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October 1, 2015

Via Electronic Filing

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

Re: *Ex Parte* Notice: *Terrestrial Use of the 2473-2495 MHz Band for Low-Power Mobile Broadband Networks* – IB Docket No. 13-213

Dear Ms. Dortch:

On September 29, 2015, L. Barbee Ponder IV, General Counsel & Vice President, Regulatory Affairs, for Globalstar, Inc. (“Globalstar”), Ken Zdunek of Roberson and Associates, LLC (“Roberson and Associates”), John Dooley of Jarvinian, Steve Berman of Lawler, Metzger, Keeney & Logan, LLC, and I met with Julius Knapp, Mark Settle, Patrick Forster, Karen Rackley, and Bruce Romano from the Office of Engineering and Technology; Jose Albuquerque, Jennifer Gilsean, Karl Kensinger, and Robert Nelson from the International Bureau; and Roger Sherman and Chris Helzer from the Wireless Telecommunications Bureau, regarding the Commission’s proposed rules in the above-captioned proceeding. In this meeting, we highlighted the public interest benefits of the rules the Commission proposed in 2013 and urged the Commission to adopt the rules without further delay. We also described and provided copies of Globalstar’s September 10, 2015 *ex parte* filing in this rulemaking, which (i) detailed the results of its recent deployment of Terrestrial Low Power Service (“TLPS”) on a Chicago, Illinois campus, (ii) provided further information concerning the network operating system and interference mitigation practices for TLPS, and (iii) committed not to deploy LTE-U in the 2.4 GHz band until the Commission has otherwise allowed LTE-U deployment to proceed in unlicensed spectrum.¹

¹ Letter from L. Barbee Ponder IV, Globalstar, Inc., to Marlene H. Dortch, FCC Secretary, IB Docket No. 13-213 (Sept. 10, 2015) (“Globalstar September 10 *Ex Parte* Letter”) and attached Declaration of Kenneth J. Zdunek, Ph.D. (Sept. 9, 2015), Presentation by Roberson and Associates, LLC, *Terrestrial Low Power Service (TLPS) Deployment and Summary Measurements* (May-August 2015), and Presentation by Globalstar, *TLPS NOS Management* (Sept. 2015), available at <http://apps.fcc.gov/ecfs/document/view?id=60001323700>.

As we described at our meeting, the recent campus deployment of TLPS, conducted by Roberson and Associates, further demonstrates the public interest benefits of the Commission's proposed rules.² Adding a 22 MHz channel (TLPS Channel 14) to the campus's 2.4 GHz Wi-Fi network enables students, faculty, and other users to spread their wireless broadband usage over four rather than just three channels in this band (existing Wi-Fi Channels 1, 6, and 11). Significantly, in a TLPS demonstration designed to assess data throughput, participating users experienced an increase in aggregate throughput of more than 90% once TLPS Channel 14 was utilized and the wireless usage was distributed over four channels. This near-doubling of throughput improved broadband quality on all twelve devices in the demonstration, including those that continued to operate on Channels 1, 6 and 11.³

The Chicago deployment also confirmed that there are no interference or compatibility issues between TLPS and Wi-Fi, nor with TLPS and Bluetooth operations in the 2.4 GHz ISM band. While the record in this proceeding shows that TLPS will not have any detrimental impact on unlicensed services, Globalstar nevertheless commits to employ interference detection and mitigation techniques as part of any commercial TLPS offering. TLPS will be a managed service with networked access points controlled through a carrier-grade network operating system ("NOS"). Globalstar's NOS will provide a rapid-response platform for operators of licensed and unlicensed services to provide notice of any claimed interference to their services, and mitigation of harmful interference in the highly unlikely event that it occurs.⁴

We also addressed concerns from some commenters regarding Globalstar's potential deployment of wireless broadband services based on an LTE-U wireless protocol. As Globalstar indicated in its September 10 filing, its TLPS offering is and has always been based on the IEEE 802.11 protocol, not LTE, given the immediate consumer benefits available from the 802.11 ecosystem. Globalstar has no objection to the FCC prohibiting it from deploying any LTE-U or LAA service which might raise concerns in the 2.4 GHz band until such time as the Commission has otherwise allowed the deployment of these services to proceed in unlicensed spectrum.

We noted further that high-density indoor, enterprise settings are expected to be a large component of any TLPS deployment, given that such locations may suffer from the worst wireless congestion. The benefits of TLPS will be particularly important in such settings, including schools and libraries, where wireless broadband usage is growing and likely to increase. Globalstar has committed to provide up to 20,000 TLPS access points free of charge to public and non-profit schools, libraries, community colleges, and hospitals, and this commitment along with the Commission's adoption of TLPS rules can help ensure that these often

² See Globalstar Experimental License, Call Sign WH2XNQ (effective April 2, 2015).

³ All twelve devices in the Chicago demonstration were identical Nexus 7 tablets. These devices supported only single-stream (non-MIMO) operation. In addition, the TLPS access points in the Chicago deployment operated at approximately the same power levels as the pre-existing Channel 1, 6, and 11 access points in that environment.

⁴ See Presentation by Globalstar, *TLPS NOS Management* (Sept. 2015), attached to Globalstar September 10 *Ex Parte* Letter.

Ms. Marlene Dortch

October 1, 2015

Page 3

underfunded organizations have affordable, high-capacity broadband that meets their communities' needs.

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Globalstar urges the Commission to adopt its proposed rules in this proceeding expeditiously. It has been almost two years since the Commission proposed its rules, and the record is fully developed. Further delaying final action only postpones the enormous consumer benefits of TLPS. While consumers will certainly benefit from TLPS more quickly than they will from other spectrum initiatives – some of which are unlikely to yield results for a decade or more – it will take some time for Globalstar to deploy TLPS access points and for consumer devices to be able to receive TLPS on a widespread basis, given the need to finalize production model access points and modify existing client devices to operate on Channel 14. The sooner the Commission adopts rules permitting TLPS, the sooner the American public will enjoy the substantial public interest benefits of this service.

Pursuant to section 1.1206(b)(2) of the Commission's rules, 47 C.F.R. § 1.1206(b)(2), this *ex parte* notification is being filed electronically for inclusion in the public record of the above-referenced proceeding.

Respectfully submitted,

/s/ Regina M. Keeney

Regina M. Keeney

cc:	Julius Knapp	Roger Sherman
	Mark Settle	Chris Helzer
	Patrick Forster	Jose Albuquerque
	Karen Rackley	Jennifer Gilson
	Bruce Romano	Karl Kensinger
		Robert Nelson