



Model Task Force discusses Blue-Ribbon Panel findings

The focus of April 2002 Model Task Force (MTF) meeting was to discuss the findings of the Blue-Ribbon Panel. The Blue-Ribbon Panel discussed whether Florida should continue using and updating the current Tranplan FSUTMS version or if Florida should consider changing the engine within FSUTMS. During the October 2001 MTF meeting the tri-chairs had announced that they were going to convene a Blue-Ribbon Panel and had asked the members to develop a list of criteria to be considered by the Blue-Ribbon Panel. The Blue-Ribbon Panel met during the first week of April.

The Florida Model Task Force’s Blue-Ribbon Panel consisted of 7 modeling experts:

- Patrick Costinett, PBQ&D
- David Hartgen, University of North Carolina-Charlotte
- Dane Ismart, The Louis Berger Group
- Ken Kaltenbach, The Corradino Group
- Eric Miller, University of Toronto
- Tom Rossi, Cambridge Systematics
- Jim Ryan, Federal Transit Administration

The fundamental questions that were asked were: What transportation modeling software should serve as the FSUTMS engine? What additional tools/software should be included in the FSUTMS toolbox and interfaced with the engine?

After two days of discussion the Blue-Ribbon Panel recommended that the MTF adopt a resolution to undertake a comprehensive evaluation of available modeling software

options prior to making a decision. The Blue-Ribbon panel developed a list of important criteria to consider in selecting the software as well as a process on how to perform the selection. A description of the list and the process can be found in “Future Direction for Florida’s Transportation Models - Report of the Florida Statewide Model Task Force Blue-Ribbon Panel” which summarized the Blue-Ribbon panel meeting (this report can be downloaded from



Florida Model Task Force Tri-chairs: top left, Daniel Lamb,FDOT-District 7; top right, Shi-Chiang Li, FDOT-District 4; and Dennis Hooker, Metroplan Orlando.

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The Blue-Ribbon Panel members from left to right, Jim Ryan, Federal Transit Administration; Tom Rossi, Cambridge Systematics; Eric Miller, University of Toronto; Ken Kaltenbach, The Corradino Group; Dane Ismart, The Louis Berger Group; David Hartgen, University of North Carolina-Charlotte; and Patrick Costinett, PBQ&D

www11.myflorida.com/planning/systems/stm/mtf/mtfhome.htm under 2002 documents or by contacting Huiwei Shen at FDOT Systems Planning 850-414-4911.)

The tri-chairs and subcommittee chairs developed a six-step action plan based on the recommendations from the Blue-Ribbon Panel. The first step was the Blue-Ribbon panel meeting itself, which took place on April 2 and 3, 2002. The second step was a vendor presentation and a demonstration of their software, which took place on April 17, 2002. The third step took place at the April meeting, which was a MTF discussion on the Blue-Ribbon panel's findings. The remaining steps are: 1) collect data on options; this data would be obtained from vendors and the literature; 2) conduct a research of the options, with data obtained from users (site visits) and the benchmarking of software options; 3) finalize the criteria and assess differences; 4) address and negotiate all the administrative issues, and 5) hold decision meetings and develop an action schedule.

The FDOT Systems Planning Office has funding available to conduct a research project with the University of South Florida. The research contract will undertake a detailed evaluation of the available software. The project will consist

of such tasks as data gathering from vendors and users. Detailed interviews and demonstrations will be organized in order to evaluate how capable the software is and what its key features are. A steering committee will be appointed to work with the selected software and apply the software to several urban areas. It should be clearly understood that FSUTMS will not be replaced; only the software that drives FSUTMS is being analyzed. The steering committee would ideally be a mix of the high end and the more typical end users. The number of each group could vary between 3 and 5. Several members were nominated to be part of the steering committee.

At the MTF meeting, six groups were formed with approximately 9 members each. The members were given the Modeling, Methods and Software and Policy and the Planning and Policies Criteria lists displayed on pages 3 and 4 and were asked to rank them 1 through 5. Number 1 signified that the criterion was not important, while number 5 meant that the criterion was extremely important. The members were also allowed to assign a 0, which would mean that the criterion was not an issue at all. The members were to assign a number to the criteria, calculate a group average, and submit the score. The following criteria were

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eliminated from any further evaluation as a result of the group rankings:

- Maintenance of traffic
- Carpooling strategies
- Flextime
- Technology (telecommuting)
- Incident management
- Construction management
- Language longevity

