

**PSWN Program Notes**  
**ITS–A Meeting with PSWN Program and NTIA**  
**July 17, 2001**

**I. OVERVIEW**

The meeting was held at the PSWN Program TRC and began shortly after 10:00 a.m. Attendees included representatives of the Intelligent Transportation Society (ITS)–America (ITS–A) Paul Najarian, Director, Telecommunications and Telematics, and Mark Johnson, of ITS–A’s general counsel, Squire Sanders & Dempsey. Also in attendance were Rick Murphy and McRae Smith, PSWN Program management; Carl Kain, MitreTek Systems; James Arnold, Federal Highway Administration (FHWA); Charles Hoffman, National Telecommunications and Information Administration (NTIA); and Dick Allen, David Pickeral, and Robert Giarrusso, Booz·Allen & Hamilton, PSWN Program spectrum policy support.

The meeting was prompted by the PSWN Program’s comments and reply comments to a report issued by ITS–A on Federal Communications Commission (FCC) Docket WT 01–90 concerning the 75 megahertz (MHz) of spectrum allocated for dedicated short-range communications systems (DSRC) in the 5.9 gigahertz (GHz) band. In the filings, there was an apparent discrepancy between the ITS–A definition of “public safety” services and that propounded by the PSWN Program and the majority of the public safety community. The purpose of the meeting, therefore, was for all parties to achieve mutual understanding and coordinate their efforts so they could work together and avoid conflict or misunderstanding in the future. At the same time, the parties could avoid presenting an inconsistent picture of spectrum needs to the FCC, the Department of Transportation (DOT), and other regulatory agencies. After introductions, Mr. Najarian began the meeting by giving a presentation on ITS–America to familiarize members of the PSWN Program with the organization and its objectives. Mr. Arnold also provided a handout on DSRC systems and public safety, which was reviewed in the meeting. The PSWN Program provided a brief handout, “Talking Points,” which summarized the issues and position of the PSWN Program going forward and highlighted concerns about the Commission’s treatment of spectrum. **(Copies Attached)**

**II. DISCUSSION**

**A. ITS AMERICA PRESENTATION**

Mr. Najarian discussed the history of the organization, which was founded in 1991 at the direction of the Congress, and was designated as a DOT advisory committee pursuant to the Federal Advisory Committee Act (FACA). Mr. Najarian went on to discuss the organization’s constituents and described ITS–A as an organization with diverse roles. He further outlined the role of ITS–A as an advisory committee to DOT. He clarified that ITS–A was not American National Standards Institute (ANSI) accredited nor was it engaged in the development or certification of technical standards. He described the organization’s responsibility as monitoring

and advising the various DOT agencies on ITS matters under its 501(c)(6) designation. He added that the organization also had a separate group organized under 501(c)(3) that served as an advocacy organization and lobbied the Congress.

Mr. Najarian discussed ITS–A’s “Ten Year Research Agenda and Program Plan,” which was to be submitted to the Congress in FY02. He stated that the Congress had funded the organization since 1998. He further explained that the American Society for Testing and Materials (ASTM) was developing standards for 5.9 GHz DSRC technology and that testing was being conducted by Aeronautical Radio, Inc., (ARINC). He maintained that the goal was to incorporate existing technology in the development of DSRC, applying the current (IEEE) standard. He also stated that they would include an interoperability requirement.

Mr. Murphy asked for clarification of what ITS–A meant by “interoperability.” Mr. Najarian stated that he meant interoperability between manufacturers, as well as in all geographic areas, for all public sector applications (electronic toll collection, law enforcement, etc.). Mr. Murphy suggested that a more accurate term might be “compatibility” and that Mr. Najarian’s description included entities outside the public safety community because it incorporated public sector and public service organizations. There was some general discussion among the participants regarding the traditional definition of “public safety” communications services that the FCC had previously articulated, comparing it with the working definition that was part of the Balanced Budget Act of 1997. It was noted that the latter was generally consistent with the traditional understanding of public safety as consisting of fire, emergency medical services (EMS), law enforcement, and emergency management activities. It was further noted that the general definition in the Public Safety Wireless Advisory Committee (PSWAC) report had not been adopted and that the PSWN Program did not advocate the PSWAC definition because it was overly broad and would not serve to improve public safety’s position. Specifically, the PSWN Program was concerned that the FCC not consider the DSRC allocation as part of the 73.5 MHz still required for public safety voice and data communications pursuant to the 1996 PSWAC Report.

