

## Breakout #1 – Group B Discussions

- What is the concept of the Infostructure?
  - There is technology out there, there is information out there....
  - Is there a different National purpose beyond local programs getting and using their data
  - Congestion problem – using information to improve the quality of our transportation system
  - Sharing data, planners can use data, safety data, “build it and they will come.”
  - What data needs to be collected and why? Since you can’t quantify that, how to sell it to Congress?
  - What are the whys?
    - Safety
    - Planning
    - Security – Evacuations (how do I respond to my current need as an operator?)
    - Traveler Information
    - Congestion Mitigation (reactive and proactive)

- Operation of the transportation system
- Regulation of the transportation industry
- Incident management
- Environmental Impact
- Potential to actively manage our systems (anticipate and react; proactively manage)
- Who is the client for this Infostructure data?
  - ISPs
- ITS for regional and national regulatory functions (trucking industry for example)
- Operating the transportation system was not considered during building of Interstate system (build and maintain)
- National objective (need to consider it Nationally but may be implemented locally)
- Get more accomplished (i.e., beyond the stated objective) with the right buzz-word associated with a concept (homeland security for Infostructure?)
- Need performance measures to see if we are meeting our operational objectives

- Measure maintenance – very infrastructure-oriented
  - Managing the asset rather than just maintain it
- Discussion of the 25% coverage of urban freeways statistic – remote sensing
  - This is a misleading statistic, not based on the performance of the existing systems
- How? Performance Measures
  - Is it safer?
  - Is planning more accurate?
  - Is it more secure?
  - Are travelers getting more useful information?
  - Is congestion being mitigated?
  - Are operators “operating” the transportation system?
- Discussion – cell phones as probes does not seem to be working, so how is telematics going to be different?
  - Should you be doing some of each?
  - Using toll tags for travel time estimation in the TravInfo program in SF Bay area

- Local level – still discussion on where the focus of the Infostructure is – national versus local – road Infostructure is local...
- National Applications:
  - Security issue
  - Regulation of the transportation industry (commercial vehicles, HAZMAT, etc.)
- Public and Private Good
  - States need to do it the same way so they can come together in a National program
- Infostructure – network element similar to ISO 7 layer architecture - need feedback loop, modeling – was data good? How to improve?
- Drivers for Infostructure – one mentioned was Public Private Partnerships
  - This would require a “killer app” to truly be a driver
- Business models – ITS currently publicly funded because there is no business model
- Convergence of synergies coming together around ITS – centered on the “whys” list – there are many common threads (maybe no one “killer app”), but if each party brought their expertise to the problem, all parties would benefit from the COLLABORATION

- OEMs would like to implement advanced safety systems (no one could afford all of those technologies at this point)
  - There is know-how for traveler information, travel times, algorithms, etc., but no one can afford to get all the data needed for these systems
  - Add the security element – if this system was in place, you can know where any vehicle in the network is and react to any “deviation” (geo-fencing, border crossings, etc.)
- Safety issue (40,000 lives lost on highways annually) could be the “killer app” for the Infostructure
- Is there a stable technology to support the convergence discussed above? This seems to be a basic requirement of a successful convergence. (the loop detector example)
- Federal government does not currently support the operations function for transportation systems, just paying for the construction...

- Maintenance costs of ITS systems are seen by states as an unfunded mandate from the Feds
- ITS America needs to draft a vision for the Infostructure – the whys and hows and present to DOT
  - Commercial elements (safety systems, roadway management, etc.) make it amenable to the private sector
  - Feds can help make the collaborative element successful (help solve liability problems)

#### Back to Breakout Session #1 Questions:

- Grand vision that is going to provide valuable outcomes
- Who is and how are they better off because of the Infostructure?

#### General:

- Infostructure – make sure it collects useful data (not always the case with prior ITS deployments)
- Look at the transportation system like the internet – system is a network, the vehicles

are the packets of data passing through the network – we need to figure out how to optimize the network – this is fully integrated and have all the data you need (closed loop system). Then look back at what we have now and figure out what are the enablers that exist now and get them into the system.

- Advanced digital (geo-spatial) maps of the transportation system are being worked on; accurate vehicle location (now within a few meters) will allow this kind of network optimization to take place (GPS and wireless communication in vehicle now).
- Privacy issue needs to be solved (in CVO industry, it is a Homeland Security issue)
- Start with hot buttons (CVO, auto industry, safety).
- We need to serve our customers better – the transportation industry (especially public sector).
- Need to have national articulation for such an optimized network for it to happen sooner
- With a sample size of 5% in a traffic flow study will give you information about the flow (but not volume not good)

- Hierarchy of data? Planning data versus live traffic flow data? Probes works well for identifying incidents and providing travel times; could extrapolate volumes etc. Probe vehicles can cover the entire road network (not just highways).
- Enablers of this vision – stakeholders and roles
  - Something to enable sharing
  - Mitigation of legal/liability issues
  - Additional data necessary
- A lot of issues dealing with what data is publicly available and who can use what (insurance agencies, etc.) – privacy issues (need government to guide these efforts to avoid concerns issues regarding legal and privacy issues) – manage liability of participants in the Infostructure

## LAST ½ HOUR:

- Data gap – what data is need for INFOstructure?
- More future-thinking discussion ensued until the end of the session (5:20 p.m.)