



September 24, 2020

EX PARTE NOTICE VIA ELS

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

**Re: Notice of Ex Parte Presentation
ELS File No. 0773-EX-CN-2020**

Dear Ms. Dortch,

RS Access, LLC (“RSA”)¹ opposes Space Exploration Holdings, LLC’s (“SpaceX”) September 15, 2020 application for an experimental authorization to conduct fixed-satellite service (“FSS”) earth station in motion (“ESIM”) operations in the 12.2-12.7 GHz band (“the 12 GHz Band”).² SpaceX has requested experimental authority to test end-user terminals on seagoing platforms when the vessels are anchored in port, in transit to predetermined landing zones, and on station at those landing zones.

The two-year experimental authorization SpaceX seeks is overbroad and will interfere with ongoing technical and regulatory efforts to develop terrestrial 5G services in the 12 GHz Band. RSA does not object to SpaceX’s request to conduct testing in the other requested bands; a narrowly tailored grant extending only to the 10.7-12.2 GHz and 14.0-14.5 GHz bands—*two gigahertz total of alternative spectrum*—should provide more than enough spectrum for SpaceX to learn whatever lessons it needs from these experiments.³

¹ RSA holds Multichannel Video Distribution and Data Service (“MVDDS”) licenses that cover approximately 15 percent of the U.S. population and 25 percent of the continental United States. *See, e.g.*, License, RSA, ULS Call Sign WQAR560 (granted Jan. 26, 2015). These rights were acquired through competitive bidding in an FCC auction. *See Multichannel Video Distribution and Data Service Spectrum Auction Closes: Winning Bidders Announced*, Public Notice, 19 FCC Rcd 1834 (2004) (Auction 53); *Auction of Multichannel Video Distribution and Data Service Licenses Closes: Winning Bidders Announced for Auction No. 63*, Public Notice, 20 FCC Rcd 19807 (2005).

² *See* Experimental Application of SpaceX, ELS File No. 0773-EX-CN-2020 (filed Sept. 15, 2020).

³ In total, SpaceX has access to approximately 15,000 megahertz of FCC-authorized spectrum outside the 12 GHz Band. *See, e.g.*, Letter from V. Noah Campbell, CEO, RSA, to Marlene H. Dortch, Secretary, FCC, RM-11768, at 2 and n.5 (filed Aug. 6, 2020).

International and domestic rules prohibit the FSS ESIM operations SpaceX seeks to conduct in the 12 GHz Band. The band is allocated on a co-primary basis to (1) Direct Broadcast Satellite (“DBS”) services in the Broadcasting-Satellite Service (“BSS”); (2) the MVDDS; and (3) the non-geostationary orbit (“NGSO”) FSS.⁴ FSS ESIM operations are inherently incompatible with the unusual triple-co-primary allocations in the 12 GHz Band, and whatever “experimental” deployments SpaceX seeks to perform would be impermissible if conducted on a permanent basis. The International Telecommunication Union has long precluded FSS ESIM operations from the 12 GHz band,⁵ and so has the United States.⁶

If SpaceX truly wants to experiment with Ku-band FSS ESIM deployments, alternative frequencies can support its plans. Although the Commission’s rules prohibit FSS ESIM activities in the 12 GHz Band, the rules permit FSS ESIM operations in the 10.7-12.2 and 14.0-14.5 GHz bands.⁷ Even here, of course, caution is warranted. When the Commission initially considered commercial ESIM-type deployments in some of these frequencies, the Commission noted that “the potential to interfere with terrestrial [Fixed Service (“FS”)] receivers increases . . . [w]hen [maritime ESIMs] approach and enter ports or traverse shipping channels that hug the nation’s coastline” and “[maritime ESIM] operators are capable of removing or significantly limiting the potential for interference by using bands that do not have FS operations, or only very limited FS operations, such as portions of the Ku-band.”⁸

⁴ See 47 C.F.R. § 2.106.

⁵ See, e.g., ITU-R Resolutions 169, 172, 173 (WRC-19) (2019); ITU-R Resolution 156 (WRC-15) (2015); ITU-R Resolution 902 (WRC-03) (2003) (noting that maritime ESIMs—formerly earth stations on board vessels (“ESVs”)—“may be assigned frequencies to operate in FSS networks in the bands . . . 10.7-12.75 GHz and 14-14.5 GHz pursuant to No. 4.4 and shall not claim protection from, nor cause interference to, other services having allocations in these bands”). See generally Interference criteria to protect the fixed service from time varying aggregate interference from other services sharing the 10.7-12.75 GHz band on a co-primary basis, Rec. ITU-R F.1494 (May 2000) (“[I]n interference situations involving [NGSO] space stations, FS systems are potentially exposed to high levels of interference for short periods of time which could affect the performance or availability of these systems[.]”).

⁶ See generally *Facilitating the Communications of Earth Stations in Motion with Non-Geostationary Orbit Space Stations et al.*, Report and Order et al., 35 FCC Rcd 5137 ¶¶ 45-46 (2020) (expressly declining to add the 12 GHz Band to the list of permissible NGSO ESIM frequency bands).

⁷ See *id.* ¶¶ 28-29, 39; *Procedures to Govern the Use of Satellite Earth Stations on Board Vessels in the 5925-6425 MHz/3700-4200 MHz Bands and 14.0-14.5 GHz/11.7-12.2 GHz Bands*, Report and Order, 20 FCC Rcd 674 (2005) (allowing ESV operations in the 11.7-12.2 GHz and 14.0-14.5 GHz bands); 47 C.F.R. § 2.106 at n. NG527A(a) (“[ESIMs] . . . are an application of the [FSS] and the following provisions shall apply: . . . In the bands 10.7-11.7 GHz, 19.3-19.4 GHz, and 19.6-19.7 GHz (space-to-Earth), ESIMs may be authorized for the reception of FSS emissions from . . . non-geostationary satellites, subject to the conditions that these earth stations may not claim protection from transmissions of non-Federal stations in the fixed service[.]”) (emphasis added).