Mr. Najarian stated that ITS–A had held an ex parte meeting with the FCC on June 20, 2001, and also met with NTIA on June 27, 2001. He remarked that ITS–A was about to hold its annual meeting on August 23–24, 2001, and expected to call for a vote on standards by its members. Both Mr. Najarian and Mr. Johnson reiterated that in its filings, as well as in its ex parte meeting with the Commission, ITS–A specifically qualified its earlier statements by saying that, although there will be applications within the 5.850–5.925 GHz DSRC spectrum that could be used by the public safety community, the 5.850–5.925 GHz band did *not* meet the need for the 73.5 MHz of spectrum recommended for public safety voice and data communication in the PSWAC final report. All participants were in agreement that the overarching concern of the PSWN Program and of ITS–A was that the FCC should not count the spectrum allocated for DSRC services as satisfying the 73.5 MHz of spectrum for public safety that the PSWAC report had recommended.

Mr. Najarian stated that the majority of users of ITS services would be state and local transportation authorities, including public sector licensees and public sector spectrum qualified entities. Mr. Smith suggested that DSRC could be used for tracking

stolen vehicles, an application that Mr. Najarian said the ITS-A organization had not previously considered. Mr. Najarian stated that ITS-A had not planned to use DSRC for voice applications, just for data. He also said that ITS-A had modified its position and was no longer asking for use of the DSRC spectrum for commercial entities, only public and private users. Mr. Najarian stated that one of the goals of ITS-A was to integrate a DSRC modem into vehicles, initially as an after-market option, and eventually as a factory-installed original equipment manufacturer (OEM) system in private and commercial vehicles. He described that the plan was to have a single embedded device that performed multiple functions using fiber optic cable with 16 nodes for various different operations.

Mr. Najarian reported that DOT fiscal authorization for ITS-A for future funding would begin in FY04 following the expiration of Transportation Equity Act for the 21st Century (TEA 21) and the launch of its successor. He stated that the Congress had emphasized that the proposed ITS-A plan was to have "substantial provisions" for cooperative and shared technology applications that included public safety usage. Mr. Najarian mentioned that ITS-A had prepared a white paper report for the Congress on its plan for DSRC to be used by law enforcement in New York. He also stated that an upcoming field response project would incorporate law enforcement and EMS with traffic management functions. Mr. Murphy requested that a copy of the white paper, which Mr. Najarian promised to send. Mr. Murphy also suggested that ITS-A should query the Commission regarding priority access for network usage. It was also mentioned that participation was voluntary for public safety answering points (PSAP).

## **B. FHWA PRESENTATION**

Mr. Arnold briefly reviewed a handout he provided for the participants. It began with a discussion of the users of the DSRC technology, and went on to highlight some of the topics considered in the ITS-A ex parte meeting with the FCC. He reiterated ITS-A's emphasis to the Commission that this spectrum was not seen as applicable to meeting the PSWAC report recommendations for an additional 97.5 MHz of spectrum to be dedicated for public safety services. However, it was again stated that there was an urgent need to coordinate operations and implement technology to integrate public safety with transportation, and that DOT funding was being earmarked for ITS-A to promote interoperability between transportation and public safety services.

