



Summary of Proceedings
ITS Program Advisory Committee Meeting
April 19, 2017

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1. General

- a. The Intelligent Transportation Systems (ITS) Program Advisory Committee (ITSPAC) met on April 19, 2017 at the DoubleTree Crystal City Hotel, located at 300 Army Navy Drive, Arlington, Virginia 22202.
- b. This document provides a summary of the meeting proceedings. The meeting transcript and other meeting documents are available in the April 19, 2017 section of the ITSPAC website at <http://www.its.dot.gov/itspac/index.htm>.

2. Meeting Attendance

- a. Committee members

Ms. Sheryl Wilkerson, Vice President, Government Affairs, Michelin North America
(Chair)

Mr. Steve Albert, Director, Western Transportation Institute

Mr. Scott Belcher, Consultant, Intelligent Transportation Systems

Mr. Roger Berg, Vice President, North America R&D, DENSO International America

Mr. John Capp, Director, Electric and Control Systems Research and Active Safety
Strategic Lead, General Motors Corporation

Mr. Bob Denaro, Consultant, Intelligent Transportation Systems

Ms. Debra Johnson, Deputy Chief Executive Officer, Long Beach (CA) Transit

Mr. J. Peter Kissinger, Consultant

Mr. Scott McCormick, President, Connected Vehicle Trade Association

Mr. Ron Medford, Director of Safety, Self-Driving Car Program, Google, Inc.

Mr. Danny Pleasant, Director, Charlotte (NC) Department of Transportation

Ms. Tina Quigley, Regional Transportation Commission of Southern Nevada

Mr. Bryan Schromsky, Director of Technology, Verizon Wireless

Mr. George Webb, County Engineer, Palm Beach County, FL

- b. U.S. Department of Transportation

Mr. Stephen Glasscock, Designated Federal Officer, ITS Joint Program Office

Mr. Ken Leonard, Director, ITS Joint Program Office

Mr. Egan Smith, Managing Director, ITS Joint Program Office

- c. Others

Elfriede Campbell, Consultant

Jason Gallagher, Lewis-Burke Associates

Kathryn McGirk, McAllister & Quinn

Madeline Salinas, Harris Wiltshire & Grannis

Craig Shankwitz, Western Transportation Institute

Joon Shin, Fellow, ITS Joint Program Office

Al Stern, Citizant

3. Meeting Action Items

- a. All Committee members should provide a list of discussion topics and suggested speakers for the next meeting to the Committee Chair as soon as possible.
- b. The next meeting should be scheduled for mid-July and will be a two day meeting. Tentatively, a teleconference should be scheduled for late August and a final 2017 meeting should be planned for October.
- c. Ms. Quigley will provide a brief memo describing the positive effects on agency cooperation engendered by the Smart City Challenge process.
- d. Members should meet in their subcommittees prior to the July meeting so as to be prepared to discuss preliminary recommendations to the Secretary and Congress.
- e. Mr. Glasscock will look into the possibility of having a representative from the Advisory Committee on Automation attend a future ITS PAC meeting.

4. Meeting Agenda

- a. Welcome Remarks
- b. Opening Remarks
- c. JPO Update / Q & A with Committee
- d. DSRC and 5G Discussion
- e. Discussion of 2017 Work
- f. Discussion and Review of Previous Recommendations

5. Summary of Proceedings

- a. Welcome Remarks
 - (1) Mr. Glasscock, Committee Designated Federal Officer, welcomed committee members, reviewed meeting “housekeeping” rules, and announced that, Ken Leonard, ITS Joint Program Office Director, and Egan Smith, Managing Director, would both be attending the meeting today. Ms. Wilkerson also noted that two new members were joining the committee today for the first time, Ron Medford and Danny Pleasant. After a brief introduction of the new members, Ms. Wilkerson asked members of the public to introduce themselves.

