

**METROPOLITAN TRANSPORTATION SUPPORT INITIATIVE
METSU**

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

QUARTERLY REPORT
For the quarter ending March 31, 2007

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METROPOLITAN TRANSPORTATION SUPPORT INITIATIVE (METSII)

QUARTERLY REPORT

For the quarter ending March 31, 2007

CURRENT QUARTER ACTIVITIES

GENERAL AND ADMINISTRATIVE

The following are highlights for the most recent quarter:

- Held an Advisory Board meeting on February 14 where Siim Soot gave a presentation on his current work developing improved journey-to-work data for small geographic areas.
 - Participation in the McHenry County Implementation Task Force, which was a successful applicant for a JARC grant to create a centralized dispatch center for the county.
 - Participation in the Lake County Commuter Coalition, which received a JARC grant to implement an early morning reverse commute train on the Metra UP North Line. The train is called the "Sunrise Express" and was announced at a press conference in Waukegan on March 5.
 - A presentation of the Paratransit Provider survey was given to the Lake County Coordinated Transportation Services Committee on March 21. The survey will be input to the Pace countywide study and the RTA RTAP grant for Lake County.
 - There is ongoing follow-up to the Global Supply Chain Forum to develop an action plan and prepare for a consortium in June second conference in the fall.
 - The UTC *Connector* Newsletter was sent to the printer for distribution in early April.
- Below is a description of progress during the quarter.

RESEARCH PROGRAM

Improving Operational Performance of Ramp Metering Systems

Congestion problems on the Chicago region's Interstate highway system have plagued the region for a long time and continue to worsen. In order to assist IDOT to streamline control and operation of ramp metering, a Master's thesis research project was recently completed by Todd Bapton under the supervision of Prof. Kouros Mohammadian. This study has developed methodology that will help IDOT engineers use critical mainline occupancy to calibrate operational parameters of its centralized Advanced Transportation Management System (ATMS) that controls highway operation, including ramp metering operation.

The corridor used for analysis spans the final section of the inbound (eastbound) I-290 Expressway as it leads to the inbound Eisenhower Expressway. The 4.16 mile corridor stretches from the overpass of the UP (formerly C&NW railroad tracks) north of St. Charles Road to the overpass at Wolf Road.

After critical occupancy was identified, two of IDOT's ATMS ramp metering operation modes, Time of Day table operation and Local Traffic Responsive operation were in turn calibrated. Knowledge of critical mainline occupancy was also used in the design of new modes of ramp metering control. This study also evaluates the implementation and road test of two strategies: ALINEA and improved BOTTLENECK algorithms. Performance of these new modes and calibrated ramp metering operation were then compared against current operation through the results of the delay model.

Regional Intermodal Freight Planning

Kazuya Kawamura continues as a member of CMAP Intermodal Advisory Task Force (IATF), which is being reorganized following the merger of CATS and NIPC. He is also continues serving as chair of the Research and Planning subcommittee, which may be renamed after the new structure. IATF's current effort includes the creation of web-based monthly goods movement performance indicators. He is also obtaining truck volume and speed data for selected segments of the expressway system in the Chicago region.

Safety Analysis

Siim Soot continues to serve on the Chicago Mayors Task Force on Pedestrian Safety.

Center for Freight & Infrastructure Research and Education (CFIRE)

CFIRE is one of ten National University Transportation Centers that were established under SAFETEA-LU and is led by the University of Wisconsin, Madison and will focus on issues of sustainability and freight transport. UIC is participating with four other universities using METSI as match to support the following activities:

Program Development

Activities include actively participating in the development, administration, monitoring and evaluation of the program including a knowledge exchange with other freight scholars and practitioners through conferences, meetings and presentations.

Making Truck-Rail Intermodal Competitive

Dr. Kawamura is the principal investigator for the proposed study that focuses on finding the public policy options that help intermodal become more competitive in the broader segments of freight markets including short to medium distance shipments. The majority of funding is provided by CFIRE with state DOTs and METSI is providing the match. Kawamura and co-investigators Ernie Wittwer and John Verda will begin the study upon funding availability.

Mississippi Valley Freight Coalition (MVFCC)

UTC staff will provide logistical and technical support on an as needed basis to facilitate the initiatives being planned under the MVFCC effort. In addition, staff will keep key stakeholders in the Chicago region fully informed of ongoing efforts.

