

**METROPOLITAN TRANSPORTATION SUPPORT INITIATIVE  
METSI**

**For the Illinois Department of Transportation (IDOT)  
Bureau of Urban Program Planning**

**QUARTERLY REPORT**  
For the quarter ending March 31, 2009

Joseph DiJohn, Research Professor  
Director, Metropolitan Transportation Support Initiative  
Urban Transportation Center  
University of Illinois at Chicago  
412 South Peoria Street, Suite 340  
Chicago, Illinois 60607

Tel: (312) 996-1458  
Fax: (312) 413-0006  
E-mail: [joedi@uic.edu](mailto:joedi@uic.edu)

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## **METROPOLITAN TRANSPORTATION SUPPORT INITIATIVE (METSU)**

### **QUARTERLY REPORT**

For the quarter ending March 31, 2009

### **CURRENT QUARTER ACTIVITIES**

#### **GENERAL AND ADMINISTRATIVE**

The following are highlights for the most recent quarter:

-Two papers were presented at the Transportation Research Forum Annual Meeting on March 16 in Portland, OR: "The Burnham Transportation *Plan of Chicago*: 100 Years Later", and "Transportation and the Housing Crisis: Are They Related?" These papers will be available shortly on the TRF web site at [www.trforum.org](http://www.trforum.org).

-Two papers were presented at the Transportation Research Board Annual Meeting in January in Washington, DC: "Planning for Bus on Shoulders Operations in Northeastern Illinois: A Survey of Stakeholders" and "Cost Estimation for the Provision of Free ADA Special Services in the State of Illinois."

-The UTC sponsored or cosponsored several workshops during the quarter:

-"Connecting TDM and Climate Change" with ACT and NCTR on February 12,

-"Trains vs. Trucks: Who Shot the Freight Train?" with UIUC on February 13,

-"Evaluation of the CTA U-Pass Program" on February 20,

-"Transportation Safety Case Studies" with USDOT on March 4,

-"The Milwaukee Road Bankruptcy: Lessons Learned and Its Relevance in the Current Business Climate" with TRF and NU on March 26.

-Preparing the UTC Newsletter *Connector* for distribution next quarter.

Below is a description of progress during the quarter. Please note the progress report below on the IDOT funded project Improving Operational Performance of Ramp Metering Systems, which was added as an amendment to the METSU contract.

#### **RESEARCH PROGRAM**

##### **Improving Operational Performance of Ramp Metering Systems**

During the quarter, we have updated the computer program that processes traffic data to identify critical occupancy and capacity at ramp junctions. The validation of the updated metering rates for the Eisenhower Expressway was completed and the comparison report of before and after updating conditions was updated. Data analysis for the remaining expressways is underway.

##### **Regional Intermodal Freight Planning**

Kazuya Kawamura continues to serve as a member of CMAP Freight Committee and participated in meetings on January 29 and February 25. The committee is in the process of providing freight inputs into the 2040 Regional Plan (GoTo2040).

##### **Center for Freight & Infrastructure Research and Education (CFIRE)**

Under a five-year contract with the National Freight and Infrastructure Research and Education (CFIRE) at the University of Wisconsin, Madison, Kazuya Kawamura leads the UIC team's efforts. He continues to work on the study of rail-truck intermodal competitiveness and Jane Lin's group is developing the county-level estimation of freight tonnage productions and

attractions by commodity. Kawamura and Lin are also creating a microsimulation model of critical goods flow funded by the Mississippi Valley Freight Coalition. A number of papers for publication and for presentation at professional meetings are underway.

### **Small-Area Data for Freight Modeling**

Developed a method to construct small-area freight data using publicly available information. A paper entitled “Synthetic Data Generation for Small-Area Demand Forecasting of Freight Flows” was published in the January issue of Operations and Supply Chain Management.

### **McHenry County Transportation Study Implementation**

Staff continues to participate on the McHenry County Transportation Study Implementation Task Force (ITF). The pilot paratransit coordination effort is being developed and has received an \$180,000 grant from the Senior Service Grant Commission. The County held a meeting on February 20 and proposed using the new RTA discretionary sales tax to fund the program.

### **Urban Sprawl**

The current activity in the area of urban sprawl is an analysis of the relationship between obesity and the built environment in the Chicago metropolitan area. Additional research and updating of information is underway and an academic paper for journal publication is being prepared.

### **Home Ownership and Transportation**

Research into the relationship of Residential foreclosures and transportation has been undertaken and a paper “Transportation and the Housing Crisis: Are They Related” was presented at the TRF Annual Meeting held on March 16 - 18.

### **American Community Survey: Trends in Commuting Behavior by Population Subgroups**

The study investigates seasonal effects of work trips using non-public data from the ACS. The research will determine how the year should be divided into transportation demand periods to assess seasonality in transportation demand. There was little activity during the quarter.

### **Spatial Accessibility Indices for Transit**

The development of this project will enhance the functionality of an accessibility measure tool that will facilitate the practice of transportation planning in the Chicago area. There was little activity during the quarter.