b. Opening Remarks

- (1) Ms. Wilkerson, Committee Chairperson, welcomed participants and thanked the ITS JPO for its support and committee members for taking time from their schedules to serve on the committee. She also welcomed the two new members to the Committee.
- (2) Ms. Wilkerson and Mr. Glasscock then walked the Committee members through the agenda, noting some minor adjustments. She then introduced Ken Leonard, ITS JPO Director, and Egan Smith, Managing Director, and asked them to provide an update on recent JPO activities, including the latest on the Smart Cities initiative.

c. JPO Update / Q & A with Committee

- (1) Mr. Leonard proceeded to give a short summary on current and ongoing ITS JPO activities by noting that a new Secretary of Transportation, Elaine Chao, has been appointed; in addition, a number of Undersecretaries and Deputy Secretaries have been named. The new Secretary has publicly announced that the new Administration has three priority areas related to transportation: safety, technology and the future. She has also made several comments recently about self-driving vehicles and the role of the private sector in moving technology forward.
- (2) In terms of recent activities at the JPO, Mr. Leonard described the progress made on the Connected Vehicle Pilots program. Phase 1 is now complete and the program has moved into the deployment phase at the three test sites (Tampa, Wyoming and New York City). Major demonstrations of connected vehicles in those three locations are expected in 2018.
- (3) Another focus area at the JPO is automated vehicles, where it is cooperating with other US DOT agencies such as NHTSA, FMCSA and FHWA to integrate efforts in that field. In addition, the Smart City program in Columbus (OH) will be utilizing automated vehicles by deploying low-speed shuttles in the coming year, though it is still in the concept phase for now. Good progress continues to be made across the Columbus Smart City Program in a wide variety of efforts, including those outside of strictly transportation. Core ITS technologies are being combined with “smart infrastructure,” as part of the overall project in order to address a wide variety of urban issues in the city.
- (4) Mr. Leonard noted that the JPO’s Data Program Manager, Ariel Gold, has been working on data issues within ITS for almost a year now and is bringing together experts in the data field to help address them. He stated that she is available to speak about her activities if the Committee would be interested.
- (5) After a question regarding future grants and challenges from Ms. Quigley, Mr. Leonard replied that the ATCMTD grants (section 6004 of the FAST Act) are now available for the second year’s solicitation. Matching funds, with a maximum of \$12 million, will be awarded this year, mostly in the area of ITS; states and local

- governments are eligible to apply. Mr. Smith added that grantees, as well as Smart City Columbus and the CV Pilots program, will be sharing “lessons learned” with US DOT, and will feed into the PCB (professional capacity building) efforts within the JPO.
- (6) Mr. Denaro asked about automated vehicles and how artificial intelligence is being used to make decisions by those vehicles; he wondered if any work was being done in that area, and in the area of testing and certification, at the JPO at this time. Mr. Leonard replied that most of the research related to that issue was being done by NHTSA, but that it remained of interest to the JPO, if only as a long range research effort. Mr. Medford agreed and noted that NHTSA had been, and most likely would continue to be, working on this problem for quite some time.
- (7) Mr. Schromsky brought up the topic of distracted driving; he felt that problem could be compounded when it came to automated vehicles. Mr. McCormick suggested that there is a need to focus on what the driver is doing, as well as what that vehicle was doing. Mr. Leonard then noted that the JPO had funded a number of human factor studies through NHTSA to address just those problems. He also stated that he was confident that the private sector was already considering an approach that could solve that and other autonomous vehicle concerns.
- (8) Mr. McCormick brought up the recent increase in traffic fatalities and accidents; he asked if Mr. Leonard was aware of any conclusions as to why this is happening. Mr. Leonard stated that he had not seen any reports on the cause of the problem, but had seen statistics that indicated significant increases in accidents related to pedestrians, bicycles and motorcycles. Mr. Schromsky reiterated his concerns about distracted driving and noted that smart phones have been implicated in an increase in pedestrian fatalities as well.
- (9) Mr. Albert then raised the issue of urban planning as it relates to traffic safety; what role can ITS play in redesigning cities and subdivisions to address safety concerns? Mr. Pleasant spoke about his experience in changing zoning ordinances to bring back “city block” design; he felt it was a good idea, but would take a long time to take effect. Ms. Johnson asked how that related to transportation safety. Mr. Pleasant replied that it can increase opportunities for pedestrians and bicycles; unfortunately, in the case of Charlotte, the initial reaction has been an increase in crashes.
- (10) Mr. Smith also noted that a possible solution could be “geo-fencing” technology to encourage automated vehicle usage; in addition, something as simple as lowering speed limits can positively increase safety. He felt strongly that technology should not drive the solution, but be a part of it.
- (11) Mr. Albert reiterated his concerns about introducing these new paradigms into cities and towns designed over 50 years ago; his experience in Montana indicated that it was difficult to retrofit streets in Bozeman to address safety concerns, though there is public support for it. Mr. Webb described his experience in Florida where most

