



April 21, 2016

**Ex Parte**

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

**Re:** *Amendment of Parts 15, 73 and 74 of the Commission's Rules to Provide for the Terrestrial Use of the 2473-2495 MHz Band for Low-Power Mobile Broadband Networks, **IB Docket No. 13-213***  
*Revision of Part 15 of the Commission's Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz Band, **ET Docket No. 13-49***  
*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 April 19, 2016 Michael Calabrese, director of the Wireless Future Program at New America's Open Technology Institute (OTI), met with Johanna Thomas, wireless legal advisor to Commissioner Jessica Rosenworcel, regarding the above-listed proceedings.

With respect to **Globalstar's proposed Terrestrial Low Power Service (TLPS)**, OTI has supported expanded use of Wi-Fi Channel 14 and could support TLPS, but only if the Commission can ensure it will create a net benefit for the public interest. The OTI representative described a public interest condition, proposed last year in separate filings by OTI and Public Knowledge – and separately by Google – that could yield a return to the public, enabling both TLPS and enhanced Wi-Fi for consumers more broadly.<sup>1</sup> Specifically, in exchange for the valuable terrestrial mobile waiver and the waiver of the strict OOB limits at the border between the 2.4 GHz unlicensed band and Globalstar's spectrum, the Commission should authorize reciprocal public use of Wi-Fi Channel 14 in locations where Globalstar's TLPS is not deployed and where Globalstar itself has determined that Channel 14 transmissions create virtually no risk of harmful interference to its mobile satellite device customers (e.g., indoors and

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<sup>1</sup> See Ex Parte Letter from Austin Schlick, Google, *Terrestrial Use of the 2473-2495 MHz Band for Low-Power Mobile Broadband Networks*, IB Docket No. 13-213 (Oct. 10, 2015); Ex Parte Letter from Michael Calabrese, New America's Open Technology Institute, and Harold Feld, Public Knowledge, *Terrestrial Use of the 2473-2495 MHz Band for Low-Power Mobile Broadband Networks*, IB Docket No. 13-213 (Feb. 13, 2015).

generally within urban areas). Whether or not Globalstar receives valuable new spectrum rights – and effectively proprietary use of the top 10 megahertz of the public’s 2.4 GHz unlicensed band – Channel 14 Wi-Fi spectrum should not lie fallow in schools, libraries and other venues in urban areas if it can be accessed on a secondary basis without interfering with TLPS deployments.

Although Globalstar has a legitimate claim to prioritized use of the *licensed portion* of Channel 14 where and when it actually commences service, the advocates noted that Globalstar is highly unlikely to deploy immediately on a nationwide basis. In return for the auction-free windfall that Globalstar seeks, unlicensed operations should be able to use Channel 14 on an opportunistic basis, as the Commission has adopted for unused licensed spectrum in the 3.5 GHz and 600 MHz band post-incentive auction. Based on its filings, Globalstar’s Network Operating System will know the locations of its authorized access points, which would allow the NOS itself – or the Spectrum Access System the Commission is certifying for the 3.5 GHz band – to greenlight opportunistic use of Channel 14 where it is unused.

Concerning the Commission’s ongoing proceeding to make next generation Wi-Fi possible by authorizing unlicensed use of all or a portion of **the proposed U-NII-4 band at 5.9 GHz** with the auto industry, I suggested that Commissioner Rosenworcel consider explicitly advocating rechannelization of the band based on a clear separation between the two or three DSRC channels that are necessary for time-critical public safety applications (e.g., vehicle-to-vehicle signaling) and the remainder of the band (40 or 45 megahertz) that can be shared with low-power unlicensed operations. Sharing the lower 45 megahertz of the band on an equal basis between DSRC non-safety applications and unlicensed operations, enabling gigabit Wi-Fi, would best serve consumers and the broader public interest.<sup>2</sup>

With respect to the pending final order on implementation of the **3.5 GHz Citizens Broadband Radio Service**, I emphasized that PISC has strongly supported rules that facilitate robust opportunistic use of unused PAL spectrum on a GAA basis as critical to laying the foundation for dynamic and efficient sharing of unused capacity on underutilized bands. I also emphasized that in keeping with last year’s historic Order and its 3-tier dynamic sharing framework, the Commission should certify only one or a very small number of Spectrum Access Systems that are truly open to all GAA and PAL users nationwide, that are fully transparent, and that are willing and able to optimize intensive sharing of the band. It is critical that the Commission continue to be clear about the distinction between a Spectrum Access System (SAS) – to which the FCC will delegate its authority as a band access manager – and the far larger number of two-tier “authorized spectrum access” (ASA) systems that individual operators may choose to deploy to coordinate their own deployments on PAL and/or GAA spectrum.

I noted further that OTI and PISC continue to **support PAL license terms shorter than three years and oppose any automatic renewal of licenses**, including for a second three-year term after the first round of auctions. Wireless carriers will continue to have wide-area licenses on an exclusive and indefinite basis. The CBRS, on the other hand, enhances spectrum efficiency, competition and innovation precisely because it is small cell, dynamic and does not allow licensees using today’s technology to lock up exclusive spectrum rights over large areas for indefinite periods, or to warehouse spectrum to foreclose competitive entry. As the President’s Council of Advisors on Science and Technology (PCAST)

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<sup>2</sup> See Michael Calabrese, *Spectrum Silos to Gigabit Wi-Fi – Sharing the 5.9 GHz ‘Car Band’*, Open Technology Institute at New America (Jan. 2016), available at <https://goo.gl/Ry8M09>.

recommended in their 2012 report on spectrum and the economy, in the future we can have spectrum abundance and best serve the public interest using a three-tier framework with dynamic spectrum sharing and licenses that are short-term and limited in nature to paying for non-interference (as opposed to the traditional FCC model of paying to foreclose public use and competition). Moreover, even if the market operates to out-bid a PAL holder in the future, thanks to the Order's interoperability requirement, access points and equipment can continue to operate on the 80 megahertz of GAA spectrum in the band.

Respectfully submitted,

*/s/ Michael Calabrese*  
Director, Wireless Future Project  
Open Technology Institute  
1899 L Street, NW - 4<sup>th</sup> Floor  
Washington, DC 20036

cc: Johanna Thomas