint presentations are now available online at www.fsutmsonline.net
- Discussion items
 - Vidya Mysore (FDOT CO) mentioned that the regional model is not the focus at the moment. He suggested that the MTF communicate with other freight plans and how it can inform the regional models.

Action Items

- None

Freight Data Issues & Discussion

Abdul Pinjari, USF

- All PowerPoint presentations are now available online at www.fsutmsonline.net
- Discussion items
 - Vidya Mysore (FDOT CO) mentioned that it is not yet possible to get ATRI data to agencies. Sunshine state laws prevent data from being given to agencies. The workaround is to work with contractors to get the appropriate information to agencies.
 - Shi-Chiang Li (FDOT D4) asked what the resolution of the TAZ in the statewide model. Vidya Mysore (FDOT CO) mentioned that statewide model TAZ structure is an aggregation of regional models. Shi-Chiang Li (FDOT D4) asked if the data is being used to validate the statewide model. Vidya Mysore (FDOT CO) mentioned that it is a source for validation.
 - Mike Escalante (Gainesville MPO) asked if there is any freight modeling training in the future? Vidya Mysore (FDOT CO) mentioned that it will be based on need. Mike Escalante (Gainesville MPO) also asked if MAP-21 requirements for freight are any different from SAFETEA-LU. He mentioned that as part of the LRTP process, the MPOs are required to outreach to freight shippers and transit operators. The MPOs do the outreach but never hear from freight shippers. He asked if the statewide freight office will coordinate outreach with freight shippers. Vidya Mysore (FDOT CO) mentioned that it depends on which freight player needs to be contacted.
 - Denise Bunnewith (NFTPO) suggested that it might be better to go to freight shippers rather than expect them to come to the MPO.



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Vidya Mysore, FDOT CO

- Vidya Mysore (FDOT CO) gave an overview of the usage and availability of Transearch data in the state. Transearch is not able to provide certain elements but needs to be blended. The department focus is to get data and enhance it.
- Vidya Mysore (FDOT CO) suggested that the MTF consider using the FAF
- Denise Bunnewith (NFTPO) asked what is being used now for the Statewide model update? Vidya Mysore (FDOT CO) mentioned that currently FAF is being used.
- Denise Bunnewith (NFTPO) asked when the data will be available? Ed Hutchinson (FDOT CO) mentioned that at the earliest it will be March.

Action Items

- None

Meeting Adjourned at 5:30 PM