

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

In the Matter of:)	
)	
Amendment of Part 90 of the Commission's Rules)	WP Docket No. 07-100
)	

COMMENTS OF REGIONAL PLANNING COMMITTEE TWENTY

AUGUST 6, 2018

Summary

Regional Planning Committee Twenty for 700 and 800 MHz ("Region 20"), submits these Reply Comments in response to the comments submitted in the matter of the Federal Communications Commission's ("FCC" or "Commission") Sixth Further Notice of Proposed Rule Making ("NPRM") in Docket WP 07-100.¹ This important NPRM provides an opportunity for public safety organizations to emphasize the continued need of the 4.9 GHz band² as used in the support of first responders and public safety communications. Region 20 generally supports the responses of the nationwide public safety communications community which believe the 4.9 GHz band should continue to support public safety communications as a primary spectrum resource.

Of particular importance to Region 20 is the current or potential role of Regional Planning Committees ("RPCs") in the coordination of 4.9 GHz spectrum. Coordination of spectrum is a critical issue and Region 20 supports the creation of a model "national plan" that establishes a template for the uniform creation of 4.9 GHz Plans that can be easily amended to meet the unique characteristics found in an individual RPC. This national plan should be established through the

¹ *Amendment of Part 90 of the Commission's Rules*, WP Docket No. 07-100, Sixth Notice of Proposed Rulemaking, FCC 18-33 (rel. Mar. 23, 2018).

² See 47 CFR Part 90 Subpart Y—Regulations Governing Licensing and Use of Frequencies in the 4940-4990 MHz Band.

joint efforts of the major public safety communications organizations; e.g., the National Public Safety Telecommunications Council (“NPSTC”), National Regional Planning Council (“NRPC”), and the Association of Public-Safety Communications Officials International (“APCO”) as well as the Commission.

About Regional Planning Committee Twenty

Region 20 has been delegated certain administrative responsibilities in support of 700 and 800 National Public Safety Planning and Advisory Committee (“NPSPAC”) MHz public safety frequencies by the FCC and supports first responder communications users in the District of Columbia, the State of Maryland, and the northern counties of the Commonwealth of Virginia. Almost every city and county in Region 20, as well as the District of Columbia and the State of Maryland, employs modern 700 and 800 MHz trunked communications system; all of which have migrated to the nationwide P-25 standard, or are on an identified path to implement the standard. The scope of spectrum required to support these systems range from small radio networks in cities to regional or statewide communications systems. Some of the nation’s most critical public safety communications infrastructure is located in Region 20. To meet the demands of increasingly complex technology, members of Region 20 employ almost every communications tool as permitted by the Commission including 4.9 GHz technology.

Elimination of the 4.9 GHz Public Safety Band

Region 20 joins NPSTC in opposing any sale of the band; *“Given the importance of the 4.9 GHz band for public safety, NPSTC opposes auctioning the band for commercial use as some at the Commission proposed even prior to receiving any comments in this proceeding. As further*

addressed in these comments, auctioning the band would be detrimental to public safety agencies that rely on the 4.9 GHz spectrum. Also, reallocating the band for commercial use is unnecessary to stimulate expanded use.”

NPSTC raised many important points in their filing. Perhaps one of the most important points, which amplifies the continued need of this band for public safety, is found with the recognition that technology is moving quickly. Region 20 concurs strongly with their statement; *“NPSTC believes there is a clear need to maintain the 4.9 GHz spectrum to support emerging technological advances that enable public safety operations. Three key categories of technological advances and applications are of particular interest to public safety at this time. They are a) airborne operations, using both manned aircraft and unmanned aerial systems (UAS); b) robotics; and c) the public safety things (PS IoT).”*

Many of our Region 20 members come from governmental units with significant responsibility for protecting life and property. Among the many types of property found in Region 20 are national historical landmarks and buildings reflecting and remembering the rich heritage of this country. Unfortunately, these wonderful edifices also become targets for terrorists and the mentally challenged. As such, we believe that it is imperative to maintain public safety’s unique access to communications spectrum that lends itself to innovative and emerging technologies and allows first responders to fight against these threats.

