



Meeting of the  
ITS Program Advisory Committee  
January 6-7, 2011

Meeting Minutes

March 24, 2011

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## 1. General

- a. A meeting of the Intelligent Transportation Systems (ITS) Program Advisory Committee (PAC) was held January 6 to 7, 2011, in the Metropolitan Transportation Commission (MTC) Auditorium, Oakland, California 94607.
- b. These minutes provide a summary of the meeting proceedings. A copy of these minutes, the meeting transcript, the meeting PowerPoint briefing charts, and other meeting documents are available for public inspection and downloading in the ITS PAC Website at <http://www.its.dot.gov/itspac/index.htm>.

## 2. Meeting Attendance

- a. Committee members present, in alphabetical order:

Mr. Steve Albert; Director, Western Transportation Institute

Mr. Scott Belcher; President and CEO, ITS America

Mr. Joseph Calabrese; Director, Greater Cleveland Regional Transit Authority

Ms. Robin Chase; Founder and CEO, Meadow Networks

Mr. Robert Denaro; Vice President, NAVTEQ Corporation (ITS PAC Committee Vice Chairman)

Mr. Adam Drobot; Managing Director and Chief Technology Officer, 2M Companies

Ms. Ann Flemer; Deputy Executive Director, Policy; Metropolitan Transportation Commission; Oakland, California

Dr. Genevieve Giuliano; Senior Associate Dean for Research and Technology, USC School of Policy, Planning, and Development

Mr. J. Peter Kissinger; President and CEO, AAA Foundation for Traffic Safety

Dr. Joseph Sussman; JR East Professor, Department of Civil and Environmental Engineering and Engineering Systems Division; Massachusetts Institute of Technology (ITS PAC Committee Chairman)

Dr. Peter Sweatman; Director, University of Michigan Transportation Research Institute

Mr. Gary Toth; Senior Director, Transportation Initiatives; Project for Public Spaces

Mr. James Vondale; Director, Automotive Safety Office, Sustainability, Environmental and Safety Engineering; Ford Motor Company

- b. Committee members absent, in alphabetical order:

Mr. Randell Iwasaki; Executive Director, Contra Costa Transportation Authority

Mr. Jack Lettiere; President, Jack Lettiere Consulting

Mr. Bryan Mistele; CEO, INRIX

Mr. Don Ostenberg; Senior Vice President, Safety and Driver Training, Schneider National, Inc.

Mr. Kirk Steudle; Director, Michigan Department of Transportation

Mr. Pravin Varaiya; Nortel Networks Distinguished Professor, Department of Electrical Engineering and Computer Sciences; University of California, Berkeley

c. Others present, in alphabetical order:

Mr. Peter H. Appel (by teleconference); Administrator, Research and Innovative Technology Administration, U.S. Department of Transportation

Mr. John Augustine; Deputy Director, ITS Joint Program Office, Research and Innovative Technology Administration, U.S. Department of Transportation

Dr. Robert L. Bertini; Acting Director, ITS Joint Program Office and Deputy Administrator, Research and Innovative Technology Administration, U.S. Department of Transportation

Ms. Valerie Briggs; ITS Joint Program Office, Research and Innovative Technology Administration, U.S. Department of Transportation

Mr. Brian Cronin; ITS Joint Program Office, Research and Innovative Technology Administration, U.S. Department of Transportation

Mr. Stephen Glasscock; Program Coordinator, ITS Joint Program Office, Research and Innovative Technology Administration, U.S. Department of Transportation (ITS PAC Designated Federal Official)

Mr. Christopher Pangilinan; Special Assistant to the Deputy Administrator, Research and Innovative Technology Administration, U.S. Department of Transportation

Mr. Vincent Valdes; Associate Administrator for Research, Demonstration, and Innovation, Federal Transit Administration, U.S. Department of Transportation

Mr. Carlos R. Vélez, Jr.; Citizant, Inc.

### 3. Meeting Action Items

The reference following each action item is to the paragraph and page number of the Summary of Proceedings below where the action item (in bold font) is located.

