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Sent: Tuesday, March 11, 2008 7:41 PM
To: Joseph Sussman; Row, Shelley <FHWA>
Subject: RE: Meeting Materials Comments

Joe and Shelley - Below are my comments for your consideration. Joe, I don't expect you to "formally" present these, but incorporate them in the discussion as you see fit. I hope you have a very productive meeting and, again, I apologize for not being able to make it.

1. I believe we are overly fixated on communications. The Vision 2030 document states:

"ITS encompasses a broad range of wireless and wire line communications-based information and electronics technologies."

The communications facet of ITS is important and beneficial, but ITS is more than a wireless or wire line communication solution. There are many on-vehicle technologies, independent of any wireless connection, that will make significant contributions to safety, efficiency, productivity and the environment. And these contributions are likely to pre-date communications systems deployment.

2. On the ITS Strategic Plan and Mission

I believe that the mission could be more inspirational yet less generic than "information and communications technology solutions" and "best performing...system in the world".

I believe that we need to find a clear, concise and simple small list of goals that are included in the mission statement. My choice would be safe, efficient, clean and productive. All other goals could be included under these. I also believe the JPO's role should be hinted at in the mission statement, such as incentivizing and accelerating ITS deployment. And I don't know why we necessarily have to be competitive with the rest of the world ("best performing surface transportation system in the world"). Let's just choose the high ground, demonstrates success, and let them catch up with us. A candidate mission statement might be:

To incentivize, accelerate and demonstrate intelligent transportation solutions that dramatically improve safe, efficient, clean and productive surface transportation on the Nation's highways.

Then, as I said, these 4 components become shorter and easier to remember (and chant) set of goals.

Safety = Safe

Mobility = Efficient (other components of mobility can be sub-bullets under Efficient)

Environment = Clean

21st Century Partnerships is not a goal to me. It's a means to our goals.

Productive => handles the economic basis of our commercial transportation sector.

3. More on ITS Strategic Plan

We also say that the JPO should focus on “issues that transcend a single mode”. I believe this is a mistake. By forcing this rule, we may miss essential contributions that the JPO can make to safe, efficient, clean and productive that involve a single mode but are stalled or blocked by some factor that needs fixing. Why this seemingly arbitrary limitation? The JPO should certainly address issues in all modes, but not ONLY issues that transcend multiple modes.

4. On Strategic Plan Goals

Safety - Only Connected Vehicle?? Important, yes. The only safety contributor? No. In fact, not the earliest safety contributor. ADAS and Active Safety using autonomous sensors on the vehicle come first (then benefit from the richness of dynamic safety data from VII).

I sense an attitude of “we can leave that up to private industry (auto manufacturers and their suppliers)”. I made the exaggerated statement in our last meeting that “you can’t trust us to get it right”. What I mean is, we might wait 20+ years for some of this technology to make it to market. We (NHTSA, that is) already mandated ESC. But Lane Departure Warning/Control may yield similar 40% - 70% accident reduction benefits (run off road and lane departure). Same with Adaptive Cruise Control (rear end collision). And so on. So do we need more mandating? Not necessarily. Here are some initial thoughts on helpful Government roles that can accelerate adoption of life-saving ITS technology:

- Help gather and measure accident statistics (thru NHTSA?) and get a good understanding of the relative contributions to accidents as well as fatalities from run off road, lane departure, rear end, drowsy driver, curve negotiation, etc. Maybe we already have this, but let’s standardize and document it. Then we need a mapping of which technologies might address each accident cause, then expected improvements in accident statistics in each category. This becomes an initial set of metrics and will help prioritize technologies based on volume of accidents in each category and effectiveness of the technology in reducing accidents in each category.
- More importantly, measure accident statistics going forward, standardized across the States, with accidents by vehicle class and brand and installed safety features so we can measure the impact of ESC or lane departure control etc. (e.g., “cars equipped with lane departure systems achieve 74% less lane departure and road departure accidents in the past year...”). Maybe J.D. Power and Consumer Reports will pick up on this. The current NHTSA FAR system is inadequate, by their own admission, because it deals only with fatalities and not lesser crashes.
- Use above item to help work with insurance industry to consider discounts for vehicles with statistically proven accident reduction from certain technologies.
- Promote NCAP Star Ratings for these technologies.
- Also measure fuel economy enhancement results. Or at least collect that info and publicize it from the agencies who are best to do that work.

- Collect “Black Spot” data, statistically high incidence of accident road segments and intersections that can be used by cars to warn drivers when to take caution. Japan did this, reportedly saw significant reduction of accidents in these areas, and even mined the data for some valuable insights (e.g., steep downhill with an intersection at the bottom tend to be “black spots” – a lot of accidents on these roads).
- Consider sales tax rebates (broker State sales taxes?) for key technology purchases, including fuel economy enhancement technologies. I understand that the average cost of an accident in the U.S. is ~\$36k. This should provide the data to justify a tax rebate.
- Provide some kind of air cover for legal liability limitation. This is a major inhibitor today. The Japanese have implemented several of these technologies in Japan, but are petrified of bringing these applications to the U.S.

Admittedly, some of these items are “hard”. But I believe we should not just ask what the JPO can do easily and naturally, but what will provide the greatest acceleration of the introduction of high payoff technology (from our trial mission statement). Some of these items go beyond the jurisdiction of the JPO or even of the DOT. But can’t the DOT lead the brokering of these solutions with the right agencies?

5. Consumer Awareness

This is a tough one, but consumers are generally clueless about the benefit of these technologies on their safety. Can the DOT help with some public promotion of these benefits? Safety only sells if people get the message – and it’s a very fragmented message today. This could use some creative thought by some talented marketing folks.

Ok, I’ve done enough damage for now. Probably stepped on a few toes. No doubt suggested some things that are impossible for the JPO. But I do believe that these are some of the major inhibitors to accelerated adoption of technologies that we KNOW can dramatically reduce accidents and fatalities the day after they are deployed.

Have a great meeting and I’ll catch up with you when I return. - Bob