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Before the
FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C. 20554

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Office of the Secretary

Commissioner
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In the Matter of

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APR 22 2019

Use of 800 MHz Guard Band Spectrum
(816-817/861-862 MHz) to Facilitate
T-Band (470-512 MHz) Relocation and
900 MHz (896-901/935-940 MHz) Broadband
Deployment

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To: The Commission

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**PETITION FOR RULEMAKING
OF THE
ENTERPRISE WIRELESS ALLIANCE**

The Enterprise Wireless Alliance ("EWA" or the "Alliance"), pursuant to Section 1.401 of the Federal Communications Commission ("FCC" or "Commission") rules and regulations, respectfully requests that the Commission initiate a rulemaking proceeding to designate the Part 90 800 MHz Guard Band (816-817/861-862 MHz) spectrum ("800 MHz GB") as "green space" for the relocation of Business/Industrial/Land Transportation ("B/ILT") incumbents operating on 470-512 MHz ("T-Band") channels and certain 900 MHz (896-901/935-940 MHz) ("900 MHz") narrowband channels. Statutory and regulatory mandates, respectively, may require incumbents in these bands to be relocated to comparable facilities. Identifying replacement channels that can be assigned on an exclusive basis in bands with coverage that approximates that available on these incumbents' current systems will be an essential part of both processes. In the case of T-Band, the FCC is challenged with implementing a Congressional directive that does not even speak to B/ILT T-Band incumbents, but that nonetheless is expected to affect their ongoing use

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of that spectrum.¹ The 900 MHz Band is undergoing FCC consideration of a realignment proposal that will provide opportunities for both broadband and narrowband operations.² Some incumbents whose channels would need to be exchanged to create contiguous spectrum for a broadband service might prefer to relocate to 800 MHz with its more extensive equipment options.

Finding usable spectrum for a variety of competing applications has become increasingly challenging. The Commission sometimes must make difficult choices when determining how the spectrum it regulates can be put to its most publicly beneficial and technologically productive use. EWA believes that designating the 800 MHz GB as proposed herein would support the Congressional and Commission objectives described above by creating “green space” to which some incumbent operations could be moved.

I. BACKGROUND

The 800 MHz GB was created as part of the 800 MHz rebanding proceeding.³ It, and the neighboring 800 MHz Expansion Band (815-816/860-861 MHz) (“800 MHz EB”),⁴ were established as “buffers” to provide spectral separation between cellularized commercial systems operating above 817/862 MHz and high-site private land mobile radio (“PLMR”) systems operating below 815/860 MHz.⁵ However, both the 800 MHz GB and 800 MHz EB, from the outset, were intended to be used by PLMR entities. Even the 800 MHz GB is expected to support PLMR systems, not remain vacant.

¹ See Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, 126 Stat. 156 (“Spectrum Act”).

² See *Review of the Commission's Rules Governing the 896-901/935-940 MHz Band*, WT Docket No. 17-200, Notice of Proposed Rulemaking, 84 FR 12987 (Mar. 14, 2019) (“900 MHz NPRM”).

³ *Improving Public Safety Communications in the 800 MHz Band*, WT Docket No. 02-55, Report and Order, Fifth Report and Order, Fourth Memorandum Opinion and Order, and Order, 19 FCC Rcd 14969 (2004) (“800 MHz Rebanding Order”).

⁴ The Alliance is not proposing any changes in the rules governing 800 MHz EB channels.

⁵ 800 MHz Rebanding Order at ¶ 154-58.

The 800 MHz GB consists of 40 General Pool channels that are available for B/ILT, Specialized Mobile Radio (“SMR”), and public safety operations.⁶ It remained unavailable throughout much of the 800 MHz rebanding process, until vacated by Sprint Corporation and rebanding was determined to have been completed in specified National Public Safety Planning Advisory Committee (“NPSPAC”) regions. The first such regions were declared completed in 2012.⁷ The spectrum was released in additional regions in 2014.⁸ Most of the NPSPAC regions in which the 800 MHz GB spectrum was made available and has been assigned are in the less populated parts of the country. Few major markets were involved; none are markets where T-Band spectrum is used by PLMR entities.

The FCC has not accepted applications for 800 MHz GB spectrum in additional NPSPAC regions, pending action in WP Docket No. 15-32 in which issues involving that spectrum and 800 MHz EB spectrum were under consideration.⁹ In that Order, the Commission directed the Public Safety and Homeland Security Bureau (“PSHSB”) and the Wireless Telecommunications Bureau (“WTB”) (collectively, the “Bureaus”) to issue public notices to announce the dates and procedures for submitting applications for EB/GB channels in regions where rebanding is complete.¹⁰ The Bureaus have not yet done so, because the FCC-certified Frequency Advisory Committees (“FACs”) charged with implementing frequency coordination

⁶ While public safety entities are eligible to apply for 800 MHz GB channels, the purpose of 800 MHz rebanding was to provide as much separation as possible between public safety and cellularized systems above 817/862 MHz. Moving to the immediately adjacent 800 MHz GB spectrum would replicate the very situation rebanding was designed to address. Public safety users also were given primary access to the abundance of 800 MHz Sprint-vacated spectrum and should have no need to use 800 MHz GB channels.