- a. The ITS Joint Program Office (JPO) will provide ITS PAC members copies of the ITS Management Council (MC) and ITS Strategic Planning Group (SPG) charters (reference 5.f., page 12).
- b. The ITS JPO will provide ITS PAC members the breakout of ITS program budget funding for safety, mobility, and the environment (reference 5.f., page 12).
- c. The ITS JPO will provide ITS PAC members the link to the “ITS Knowledge Resources Databases” (reference 5.g., page 16).
- d. The ITS JPO will provide ITS PAC members copies of the Intelligent Transportation Systems Benefits, Costs, Deployment, and Lessons Learned: 2008 Update (reference 5.g., page 16).

- e. The ITS JPO will provide ITS PAC members a fact sheet(s) with “simplified” ITS benefits information (reference 5.g., page 16).
- f. The ITS PAC will invite Mr. Aneesh Chopra, the U.S. Chief Technology Officer (CTO), to attend the March ITS PAC meeting and to participate in the Technology Strategy subcommittee (reference 5.g., page 17).
- g. Subcommittees will report at the ITS PAC March meeting on their evaluations of the ITS research program using the criteria presented by Dr. Sussman. The reports will include any recommendations on transportation reauthorization issues (reference 5.g., page 17).

#### **4. Meeting Agenda**

##### Thursday, January 6

- a. Opening Remarks: Dr. Joseph Sussman, Committee Chairman
- b. Welcome Remarks: Dr. Robert Bertini, ITS JPO Acting Director and U.S. DOT Research and Innovative Technology Administration (RITA) Deputy Administrator
- c. Remarks: Mr. Peter Appel, RITA Administrator
- d. Discussion of Committee’s August 2010 Report to the ITS JPO and Mode of Operations
- e. The Platform Approach

##### Friday, January 7

- f. ITS Program Multimodalism
- g. Committee Mode of Operations (continued)
- h. Summary and Wrap-up
- i. Adjourn

#### **5. Summary of Proceedings**

##### Thursday, January 6

- a. Opening Remarks: Dr. Joseph Sussman, Committee Chairman

Dr. Sussman opened the meeting and thanked Ms. Ann Flemer for coordinating the Bay Area Rapid Transit (BART) control center tour and the data sharing/integration panel discussion. The tour and panel discussion were optional activities and not part of the official ITS PAC meeting.

Dr. Sussman requested that all present introduce themselves. He advised the group that the meeting officially was limited to ITS PAC participation, but that, upon request, non-ITS PAC members would be recognized as quickly as possible.

Dr. Sussman stated that the purpose of the meeting was to continue the committee's deliberations from previous meetings and work toward developing advice to the ITS JPO. He emphasized that the committee has no executive authority; but given the stature of its members and their divergent views, the committee hopes that its consensus-based advice will "carry some weight" with its "friends at the ITS JPO."

Dr. Sussman reviewed the meeting agenda and announced that Mr. Appel was participating by teleconference. Dr. Sussman turned the meeting over to Dr. Robert Bertini for his welcome remarks.

b. Welcome Remarks: Dr. Robert Bertini

Dr. Bertini thanked Ms. Flemer and her staff for coordinating the morning's panel discussion, and thanked also ITS PAC members for their commitment of time and energy to the ITS program, adding that RITA takes their input and involvement very seriously and highly values their insights.

Dr. Bertini stated that he looked forward to the meeting's discussions on open platforms and multimodalism, which are two of five topics the committee identified as potential committee meeting agenda topics in its August 2010 memorandum to the ITS.