A lengthy discussion took place concerning the source code availability of the software. According to the Blue-Ribbon Panel, the source code should not be an issue in selecting the software package, simply because none of the packages will provide the source code. According to the panel, it was more important to focus on the flexibility of the input and output file structure so that the users can obtain the data in the format needed to execute routines outside of the software package. The source code was the deciding issue in selecting Tranplan some 15 years ago. Having the source code eliminates the dependency on a particular vendor; it enables the user to make the changes that are necessary without having to wait for the next version. A comment was made that perhaps during the negotiations the point could be made to the vendors that Florida would not purchase the software unless the source code was provided. Since the source code availability issue was not clearly understood by all the members, the members were asked to vote again. Following is the result:

Source Code Availability Score*	Number of Votes
1	5
2	4
3	19
4	9
5	3

* Rate importance on a scale from 1 through 5 (1=least important)

Forty members voted, which brought the average to 3 and allowed the source code availability criterion to remain important in the evaluation of the software package. It was also decide to eliminate Transims from the criteria list and

to approach it as a product not as functionality. Transims is regarded as a paradigm itself.

A motion was made and passed to include a users' survey as part of the evaluation study. The survey would obtain data on the users; the results of the survey would be documented as part of the data collection effort of the study. The steering committee will determine the form and the content of the survey.

Following are the lists of criteria which were evaluated by the members at the April MTF meeting.

Average Score*	Planning and Policies Criteria
5	Capacity deficiencies and congestion
4	Transportation – land use interaction
4	Resource allocation and project selection
4	Air quality
4	Capacity increases
4	Intermodal connectivity
4	Transit service changes
4	LRT/BRT initiatives
4	Access/egress options
4	HOV changes
4	Transfer centers
4	Freight mobility strategies
4	ITS
4	Pricing strategies
4	Transit fares/pricing
4	Truck policies
3	Equity
3	Parking policies
3	Economic impacts of transportation
3	Safety and emergency evacuation
3	Signalization
3	System preservation,maintenance & operations
2	Maintenance of traffic
2	Carpooling strategies
2	Flextime
2	Technology (telecommuting)
2	Incident management
2	Construction management

* Rate importance on a scale from 1 through 5 (1=least important)

Average Modeling, Methods and Software Score* Criteria	Average Modeling, Methods and Software Score* Criteria <i>Continued</i>
5 Network editor	4 Data storage and input-output routines
5 Flexibility to accommodate future changes	4 Customization scripts
5 Vendor support	4 Flexibility to accommodate alternative model forms
5 Flexibility to accommodate emerging methods	4 Network completeness
5 Ability to analyze different modal alternatives	4 Tie into other Florida models
5 Ability to reproduce results	4 Using the consistent speeds in the model steps
5 Peak spreading and time of day modeling	4 Highway and transit path builders
5 Interface with other software	4 External travel
5 Display	4 Wrapper
5 Ability to accommodate time of day periods	4 Component applications
5 Model feedback	4 Purchase price
5 Network shape and GIS functionality	4 Company stability and longevity
5 GIS and spatial analysis capabilities	4 Aggregate application vs. Microsimulation
4 Processing speed	4 Visual appeal of output
4 Operating system	4 Maturity of software
4 Trips	4 Freight modeling considerations
4 Report generation	4 Ability to analyze different market segments
4 Matrix and link calculators	4 Company business model
4 Implementation cost	4 Activity-based approaches
4 Ability to produce products smoothly on time	3 Auto ownership model
4 Software stability and backward compatibility	3 Tours
4 Data portability	3 Dynamic assignment
4 Integrated transportation – land use modeling capability	3 Source code availability
4 Ease of use	3 Stochastic modeling of travel behavior
4 Spatial aggregation/resolution in zones and network	2 Language longevity
4 Four-step process	
4 Ability to analyze large numbers of trip purposes	

FSUTMS Users' Group News

The next meeting for the **Northeast Florida Users' Group** is set for Wednesday **August 7, 2002**. The topic will be announced. The users' group meets at the FDOT-District 2 Jacksonville Urban Office-Training Facility. The meeting starts at 2:00 PM and runs until approximately 4:00 PM. For additional information, please contact *Imran Ghani (904)360-5682*

The **Tampa Bay Applications Group** will be holding its next meeting on **August 29, 2002**. The focus of the meeting will be multi-modal planning. This brown bag lunch meeting will be held from 12:00 PM to 2:00 PM at the FDOT-District 7 office. For more information, please contact *Danny Lamb (813) 975-6437*

The **Central Florida Users' Group** will meet at the end of June, the exact date will be announced. The meetings are held from 2:00 PM - 4:00 PM at FDOT District 5 Urban Office. For additional information about the group, please contact *John Zielinski (407) 482-7868*