Lake County Commuter Coalition

Staff is participating in Sen. Susan Garrett's Reverse Commute Committee working with employers and municipalities and assisting in the development of the early morning reverse commute train on Metra UP North Line called the "Sunrise Express". A JARC application has been approved for implementation on April 1. Attended a meeting on January 29 to plan the new service and a press conference on March 5 in Waukegan announcing the service.

McHenry County Transportation Study Implementation

Staff continues to participate on the McHenry County Transportation Study Implementation Task Force (ITF) and the two Sub-Committee Working Groups, Coordinated Paratransit Services and Taxi Vouchers. Staff attended a Task Force meeting on January 24 where it was announced that McHenry received JARC and New Freedom grants for a centralized dispatch facility.

Highways and Sprawl

Changing Travel Times 2000-2005 Staff is still working on a report on the recent changes in commute times. Since the beginning of the millennium there has been strong association between population growth and the change in journey-to-work travel time. Cook County had a decrease in both while the outlying counties had large increases in both population and travel time. Will County had the highest percentage and absolute increase in both population and travel time.

Lake County Report Staff is finishing our report on the important demographic and economic changes in Lake County, during the beginning of this millennium, that drive the increases in peak-period traffic. We find that while the county is growing the other factors that contribute to traffic congestion are not growing as fast as might be expected. Automobile ownership appears to be growing at the same rate as population growth (different than recent history when automobile ownership was growing faster). Labor force participation is decreasing and the county is aging with noticeable increases in the retired population.

Emergency Ride Home (ERH)

Developed a region-wide demonstration program and received approval and CMAQ funding for the project. Awaiting verification of a commitment of soft match funding using toll revenues and discussing assigning the grant to Pace. Provided project summary to IDOT.

Northeast Lake County Corridor

Assisting employers and municipalities in improving Metra UP North Line service. The corridor joined with Sen. Susan Garrett's Lake County Commuter Coalition and supported the new Sunrise Express. The corridor is pursuing additional inbound express service from Metra.

Database and Library

Staff continues developing a database, library and web site for UTC and METSI.

Lake County Coordinated Transportation Services Committee

Staff developed a scope of work for a paratransit coordination study in Lake County and submitted it to RTA as an RTAP grant application. Over 100 paratransit provider surveys were distributed and 34 have been returned completed. Staff is undertaking summary and analysis of the results and is developing a mapping system to graphically show the results. Preliminary results of the Survey were presented to the committee at their meeting on March 21.

Transit Check Ridership Analysis

Prepared a scope of work to undertake a study of the impact of Transit Check usage on ridership volume and patterns. The RTAP grant is unable to be used to fund RTA program analysis.

Locomotive Horns

Ashish Sen, Professor and 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.

Longitudinal Employer-Household Dynamics (LEHD) Data

The UTC team has conducted extensive analysis of the LEHD data for Illinois obtained from IDES and have authored a technical memorandum for submittal to the Bureau of the Census. The memorandum describes certain issues that need to be addressed in future data releases for the Chicago Region. In addition, Prof. Siim Soot gave presentations on the status of this work to the Advisory Board on February 14 and the TRF Chicago Chapter workshop on March 21.

Moss Thesis Proposal

Advising a graduate student undertaking a thesis proposal to identify what, if any benefits can moss as applied to vertical concrete walls bring to noise, air, visual and temperature pollution mitigation efforts along transportation corridors.

Commuter Rail University Fares

As a result of the request by universities at the Higher Education meeting held by RTA, a paper "Comparison of University Pass Programs on Commuter Rail Services" was prepared describing various fare programs by twelve commuter rail agencies in North America. The paper was provided to Metra for comment.

Loop Detector Data

Staff has begun analyzing loop detector data from the region's expressways for the purpose of analysis and potential use in real time traveler information systems.

TECHNICAL ASSISTANCE

Association for Commuter Transportation (ACT)

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

CMAP Human Services Committee

The Community Mobility and Seniors and Persons with Disabilities task forces have been combined into the new Human Services Committee. Attended the meeting held on January 8.

CMAP Intermodal Advisory Task Force (IATF)

Continued participation with the Task Force and various freight task forces

CMAP Private Providers Task Force

No meetings were held during the quarter. The task force will be likely reorganized.

CMAP Jobs-Housing-Transportation Advisory Committee

Assisting CMAP by co-sponsoring summit held on February 8.