⁷ See Public Safety and Homeland Security Bureau and Wireless Telecommunications Bureau Announce the Completion of 800 MHz Band Reconfiguration in Certain NPSPAC Regions, *Public Notice*, 27 FCC Rcd 14775, (“PSHSB 2012”).

⁸ See Public Safety and Homeland Security Bureau and Wireless Telecommunications Bureau Announce the Completion of 800 MHz Band Reconfiguration in Certain NPSPAC Regions and the Availability of Additional Sprint Vacated Channels, *Public Notice*, 29 FCC Rcd 16290, (“PSHSB 2014”).

⁹ *Creation of Interstitial 12.5 Kiloherz Channels in the 800 MHz Band Between 809-817/854-862 MHz*, WP Docket No. 15-32, Report and Order and Order, 83 FR 61072 (2018) (“EB/GB Order”).

¹⁰ *Id.* at ¶ 60.

procedures that will ensure no mutually exclusive applications for EB/GB channels are filed with the FCC have not reached agreement on the coordination process.

II. NEW SPECTRUM PRIORITIES HAVE EMERGED SINCE THE 800 MHz GB WAS DESIGNATED FOR GENERAL POOL USE IN 2004

There have been two critical developments in the FCC's Part 90 services since 2004, when the Commission determined that the 800 MHz GB spectrum should be made available for General Pool use. Each likely will involve modifying the channels on which certain systems operate, and both would benefit greatly from having at least the 40 800 MHz GB channels as "green space" available for that purpose.

A. T-Band Relocation

The Spectrum Act enacted in 2012 mandates an unprecedented upheaval in PLMR spectrum utilization. It directs that, not later than nine years after enactment, the FCC shall "reallocate the spectrum in the 470-512 MHz band...currently used by public safety eligibles....," and "begin a system of competitive bidding...to grant new initial licenses for the use of the spectrum."¹¹ Further, it provides that "relocation of public safety entities from the T-Band spectrum" shall be completed not later than two years after completion of the system of competitive bidding.¹² The proceeds of the auction are to be used to fund the relocation of public safety systems.¹³

The legislation did not identify spectrum to which public safety T-Band licensees are to be relocated. Moreover, it failed to understand, or at least to acknowledge, that the T-Band channels used by public safety entities are interleaved with channels used by B/ILT licensees.

¹¹ Spectrum Act, § 6103(a).

¹² *Id.* § 6103(b), (c).

¹³ *Id.* § 6103(b). It also must be noted that the same legislation awarded public safety 10 MHz of 700 MHz spectrum for use in a nationwide broadband network to be operated by the First Responder Network Authority ("FirstNet"), plus up to \$7 Billion Dollars for the construction of the FirstNet broadband network. Congress presumably anticipated that FirstNet would be a spectrum source for displaced public safety T-Band users.

The Spectrum Act does not require the FCC to auction the channels encumbered by B/ILT entities or to relocate B/ILT licensees. However, auctioning individual 25 kHz bandwidth channels licensed to public safety entities that would be surrounded by 25 kHz bandwidth channels that remain licensed to B/ILT users makes no practical sense. Therefore, the FCC's T-Band actions to date assume that both categories of users will be impacted,¹⁴ even though the Spectrum Act does not reference B/ILT licensees, does not mandate their relocation, and, importantly, makes no express provision for funding their relocation if suitable replacement spectrum could be located.

The T-Band spectrum has been used by PLMR entities since the early 1970s. It is available in 11 of the most populated cities in the nation where spectrum utilization is most intensive and shortages most pronounced.¹⁵ The B/ILT and public safety communities have documented the extent of their T-Band usage, the cost of relocating these systems, and, in many cities, the lack of usable spectrum to which these operations could be relocated.¹⁶ Some systems support thousands or even tens of thousands of radios. Some are designated for mutual aid and are utilized by hundreds of state and local public safety entities or by a combination of B/ILT and public safety users in areas such as Houston.