Dr. Bertini also thanked the RITA staff for their contributions to meeting preparations. He emphasized that participation in the meeting by Mr. Vincent Valdes, Federal Transit Administration Associate Administrator for Research, Demonstration, and Innovation; was an expression of RITA's commitment to cutting across U.S. DOT modes, and that RITA takes very seriously the committee's concerns about ITS program multimodalism. Dr. Bertini discussed RITA's efforts in expanding its modal partnerships. He stated that the Federal Railroad Administration and the Maritime Administration had recently "come to the table," and that RITA continues its strong partnerships with the other U.S. DOT modes. As an example of ITS program multimodalism, Dr. Bertini cited Mr. Valdes' participation on the ITS Strategic Planning Group (SPG), the group responsible for monitoring and helping to manage the day-to-day direction of the ITS program, which is chaired by the ITS JPO Director and is comprised of Associate Administrator-level representation from the National Highway Traffic Safety Administration (NHTSA), the Federal Motor Carrier Safety Administration (FMCSA), the Federal Transit Administration (FTA), the Federal Highway Administration (FHWA), the Federal

Railroad Administration (FRA) and the Maritime Administration (MARAD). Dr. Bertini added that he believes the ITS PAC would be pleased about the healthy discussions that go on within the SPG, as well as within the ITS MC, which is at the next higher level of ITS program management. RITA appreciates the day-to-day critical management and guidance provided by Mr. Valdes and his counterparts across the U.S. DOT modes.

Dr. Bertini stated that a recent significant RITA accomplishment was the signing of ITS research cooperative agreements with the European Union (EU), Canada, and Japan. Standards harmonization across continents has been a focus of the agreements with the EU and Japan in the past several months. It is important that RITA lead in this area. Although RITA does not participate in determining what those standards are, it supports, and in some cases, funds the participation of others in standards development. The international reaction to the signing of these agreements has been very positive. RITA is committed to coordinating with its global partners and to making sure that there is a common platform for data and all aspects of ITS.

Dr. Bertini turned the meeting over to Mr. Appel.

c. Remarks: Mr. Peter Appel, RITA Administrator

Mr. Appel stated that he was participating by teleconference due to the birth of his daughter two weeks ago. He added that a milestone like the birth of a daughter was a good opportunity to try to imagine what the transportation system will be like in 18 years when she is old enough to drive. While trying to imagine what the transportation setting will be like in 18 years, he realized that he could learn a lot from looking 18 years in the past. When he joined the FAA 18 years ago, aviation was by far the safest mode of transportation, but efforts continued to make it safer, and today aviation is incredibly safer than it was 18 years ago. Mr. Appel stated that this aviation example is a lesson learned for the surface transportation system and ITS. Although there have been dramatic improvements in surface transportation safety in the last few years, there were 34,000 highway fatalities last year, and that is not where we want to be; so, as has been case with aviation, although we have a much safer surface transportation system now than we had two decades ago, it must get better. Mr. Appel stated that he knows that ITS can do a lot of wonderful things in mobility/livability, environmental sustainability, and general transportation convenience; but safety is an area where ITS can really make a dramatic impact.

Mr. Appel stated the Department principals were requested to discuss their agency's one, and only one, most significant accomplishment of the year at the final 2010 U.S. DOT Secretary's Cabinet meeting. Mr. Appel chose to discuss ITS and, specifically, vehicle-to-vehicle and vehicle-to-infrastructure communications and related international standards development efforts that are setting the stage for the future transportation system. Mr. Appel added that it is extremely important that the ITS PAC, RITA, and the other modes work together in support of these ITS research programs.

Mr. Appel thanked ITS PAC members for their participation on the committee. He added that the Department could use their help particularly in defining how to get from research to practical deployment of ITS technologies. He emphasized that the benefits of ITS research must be demonstrated because the results of the November 2010 Congressional elections indicated that all Federal spending, transportation included, will be under increased scrutiny in the foreseeable future. Mr. Appel concluded by stating that he is extremely optimistic that the ITS program will be a “winner” in the budget debate because ITS is an area that, with good leveraging and technology, will produce a “huge bang for the buck” at the federal, state, and local levels.

Dr. Sussman asked if there were any questions for Mr. Appel.