⁸ *Procedures to Govern the Use of Satellite Earth Stations on Board Vessels in the 5925-6425 MHz/3700-4200 MHz Bands and 14.0-14.5 GHz/11.7-12.2 GHz Bands*, Notice of Proposed Rulemaking, 18 FCC Rcd 25248 ¶ 11 (2003). See also *Service Rules for Advanced Wireless Services in the 2000-2020 MHz and 2180-2200 MHz Bands*, Report and Order and Order of Proposed Modification, 27 FCC Rcd 16102 ¶ 181 (2012) (determining “that separately controlled [satellite services with terrestrial mobile terminal deployments] and terrestrial

The timing of SpaceX's request to conduct FSS ESIM operations in the 12 GHz Band is curious. In the last four months, the Commission has seen an outpouring of support from interested parties to initiate a rulemaking to explore the possibility of using the spectrum for terrestrial 5G services.⁹ SpaceX, a staunch opponent of any rulemaking proceeding to allow terrestrial two-way services, has filed a spate of letters against even considering reforms to the 12 GHz Band.¹⁰ Amid this flurry of advocacy, the company has now proposed to experiment with FSS ESIM operations throughout the 12 GHz Band. If its experimental application were granted, SpaceX's interference-prone, roving terminals could conveniently complicate ongoing efforts to develop the band for 5G services and perhaps even frustrate additional DBS deployment. Needless to say, pretextually using an experimental authorization to foreclose further rulemaking would be improper and a basis for denial.

For its part, SpaceX has offered little reason to credit its ostensible intention to conduct experiments in the 12 GHz Band. No evidence exists that SpaceX is using the 12 GHz Band today for commercial fixed NGSO services that are allowed in the band, much less the type of mobile user terminals that are not.¹¹

Even if SpaceX's request were made in good faith, the company has provided no justification for further encumbering the 12 GHz Band for the next two years when the technical and service rules remain in flux and subject to further development. The Commission has ample discretion to deny SpaceX's experimental authorization. SpaceX does not need to occupy the 12 GHz Band to test its ESIM concept because other Ku-band frequencies are available to it. And granting the company's proposal could impair the Commission's ability to explore the very types

operations (*i.e.*, two ubiquitous mobile services) in the same band would be impractical because the parties would not be able to overcome the technical hurdles to reach a workable sharing arrangement").

⁹ See, e.g., Letter from Go Long Wireless, Ltd., Cass Cable TV, Inc., Story Communications, LLC, and Vision Broadband, LLC to Marlene Dortch, Secretary, FCC, RM-11768 et al. (filed Aug. 14, 2020); Martha Suarez, Dynamic Spectrum Alliance, to Marlene Dortch, Secretary, FCC, RM-11768 et al. (filed Aug. 21, 2020); Letter from Alexi Maltas, Competitive Carriers Association, to Marlene Dortch, Secretary, FCC, RM-11768 et al. (filed July 21, 2020); Jennifer M. McCarthy, Vice President, Legal Advocacy, Federated Wireless to Marlene H. Dortch, Secretary, FCC, Docket No. RM-11768 (filed June 15, 2020); Letter from V. Noah Campbell, RS Access, LLC, to Marlene Dortch, Secretary, FCC, RM-11768 et al. (filed June 11, 2020); Letter from Harold Feld, Public Knowledge and Michael Calabrese, Open Technology Institute at New America to Marlene H. Dortch, FCC, RM-11768 (filed July 9, 2020). See generally MVDDES 5G Coalition, Petition for Rulemaking to Permit MVDDES Use of the 12.2-12.7 GHz Band for Two-Way Mobile Broadband Service, Docket No. RM-11768 (filed Apr. 26, 2016).

¹⁰ See, e.g., Letter from David Goldman, Director of Satellite Policy, SpaceX, to Marlene Dortch, Secretary, FCC, RM-11768 et al. (filed Sept. 18, 2020); Letter from David Goldman, Director of Satellite Policy, SpaceX, to Marlene Dortch, Secretary, FCC, RM-11768 et al. (filed Sept. 4, 2020); Letter from David Goldman, Director of Satellite Policy, SpaceX, to Marlene Dortch, Secretary, FCC, RM-11768 et al. (filed Aug. 6, 2020); Letter from David Goldman, Director of Satellite Policy, SpaceX, to Marlene Dortch, Secretary, FCC, RM-11768 et al. (filed July 22, 2020);

¹¹ See, e.g., Darrell Etherington, *SpaceX confirms Starlink internet private beta underway, showing low latency and speeds over 100Mbps*, TechCrunch (Sept. 3, 2020), <https://tcrn.ch/33VVZnh>.

of more intensive uses that the Commission contemplated when it conditioned grant of SpaceX's operating authority on the outcome of future rulemaking proceedings.¹²

The Commission should deny SpaceX's experimental license application with respect to the 12 GHz Band and, if warranted by commercial need and a sufficient showing of technical compatibility, allow SpaceX to conduct testing on the two gigahertz of spectrum in the 10.7-12.2 GHz and 14.0-14.5 GHz bands.

Sincerely,

/s/ V. Noah Campbell

V. Noah Campbell
CEO
RS Access, LLC
645 5th Ave, 10th Floor
New York, NY 10022

¹² See *Space Exploration Holdings, LLC Application for Approval for Orbital Deployment and Operating Authority for the SpaceX NGSO Satellite System et al.*, Memorandum Opinion, Order and Authorization, 33 FCC Rcd 3391 n.88 (2018).