

**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of:)
)
)
Wireless Telecommunications Bureau Reminds) WT Docket 14-180
Paging and Radiotelephone Service Licensees)
of Certain Technical Rules and Seeks)
Comment on the Need for Technical Flexibility)

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

The National Public Safety Telecommunications Council (NPSTC) submits these Comments in response to the Commission’s Public Notice in the above-captioned proceeding concerning Part 22 of the rules.¹ Some jurisdictions have deployed Part 22 channels to supplement public safety land mobile radio spectrum in areas where there were insufficient Part 90 channels available to deploy necessary communications systems. In these comments, NPSTC recommends the Commission open a rulemaking to address several key areas that would help enable such secondary market access and use of Part 22 channels for public safety and business critical operations.

¹ Public Notice: Wireless Telecommunications Bureau Reminds Paging and Radiotelephone Service Licensees of Certain Technical Rules and seeks Comment on the Need for Technical Flexibility, WT Docket 14-80, released October 17, 2014.

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 16 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 Council of Statewide Interoperability Coordinators
- 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 for 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 Canadian Interoperability Technology Interest Group (CITIG), and the Utilities Telecom Council (UTC), and affiliate members: the Alliance for Telecommunications Industry Solutions (ATIS), Open Mobile Alliance (OMA), Telecommunications Industry Association (TIA), and TETRA Critical Communications Association (TCCA).

NPSTC Comments

In its Public Notice, the Commission reminds licensees of current rules related to bandwidth, emission limits, equipment approval and co-channel protection which Part 22 licensees must meet. However, the Commission also recognizes that it may be timely to initiate some changes to these technical rules:

The Bureau, however, recognizes that additional technical and operational flexibility may promote more intensive use of the licenses and thereby benefit users nationwide. In this light, we seek comment on whether it is appropriate to consider updating the Part 22, Subpart E, Paging and Radiotelephone Service rules to provide flexibility in the types of uses and technologies that can operate on these channels. Such an update could result in licensees deploying innovative technologies, deploying narrowband equipment, or using offset frequencies if they hold adjacent channel blocks.²

² Public Notice at page 2.

NPSTC supports updating of the Part 22 rules and in particular, recommends the Commission focus such an update on 1) emission bandwidth; 2) equipment certification; and 3) buildout requirements. The remainder of these comments addresses these particular areas.

Emission Bandwidth

NPSTC recommends the Commission broaden the emission bandwidth allowed under Part 22 of the rules and provide for technical flexibility within the channel, given secondary market access to the spectrum will require support for various technologies. Currently, even some emissions that meet the mask requirements of Part 22 may have difficulty meeting the emission bandwidth limit.

From a public safety perspective, NPSTC supports Project 25 as the interoperability standard. Broadening the emission bandwidth could enable the placement of two Project 25 emissions side-by-side in one Part 22 channel block. The Commission could consider adopting the same emission bandwidth limits for Part 22 that are now applicable to Part 90 spectrum in the 800 MHz band. Part 22 licensees should be able to utilize their acquired spectrum effectively within their licensed bandwidth while ensuring adequate protection of other Part 22 license holders in adjacent Economic Area's.

Equipment Certification Requirements

Currently, public safety and business critical entities who need to access Part 22 channels as a supplement to Part 90 spectrum must either deploy equipment certified under both Part 22 and Part 90, or obtain a waiver of the certification rules. NPSTC recommends the Commission modify the Part 22 equipment certification rules so that mobile, portable and fixed infrastructure (Base Stations, Repeaters, etc.) transmitters certified under Part 90 of the rules could be used on Part 22 channels on a routine basis, i.e., without the need for a waiver of the rules. Doing so would speed the time the spectrum could be put to use and avoid the delays inherent in the waiver process. Wide area public

safety systems are implemented today utilizing the Project 25 digital standard and more frequently utilize valuable Part 22 spectrum, from multiple sections of the Commission's rules, to meet their operational needs. A modification of the Commission's certification rules for Part 22 equipment will benefit public safety implementations. Moreover, the flexibility requested herein will allow for efficient and effective use of acquired Part 22 channels in public safety mission critical systems, as necessary.

Buildout Requirements and Co-Channel Interference Protection

Jurisdictions which have deployed Part 22 channels obtained on the secondary market as a supplement to Part 90 public safety spectrum sometimes experience somewhat of a “catch 22” in deploying the spectrum and meeting Commission construction requirements. To ensure reliable operations and meet the co-channel interference protection requirements in the Commission’s rules, jurisdictions may also need to obtain access to the same Part 22 channel block in areas adjacent to those where coverage is actually needed. This is because the interference contour of a system or station extends farther than the coverage contour. Subsequently, the Part 22 channel(s) being utilized may need to also be obtained in adjacent areas so a jurisdiction can ensure that its operation does not receive nor cause co-channel interference to other licensees of the channel block.

However, once channel(s) in these adjacent areas are licensed by the jurisdiction through the Commission’s secondary market access, partitioning and/or disaggregation policies, the current construction rules require that coverage be provided in these adjacent areas to meet population or geographic coverage thresholds. Meeting that level of coverage of course would then further extend the co-channel interference contour and potentially cause co-channel conflicts. Furthermore, public safety agencies normally build out coverage throughout their respective jurisdiction and normally not in adjacent areas significantly outside their jurisdiction.

NPSTC recommends the Commission modify its build-out rules to consider coverage thresholds be met by the interference contour coverage in such situations. Doing so would help enable secondary market access to Part 22 spectrum and ensure efficient use of Part 22 spectrum. Such secondary market access is essential to ensure the spectrum is put to good use, especially since Part 22 includes spectrum originally allocated for mobile radiotelephone operations long replaced by cellular telephones.

Much of the challenge in public safety's implementation of Part 22 channels into wide area mission critical systems is coordinating the channel blocks between adjacent Economic Areas (EA). Part 22 channels utilize interference and service contours that are calculated differently from Part 90 channels. To ensure consistent coordination between common channel blocks within and between Economic Areas when implemented by public safety, NPSTC recommends the Commission permit Part 90 interference contours F(50,10) be permitted as criteria for coordination and build-out notification for public safety's use and of licensed Part 22 channels. In public safety systems utilizing Part 22 channels and Part 90 channels where channels from both parts would be utilized at the same site this would allow for a consistent coordination methodology to be implemented throughout and, combined with the use of interference contours as build-out criteria identified above, lead to more effective public safety radio system performance and system implementation.

Conclusion

NPSTC thanks the Commission for opening the door to considering rule modifications in the Part 22 radio services. NPSTC urges the Commission to move forward with a Notice of Proposed Rulemaking to address three key areas. These include widening emission bandwidth to match the currently allowed mask and the rules under Part 90, allowing mobiles, portables, and fixed equipment certified under Part 90 to operate on Part 22 channels and modifying buildout requirements to

consider wide-area systems that license adjacent areas to provide interference protection. Updating the Part 22 rules in each of these three areas would support the Commission's interest in enabling secondary market use of spectrum.

Ralph A. Haller, Chairman

A handwritten signature in cursive script, appearing to read "Ralph A. Haller", written in black ink.

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