

900 MHz Private Enterprise Broadband Initiative (PEBB)

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PEBB Background

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- The 900 MHz band was allocated in 1985, and consists of a contiguous 5/5 MHz block of spectrum separated into two (2) interleaved segments
 - 200 paired 12.5 kHz channels allocated and auctioned for SMR use on MTA basis (2.5 MHz)
 - 199 paired 12.5 kHz channels allocated for B/ILT licensees made available on site-specific basis subject to frequency coordination (2.5 MHz)
- Limited availability of channels in the top urban locales
- PDV has acquired majority of Sprint's geographic SMR and SMR-converted B/ILT licenses

PEBB Background

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- February 28, 2014 – EWA, API and UTC file joint letter asking the FCC to initiate actions to enable the PLM industry to reorganize its current 900 MHz allocation into 3x3 MHz broadband and 2x2 MHz narrowband segments
- November 17, 2014 – EWA/PDV file Joint Petition for Rulemaking proposing realignment of the 900 MHz band into 3x3 MHz broadband and 2x2 MHz narrowband segments
- November 26, 2014 – FCC issues Public Notice seeking industry views on the Petition and comments in response to specific questions
- January 12, 2015 – Interested parties file Comments
- January 27, 2015 – Interested parties may file Reply Comments

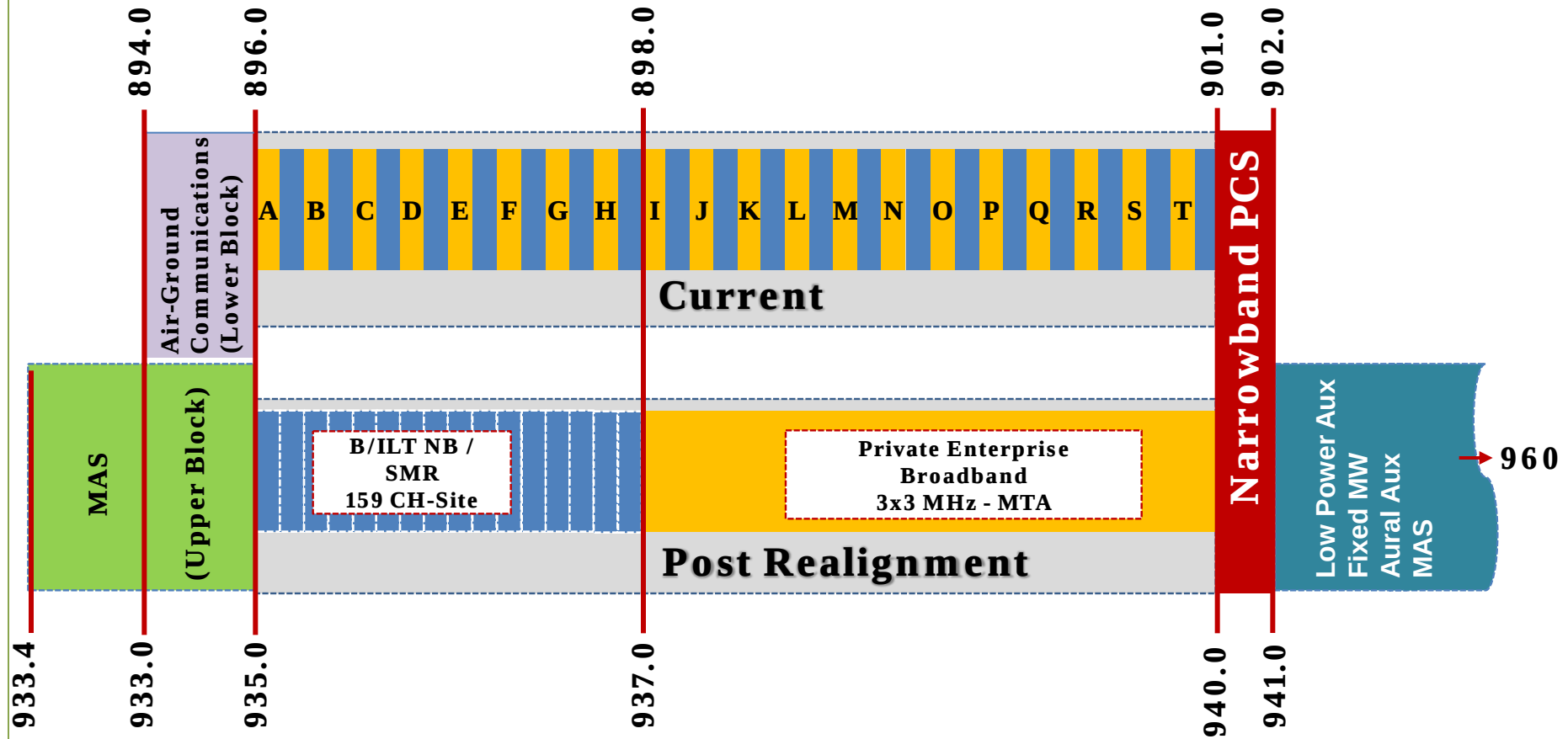
900 MHz PEBB Petition Highlights

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- Band realignment to create a contiguous 3/3 MHz block for deployment of broadband (BB) services/products by designated PEBB licensee
- Retention of 2/2 MHz block for continued narrowband voice and data systems by incumbents and new B/ILT applicants
- Realignment costs borne entirely by PEBB licensee (usually PDV)
- Provide broadband capability to the private enterprise (PE) community with mandatory priority access for CII entities
- BB facilities will be deployed in response to user demand and based on negotiated arrangements – build to suit by PEBB licensee or spectrum lease for proprietary PEBB deployments
- Protect adjacent band deployments
- New system application freeze only if FCC identifies speculative application activity

900 MHz Band Plan (Proposed)

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Proposed location of the B/ILT NB/SMR and PEBB blocks within 896/935-901/940 pending further analysis.

FCC Question 1 – PDV/EWA Response

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Question - What need do B/ILT entities, particularly CII entities, have for broadband services that can be provided over a 3/3 MHz channel and cannot be met by existing broadband service providers? What functionality do these entities currently lack that could be provided pursuant to the proposed realignment? Does the need for such services exist nationwide?

Answer - The CII community has advised the FCC on numerous occasions that commercial networks do not offer the reliability, redundancy, hardening, security, priority access, and, in some instances, coverage needed for their mission-critical applications. A 3/3 MHz allocation will provide sufficient broadband functionality for the great majority of PE, including CII, entities and applications.

FCC Question 2 – PDV/EWA Response

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Question - In addition to realigning the band, what changes to the Commission's technical rules would be required to enable the PEBB licensee to provide the contemplated broadband service? What other rule changes would be needed to prevent interference between the PEBB licensee and adjacent-channel operations?

