

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of: )  
)  
Revision of Part 15 of the Commission’s Rules )  
to Permit Unlicensed National Information ) ET Docket No. 13-49  
Infrastructure (U-NII) Devices in the 5 GHz )  
Band )

**REPLY COMMENTS OF  
THE NATIONAL PUBLIC SAFETY TELECOMMUNICATIONS COUNCIL**

The National Public Safety Telecommunications Council (NPSTC) submits these Reply Comments in response to the Commission’s Notice of Proposed Rulemaking in the above-captioned proceeding proposing to permit Unlicensed National Information Infrastructure (U-NII) devices in the 5 GHz band, including in the 5.9 GHz spectrum currently allocated for intelligent vehicle and highway applications.<sup>1</sup> In these comments, NPSTC joins the American Association of State Highway and Transportation Officials (AASHTO) in recommending additional testing in the 5.9 GHz band of the potential for interference from proposed U-NII devices to intelligent vehicle and highway operations.

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<sup>1</sup> Revision of Part 15 of the Commission’s Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz Band. Notice of proposed Rulemaking, ET Docket No. 13-49, released February 20, 2013.

## **The National Public Safety Telecommunications Council**

The National Public Safety Telecommunications Council is a federation of public safety organizations whose mission is to improve public safety communications and interoperability through collaborative leadership. NPSTC pursues the role of resource and advocate for public safety organizations in the United States on matters relating to public safety telecommunications. NPSTC has promoted implementation of the Public Safety Wireless Advisory Committee (PSWAC) and the 700 MHz Public Safety National Coordination Committee (NCC) recommendations. NPSTC explores technologies and public policy involving public safety telecommunications, analyzes the ramifications of particular issues and submits comments to governmental bodies with the objective of furthering public safety telecommunications worldwide. NPSTC serves as a standing forum for the exchange of ideas and information for effective public safety telecommunications.

The following 15 organizations participate in NPSTC:

- American Association of State Highway and Transportation Officials
- American Radio Relay League
- Association of Fish and Wildlife Agencies
- Association of Public-Safety Communications Officials-International
- Forestry Conservation Communications Association
- International Association of Chiefs of Police
- International Association of Emergency Managers
- International Association of Fire Chiefs
- International Municipal Signal Association
- National Association of State Chief Information Officers
- National Association of State Emergency Medical Services Officials
- National Association of State Foresters
- National Association of State Technology Directors
- National Emergency Number Association
- National Sheriffs' Association

Several federal agencies are liaison members of NPSTC. These include the Department of Homeland Security (the Federal Emergency Management Agency, the Office of Emergency

Communications, the Office of Interoperability and Compatibility, and the SAFECOM Program; Department of Commerce (National Telecommunications and Information Administration); Department of the Interior; and the Department of Justice (National Institute of Justice, CommTech Program). In addition, Public Safety Europe is also a liaison member. NPSTC has relationships with associate members, the Telecommunications Industry Association, the Canadian Interoperability Technology Interest Group, the National Council of Statewide Interoperability Coordinators and the Utilities Telecom Council and the Alliance for Telecommunications Industry Solutions.

### **NPSTC Comments**

In the Notice of Proposed Rulemaking (NPRM), the Commission sets forth a chart which shows the spectrum at 5 GHz already available to unlicensed UNII devices, as well as the additional spectrum being proposed for UNII operations.<sup>2</sup> According to that chart, UNII devices already have access to 555 MHz of spectrum in the 5 GHz band.<sup>3</sup> In the NPRM, the Commission also proposes to allocate an additional 195 MHz of spectrum for UNII, comprised of 120 MHz from the 5.350-5.470 GHz band and 75 MHz from the 5.850-5.925 GHz band.

The NPRM indicates that Section 6406 of the Spectrum Act requires the Commission to begin a proceeding to modify the Part 15 rules to permit unlicensed devices in the 5.350-5.470 GHz (U-NII-2B) band “if, in consultation with NTIA, it determines that licensed users will be protected by technical solutions and that the primary mission of Federal spectrum users will not be compromised by the introduction of unlicensed devices in these bands.”<sup>4</sup> In contrast, there is no indication that the Commission faces any requirement by Congress to allocate the 5.850-5.925 GHz spectrum for unlicensed operations.

