

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of )  
 ) WP Docket No. 15-32  
Creation of Interstitial 12.5 kHz Channels in the ) RM-11572  
800 MHz Band between 809-817/854-862 MHz )

To: The Commission

**COMMENTS  
OF THE  
ENTERPRISE WIRELESS ALLIANCE**

The Enterprise Wireless Alliance (“EWA” or “Alliance”), in accordance with Section 1.45 of the Federal Communications Commission (“FCC” or “Commission”) rules, respectfully submits its comments regarding the Notice of Proposed Rulemaking in which the Commission has proposed to authorize new, full power, interstitial 12.5 kHz channels in the 809-817/854-862 MHz band (“800 MHz Mid-Band”).<sup>1</sup> EWA, the original proponent of allowing this more intensive use of the 800 MHz Mid-Band, is pleased that the FCC has initiated the NPRM and urges it to move expeditiously to adopt rules in this proceeding.<sup>2</sup>

**I INTRODUCTION**

EWA represents a broad alliance of business enterprise users, service providers, radio dealers and technology manufacturers. Many of its members operate 800 MHz systems on the current 25 kHz bandwidth channels, while others are seeking spectrum options on which to deploy new systems. The Alliance’s manufacturer members, which have invested significant

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<sup>1</sup> In the Matter of Creation of Interstitial 12.5 kHz Channels in the 800 MHz Band Between 809-817/854-862 MHz, WP Docket No. 15-32, *Notice of Proposed Rulemaking*, 30 FCC Rcd 1663 (2015) (“NPRM”).

<sup>2</sup> See Petition for Rulemaking of the Enterprise Wireless Alliance, RM-11572, filed April 29, 2009 (“Petition”). The FCC already has a record with regard to certain matters in this proceeding as the Petition was placed on Public Notice. See “Public Safety and Homeland Security Bureau and Wireless Telecommunications Bureau Seek Comment on the Petition by Enterprise Wireless Alliance Requesting the Creation of New, Full Power, Interstitial 12.5 kHz Channels in the 800 MHz Band,” RM-11572, *Public Notice*, 24 FCC Rcd 12461 (2009) (“Public Notice”). However, considerable time has passed since that record was developed, so it is appropriate to refresh it.

time and resources in developing more advanced products for the bands allocated for Private Land Mobile Radio (“PLMR”) systems, wish to identify spectrum on which the benefits of these products may be enjoyed fully. As all currently allocated spectrum except 800 MHz Mid-Band already has 12.5 kHz bandwidth limits,<sup>3</sup> this is the only spectrum that has the potential for more intensive use through the allocation of interstitial channels. Even then, that potential will be realized primarily outside the major urban cores. The original 25 kHz bandwidth channels typically are fully implemented in those areas, and geographic separation between the original and the adjacent interstitial channels will be needed to ensure interference-free operation for licensees on both types of channels. Nonetheless, the proposed rule change will provide important opportunities for deployment of the more advanced technologies developed for PLMR use in the past five years, and EWA strongly supports adoption of rules consistent with the comments herein.

## **II COMMENTS**

### **A Interference Protection**

Because most PLMR systems, including those in the 800 MHz Mid-Band, still are authorized on a site- and frequency-specific basis, appropriate interference protection criteria are essential to promote spectrally efficient utilization of the available capacity. The Commission has tasked FCC-certified Frequency Advisory Committees (“FACs”) with this responsibility. EWA has been performing frequency coordination activities since the 1960s. It has been

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<sup>3</sup> The FCC has temporarily waived the narrowbanding requirement for Part 90 T-Band frequencies (470-512 MHz) pending the Commission’s decisions regarding T-Band in response to Pub. L. No. 112-96, 126 Stat. 156 (2012). However, while the requirement to convert to narrowband 12.5 kHz equipment has been waived, the band also is subject to a freeze, and its future availability for PLMR use is uncertain. See “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) (“Freeze PN”); see also “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).

certified as a FAC for more than three decades and has a full appreciation for the importance of adopting standards that properly balance protection of incumbent systems, while creating reasonable opportunities for new PLMR entrants.

The Commission is correct that this task has become more complicated since the Petition was filed and the Land Mobile Communications Council (“LMCC”), the organization that collectively represents all Part 90 FACs, proposed a matrix to be used when analyzing 800 MHz interstitial applications.<sup>4</sup> The fact that TETRA can be deployed on the Mid-Band channels is only one factor that requires a retooling of that analysis. In the past five years, the major PLMR equipment manufacturers all have developed more advanced digital products. Some use FDMA technology while others use TDMA. Some are based on very narrowband channels; others permit multiple transmission paths in a wider bandwidth. Each has features that are attractive to some PLMR users, and all should be permitted provided they can be implemented without adversely affecting incumbent licensees.

