MINUTES OF THE
MARICOPA ASSOCIATION OF GOVERNMENTS
INTELLIGENT TRANSPORTATION SYSTEMS COMMITTEE

June 1, 2005
MAG Cholla Room, 2nd Floor
302 North First Avenue
Phoenix, Arizona

MEMBERS ATTENDING

Debbie Burdette, City of Glendale
Alan Sanderson, City of Mesa
Brian Scifers for Mike Mah, City of Chandler
*Bruce Ward, Town of Gilbert
Nicolaas Swart, Maricopa County
Ron Doubek, City of Phoenix
Bob Ciotti, RPTA
Iven Wooten, DPS
*Nick Mascia, City of Surprise
*Carrol Reynolds, Town of Buckeye
Bruce Dressel, City of Scottsdale
Jim Decker, City of Tempe
Tim Wolfe, ADOT
Ron Amaya, City of Peoria
Scott Nodes, City of Goodyear
Mary Kihl, ASU
Alan Hansen, FHWA
*Dennis Murphy, Phoenix Aviation
Punya P. Khanal for Michael Smith, City of Avondale
*BJ Cornwall, City of El Mirage
Michael Shine, Town of Queen Creek

OTHERS PRESENT

Stephanie Wilhardt, ADOT
Mark Schlappi, MAG
Jim Book, RPTA
Frank McCullagh, ADOT
Manual E. Sanchez, FHWA
Mike Sutton, Kirkham Michael
Doug McCants, PBS&J
Don Tappendorf, Kimley-Horn & Associates
David Haines, Kimley-Horn & Associates
Anne MacCracken, Valley Metro/ RPTA
Sarath Joshua, MAG
Kiran Guntupalli, MAG

*Not present or represented by proxy

1. Call to Order

Chairman Alan Sanderson called the meeting to order at 10:10 AM.

2. Approval of April 6, 2005 Meeting Minutes & Introductions

Mary Kihl moved and Bruce Dressel seconded, and it was unanimously carried to approve the minutes of the May 11th, 2005 ITS Committee meeting.

3. Call to Audience

Chairman Alan Sanderson made a call to the audience providing an opportunity to members of the public to address the ITS Committee. Jim Book, past chair of the committee, praised the excellent work carried out by the committee. He stated that he appreciated the committee tasks performed thinking and working with a regional perspective. Alan Sanderson presented a plaque with a committee resolution appreciating the nearly four years of service by Mr. Jim Book as chair of the MAG ITS Committee.

4. Program Managers Report

The following is a summary of Program Manager's report:

a) TIP closeout projects have been recommended by TRC. Eight ITS projects recommended for closeout funds were listed by Sarath Joshua.

Alan Sanderson commented that the time and effort expended by the committee in ranking the ITS projects in a priority listing was not a factor considered by TRC. He suggested that the committee might want to rethink if priority ranking of closeout projects is necessary. Sarath Joshua added that a more appropriate step would be for the committee to review the eligibility of projects as ITS projects and let member agencies address project prioritization at the TRC.

b) Status of Unified Planning Work Program Projects – TRC has recommended approval of several ITS projects in the FY 2006 UPWP. The following are the projects in UPWP
    a. Integrated Corridor Management Project - $ 250,000
    b. Traffic Signal Optimization Project - $300,000

It is likely that both these projects will be executed through the renewed ITS on-call consultant contracts. RFQ for on call consultants is expected to be released in early July.

5. Federally Funded Transportation Fiber Communication Infrastructure

Chairman Sanderson asked Sarath Joshua to introduce this agenda item. Sarath Joshua described that the purpose of this discussion was to get some answers to question on using federally CMAQ funded fiber infrastructure for non-Transportation uses. Alan Hansen from FHWA commented that the basic congressional law states all transportation dollars be used for transportation purposes only. He also referred to a manual from FHWA called the Utility Relocation and Accommodation that states the cost difference between transportation purpose and non-transportation purpose should be borne by the other agency

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Alan Sanderson said that their agency does a like trade with other agencies. Alan Hansen said that as the project cost is not increasing as a result of this FHWA has no problem with this deal. Sarath Joshua asked if the facility value is depreciated over number of years then can this facility be used for any other purpose. Alan Hansen said depreciation factor is used if the agency is trying to get rid of system like motor vehicles but infrastructure can't be considered in similar way.

