

**TRB Traffic Signal Systems Committee**  
**Summer 2006 Business Meeting**  
Woods Hole, MA USA July 12<sup>th</sup>, 2006  
**J. Erik Jonsson Center of the National Academy of Sciences**  
Revised July 12, 2006

## 1. Welcome & Introductions

- Larry Head called the meeting to order at 8:35 a.m.
- Attendants introduced themselves (**Attached**)
- Peter Koonce and Larry acknowledged Tom for his eight year term as Committee Chair with a plaque of appreciation.

## 2. Approval of Minutes– Monty Abbas

- Reminded participants that past meeting minutes and presentations are located at: [www.trbsignalsystems.org](http://www.trbsignalsystems.org) or <http://www.signalsystems.org.vt.edu/membersonly.php> and a password is no longer needed.
- The minutes were approved (**Attached**).

## 3. TRB Report – Rich Cunard

- TRB's Annual Meeting in 2006 set a new record of 10,300 attendees. Staff report is online (**Attached**)
- This section of TRB had cuts in SAFETEA-LU and acceptance for publication is likely to be 25%, rather than previous year's 30%. Registration fees will increase at the Annual Meeting.
- TRB Hotels are changing and the block of rooms are available.
- E-Sessions are available at the Annual Meeting and Midyear Workshops, the Committee would have to identify this and request it of TRB.
- SHRP2 – Strategic Highway Research Program has four areas. Reliability is one of the areas that is relevant to traffic operations. Primarily these are institutional issues. The SHRP2 program is a four year program of \$35-40M with the potential of additional funding (depending on the upcoming Senate resolution).
- Synthesis of LED Traffic Signal Maintenance and Replacement. There are issues related to the Energy Conservation. As of January 1<sup>st</sup>, 2006, incandescent signals won't be allowed as a complete signal, but there will be replacement parts that can be manufactured. Rich is accepting applications for contractors and for the panel.
- If you submit a paper to TRB for the current year Annual Meeting, the author gains access to the TRIS Online citation searches for free. The author may submit a paper that is blank or brief and resubmission must be completed by August 1<sup>st</sup>.

## 4. FHWA Report – Raj Ghaman

- Raj reported that the research budget for FHWA is typically \$70M, Their budget was cut and provided to UTCs. UTCs have been invited to Turner Fairbanks to discuss their program. NCHRP research is limited.
- FHWA is suggesting that AASHTO prepare a Pooled Fund Study program for states and cities for Signal Systems. TMC PFS is 29 states (\$25,000 per participant). The work will come through the IDIQ. Any public agency can join.

- FHWA acquired a Video Detection system from France that is supposed to be good at queue measurements.
- Winter maintenance research is a Tier 1 initiative. CLARIS system will collect database.
- ICM Pioneer site evaluations were completed. 8 sites will be selected for further analysis. RFP is for 2 to 3 consultants to do simulation modeling.
- VII/CICAS: This program is underway. There is intent to identify from the traffic signal system situation how to use that information. Updating the actuated signal control logic may be possible with this new information.
- TSIS 6.0: FHWA will release this through McTrans. Source code will be provided to McTrans with the hope that they will manage the improvements. TSIS 6.0 will be available for \$500 as it is considered a major release.

## 5. Task Force/Subcommittee Reports

### *TRB Paper Review/Poster Sessions – Larry Head*

- Papers must be submitted to TRB web site by August 1. There was some concern about submittal congestion during the last two hours of the deadline
- Reviews are due by September 15.
- Poster sessions will be continued and the feedback has been excellent related to the interaction. Authors need to be consulted with Paper Presentations and Posters, but there is no method currently for the authors to state a preference and TRB believes this is best handled by the paper chairs.
- We can have 2 podium sessions and several poster sessions. There will actually be 1 poster session, but we can break it into several “sessions” by topic. .
- Best Paper Committee will be headed up by Paul Olson, FHWA. Papers will need to get author’s permission.

### *Simulation – Brian Park*

- Attached presentation from Subcommittee meeting

### *Traffic Signal Timing– Peter Koonce*

- Attached presentation from Subcommittee meeting.