¹⁴ See, e.g., Wireless Telecommunications Bureau and Public Safety and Homeland Security Bureau Seek Comment on Options for 470-512 MHz (T-Band) Spectrum, PS Docket No. 13-42, *Public Notice*, 28 FCC Rcd 1130 (2013); see also Wireless Telecommunications Bureau and Public Safety and Homeland Security Bureau Suspend the Acceptance and Processing of Certain Part 22 and 90 Applications for 470-512 MHz (T-Band) Spectrum, *Public Notice*, 27 FCC Rcd 4218 (WTB/PSHSB 2012); Wireless Telecommunications Bureau and Public Safety and Homeland Security Bureau Clarify Suspension of the Acceptance and Processing of Certain Part 22 and 90 Applications for 470-512 MHz (T-Band) Spectrum, *Public Notice*, 27 FCC Rcd 6087 (WTB/PSHSB 2012).

¹⁵ T-Band spectrum is allocated for PLMR use within a 50-mile radius of Boston, Chicago, Cleveland, Dallas/Fort Worth, Detroit, Houston, Los Angeles, Miami, New York, Philadelphia, Pittsburgh, San Francisco, and Washington, DC/MD/VA. 47 C.F.R. § 90.303(b). It has never been made available in Cleveland or Detroit because of treaty considerations.

¹⁶ See Enterprise Wireless Association Reply Comments, PS 13-42 ("Industrial and Business T-Band Relocation Costs" June 11, 2013) (filed June 11, 2013); see also National Public Safety Telecommunications Council ("NPSTC") Comments, PS 13-42 ("NPSTC T-Band Report" March 13, 2013) (filed May 13, 2013); NPSTC *ex parte*, PS 13-42 ("T-Band Update Report" May 31, 2016) (filed June 3, 2016).

The Commission has made some effort to identify suitable replacement spectrum. For example, in 2014 it gave public safety T-Band licensees priority access to the former 700 MHz Reserve Channels.¹⁷ There has been some discussion of requiring B/ILT licensees to move to one portion of the T-Band spectrum in each city, but isolating them in that fashion would stunt technological advances and reduce the viability of incumbent T-Band systems, as vendors would be prone to limit equipment choices in a marooned band. In the recent EB/GB Order, which, among other actions, approved the availability of interstitial 800 MHz channels, the FCC specified that for a three-year period T-Band licensees that elect to relocate to those channels would have priority over other applicants in the event of mutual exclusivity in the frequency coordination process.¹⁸

It is not clear to what extent those priority rights will provide spectrum relief for T-Band licensees since 800 MHz interstitial channels are least likely to be available for use in major urban areas, the very areas where T-Band systems are located. By contrast, the 800 MHz GB spectrum is available in T-Band markets. While the 40 channels may not accommodate all B/ILT systems, they could provide usable replacement capacity for some licensees. They represent the only potential source of comparable spectrum should the Commission determine that B/ILT T-Band operations must be relocated out of that band and should be reserved for consideration in the context of that proceeding.

B. 900 MHz Broadband

On March 12, 2019, the Commission adopted a Notice of Proposed Rulemaking in which it has proposed to “reconfigure the 900 MHz band to facilitate the development of broadband

¹⁷ See *Amendments to the Service Rules Governing Public Safety Narrowband Operations in the 769-775/799-805 MHz Band*, Report and Order, 29 FCC Rcd 13283 at ¶¶ 43-44 (2014).

¹⁸ EB/GB Order at ¶ 50.

technologies and services....”¹⁹ EWA fully supports the FCC’s proposal to create a 900 MHz broadband service within the current 900 MHz allocation. While narrowband PLMR systems have been and will for some time remain essential for certain applications, primarily voice usage, broadband fills a critical role in the modern communications arsenal. For this reason, EWA filed jointly with Pacific DataVision, Inc. (now pdvWireless, Inc.) in proposing a 900 MHz broadband service.²⁰ As an association that represents a broad variety of American companies, including utilities, airlines, manufacturers, delivery services, and others, with a focus on their wireless communications needs, the Alliance believes private broadband networks will be essential in maintaining U.S. predominance in the business activities that are the pistons in this nation’s economic engine. It urges the Commission to move quickly to adopt rules that will allow such networks to be deployed.

Creating a broadband service within the current allocation will require that some facilities replace their current operating channels with those outside that service, a necessary step in multiple band repurposings that the FCC has undertaken. The FCC’s 900 MHz broadband proposal would rely on a market-driven approach for that process, wherein licensees would engage in voluntary exchanges to facilitate clearing the broadband segment.²¹ While it is expected that most incumbents will elect to replace their channels with other channels in that band, EWA also is aware that some licensees might prefer to integrate 800 MHz channels into their 900 MHz system, since technology advances make dual-band 800/900 MHz system capabilities available, or to relocate entirely to 800 MHz spectrum. For a variety of reasons, 800 MHz has attracted greater attention from equipment vendors than 900 MHz over the years. There is a more robust ecosystem of equipment and applications that could prove attractive to

¹⁹ 900 MHz NPRM at ¶ 1.

²⁰ See Petition for Rulemaking of the Enterprise Wireless Alliance and Pacific DataVision, Inc., RM-11738 (filed Nov. 17, 2014).