Mr. Vondale responded that he didn't have a question, but wanted to commend Mr. Appel for his leadership in the area of harmonization, adding that it is extraordinarily important that we move forward in global harmonization, and that the work that has been done so far has been very important and will lay the groundwork for the future.

d. Discussion of Committee's August 2010 Report to the ITS JPO and Mode of Operations

Dr. Sussman summarized the committee's August 6, 2010, report to the ITS JPO. The report stated that because the committee's April 2010 meeting was the first for 13 of the 20 committee members, the discussion was largely “exploratory” in nature, and provided committee members a broad understanding of the ITS program and the ITS JPO. In the report, the committee recommended the following five topics for future meeting agendas:

- A multimodal ITS research approach that goes beyond highway transportation.
- Open research platforms upon which others can build to advance the field.
- Communications technology options beyond the Dedicated Short-Range Communications (DSRC) spectrum.
- The challenge of keeping up with emerging technologies.
- Transformational change within federal, state, and local governments and in public-private sector relationships.

Dr. Sussman suggested that it would be worthwhile for the committee to consider the notion of a future vision for the U.S. transportation system and the ITS program in particular as the committee continues its deliberations. He referenced his interview on “America's ITS Vision” that was published in the November 2010 *ITS International* magazine. In the interview, he stated that the public is tiring of the “grumbling” within the transportation community about the lack of funding and other difficulties. He believes that a contributor to this public attitude is the lack of a vision for the transportation system similar to the vision President Eisenhower established in the mid-

1950s for the national interstate highway system, which served as the linchpin of transportation policy for decades. Dr. Sussman suggested that the transportation system vision should include a sustainable system that includes economic development, environmental protection, equity, etc., and that is technology-driven. The vision has to include interconnections with a broader world (energy, the environment, social equity, etc.), should be multimodal (highway, transit, rail, air, etc.), must be flexible in adjusting to the changing environment, and must account for institutional change.

Turning to the subject of the committee's mode of operations, Dr. Sussman stated the committee had made progress at its April 2010 meeting in terms of understanding and reaching consensus on U.S. DOT's overarching goals of safety, livable communities, state of good repair, economic development, and environmental sustainability. However, because of committee members' many different and strongly-held viewpoints, they had not reached consensus on specific advice to the ITS JPO on ITS program development. Ultimately, the committee forwarded its August 6, 2010, report to the ITS JPO, which was useful in a "stage-setting" way, but wasn't specific on advice. Therefore, the committee should be thinking about providing more specific and salient advice that the ITS JPO can use or not use, as it sees fit.

Dr. Sussman offered the following three metrics or points of principle on which the committee could base its advice:

- Is the ITS JPO providing appropriate ITS leadership?
- Does the ITS JPO provide a technical and organizational platform on which to build effectively?
- Is what the ITS JPO is proposing part of an integrating vision for ITS; i.e., is there an overarching vision and are ITS JPO proposals consistent with that vision?

To elaborate, Dr. Sussman used a basketball analogy. Many basketball fans believe that Larry Bird, a former professional basketball player, is the greatest player of all time, not only because of his personal skills, but also because he made other ballplayers better as a result of the way he played. Dr. Sussman completed the analogy by asking whether the ITS JPO makes state and local governments and the private sector better (in an ITS program sense).

Dr. Sussman next addressed the establishment of an organizational framework for the committee's operation. He stated that his sense always has been that the value of the committee's recommendations will be that they, presumably, will represent hard-won consensus across a group of informed stakeholders with a broad range of views. However, the committee has experienced difficulty in reaching this consensus. An idea that the committee has discussed to improve consensus-building and make better use of its members' time is to form subcommittees. These subcommittees would consider specific topics and present consensus-based recommendations for adoption by the

committee of the whole. Another idea is to involve high-level private and public sector senior officials in committee deliberations as a means of increasing their interest in ITS. Specifically, Dr. Bertini raised the possibility that the committee could collaborate with the U.S. CTO. This would be a way of encouraging high-level interest in ITS and would add value to the committee's contributions beyond simply providing consensus advice. Dr. Sussman invited Dr. Bertini's comments on the possibility of forming subcommittees and on the proposed cooperation with the U.S. CTO.