CMAP Transportation Management and Operations (TM&O) Work Group

There were no meetings during the quarter. The work group will be likely reorganized.

Greater North Michigan Avenue Association (GNMAA)

Continuing assistance to the Transportation Committee.

IDOT- DPIT

The final scope of work for the database project has been approved by IDOT and a presentation was given to the ICCT at their meeting on March 8. Awaiting grant approval and a contract.

Interagency Coordinating Committee on Transportation (ICCT)

Participated in a meeting held on March 8. The scope of work for the development of a GIS based database has been finalized with Natashia Holmes, IDOT and presented to the ICCT.

Peoria MPO

Staff has provided comments on the Peoria Tri-County Regional Planning Commission's consultant assessment of the MPO modeling needs and is waiting to hear from the MPO regarding the next course of action. Also provided assistance in the development of their HSTP.

Champaign MPO

Staff developed techniques for developing models for smaller urban areas, which allow for good planning without the high costs associated with modeling. Met with MPO staff on January 26 to discuss the project and they have accepted the revised trip generation report and will consider a trial effort using recommended methodologies.

Center for Supply Chain Management and Logistics

Met on January 29 to develop a summary of the workshop held in November and planning to hold a Consortium in June and a follow-up Symposium in the fall.

RTA Human Services Transportation Plan (HSTP)

Provided comment on January 31 to the consultant hired by RTA to develop HSTP.

WORKSHOPS, TRAINING AND VISITING SCHOLARS

TRB Annual Meeting

UTC faculty and students made a total of fourteen podium or poster presentations at the meeting held on January 21 through 25. The UTC also sponsored a reception in Washington, DC.

Using BRT to Reduce Urban Air Pollution

Participated in and co-hosted a BRT Workshop sponsored by the College of Urban Planning and Public Affairs at UIC on January 17.

Views on Urban Sprawl

Prof. Siim Soot participated in a workshop at UIC where he presented his METSI supported work on urban sprawl and demographic changes in the Chicago region on January 29.

Business Leaders for Transportation

Attended meeting on March 2 where IDOT Secretary Milt Sees gave a presentation.

Engaging Businesses Successfully in TDM: Canadian Success Stories and Lessons Learned

Cosponsored a workshop with ACT Canada on February 23.

Center of Tax and Budget Accountability Lake County Workshop

Participated in workshop given on March 14.

Design and Construction of Intermodal Terminals

Hosted web-based workshop from UIUC on February 23.

REMI Web Training Course

Held two of eight training sessions on regional economic models on March 5 and 19.

TRF Officers Meeting

Chaired the quarterly officers meeting on February 9 to discuss ongoing programs.

New Data on the Horizon: LEHD and the CTPP

Prof. Siim Soot gave a presentation of his METSI sponsored work at the Chicago Chapter of the TRF on March 21.

Moving Beyond Congestion

Attended a meeting with RTA on February 9 in support of their program.

Making the Chicago Region More Competitive in the Global Supply Chain: A Forum for Business, Government and Freight Industry Leaders

A meeting was held on January 29 to review the notes from the November 21 symposium in order to prepare a summary document.

Transit Higher Education Working Group

Attended a meeting of universities and colleges in the region on March 19 as a part of RTA's Moving Beyond Congestion effort.

Congestion Pricing and Urban Partnership Workshop

Attended CMAP sponsored workshop on March 28 and provided comments on proposal to FHWA.

PLANNED ACTIVITIES FOR NEXT QUARTER

RESEARCH PROGRAM

Improving Operational Performance of Ramp Metering Systems- The task is ongoing.

Regional Intermodal Freight Planning- Continue participation with CMAP and the Global Supply Chain Forum.

Center for Freight & Infrastructure Research and Education (CFIRE)

Program Development- Development will be ongoing.

Making Truck-Rail Intermodal Competitive- To begin upon grant approval.

Mississippi Valley Freight Coalition (MVFCC)- To begin upon grant approval.

Lake County Commuter Coalition- Continue participation and monitoring Sunrise Express.

McHenry County Transportation Study Implementation (ITF)- Participating in committee and subcommittee activities on paratransit and taxi vouchers. The next meeting has not been scheduled.

Highways and Sprawl-

Changing Travel Times 2000-2005- Research continues in the areas of changing travel times and Census 2000 and ACS.

Lake County Report- Complete draft report and submit for publication.

