

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)
)
Allocation and Authorization of Additional) RM-11773
Spectrum for the Fixed-Satellite Service in the)
50.4-51.4 GHz and 51.4-52.4 GHz Bands)

OPPOSITION TO PETITION FOR RULEMAKING

Straight Path Communications Inc. (“Straight Path”) submits this opposition to the above-referenced petition for rulemaking (the “Petition”) filed by The Boeing Company (“Boeing”).^{1/} Boeing’s request contradicts recent Commission action by obstructing the deployment of Fifth Generation (“5G”) mobile broadband services in the 37-40 GHz band. Action on Boeing’s request also would be premature because of the Commission’s ongoing rulemaking proceeding that considers proposals to allow terrestrial use of the spectrum targeted by the Petition. Accordingly, the Commission should promptly dismiss the Petition.

I. BACKGROUND

Straight Path is one of the largest holders of spectrum in the 38.6-40 GHz (“39 GHz”) band and the 27.5-28.35 GHz, 29.1-29.25 GHz, and 31-31.3 GHz bands (*i.e.*, the Local Multipoint Distribution Service, or “LMDS”) bands) and has been an active participant in the Commission’s proceeding regarding millimeter wave spectrum that may be made available for

^{1/} Petition for Rulemaking of The Boeing Company, RM-11773 (filed Sept. 16, 2016) (“Petition”); *see also Petition for Rulemaking Filed*, Public Notice, Report No. 3051 (CGB Sept. 16, 2016). Relatedly, Boeing submitted an application requesting authority to launch and operate a non-geostationary fixed satellite service (“FSS”) system operating in low Earth orbit in the 37.5-42.5 GHz (space-to-Earth) and the 47.2-50.2 and 50.4-52.4 GHz (Earth-to-space) bands on June 22, 2016. *See Boeing Application for Satellite Space Station Authorizations*, IBFS File No. SAT-LOA-20160622-00058 (filed June 22, 2016). The Commission has not included reference to the Boeing application on a Public Notice, triggering a period to submit petitions to deny the application. For the same reason it opposes the Petition, Straight Path opposes the application and requests that the Commission deny it when it dismisses the Petition.

5G operations.^{2/} As Straight Path has explained, it is an industry leader in developing mobile broadband millimeter wave technology and expects to demonstrate solutions that take advantage of the newly-adopted rules later this year.^{3/} In the *Report and Order*, the Commission adopted, among others, rules governing the 39 GHz band. The Petition presumes that spectrum would be paired with the bands targeted by the Petition. In particular, the Petition asks the Commission to allocate and authorize additional uplink spectrum for FSS in the 50.4-51.4 GHz and 51.4-52.4 GHz bands (the “50 GHz band”) paired with spectrum in the 37.5-42.5 GHz bands, which includes the 39 GHz band.^{4/} Accordingly, the Petition would have a direct impact on Straight Path’s use of the 39 GHz band as permitted by the *Report and Order*.

II. DISCUSSION

The Commission should deny the Petition for two reasons. *First*, its premise – use of the 39 GHz band for satellite use – has been superseded by the *Report and Order*. *Second*, Commission action on the target 50 GHz bands would be premature pending the outcome of the *Further Notice*.

A. The Petition Has Been Superseded by the Spectrum Frontiers Report and Order

The Petition, which asks the Commission to allow FSS operations in the 50 GHz bands, is premised on the pairing of those downlink bands with uplink spectrum at 37-42.5 GHz.

However, the *Report and Order* directly undermines that premise. In particular, the *Report and*

^{2/} See *Use of Spectrum Bands Above 24 GHz for Mobile Radio Services*, Report and Order and Further Notice of Proposed Rulemaking, FCC 16-89, ¶¶ 88-93 (July 14, 2016) (the “*Spectrum Frontiers Proceeding*” (subparts referred to herein as the “*Report and Order*” and the “*Further Notice*,” respectively)).

^{3/} See, e.g., Letter from Davidi Jonas, CEO and President, Straight Path Communications, Inc. to Marlene H. Dortch, Secretary, FCC, in GN Docket No. 14-177, Attachment at 2 (filed June 16, 2016) (noting that Straight Path is investing in 39 GHz point-to-multi-point technology and developing a 5G transceiver prototype for 39 GHz).

