

VIA ELECTRONIC FILING

6 September 2018

Marlene H. Dortch

Secretary Federal Communications Commission 445 12th Street, S.W. Washington, D.C. 20554

Re: Oral *Ex Parte* Notice Kepler Communications Petition for Declaratory Ruling <u>IBFS File No. SAT-PDR-20161115-00114</u>

Dear Ms. Dortch:

On September 4th, 2018, Mina Mitry (CEO), and Nathan Robinson (Director of Sales) of Kepler Communications Inc. ("Kepler") accompanied by Tony Lin of Hogan Lovells met separately with representatives from the Office of Commissioner Michael O'Reilly, Commissioner Jessica Rosenworcel, as well as International Bureau staff to discuss the above captioned non-geostationary satellite orbit ("NGSO") fixed-satellite service ("FSS") system in Ku-band. The full list of attendees and the presentation given can be found as an attachment to this letter.

During the meeting, Kepler described the success of its first operational satellite and how demand for its service is growing rapidly. Kepler also highlighted several other points, including the difference of its proposed system to other filers within the processing round¹, its commitment to mitigating orbital debris, as well as the public interest benefits that Kepler's operational NGSO system brings to the US. Namely:

- The immediate introduction of a low-cost system targeted directly at the global expansion of the Internet of Things ("IoT"), for low and high bandwidth requirements alike.
- The ability to offer service capacity with the first deployed satellite², where each additional satellite is used to increase said capacity, and without the requirement for an extensive ground network.
- The planned establishment of near real-time data backhaul for other satellite operators, relieving the coordination burden, and allowing other satellite operators a more continuous stream of data.

¹ See IBFS File Nos. SAT-LOI-20160428-00041 (OneWeb); SAT-MOD-20160624-00060 and SAT-AMD-20161115-00116 (O3b Limited); SAT-PDR- 20161115-00108 (Telesat Canada); SAT-LOA-20161115-00109 (The Boeing Company); SAT-PDR-20161115-00111 (Space Norway AS); SAT-PDR-20161115-00112 (LeoSat MA, Inc.); SAT-LOA-20161115-00113 (Karousel LLC); SAT-PDR-20161115-00114 (Kepler Communications Inc.); SAT-LOA-20161115-00117 (Audacy Corporation); SAT-LOA-20161115-00118 (Space Exploration Holdings, LLC (SpaceX)); SAT-PDR-20161115-00120 (ViaSat, Inc.); SAT-LOA-20161115-00121 (Theia Holdings A, Inc.)

² Kepler's first satellite was deployed in January 2018 and is currently providing service globally.



• The relatively small number of continuously deployed satellites; accurate satellite positional knowledge; continuous tracking, telemetry & control; and the natural elimination of any potential debris due to the specific orbit selection and satellite design.

Kepler highlighted that as it awaits licensing within the US, it is delaying business opportunities and servicing of existing US customer demand. Finally, Kepler discussed the imminent launch of its second satellite and the customers it hopes to service with the added capacity.

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 O: <u>437 637 0017</u> | M: (647) 974-3134



ATTACHMENT

September 4, 2018 Meeting with the Office of Commissioner Jessica Rosenworcel

FCC Attendees

Umair Javed

Kepler Communications Inc. Attendees Mina Mitry Nathan Robinson Tony Lin

September 4, 2018 Meeting with the International Bureau

FCC Attendees

Jose Albuquerque Karl Kensinger Stephen Duall Thomas Sullivan Troy Tanner Jennifer Balatan

Kepler Communications Inc. Attendees

Mina Mitry Nathan Robinson Tony Lin

September 4th, 2018 Meeting with the Office of Commissioner Michael O'Rielly

FCC Attendees Erin McGrath

Kepler Communications Inc. Attendees

Mina Mitry Nathan Robinson Tony Lin

UNBOUNDED CONNECTIVITY

UNBOUNDED CONNECTIVITY





The Kepler space network operates many small satellites as routers in space. The routers will form a network connecting devices on the ground and in space.

UNBOUNDED CONNECTIVITY









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Bulk Transfer

Billing data, scientific data collection, CCTV footage, network backhaul, imagery



IoT Data

Asset utilization, environmental conditions, operations data



Alarm & Control

Hazard monitoring, theft prevention, supervisory control and data acquisition

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ORBITAL DEBRIS MITIGATION

Kepler as responsible user of space

Total Probability of Collision

- Estimated < 0.001, which is compliant with NASA Orbit Debris Requirement 4.5.2.1
- Modelled using most conservative assumptions over 15 years of full network operations
- No debris will survive re-entry

Space Situational Awareness

- High-accuracy positional knowledge maintained and shared with other operators
- Space data sharing agreements already in place with JSpOC

Maneuverability

- Global TT&C through inter-satellite links provides collision avoidance agility
- Active conjunction monitoring and maneuvering from launch to reentry
- No conjunctions experienced with existing satellite

COORDINATION & EPFD

EPFD

- Kepler has provided multiple showings to the commission demonstrating compliance with EPFD requirements
- Further flexibility is afforded in the system given Kepler's unique software defined radio and the delay tolerant nature of its service

Coordination

• Kepler has already completed coordination with a number of GEO and NGSO systems

http://kepler.space