



Consumer Electronics Association
1919 South Eads Street
Arlington, VA
22202 USA
866-858-1555 toll free
703-907-7600 main
703-907-7601 fax
CE.org

Via Electronic Filing

April 16, 2015

Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth St., S.W.
Washington, DC 20554

Re: Written Ex Parte Submission – IB Docket No. 13-213

Dear Ms. Dortch:

The Consumer Electronics Association (“CEA”) is writing in response to recent submissions in this proceeding regarding Globalstar’s proposal to deploy a Terrestrial Low Power Service (“TLPS”) in the 2483-2495 MHz band and, more specifically, Globalstar’s efforts to demonstrate that adoption of its proposal will have no adverse impact on Bluetooth, Wi-Fi and other unlicensed users of the 2.4 GHz band. Given how integral 2.4 GHz band unlicensed technologies have become to a wide range of consumer electronics products, CEA urges the Commission to defer any further action in this proceeding until all interested parties can jointly develop and implement a comprehensive, open and transparent program for testing potential interference from TLPS to Bluetooth, Wi-Fi and other devices that utilize spectrum adjacent to Globalstar’s Mobile Satellite Service allocation.

The Commission’s disposition of Globalstar’s proposal has substantial implications for the millions of consumers who routinely use unlicensed devices and for the ecosystem that has developed around such devices. Indeed, solely in terms of the sale of unlicensed devices to end-users, CEA has estimated that unlicensed spectrum generates over \$62 billion per year in incremental retail sales value (“IRSV”).¹ And these quantifiable benefits of unlicensed devices

¹ See Consumer Electronics Association, *Unlicensed Spectrum and the American Economy*, at 1-2, submitted as attachment to Letter from Julie M. Kearney, Vice President-Regulatory Affairs, Consumer Electronics Association, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 12-268, *et al.* (filed Aug. 4, 2014) (citations omitted).

do not include additional, indirect benefits such as cost savings and productivity increases, as well as social value and other less tangible metrics.²

In a series of recent meetings with Commission staff and ex parte filings, Globalstar has proclaimed that a recent demonstration it conducted of TLPS technology “proves” that TLPS will not have an adverse impact on unlicensed use of the 2.4 GHz band.³ Yet, the record before the Commission establishes that Globalstar’s testing program was not well-conceived, that the demonstrations themselves were not open and transparent, and that serious questions still remain regarding the ability of TLPS to co-exist with existing unlicensed users.

Bluetooth Special Interest Group (“Bluetooth SIG”), for example, has highlighted that the demonstration was compromised by “the short notice of the demonstrations, insufficient testing time, a small and crowded test facility and limited understanding of the TLPS setup.”⁴ Bluetooth SIG also has raised significant questions as to whether during the demonstration, TLPS devices were being driven at appropriate traffic levels relative to those of Bluetooth devices.⁵ Yet, even in the face of these limitations, Bluetooth SIG found that the results of the tests “clearly showed that operation of TLPS interferes significantly with Bluetooth devices.”⁶ Others also have presented analysis indicating that implementation of TLPS as currently proposed by Globalstar will increase co-channel interference with Bluetooth, and that non-802.11 deployments by Globalstar could have even greater adverse consequences for Bluetooth users.⁷

² *Id.* at 7.

³ *See, e.g.*, Letter from Regina M. Keeney, Counsel for Globalstar, Inc., to Marlene H. Dortch, Secretary, FCC, IB Docket No. 13-213, at 1, 2 (filed Apr. 6, 2015) (urging the Commission to “act expeditiously to issue an order in this proceeding,” and that “Globalstar’s TLPS deployment will have no real-world detrimental effect on other unlicensed services at 2.4 GHz,” and that “[t]he fact that TLPS will be a good neighbor was demonstrated recently in the Commission’s Technology Experience Center (“TEC”).”).

⁴ Bluetooth SIG TLPS & Bluetooth Demonstrations, FCC Technology Center – March 6, 2015; IB Docket No. 13-213, at 1 (filed Mar. 12, 2015).

⁵ Bluetooth SIG Further Comments and Detailed Report from TLPS & Bluetooth Demonstrations, FCC Technology Center – March 6, 2015, IB Docket No. 13-213, at 1-2 (filed Mar. 20, 2015) (“Bluetooth SIG Further Comments”) (“It became clear during detailed review of the results and pictures taken at the event that during the Bluetooth SIG’s demonstrations all the Access Points (both Wi-Fi and TLPS) had a very low level (3.7Mbs) of traffic when compared to the maximum possible for those access points (~200Mbs). Bluetooth SIG personnel had requested a higher level of traffic but the request was denied, despite the test setup clearly having the capability to add traffic, and clearly having been operated at a higher traffic level for other tests. A traffic level of 3.7 Mbs compared to 200Mbs could have been intended to produce a lower level of interference with Bluetooth.”).

