

**SUBCOMMITTEE ON INTEGRATED TRANSPORTATION  
AND LAND USE MODELLING  
A1C02(2)**

**SUBCOMMITTEE ANNUAL MEETING  
82<sup>nd</sup> ANNUAL MEETING OF THE TRANSPORTATION RESEARCH BOARD  
TUESDAY, JANUARY 14, 2003 7:30-9:30 P.M.  
KALORAMA ROOM, HILTON WASHINGTON HOTEL**

**MINUTES**

The agenda for the meeting is provided in Attachment A.

**1. Welcome and Introductions.** Co-chairs Eric Miller and Douglas Hunt welcomed attendees to the meeting. Including the co-chairs, 27 people were in attendance. Adding new attendees to the Subcommittee's mailing list, brings the list of Subcommittee friends/members to 44 (see Attachment B).

**2. Review of 2003 Annual Meeting Activities.** Four papers were presented in Session 693 "LandUse-Transport Interaction Modeling" on Wednesday, January 15, 2003.

**3. Discussion of Subcommittee Activities.** A very lively and extended discussion of possible activities for the Subcommittee to undertake over the coming year and beyond was occurred. Action items that emerged from this discussion are listed below.

**(a) Sunday Workshop at TRB Annual Meeting.** This is an idea that was discussed at length at the 2002 meeting. It was agreed that this would still be a worthwhile undertaking

**(b) TRB Annual Meeting Paper Calls.** Two Calls for Papers were identified for the 2004 Meeting. A brief description of the topic/rationale for each call is presented below.

- *Operational Integrated Models.* The intent is to present discussions of current experience with operational models, both in terms of documenting "success stories" and in terms of discussing challenges in developing and using integrated models. It was suggested that a poster session followed by a panel discussion session might be a very effective means of structuring this discussion.
- *Modeling Building Stock Supply / Land Development Processes.* Somewhat ironically, the "land development" component of "land use" models is often their weakest component. Many integrated models focus on location choices of households and/or firms given a building stock supply, but do not handle well the supply side of the process. Researchers, however, are actively working in this field, and it would be timely to hold a paper session dealing with this topic.

(c) **Synthesis of Data Needs and Methods for Integrated Models.** A proposal for this synthesis document was subsequently prepared by Bruce Kiracofe and Paul Waddell and submitted to TRB for consideration. The proposal is attached in Attachment C.

**4. Other Business.**

- It was noted that a microsimulation workshop was being planned for the TRB 2003 Summer Meeting in Portland.
- It was suggested that this subcommittee should co-ordinate with the Urban Transportation Data Committee, given our common interests in data collection, GIS methods, etc.
- The availability of comprehensive, good quality employment data remains a major concern for land use modelers.

**5. Research Presentation.** Prof. Francisco Martinez from the University of Chile in Santiago presented “Recent Developments with the MUSSA Model of Santiago Chile”. The presentation was followed by a lively question and answer session.

**6. Adjournment.** The meeting adjourned at approximately 9:00 p.m.

**ATTACHMENT A**

**AICO2(2)  
SUBCOMMITTEE ON INTEGRATED TRANSPORTATION  
AND LAND USE MODELING**

**Subcommittee of Committees AICO2 and AID02**

**SUBCOMMITTEE ANNUAL MEETING  
TUESDAY, JANUARY 14, 2003  
7:30 -9:30 P.M.  
HILTON**

**AGENDA**

1. Welcome and Introductions
2. Review of 2003 Annual Meeting activities
3. Discussion of subcommittee activities
  - Initiatives from the 2002 Meeting:
    - Sunday Workshop
    - Synthesis of Data Needs & Methods
    - Invited Panel Session
    - 2004 Annual Meeting
4. Other Business
5. Research Presentation:
  - Francisco Martinez, University of Chile: "Recent Developments with the MUSSA Model of Santiago Chile"
6. Adjournment

**ATTACHMENT B – LIST OF SUBCOMMITTEE FRIENDS/MEMBERS**

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## ATTACHMENT C

**Title:**

Data Availability and Data Standards for Land Use Transportation Models

**Submitted by:**

TRB Committees A1C02 on Passenger Travel Demand Forecasting and A1D02 on Transportation and Land Development

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**Scope:**

The integration of land use components into transportation models will become increasingly important in the coming years as agencies continue to adapt to provisions in federal legislation that encourage greater review of land use and environmental impacts during transportation planning and facility development. Likewise, land use transportation models that have integrated feedback loops between the land use and transportation submodels are important to accommodate the close interlinkage between transportation system changes and land-use patterns (see NCHRP 423A).

Within the context of integrated land-use transportation modeling, both the theoretical assumptions underlying models and the data used by the models are critical determinants of ability of the modeling process to provide accurate and reliable forecasts. The focus of this synthesis statement is on the data used by the models. Specifically, this synthesis seeks to assemble all available information on data and data sources used by previous and current land-use transportation models. The synthesis will identify standards, if any, that have been used by previous and current researchers in their data collection and data preparation efforts. It will also assess these standards in a critical light and, more broadly, will document the shortcomings of earlier data collection efforts. In addition, the synthesis will examine research studies that have generated synthetic data and used panel surveys, and evaluate the advantages and disadvantages of such emerging data collection efforts and resulting data. Finally, the synthesis will organize and document all relevant information that may be helpful to land-use transportation researchers and practitioners. It is recommended that the synthesis structured in the light of eight issues identified by Batty (1995): (1) spatial level of resolution, (2) temporal level of resolution, (3) sectoral level of resolution, (4) availability and costs of data from widely available sources, (5) levels of accuracy (including precision and error), (6) questions of confidentiality and non-disclosure, (7) representation of data in various digital media, and (8) the question of whether the data should be useful for short-term analysis or for longer-term model development.

**Information Sources:**

NCHRP 423A, Land Use Impacts of Transportation: A Guidebook. 1999.

Batty M, *et. al.*, (1995) Draft Data Requirements for Land Use Modeling: First Thoughts and a Preliminary Assessment, in Travel Model Improvement Program Land Use Modeling Conference Proceedings, US DOT, US EPA.