Answer - The FCC has a blueprint for the technical rules changes that would be needed for the proposed PEBB allocation. The Part 90 Subpart R rules governing 700 MHz Public Safety broadband spectrum offers a useful model both with regard to power and emission limitations.

FCC Question 3 – PDV/EWA Response

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Question - What are the estimated costs to relocate incumbents from the broadband segment to the narrowband segment? Will the narrowband segment accommodate all relocating licensees, even in congested areas?

Answer - It is premature to estimate the aggregate cost of this band realignment, since all the data needed is not yet available. However, only channels in the 3/3 MHz PEBB allocation are impacted and there are no public safety licensees. Some incumbent systems are complex and their realignment will require careful planning and implementation.

There will be sufficient capacity to implement realignment on a nationwide basis, and a site-by-site, frequency-by-frequency analysis will be conducted in the most challenging markets to validate that assessment. Incumbent site-based systems, for the most part, will be relocated to spectrum that is available on a geographic basis, optimizing spectrum utilization while still providing comparable facilities.

FCC Question 4 – PDV/EWA Response

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Question - If the necessary changes to the technical rules are adopted to permit the contemplated broadband service, can the aggregation of spectrum be accomplished by means other than the process proposed by Petitioners? For example, are existing secondary market rules sufficient to allow realignment that would effectively separate narrowband and broadband operations?

Answer - The secondary market rules are not sufficient to support the band realignment proposed in the Petition. As in other instances when the Commission has determined that the public interest would be served by rule changes that result in the deployment of more advanced technologies and more intensive use of spectrum, there must be a mechanism that prevents a single recalcitrant incumbent from defeating that objective.

PEBB Myths and Misconceptions

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It would be better if the FCC released a Notice of Inquiry before adopting a Notice of Proposed Rulemaking to address the myriad of questions that need to be addressed in this matter.

Our View – NOIs are used rarely and typically when the FCC plans to investigate entirely novel technical or policy questions, such as the potential use of spectrum above 24 GHz for mobile operations. Narrowband and broadband technology in bands below 3 GHz is well understood. While the FCC will need to examine thoroughly the protection requirements for both in-band and adjacent band systems, the comparable facilities standard, as well as other issues raised in the Public Notice and certain comments, that examination can be, and normally is, undertaken in a Notice of Proposed Rulemaking.

PEBB Myths and Misconceptions

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It is not appropriate for EWA to be the exclusive frequency coordinator for any and all license modification requirements during any realignment process.

Our View – There are benefits to having one organization responsible for managing realignment determinations for control, consistency and efficiency purposes. This approach has been used in many similar situations of spectrum repurposing. However, other responsible frequency advisory committees are expected to be involved in establishing the ground rules for replacement frequency assignments and in working with their members to confirm the appropriateness of individual channel assignments.