Tim Wolfe added according to state statutes ADOT could allow public entity in their ROW when they get equal value in kind return from that public agency. But they can't allow private agency into their ROW without a bid process. ADOT generally put 96 fibers and share 4 fibers for regional usage. They also put 3 conduits and for partnering with cities. Sarath Joshua summarized Alan Hansen comments saying Transportation funded fiber projects should be used only for transportation purposes only and not for any other purpose or application. Tim Wolfe distributed a RCN study map and wanted to include this as agenda item for next meeting.

6. The Phoenix Freeway Management System (FMS), Supported Functions, Performance,

Operating Costs and Future Functionality

In introducing the agenda item, Sarath Joshua said that the committee may not be able to come to conclusions immediately but it would be good idea to initiate a discussion on the future of the FMS and added that about $143 million will be invested in the FMS in future years to expand from the current 94 mile coverage to almost triple that coverage. Output expected from FMS is the reliable data and displaying Segment Travel time. Sarath Joshua introduced Mark Schlappi, modeling manager at MAG and Frank McCullagh from ADOT Data Bureau to present their views on data requirements from FMS.

Alan Sanderson requested Tim Wolfe from ADOT to give some background of FMS. Tim Wolfe stated that the three functions of FMS when it was designed in early 90's was Incident Detection, Incident Verification and Traveler information and told that the system was not designed for collecting Planning or Highway Performance Monitoring System (HPMS) data as it needs to be of precise data quality. He also stated that detectors and the data quality does not meet HPMS standards. With respect to calculating travel time information, ADOT did a study and that reported that adequate number of detectors are need to calculate accurate travel time information if there are data gaps then Travel time calculation couldn't be accurate. In 2004, ADOT decommissioned two thirds of freeway FMS loop detectors. The system now has detectors at one-mile spacing rather than the 1/3rd mile spacing, since incident detection is no longer done through these detectors. He also stated that the freeway speed map could be colored on az511.com even if detector stations on one of the lanes are out, based on information available from other lane detectors but HPMS data can't be calculated in this manner.

ADOT has contracted with a consultant and has spent $250,000 last year on maintenance of these detectors. This has helped raise the percentage of working FMS detectors from 66% to 85%. Some reorganization within ADOT has resulted in 7 full time positions for FMS maintenance. This reorganization and the on-call consultant would improve reliability of these detectors to 95%. In response to a question from Alan Sanderson on how the data is reported, Tim Wolfe replied that the system would return 20-second data and the system archives 5 minute, 15 minute, hourly and daily counts. The 20-second data includes speed, volume and occupancy of lane.

Frank McCullagh said he reports HPMS data to FHWA. As the Phoenix metro area is a key region for state's traffic data, ADOT planned on getting data on freeways in Phoenix metro region from FMS. Federal criteria for HPMS data are that: (1) two weeks of continuous data must be available for each of 10 months in a year, and (2) data from all freeway lanes. When ADOT examined the archived FMS data first they couldn't find any sites to match this criteria. In 2004 they found four sites matching this criteria. MAG and ADOT jointly identified 33 FMS equipped sites suitable for data acquisition. However, they could only get fourteen sites to match the required criteria. This included filling blank spots of data with estimated guesses instead of zeros to avoid underreporting of traffic counts. Frank suggested that as HPMS data requirements are different from ITS data requirements they be allowed to plug into FMS equipment and use a fax modem to transfer the data. His group was using a similar mechanism to gather traffic data at 75 different locations in Arizona. To gather data from freeway locations with no FMS equipment, ADOT is building new Automated Traffic Recorder (ATR) sites and will be using the same technology to get traffic count information. Frank suggested a modification of software to monitor the sites. Frank McCullagh stated that

they spend about $150-$200K on consultants that collect traffic volume data on freeways.

