

VIA ELECTRONIC FILING

02 August 2018

Marlene H. Dortch

Secretary Federal
Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554Re: Oral *Ex Parte* Notice
Kepler Communications Petition for Declaratory Ruling
IBFS File No. SAT-PDR-20161115-00114

Dear Ms. Dortch:

On July 31st, 2018, representatives of Kepler Communications Inc. (“Kepler”) spoke with representatives of the International Bureau to discuss Kepler’s pending application to operate a non-geostationary satellite orbit (“NGSO”) fixed-satellite service (“FSS”) system in Ku-band. Participating in the meeting on behalf of the International Bureau were Jose Albuquerque, Stephen Duall, Karl Kensinger and Cindy Spiers. Participating in the meeting on behalf of Kepler was Nickolas Spina. Nickolas Spina also held a follow up conversation with Stephen Duall by telephone on August 2nd, 2018. Mr. Spina also transmitted the August 3 notice via email to Jose Albuquerque, Karl Kensinger, Stephen Duall and Cindy Spiers. A copy of the email is attached to this corrected notice.

The meeting participants discussed Kepler’s satellite that was launched in January of this year and the deployment plan for the next batch of satellites. Following this, Kepler highlighted the impact that posting the bond has on smaller operators and how this may act as a barrier towards competition and diversification of innovative services, rather than a barrier to spectrum squatting by well-funded entities.¹

In addition, the participants discussed the orbital debris information that was submitted to the Commission on June 22nd, 2018 (“ODAR”).² In response to the discussion, Kepler clarifies that the cross-sectional areas discussed do not materially impact the risk of collision but do change the orbital lifetime.³ Kepler confirms that it used the DAS-modelled orbital life of the larger 12 Kg spacecraft inserted at 575 Km as the assumed decay model.⁴ This lifetime exceeds the average lifetime of ~4.45 years per 12 Kg and 5 Kg spacecraft in the constellation, based on the deployment altitudes presented in the ODAR.⁵ The assumed 4.9 years is therefore conservative.⁶ In addition, in the follow up telephone conversation on August 2nd, Kepler clarified that the size of the spacecraft will not alter the beams, service area or emission characteristics. As such, Kepler stated that the spacecraft size has no material impact on Kepler’s

¹ See 47 CFR §§ 25.165(a)(1).

² See *Kepler Ex Parte - ODAR*, Kepler Communications Inc., File No. SAT-PDR-20161115-00114 (22 June, 2018).

³ See *Id.*, Table 1 and supporting text, and Table 2.

⁴ See *Id.*, Table 2 and assumptions in 2.1 Summary of Results.

⁵ See *Id.*, Table 1 for altitude-based deployment concentration and Table 2 for 12 Kg satellite orbital lifetimes.

⁶ See *Id.*, 2.1 Summary of Results.

application other than to its ODAR which is under direct oversight from the Canadian regulator, *Innovation, Science and Economic Development Canada*.⁷

In addition, during the July 31 meeting, Kepler discussed collision avoidance. Kepler highlighted that within the 6 months of operating its first satellite, there had not been any conjunction warnings received. Kepler further states that in the event of a conjunction warning being delivered by JSpOC, the warning would include a contact person for the operator of the opposing satellite⁸. Kepler's standard procedure would be to contact this operator and collaborate on a mitigation strategy.

During the July 31st meeting, clarification was sought on the inclinations and variance in inclination to which Kepler would launch satellites. In response to the discussion, Kepler notes that Sun Synchronous Orbits have a relatively fixed inclination based on altitude and that Kepler had no intentions to launch outside these inclinations, nor would deviations between 92 and 100 degrees inclination make any substantial difference to the risk model.⁹

Pursuant to Section 1.1206(b)(2) of the FCC's rules, 47 C.F.R. § 1.1206(b)(2), this *ex parte* notification is being filed electronically for inclusion in the public record of the above-referenced proceeding.

Thank you for your attention to this matter. Should you have any questions, please do not hesitate to contact me.

Sincerely,

/s/ Nickolas G. Spina

Nick G. Spina | Manager Launch & Regulatory Affairs

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⁷ The Commission has previously granted systems subject to foreign oversight, *See* 47 C.F.R. § 25.114(d)(14)(v); Comments of SES S.A. and O3b Limited, at 9 (requesting FCC adoption of O3b condition 15 “finding that the system is subject to regulation by the United Kingdom with respect to mitigation of orbital debris”); O3b Limited, Stamp Grant, IBFS File No. SAT-AMD-20150116-00004, at 4 (Jan. 22, 2015); WorldVu Satellites Limited, Order and Declaratory Ruling, IBFS File No. SAT-LOI-20160428-00041 at 25 (June 23, 2017).

⁸ Note that a JSpOC CDM contains the ID of the secondary object. Kepler can access the owner/operator directory for contact information of O/O of the object in question. If the object is not assigned (ie debris), is controlled private or not registered with JSpOC, no information will be available.

⁹ Note that allowable variations in inclination are currently being discussed at the ITU under Study Group 4A – Agenda Item 7, Issue A. Kepler intends to remain within a degree of the SSO inclinations.