



Via Electronic Filing

December 21, 2015

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

Re: Terrestrial Use of the 2473-2495 MHz Band for Low-Power Mobile Broadband Networks; Amendment to Rules for the Ancillary Terrestrial Component of Mobile Satellite Service Systems, IP Docket No. 13-213, RM-11685

Dear Ms. Dortch,

The Information Technology Industry Council (ITI) is the global voice of the tech sector, representing 64 of the nation's leading information and communications technology companies.¹ ITI is the voice of the high-tech community, advocating for policies that advance U.S. leadership in technology, promote innovation, open access to new and emerging markets, protect and enhance consumer choice, and foster increased global competition. ITI's member companies include wireless and wireline network equipment providers, computer hardware and software companies, Internet and cloud services, and network security providers.

Many of these companies offer products and services that utilize the 2.4 GHz band, a band that has provided immeasurable benefits for innovation, investment, and consumer benefit through the use of Wi-Fi, Bluetooth, and other unlicensed connectivity options. Given this, ITI and its member companies have significant concern with any proposed use of the 2.4 GHz band that would potentially limit or adversely affect these far reaching applications and the benefits derived from them. In reviewing the record, and in consultation with our member companies, we are concerned that Globalstar's proposed terrestrial low-power service (TLPS) would adversely affect current uses of the band.

The importance of unlicensed operations, which rely heavily on use of the 2.4 GHz band, to the American public is unquestionable given the wide range of applications that utilize the band.² Given the significant growth in mobile devices and smartphone penetration, not to

¹ For more information on ITI, including a list of its member companies, please visit: <http://www.itic.org/about/member-companies.dot>.

² See "Why Everything Wireless is 2.4 GHz", Wired, September 7, 2010; <http://www.wired.com/2010/09/wireless-explainer/>.



mention the growth in Internet of Things, applications that require wireless connectivity, including through Wi-Fi and Bluetooth technologies have an increasingly important role in the wireless communications landscape. Some estimates suggest more than half of all mobile data traffic will be offloaded from cellular networks by Wi-Fi at some point next year.³ And by 2019 in North America, there will be 4.3 billion networked devices up from 2.2 billion in 2014 and machine-to-machine devices will account for 58 percent of all networked devices in 2019 up from 32 percent in 2014.⁴

The benefits provided by unlicensed services operating in 2.4 GHz is well documented in the record, as are the many valid arguments against moving forward with Globalstar's proposed TLPS operation at this time. Chief among those are interference concerns with Bluetooth⁵ even at power levels that are significantly lower than could be expected in real-world operation, and insufficient testing of Wi-Fi with consumer grade equipment and devices.⁶ This leads to broader questions that have been raised, namely the need for further testing at higher transmission power levels than 200 mW, testing beyond enterprise-grade access points, testing non-802.11 TLPS equipment Globalstar may use, and testing for latency and jitter.⁷ Lastly, the Commission itself has determined that even low-power terrestrial use 2472-2484.5 MHz cannot coexist with satellite service above 2483.5 MHz; moving forward with the Globalstar proposal would appear to fly in the face of this position.⁸

³ Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2014-2019 White Paper, February 3, 2015. http://www.cisco.com/c/en/us/solutions/collateral/service-provider/visual-networking-index-vni/white_paper_c11-520862.html

⁴ Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2014-2019 White Paper, February 3, 2015. http://www.cisco.com/web/solutions/sp/vni/vni_forecast_highlights/index.html

⁵ See letter from Mark Powell, Bluetooth SIG Inc., to Marlene H. Dortch, Secretary, FCC, IB Docket No. 13-213 (Filed October 23, 2015).

⁶ See letter from Edgar Figueroa, Wi-Fi Alliance, to Marlene H. Dortch, Secretary, FCC, IB Docket No. 13-213 (Filed October 14, 2015).

⁷ See Ex Parte from Paul Margie (on behalf of Paula Boyd and Paul Mitchell of Microsoft Corporation; Michael Warnecke of the Entertainment Software Association; Rick Chessen of the National Cable & Telecommunications Association; Russell Fox of Mintz, Levin, Cohn, Ferris, Glovsky, and Popeo PC, representing the Wi-Fi Alliance), to Marlene H. Dortch, Secretary, FCC, IB Docket No. 13-213 (Filed December 10, 2015).

⁸ See Ex Parte from Austin Schlick, Google, to Marlene H. Dortch, Secretary, FCC, IB Docket No. 13-213 (Filed October 23, 2015).



On behalf of ITI's member companies, and the tens of millions of Americans who utilize the 2.4 GHz band for Wi-Fi, Bluetooth, cordless phone connections, baby monitor connections, and many, many other uses, we urge you to require further testing and validation that Globalstar's TLPS operation will not interfere with existing uses of that band. Moving ahead without further testing could hamper investment, innovation, and the countless public benefits derived from the 2.4 GHz band.

Sincerely,

A handwritten signature in black ink that reads "J. Vince Jesaitis". The signature is written in a cursive, flowing style.

Vince Jesaitis
Vice President, Government Affairs