

**Annual Meeting of the  
Committee on Highway Capacity and Quality of Service (AHB 40)  
Las Vegas, NV July 10-15, 2005**

**Sunday July 10**

<b>Room:</b>	
1:30-5:00 PM	Traffic Signal Systems (AHB 25) Subcommittee meetings

**Monday July 11**

<b>Room:</b>	
8:30AM-5:00PM	Traffic Signal Systems Performance Workshop (Larry Head - AHB 25)

**Tuesday July 12**

<b>Room:</b>	
8:30-Noon	Technical Tour – Las Vegas FAST (TMC) (Larry Head – AHB 25)
Lunch	
1:30-5:00 PM	Joint Signal Systems/Highway Capacity Workshop
5:00 – 6:00 PM	Social Hour

**Wednesday July 13**

<b>Room:</b>			
8:30-Noon	Joint Signal Systems/Highway Capacity Workshop		
Lunch			
1:30-5:00 PM	<table style="width: 100%; border: none;"> <tr> <td style="width: 60%; border: none;">                     Highway Capacity (AHB 40) Workshops                      Capacity of Smart Signals (Nathan Gartner )                      Signal Systems – NCHRP 3-79 (Vandehey &amp; Bonneson)                      Freeway Weaving – NCHRP 3-75 (Schoen &amp; Roess)                 </td> <td style="width: 40%; border: none; text-align: center;">                     Traffic Signal Systems                      (AHB 25)                      Committee Meeting                 </td> </tr> </table>	Highway Capacity (AHB 40) Workshops Capacity of Smart Signals (Nathan Gartner ) Signal Systems – NCHRP 3-79 (Vandehey & Bonneson) Freeway Weaving – NCHRP 3-75 (Schoen & Roess)	Traffic Signal Systems (AHB 25) Committee Meeting
Highway Capacity (AHB 40) Workshops Capacity of Smart Signals (Nathan Gartner ) Signal Systems – NCHRP 3-79 (Vandehey & Bonneson) Freeway Weaving – NCHRP 3-75 (Schoen & Roess)	Traffic Signal Systems (AHB 25) Committee Meeting		

**Thursday, July 14**

<b>Room:</b>	<b>Room 1</b>	<b>Room 2</b>	<b>Room 3</b>
8:00-9:00 AM		Unsignalized Intersections (Ruehr)	
9:00-10:30 AM	Group 2 Uninterrupted Flow (Schoen)		Group 4 Multimodal (Creasey)
10:30-12:00 PM	Freeway/Hwy (Hamad) Two-Lane Hwy (Robinson)	Signalized Intersections. (Prassas)	Plan. & Pre. Eng. (Bryson) Ped/Bike (Guttenplan) Transit (St. Jacques)
Lunch	<b>Room 1</b>	<b>Room 2</b>	<b>Room 3</b>
1:30-3:00 PM	Traffic Simulation and Applications Subcom. (Bloomberg)	Interchange Ramp Terminals (Marcuson)	Quality of Service (Flannery)
3:15-5:00 PM	Project Programming TF (Leonard)	Urban Streets (Vandehey)	Group 5 User Liaison (Sampson)
5:00-5:30 PM		Group 3 Interrupted Flow (Troutbeck)	

**Friday, July 15**

<b>Room:</b>	
8:00-12:00 Noon	Highway Capacity and Quality of Service (AHB 40) Committee Meeting

# TRB Signal Systems/Highway Capacity Committee Joint Summer Meeting

The Traffic Signal Systems Committee (TSSC) and the Highway Capacity and Quality of Service (HCQS) Committee have agreed to have a joint session at their respective summer meetings in 2005 to discuss areas of mutual technical interest including both ongoing research in their respective technical areas and the upcoming research.

The format for the meeting will be to add a half day to each meeting by starting on Tuesday afternoon and finishing Wednesday by noon. TSSC typically meets Sunday-Tuesday, while HCQS meets Wednesday-Saturday.

The objectives are stated below.

1. ***Develop a mutual understanding of modern traffic signal operation and how it is modeled:*** The premise is traffic signal operation today is unlike 30 years ago. Today it is largely actuated, whereas 30 years ago it was largely pretimed. Existing HCM models are based on pretimed control which is not believed to adequately reflect reality today. A question to be answered is what attributes of traffic actuated control need to be included in traffic analysis tools. What are the implications for the HCM?
2. ***Current and Future Research:*** What research is currently underway relating traffic signals and the HCM? What new research is needed to provide for a more realistic modeling approach to signalized intersections (or to determine if a new modeling approach is needed)?

The sessions for the day long joint meeting are as follows. Potential topics and speakers are identified in bulleted format and will be comprised of 15 minute presentations with 15 minute discussion following each designed to increase understanding of signal systems and to suggest research topics.

**Joint Traffic Signal Systems and Highway Capacity Committee  
Workshop  
July 12-13, 2005, Las Vegas, Nevada  
(Draft Agenda)**

Program Committee: Michael Kyte, Tom Urbanik, Peter Koonce, Mark Vandehey, Elena Prassas

**Tuesday, 1:30-5:00 PM (Urbanik)**

Opening panel to discuss attributes of traffic actuated controllers that need to be the basis of traffic analysis tools.