The LMCC is actively working on an updated matrix that addresses the many technology choices now available to PLMR users. Over time, EWA anticipates that incumbent licensees on 25 kHz channels may migrate to more feature-rich and efficient technologies that occupy less bandwidth. This will make an 800 MHz Mid-Band interstitial allocation even more useful. However, it is essential that the analysis to be used by FACs when coordinating applications for this spectrum strikes the right balance today and into the future: it must ensure that existing 20 or even 22 kHz bandwidth systems remain protected from interference, without unreasonably restricting the opportunity to deploy new systems and be flexible enough to accommodate changes in the technical and regulatory environment.

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<sup>4</sup> See Letter from Mark. E. Crosby, LMCC, Secretary/Treasurer to Ruth Milkman, Wireless Telecommunications Bureau and Jamie A. Barnett, Jr., Public Safety and Homeland Security Bureau (June 23, 2010).

EWA is confident that the LMCC will develop a matrix that addresses all these needs and deliver it for the FCC's consideration shortly. The Alliance also endorses the LMCC recommendation that the matrix itself not be incorporated into the FCC rules. The technology environment is dynamic, and the matrix undoubtedly will need updating as new equipment is introduced into this marketplace. Allowing the FCC-certified FACs, all of which are members of LMCC, to reach consensus on the optimal technical analysis, subject to FCC oversight, will enable the LMCC to respond quickly with adjustments as necessary without having to go through an FCC rulemaking proceeding.<sup>5</sup>

The NPRM proposes that the availability of interstitial channels be announced by Public Notice on a NPSPAC region-by-region basis as rebanding is completed in the region.<sup>6</sup> The Alliance assumes that the FCC wishes to have a stable 800 MHz spectrum environment before introducing new licensing opportunities into the band. However, in EWA's opinion, a less conservative approach is warranted. The Commission allows licensing of new 800 MHz systems in NPSPAC regions by lifting the freeze that is imposed at the beginning of rebanding in each Region.<sup>7</sup> That happens well before - in most cases years before - all steps are taken to satisfy the "completion of rebanding" standard. If the Commission considers the environment sufficiently stable to permit business as usual for purposes of licensing on 25 kHz bandwidth channels, there is no obvious reason why interstitial channels could not be made available at the same time. This is particularly the case as the remaining rebanding activity is confined almost exclusively to old and new NPSPAC channels that are outside of the 800 MHz Mid-Band spectrum. The only

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<sup>5</sup> See, e.g., 47 C.F.R. § 90.187(d)(1)(ii)(B).

<sup>6</sup> NPRM at ¶ 18.

<sup>7</sup> See "Public Safety and Homeland Security Bureau Provides Guidance for Public Safety Licensees With Regard to License Application and Special Temporary Authorization Procedures and Payment of Frequency Relocation Costs for Public Safety Facilities Added During 800 MHz Band Reconfiguration," *Public Notice*, 21 FCC Rcd 14658 (PSHSB 2006).

possible relationship interstitial channels would have with rebanding activities is with regard to the “Sprint-vacated” spectrum subject to Rule Sections 90.615 and 90.617(h). Yet, applications for interstitial channels would be no more likely to violate the protected contours of that spectrum than are applications for 25 kHz bandwidth channels.

The 800 MHz rebanding process began in 2004. More than 10 years later, the FCC has announced that rebanding is complete in only 20 of the 55 NPSPAC regions, and many of those 20 cover the least populated areas of the country in which few systems required rebanding. Deferring access to interstitial channels until the lengthy process of declaring a region to be “rebanding completed” is not needed to protect the rebanding process and would unnecessarily delay the time by which the benefits of this spectrum are made available.

#### B Eligibility

In its Petition, the Alliance recommended that the interstitial channels be treated, in effect, as General Category spectrum available to all qualified entities. The NPRM instead proposes that each interstitial channel be assigned eligibility based on the category of the lower-adjacent 25 kHz channel.<sup>8</sup>

But for recent experience with applications for 800 MHz Expansion Band and Guard Band (“EB/GB”) frequencies, the Alliance would continue to recommend that interstitial frequencies should be available to all qualified PLMR applicants, irrespective of eligibility. Public safety entities already have access to substantial Sprint-vacated 25 kHz bandwidth channels in the Mid-Band and also have been allocated both narrowband and broadband 700 MHz spectrum. It would be difficult to justify a further reservation of 800 MHz spectrum for public safety in light of these allocations.