The **Southwest Florida Users' Group** will be meeting on **August 20, 2002**. The meeting will focus on the different aspects of trip generations. All meetings are held at the Charlotte County Airport (2800 A-6 Airport Rd., Punta Gorda, FL). For additional information about the group, please contact *Jim Baxter (863) 519-2562*

The **Southeast Florida Users' Group** has scheduled their next meeting on **Tuesday, September 10, 2002**. The time of the meeting has been tentatively set at 10:30 AM. at the FDOT-District 4 office. For additional information, please contact *Shi-Chiang Li (954) 777-4655*

Florida Model Task Force Subcommittees Activity Report

Transit Subcommittee

The Transit Subcommittee recently changed chairmanship. Charles White, our current chair from Hillsborough County, has moved to another position and can no longer serve as a chair. The tri-chairs recognized Charles' service and noted that he will be missed. We wish him well in his new position as Transportation Review Manager.

The new chairman is Kevin Feldt from the Jacksonville Transportation Authority who was appointed as the new Subcommittee chair by the tri-chairs. The Transit Subcommittee met on April 17, 2002 and has had a teleconference since then. At the April meeting the members were able to see a demonstration of the recently completed Generalized Nested Logit (GNL) mode choice model. The members got a demonstration on how to generate a GNL script and saw an example of a script. The GNL model provides the users with a lot of feedback information on the variables that are being used and the utilities themselves. The calibration process of the mode choice model was also discussed. Kevin thanked the FDOT Systems Planning Office for funding the project and successfully bringing it to completion. He pointed out to all the MTF members that the developments of these scripts/software were as a direct result of MTF request. A copy of the software can be obtained by contacting Huiwei Shen at FDOT Systems Planning Office. Next Ike Ubaka with the FDOT-Public Transportation Office (PTO), informed the members on the new FTA ruling for New Start Projects. A New Start Project is a major transit investment for which Federal money is requested. The new ruling will require new start projects to conduct specific users benefit and costs analyses. In order to conduct these analyses some modifications will need to be made to the mode choice model to allow for the summarization of particular information from the logsum calculations. There was a general consensus to request from the FDOT Systems Planning Office to go forward and make the necessary changes and incorporate them into the GNL to allow for the type of analyses the FTA will be requiring. In addition, it was requested from the PTO to continue looking into the FTA rule, and to keep the transit subcommittee members informed through emails and teleconferences.

Presentations were made on the Time of Day model and the Activity Based model, both of which are research projects funded by the FDOT Systems Planning Office.

The transit subcommittee is in the process of finalizing the mission statement and goals and objectives which were discussed at the meeting and the teleconference. The transit subcommittee is also looking for input into prioritizing transit

projects for the subcommittee to pursue. If you would like to become a member of the subcommittee or would like to provide input into the prioritization process, please contact Huiwei Shen at (850) 414-4911 or by email at huiwei.shen@dot.state.fl.us.

Trip Generation Subcommittee

The Trip Generation Subcommittee is working with Dr Fang Zhao on analyzing the data to research the transferability of the lifestyle model from one urbanized area to another. Currently, the study is waiting on the survey data from the Treasure Coast and Volusia County surveys. The Trip Generation Subcommittee has surveyed the MPOs and concluded that four MPOs are interested in pursuing the possibility of switching to a lifestyle model. Another activity the subcommittee is involved in is a comparison between the trip production rates used in the Lee County model versus the 1992 survey data results. The production survey information is being expanded to the TAZ level and summarized to a district level and compared to the model's trip generation results. The results of this comparison should be available at the end of this summer. The subcommittee is also analyzing all available survey data statewide. This data is being summarized and trip rates are being developed in an effort to perhaps update the trip rates within FSUTMS. The Trip Generation Subcommittee and the Land Use Subcommittee are planning to hold a joint meeting this year.

Freight Subcommittee

The Freight Subcommittee has been monitoring the development of the statewide Freight model. The final reports for this study are expected to be completed at the end of June. In addition, the FDOT Public Transportation Office is conducting a Freight Port study, which the subcommittee will be reviewing. The Freight committee recently had a teleconference during which the Freight Port study was discussed.

GIS Subcommittee

The majority of the GIS Subcommittee members participated in the Geodatabase Design workshop. The Subcommittee has had teleconferences and is planning to meet in June to present Version 3 of GIS-TM. The new version will be compatible with ARC-GIS and will also have updates to the LOS calculation, to make it consistent with the 2002 LOS manual. Other features that have been added deal with traffic

Florida Model Task Force Subcommittees

Activity Report *Continued*

smoothing techniques and the ability to analyze selected trip purposes. The Subcommittee is going to conduct a survey to obtain information on the agencies' needs as it relates to GIS modeling.