subdivisions have a single entrance onto main roads and have private streets. Retrofitting these areas would be difficult if not impossible.

- (12) Mr. Webb then brought up the upcoming NHTSA rulemaking on light vehicles; he asked Mr. Leonard if any decisions were impending. Mr. Leonard replied that he was unaware of any scheduled release, but that the comment period on the rule had recently closed. To conclude his remarks, Mr. Leonard noted that the JPO is currently formulating the annual modal plan. This plan is required by the FAST Act and provides Congress information regarding how the body of work across US DOT is being accomplished.

d. DSRC and 5G Discussion

- (1) Ms. Wilkerson then asked Mr. McCormick to provide an update on DSRC and 5G communications. He began by describing his experiences in China on a recent tour of the country, including five cities that are actively involved in implementing connected vehicles. Much of the focus of the testing is currently designed to advance automated vehicles within the country and, especially in large cities such as Shanghai.
- (2) One test facility fitted over 300 vehicles with DSRC receivers, as well as a large area with roadside equipment to exchange the data. In addition, five tolls and six bridges that are equipped with the DSRC units were installed. Mr. Schromsky asked about the frequency being used; all units use the 5.9 GHz frequency. However, they recently added 5G to the test equipment as well, at his suggestion. The Chinese governments still determining which system will be used nationally – 5G or DSRC.
- (3) With that in mind, Mr. Denaro questioned whether or not there were implications of that choice for the United States. Mr. McCormick felt that they are not focused on external markets because their domestic market is so large (183 automobile manufacturers currently in China). In addition, they are focused on reducing pollution due to China's (especially Beijing's) poor air quality levels.
- (4) Mr. Schromsky mentioned that Verizon was testing new fixed wireless communications using a variety of technologies in 11 cities (5G, Fiber, 3GPP, 30GHz, etc.). It is not currently vehicle-focused, but eventually could be used as such if successful. He noted that 5G was coming into use much earlier than projected to the point where a 5G iPhone could be available in a year or so. Finally he said that these new communication technologies will allow high volumes of data to be transferred quickly at a lowered cost, which would very much improve the environment for automated vehicles.
- (5) To conclude his remarks, Mr. McCormick spoke about security and privacy issues that would need to be addressed as these new technologies come on line. Due to the nature of its political structure, China has not had to address the privacy issues we face in the U.S. He also spoke about South Korea, which uses a different type of communications technology, but it can't be used for law enforcement, for example

