

Status report on the consultant-assisted project for development of the TPB travel model: TPB staff proposal for FY 2013 task orders

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Background

- Consultant-assisted project to provide assistance with models development, also known as the “scan of best practices” project
 - Begun in FY 2006; Now in its 8th year
 - 3 consultants (VHB, Cambridge Systematics, and AECOM)
 - Has resulted in 8 reports over the first 7 years
 - Latest report: **AECOM’s FY 2012 Draft Final Report (7/13/12)**
- TPB staff has reviewed the first six years of consultant recommendations, resulting in one report:
 - **TPB Staff Review of Six Years of Consultant Recommendations (7/19/12)**
- TPB staff proposal for FY 2013 task orders (TO’s) was based on the two aforementioned reports

Developing TO's: What's been done

- TPB staff met with AECOM on Sept. 10 to discuss possible ideas
- TPB models development staff met with Ron Kirby on Sept. 18. Mr. Kirby generally concurred with the planned TO's
- TPB staff sent formal proposal to AECOM on Sept. 19

Developing TO's:

Next steps

- AECOM will review our proposal, decide what it thinks can be done within time and budget constraints, and then prepare a scope of work and budget for each task order
- After there is agreement between AECOM and TPB staff, TPB staff will authorize AECOM to begin work
 - Although the **TO's are still in the development stage**, we wanted to keep the TFS apprised of our general plans for work in this area

Proposed FY 2013 task orders

- Existing:
 - Task Order 7: Attend meetings, respond to ad-hoc requests. Authorized 6/7/12.
- New (proposed)
 - Task Order 8: Traffic assignment
 - Task Order 9: Mode choice and transit modeling
 - Task Order 10: Streamlining the Version 2.3 Travel Model
 - Task Order 11: Special markets

TO 8: Traffic assignment

- Modifications to the traffic assignment process used in the Ver. 2.3 Travel Model that will result in model run-time savings, simpler scripts, or both. Could include:
 - Improvements to modeling HOT-lane traffic and modeling HOV traffic
 - Survey of how others are using observed operation speed data, such as INRIX, with planning-level travel models

TO 9: Mode choice and transit modeling

- Focus on converting transit path building software modules: From TRNBUILD to the Public Transport (PT)
 - In its FY 2012 report, AECOM proposed a five-phase process
 - First four phases would result in the full conversion
 - Fifth phase would result in enhancements that would incorporate more advanced procedures, such as select-link and crowding analyses.
 - Questions
 - How many of the four phases could be conducted this fiscal year?
 - What is the impact on other task orders if more phases are conducted this year?

TO 10: Streamlining the Ver. 2.3 model

- Could include modification to the model to
 - Use fewer inputs and outputs
 - Add additional error checking
 - Add logic to minimize the likelihood of conflicts between multiple applications running on the same computer at the same time

TO 11: Special markets, 1

- AECOM's FY 2012 report recommended a number of enhancements
 - Recalibrate the air passenger model for all modes using the most recently available air passenger survey
 - Develop a partial airport choice model
 - Investigate revising the external trip model
 - Develop a four-step visitor travel model

TO 11: Special markets, 2

- While we feel all four recommendations have merit, based on current priorities, our top choice would be developing a model of visitor travel.
- But, to do it right, such a model would require new survey data
- So, we have asked if AECOM could prepare a multi-year work plan, including data collection and model development, for developing a more robust visitor/tourist model

TPB staff priorities

- First priority
 - TO 8 (traffic assignment) and TO 9 (mode choice and transit modeling)
- Second priority
 - TO 10 (model streamlining)
- Third priority
 - TO 11 (special markets)
- We recognize that it may not be possible to accomplish all four TO's

Concluding remarks

- In developing this list of proposed TO's, it reinforced the need to develop a multi-year, strategic plan for models development
- Such a plan would be especially useful for planning multi-year improvements, such as models that require new survey data or models that are very ambitious (e.g., activity-based models)
- The last formal strategic plan for models development was developed almost 20 years ago:
 - Parsons Brinckerhoff Quade & Douglas, Inc., Urban Analytics, Catherine Ross Associates, & Allen, W. G. (1993). *A Strategic Plan for the Improvement of the Metropolitan Washington Council of Governments Transportation Modeling Procedures.*