

**METROPOLITAN TRANSPORTATION SUPPORT INITIATIVE
METSU**

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

QUARTERLY REPORT
For the quarter ending September 30, 2009

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METROPOLITAN TRANSPORTATION SUPPORT INITIATIVE (METSU)

QUARTERLY REPORT

For the quarter ending September 30, 2009

CURRENT QUARTER ACTIVITIES

GENERAL AND ADMINISTRATIVE

The following are highlights for the most recent quarter:

-Received a grant on July 17 from CN Railway of \$100,000 per year for 3 years to establish a rail freight research program, workshops and a fellowship program.

-Continuing the celebration of the 100-year anniversary of the Burnham Plan.

Participated in events in July and September and prepared an article for the Greater North Michigan Avenue Association October Newsletter.

-Preparing a mobile workshop on the Pink Line for the IDOT Fall Planning Conference to be held in Chicago on October 14 to 16.

-Preparing a workshop on Supply Chain and Rail Freight Transportation Symposium to be held at UIC on November 17.

-Attended a press conference on August 10 at the invitation of Cong. Lipinski's Chief of Staff announcing the funding of the Central Street Bypass in Bedford Park.

-Preparing the *Connector* Newsletter for distribution in late November.

Below is a description of progress during the quarter. Please note the report Improving Operational Performance of Ramp Metering Systems, which was added as an amendment to the METSU contract has been completed.

RESEARCH PROGRAM

Regional Intermodal Freight Planning

Kazuya Kawamura continues to serve as a member of CMAP Freight Committee and participated in meeting on July 16. The committee is in the process of providing freight inputs into the 2040 Regional Plan (GoTo2040). CMAP has retained a consulting team to develop the comprehensive freight strategy for the region. The Freight Committee is facilitating the effort by providing inputs.

Center for Freight & Infrastructure Research and Education (CFIRE)

UIC is the academic consortium member of CFIRE led by the University of Wisconsin, Madison. As the PI, Kawamura continues to supervise, coordinate and conduct research studies. Jane Lin's group is close to completing the development of county-level estimation of freight tonnage productions and attractions by commodity at the county level. The possibility of making the data available on the Internet on a permit-based system is being discussed, as there will be a demand for this data set. Lin and Kawamura are collaborating with the consortium to build a microsimulation model of some of the critical goods flow in the Midwest. The project, which is funded by the Mississippi Valley Freight Coalition, involves developing examples of goods movements in the upper Midwest states to highlight how transportation infrastructure is used by carriers and how freight operations are impacted by their performance. Kouros Mohammadian, Kawamura and a student RA have carried out a web-based survey to collect the data needed to calibrate the shipment-based freight-demand forecasting model. Preliminary analysis of the

20,000 email surveys will be presented at the upcoming TRB annual meeting.

The following presentations were made at professional conferences during the quarter:

-Behavioral Freight Movement Modeling: Methodology and Data to the 2009 IEEE Conference in Chicago in July.

-Economic, Environmental, and Congestion Impacts of Trucking at the International Conference on City Logistics in Mexico in July.

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 County held meetings on July 22 and September 23 where they evaluated grant applications and made awards totaling \$421,346 to eight local agencies to encourage paratransit expansion and coordination.

Urban Sprawl- Obesity and the Built Environment

The body mass index (BMI) is being updated for the Chicago region. By aggregating the Zip-Code data, the confidentiality of individual driver’s license is protected. A report and two national conference papers have been prepared. Additional research continues to be conducted.

Home Ownership and Transportation

After our presentation at the TRF Annual Meeting last year, the editor of the *Journal of TRF* requested that we submit our work for publication. Additional analysis was performed and a manuscript was submitted which is currently being reviewed. The main conclusion of the paper is that housing foreclosure is positively related to how many miles residents drive but negatively related to the extent of the road network (as network extent increases foreclosures decline). The implication is that extensive road networks may support the economy and the Stimulus funds (ARRA) may be used to improve the road network without contributing to foreclosures.

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*. Attended Burnham Workshop at DePaul University on April 16.

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 where the final recommendations were made to improve bicycle facilities and access, increase usage of public transit and University provided bus service and to adopt principles of TDM to reduce the University's carbon footprint. The final report was endorsed by the University.