Scope of 4.9 GHz Use in Region 20

Region 20 also supports the Comments of the State of Maryland relative to the scope of use within our area of responsibility; *“Multiple Maryland state agencies have been licensed³ to*

³ WQAN291, WPYX998, WQQH737, WPYZ305, WPYT728, and WQAL856 (State of Maryland).

use 4.9 GHz spectrum in the delivery of public safety services under several statewide FCC licenses. These licenses have been issued to the Department of Natural Resources (“DNR”), Maryland Institute for Emergency Medical Services Systems (“MIEMSS”), the Maryland State Police (“MSP”), State Highway Administration (“SHA”), and the Department of Information Technology (“DoIT”). Additionally, local governments in Maryland possess an additional twenty-seven (“27”) licenses⁴ to operate in the 4.9 GHz frequency band. In the non-Maryland National Capital Region (“NCR”) jurisdictions, thirteen (“13”) licenses have also been used in both the District of Columbia⁵ and the Northern Virginia⁶ political sub-divisions in Region 20”. We believe that Maryland accurately demonstrated the significant scope of 4.9 GHz use in Region 20.

Region 20 also agrees with APCO that the Commission’s methodology to document use of the spectrum would benefit from improvement. In their comments, APCO states, “APCO disputes the claim that no more than 3.5% of potential licensees use the band⁷. This is misleading because the Commission is not taking into account how the band is actually licensed. For example, a network of hotspots deployed under a single countywide geographic license can serve multiple agencies, and a single fixed P-P link could carry data traffic between communications centers supporting multiple eligible entities. Quantifying the use of the 4.9 GHz band is difficult due to the nature of the licensing approach for the band. Some public safety entities are using the entire

⁴ **WQGH506** (Allegany County), **WQDB729** (City of Annapolis), **WQHJ395** (Anne Arundel County), **WQHN425** and **WQDY442** (City of Baltimore), **WPYW659** (Baltimore County), **WQJD365** and **WQOS412** (Carroll County), **WQNY579** (City of Gaithersburg), **WQGQ618** (City of Salisbury), **WQCC953** (Caroline County), **WQDG450** (Dorchester County), **WQCR221** (Harford County), **WQHA774** (Howard County), **WQLX645** and **WQLX878** (City of Hyattsville), **WQDS926** (Kent County), **WQCQ769** (Montgomery County), **WQCG547** (Town of Ocean City), **WPYW624**, **WQNQ888**, and **WQKH786** (Prince George’s County), **WQDV224** (Queen Anne’s County), **WQGY244** (St. Mary’s County), **WQCL957** (Washington County), **WQDB909** (Wicomico County), and **WQTR825** (Worcester County).

⁵ **WRAV473** (District of Columbia), **WPZQ271**, **WQGZ463** and **WQGZ464** (Metropolitan Washington Airport Authority)

⁶ **WQCI770** (Arlington County), **WQHV238** and **WQIN420** (Fairfax County), **WQHV238** (Fairfax Water Authority) **WQGP221** (Fauquier County), and **WQEE799** (Loudoun County). In state government, **WQOF342** (Virginia State Police), **WQKF201** and **WQCW669** (Virginia Department of Transportation)

⁷ FNPRM at para.1.

band, and a number of agencies reported to APCO that they intend to increase use of the 4.9 GHz band”.

Coordination of 4.9 GHz spectrum use

Region 20 concurs with those commenters suggesting that a major step towards coordination would be the amendment of the FCC’s Universal Licensing System (“ULS”) database. Region 20 agrees that the current approach to cataloging use is complex which likely distorts the quantification of actual use which is why we support strongly modifications to the Commission’s ULS. The Region uses the ULS database extensively when working with our members and adjacent RPCs in the evaluation of spectrum requests.

The NPRM asks; “*should an authorized coordinator*” be responsible to manage the 4.9 GHz spectrum in a manner like 700 and 800 MHz National Public Safety Planning Advisory Committee (“NPSPAC”) frequencies are controlled to prevent, or minimize, interference. Region 20 notes that Maryland advocated for coordination either through an established coordinator such as APCO International or through the Prior Coordination Notice (“PCN”) process. In their comments, the State of Maryland opined; “*the problem of path protection is very similar to how microwave Part 101 users coordinate use through the publication of Prior Coordination Notices or “PCNs”. Both approaches achieve the end result of frequency coordination and the minimization of interference for licensed paths. Simply stated, Maryland believes that coordination can occur either through traditional land mobile radio coordination or the development of a PCN process*”. Region 20 concurs with Maryland’s Comments.