Emergency Ride Home (ERH)- Attempt to transfer CMAQ grant to establish a region-wide ERH to Pace Suburban Bus. Awaiting commitment of tollway credits to match grant.

Northeast Lake County TMA- Continue participation and assist in monitoring and marketing the Sunrise Express and to assist in the development of additional inbound express service on the Metra UP North Line.

Database and Library- Continue development of a database of transportation information for use in determining research focus and to provide data to constituent transportation and planning agencies. Also, continue development of library and associated website.

Lake County Coordinated Transportation Services Committee- Continue accumulating and analyzing completed provider surveys. Planning to attend meeting on April 18 and assist in turning over data to Pace and RTA for their studies in Lake County.

Transit Check Ridership Analysis- The project has been terminated.

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

Longitudinal Employer-Household Dynamics (LEHD) Data- Continue analysis of the data and identify methods to make it usable. Prepare technical paper to Bureau of the Census outlining issues pertaining to future data releases.

Moss Thesis Proposal- Participate in thesis defense.

Commuter Rail University Fares- Awaiting comment on the paper from Metra. Also, Transport Chicago accepted paper for presentation in June.

Loop Detector Data- The speculative work is ongoing.

TECHNICAL ASSISTANCE

ACT- Continued activity on Board of Directors and seek to continue co-sponsoring workshops.

CMAP Committee Membership

Received notification from CMAP that UIC has been assigned membership on three CMAP Committees; Transportation, Environment and Natural Resources and Housing (Voorhees Center). These will replace many of the committees and task forces listed below.

CMAP Human Services Committee- Ongoing participation in CMAP committee activities and attend next meeting on April 9.

CMAP Intermodal Advisory Task Force (IATF)- Ongoing assistance to CMAP and attend next meeting on April 26.

CMAP Private Providers Task Force- Provide ongoing assistance to CMAP.

CMAP Jobs-Housing-Transportation Advisory Committee- Continue participation as requested by CMAP.

CMAP TM&O- Provide ongoing participation and assistance to CMAP.

GNMAA- Provide ongoing assistance to GNMAA Transportation Committee.

IDOT- DPIT- Develop statewide database upon grant and contract approval.

ICCT- Continue participation and plan to attend meeting on May 3. Plan to present status of IDOT database project and obtain input from committee as to data needs.

Peoria MPO- Await comment from IDOT and Peoria regarding continued assistance to the metro area in the development of travel demand models.

Champaign MPO- Continue providing assistance and attend technical meeting on April 4 in Urbana to discuss further collaborations. Also, an academic paper will be prepared.

City of Waukegan- At the request of the city will assist in attempting to develop additional inbound express service.

TRAINING AND VISITING SCHOLARS

Transit Higher Education Work Group- Planning to participate in RTA sponsored workshop on April 9.

Congestion Pricing and Urban Partnerships- Hosting a web conference sponsored by FHWA on April 4.

Global Supply Chain Summit- Planning to hold a summit on June 20.

Transport Chicago- Submitted several papers for presentation at Transport Chicago on June 1.

Transportation Research Forum Chicago Chapter- Planning to hold a workshop on Truck Parking in the GCM Corridor on May 9.

Do you Get What You Incent?: A Virtual Discussion on Areawide Commuter Financial Incentives Workshop- Planning to jointly sponsor workshop with the Association for Commuter Transportation and the University of South Florida on April 25.

Spatial Analysis Seminar- Developing research guidance to graduate students working on data integration projects.

REMI Web Training Course- Eight training sessions on regional economic models will continue in April, May and June.

Employer-Based Alternative Commute Initiative- Rest Your Car- Plan to jointly sponsor workshop with ACT on June 21.

PROJECTS COMPLETED DURING CURRENT CALENDAR YEAR

UTC Advisory Board Meeting

RTA Transit Check Ridership Analysis

TRB Annual Meeting

RTA Human Services Transportation Plan

CMAP Innovation and Integration Summit

Using BRT to Reduce Urban Air Pollution Workshop

New Data on the Horizon: LEHD and the CTPP

Center for Tax and Budget Accountability Lake County Workshop

Views on Urban Sprawl Workshop

TRF Officers Meeting

Engaging Businesses Successfully in TDM: Canadian Success Stories Workshop

Design and Construction of Intermodal Terminals Workshop

New Data on the Horizon: LEHD & CTPP, Chicago Chapter TRF Workshop

Congestion Pricing and Urban Partnership Workshop

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