Land Use Subcommittee

The Land Use Subcommittee has ranked several research projects (1. Vacant land, 2. Development Tracking, 3. Redevelopment) and submitted them to the FDOT Systems Planning Office to request funding. The Subcommittee recently adopted a set of goals and objectives and developed methods to meet these objectives. Other issues discussed were ULAM training on CD; a joint subcommittee meeting with the Trip Generation Subcommittee, and obtaining a transportation land use workshop from the National Transit Institute in Florida. It was requested to have Reid Ewing present the sketch planning techniques, applied in Gainesville, at the next MTF meeting.

HNET Subcommittee

The HNET Subcommittee was reactivated in an effort to integrate ITS into systemwide models. More recently, a lot of software is being developed to implement ITS strategies. The recent development of IDAS; the interface between travel demand modeling and ITS is one example. Imran Ghani was appointed as temporary chair. If anybody is interested in joining the subcommittee, please contact Huiwei Shen at (850) 414-4911 or by email at huiwei.shen@dot.state.fl.us.

Distribution Subcommittee

The Distribution Subcommittee decided not to pursue the Intervening Opportunity Model and is currently overseeing a research project by Fang Zhao examining a Destination Type model. The Subcommittee is also focusing on how the existing distribution model can be enhanced/improved.

Census 2000: Four new Urbanized Areas in Florida

Source: Federal Register: May 1, 2002 (Volume 67, Number 84), published by the Bureau of the Census, Department of Commerce.

An urbanized area (UA) consists of densely settled territory that contains 50,000 or more people. As a result of Census 2000, there are 453 urbanized areas in the United States, 11 urbanized areas in Puerto Rico, one urbanized area in Guam, and one urbanized area in the Commonwealth of the Northern Mariana Islands, for a total of 466 urbanized areas. This represents a net increase of 61 urbanized areas from the 405 urbanized areas defined based on 1990 census results—396 in the United States and 9 in Puerto Rico. The increase consists of 76 entirely new urbanized areas, plus an additional 15 urbanized areas created from splitting existing areas, minus 29 areas lost through combination and one 1990 urbanized area failing to qualify.

There have been significant changes in the Census 2000 universe of urbanized areas from those defined, based on the 1990 census and criteria. These changes include new areas; areas formed by splits or mergers, name changes, and areas with significant boundary changes.

In Florida, there are 4 urbanized areas newly qualified for Census 2000; these were not part of any 1990 census urbanized area:

- Lady Lake
- Leesburg—Eustis
- St. Augustine
- Zephyrhills

There are 2 urbanized areas formed by merging of the 1990 census urbanized areas:

- Miami (Fort Lauderdale—Hollywood—Pompano Beach; Miami—Hialeah; and West Palm Beach—Boca Raton—Delray Beach)
- Port St. Lucie (Fort Pierce and Stuart)

There are 2 urbanized areas in Florida with other significant changes (unrelated to splits and mergers) to their 1990 census boundaries:

Census 2000: Four new Urbanized Areas in Florida *Continued*

- Kissimmee: contains part of the 1990 census Orlando UA.
- Miami: does not include the separate Key Biscayne Urban Cluster (UC), which was defined from part of the 1990 census UA.
- Orlando: does not include a part of the 1990 census UA, which was transferred to the Census 2000 Kissimmee UA.

There are 11 urbanized areas in Florida with changes to their 1990 census names (unrelated to mergers or splits):

- Bonita Springs—Naples was Naples
- Brooksville, was Spring Hill
- Cape Coral was Fort Myers—Cape Coral
- Daytona Beach-Port Orange was Daytona Beach
- Miami was Miami-Hialeah
- North Port-Punta Gorda was Punta Gorda
- Palm Bay-Melbourne was Melbourne-Palm Bay
- Pensacola, FL-AL, was Pensacola, FL.
- Port St. Lucie was Fort Pierce
- Tampa-St. Petersburg was Tampa-St. Petersburg-Clearwater
- Vero Beach-Sebastian was Vero Beach

Following is the list of Urbanized Areas in Florida. The population counts relate to data reported for Census 2000.

For further information, please contact Robert Marx, Chief, Geography Division, U.S. Census Bureau, telephone (301) 457-2131; e-mail at: ua@geo.census.gov.