Regional Planning

As noted in the Maryland submission, “*Region 20 has provided 700 and 800 MHz NPSPAC spectrum for governments of all kinds with some of the most unique requirements in the country; e.g., the sixteen channels and wide coverage area provided for the Washington Metropolitan Area Transit Authority (“WMATA”)*”. Region 20 has addressed a number of challenges in the management of spectrum and recognizes experientially the critical importance of Regional Planning. However, because we have developed detailed plans for the use of 700 and 800 MHz NPSPAC frequencies, we also understand the time and effort required to develop the plans even when templates created by national public safety communications organizations are followed.

Region 20 supports the concept of national public safety communications bodies such as the National Public Safety Telecommunications Council (“NPSTC”), National Regional Planning Council (“NRPC”), and APCO in working with the Commission to develop a template that can be used by any of the RPCs to create a Plan. As stated by Maryland, “*(D)eveloping a national plan removes a potential burden from the members of an RPC who would be required to develop a technically complex Plan for 4.9 GHz and then coordinate the Plan’s information with adjoining RPCs. The State recognizes that RPC officers have full-time jobs already and the creation, management, and coordination of a third major Plan could be unduly burdensome.*”

With respect to the issue of submitting information to the Commission, the NRPC states, “*The NRPC concurs with the Commission’s proposal that the RPC’s have six months to notify the commission that the region plans to file a regional plan. Although the NRPC concurs with the six month deadline, we recommend that it be set from the date that the final rules are effective, or the date that the national plan is published, whichever is later. Regions cannot determine whether to accept the national plan or file their own plan until after the national plan is published. Ideally*

the national plan would be published either prior to or concurrent with the final rules, but if it occurs after the rules, the regions must be given adequate opportunity to review, consider, and fully discuss that plan before making their determination.

The NRPC concurs with the requirement that RPC's notify the Commission within 6 months of the effective date of the rules for the RPC's to notify the Commission of their intent to file a regional plan or default to the national plan (para 43). We recommend that the Commission then require that those regions electing to file plan file those plans within 12 months of the effective date of the rules. For those regions that elect to file plans, the NRPC feels that 12 months is sufficient time to develop and file those plans. Regions that are likely to file plans are most likely already active and have the means to meet this deadline. Setting a deadline longer than 12 months unnecessarily adds delay and creates uncertainty for those agencies intending to file applications for spectrum. During the 12 month time after the rules become effective, we agree that applications consistent with the new rules should be accepted by the Commission. Regions that don't file plans within the 12 month period should be allowed to file plans or amend current plans at any time in the future as is currently done in other spectrum that is subject to RPC Plans. The NRPC recommends that the Commission establish a streamlined review and approval process for 4.9 Plans as it has done in other spectrum subject to RPC Plans. In many cases Plan amendments are not controversial and the process would benefit from a streamlined, expedited process to get these amendments approved and implemented. As previously identified, anything to expedite processes and remove potential uncertainty will help foster acceptance and use of the band by public safety."

Revised Band Plan

Region 20 supports band plan modifications designed to maximize the use of the 4.9 GHz spectrum. We concur with APCO when they opine, “*The Commission should not specify a band plan for the 4.9 GHz band. Instead, public safety frequency coordinators⁸ should be permitted flexibility to assign channels in a way that maximizes spectrum efficiency while protecting public safety from harmful interference. The members of the Public Safety Communications Council⁹ have already begun discussing coordination procedures that could be employed for the 4.9 GHz band. After the Commission acts, APCO would look to work with other stakeholders such as NPSTC and the National Regional Planning Council to develop a national plan for conducting frequency coordination.*” The flexibility advocated by APCO recognizes the fact that technological development is often on a fast track and a prescribed or restrictive band plan could have a harmful impact to first responder organizations employing innovative technologies.

The NRPC filing spoke to a number of issues important for regional planning as well and Region 20 supports our coordinating body. Some of their important points include, “*We concur with the Commission on allowing regions to submit plans that make changes to specific areas of the Commission’s rules (para 42). We concur with the Commission to allow channel aggregation of up to 40 MHz channels (i). We concur with the Commission to allow regions to set aside additional channels for specific specialized use (ii) however, we also recommend that regions be allowed to deviate from rules specifying specific channels for specific use. For a region where large areas of the region does not have aerial resources or robotics, limiting the use of channels*

⁸ Or in the case of a Prior Coordination Notice process as permitted in Part 101, the filer should specify the requested amount of spectrum.