^{4/} Petition at 1-3.

Order created new Upper Microwave Flexible Use Service (“UMFUS”) licenses in the 37.5-40 GHz band, allowing only limited use of the band for satellite operations.^{5/} Specifically, non-federal satellite earth stations will be authorized only on a first-come, first-served basis, subject to conditions restricting the number and size of satellite protection zones.^{6/} Accordingly, because the Commission made clear that the primary use of the 37.5-40 GHz band will be for terrestrial operations, it is inappropriate to consider reallocation of the 50 GHz band for satellite uplink when there is no paired downlink spectrum.

Similarly, the *Report and Order* also declined to allocate 500 megahertz of the spectrum that Boeing assumes would be paired with the 50 GHz band. In particular, it did not allocate the 42-42.5 GHz band – which Boeing presumes would be used for downlink operations for FSS.^{7/} It reasoned that FSS already has access to the 40.5-42 GHz band, and there is value in potentially having the 42-42.5 GHz band available for exclusive terrestrial use.^{8/}

B. Action on Boeing’s Petition is Premature

Interested parties recently submitted comments in response to the *Further Notice*, which proposes to make additional spectrum available for UMFUS at bands above 24 GHz.^{9/} Among the spectrum bands identified in the *Further Notice* are the 42-42.5 GHz and the 50 GHz bands, the former of which Boeing presumes will be available for FSS downlink and the latter of which

^{5/} *Report and Order* at ¶¶ 93, 105 n.272.

^{6/} *Id.* at ¶ 93.

^{7/} *Id.* at ¶ 368.

^{8/} *Id.* And, as discussed below, in response to the *Further Notice*, several parties have asked the Commission to consider the 42-42.5 GHz band for terrestrial use.

^{9/} *See Further Notice* at ¶ 373 (proposing to authorize flexible use licenses that would permit fixed and mobile services in the following bands: 24.25-24.45 GHz and 24.75-25.25 GHz, 31.8-33.4 GHz, 42-42.5 GHz, 47.2-50.2 GHz, 50.4-52.6 GHz, 71-76 GHz, and 81-86 GHz).

Boeing targets for uplink operations. Yet, in response to the *Further Notice*, interested parties have sought the use of those bands for terrestrial operations.^{10/}

Moreover, although not identified by the Commission in the *Further Notice* for evaluation for potential terrestrial operations, interested parties also asked the Commission to re-examine the use of the 40-42.5 GHz band, which Boeing presumes will be available for downlink use.^{11/} Because the potential use of all of these bands (40-42 GHz, 42-42.5 GHz, 50 GHz) will remain in flux until the Commission proceeds with the *Further Notice*, the Commission should take no action that would prejudice its options in that proceeding. Instead, the Commission should reject the Petition without prejudice as premature until the matters raised in the *Further Notice* are finally resolved.

^{10/} See, e.g., Comments of T-Mobile USA, Inc., GN Docket No. 14-177, *et al.*, at 13-15, 18-19 (filed Sept. 30, 2016) (supporting the Commission’s proposals to authorize fixed and mobile operations in the 42-42.5 GHz and 50 GHz bands under the Part 30 rules).

^{11/} See, e.g., CTIA Comments at 12-14 (“[T]he Commission should consider reallocating the entire 40-42.5 GHz band for mobile uses rather than focusing solely on the 42-42.5 GHz band.”); Comments of Huawei Technologies, Inc. (USA) and Huawei Technologies Co. Ltd., GN Docket No. 14-177, *et al.*, at 6 (filed Sept. 30, 2016) (recommending that “the Commission extend the applicable frequency bands from 42-42.5 GHz to 40-42.5 GHz band for UMFUS” because it would allow for a contiguous 5.5 GHz block of spectrum from 37-42.5 GHz).

III. CONCLUSION

The Petition is at odds with the action the Commission has already taken and that it contemplates taking in the *Spectrum Frontiers Proceeding*. Grant of the Petition would be inconsistent with the Commission's actions regarding the 39 GHz band and would potentially foreclose future actions in the 50 GHz band and the 42-42.5 GHz band. Accordingly, Straight Path strongly urges the Commission to deny the Petition.

Respectfully submitted,

/s/ Davidi Jonas

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October 17, 2016