



Model Task Force Holds Marathon Session

The Florida Model Task Force (MTF) and its subcommittees discussed an almost endless list of issues confronting transportation modelers during their June 6 & 7, 2000 meeting in Kissimmee, Florida. The wide-ranging issues the task force had to contend with included freight models, the generalized nested logit mode choice model, time-of-day procedures, GIS for transportation models, toll procedures, lifestyle models, land use issues, distribution curves, and rules and guidelines. Several articles in this issue of *Florida Transportation Modeling* describe the discussions, conclusions, and recommendations of the Model Task Force meeting.

The tri-chairmen of the Model Task Force, Danny Lamb, Joey Gordon and Dennis Hooker had a full agenda. As discussed on page two, several awards were presented; a new tri-chair was nominated (page 3); the subcommittees passed several

recommendations (page 7); a new subcommittee was created (page 4); and presentations were made on the Reebie database, time-of-day procedures and updated toll procedures.

Due to the increased activity level, the MTF passed a recommendation to create official rules and guidelines for the subcommittees and their chairmen as well as for the tri-chair and the full committee. All members are requested to participate in the finalization of these rules and guidelines. The tri-chairs will create the first draft set. These rules and guidelines will then be voted on and adopted at the next MTF meeting, which is scheduled for this fall.

Some of the initial ideas were: to have at least two meetings a year (in the spring and in the fall), to have the subcommittee chairmen report to the tri-chairs on a quarterly basis on the progress made, and for the full subcommittee members to be more regularly involved with the projects. Other procedural issues considered by the MTF were related to who should be able to serve as a chair or tri-chair, whether these professionals should be elected at the MTF meeting, and how many members should be present in order to pass a recommendation.

A survey will be conducted to obtain information on how the MTF can increase the amount of participation from the MPOs around the state. This survey will focus on the location and time of meetings and other similar topics. If you have any ideas or questions, please contact Huiwei Shen at the FDOT Systems Planning Office at (850) 414-4911 or e-mail huiwei.shen@dot.state.fl.us

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Tri-Chair Joey Gordon Steps Down After 6 Years of Service

There are not enough certificates to go around to sufficiently thank Joey Gordon for the time he has dedicated to the MTF. Some of us hoped that there would never come an end to the “Joey Gordon Tri-Chair era”! Joey Gordon with the Florida Turnpike District has brought to the MTF a unique statewide perspective. He is the only transportation modeler in Florida who deals to some degree with all the models in the state.

At the June MTF meeting, Warren Merrell presented a certificate of appreciation to Joey Gordon. Warren pointed out that Joey Gordon was the last of the original



three chairmen who started the decentralized Model Task Force back in 1994. Warren thanked Joey for all the hard work and assured everybody that Joey would remain involved with the Model Task Force through his position with the FDOT Turnpike District.

Danny Lamb & Susan Fraser Receive Award for Best Presentation

Warren Merrell presented an award for the best presentation given at the May 15 - 17 Model Applications Conference in Clearwater. The presentation was titled “Land Use Planners are from Venus, Transportation Planners are from Mars,” and was given by Danny Lamb with FDOT District Seven and Susan Fraser with Gannett Fleming.

The presentation started with a discussion about the transitions transportation and land use planners have seen in the field of land use planning. While local government land use planners and MPO transportation planners don’t really come from different planets, they operate in very different worlds -- each communicates with a different audience. While both live in a highly rigid environment subject to federal, state and local laws



and regulations, the measures of success are different for each. In the very entertaining yet informative presentation, Danny Lamb had the role of the transportation planner, while Susan Fraser played the land use planner.

Danny Lamb and Susan Fraser were not only given an impressive framed certificate, but Warren also stated that a letter of appreciation was being sent to the supervisors of these two individuals, so that the appropriate recognition would be given to them within their own organization.

Shi-Chiang Li Nominated as MTF Tri-Chairman

The first action item on the Model Task Force's agenda was the nomination of a new chairperson. Joey Gordon, of the Turnpike District, resigned as MTF tri-chair. Joey, a chairperson for the past six years, nominated Shi-Chiang Li as his successor.

A discussion took place about the make up of the tri-chairs. Originally the MTF had stated that one tri-chair was to represent either an MPO or a transit agency; one tri-chair was to represent a district perspective; and one tri-chair was to have a statewide perspective, which was Joey Gordon of the Turnpike District. Earlier discussions among the tri-chairs had focused on the absence of any eligible candidate with transportation modeling experience from a statewide perspective.

