



Advanced Technology Task Force

Meeting Notes – December 10, 2009

The meeting was called to order at 9:30 AM at the CMAP Offices, 233 South Wacker Drive, Suite 800, Chicago, Illinois. Those present at the meeting were:

David Zavattero, Chairman and Gerry Tumbali, Co-Chair

Members:

Tom Szabo	<i>Kane County DOT</i>	Ryan Hicks	<i>NIRPC</i>
Chris DiPalma	<i>FHWA</i>	Taqhi Mohammed	<i>Pace</i>
Jon Nelson	Lake County DOT		
Teleconference:			
Chuck Sikaras	<i>IDOT</i>		
John Dillenburg	<i>UIC</i>	Steve Peters	<i>IDOT</i>

Interested Parties:

Dan Fuchs	<i>Brown Traffic Products</i>	Joseph Brahm	<i>Delcan</i>
Abraham Emmanuel	<i>Chicago OEMC</i>	Brian Plum	<i>Traffic Control Corp</i>
Syd Bowcott	<i>URS</i>	Matt Letourneau	<i>Jacobs Engr.</i>
		Jim Powell	<i>WSA</i>

CMAP Staff:

Claire Bozic	Tom Murtha	Greg Sanders	Todd Schmidt
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SUMMARY OF COMMENTS:

1. Introductions

Mr. Zavattero requested that everyone introduce themselves.

2. FHWA Regional Traffic Signal Operations(*E. Curtis, P.E, FHWA*)

Mr. DiPalma introduced the presenter who gave a presentation remotely via the internet and conference call. Mr. Curtis has many years experience in traffic signals, including 14 years in the Louisiana state DOT with 11 years as a traffic operations engineer, and working on research and development for an adaptive traffic signal system. He has been with FHWA for 4 years, and is the manager of the arterial management program and works in the resource center.

Regional traffic signal programs have often been based on information relationships. Mr. Curtis has been working to get operations programs incorporated formally in long range planning efforts, “planning for operations.” This is important because of the way projects are funded. If projects aren’t in the TIP or STIP, you can’t spend federal funding on them. Because operations activities weren’t really treated as projects, they most often

weren't included in the programs. The fact that operations people have a shorter term focus than planners, who are looking 10-30 years out, made this even more difficult. However, a closer look shows that while planners start from the goals and objectives, and operations staffs often focus on specific strategies, they are united by their concern for measuring improvements in the system. They both want to improve evaluation measures, whether the measure is delay, congestion, or various other metrics.

A regional transportation concept of operations provides an avenue for planners and operations staff to work together to formulate a plan which will guide the development of operations projects.

Mr. Powell asked what performance measures Denver and other cities used. Mr. Curtis said they had used travel time reliability and delay reduction. They did much of their work with manual data collectors. Research from many places indicates that demand data is often collected in 15 minute increments, but for operations planning you have to have much more disaggregated data. It has to show you what is going on traffic cycle by cycle, phase by phase.

Mr. Zavattero asked what lessons were learned from places where they did plan for operations, as often the trouble starts when the details of a strategy are being worked out. Everyone can agree in principle to the big ideas, but there are many disagreements about how things should be done. Mr. Curtis said that you just have to sit around the table and hammer them out. You really can't get around that. He's also seen some places where there was a lack of political support for programming funds for operations projects, as the political people didn't really understand the benefits of the investment. The videos played to the group were one way to generate political support for this investment.

Mr. Zavattero said that Chicago had fewer issues with multiple jurisdictions on roadways because IDOT did not operate the traffic signals in Chicago, but there were some issues around the city where other municipalities were adjacent to the city. Also, IDOT does manage the traffic signals on many major arterials in the suburbs. The presentation included a graph showing how traffic signals were currently managed. Maintainers waited until signals were operating badly and when people complained, then signals were adjusted and worked well for a while. Then time passed and the operation decayed again and the cycle was repeated. Mr. Zavattero asked what the alternative to that process was.

Mr. Curtis said that having a performance measure to measure how well they're doing is better because you can maintain an adequate level of performance and not let it decay between timings.

Mr. Zavattero asked whether equipment differences were an issue in this process. Mr. Curtis said that there was some software that could create a centralized system out of different equipment, but that there were places that did not centralize the system. They agreed to use the same clock and maintain the corridor using consistent timing methods.

Mr. Curtis said that some areas had approached coordinated operations by providing training in operations to the staff of many jurisdictions so methods would be standardized and not work at cross purposes between jurisdictions.

3. Approval of meeting notes from September 17th, 2009 Task Force meeting.

The notes were approved with corrections from Mr. Sikaras.

4. Status Report on the Regional Data Archive (*G. Sanders, CMAP*)

Mr. Sanders updated the group on the regional data archive activities. He started by saying that the system was basically a geographic data system on the web and not that different from most others. It has some data associated with it right now and is able to generate maps, charts, and downloadable data tables. The important way it differs from other systems is that it is 100% extensible. That is, you can add data without changing the underlying code. We just define what the geography is, which is very flexible, and then add the data. The system is dynamic and responds to the additions automatically.