Urbanized area	Population
Bonita Springs—Naples	221,251
Brooksville	102,193
Cape Coral	329,757
Daytona Beach—Port Orange ..	255,353
Deltona	147,713
Fort Walton Beach	152,741
Gainesville	159,508
Jacksonville	882,295
Kissimmee	186,667
Lady Lake	50,721
Lakeland	199,487
Leesburg—Eustis	97,497
Miami	4,919,036
North Port—Punta Gorda	122,421
Ocala	106,542
Orlando	1,157,431
Panama City	132,419
Pensacola, FL-AL.....	323,783
Port St. Lucie	270,774
St. Augustine	53,519
Sarasota—Bradenton	559,229
Tallahassee	204,260
Tampa—St. Petersburg	2,062,339
Titusville	52,922
Vero Beach—Sebastian	120,962
Winter Haven	153,924
Zephyrhills	53,979

New Urbanized Area Designations: What do they mean?

by Terrence Corkery, Systems Planning Office

As we all know, metropolitan planning organizations, or MPOs, are established to provide a forum for local decision-making on transportation issues affecting urbanized regions. The federal government requires that an MPO be designated for each urbanized area. (The U.S. Census Bureau designates urbanized areas for cities with populations of 50,000 or more.) But there is not necessarily a one-to-one correspondence between urbanized areas and MPOs. Some MPOs serve more than one urbanized area, such as the Kissimmee and Orlando urbanized areas within the Metroplan Orlando area. Conversely, some urbanized areas contain more

than one MPO, such as the Hillsborough and Pinellas MPOs within the Tampa-St. Petersburg Urbanized Area.

How will the new urbanized area designations affect MPO boundaries? We'll find out in the next 12 months. Decisions about how the four new urbanized areas will be represented will be up to the affected local governments and the Florida governor's office.

Zephyrhills is located in Pasco County, which already has an MPO covering the whole county, so it will probably not require

New Urbanized Area Designations: What do they mean? *Continued*

a new MPO. Things are not as clear for the other three new urbanized areas. Though St. Augustine is not located within an existing MPO, the northern portions of St. John's County are part of the First Coast MPO (Jacksonville). Lady Lake and Leesburg-Eustis are in Lake County, sandwiched between the Ocala/Marion County MPO and Metroplan Orlando. A major part of the decision determining MPO boundaries hinges on the projected 20-year growth areas for the existing urbanized areas. The 20-year growth area, known

as the Metropolitan Planning Area Boundary, is mutually determined by the MPO and the state.

Finally, it should be noted that the newly merged Miami Urbanized Area, which now encompasses Ft. Lauderdale-Hollywood-Pompano Beach and West Palm Beach-Boca Raton-Delray Beach, does not in any way mean that the three MPOs in Southeast Florida must consolidate. MPOs merge only if the affected MPOs themselves vote to do so.

Census Urbanized Areas	
1990 Name	2000 Name
Daytona Beach	Daytona Beach--Port Orange
Deltona	Deltona
Fort Lauderdale--Hollywood--Pompano Beach	Miami [three areas merged]
Fort Myers--Cape Coral	Cape Coral
Fort Pierce	Port St.Lucie [two areas merged]
Fort Walton Beach	Fort Walton Beach
Gainesville	Gainesville
Jacksonville	Jacksonville
Kissimmee	Kissimmee
Lakeland	Lakeland
Miami--Hialeah	Miami [three areas merged]
Naples	Bonita Springs--Naples
Ocala	Ocala
Orlando	Orlando
Panama City	Panama City
Pensacola	Pensacola
Punta Gorda	North Port--Punta Gorda
Sarasota--Bradenton	Sarasota--Bradenton
Spring Hill	Brooksville
Stuart	Port St.Lucie[two areasmerged]
Tallahassee	Tallahassee
Tampa--St. Petersburg--Clearwater	Tampa--St. Petersburg,
Titusville	Titusville
Vero Beach	Vero Beach--Sebastian
West Palm Beach--Boca Raton--Delray Beach	Miami [three areas merged]
Winter Haven	Winter Haven
	Lady Lake
	Leesburg--Eustis
	St. Augustine
	Zephyrhills

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Coeditor: Jeanette F. Berk
Advanced Planning, Inc.
52 Saint Augustine Blvd.
Saint Augustine, Florida 32080
(904) 823-8982, FAX (904) 823-8953
api@aug.com

Coeditor: Terrence Corkery
FDOT Systems Planning Office
605 Suwannee Street, Mail Station 19
Tallahassee, Florida 32399-0450
(850) 414-4903, FAX (850) 921-6361
terrence.corkery@dot.state.fl.us