e. Discussion of 2017 Work

- (1) Following the morning break, Ms. Wilkerson asked the group to begin to focus on what needed to be done in 2017 to meet the recommendation memo deadlines. She then reviewed the ITS PAC Charter to remind members of what Congress had asked the Committee to consider. Since both Mr. Leonard and Mr. Smith needed to return to US DOT shortly, she asked them if they had any high-level direction they could offer the Committee in terms of recommendations that would be helpful to the JPO.
- (2) Mr. Leonard reminded the Committee that with a new administration, they have not had the benefit of previous recommendations. He thought it best to make new recommendations concise and clear, and to try to focus on technology, which is one of the few things the new administration has expressed interest in recently. In response to Mr. Capp's question, Mr. Leonard spoke briefly on a new Federal Advisory Committee on Automation, which was created by the previous administration. He suggested to the ITS PAC that they keep close tabs on what that committee is doing, since there are similar issues that both committees can address related to ITS and automated vehicles.
- (3) Ms. Wilkerson continued by noting that the Committee needed to focus on areas of research being conducted by the ITS JPO, including Smart Cities. She felt that recommendations on the appropriate role of both the Government and the private sector in advancing ITS research should be a goal of the Committee's work.
- (4) Mr. Albert suggested that the Committee consider the relationship between transportation and tourism, which is a very significant contributor to some local economies. He felt that ITS could play a strong role in improving the tourism experience, thereby contributing to the local economy. Ms. Wilkerson agreed and suggested that topic be added to the list of possible recommendations to be discussed later on; she also recommended that the Committee review the list of key issues that the subcommittees had considered at the last meeting.
- (5) Ms. Wilkerson reviewed the list of key issues that were addressed by the five subcommittee groupings at the previous meeting; she also expressed an interest in having Linda Bailey as a speaker at the next meeting. At that point, she asked Mr. Glasscock to describe the Committee's work timeline for the remainder of the year.
- (6) Mr. Glasscock noted that he circulated a draft report to Congress earlier in the year and, if approved by the Committee, it will be submitted as the May 1, 2017 Report to Congress. Once that is completed, the Committee should focus on the 2018 Report to Congress, which will be more substantive and contains all recommendations. Ideally, that should be returned in by January 1, 2018; it then takes a matter of months to circulate and review the reports, with an eventual submission date of May 1, 2018 to Congress.

- (7) At that point, the Committee discussed their meeting schedule for the remainder of the 2017 calendar year; it was tentatively decided to have a 2- day meeting in the Washington area in mid-July, followed by a teleconference in late August. Once that is completed, another face-to-face meeting may be possible in late October. Through there was discussion of holding the meeting outside of Washington, it was decided that it might be difficult to get speakers to travel to the meeting in that case.
- (8) Ms. Wilkerson then asked each of the members of the subcommittees to bring the group up-to-date on any additional research or information related to their subcommittees. Ms. Johnson and Ms. Quigley began their update with a discussion of roadway and pedestrian safety, as well as a look at the distracted driving problem. Though their previous discussion had been significant, they had no additional information to share at this time. They both felt that they needed to consolidate the list of issues down to a few that could be addressed by the Committee. Mr. Medford agreed, saying that he thought the committee ought to focus on high impact areas where research and deployment of technology would be possible. He continued that since most of these concerns were safety-related, perhaps NHTSA needed to get involved in the discussion, or at least provide a speaker at a coming meeting.
- (9) To conclude the review by Active Safety subcommittee, it was decided that additional discussion would take place this afternoon in the breakout session and that a focused set of recommendations be developed by the subcommittee in the coming weeks. In addition, members should concentrate on an overall “theme” for the recommendations and to consider that this is a new administration with new priorities and concerns.
- (10) The next topic was Automated Vehicles, and Mr. Berg suggesting taking a close look at the JPO’s Strategic Plan to see where there is an alignment of priorities. Though his subcommittee was not able to discuss those issues recently, he felt that focusing on where research dollars should be spent by the JPO (and/or carried out by other such as NHTSA, etc.) is what the subcommittee would be doing next. Another concern that should be part of the Committee’s discussion is the proper role of Government vs. the private sector. This is especially true in this area, where private companies have accelerated research due to strong interest in marketing products sooner than later.
- (11) The next subcommittee to report out was Technology and Active Transportation, which considered such topics as frequency allocation, connectivity, and V2V communications, automated braking, and related issues. Mr. McCormick reminded the group that though the focus of discussions lately seem to be on V2V, he felt that V2I also needed to be considered, especially with the new administration’s concern with infrastructure and public private partnerships (PPPs). A number of members expressed concerns with these types of agreements, but the group agreed to consider PPPs in making recommendations to the Secretary.

