



Toll Modeling Ad Hoc Committee Notes

November 9, 2009

8:30 AM – 10:00 AM

Orlando, FL

MEETING NOTES

Attendees List:

Name	Agency/Firm
Asutosh Kumar	AECOM
Sung-Ryong Han	BCC Engineering
Dan Beagan	Cambridge Systematics
Caption Siluvairajan	Cambridge Systematics
Minhua Wang	Citilabs
Frank Tabatabaei	FDOT Central Office
Thomas Hill	FDOT District 2
Betty McKee	FDOT District 5
Carlton Card	FDOT District 6
Jack Kłodzinski	FDOT Turnpike Enterprise
Jim Fennessy	Fennessy Associates
Albert Gan	Florida International University
Mary Stallings	Grimail Crawford

Name	Agency/Firm
Naveen Modali	Kimley-Horn and Associates
Thuha Nguyen Lyew	Kittelson & Associates
Shang Yang	Marlin Engineering
Dennis Hooker	Metroplan Orlando
Fang Mei	RS&H
David Schellings	Systra Mobility
Hatem Abou-Senna	University of Central Florida
Yafeng Yin	University of Florida
David Rae	URS
Roberto Miquel	Wilbur Smith Associates

Introductions

Fang Zhou introduced the panel and gave a review of the MTF priorities survey efforts. She emphasized the importance of tolling functionality in Cube. She concluded by giving an open invitation to all to join the Toll Modeling Ad Hoc Committee (subcommittee of Model Advancement Committee). She concluded by saying that the draft scope of work will be circulated around for the potential new members to review. Vidya Mysore continued the introduction. Vidya started by mentioning that the Turnpike is doing a lot of toll modeling and highlighted the importance of distributing the knowledge developed by the Turnpike to other agencies.

Advanced Toll Modeling

Jim Fennessy, Fennessy Associates

- All PowerPoint presentations are now available online at www.fsutmsonline.net
- Discussion items:
 - There are 43 different versions of toll features from different companies.
 - Jim Fennessy noted that the only way to know who is a cash trip maker versus a sunpass trip maker is to go to the trip maker to get the information.
 - Mike Doherty mentioned that the top issues in toll modeling are the causes and effects. He stated that land use and time-of-day characteristics are very important for getting accurate trip tables. He recommended that the appropriate subcommittee or ad hoc committee be more involved in these issues.
 - Jim Fennessy mentioned that, in the next year or so, FDOT Central Office will put a plan together and come up with recommendations on toll modeling. He mentioned that he would prefer to have income for the trip maker instead of an average for the area.
 - Ken Kaltenbach mentioned that they are working on hot lane modeling and emphasized the importance of understanding trip purposes. He said, certain trips are worth different amounts and with hot lanes, discrete mode choice is very important. He emphasized that the modeler needs to know the number of persons. We need more information than typically required in FSUTMS. Jim Fennessy commented that this adds to the complexity of toll modeling.



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- Roberto Miquel asked, does this mean we have to add more information, such as income, to trip generation and Ken Kaltenbach answered yes.
- Mike Doherty mentioned that some people care about number of persons but some only want number of axles. Ken Kaltenbach replied that hot lane modeling requires persons per hybrid.
- Fang Zhou mentioned that the new Toll Modeling Ad Hoc Committee will need help with the following three basic tasks:
 - Review Cube capabilities;
 - What features need to be included; and
 - Validate Cube's features against TRANPLAN.
- It was asked if the assignment is done by vehicle type and if discounts are used. Jim Fennessey answered yes, by auto and truck and that we need to restructure the mode choice to account for discounts. Mike Doherty added that trip tables are critical.
- Jim Fennessey added that we have to make sure that we can replicate TRANPLAN in Cube. There is no scope to focus on trip table refinements. Income-based trip generation could be beneficial. Roberto Miquel added that we have to make income-based modeling more important on all model applications.
- Ken Kaltenbach brought up the issue of model run time. He mentioned that clients complain about long model run times and consultants are forced to make compromises. He said it is imperative to get software vendors to use different algorithms because some software is faster due to the different technique they use. He stated that clients typically demand simpler methods to reduce run time.
- Minhua Wang mentioned that Citilabs has added a new assignment algorithm. He also mentioned that Citilabs is looking into a new strategy of shifting the computation to the cloud. He mentioned that Citilabs has done some preliminary testing and the results looked promising.
- Sung-Ryong Han asked how do tolls work on BPR. Mike Doherty answered that the Turnpike uses both BPR and Acelik, depending on circumstances.
- Fang Zhou concluded the meeting by again inviting the members to join the ad hoc committee.

Meeting Adjourned at 10:00 AM