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<sup>8</sup> NPRM at ¶ 30.

However, EWA cannot ignore the possibility, indeed the near certainty, that open entry to interstitial spectrum would create the same land rush by what the Alliance considers unqualified, entirely speculative applicants claiming Specialized Mobile Radio (“SMR”) eligibility that the industry and FCC have witnessed since EB/GB channels were made available in certain markets. Companies whose business is marketing and preparing applications for FCC licenses as investment opportunities, with, at best, questionable representations about the potential use and, thus, sales value of the spectrum can be expected to target the 800 MHz Mid-Band as well. Entities involved with one of these companies have been sued by the Securities and Exchange Commission (“SEC”) because of these very activities.<sup>9</sup> Multiple construction certifications prepared by a single individual and filed on behalf of licensees associated with those same entities have been challenged as questionable.<sup>10</sup>

This highly disturbing pattern calls into question how qualified entities with legitimate communications requirements can be assured reasonable access to this and other PLMR spectrum. Even if the FCC were to adopt this proposal, that would protect only frequencies designated as public safety, since all applicants qualify for SMR status and asserting eligibility for Business/Industrial/Land Transportation (“B/ILT”) frequencies is as simple as claiming a prospective business activity.<sup>11</sup> The Commission has stated that it would watch EB/GB applications closely and “investigate any unusual concentration of applications and any

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<sup>9</sup> *Securities and Exchange Commission v. Janus Spectrum LLC et al.*, Civil Action No. 2:15-cv-00609-DGC (April 6, 2015).

<sup>10</sup> See Request for Investigation and Informal Complaint: SBH Spectrum, LLC, WQSG215 *et al.*, filed April 10, 2015 by Rob Somers, General Counsel, Smartcomm, LLC.

<sup>11</sup> It might be assumed that applicants would be deterred from filing for B/ILT frequencies by the five-year holding period before those frequencies can be converted to commercial use. 47 C.F.R. §90.621(e). Unfortunately, that presumes such applicants have been properly advised regarding and actually understand the FCC rules. That assumption is erroneous. Based on inquiries to EWA, Sprint Corporation (“Sprint”), and other members of the PLMR industry, it is evident that any number of new EB/GB licensees believed Sprint or another commercial carrier would be eager to buy their frequencies, despite the prohibition against deploying cellular architecture systems on that spectrum. 47 C.F.R. § 90.614(a).

undisclosed true party in interest behind any application” and cautioned that “Misrepresentation or lack of candor in any application may be referred for enforcement action.”<sup>12</sup>

EWA appreciates that the Commission shares its concern about such applications. It hopes the FCC is taking action to address them in light of the number of SMR applications filed for EB/GB frequencies in some of the most lightly populated areas of the county, their connection with a small number of application preparation companies, the SEC suit, and the allegations about construction certifications filed with the FCC. But whatever investigation the Commission conducts is after-the-fact. Once these applications are coordinated and filed, whether or not granted, the frequencies that otherwise would be put to productive use by the Alliance’s members and other PLMR entities are unavailable and may remain so for years while the investigatory process is conducted.

The interstitial frequencies proposed herein and the 800 MHz GB/EB frequencies are the only “new” spectrum allocated for non-public safety PLMR use in 30 years. It is critical that the FCC rules and coordination procedures prevent the equivalent of high frequency traders from co-opting it for speculative purposes with no real plan to use these channels for their intended purpose.

There is no simple solution to this problem. EWA therefore urges the FCC to convene an industry meeting to address this matter before additional EB/GB channels or any interstitial channels are made available.<sup>13</sup> That meeting should include the organizations certified by the

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<sup>12</sup> See, e.g., “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 at 8 (PSHSB/WTB 2014).

<sup>13</sup> There is a pending Petition for Rulemaking filed by the LMCC that would establish a six-month period during which licensees could file for EB/GB frequencies to expand existing systems before the frequencies would be made available for new entities. See Petition for Rulemaking, RM-11719, filed March 27, 2014. If the FCC adopts that proposal, licensing of EB/GB spectrum in additional markets could begin, although even this proposal does not address the fundamental issue of purely speculative applications. The Alliance considered recommending a similar

FCC to provide Part 90 frequency coordination services, equipment vendors whose customers need access to these channels, and other interested parties that the FCC believes would contribute to the discussion, perhaps including representatives from the SEC. A collaborative effort is most likely to produce a solution that works for all segments of the PLMR user community.

