

# Traffic Signal Systems Committee

TRB Summer Meeting – Detroit, MI  
Tuesday, July 22, 2008, Marriott Livonia

Meeting Minutes

<http://www.signalsystems.org.vt.edu/>  
(ID=member; password=valid)

## 1. Welcome and Call to Order

- Larry Head called the meeting to order at 1:19 pm.

## 2. Approval of Minutes

- The minutes from January 2008 (**Attached**) were approved
- Password and Member Name were not eliminated ([not discussed, but kept in the minutes to ensure follow up](#))

## 3. TRB Staff Report (Rich Cunard)

- TRB's Annual Meeting in 2008 set a new record of 10,900 attendees, 128 exhibits
- Hotel Housing Bureau will open in early September.
- No ~~mailout~~ brochure to be more environmentally friendly.
- Transportation, Energy, and Climate Change is the theme.
- Papers submittal ~~is Dual~~ [deadline for submission is at](#) July 28<sup>th</sup> in MS Word ~~and~~; August 1<sup>st</sup> ~~is due~~ in PDF.
- Webinars are still ~~upcoming and the topics are acceptable~~ [being scheduled and new topics can be submitted](#). Submit ~~these ideas~~ to Rich Cunard via email (rcunard@nas.edu). 2-3 speakers, 90 minutes roughly in Powerpoint.
- Next year's TRB will be January 11-14<sup>th</sup>, 2008.

## 4. FHWA and other Related Reports

- Eddie Curtis, ongoing research – Attached word document
- Traffic Signal Timing Manual is complete ([Version 1.0](#))
- Signal Timing under Saturated Conditions
- Arterial Performance Measures project is underway, objective is to move away from 3 to 5 years, more based on performance. Feasibility of arterial travel time.
- Maintenance and Operations Staffing Resource Needs, objective is to provide information for Signal O&M.
- ACS Phase 2
- 2009: Comprehensive Traffic Signal Management: what are all the things an agency should think about. Staff, and performance measures, etc.
- Arterial Management Roadmap will be updated in the coming month.
- Traffic Signal Audit Guide was developed as a part of the Traffic Signal Report Card. How to expand that effort to go beyond and actually perform the audits.

NCHRP Synthesis panel is meeting August 22nd to discuss.

- Dave Gibson, SBIR
- TEXAS Model has been completed [and is open source \(available at www.????\)](#)
- In Pavement sensor
- SBIR information is at: [http://www.volpe.dot.gov/sbir/sol08\\_2/topicsfull.html#08FH1](http://www.volpe.dot.gov/sbir/sol08_2/topicsfull.html#08FH1)

## 5. Subcommittee Reports

### A. Paper Review (Larry Head)

- Larry Head is planning to complete. This process is as it has been in the past with no changes. Please suggest references of papers that could be referenced for improved Journal Impact Factor (which is acceptable for tenure).

### B. Best Paper Award (Paul Olson)

- Volunteers can request to participate. Steven Click to participate.

### C. Signal Timing (Peter Koonce)

- Webinar is proposed for Signal Timing Manual, [www.signaltiming.com](http://www.signaltiming.com)

### D. Simulation (Doug Gettman for Brian Park)

- Interaction with the HCM 2010

### E. January Workshop ([Larry Head read report from Kevin Balke](#))

- We gathered information for new speakers for the Sunday session. It will be Accommodating Pedestrians at Signalized Intersections.

### F. Strategic Plan (Urbanik)

- TRB Triennial Plan was completed, we got comments from [Pete Briglia TRB](#). We did not have much information regarding Sustainability or Globalization.

### G. Controller Architecture (Larry Head)

- [Mission defined for the group, minutes attached](#) Held Sunday workshop on UML for [Traffic Control](#)

### A. Problem Statements (Jim Powell) – **Presentation Attached**

Two submittals:

*Signal Timing Manual*

*Pedestrian Treatment at Signalized Intersections*

Synthesis Submittals

*Signal Timing Practices in the U.S.*

*Adaptive Traffic Control Systems: Domestic and Foreign State of the Practice Statements due Sept – Voting in March 2009*

1. *Signal Optimization for Minimum Fuel Consumption and Emissions*  
*Include “evaluation” and broaden to transportation (as opposed to signal optimization)*
2. *Traffic Signal Timing Manual Follow Up: Performance Measures and Glossary*

Advanced Traffic Controller Features to Improve...

3. **Detection location and operation for improving transportation efficiency – Steve Click, Eddie Curtis, Paul Olson**
4. 3-66 Follow up – Markov chains for overflow analysis (Larry Head, Henry Liu, and Rick Denney)
5. Accommodating Pedestrians at Traffic Signals – (Koonce, Balke, Duncan, Eyler, Zong)
  - Countdown Timer Impacts on Signal System Operations
  - Discussion with Ped Committee, need to incorporate countdown into signals
  - What to drivers experience, countdown peds: Fred Ranck (Olympia Fields, Resource Center).
  - Use of overlaps for pedestrians
6. Safety Aspects of Signal Timing – (Gettman, Curtis, Gibson)
  - Lead/Lag phasing
  - Surrogate Measures
7. Impacts of Pricing Facilities
8. Methodologies for Coordinating Freeway and Arterial Operation
9. Freight Priority at Traffic Signals

Due September 15<sup>th</sup>.

**6. 2009 Summer Meeting – North Carolina (Charlotte or Durham)**

*Pedestrian Topics in Traffic Signals – Balke to discuss with Peds*

*Objective Framework Development for Signal Timing*

*Stepping back and defining ourselves*

*Context of signal timing*

***Other Potential Topics – Reliability, Efficiency, TSP, TSMO, Safety***

*Reliability*

- *What happens when detectors fail*
- *Performance Measures (travel time, etc)*
- *Install and maintenance costs for reliability*

*Efficiency and Fuel Consumption*

*Transit Signal Priority*

*Regional TSMO – 2<sup>nd</sup> International Freeway and Tolling (Freeway Ops, HCQS, Highway Safety Manual ?, - June 15<sup>th</sup> Hyatt in Honolulu \$230*

**7. Future Meetings**

A. *2010 – Education (Mike Kyte)*

B. *2011 - Urban Street Symposium as a potential tie in.*

**8. Other Business**

The meeting was adjourned at 3:20 PM.