### *AASHTO Meeting – Troy Peoples*

- AASHTO Subcommittee table SCOH Operations Council Cross Coordination Study is provided (Attached).
- The Subcommittee on Traffic Engineering was directed to focus on Improving Traffic Signal Timing and Operations. One particular focus is improving the state of the practice related to timing. Funding for research is limited; the MUTCD funding was cut or delayed for a year because of the specific federal research changes.
- Scott Thornston, NV DOT has organized eight states to build another Pooled Fund Study on Traffic Engineering.
- The AASHTO Subcommittee on Signals, underneath Traffic Engineering has limited number of state traffic engineers in attendance. Tom Hicks, MD SHA is the Vice Chair on Subcommittee on Traffic Engineering and he and Troy will be trying to attract State DOT representatives to that effort. Dave Holston, State Traffic Engineer in Ohio may be invited.
- AASHTO Systems and Operation Management (SSOM) Committee is an important group for Signal Systems as they have requested Best Practices. Note the AASHTO resolution provided in the attachment.
- The TRB Committee on ITS headed by Walter Kraft is another key Committee for improving our access to cost-cutting resources. It is really critical for us as a group to identify two champions at the state level.

### ***Controller Architecture – Larry Head***

- The controller architecture subcommittee will meet in the afternoon following the Business Meeting. The primary issue will be a review of what the NCHRP 3-66 Research Team has developed and how other interested members can participate in the future activities of the committee.

### ***ATC/Standards Update – Gary Duncan***

- Controller – 2070 standard was revised. Version 5.2A: NEMA approved, AASHTO approved, ITE voting is in process. 5.2B to be revised draft.
- API, effort stalled slightly, but is moving forward. Working group is getting through the comments. Software being created by contract. Independent consulting firm, Ralph Boaz is managing the effort. Front Panel manager will be the same for all controller hardware. Field I/O manager will comm. Through API and share resources through the controller. Lots of ports (serial, I/O, etc.) to be integrated. Testing process is not clear at this time, may be required of manufacturers.
- ITS Cabinet – Standard that Harris County and others were using was four years old. Revised standard 1.02.15 is completed. And the revised draft is .16A. Posted to ITE web site in the future. Rather significant changes were proposed.
- NEMA is active in developing field master standard, updating TS2 standard, beyond ITS cabinet, and creating software functional standard for controllers. Hardware would not tie down the standard.
- CA legislation passed banned use of Mercury contactors (more reliable than solid state devices). Application for exemption was passed (3-years).
- ROHAZS – Reduction of Hazardous Substances in Electronics will further limit the amount of certain substances on a circuit board. (European rules were adopted in July).

## **6. FHWA Initiatives - VII/CICAS– Gene McHale**

- Presentation attached
- VII “Day One” applications are those that should be implemented early. The applications that are related to Signal Systems include: Signal Violation Warning, Advance Warning Information to Vehicles, Sign Info, Ramp Metering, Signal Timing and Adjustment, Corridor Management, VMS, and Probe based mapping.
- Traffic Signal Related Applications: Intersection Safety and Signal Operations.
- Booz Allen Hamilton is working on the architecture.

## **7. NGSIM Arterial Data Set - Vijay Kovvali**

- Presentation attached

It was noted that there were some flaws in the data set, most notably the signal system data provided looked like a summary, rather than second by second and pedestrian movements were not collected as a part of the effort.

## **8. Future Committee Activities (topics as bullets, votes in parentheses)**

- Basic Signal Timing
  - Optimization of real timing parameters
  - Cross jurisdictional timing and cooperation

- NGSIM
- CICAS
- VII (13) – joint with Vehicle Highway Automation Committee?
  - Controller/Role and Decisions
  - Safety
  - Other modes – bicycles and pedestrians
  - Special treatments – EV, Transit, Trucks
  - Data needs
- HILS and SILS
- Integrated Corridor Management (joint meeting with FreewayOps/transit/Special Events, etc) - (11)
- Arterial traffic information dissemination
- Pedestrians (Access Board, Congestion, variable pedestrian time – detection)
- Transition
- Planning and Operations – Arterial Data Archiving,
- Operations and Maintenance – Pooled Fund Study
- HCM Model Update
- Beyond the Signal Timing Manual

Gene McHale thought that the VII could use our assistance. Brian Park agreed to champion the VII program in Summer 2007. Gary Piotrowicz indicated he would support Brian in this effort as did Peter Koonce.

The location was discussed briefly and there was mention of Detroit, MI and Palo Alto, CA.

## **9. 2007 Annual Meeting Workshop – Kevin Balke**

The Committee agreed that the Oversaturated Conditions Workshop would be held in January. Kevin Balke was interested in volunteers for speakers and organizing the moderator. Peter Furth suggested we contact Ed Lieberman. He also indicated that there was a lack of an urban focus and he'd like to see that in January.