Unfortunately, the connection to the system was not available in the meeting room, so Mr. Sanders referred to a handout he had quickly generated. He described how items could be selected and then you could “drill down” to further data items or subgeographies. In addition, this also has an Application Programming Interface (API) capability like data.gov so your own computer can be programmed to, for example, retrieve data each hour. This beta version of the data archive will be released soon for testing and comments. It does not yet include transportation data. CMAP will request two things from testers: feedback and data. The only way the data archive will be useful is if our region’s agencies share their data with it. Everyone is talking about data sharing, CMAP would like to be ahead of the curve and nurture the data sharing relationships here.

Mr. Tumbali asked whether CMAP was putting together data standards for agencies who will be feeding the archive. Mr. Sanders said that while he could do that, he is pursuing a more collaborative implementation so that standards do not become an inhibitor to data sharing by requiring extra work. He will meet with agencies separately and discuss how the data can be transmitted. In addition, there is an abundance of “middleware” that can translate data from one format to another so the standards should not really be an issue.

Mr. Zattero asked whether the effort was operational right now, to which Mr. Sanders responded that the beta testing will begin within the month. Mr. Zattero offered that the city of Chicago had spent considerable time assembling data that is appropriate for the archive and that he would like to start working with Mr. Sanders to start getting the process moving for incorporating it. Another attendee asked what geographic coordinate system was being used, because the experience with Gateway was made more difficult because of 7 different systems. Mr. Sanders said that it was lat/long but that again middleware could do translation from various other systems. The example of locational data of “100 feet south of this intersection” was presented as one of the ways transportation location information could be complicated to incorporate.

There was additional discussion about how the system “went out” and retrieved the data for the user. This resulted in restating the important point that much of the transportation data is not being archived now so the system can’t “go out” and retrieve it from an external dataset. The vision of the data archive from the transportation point of view was that it would be the actual point of archiving data at a very disaggregate level. Mr. Sanders said that this likely would require the creation of a different user interface, but

that was not a problem. It would also require more storage space, but that the future was in “cloud storage” and again, this would not be an issue.

An audience member asked whether some data will be restricted and unavailable to the public. Mr. Sanders said that if it didn’t violate privacy, public safety, or proprietary data contracts, the data should be available to the public. Mr. Zattero said that this was still an important topic and that there were differences of opinion on what data could or should be made public.

Mr. Zattero finished the discussion by suggesting that Mr. Sanders take a look at the regional data archive report that was completed last year and that the next step was to begin meeting with transportation data providers to get a sense of what and how data flows could be developed. He also said that everyone understood that there were cost and budget questions with how the archive will be funded, but that there were some opportunities to fund this in a number of different ways.

5. **Freight Study** (T. Murtha, *CMAP*)

Mr. Murtha described the study which was undertaken by the freight committee as an effort to generate strategies to increase efficiency in the truck freight system. This was an effort to develop a [CREATE](#) (i.e. infrastructure improvements project) for trucks. He went on to discuss many of the policies that were under consideration for this effort. To support this activity, a database of roadway operations information will be important, again pointing for the need for a regional data archive. Mr. DiPalma said that northeastern Illinois had spent a number of years focusing on the issues of rail freight and that the interest in roadway freight was long overdue. Mr. Murtha said that the focus on operations and congestion was beneficial to truck freight, but that sometimes policies were developed that were counterproductive. For example, the region’s congestion pricing was applied to trucks but not cars when auto travel would be more responsive to congestion pricing than truck travel. The region’s planning for freight and operations will be improved if the freight stakeholders are included more with the system operators in these discussions. This would be discussed more under the next agenda item. Mr. Zattero quipped that one of the strategies, the transportation facilitation center, was considered by the CMAP predecessor agency CATS in the 1970’s, and that even then the analysis showed it likely be a successful project. However, it was never pursued.

Someone asked what ITS infrastructure would apply to the freight system. Mr. Murtha said that the freight industry was being revolutionized by information technology to an extent unknown by most people. Onboard computers give drivers information, etc. Some ITS applications would be advanced parking management systems for truck parking facilities which would provide drivers real time information about parking availability. Also, weigh in motion, pre-clearance, and lane keeping technologies all require infrastructure. Mr. Zattero gave the example of development in what once were the Chicago Stockyards. This location only has two entrances but one or the other is often blocked by trains entering or exiting rail yards. A monitoring system which would give drivers information about the blockage in time to change their routing is helpful. This sort of system is already in place on Cicero Avenue near Midway Airport where five at-grade rail crossings are being monitored electronically.

6. **RTOC** (T. Schmidt)

Mr. Schmidt provided a presentation outlining the information included in the RTOC Draft Work Plan. The main point of creating an official Regional Transportation Operations Coalition group is to provide a forum for identifying and planning for regional operations as other regions had. The RTOC would become the umbrella group over the Advanced Technology Task Force, Freight Committee, and Bicycle/Pedestrian Task Force. The reasoning behind this arrangement was that operational issues were a main concern for all three groups. For the ATTF, technology was a way to address operational issues. The other two groups have multiple issues that are especially impacted by operational decisions. None of the groups is being discarded, but the RTOC seems like a more effective group that would include members of all three groups.