Mr. Arnold stated that the bulk of applications for DSRC services were for distances of 300 meters or less and that they were primarily designed for toll applications. There was further discussion of the ongoing testing of various DSRC applications, primarily for traffic management functions. Hazardous materials (HAZMAT) uses were considered that would allow warnings of traffic of shipments being transported, and of some international border applications for the Department of Defense and the Immigration and Naturalization Service in particular. Mr. Giarrusso asked whether the applications were currently operable at high rates of speed. Mr. Kain said that they were testing positive at approximately 48 out of 50 trials at speeds of up to 120 mph.

Mr. Arnold again discussed some of the core applications for DSRC technology and explained how the modem would work for various different uses, including toll payment, gasoline or fast food payment, hazard warnings, and signal preemption capabilities, all of which would be possible simultaneously. There was some discussion of possible abuses by commercial operators (e.g., fast food, gasoline, or other wireless express pay businesses) using DSRC equipment to charge drivers not actually using such facilities by positioning the antenna to point at passing traffic. Further review of the handout showed schematics that demonstrated how these applications would be used to facilitate traffic management and public safety operations such as collision avoidance and in-vehicle signing.

Mr. Allen asked how ITS-A anticipated the DSRC spectrum would be licensed. Mr. Arnold initially replied that he believed that many of the DSRC applications would not require licensing. Mr. Najarian qualified that statement. Mr. Pickeral and Mr. Allen commented that use of licensed spectrum would be covered under Part 90 of the FCC's rules, with unlicensed operations covered under Part 15. Mr. Murphy suggested that ITS-A users needed to set up and maintain a coordination database for frequency users. Mr. Pickeral further noted that any public or private entity could pay a fee to the Association of Public-Safety Communications Officials-International (APCO) for frequency coordination services, although at a higher rate than APCO members paid. It was also stated that the American Association of State Highway and Transportation Officials (AASHTO) was involved in ITS communications development and might have additional resources. It was noted that the short-range nature of the various applications might simplify the coordination process. Participants also suggested that private spectrum usage could be partitioned from public uses. Mr. Hoffman encouraged ITS-A to look into channelization at this early stage of its planning.

Mr. Najarian pointed out that the DSRC band allocation overlapped with international spectrum in the 5.8 GHz band. He added that DSRC users were designated as co-primary users in the 5.9 GHz band. He stated that ITS-A was coordinating some of its plans with Canada at present, and that approximately 40 user services were currently provided in Japan and Canada, including Internet applications. He stated there were other services in Europe as well and that users in all areas were attempting to get additional spectrum in the adjacent 5.9 GHz band.

There was some discussion of channelization, and ITS-A said it was not currently feasible because users were in different areas of the spectrum and both narrowband and wideband applications were being used. There was also some discussion of Bluetooth technology, but it was concluded that it was incompatible with DSRC applications. It was again stated that ITS-A expected a final vote on standards (proposing the IEEE standard) at its meeting on August 23-24, 2001. Mr. Najarian also commented that ITS-A would schedule another ex parte meeting with the FCC after Labor Day.

### **III. CONCLUSION**

The PSWN Program participants determined that, having reached concurrence with ITS-A on the issue that the DSRC spectrum should not be counted as part of the 73.5 MHz of spectrum remaining to be allocated for public safety voice and data communications pursuant to the PSWAC recommendations, that they supported the initiatives that ITS-A proposed and would work closely with its representatives to take advantage of their mutual resources. Mr. Murphy and Mr. Pickeral suggested that ITS-A develop a tentative channelization plan to get their proposed usage of DSRC spectrum before the FCC. Mr. Allen and Mr. Smith also recommended that other agencies that would be impacted by DSRC technology should be approached and their support enlisted in efforts to popularize and deploy this technology. (The example of encouraging the Department of Energy to weigh in regarding HAZMAT transport was specifically mentioned.)

ITS-A pledged to keep both the PSWN Program and the NTIA informed regarding the FCC's development of a Notice of Proposed Rulemaking on WT 01-90, and all entities agreed to work together in the future to support their many mutual or complementary objectives.