PEBB Myths and Misconceptions

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Granting the Petition will reduce the amount of spectrum available for future B/ILT operations.

Our View – First, securing 900 MHz channels for new or expanded B/ILT systems – at least in major urban areas – is difficult, sometimes impossible, today. The band has been available and intensively licensed for decades in major markets. Second, Sprint purchased, and PDV has now acquired from Sprint, not only most MTA SMR licenses but a significant number of B/ILT channels in those markets and was permitted to convert them to SMR status. Outside those top markets, absent an influx of speculative applications, there should continue to be channels available for B/ILT eligible entities.

PEBB Myths and Misconceptions

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The Petition's request for a licensing freeze will preclude incumbents from expanding their systems if necessary.

Our View – The Petition did not propose a licensing freeze. It did suggest that one might be necessary if the FCC sees an influx of seemingly speculative applications from entities whose B/ILT eligibility is questionable. If a freeze is determined to be necessary, we believe that it will be similar to that formerly in place. That freeze did not permit new systems applications, but allowed incumbents to expand existing system capacity and coverage. A licensing freeze of this nature actually protects incumbent licensees.

PEBB Myths and Misconceptions

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Some entities will be legally prohibited from negotiating agreements with the PEBB licensee because it would be classified as a sole source provider of telecommunications capabilities.

Our View – While all PE/CII entities will need to follow their procurement requirements, it is not apparent why the PEBB option would be considered a sole source of service. All entities would remain free to deploy broadband systems on unlicensed spectrum and/or to contract with commercial carriers for their broadband needs. There is no obligation to use the capabilities the PEBB allocation would provide. It is simply another option.

PEBB Myths and Misconceptions

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There is yet to be a proper definition of what constitutes comparable facilities, and channel compression will corrupt systems.

Our View – We recognize that each system is unique with a wide range of technology, generations of technology, RF designs, site configurations, channel plans, and usage. The definition of comparable facilities in Section 90.699 has worked effectively for 800 MHz relocations. That rule already mandates functional equivalency on a system basis; equivalent channel capacity; comparable quality of service; and comparable operating costs, and could be modified if needed to address issues specific to the proposed realignment.

If additional sites and/or combining equipment/antennas are needed to satisfy the comparability test because replacement channels are more closely spaced, such costs will be borne by the PEBB licensee. However, by addressing the needs of the relatively small number of very complex systems first, that issue should be minimized or eliminated.

PEBB Myths and Misconceptions

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There is insufficient spectrum to support realignment and there is insufficient spectrum to support broadband operations nationally.

Our View – As stated in the Petition, PDV has an average of 240 channels in the top 20 markets in the country. It also has very substantial holdings outside those areas. Thus, while PDV has 240 channels in many markets, the amount of spectrum needed for realignment will be determined on a market-specific basis depending on which licensees are deployed and which elect to participate in the PEBB allocation. There are a small number of markets where multiple geographic SMR licensees will need to reach agreement as to the PEBB licensee, as noted in the Petition.

PEBB Myths and Misconceptions

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The broadband applications and services made available on this 3/3 MHz of spectrum may not be useful for PE/CII entities.

Our View - As in other bands with significant geographic scope, vendors will be motivated to market applications and services that are responsive to the needs of prospective users. Moreover, the Petition makes clear that the PEBB licensee would be obligated to offer a build to suit network and service offering (including priority service status) to CII users, subject to an FCC requirement that the terms and conditions be negotiated in good faith. The Petition also creates the opportunity for prospective users and vendors to discuss specialized products, services and/or applications that could be developed for deployment on the PEBB allocation.

PEBB Myths and Misconceptions

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This is a self-serving petition that fails to establish that the relief is in the public interest.

Our View –The opportunity to create a broadband allocation dedicated - not to consumers or for public safety uses - but to PE and CII entities is responsive to the CII community's position that their needs are not always addressed on commercial networks and is too promising not to pursue. The FCC will determine whether the Petition is in the public interest after weighing the pros and cons that will be presented in the rulemaking proceeding phase.

PEBB Myths and Misconceptions

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There are operational risks should PDV either go out of business or sell after supporting build-to-suit systems by PEBB licensees or spectrum lease for proprietary PEBB deployments

Our View – We have recommended that the FCC require the PEBB licensee (whether PDV or any successor entity) to provide any and all CII customers with the same level and priority of service as envisioned under the Petition. The CII-centric obligations will be “baked into” the PEBB license, and into the contract between the PE/CII entity and the PEBB licensee, such that any broadband customer will be assured of continued service.

Thank You For Your Time

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Questions Are Welcome.

Use webinar chat now...or contact later:

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