



April 17, 2023

Charles Cooper, Associate Administrator
Office of Spectrum Management
National Telecommunications and
Information Administration
U.S. Department of Commerce
Washington, DC

Re: Regulations.gov Docket No. NTIA-2023-0003

Dear Mr. Cooper:

NPSTC submits these comments in response to the National Telecommunications and Information Administration (NTIA) request for public comment on the development and implementation of a National Spectrum Strategy for the United States.

The National Public Safety Telecommunications Council (NPSTC) 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. Accordingly, NPSTC provides guidance on issues that can either negatively impact or benefit the operation of public safety communications.

American Association of State Highway and Transportation Officials | American Radio Relay League | Association of Fish and Wildlife Agencies | Association of Public Safety Communications Officials | Forestry Conservation Communications Association | International Association of Chiefs of Police | International Association of Fire Chiefs | International Municipal Signal Association | National Association of State Emergency Medical Services Officials | National Association of State Foresters | National Association of State Technology Directors | National Council of Statewide Interoperability Coordinators | National Emergency Number Association | National Sheriffs' Association

Spectrum-Reliant Services and Missions

In the request for public comment, NTIA elaborates on the reason for the request:

NTIA is requesting comments from interested parties to help inform the development of a national spectrum strategy, which is needed for the U.S. to plan effectively for its current and future spectrum needs. As part of this effort, and to support the need for greater spectrum access, NTIA—in collaboration with the Federal Communications Commission and in coordination with its other federal partners—endeavors to identify at least 1,500 megahertz of spectrum for in-depth study to determine whether that spectrum can be repurposed to allow more intensive use. The Department of Commerce is committed to developing a national spectrum strategy based upon collaboration with both federal and non-federal stakeholders, including Tribes, and on data-driven decision-making, to fully address the needs of spectrum reliant services and missions, including but not limited to:

- Next-generation satellite communications and other space-based systems;
- Fixed and mobile wireless broadband services;
- Next-generation satellite communications and other space-based systems; Advanced transportation technologies;
- Industrial and commercial applications, (*i.e.*, manufacturing, agriculture, and utilities);
- Wireless medical devices and telemedicine;
- Internet of things (IoT) and smart cities;
- National defense and homeland security;
- Safeguarding the national airspace and ports;
- Securing the Nation’s critical infrastructure;
- Earth and space exploration and research; and
- Climate monitoring and forecasting, and other scientific endeavors.¹

NPSTC concurs with NTIA that the services listed are important to our country. However, a key category of spectrum-reliant services missing from this list is local and state public safety. Our nation’s firefighters, emergency medical personnel, law enforcement officers and deputies, emergency response personnel and traffic safety systems all rely on spectrum and the communications it supports to help keep the public safe.

¹ NTIA Request for Comments, Background.

The public safety community relies on dedicated public safety systems that operate on spectrum allocated and regulated for that purpose by the Federal Communications Commission (FCC). In addition, public safety relies on the broadband data service offered by the First Responder Network (FirstNet) administered by NTIA, utilizing spectrum and funding identified in 2012. NPSTC believes that all these systems and both categories of spectrum will continue to be needed to support critical local and state public safety operations.

Future Requirements

In addition to the continued need for spectrum addressed above, going forward public safety will need additional spectrum to support the growing use of unmanned aerial systems (UAS). UAS is a relatively new technology tool that is proving to be very beneficial to public safety to support operational requirements, and its use is expanding. UAS is a valuable tool to help search for lost persons, help mitigate injuries in a hostage situation, see around buildings in a SWAT operation, provide a 3-dimensional picture for more accurate reconstruction of crash scenes, predict the path of, and battle wildland fires, plan and implement disaster response missions and potentially deliver critical medical supplies.

Currently, public safety has no dedicated spectrum to accommodate UAS growth in both importance and usage across the country. In 2017, the Commission allocated the 5030-5091 MHz band to support terrestrial control links for UAS. Actual use of the band has awaited the development of service rules. A current open FCC Notice of Proposed Rulemaking (NPRM)

released in January 2023 proposes specific service rules for this band.² While this NPRM is not limited to public safety needs, the FCC appears to envision this band as supporting UAS control operations for public safety and other critical uses, in addition to commercial operations such as package delivery.

However, regardless of the users that ultimately benefit from that spectrum, the allocation and associated proposed service rules are limited to control links and are not slated to support any payload communications. For example, information such as images or video transmitted from a drone to its public safety operator on the ground will not be allowed on that spectrum. NPSTC believes that adequate spectrum for public safety UAS, both control and payload operations, is a category of use going forward that needs to be accommodated.

Repurposing Study

In the Request for Comments, NTIA asks about spectrum bands that should be studied for repurposing. Repurposing of any spectrum, regardless of its current usage, first requires a thorough study on the impact to current users. NPSTC recommends consultation with those potentially impacted as an integral part of the process, once a band is identified for study. Also, to the extent any current users would be displaced by repurposing, a new viable spectrum home, and funding to accommodate any relocation required, should be an essential part of the equation.

NPSTC believes that one band that may be a candidate for study is the VHF television band. As a result of transitioning over-the-air television from the analog NTSC standard to high

² NPRM in WT Docket No. 22-323, released January 4, 2023.

definition television (HDTV), numerous television stations have actively sought and obtained approval from the FCC to substitute a UHF channel for their previously assigned VHF channel. Accordingly, numerous licensees in the VHF TV band have already identified a viable relocation home and have moved out of the VHF TV band.

NPSTC does not have the data needed to analyze if/when some portion, or all of the TV VHF spectrum could be repurposed on a nationwide basis, but the activity it has seen in channel substitution requests and grants indicates this is a potential band that may warrant further study. NPSTC urges NTIA to consult with the National Association of Broadcasters and the FCC to determine if there are VHF channels that could be repurposed nationwide, and if so, the timeframe under which repurposing could be readily accomplished.

If possible, repurposing VHF TV channel 7 (174-180 MHz) could potentially provide the opportunity to pair that spectrum with current VHF mobile spectrum in portions of the 150-174 MHz band. VHF land mobile operations under FCC jurisdiction suffer from additional interference because the spectrum cannot be paired. Implementation of improved spectrally efficient digital technologies has also been more difficult at VHF because of the lack of defined channel pairs, and lack of available frequencies capable of supporting a protected service area. In addition, NTIA may be aware of similar situations regarding Federal VHF mobile operations in the 138-150 MHz spectrum.

Conclusion

In summary, NPSTC appreciates the opportunity to provide comments to the NTIA request. As addressed herein, we recommend that NTIA recognize that local and state public safety operations are spectrum – reliant services and missions. NPSTC also believes that public safety UAS is a relatively new technology tool beneficial to all disciplines of public safety for which additional spectrum is needed.

If/when NTIA identifies any specific band(s) to study for repurposing, the study should include consultation with incumbent users and their representatives. Finally, given that a number of TV stations have been active in moving from VHF channels to UHF channels, NPSTC believes the VHF TV spectrum may be an area that warrants further study for potential repurposing, in consultation with broadcast community representatives and the FCC. If possible, repurposing VHF TV channel 7 (174-180 MHz) could potentially provide the opportunity to pair that spectrum with current VHF mobile spectrum to help minimize interference and provide a greater opportunity to deploy spectrally efficient technology.

Respectfully submitted,



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