### **Locomotive Horns**

Ashish Sen, Director Emeritus, is working with CMAP and IDOT to maintain the exemption granted to northeastern Illinois by the FRA. The matter has been sent to the Committee on National Statistics (CNSTAT) of the National Academies. There is nothing new to report.

### **Burnham Plan of Chicago Centennial**

Undertaking research into the transportation components of the Burnham *Plan* in anticipation of the 100-year anniversary in 2009. During the quarter, held meetings with the Burnham Centennial Commission and with DePaul University for a joint universities effort, which will include a series of events including a summer course on the *Plan of Chicago*. A paper The Burnham Transportation *Plan of Chicago: 100 Years Later* was presented at the Annual Meeting

of TRF on March 16-18 and a paper was also submitted to the Burnham Centennial Commission.

### **UIC Green Campus Initiative**

Provided assistance the University in developing a transportation component of the campus plan to reduce greenhouse gases and congestion. Participated on the Transportation and Grounds Subcommittee and attended meetings on January 21, February 16, March 9 and March 26. A list of recommendations to improve alternatives to the single occupant automobile for students, faculty and staff were presented for the subcommittee's final report. Was also appointed to the University Master Transportation Plan Committee.

### **The Impact of Weather Conditions on Highway Driving**

This project has been terminated.

### **Bus ITS Projects**

Papers have been prepared for journal publication and for presentation to the TRB on Paratransit Scheduling and Dispatching and Bus Tracking Technologies.

### **Determination of Optimal Samples Household Travel Surveys**

The research will address whether traditional travel surveys can be reduced in size. The question is important for budgeting purposes among MPOs. If the answer is yes, future surveys can be taken more frequently and economically which would benefit transportation planning in Illinois. The issue received attention in the TRB Annual Meeting from the Travel Survey Methods Committee.

### **Greater Roseland Red Line Extension Project**

Have been appointed to the project Technical Advisory Committee (TAC) to the RTA RTAP project being undertaken by UIC Voorhees Center. Attended a meeting on January 30 to review progress on the project.

## **TECHNICAL ASSISTANCE**

### **Association for Commuter Transportation (ACT)**

Participate as a member on the Board of Directors and to develop jointly sponsored workshops.

### **CMAP Freight Committee**

Continue participation on the Committee and attended meetings on February 25 and January 29.

### **CMAP Public Private Task Force**

No meetings were held during the quarter.

### **Greater North Michigan Avenue Association (GNMAA)**

Continue participation with the Transportation Committee.

### **IDOT- DPIT**

The Database project is underway separate from METSI. Await contract approval for Tom Ashby. Also met with DPIT regarding provision of assistance to administer stimulus funds. Investigating the possibility of providing employees under contract to assist the 5311 program.

### **Interagency Coordinating Committee on Transportation (ICCT)**

No meetings were held during the quarter.

### **Champaign MPO**

A grant application was approved by FHWA jointly with Champaign Urbana MPO (CUUATS) to create a Travel Demand Model for small sized MPOs in Illinois using TRANSIMS. METSI is providing in-kind matching funds for the project. Provide technical support, examine model results and provide comments to CUATS. The first tasks are a literature review and a survey of Illinois MPOs.

### **City of Chicago Congestion Pricing Project**

The project was cancelled and the Technical Advisory Group was disbanded.

### **College of Urban Planning and Public Affairs**

Assisting the College by participating on the Dean's Executive Committee and the UTC Director Search Committee. Attended meetings on January 16, February 18, March 30 and 31.

## **WORKSHOPS, TRAINING AND VISITING SCHOLARS**

### **TRB Annual Meeting**

Attended the meeting on January 12 through 14 and presented the following papers: "Planning for Bus on Shoulders Operations in Northeastern Illinois: A Survey of Stakeholders" and "Cost Estimation for the Provision of Free ADA Special Services in the State of Illinois."

### **Connecting TDM and Climate Change Webinar**

Cosponsored a webinar on February 12 with Association for Commuter Transportation and the National Center for Transportation Research.

### **Trains vs. Trucks: Who Shot the Freight Train? Webinar**

Cosponsored a webinar on February 13 with the Railroad Engineering Program at the University of Illinois at Urbana Champaign.

### **Burnham Plan Centennial Partner Meeting**

Attended a meeting and participated as a Centennial Partner on February 25.

### **Public Safety Case Studies Workshop and Webinar**

Cosponsored a webinar on March 4 with the Transportation Safety Advisory Group and Research and Innovative Technology Administration.

### **TRF Annual Meeting**

Attended the meeting on March 16 through 18 and presented the following papers: "The Burnham Transportation *Plan of Chicago*: 100 Years Later" and "Transportation and the Housing Crisis: Are They Related."

### **Crisis or Opportunity? Supply Chain Workshop**

Assisted the Chicago Supply Chain Management Program on March 19 in the dissemination of program notices and provided student subsidies to attend program at a reduced rate.

### **Burnham Centennial Brown Bag Luncheon**

Attended the event on March 19 at DePaul University.