⁶ *Id.* at 1.

⁷ *See* Letter from Greg Gerst, Gerst Capital, LLC, to Marlene H. Dortch, Secretary, FCC, IB Docket No. 13-213 (filed Apr. 14, 2015)(“April 1 Gerst Filing”).

Wi-Fi interests also have cautioned against concluding that TLPS is benign based on the demonstration. CableLabs, WISPA and the Wi-Fi Alliance had warned the Commission even before the demonstration took place that the test plan was being unduly constrained and would not yield comprehensive data.⁸ Google subsequently noted that “real-world operation of TLPS [vis-à-vis Wi-Fi] may differ substantially from the conditions tested.”⁹ And, just earlier this week, CableLabs submitted a comprehensive review of Globalstar’s demonstration. Among other things, CableLabs concluded that due to time constraints, facility availability and the lack of a controlled environment during the demonstration, “the demonstration results do not provide CableLabs or the FCC with an adequate basis for determining that TLPS can operate without undermining existing 2.4 GHz Wi-Fi service.”¹⁰ Nonetheless, CableLabs finds that “the data we did collect during the demonstration leads us to conclude that TLPS channel 14 utilization can negatively impact adjacent Wi-Fi networks” and concludes that “[m]ore fulsome testing is therefore required.”¹¹

Given the importance of Wi-Fi, Bluetooth and other unlicensed technologies to consumers and the American economy, CEA joins the growing call for the Commission to reassess the testing process for TLPS and address the flaws cited in the record before allowing TLPS to become a reality.¹² A team of engineers representing the three major stakeholders with additional industry participants is recommended. Such a broader approach will result in the most accurate and unbiased assessment. Impartial and transparent testing is essential to ensure that the

⁸ See CableLabs, *et al.*, *TLPS Demonstration Plan Overview*, at 1, submitted as attachment to Letter from Paul Margie, Counsel for CableLabs, to Marlene H. Dortch, Secretary, FCC, IB Docket No. 13-213 (filed Feb. 26, 2015) (“CableLabs Overview”) (“[S]uch testing is to take place at [the Commission’s] Washington, D.C. facility (an uncontrolled RF environment) and is subject to time constraints. These factors inherently limit the scope of what can be measured and the information that will be obtained, relative to what we would generally consider a ‘test’.”).

⁹ Letter from Aparna Srhidar, Counsel, Google Inc., to Marlene H. Dortch, Secretary, FCC, IB Docket No. 13-213, at 2 (filed Apr. 2, 2015). In support, Google stated: “The tests used Wi-Fi-style access points operating on Wi-Fi Channel 14 to simulate Globalstar’s terrestrial low-power service (TLPS), at 20 dBm maximum power. The FCC’s rules and Globalstar’s pending TLPS proposal, however, would allow transmissions up to 36 dBm in the unlicensed band (some 40 times stronger than the equipment tested). . . . There may be other differences as well, depending on the specific capabilities and technical characteristics of the equipment used for testing and the types of transmissions tested.” *Id.* at 1-2 (citations omitted). See also Letter from Greg Gerst, Gerst Capital, LLC, to Marlene H. Dortch, Secretary, FCC, IB Docket No. 13-213 (filed Apr. 6, 2015).

¹⁰ See, CableLabs, *Measuring the Potential Impact on Wi-Fi of Channel 14 Terrestrial Low Power Service*, at 5, submitted as attachment to Letter from Rob Alderfer, Principal Strategist, CableLabs, to Marlene H. Dortch, Secretary, IB Docket No. 13-213 (filed Apr. 14, 2015).

¹¹ *Id.*

¹² See CableLabs Overview, at §§ 2.3, 3.3.1 and 4; Bluetooth SIG Further Comments, at 12; April 14 Gerst Filing, at 1.

Marlene H. Dortch
April 16, 2015
Page 4

spectrum is put to best usage, while ensuring that deployment of TLPS does not come at the expense of millions of consumers who have come to rely on unlicensed devices in so many aspects of their day-to-day lives. To do otherwise will only chill the innovation and investment that has made unlicensed spectrum such a unique and compelling success story.

Pursuant to Section 1.1206 of the Commission's rules, 47 C.F.R. § 1.1206, this letter is being electronically filed with your office.

Respectfully submitted,

/s/ Julie M. Kearney

Julie M. Kearney

Vice President, Regulatory Affairs