Dr. Bertini stated that federal advisory committee management rules allow for the establishment of subcommittees. The subcommittee membership must include at least one member of the parent committee, and may include other experts from outside the parent committee. Dr. Bertini stated that the U.S. CTO, Mr. Aneesh Chopra, proposed some time ago the idea of using the ITS PAC to get high-level interest in ITS. Dr. Bertini added that Mr. Chopra is a real champion of ITS and of spurring innovation by the private sector. Mr. Chopra is very interested in bringing together industry leaders at a White House meeting to discuss ways to accelerate ITS deployment. Mr. Chopra used the example of a health care federal advisory subcommittee that he co-chaired, which had the task of harmonizing the many existing different health care databases that contained hundreds of data fields. Despite the difficulty of the task, the subcommittee focused and in a very short time reached consensus on the most important fields that would allow the integration health care data systems. The subcommittee energized the health care industry to adopt the solution, saving millions of dollars and enabling a much more interoperable health care system. Mr. Chopra suggested that this health care example could apply to efforts in the transportation field to harness the power of open platforms for transportation data to improve safety, mobility, and sustainability. Dr. Bertini concluded his remarks by stating that the ITS JPO would be pleased to support the formation of ITS PAC subcommittees with defined deliverables or tasks.

Mr. Augustine reinforced Dr. Bertini's comments on the value of Mr. Chopra's proposal of using the White House "bully pulpit" to bring the ITS PAC and national decision-makers together to address important ITS issues. Mr. Augustine also strongly supported the forming of subcommittees as a way to better focus committee members' diverse interest areas and perspectives.

Dr. Sussman summarized that committee members had heard presentations on two proposed models for committee mode of operations. The first is the "profile" model, i.e., the involvement of "heavy hitters" in committee deliberations with the U.S. CTO's support. The second model is the establishing of "substantive subcommittees" of three to five members who would meet face-to-face or "virtually" to consider issues that are more difficult to address by the entire committee. The findings of these subcommittees could not officially be reported to the ITS JPO until vetted by the committee of the whole. Dr. Sussman also stated the committee has also heard his presentation of criteria the committee could use to evaluate ITS program initiatives, the ITS JPO leadership role, etc.

Dr. Sussman opened the meeting to group discussion. In the comments that followed,

committee members generally agreed with the two proposed models for committee mode of operations. However, a wide range of opinions were expressed on the specifics of how the committee should evaluate the ITS program and provide advice to the ITS JPO. At the end of the discussion period, the committee had not reached consensus on how the committee should proceed in its advisory role, so Dr. Sussman asked committee members whether they desired to continue the present discussion or move to the next agenda topic. Mr. Belcher recommended moving to the next agenda topic and that Dr. Sussman, Mr. Denaro and any other committee members they wished to include consider the different views expressed during the mode of operations discussion and present the committee a proposal on the following day on how to proceed. Dr. Sussman stated that unless there was objection, the committee would, as Mr. Belcher recommended, move to the next agenda topic, and he and Mr. Denaro would develop and present to the committee on the following day a proposal for the committee's future mode of operations.

e. The Platform Approach

Mr. Denaro introduced this topic by reminding committee members that the issue of whether the ITS research program was adequately addressing the "platform approach" was raised at the committee's April 2010 meeting. Mr. Denaro stated that the committee's goals for this session would be:

- Agreement on what "platform approach" means.
- Understanding of the current IntelliDrive (renamed "Connected Vehicle") program approach to open platforms; and
- Consensus on platform-related recommendations to the ITS JPO.

Mr. Denaro then invited Mr. Brian Cronin, ITS JPO Research Team Lead, to make the Platform Approach presentation.

Mr. Cronin reminded committee members of the following specific platform-related questions that they raised during their April 2010, meeting:

- Does the ITS JPO's research initiative provide an open platform for further development by others?
- Does it leverage advances and investments being made in other sectors of the economy?
- Does ITS JPO's ITS research program provide an environment in which non-highway applications can flourish, even for pedestrians?

As a basis for the discussion, Mr. Cronin presented the *Wikipedia* definition of open platform, which states that:

“...an open platform describes a software system that is based on open standards, such as published and fully documented external programming interfaces that allow using the software to function in other ways than the original programmer intended without requiring modification of the source code. Using these interfaces, a 3<sup>rd</sup> party could integrate with the platform to add functionality.”