### **Overview of the CREATE Program Seminar**

Sponsored a seminar on March 20 at UTC where a presentation on the status of the CREATE project was given by Cambridge Systematics.

### **Milwaukee Road Bankruptcy: Lessons Learned and Its Relevance to the Current Business Climate Workshop**

Cosponsored a workshop on March 26 at IDOT-DPIT with the Chicago Chapter of TRF and the Sandhouse Gang at Northwestern University Transportation Center.

### **Rail Infrastructure Workshop**

Developed a draft Workshop Agenda and submitted to Congressman Daniel Lipinski's Chief of Staff Jason Tai for review.

## **PLANNED ACTIVITIES FOR NEXT QUARTER**

### **RESEARCH PROGRAM**

**Improving Operational Performance of Ramp Metering Systems-** Data analysis for the remaining expressways is underway and should be finalized by the end of June.

**Regional Intermodal Freight Planning-** Continue participation on the CMAP Freight Committee and in developing freight inputs into the GoTo2040 Regional Plan.

**Center for Freight & Infrastructure Research and Education (CFIRE)-** In cooperation with Universities of Wisconsin and Toledo and funding from the Mississippi Valley Freight Coalition, Drs. Kawamura and Lin will begin building a microsimulation model of critical goods flows in the Midwest. A web-based survey will be undertaken to collect data to calibrate the model. Several conference presentations will be made during the next quarter.

**McHenry County Transportation Study Implementation Task Force (ITF)-** Continue participation in the ITF activities for the implementation of the pilot paratransit program.

**Urban Sprawl-** Research continues into the relationship of obesity and the built environment in the Chicago region. Will present paper for a journal publication.

**Home Ownership and Transportation-** Continue and update of prior research to determine the relationship of transportation and the current housing crisis.

**American Community Survey: Trends in Commuting Behavior by Population Subgroups-** Prepare a paper on the seasonal effects of work trips.

**Spatial Accessibility Indices for Transit**- Research continues on the project.

**Locomotive Horns**- Await reply from CNSTAT and direction from CMAP work group.

**Burnham Plan of Chicago Centennial**- Planning continues with UIC, DePaul University and the Centennial Commission for a series of events in 2009.

**UIC Green Campus Initiative**- Continue participation and attend Transportation and Grounds Committee meetings and assist in preparing a final report with transportation recommendations.

**Household Travel Surveys**- Continue research into reduced sized household travel surveys.

**Greater Roseland Red Line Extension Project**- Continue to participate on the Technical Advisory Committee and attend final project meeting on June 26.

#### **TECHNICAL ASSISTANCE**

**ACT**- Continued activity on Board of Directors and seek to cosponsoring workshops.

**CMAP Freight Committee**- Continued assistance to CMAP and attend meetings on April 29 and June 3.

**CMAP Public Private Task Force**- Continue assistance to CMAP.

**GNMAA**- Provide ongoing assistance to GNMAA Transportation Committee and attend meetings during the next quarter and prepare transportation article for their newsletter.

**ICCT**- Continue participation and attend the next meeting scheduled for May 7.

**Champaign MPO**- Continue technical support to CUATS , undertake literature review and develop a survey of MPOs in Illinois.

**College of Urban Planning and Public Affairs**- Three final candidates for UTC Director are being interviewed from April 7 through 10. Goal is to make a selection by June 2009.

#### **WORKSHOPS, TRAINING AND VISITING SCHOLARS**

**Burnham Meets Vincent Conference**- The event will take place at DePaul on April 9.

**A New Approach to Traffic Signal Timing and Education: Mobile Signal Timing Training Webinar**- The webinar will be cosponsored with USDOT and take place at UTC on April 15.

**The Daley Forum**- The Annual Richard J. Daley Forum will be held at UIC on April 27. “Economic Recovery: Cities Lead the Way” is the topic of this years forum.

**Burnham Centennial Events**- A number of events are planned throughout the year celebrating the 100-year Anniversary of the *Plan of Chicago*. A Burnham Snapshots lecture will be held on

June 19 and the Upper Midwest Conference is scheduled for September 24 through 26.

**Rail Infrastructure Workshop**- The workshop is in the planning and development stage in conjunction with Rep. Daniel Lipinski's staff for a summer date.

### **PROJECTS COMPLETED DURING CALENDAR YEAR 2009**

**City of Chicago Congestion Pricing Project**

**TRB Annual Meeting**

**Connecting TDM with Climate Change Webinar**

**Trains Versus Trucks: Who Shot the Freight Train? Webinar**

**Evaluation of the CTA U-Pass Program Workshop**

**Transportation Safety Case Studies Webinar**

**Overview of the CREATE Program Seminar**

**Burnham Centennial Brown Bag Luncheon Meeting**

**The Milwaukee Road Bankruptcy: Lessons Learned and the Relevance in the Current**

**Business Climate Webinar**

**TRF Annual Meeting**

**The Impacts of Weather Conditions on Highway Driving**

**Small-Area Data for Freight Modeling**

**Bus ITS Projects**

4/06/09