Determination of Optimal Samples for 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 and has been recommended for funding in a future NCHRP RFP.

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. They are preparing final recommendations for release next quarter. Also, CTA began holding public hearings on its proposed extensions of the Red, Yellow and Orange Lines.

Bus Tracking Technologies

Continue research to provide affordable bus tracking technology for operations management.

TECHNICAL ASSISTANCE

Association for Commuter Transportation (ACT)

Continue to develop jointly sponsored workshops.

CMAP Freight Committee

Continue participation on the Committee and attended meeting on July 16.

CMAP Public Private Task Force

No meetings were held during the quarter.

Greater North Michigan Avenue Association (GNMAA)

Continue participation with the Transportation Committee and publish article on the Burnham Transportation plan for their October Newsletter.

IDOT- DPIT Database Project

The Database project is underway separate from METSI and contract.

IDOT- DPIT Stimulus Project

The two-year agreement to provide project management for 5311 ARRA funds was executed. Interviews were held at IDOT- DPIT and finalists identified and will be made offers.

IDOT- DPIT Periodicals Project

On April 13 IDOT as a part of their move from 300 West Adams to the Thompson Bldg. donated 39 boxes of periodicals and transportation reports for inventory, storage and display. Some items have been removed from storage to display while space and shelving is being sought.

Interagency Coordinating Committee on Transportation (ICCT)

The meeting was held on September 23.

Champaign MPO

Assisting the MPO (CUUATS) to create a travel demand technical support group that will provide expertise to small MPOs in Illinois. A paper was submitted by Paul Metaxatos "Issues with Small Samples in Trip Generation Estimation" and published in *Transportation Statistics*.

College of Urban Planning and Public Affairs

Assisting the College by participating on the Dean's Executive Committee and attended meetings on August 3 and September 23. The Search Committee for a UTC Director has been extended due to the inability to identify an acceptable candidate.

WORKSHOPS, TRAINING AND VISITING SCHOLARS

Pace Building Dedication

Attended the new administration building dedication in Arlington Heights on July 1.

Canadian Rail Freight Infrastructure Workshop

Attended a jointly sponsored event by the Canadian Club of Chicago, MPC and the Chicagoland Chamber of Commerce on July 15.

IDOT Fall Planning Conference

Attended meetings with IDOT on August 5, 25 and September 10 to plan for a mobile workshop of the CTA Pink Line as a part of the conference to be held in Chicago in October.

Northwest Indiana Commuter Transportation District Accomplishments and Plans

Jointly sponsored a workshop with the Chicago Chapter of TRF and Northwestern University on August 6.

Crossborder Freight Issues Luncheon

At the invitation of the Canadian Consul General, attended a jointly sponsored luncheon with MPC on issues dealing with Canadian trade on August 11.

Development of Amtrak High Speed Rail in the Chicago Hub

Jointly sponsored a workshop with the Chicago Chapter of TRF and Northwestern University on September 2.

Supply Chain and Rail Freight Symposium

Attended weekly meetings to plan for a symposium to be held on November 17. Met with Les Nunes and Keith Sherman, IDOT on August 20 to discuss the agenda for the symposium.

Visiting Scholar from Columbia

Met with faculty member from the National University of Columbia on September 1 to discuss transportation plans for the city of Bogota.

PLANNED ACTIVITIES FOR NEXT QUARTER

RESEARCH PROGRAM

Improving Operational Performance of Ramp Metering Systems- Awaiting comments from IDOT TSC on Final Tentative Report.

Regional Intermodal Freight Planning- Continue participation on the CMAP Freight Committee and in providing freight inputs into the Comprehensive Freight Plan.

Center for Freight & Infrastructure Research and Education (CFIRE)- Research continues developing county-level freight production, commodity attractions, building a microsimulation model of critical goods flows in the Midwest and the web-based survey undertaken to collect data to calibrate the model.

Several conference presentations will be made during the next quarter:

-Economic Impact of In-House and For-Hire Trucking: Forward Linkage Analysis at the ACSP meeting in Chicago in October.

-Bad Trucks and Good Trucks- Economic Linkages and Externalities of Trucking Activities at the National Urban Freight Conference in Long Beach in October.

-Behavioral Freight Movement Modeling: Methodology and Data at the International Conference of Travel Behavior Research to be held in December.