The RTOC group to be formed, would become an official part of the CMAP structure and have representatives on the Transportation Committee and the Congestion Mitigation and Air Quality Committee. In regards to the ATTF, all the current members of RTOC development subcommittee are active participants in the ATTF.

Mr. DiPalma asked the ATTF participants to please take a look at the draft work plan and provide comments, especially on the more practical aspects of the proposed change.

Mr. Zattero asked whether there was any significance to the name being 'coalition' rather than task force, working group, or committee. Mr. Murtha said that unlike in the past with predecessor agencies, there wasn't really any difference implied by what name was selected for the group. Referring to the first presentation on the agenda, Mr. Zattero said that the region also had an Operation Greenlight Program, which was a successful operational program. He felt that the reason it was successful was that there was funding attached to it, while the current effort does not have any funding attached. Mr. DiPalma suggested that it is really a chicken or egg question, and he believed that if the group got together and became productive, it could advocate for particular programs or projects. It would also make the ATTF, Freight and Bike/Ped task forces more successful by presenting a larger and more unified voice for recommendations.

Mr. Sikaras listed four issues he wanted addressed in regards to the proposal:

- How will comments on this proposal be received and incorporated?
- Will the ATTF, Bike/Pedestrian and Freight Committees continue to exist?
- Who will have membership on the committee?
- Will CMAP make a concerted effort not to disenfranchise stakeholders currently participating on any of the existing groups?

Mr. Tumbali wondered how the kind of disparate groups would operate together. Mr. Murtha said that they actually had many issues in common. For example, bicyclists, pedestrians and trucks have a very important interest in how the arterials are managed.

Mr. Tumbali asked about what kind of "managing" the committee would do for operations programs. Mr. Murtha said the group would be able to create guidance, champion programs and projects, and bring the groups together to advocate for operational activities. Mr. DiPalma said that having a formal group within CMAP's structure would be helpful in advocating positions, because it wouldn't just be one agency supporting a project. He said it was a good start on a change discussed over the

last year. He suggested generating an organizational chart showing the three current groups, and one showing how things would look afterward along with an “impacts” list to identify the result of the restructuring. Mr. Mohammed voiced some concern that the agencies represented might not be willing to send more than one person to meetings, and that the representation of ITS professionals might be lost. Mr. Zattero asked attendees to read the proposed work plan and please try to respond by the end of the year, December 31st. Mr. Schmidt offered to post a copy of the document in Word™ format so attendees could add their edits and comments in the document.

7. Construction Coordination Meeting (C. Bozic, CMAP)

Ms. Bozic asked the group whether they thought [last year's event](#) was useful and whether CMAP should organize another one in January. There was general agreement that it was useful and that CMAP should go ahead and do it. The need was perhaps greater this year with the additional ARRA (economic recovery) projects that will be undertaken.

8. Other Items/ Regional Updates

Mr. Zattero reported that OEMC has a data connection with CTA and that the data for the Arterial Performance Monitoring bus probe project should start flowing. 2000 buses will be reporting speeds on 300 miles of the Chicago's arterials. They will be reporting their speeds electronically every 30 seconds.

Mr. Nelson reported that [Lake County Passage](#) has finished integrating 75 additional cameras and is sharing images with Vernon Hills and Gurnee. They also continue to upgrade traffic signals.

Mr. Zattero reported that the [Western Avenue and Harvey Transit Signal Priority](#) systems have been installed and are now operating. This test will provide valuable information on the impacts of the technology.

Mr. DiPalma said that the USDOT will be announcing the awards for TIGER funding in January. The program had \$1.5 billion available, and received applications totaling \$55 billion. The Illinois Tollway submitted an application under this program. He also said that the [Advanced Traveler Information System \(ATIS\) workshop](#) he arranged at IDOT's office in Schaumburg was a success. There were many attendees and general agreement that such a system is desirable. Forty-one states have already implemented some sort of ATIS system. Also, FHWA is planning to host a workshop on the use of roundabouts at intersections, as there was some regional interest in these but few have been implemented. Mr. Murtha pointed out that most of them were being implemented by counties and municipalities, and that they were now being considered as potential intersection improvements in most intersection studies. He mentioned that the RTOC could consider identifying potential locations for roundabouts.

Mr. Sikaras informed the group that the Gateway was awarded the ITS Midwest Project of the Year. Also, [gcmtravel.com](#) has been reworked. The home page now includes the actual travel times and congestion map. Help pages have also been rewritten and FAQ's improved. Mr. Zattero mentioned that use of the site has been growing and wondered whether the increased site traffic has led to any service issues. They have 6 servers which seem to accommodate the 11,000 daily site visits. In the future, there will be an additional 6 backup servers which will provide a failsafe backup and additional capacity. Mr. Dillenburg added that during the recent inclement weather, the site received 22,000

visits. He also said that operators can sign up to enter their own incident information online. An account and password will be needed to take advantage of this. Mr. Tumbali asked whether this information would be available to other agencies. Mr. Dillenburg said that it would be published as an xml feed.

9. Other Business

None

10. Next meeting

The next meeting was set for March 4.