- What determines a single phase green? Min green, passage, pedestrian, max green, number of vehicles, detector locations. (KYTE)
- How does HCM model queue service time and green extension time. (COURAGE)
- How does an intersection time – Rings Barriers and Sequence. (KOONCE)
- How does HCM Model an intersection (HCQS speaker)
- How does coordination affect timing Min cycle, peds, coordination modes. (BULLOCK)
- How does the HCM model coordination (BONNESON)
- Wrap up Session

**Social Hour (5:00-6:00 PM)**

An opportunity to discuss mutual issues on a less formal basis

**Wednesday 8:30 a.m. – Noon**

**Report on Recent Research (Dowling)**

- Tom Urbanik on NCHRP 3-66
- Rick Dowling, NCHRP 3-70 – Factors Affecting Perceived Level of Service on Urban Streets
- Jim Powell/Jim Bonneson: NCHRP 3-79 – Real-Time Signal Metrics and Urban Streets
- TBD, Other Topics?

**Future Research**

- Panel on future research needs

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**Transportation Research Board Committee AHB 40**  
**Committee on Highway Capacity and Quality of Service**  
**MEETING AGENDA**  
**Friday, July 15, 2005, 8:00 – 12:00 PM**  
**Las Vegas, Nevada**

Chair: Richard Dowling, [rdowling@dowlinginc.com](mailto:rdowling@dowlinginc.com)  
Secretary: Lily Elefteriadou, [elefter@ce.ufl.edu](mailto:elefter@ce.ufl.edu)  
Committee Website: <http://www.ahb40.org/>

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**1 Opening Session**

- A) Circulate Attendance Sign-Up Sheet and Membership Roster
- B) Roundtable Introductions/Committee Membership

**2. Consent Agenda**

*These items will be approved by the committee by unanimous consent. Any member of the committee may request that an item be removed from the consent agenda and treated as an action item*

- A) Committee Meeting Minutes (January 2005) (posted on committee website ) (Lily Elefteriadou)
- B) HCM Interpretations. The Committee endorses the clarifications and interpretations to the HCM 2000 proposed by the Interpretations/User Interface Subcommittee posted on the committee website. (Bill Sampson)

**3. Transportation Research Board and Other Reports**

- A) TRB Staff Report - **Richard Cunard**  
Status of HCM 2000 Publication, TRB HCM Webboard, Other News
- B) NCHRP/TCRP Staff Report - **Ray Derr**  
NCHRP 3-60 Interchange Ramp Terminals  
NCHRP 3-64 HCM Applications Guidebook  
NCHRP 3-65 Roundabout Safety and Operations  
NCHRP 3-70 Multimodal Arterial Level of Service  
NCHRP 3-75 Freeway Weaving & Ramp Junctions  
NCHRP 3-79 Arterial Speed Estimation  
NCHRP 3-82 Default Values for Capacity and Quality of Service Analyses  
NCHRP 3-83 Low-Cost Improvements for Recurring Freeway Bottlenecks  
NCHRP 3-85 Development of Guidelines for the Use of Simulation and Other Models in Highway Capacity Analyses  
NCHRP 3-87 Maximizing Freeway Throughput Under Threat of Flow Breakdown

C) Institute of Transportation Engineers Report (**Phil Caruso**, Bill Sampson)

- D) Inter-Committee Coordination  
Transit Committee coordination (**Kevin St. Jacques**)  
Traffic Flow Theory Committee coordination (**Loren Bloomberg**)  
Performance Measure Committee coordination (**John Zegeer**)  
Roundabout Task Force coordination (**Rod Troutbeck**)  
Committee on Bicycle Transportation (**Martin Guttenplan**)  
Other committees or groups?

#### 4. Special Topics (Final List To Be Determined)

- A) Discuss/approve the new ICRT Chapter 26 (Marcuson)  
B) 2020 Trends for HCM (Troutbeck)  
C) HCM Definitions/Usage of Gap versus Headway (Ruehr)

#### Break (10:00 – 10:15)

#### 5. Reports on Group/Subcommittee/Task Force Activities

- A) Group 1: Administration – **Lilly Elefteriadou**  
Roster, Website, Paper Reviews, Conference Sessions
- B) Group 2: Uninterrupted Flow Group Report – **Jim Schoen**
- C) Group 3: Interrupted Flow – **Rod Troutbeck**
- D) Group 4: Multimodal & Preliminary Engineering – **Tom Creasey**
- E) Group 5: User Liaison Group – **Bill Sampson**
- F) Other Subcommittee and Task Force Reports  
Research – **Doug Harwood** (research priorities for coming year)  
Quality of Service - **Aimee Flannery**  
Part V Traffic Systems– **Loren Bloomberg**  
Project Programming – **John Leonard**

#### 7. Upcoming Meeting Plans (11:30)

- A) Year 2006 International Meeting, – (July 25-July 29, Yokohama, Japan) – **Hideki Nakamura**
- B) Year 2007 Summer Meeting – (Charlotte, NC) – **Robert Foyle**
- C) Year 2008 Summer Meeting – (Open)

**8. Closing Session (11:45)**

- A) Final Circulation of Sign-Up Sheet and Membership Roster
- B) Upcoming Committee Rotation (March 06)
- C) Adjournment