- (12) Mr. Belcher raised the issue of connected vehicles and the 5.9 GHz spectrum; he noted with the new administration, it is unknown if the previous administration's NPRM is supported and how a new FCC could rule on the issue. He suggested the committee take a stand with regard to the US DOT's previous interest in V2V and in protecting the 5.9 spectrum. After a wide variety of opinions on the topic were raised, it was decided that a focused discussion on whether or not to recommend any particular actions related to the 5.9 issue would be held during the afternoon breakout session. Mr. Belcher thought that due to the nature of the deadlines looming on a decision, it would behoove the committee to formulate an opinion sooner than later.
- (13) Mr. Albert then provided a brief update on the Rural Development Assistance group's work. He and Mr. Schromsky developed a written report that outlined a number of issues related to rural ITS and possible recommendations from the Committee. He suggested that a possible combination of approaches be considered, by addressing what should be deployed with how communications can help to deploy those technologies. Mr. Webb noted that some of the issues raised also could relate to more urbanized settings, so rather than limit it to "rural," it should be titled "rural/local." Mr. Albert agreed, and mentioned that he had been advocating a "Rural ITS Toolbox" that very well could apply to any locality, urban or rural.
- (14) To wrap up the morning discussion, Ms. Wilkerson suggested that the group discuss how the breakout sessions would work after the lunch break.

f. Discussion and Review of Previous Recommendations

- (1) Following the lunch break, Ms. Wilkerson asked the Committee to work together to review all of the previous recommendations made by ITS PAC over the years and to consolidate them by topic area if at all possible. The Committee used as a basis for discussion, the 47-page document compiled by Mr. Glasscock that brought together all ITS PAC recommendations made since 2008. The document includes a column that describes how the recommendations were addressed by the JPO.
- (2) During the discussion, Ms. Quigley raised the issue of how successful she felt the entire Smart Cities process had been and how it had brought together very disparate factions to address issues in a unified way. She felt that a short write-up would benefit the JPO by highlighting how important that process had been and how it may be beneficial to pursue such efforts in the future. She volunteered to pull that together for the group and then circulate it for Committee review.
- (3) After an exhaustive review of the recommendation document, the Committee was able to consolidate a good number of issues; Ms. Wilkerson thanked the members for assisting in the consolidation process and noted that some strong themes had arisen from the exercise (global harmonization, technology standards, security framework, data and outreach).

- (4) She then suggested the membership break out into their respective subcommittees and try to focus on what types of recommendations should be considered for the upcoming report to Congress.
- (5) Once the breakout sessions had been completed, Ms. Wilkerson asked members to make a short presentation of findings and recommendations. Mr. Berg kicked off the discussion by reporting out on the automation group's conclusions, as follows:
 - a. The intersection of automation and connected vehicles;
 - b. Gap analysis and prioritization of the JPO Strategic Plan;
 - c. Consolidate and cross-populate different modes (especially commercial vehicles and transit); and
 - d. Methodology
- (6) Mr. McCormick summarized the technology group's thoughts by noting that he thought a focus on infrastructure funding based on intermodal mobility (pedestrians, bicycles, etc.) would be prudent. In addition, he thought more investigation into data sources such as cell phones, infrastructure, vehicles, etc., would be necessary to provide the full range of information, and that he would be reaching out to organizations such as ITE that are already involved in that effort. Finally, suggested that each subcommittee draft its own set of core recommendations and then circulate it for review before combining it with the other groups' results.
- (7) Ms. Wilkerson closed this portion of the meeting by asking that members get back to her with suggestions for discussion topics at the next meeting, as well as ideas about speakers that could be invited to address the committee. She also thought it would be beneficial to liaise with the Automation Advisory Committee and perhaps invite a member to attend the next ITS PAC meeting. Mr. Glascock agreed to pursue that possibility.

6. Adjourn

Ms. Wilkerson thanked committee members for their participation and adjourned the meeting at 3:45 pm.

We certify, to the best of our knowledge, that the foregoing summary of proceedings is accurate and complete.

Ken Leonard
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