Punya Kanal asked if they could examine the data regularly and extrapolate if the data is underreported or if one of the lane detectors is not working. Mark Schlappi replied that as per AASHTO standards data should be reported with no data massaging.

Tim Wolfe said that the FMS reports 20 second traffic count data on their FTP site and most TV media stations are using it to generate traffic reports. Mark Schlappi said he is involved in providing congestion information to ADOT that goes to Legislature. He also told that in next 20 years traffic is expected to double but freeway miles are not getting doubled. Hence efficient traffic management techniques have to be employed. Mark Schlappi team said that his team at MAG is looking at volume, speed, classification of vehicles and LOS that is not required for Frank McCullagh's team. He also mentioned that their data requirements are not as stringent as Frank's team. Frank McCullagh commented that as the FMS system is getting doubled in future years he requested the ITS team to keep HPMS standards in view while building the system.

Mark Schlappi commented that location of detectors also an important aspect of getting the data. Jim Decker asked where the fault in the system lies. Whether it problem with detectors or the data transfer mechanism and if it is data transfer mechanism then simplify the path for effective communication. Sarath Joshua commented that Incident Detection and Incident Verification are no longer done through field detectors; that's 2 of the 3 functions that the FMS was designed for which we are not using today. Hence the design of FMS should be rethought before investing millions of dollars. Tim Wolfe commented that these detectors are not working, as they should have been since they are not properly maintained because of lack of funding.

Tim Wolfe added that MAG and ADOT teams meet every month and participate in discussion called Freeway Issues meeting and he was expected to report to them about current year FMS functionality to them in December. Hence he suggested that January would be the ideal time to report the same to this committee. Debbie Burdette asked if this group would resolve any of the funding issues for maintenance of equipment and personnel. Alan Sanderson replied this committee being Technical Advisory Committee could look at and implement same technology as designed in 90's or implemented new technologies. Sarath Joshua added that $143million in RTP is going to FMS. He asked if we could build less but a more efficient system or a vast system that doesn't work as it should work. He also mentioned that we are looking at a system for future hence additional functionality like Segment Travel Time, traffic management such as lane control should also be thought about.

Debbie Burdette suggested forming a sub-committee to determine additional functionality and also look at technologies. Mark Kihl asked what is the committee expected from this discussion. Sarath Joshua replied that being a technical advisory committee this committee has a role of suggesting future role of FMS.

Tim Wolfe suggested that a subcommittee be formed to develop a resolution on the future of FMS. It would be based on the functionality and usage of FMS as well as usage of VMS and other ITS elements. Beyond that step it would be a decision between ADOT and MAG to decide and find the resources to fund these elements. **Alan Sanderson asked for volunteers**

to work on the subcommittee to draft a resolution. Alan Hansen, Tim Wolfe, Debbie Burdette, Scott Nodes, Ron Amaya, Nicolaas Swart volunteered as the 6 member team to take on this task.

7. Status Reports by Committee Members of ITS Activities

Ron Amaya reported that the Peoria traffic signal system project is still on hold at ADOT. Nicolaas Swart reported that the Bell Road project is ready to go to bid and he said he will be reporting about REACT project in next months meeting. Alan Hansen mention that on June 14th, 2005 there is training session on Intersection Safety and on June 15th, 2005 a training session on Signalized intersections. They are both group workshops offered through the ADOT LTAP center. Tim Wolfe reported that Stephanie has new list of all projects by local agencies in state TIP asked individual agencies to check. They are also trying to get extra plans for these local projects. Mary Kihl reported that ASU is planning reinventing their Transportation program asked for suggestions and inputs from members regarding the courses to be offered.

8. Next Meeting Date

Next meeting date was announced as 10:00 AM on Wednesday, July 6th, 2005.

9. Adjournment

Chairman Alan Sanderson adjourned the meeting at 11:30 AM