

FMTF Model Advancement Committee Meeting Minutes

Date: Thursday, April 6, 2017
Time: 2:00 P.M. – 3:00 P.M. EST
Where: Web Conference



<u>Attendee</u>	<u>Agency</u>
Thomas Hill	FDOT Central Office
Terry Corkery	FDOT Central Office
Vladimir Majano	FDOT Central Office
Frank Tabatabaee	FDOT Central Office
Christopher Simpron	FDOT District 1
Ameera Sayeed	FDOT District 2
Scott Seeburger	FDOT District 4
Hui Zhao	FDOT District 4
Jason Learned	FDOT District 5
Nick Lepp	FDOT District 6
Camila Perez	FDOT District 6
Kenneth Spitz	FDOT District 7
Dennis Dix	Hernando-Citrus MPO
Bud Whitehead	Hillsborough MPO
Denise Bunnewith	North Florida TPO
Milton Locklear	North Florida TPO
Danielle Blackshear	FHWA
Alejandro Casa-Valencia	AECOM
Jack Klodzinski	AECOM
Chunyu Lu	AECOM
David Rae	AECOM
Cesar Segovia	AECOM
Yew Song	AECOM
Chris Simons	Atkins
Sung-Ryong Han	BCC Engineering
Danyu Shi	BCC Engineering
Rama Balakrishna	Caliper
Howard Slavin	Caliper

Heather Lupton	Cambridge Systematics
Martin Milkovitz	Cambridge Systematics
Tom Rossi	Cambridge Systematics
Krishnan Viswanathan	Cambridge Systematics
Ozge Cavusoglu	CDM Smith
Katie Brinson	Citilabs
Dan Beaty	HNTB
Li Jin	Kittelson & Associates
Elaine Martino	Martino Planning
Heejoo Ham	Stantec
Rob Schiffer	Stantec

Item 1: Advanced Features in Florida Travel Demand Forecast Models

- Northeast Regional Planning Model (NERPM – AV1v2.0) – *Ameera Sayeed*
 - Technical difficulties will delay this presentation until another meeting.
- Southeast Florida Regional Planning Model (SERPM v8.0) – *Martin Milkovits*
 - SERPM v7.0 is ABM for residents and tour-based for visitors
 - Represents three counties:
 - Miami-Dade
 - Broward
 - Palm Beach
 - Half-hour time periods
 - Five highway assignment time periods
 - Four transit assignment time periods
 - The new SERPM v8.0 update will include a new household survey and Streetlight Data
 - 2015 base year, 2045 outer year
 - Future Mobility Scenario Testing
 - Identified potential scenarios for modeling the travel behavior of changing demographics and emerging technologies.
 - Focused on how to model in SERPM 7 ABM environment
 - Six scenarios:
 - Millennials behave differently
 - New transportation services reduce need for driving
 - Emerging technologies enhance transit systems
 - Managed lanes used differently
 - Automated vehicle (AV) technology affects how people travel
 - Combined
 - Implementation approach
 - Pivot off of existing model parameters or extend existing structures where available.
 - Where not available, introduce new terms and calibrate the model to reproduce scenario shares
 - AV technology modeling wish list

- Could not model for zero-occupancy vehicles (ZOVs) and a mix of AV technologies at the moment.
 - Enhanced model functionality
 - Implement more substantial changes in model capabilities
 - Approach:
 - Build in functionality for exploratory analysis
 - Parameters to be highly configurable
 - Default operation parameters would turn off advanced features
 - Auto availability
 - Simulated auto technology as an additional attribute
 - Consistent across all autos available in the household
 - Model impact
 - Restricted access facilities (Connected/AV-only lane)
 - Potential for ZOV
 - Restructure/extend mode choice
 - Willingness to ride-source
 - Availability of ride-sourcing to household members
 - Household characteristics
 - Model impact
 - Mode choice alternative availability
 - Transit restructure
 - Adding an auto egress mode based on a number of observation of auto egress from commuter rail.
 - ZOV post-processor
 - Potential for:
 - Self-parking
 - Sharing amongst household members
 - Public shared services
 - Function:
 - Leverage simulated person trip table
 - Self-parking by parking cost and density
 - Household member sharing induced ZOV trips
 - Public shared services induced ZOV trips
 - Segmented assignment
 - Default auto trip table segments simplified:
 - SOV/HOV; pay/no pay
 - Optionally segment by vehicle technology
- D1 Regional Planning Model (D1RPM v1.0.3) – *Christopher Simpron & Jerry Graham*
 - 12 county area included in the model.
 - 5,662 traffic analysis zones
 - 2010 base year, 2018 E+C, 2040 Cost Feasible
 - The model is a 4-step, trip-based model.
 - Incorporates many of the transit model update recommendations.
 - Mode Choice procedures are very similar to the transit methodology that has been used for years, but with some new “wrinkles”.
 - Airport trip model

- A unique airport trip generation (based on enplanements) and distribution program allows trips from SRQ, PGD, and RSW to travel into tourist and other non-residential destinations at a higher rate.
- Truck trip model
 - Inter-state and intra-state freight truck trips from the statewide model are included as heavy trucks move in and out of District 1
 - Intermodal logistic centers are included.
- Unique procedures
 - The LRTP CF networks include all roadway improvements proposed during the LRTP process.
 - The field “LRTP_KEY” allows user to include or exclude proposed roadway projects over the lifetime of the model.
- May include modeling AV/CV and ride-source trips

Action Item:

- **Ameera Sayeed will present on the NERPM model at another time due to technical difficulties in this meeting.**