-An Online Freight Shipment Survey in the US: Lessons Learned and a Non-response Bias Analysis.

-Modeling Urban Commercial Vehicle Daily tour Scheduling Using the Texas Commercial Vehicle Survey Data.

McHenry County Transportation Study Implementation Task Force (ITF)- Enter into contracts with award recipients and begin to plan service start up to expand and coordinate paratransit in the county. The next status meeting will be held on November 18.

Urban Sprawl- Obesity and the Built Environment- Research continues into the relationship of obesity and the built environment in the Chicago region and a paper is being prepared for an academic journal.

Home Ownership and Transportation- Awaiting approval of a paper submitted for publication

in the *Journal of the Transportation Research Forum*.

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- Recommendations contained in the final report will be implemented by the University.

Determination of Optimal Samples for Household Travel Surveys- Continue research into the reduction of the size of household travel surveys.

Greater Roseland Red Line Extension Project- The Voorhees Center at UIC, who is undertaking the study, will make it's recommendations at a meeting to be held on October 16. The CTA is taking public comment through October on each of its proposed line extensions.

Bus Tracking Technologies- Awaiting approval of a paper submitted for publication in the *Journal of Advanced Transportation*.

TECHNICAL ASSISTANCE

ACT- Continued activity seeking to cosponsoring workshops.

CMAP Freight Committee- Continued assistance to CMAP and attend meetings on November 17 and December 3.

CMAP Public Private Task Force- Continue assistance to CMAP. No meetings planned.

GNMAA- Provide ongoing assistance to GNMAA Transportation Committee, attend Transportation Committee meetings and have newsletter article on the Burnham Plan published.

IDOT Database Project- The project is underway.

IDOT Stimulus Project- Three research assistants will be hired and begin working during the next quarter. Will assist supervising the project.

IDOT Periodicals Project- Seeking space and shelving to complete inventory and display.

ICCT- Continue participation and attend the next meeting.

Champaign MPO- Continue technical support to CUATS and meet with the Technical Review

Panel in October.

College of Urban Planning and Public Affairs- Continue participation on the Search Committee with the goal of making a selection by January 2009. Also continue participation on the Executive Committee representing the UTC.

WORKSHOPS, TRAINING AND VISITING SCHOLARS

Transit Planning in Seattle- As a part of the UTC Seminar Series, Professor Emeritus Siim Soot will present his experience on October 1 on the new light rail system in Seattle.

Visiting Scholar from Columbia- Will continue to assist the National University of Columbia with planning for a transit system in Bogota on October 8.

Burnham and Beyond- Participating in the IDOT Planning Conference on October 14-16 and leading the mobile workshop on Cultural Excursions on CTA Pink Line on October 15.

William O. Lipinski Symposium on Transportation Policy- Will attend event on November 2 at Northwestern University in Evanston.

Supply Chain and Rail Freight Symposium- The symposium will be held at UIC on November 17.

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 Public 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

Crisis or Opportunity: Supply Chain Workshop

TRF Annual Meeting

The Impacts of Weather Conditions on Highway Driving

Small-Area Data for Freight Modeling

The Daley Forum

A New Approach to Traffic Signal Timing and Education: Mobile Signal Timing Training Webinar

Burnham Meets Vincent Conference

Burnham Snapshots Lecture

TRF Chicago Chapter Officers Meeting

Computational Transportation Science Presentations

Issues with Small Samples in Trip Generation Estimation Paper

Synthetic Data Generation for Small-Area Demand Forecasting of Freight Flows Paper
Six Freight Presentations made at Professional Conferences
Burnham Centennial Events
Midwest High-Speed Rail Presentation
Advancing Traffic Signal Management Programs through Regional Collaboration
Great Railway Terminals Minibus Tour
Northern Indiana Commuter Transportation District History and Plans
Pace Building Dedication
Canadian Rail Infrastructure Workshop
Northwest Indiana Commuter Transportation District Accomplishments and Plans
Development of Amtrak High Speed Rail in the Chicago Hub
Crossborder Freight Issues
Improving Operational Performance of Ramp Metering Systems
Behavioral Freight Movement Modeling: Methodology and Data Presentation
Economic, Environmental and Congestion Impacts of Trucking Presentation

10/06/09