Mr. Cronin also presented the following ITS program definitions of open data and open source:

- Open data: data and metadata that are free and available for use without restriction; data that is reusable without requiring further permission.
- Open source: a method for collaborative development of software through peer input, review, and transparency. Methods, algorithms, and source code are made available by participants to all.

Mr. Cronin then discussed how the ITS Connected Vehicle concept contributes to an open data environment for continued applications research and development. More specifically, he described the two major Connected Vehicle research tracks:

- The safety track, which will focus on DSRC-based communications for safety critical vehicle links.
- The mobility track, which is “technology agnostic” – it will build on DSRC, but will leverage other wireless technologies.

Mr. Cronin concluded the formal portion of his presentation by stressing that the ITS research program seeks to identify and make available open data to foster development of applications that will permit more effective choices by operators and users of the transportation system.

Following a question-and-answer period, Mr. Denaro concluded the discussion by stating that, although committee members did not reach consensus on answers to their platform-related questions, he believes they made good progress in understanding the ITS JPO’s platform approach. He added that the committee would have to do more work to develop recommendations on this subject to the ITS JPO.

The ITS PAC adjourned for the day at 4:58 p.m.

Friday, January 7

Dr. Sussman reconvened the meeting and invited Mr. Augustine to make the multimodalism presentation.

f. ITS Program Multimodalism

Mr. Augustine stated that the main objective of his presentation was to respond to the committee's comments in its August 2010 report to the ITS JPO regarding ITS research program multimodalism and the budget allocations for major program elements.

Mr. Augustine described how multimodalism is reflected in ITS program strategy and budget development, management and governance, research goals, and interaction with stakeholders. Specifically:

- The ITS research program is multimodal in both planning and execution. The ITS program strategic plan and budgets are developed in collaboration with all of the U.S. DOT surface modes.
- ITS research program management and governance is administered through the multimodal ITS MC and ITS SPG. The ITS MC is chaired by the U.S. DOT Deputy Secretary and includes Administrator-level representation from FHWA, FRA, FTA, NHTSA, MARAD, and FMCSA. The ITS SPG is chaired by the ITS JPO Director and includes Associate Administrator-level representation from the modes listed above.
- The ITS research program's safety, mobility, and environmental research goals collectively apply to all surface modes.
- ITS research program development is vetted through frequent Twitter and RSS feeds and Web Blasts with 70 or 80 stakeholder groups.

Dr. Sussman commented that the "Department Management and Governance" organization chart did not graphically depict the cross-cutting nature of the ITS MC. Mr. Augustine responded that the blue boxes on the chart identified ITS MC membership. He added that the ITS MC and ITS SPG both have charters and that the **ITS JPO will send ITS PAC members copies of those charters.**

Mr. Augustine continued his presentation with descriptions of the major ITS research program components and FY 2010 budget allocations. In response to Mr. Kissinger's request for the relative percentage budget allocations to safety, mobility, and the environment, Mr. Augustine responded that he did not have that information, but that the **ITS JPO will provide committee members the breakout of ITS budget funding for safety, mobility, and the environment.** Mr. Augustine concluded with a chart that summarized, "at a glance," the involvement of the different modes in the major ITS research program components.

Mr. Valdes followed Mr. Augustine with a brief summary of the ITS role in transit. His major discussion topics were:

- Transit ridership trends.
- The FTA ITS Strategic and Program Plan, 2010 – 2014.
- Transit ITS technology applications.
- Transit ITS benefits.
- The future of ITS in transit.

The discussion that followed focused on the degree of ITS transit application deployment in the U.S. Dr. Giuliano commented that many European cities have deployed many of the technologies that Mr. Valdes stated were still in the future for the U.S. and asked whether someone had investigated what the barriers are to deployment in the U.S. Mr. Valdes responded that he is familiar with European and Asian transit systems and that the major reason for higher deployment levels of ITS technologies in these areas is higher funding levels. Mr. Calabrese commented that many of these technologies in fact are deployed in Cleveland. Ms. Flemer added that the approach to improving the deployment of transit ITS applications is not research on new applications but better coordination among metropolitan transit agencies in sharing lessons learned and success stories concerning deployment of available technologies. For example, in the San Francisco Bay Area, most funding for transit technology comes not from the transit program, but from Surface Transportation Program (STP) and Congestion Mitigation and Air Quality Improvement Program (CMAQ) funds. Ms. Flemer stated that many municipalities do not know that they can use STP and CMAQ funding in this way. Ms. Chase commented that a way to increase support for higher ITS transit technology research and deployment would be to show a statistical correlation between the increased use of transit and reduced traffic deaths.

