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December 11, 2015

Via Electronic Filing

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

Re: Notice of Ex Parte Communication: *Terrestrial Use of the 2473-2495 MHz Band for Low-Power Broadband Networks*, IB Docket No. 13-213; *Amendments to Rules for the Ancillary Terrestrial Component of Mobile Satellite Service Systems*, RM-11685; *DSTAC Report*, MB Docket No. 15-64

Dear Ms. Dortch:

On December 9, 2015, Milo Medin, Staci Pies, and I met with Commissioner Jessica Rosenworcel and Johanna Thomas and Jennifer Thompson of her staff. We additionally met with Gigi Sohn and Jessica Almond (regarding MB Dkt. No. 15-64) and with Ms. Sohn and Edward Smith (regarding IB Dkt. No. 13-213 and RM-11685), all of the Office of Chairman Wheeler. On December 11, I spoke by telephone with Chief of Staff Ruth Milkman regarding IB Dkt. No. 13-213 and RM-11685.

TLPS. In the discussions regarding IB Dkt. No. 13-213 and RM-11685, the Google representatives noted concerns about interference from the proposed Globalstar terrestrial low-power service (TLPS) to existing Bluetooth and Wi-Fi operations. We further made the point that Wi-Fi and similar public uses of the 2472-2483.5 MHz unlicensed spectrum are effectively precluded today on the assumption that they unavoidably would interfere with Globalstar's satellite operations above 2484.5 MHz. Globalstar's TLPS proposal, however, is at bottom a proposal for compatible terrestrial and satellite uses of these same frequencies. Thus, by Globalstar's own logic, the foundational interference assumption that prevents members of the general public from productively using Wi-Fi Channel 14 appears to be invalid.

In light of Globalstar's TLPS advocacy, the Commission should reassess whether public use of Channel 14 in the United States is possible without harmful interference to Globalstar's MSS operations. If so, then a private Globalstar terrestrial service should not be authorized before the completion of a parallel rulemaking to change the Commission's technical rules for general public use of the 2.4 GHz unlicensed band.[1]

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[1] *See* Letter from Austin C. Schlick, Google, to Marlene H. Dortch, Secretary, FCC, IB Dkt. No. 13-213 and RM-11685 (filed Oct. 10, 2015).

To date, Globalstar has not clearly addressed the degree to which it does or does not expect harmful interference between its proposed terrestrial service and its satellite operations. Globalstar, however, has suggested that there are defined geographic areas in the United States in which terrestrial transmissions do not present a significant risk to satellite operations.[2] Even in geographic areas where interference to satellite service apparently is thought possible, Globalstar says it can be avoided through active management of terrestrial devices consistent with an "interference solution model."[3]

To address the practical meaning of these vague assertions in a timely and informed way, the Commission should direct Globalstar to answer the following questions:

1. Would Globalstar's provision of TLPS co-channel with its MSS frequencies cause harmful interference to Globalstar's satellite service? In which geographic area(s) does Globalstar expect interference issues to arise? What specific scenarios has Globalstar identified as requiring mitigation?

2. Would Globalstar's proposed mitigation mechanisms prevent the harmful interference described in its answer to Question 1? Globalstar should describe, in detail, its proposed Network Operating System's interference solution.

3. Are Globalstar's harmful-interference concerns related to public operation of Part 15 devices in Channel 14 the same as or different than those described in response to Question 1? If different, how so, and what evidence supports the finding of a difference?

4. Could the same interference mitigation methods identified in response to Question 2, or other methods such as management by a Spectrum Access System,[4] be used to protect Globalstar's licensed satellite operations against harmful interference from public use of Wi-Fi Channel 14. If not, why not?

Video Device Competition. With regard to MB Dkt. No. 15-64, and consistent with Google's prior submissions,[5] Mr. Medin discussed the competitive navigation device solution

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[2] "TLPS NOS Management" at 3-4, attached to Letter from L. Barbee Ponder IV, Globalstar, to Marlene H. Dortch, Secretary, FCC, IB Dkt. No. 13-213 (filed Sept. 10, 2015).

[3] *Id.* at 4.

[4] See 47 C.F.R. Part 96, Subpart F.

[5] *See* Comments of Google Inc. in MB Dkt. No. 15-64 at 1, 3 (filed Oct. 8, 2015) ("Google Comments") (describing how the competitive navigation device solution would enable integrated, customized user interfaces that present "all of the content that the subscriber has purchased from an MVPD alongside content available from sources on the Internet").

described in the Downloadable Security Technical Advisory Council's Working Group 4 Report.[6] In particular, Mr. Medin explained that the solution would implement secure system design elements, including conditional access, digital rights management, and link protection. Section 629 of the Communications Act[7] charges the Commission with ensuring the commercial availability of competitive navigation devices, and the Commission should move forward with a proceeding to do so in the IP environment.

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This notice is being filed in the above-referenced dockets for inclusion in the public record. Please contact me should you have any questions.

Respectfully submitted,

Austin C. Schlick
Director, Communications Law
Google Inc.

cc: *Via electronic mail*
Commissioner Rosenworcel
Johanna Thomas
Jennifer Thompson
Ruth Milkman
Gigi Sohn
Jessica Almond
Edward Smith

[6] *See generally* Final Report, Report of Working Group 4 to DSTAC at 180-194 (Aug. 28, 2015), *available at* https://transition.fcc.gov/dstac/wg4-final-report.docx (detailing the competitive navigation device solution proposal).

[7] 47 U.S.C. § 549.