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March 18, 2015

**VIA ELECTRONIC FILING**

Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20554

Re: Notice of Ex Parte - *Amendment of the Commission's Rules with Regard to Commercial Operations in the 3550-3650 MHz Band* - GN Docket No. 12-354

Dear Ms. Dortch:

On March 16, 2015, Iyad Tarazi and Kurt Schaubach of Federated Wireless, Inc., John Serafini of Allied Minds, and Jennifer Richter and Benjamin Bartlett, counsel to Federated Wireless, met separately with Renee Gregory, Legal Advisor to Chairman Wheeler; Priscilla Delgado Argeris, Senior Legal Advisor to Commissioner Rosenworcel; Brendan Carr, Legal Advisor to Commissioner Pai; and Erin McGrath, Legal Advisor to Commissioner O'Rielly. The discussions focused on the Commission's proposals to establish the Citizens Broadband Radio Service in the 3.5 GHz Band ("Citizens Band").<sup>1</sup>

Federated Wireless appreciates the significant time and attention devoted by Commission staff to this important proceeding, and commends the proposals set forth in the FNPRM. Backed by strong industry and government support, the Commission should feel confident moving forward expeditiously to adopt final rules for the Citizens Broadband Radio Service. If implemented as envisioned by the Commission, the Citizens Band will be a true "innovation band" that will drive investment and innovation in spectrum sharing and small cell technologies while also protecting incumbent users. In fact, as discussed in the meetings, what the Commission is contemplating for the Citizens Band could be transformational for the wireless industry, leading to new investment opportunities. In order to ensure realization of the band's full potential, and promote its successful launch, the following protections are important:

- **Insist on Interoperability.** The Commission must insist upon device interoperability across the entire Citizens Band to ensure the band is open for investment and innovation, and not foreclosed by larger carriers and equipment manufacturers. The Commission has the opportunity in this proceeding to require interoperability for Citizens Band equipment before device standards are set by 3GPP.

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<sup>1</sup> See *Amendment of the Commission's Rules with Regard to Commercial Operations in the 3550-3650 MHz Band*, GN Docket No. 12-354, Further Notice of Proposed Rulemaking, 29 FCC Rcd 4273 (2014) ("FNPRM").

- **Assign No Static Frequencies.** The Commission does not want the Citizens Band to become another licensed band, which would limit innovation. Accordingly, Priority Access Licenses (“PALs”) should not be assigned static frequencies. Proposals to assign static frequencies for the PAL tier are entirely inconsistent with the Commission’s intention to authorize Spectrum Access Systems (“SASs”) to flexibly and dynamically manage and/or combine the PAL and General Authorized Access (“GAA”) tiers.
- **Require Transparency and Standards-Based SAS Interfaces.** To the extent carriers are permitted to operate SASs within their networks, the Commission should ensure that SAS management practices are transparent so that opportunities to warehouse spectrum or reduce competition in the Citizens Band are prevented. Requiring standardized and fully interoperable SAS interfaces will ensure equal access to spectrum for all PAL and GAA users, as envisioned by the Commission, and also will enable other SAS users to detect any discriminatory or anticompetitive SAS practices by carriers or PAL licensees.
- **Ensure that Citizens Band Spectrum Remains Unlocked.** The Commission must not permit the use of Licensed Assisted Access – LTE technology (“LAA-LTE”) in the Citizens Band. The use of the proposed LAA-LTE standard cuts against the Commission’s mandate for technology neutrality by locking up the Citizens Band, favoring incumbent carriers who can concatenate use of the Citizens Band with their licensed spectrum, thereby dominating the Citizens Band and foreclosing use by competitive carriers and other GAA users that do not own spectrum.
- **Straightforward Use Cases, Such as Contained Access Facilities, Should Come First.** There is strong support for progressive commercialization in the Citizens Band to enable validation of the spectrum sharing framework defined in the rules. The straightforward use cases, such as Contained Access Facilities (“CAF”), should come first. As discussed during the meetings, only 1% of CAFs in the country have internal access to LTE technology today, representing meaningful pent-up broadband demand. In addition, eligibility for CAFs should be extended to commercial uses approved by the Commission based on ownership rights to a contiguous property. The definition of a CAF should be expanded to include any contiguous boundary that encompasses both indoor and outdoor locations. Doing so will result in significant enterprise investment and deployment of more robust and lower-cost in-building wireless solutions.
- **Exclusion Zones Should Transition to Dynamic Management Zones.** Federated Wireless recognizes the importance of exclusion zones for incumbent protection, but it encourages the Commission to adopt flexible rules that permit true spectrum sharing within exclusion zones. SAS and sensor technology, such as the technology invented by Federated Wireless, can fully protect incumbents from interference while also dynamically permitting the use of spectrum within exclusion zones by other users. The Commission should set performance requirements to transition static exclusion zones to dynamic management zones now, so that future action by the Commission is not required to unlock more of the band for sharing.

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Most of the above concepts, discussed during our meetings, also are discussed in greater detail in prior Federated Wireless ex parte presentations that can be found here: <http://apps.fcc.gov/ecfs/document/view?id=60001039277> and <http://apps.fcc.gov/ecfs/document/view?id=60001025730>. Federated Wireless urges the Commission to stay the course and expeditiously adopt final rules for the Citizens Broadband Radio Service that will unleash investment and innovation in the band as envisioned.

Respectfully submitted,

\_\_\_\_\_/s/\_\_\_\_\_  
Kurt Schaubach  
Chief Technology Officer  
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cc:  
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