(Central Office employees serve as staff to the MTF, and are therefore ineligible to serve as tri-chairmen.) As an alternative, the tri-chairmen looked for an individual with extensive experience using a regional model. Li has played an active role in developing the Southeast Florida Regional Model, one of Florida's largest models.

The MTF members unanimously voted in favor of Li's nomination. Li stated that he had the opportunity to speak to the District 4 planning managers and the planning director, and that they all support his nomination. Li thanked the members for their votes and vowed to do a good job.

Ask Harry

by Harry Gramling, FDOT Systems Planning Office, Tallahassee

This column is dedicated to providing information on new features and releases of FSUTMS along with user questions and answers that may be of general interest.

FSUTMS Version 5.40 was shipped to 79 public-sector users on May 11th. To date, no problems have been reported by users. However, one user noted that in his single-path transit model, Version 5.40 compared to Version 5.30, produced inconsistent link volumes. Some links carrying about 50,000 trips have volume differences as great as 25 trips. Version 5.40 will commonly produce differences in this range, and sometimes larger, because of compiler issues and model sensitivity to minor differences.

Jim Fennessy has already provided over seven megs of updated files for Version 5.40. To date, the most significant change affects models based on a single-path transit network that includes parking costs in the ZDATA2.yya file. MODESP (the single-path transit mode choice program) did not apply parking costs to auto trips, and incorrectly included the terminal time at the attraction end twice while terminal times at the production end and attraction end should have been

applied. These errors are offsetting in nature, however, the transit trips will probably increase somewhat in areas that include parking costs. For example, on a medium-size model that includes parking costs, transit trips increased from 7200 to 9000 when the new MODESP.EXE was used. Please note that this problem existed in all previous versions of MODESP and did not originate in Version 5.40. Also, the distributed LODUNPAK.EXE program will not unpack HNET files but works fine on HRLDXY files.

If you have a need for either LODUNPAK or MODESP, please advise so by email and I will send you updated files.

The Systems Planning Office has been asked to explore methods of desensitizing the model to very minor network changes. This is being discussed with Fennessy Associates (Jim).

Please email your comments or questions to harry.gramling@dot.state.fl.us or call (850)414-4928, SUNCOM 994-4928.

Model Task Force Forms Distribution Subcommittee

The Florida International University with Dr. Fang Zhao and FDOT - District 4, with Shi-Chiang Li as project manager are conducting a research study on the development of an Alternative Trip Distribution Methodology research study. It was noted that with increased congestion, the trip lengths in the model appear to be shortened. This impacts the overall VMT in the model. One of the items the study will look at is the curve used in the distribution process. Other issues to analyze will be:

- trip distribution by purpose
- special trip purposes
- different methods of distribution
- separate regional airport models
- balancing trips on attractions

One big concern is the increased use of K factors in order to “correct” model assignments.

A discussion took place on the importance of the distribution step in the model, and the effect the time-of-day and lifestyle models would have on the distribution model. Because of the relationship between the modules, it was asked that the newly created Distribution Subcommittee closely coordinate with the GEN and the Mode Choice Subcommittees. Kacia Duhart with FDOT District 5 was voted the chairman of the Distribution Subcommittee.

Everybody who would like to become a member of the Distribution Subcommittee needs to contact Huiwei Shen at the FDOT Systems Planning Office at (850) 414-4911 or email huiwei.shen@dot.state.fl.us.

Tentative Schedule for the Year 2000/2001 Modeling Workshops

Basic FSUTMS Modeling Workshop

Four-day workshop scheduled for September 2000 in Daytona Beach, January 2001 in Tampa, and June 2001 in Fort Myers.

FSUTMS Model Calibration Workshop

Three-day workshop to be held in October 2000 in Jacksonville.

DRI Modeling Workshop

Three-day workshop to be held in November 2000 in Orlando.

Fundamentals of FSUTMS Transit Modeling Workshop

Three-day workshop to be held in February 2001 in Daytona Beach.

Advanced FSUTMS Transit Modeling Workshop

Two-day workshop to be held in April 2001 in Orlando.

Freight Modeling Workshop

Two-day workshop to be held in March 2001 in Tampa.

Land Use Modeling Workshop

Two-day workshop scheduled to be held three times during the next fiscal year: September 2000 in Panama City, December 2000 in Fort Lauderdale, and May 2001 in Fort Myers.

The dates for the workshops will be determined by August 15, 2000. There is no registration fee for these workshops. To assist us with preparations, all participants are required to register with the FDOT Systems Planning Office. After August 15, registration forms for these workshops can be downloaded from the FDOT web site (www.dot.state.fl.us/planning, under Systems Planning, System Traffic Models, and Training).

