TRB Signal Systems/Highway Capacity and Quality of Service Committee

Joint Summer Meeting—Part I

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

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)?

Tuesday 1:30 p.m. – 3:00 p.m. – TOM URBANIK, MODERATOR
Opening Panel to discuss Attributes of Traffic Actuated Controllers that need to be the basis of Traffic Analysis Tools

1. How does a phase time? (Kyte)
2. Overview of phases, rings, barriers, sequences. (Koonce)
3. How does HCM model queue service time and green extension time? (Courage)

Tuesday 3:30 p.m. – 5:00 p.m.

4. What are the basics of signal coordination? (Bullock)
5. How does the HCM model coordination (Bonneson)
6. Wrap up Session (with summary comments from Bruce Zvaniga and George List)

Tuesday 5:00 p.m. – 6:00 p.m.
Social Hour
An opportunity to discuss mutual issues on a less formal basis