Dr. Sussman thanked both Mr. Augustine and Mr. Valdes for their presentations.

g. Committee Mode of Operations (continued)

Mr. Denaro opened the Committee Mode of Operations session, which was a continuation of the previous day's discussion. He stated that although the committee might not reach consensus on advice to the ITS JPO, it should be able to agree on some ideas that could be further developed through e-mails and future meetings. Mr. Denaro stated that he and Dr. Sussman had collaborated on some charts to guide the discussion and invited Dr. Sussman to brief the charts.

Dr. Sussman emphasized the following:

- The points of his presentation would be “conversation starters” and not a “line in the sand.”

- The ITS PAC needs a productive way forward in performing its advisory role.
- The ITS PAC represents many constituencies and viewpoints, but it should be able to reach common ground in being helpful to the ITS JPO.

Dr. Sussman summarized the ITS PAC's role as:

- To provide actionable advice that can add value to ITS JPO's work.
- To use the ITS PAC's "bully pulpit" to advance the ITS program, nationally and internationally.

Dr. Sussman also summarized several "messages" that committee members had communicated during the current meeting's discussions:

- The committee should focus to get something meaningful done.
- Safety is an important goal but not the only one.
- The subcommittee idea is good.
- The proposed collaboration with the U.S. CTO is an important opportunity that will require detailed preparation.
- The ITS JPO's efforts on IntelliDrive (Connected Vehicle) may be too light to achieve a truly usable platform.
- Getting wireless devices into vehicles, both new car production and installed base, is a major concern.
- DSRC meets the real-time safety need, but other communications technologies must be accommodated for broader services.

Dr. Sussman stated that the fundamental question before the committee is, How well is the federal ITS program performing? To answer that question, the committee will have to define "performance" and establish program performance evaluation criteria.

Dr. Sussman stated that the ITS JPO had the responsibility to perform the following major functions, all predicated on providing leadership, not dominance, in the ITS community:

- Research and development.
- Creating an environment in which ITS can advance as a critical, *deployable* element of the contemporary transportation system.

- Positioning ITS as a response to the policy challenges the US transportation system faces.

Dr. Sussman outlined the following proposed criteria for evaluating ITS JPO's performance of its major functions. Does the ITS JPO:

- Provide leadership in the ITS community?
- Provide a useful platform for system development by others?
- Work toward institutional transformation, where it is of value (public-private partnerships, federal/state interactions)?
- Advance ITS as a contributor to a sustainable transportation system – the 3Es (economic development, environmental protection and social equity) -- *multiple objectives*?
- Make “everyone else better” (the “Larry Bird idea”) by providing a basis for good R&D investment and deployment by the states and the private sector?
- Enable deployment(s) by others, although it is not a deployment organization?
- Enable the setting of standards and international harmonization of ITS technologies even though it is not a standards setting organization?
- Have a multimodal/intermodal approach?
- Have a technology strategy that recognizes and leverages technology development in other sectors?
- Have a portfolio of short-term and long-term R&D?
- Provide a rational basis for multi-year reauthorization of the federal ITS program?
- Contribute to ITS workforce development?

Dr. Sussman opined that the committee had gone as far as it could as a committee of the whole in trying to develop consensus advice for the ITS JPO and proposed the following subcommittee major subject areas of consideration for the committee's evaluation of ITS JPO performance:

- “Platforms” – IntelliDrive (Connected Vehicle).

- Technology strategy.
- Standards/Harmonization.
- Barriers to ITS deployment.
- Overall program evaluation – considering the criteria noted above.

Dr. Sussman stated that a subcommittee could also address potential collaboration with Mr. Chopra on conducting a White House-sponsored ITS “summit.”