⁹ The PSCC is a federation of FCC-Certified public safety frequency coordinators. The PSCC cooperatively works with each of the coordinators to develop coordination procedures and to assure that the public safety channels can be utilized with minimal interference.

1 through 5 for those uses exclusively in effect eliminates 5 MHz of spectrum from use. Allowing regions the freedom to modify channel limitations without having to request waiver of Commission rules helps the regions meet the unique needs of that region and foster more use of the band. We concur with allowing regions to place limits on the use of point to point links in urban areas (iii) or impose more stringent antenna requirements or technical parameters to allow greater channel utilization and reuse. We also concur with the Commission on codifying in the rules the upper equivalent isotropically radiated power (EIRP) levels (iv).”

Aircraft, including Unmanned Aircraft and Drones Use of 4.9 GHz Public Safety Spectrum

There are a number of state and local governments operating aircraft within Region 20. We support the option of using spectrum in 4.9 GHz for aircraft use and concur with NPSTC when they state, “(T)he Commission proposes to limit 4.9 GHz airborne use to manned aircraft. In NPSTC’s view, this presents an unnecessary restriction on public safety use of the 4.9 GHz band. Public safety prevention and response operations increasingly benefit from the use of UAS. The use of UAS provide an extra set of eyes in the sky that can cover an area much faster than officers, firefighters or emergency medical personnel on the ground. UAS are being used to support public safety in searches for both missing persons and for suspects, in “seeing” the area covered by a localized fire and in delivering medical supplies quickly in an emergency. NPSTC believes allowing UAS to use the 4.9 GHz spectrum would be very beneficial to public safety.

Furthermore, it is not clear why a UAS operated under the rules established by the Federal Aviation Administration (FAA) should not be allowed.¹⁰ In addition, the Commission has expressed its view that use of the 4.9 GHz band is not living up to its full potential and that

¹⁰ NPSTC understands that based on FAA rules, the maximum altitude for UAS operations is 400 feet above ground.

additional usage must be provided. Given the emerging importance of UAS operations for law enforcement, the fire service and the emergency medical services, imposing a restriction against UAS use of the 4.9 GHz spectrum simply creates an artificial limitation that is contrary to the Commission's stated goal of increased usage in the band." With major metropolitan areas such as Baltimore and Washington, D.C., plus the crowded I-95 and I-70 corridors, we understand experientially how congested 2 and 5 GHz broadcast spectrum can become and suggest that the Commission harmonize operational rules pertaining to unmanned aerial vehicles ("UAV"), to the extent practical, with the FAA, and permit use of 4.9 GHz for public safety airborne communications. The important UAV technology is one of the topics planned for the next Region 20 meeting.

Use of Spectrum for Robotics

Many of our members use robots for specialized missions that would be otherwise harmful for humans. Unfortunately, the radio control link for robots is not found within a uniform national band which creates the potential of interference to or from other services. Again, we are in agreement with NPSTC when they state, *"(T)he 4.9 GHz band is needed as a secure resource to support necessary communications including both payload and control. The Sixth FNPRM, building off the NPSTC 4.9 GHz National Plan Recommendations Report from October 2013, has proposed to provide for robotics operations in the 4.9 GHz band. Specifically, the Commission has proposed that robotics use channels 1-5 (1 MHz each channels) from 4940-4945 MHz jointly for robotics and airborne uses. NPSTC believes it is even more important now than it was back in 2013 to provide for public safety robotics uses in the 4.9 GHz band."*

Conclusion

Region 20 appreciates the Commission's continued review of the 4.9 GHz spectrum. This body believes that it is important to reserve the spectrum for the exclusive use of first responder organizations. We believe that there are a variety of potential new technologies available to promote the benefits of this band for public safety.

We very much welcome a change in the rules permitting the use of the spectrum for public safety backhaul purposes on a primary basis and look forward to the Commission's conclusions as to the NPRM.

Submitted respectfully,

A handwritten signature in black ink, appearing to read "Charles V. Bryson". The signature is fluid and cursive, with a large initial "C" and a stylized "B" at the end.

Charles V. Bryson
Chairman
Regional Planning Committee Twenty