Should you have any questions, please call Huiwei Shen at (850) 414-4911 or e-mail huiwei.shen@dot.state.fl.us.



Decisions & Recommendations by MTF:

1. Shi-Chiang Li was nominated tri-chair, to replace Joey Gordon
2. A Distribution Subcommittee was created
3. Kacia Duhart with FDOT – District Five was nominated as Chair of the Distribution Subcommittee
4. Request from the Distribution Subcommittee to coordinate closely with the GEN and the Transit Subcommittees
5. All MTF are to vote by email about whether the members from the private sector or the university system can serve in a leadership role
6. Not to create a Sub-Area Modeling Subcommittee, instead for Mike Brown to present a white paper at the next MTF meeting with a problem statement and possible solutions
7. Not to create an Ethics Subcommittee, instead for the tri-chairs to develop rules and guidelines on the roles of the tri-chairmen and the chairmen of the subcommittees
8. To have two MTF meetings a year, one in the spring (March, April, May) and one in the fall (September, October)
9. To have the subcommittee chairs report quarterly to the tri-chairmen on progress made
10. To coordinate with the Systems Planning Office (SPO) to conduct a survey investigating how to better facilitate participation at the MTF meetings (location, time of year, etc.)
11. To make Mike Brown's paper on subarea modeling available on the web site
12. For the SPO to research previous motions/recommendations made concerning transit walk access
13. Not to assign the time-of-day model to a subcommittee, instead have the SPO make a presentation on the progress made at the next MTF meeting
14. For the Turnpike office to make the Update of Toll Modeling Procedures available by email to all present
15. For the Turnpike to coordinate the Update of Toll Modeling Procedures with the SPO time-of-day project

For a copy of the MTF meeting minutes, please check the website www.dot.state.fl.us/planning/

Applications Conference Discusses New Modeling Research

Those not present at the 2000 Florida Transportation Modeling Applications Conference missed out on a tremendous amount of valuable modeling information. The conference, sponsored by the Florida Model Task Force and organized by the FDOT Systems Planning Office, was a two-and-a-half day (May 15-17) program of presentations on the latest innovations in transportation planning in Florida. Among the presentations was a detailed discussion of current and future transportation modeling research projects. Bob McCullough, Systems Planning Office, outlined five transportation modeling research projects currently in full swing and five more that are getting started.



Research in Progress

The **Highway Freight Model Intermodal Connectors** study, under review by the Model Task Force Freight Subcommittee, will have an urban area emphasis and will complement the Statewide Freight Model. Bob announced that Reebie data will be purchased and made available at no cost to all government agencies and universities for noncommercial applications.

The **Mode Choice (Nested Logit Model) Universal Calibration Factors** study is managed by District Five (Susan Sadighi) and performed by the University of Central Florida. The goal of the study is to obtain new calibration data from Southeast Florida and, in Bob's words, calibrate the Nested Logit Model "with sand instead of snow on the roadside." (All Florida's nested logit models currently employ factors borrowed from the Minneapolis model.) The Model Task Force Transit Subcommittee will be reviewing the results of this study.

In developing **Interim Time-of-Day Factors**, Florida is hoping to remain one step ahead of the Travel Model Improvement Program (TMIP). This project is managed by District 7 (Danny Lamb) and researched by the University of South Florida. The Transit Subcommittee will also review this project.

During the **Seasonal Resident Trip Gen Life Style Variable** study, an analysis will be conducted on the trip generation patterns of the retired versus working population. Other issues in this study will be the effect of "snowbirds" and "baby-boomers" on the model, and similar issues. This study is managed by District 4 (Shi-Chiang Li) and undertaken by Florida International University. The Model Task Force GEN Subcommittee will be reviewing this study.

Finally, the **Alternative Trip Distribution Methodology** study, also by District 4 (Shi-Chiang Li) and Florida International

University, will require a new Model Task Force Distribution Subcommittee to be formed to review this activity.

What's new?

Five new projects are soon to be launched. **FIHS Data Integration** will create an information pipeline to and from the Florida Intrastate Highway System (FIHS), aiding in data consistency between state and local agencies. The FDOT Systems Planning Office is determining which district will co-manage this effort. Another research project called **Conflation Tools for the Florida Standard Model** will allow modelers to align different geographic network layers of the same location to coincide with each other. The Model Task Force GIS Subcommittee will review this project. Managed by the Systems Planning Office and a district to be determined, the Center for Urban Transportation Research (CUTR) will participate in the research. Two other projects are **GIS Spatial-temporal Analysis Tools** and **Automatic Feedback into FSUTMS for Equilibrium & Peak-spreading Model**. Both projects will be managed by District 4 (Shi-Chiang Li) and performed by Florida International University. The first tool will be used to identify the equilibrium of Land Use and Transportation investments; the second will provide a valuable tool to analyze roadway networks with extreme levels of congestion. The fifth research project, sponsored by the FDOT Transit Office, entails the development of **Level of Service** performance measures for all modes: auto, bike, pedestrian, truck and transit. The Freight and Transit Subcommittees will review the study.