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<sup>2</sup> NPRM at paragraph 14.

<sup>3</sup> This total does not even include the additional 25 MHz of spectrum available for U-NII at 5.825-5.850 under the digital modulation provisions of Section 15.247. When that is included, the total existing spectrum is 580 MHz.

<sup>4</sup> NPRM at paragraph 76.

If the 5.350-5.470 GHz spectrum is opened as Congress envisioned, these unlicensed operations would enjoy a total of 675 MHz of spectrum, even if the Commission refrained from opening the 5.850—5.925 ITS band for unlicensed U-NII because of interference concerns expressed in the comments. In contrast, the 5.850-5.925 GHz (5.9 GHz) band is the only spectrum identified for Intelligent Transportation System (ITS) Digital Short Range Communications Service (DSRC).

Comments of the American Association of State Highway and Transportation Officials (AAHSTO), a member of NPSTC, indicate that the protection of the 5.9 GHz band is essential to the development and deployment of intelligent transportation system. Protection of this spectrum from interference is vital to the Intelligent Transportation System (ITS) Connected Vehicle program, which will provide tremendous benefits to the safety and mobility of the traveling public. As readily noted in the Commission's NPRM:

ITS is a national program aimed at using state-of-the-art communications system to make travel more efficient, safer and convenient for motorists, transit riders, commercial vehicle operators and public safety providers. Through the use of technologies such as roadside and/or overhead Variable Message Signs, Closed Circuit TV, Highway Advisory Radio transmitters, traffic counter loops and Transcom's System for Managing Incidents and traffic flow monitors, real-time traffic information is collected and conveyed to the traveling public. This multimodal information then allows motorists to make smarter choices about how, when and where to travel.<sup>5</sup>

In fact, these ITS services have great potential to help save the lives and improve the travelling efficiency of those very members of the public who would be users of U-NII devices. However, that potential benefit to the public clearly will be compromised if opening the 5.9 GHz band to U-NII devices results in interference to existing and planned DSRC operations. Therefore, the Commission must decide if risking interference in the only spectrum allocated for DSRC intelligent transportation system use is worth adding an incremental 75 MHz of spectrum for U-NII operations on top of the 675 MHz that would already exist when the Commission meets the direction in Section 6406 of the Spectrum Act.

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<sup>5</sup> NPRM at para. 92.

NPSTC has not conducted its own studies of the risk of interference between DSRC and U-NII operations. However, the record indicates that sufficient potential for interference exists that NPSTC urges the Commission to proceed cautiously and provide the opportunity for additional testing. The comments of AASHTO provide technical analysis that pose scenarios in which U-NII omnidirectional point-to-multipoint devices within 8 miles of a DSRC device or UNII point-to-point operations within 50 miles could cause interference to DSRC operations.<sup>6</sup>

The actual distances within which interference would occur of course depend on a number of factors and will vary across different scenarios. However, at minimum, the analysis presented by AASHTO triggers sufficient concern that NPSTC recommends the Commission provide the opportunity for more rigorous testing as AASHTO recommends before deciding whether or not to allow U-NII operations in the 5.9 GHz DSRC band. The Commission has exhibited significant caution when addressing unlicensed device operation in other bands.<sup>7</sup> NPSTC recommends that DSRC, which has the potential to improve the safety and efficiency of the travelling public, should receive even greater consideration.

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<sup>6</sup> Comments of AASHTO at pages 13-15.

<sup>7</sup> For example, significant limitations were placed on TV White Space devices out of concern for interference from unlicensed devices to over the air TV reception, even though only approximately 10% of the TV households in the U.S. receive their programming over-the-air.

## **Conclusion**

In summary, NPSTC supports the AASHTO recommendation that the Commission provide the opportunity for additional testing of the potential for interference before deciding whether to open the 5.9 GHz DSRC spectrum to unlicensed U-NII devices. Even if the Commission ultimately decides not to open the DSRC spectrum for U-NII devices because of the risk of interference, the existing spectrum available for U-NII, together with spectrum outside of the 5.9 GHz band proposed in this NPRM for U-NII totals 675 MHz, a very sizable resource.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Ralph A. Haller", written over a horizontal line.

Ralph A. Haller, Chairman

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