In conclusion, Dr. Sussman made the following recommendations:

- That some or all of the proposed subcommittees be established.
- That the subcommittees report back on their evaluations of ITS JPO performance before the planned ITS PAC March 2 - 3, 2011 meeting in Detroit.
- That Mr. Chopra be invited to the March meeting to discuss the proposed White House ITS summit.

Dr. Sussman added that the evaluation criteria he proposed relate very closely to the five consensus-based issues of concern that the committee outlined its August 2010 memorandum to the ITS JPO.

Dr. Bertini stated that he believes that Mr. Chopra and his staff would like to begin interacting with the ITS PAC right away, and that this interaction probably will be long-term and include multiple activities.

Dr. Sussman turned the meeting over to Mr. Denaro to moderate the discussion. A wide-ranging discussion followed on the merits of establishing some or all of the proposed subcommittees. Mr. Toth argued that the ITS PAC could better serve in a “bully pulpit” role to assist the ITS JPO make the case for increased ITS program funding if the committee were provided more information on the benefits and return on investment of ITS deployments. Ms. Briggs stated that the ITS JPO Website includes databases (Knowledge Resource Databases) with extensive data on ITS benefits, costs, and lessons learned. She added that **the ITS JPO will provide ITS PAC members the link to the “ITS Knowledge Resources Databases” and copies of the Intelligent Transportation Systems Benefits, Costs, Deployment, and Lessons Learned: 2008 Update**. Mr. Augustine added that, while it is true that there is much scientifically-based ITS benefits information available online and in print, perhaps Mr. Toth instead was referring to more simplified information, such as a one-to-three page fact sheet that communicates, for example, that “...investments in this technology generally produce two-to-one return on investment...” Mr. Toth agreed. Ms. Briggs stated that the ITS JPO has been working

on a presentation on this, so **the ITS JPO will provide ITS PAC members a fact sheet(s) with “simplified” ITS benefits information.**

Mr. Denaro summarized the following results of the discussion:

- The following three subcommittees with membership indicated are established:
  - Technology Strategy: Dr. Sweatman (chairperson), Ms. Chase, Mr. Denaro, Dr. Drobot.
  - Standards and Harmonization: Mr. Vondale (chairperson), Mr. Belcher, Dr. Drobot.
  - Program Evaluation and Strategy: Ms. Flemer (chairperson), Mr. Calabrese, Dr. Sussman.
- **The ITS PAC will invite Mr. Chopra to attend the March ITS PAC meeting and to participate in the Technology Strategy subcommittee as a first step in developing “the way ahead” for a potential White House ITS summit.**
- **Subcommittees will report at the ITS PAC March meeting on their evaluations of the ITS research program using the criteria presented by Dr. Sussman. The reports will include any recommendations on transportation reauthorization issues.**

h. Summary and Wrap-up

Mr. Denaro summarized that the committee had established three subcommittees and their membership assignments. The committee also agreed to invite Mr. Chopra to join the technology strategy subcommittee, and that activities to facilitate the proposed White House ITS summit would be conducted through that subcommittee. Mr. Denaro and Dr. Sussman will send committee members an email confirming this information.

Dr. Giuliano requested information on the March meeting agenda and expressed concern that one-and-a-half days for the March meeting would not be enough time to address the agenda topics that had been identified. Dr. Bertini commented that Ms. Briggs had been coordinating the March meeting agenda, which would include a demonstration and discussion of the communications and technology issues raised by the committee in its August 2010 memorandum to the ITS JPO. Dr. Sussman stated that the March meeting would require two days; one-half day for a demonstration, and one-and-a-half days for committee deliberations.

Dr. Bertini thanked Ms. Flemer and others whose contributions made the meeting a success.

i. Adjourn

Dr. Sussman thanked Dr. Bertini for his efforts. He added that the meeting had been very successful, and that he was pleased with committee members' vigorous participation. Dr. Sussman thanked all present and adjourned the meeting at 12:53 p.m.

We hereby certify, to the best of our knowledge, that the foregoing minutes are accurate and complete.

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