However, this issue is resolved, EWA does not believe that public safety entities should receive preferential or exclusive access to interstitial channels even for a limited period of time. While EWA appreciates the services our first responders provide, public safety – which includes many governmental activities that do not involve police, fire or emergency medical services – already is the beneficiary of very generous access to 800 MHz spectrum through the Sprint-vacated spectrum decision and to substantial 700 MHz spectrum. By contrast, B/ILT and commercial SMR entities have not been awarded any additional spectrum for 30 years. The power, petroleum, transportation, manufacturing, airline, construction, agricultural, and other activities in which these users are engaged also are critical to the well-being of the American public. They should have access to 800 MHz Mid-Band interstitial channels on equal footing with public safety applicants. Similarly, should the FCC grant preferential treatment to migrating public safety T-Band licensees, there is no logical basis upon which they would not do the same for non-public safety T-Band incumbents.<sup>14</sup> The Commission indicated that it intends

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solution for 800 MHz Mid-Band interstitial channels, but because of the need for geographic separation from 25 kHz bandwidth channels, they are not likely to be used to expand existing systems.

<sup>14</sup> This does not appear to EWA to be a practical way of addressing the T-Band issue in any event. T-Band systems, with the exception of a small number of waived licenses, all are located within a 50-mile radius of 11 of the largest markets in the nation. Most are licensed closer to the center than to the outer limits. It is highly probable that all 25 kHz 800 MHz channels also are licensed in those urban cores. Since interstitial channels generally will need geographic separation from both adjacent 25 kHz channel systems to provide the required protection, it is not likely that a relocating T-Band licensee could duplicate its coverage on an interstitial channel. Finally, even if public safety licensees could relocate to 800 MHz interstitial channels, they would be doing so at their own expense, since no provisions have been proposed, much less adopted, with regard to third-party compensation for the move. It does

to treat Industrial/Business and commercial T-Band licensees as though they were subject to the legislation<sup>15</sup> that requires only the relocation of public safety T-Band licensees.<sup>16</sup> If they are to shoulder the same burden, they should receive the same benefit.

### C Bandwidth and Emission Mask

The Petition proposed and the NPRM recommends that the authorized bandwidth on these interstitial channels should be 11.25 kHz. EWA agrees. It is possible that with time and experience the industry may determine that wider bandwidth equipment could be deployed with an appropriately protective emission mask. However, as noted by the FCC, allowing such operations at this time would require greater geographic separation from adjacent 25 kHz bandwidth systems, thereby limiting the availability of these channels in proximity to the most-spectrum limited markets.<sup>17</sup> If technical advances in the future permit wider bandwidths, the LMCC matrix will be able to accommodate those improvements while preserving interference-free protection for incumbents.

Finally, while EWA shares the FCC's desire to promote deployment of spectrally efficient equipment, it does not support restricting use of the 800 MHz interstitial channels to technologies that satisfy a particular efficiency standard.<sup>18</sup> The marketplace demonstrably is working toward improved efficiency. PLMR users are migrating in significant numbers from legacy to more advanced technologies in a variety of bands. They are doing so, not in response

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not seem likely that public safety entities would, or perhaps could, move voluntarily before the funding provided for in the legislation becomes available.

<sup>15</sup> Pub. L. No. 112-96, 126 Stat. 156 (2012).

<sup>16</sup> See "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) ("Freeze PN"); see also "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); see also "Wireless Telecommunications Bureau and Public Safety and Homeland Security Bureau Seek Comment on Options for 470-512 MHz (T-Band) Spectrum," *Public Notice*, PS Docket No. 13-42, 28 FCC Rcd 1130 (rel. Feb. 11, 2013) ("Public Notice").

<sup>17</sup> NPRM at ¶ 34.

<sup>18</sup> *Id.* at 35.

to a government mandate, but because they recognize both the enhanced functionality and greater capacity these technologies offer. Users will choose improved efficiency when it makes business sense to do so, but EWA believes that choice should be left to the individual applicant.

### III CONCLUSION

The 800 MHz Mid-Band interstitial channels originally proposed by the Alliance will offer valuable spectrum for qualified PLMR users. EWA is prepared to work with the FCC, with industry members, and with all interested parties to ensure that their potential is not compromised.

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May 11, 2015

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RM-11572	Revise Subpart M of the Part 90 rules
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