In total, 33 presentations were made on a variety of topics at the 2000 Modeling Applications Conference. Topics included GIS, land use and transportation, long range plans, time-of-day, and freight modeling. The conference proceedings are scheduled to be sent to conference participants in August 2000.

Conclusions & Recommendations by MTF Subcommittees

Transit Subcommittee:

1. The Transit Subcommittee will be kept up-to-date on the Generalized Nested Logit (GNL) model development by teleconference or e-mail at major milestones of the project
2. The Transit Subcommittee approved the expansion of Dr. Aty's research project to develop mode choice parameters based on survey data from Southeast Florida
3. The GNL presentation will be e-mailed to all subcommittee members

GIS & Land Use Subcommittees:

1. GIS for Transportation Modeling (GIS-TM) needs to incorporate more land use data
2. The need for a database subcommittee needs to be discussed
3. A liaison person is needed to coordinate with the FDOT GIS conflation project (Imran Ghani, FDOT-D2, has been selected.)
4. There is a need for more land use planners on the Land Use Subcommittee
5. The subcommittee needs to review GIS-TM and provide comments to the SPO
6. The prioritization survey needs to be conducted again
7. Need to standardize the INET format for use in GIS-TM
8. Work with Fennessy & Associates to insert another field in the LINKS file for applying the MOCF
9. Keep informed about national developments related to UNETRANS (Unified Network/Transportation Data Model Development Consortium)

GEN Subcommittee:

1. Survey all the MPOs about lifestyle models. Ask them if they have problems with their current model, if they have problems collecting data, etc.
2. Wait until after the survey results before taking any other action
3. Have the subcommittee meet twice a year to discuss the progress made on the lifestyle project
4. Report back to the MTF in six months

Freight Subcommittee:

1. The statewide freight model should be a freight-based model, as opposed to a commodity-based model
2. TRANSEARCH freight Database by Reebie Associates should be used.
3. The forecasting procedures needed to be flexible enough to be able to run "what-if" scenarios.
4. A mode choice model needs to be included. No decision was made on the specifications.
5. The truck trips should be assigned separately or as a pre-load.
6. All members are to receive an e-mail copy of Dan Beagan's presentation.
7. There will be a teleconference meeting to keep the Subcommittee members updated on the progress of the project.

For a copy of the MTF Subcommittee meeting minutes, please check the website www.dot.state.fl.us/planning/

FSUTMS Users' Group Meeting Dates

The **Central Florida Users' Group** will be holding its next meeting on **August 24, 2000**. The topics will be announced. If you would like to obtain additional information, please contact *Kacia DuHart* (407) 482-7883

The **Northeast Florida Users' Group** has selected three different topics for their August meeting. A presentation will be made on FSUTMS version 5.4 and the effects it has on the JUATS model. A demonstration on the nearly completed Nassau County model will be given, and a presentation will be made on the recently completed Transportation Alternative Study. The meeting will be held on **August 10, 2000 at 2:00 PM-4:00 PM** at the FDOT-District 2 Jacksonville Urban Office-Training Facility. If you would like to obtain additional information, please contact *Imran Ghani* (904)360-5682

The **Tampa Bay Users' Group** will be focusing on the long range plans in the Tampa Bay Area. Four topics that will have a significant impact on the long range planning process will be discussed: the Goods Movement Study, Revenue Projections & Mobility 2000, Comprehensive Plans, and Public Involvement. The brown-bag lunch meeting will be held on **August 24, 2000 at 12:00 PM-2:00 PM** at the FDOT-District 7 office. For more information, please contact *Danny Lamb* (813) 975-6437

The **Southeast Florida Users' Group** will be discussing two topics. The first one will be the US-1/SR-5 Conceptual Engineering Alternatives Evaluation Study from the Roosevelt Bridge to Jenson Beach Boulevard in Martin County. The second topic will be a presentation on GIS-TM2. The meeting will be held on **September 14, 2000 at 2:00 PM**. If you would like to obtain additional information, please contact *Shi-Chiang Li* (954) 777-4655

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