²¹ 900 MHz NPRM at ¶¶ 26-27.

certain 900 MHz incumbents as they consider how best to position their operations for future growth. Access to green space in the 800 MHz GB segment could accelerate the voluntary negotiation process and, thereby, the development of private 900 MHz high-speed broadband networks that the FCC has stated are "essential for robust business growth...."²² EWA agrees. It urges the Commission to reserve the 800 MHz GB spectrum at this time, pending further decisions in this 900 MHz NPRM and in the T-Band proceeding.

III. CONCLUSION

For the reasons described herein, EWA requests that the FCC initiate a rulemaking proceeding to designate the 800 MHz GB spectrum as "green space" for the relocation of B/ILT incumbents operating on T-Band channels and 900 MHz narrowband channels for a reasonable amount of time, while the FCC concludes its deliberations in both proceedings identified above.

Respectfully submitted,

ENTERPRISE WIRELESS ALLIANCE

By: 

Mark E. Crosby
President/CEO

2121 Cooperative Way, Ste. 225
Herndon, VA 20171
(703) 528-5115

Counsel:

Elizabeth R. Sachs
Lukas, LaFuria, Gutierrez & Sachs, LLP
8300 Greensboro Dr., Suite 1200
Tysons, VA 22102
(703) 584-8678

April 17, 2019

²² *Id.* at ¶ 7.

CERTIFICATE OF SERVICE

I, Linda J. Evans, with the law firm of Lukas, LaFuria, Gutierrez & Sachs, LLP, hereby certify that I have on this 17th day of April 2019, caused to be forwarded via first-class mail, postage prepaid, and via e-mail, the foregoing Petition for Rulemaking to the following:

Aaron N. Goldberger
Acting Wireless and International Advisor
Office of Chairman Ajit Pai
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554
Aaron.Goldberger@fcc.gov

Zenji Nakazawa
Public Safety and Consumer
Protection Advisor
Office of Chairman Ajit Pai
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554
Zenji.Nakazawa@fcc.gov

Erin McGrath
Legal Advisor, Wireless, Public Safety
and International
Office of Commissioner Michael O'Rielly
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554
Erin.McGrath@fcc.gov

Will Adams
Legal Advisor
Office of Commissioner Brendan Carr
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554
Will.Adams@fcc.gov

Travis Litman
Chief of Staff and Senior Legal Advisor,
Wireline and Public Safety
Office of Commissioner Jessica Rosenworcel
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554
Travis.Litman@fcc.gov

Umair Javed
Legal Advisor, Wireless and International
Office of Commissioner Jessica Rosenworcel
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554
Umair.Javed@fcc.gov

William Davenport
Chief of Staff and Senior Legal Advisor for
Wireless and International
Office of Commissioner Geoffrey Starks
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554
William.Davenport@fcc.gov

Randy Clarke
Acting Legal Advisor for Wireline and
Public Safety
Office of Commissioner Geoffrey Starks
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554
Randy.Clarke@fcc.gov

Donald Stockdale
Bureau Chief
Wireless Telecommunications Bureau
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554
Donald.Stockdale@fcc.gov

Lisa M. Fowlkes
Bureau Chief
Public Safety and Homeland
Security Bureau
Wireless Telecommunications Bureau
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554
Lisa.Fowlkes@fcc.gov

Dana Shaffer
Deputy Bureau Chief./Chief of Staff
Wireless Telecommunications Bureau
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554
Dana.Shaffer@fcc.gov

Charles Mathias
Associate Bureau Chief
Wireless Telecommunications Bureau
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554
Charles.Mathias@fcc.gov

Roger Noel
Chief
Mobility Division
Wireless Telecommunications Bureau
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554
Roger.Noel@fcc.gov

Scot Stone
Deputy Chief
Mobility Division
Wireless Telecommunications Bureau
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554
Scot.Stone@fcc.gov

David Furth
Deputy Bureau Chief
Public Safety and Homeland
Security Bureau
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554
David.Furth@fcc.gov

Michael Wilhelm
Chief
Policy and Licensing Division
Public Safety and Homeland
Security Bureau
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554
Michael.Wilhelm@fcc.gov

Roberto Mussenden
Policy and Licensing Division
Public Safety and Homeland
Security Bureau
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554
Roberto.Mussenden@fcc.gov

Brian Marengo
Policy and Licensing Division
Public Safety and Homeland
Security Bureau
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554
Brian.Marengo@fcc.gov

Julius P. Knapp
Chief Engineer
Office and Engineering and Technology
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554
Julius.Knapp@fcc.gov

Ira Keltz
Deputy Chief
Office and Engineering and Technology
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554
Ira.Keltz@fcc.gov

/s/ Linda J. Evans