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EXHIBIT C

CERTIFICATION OF COMPLIANCE

Compliance with ITU Article 22.5D:

All earth station operations maintain a minimum 5° exclusion zone to the GSO arc to comply with the equivalent power flux density (EPFD) uplink limits denoted by ITU-RR Article 22. Earth stations immediately cease all transmissions when tracking a Kepler NGSO satellite within this exclusion zone. A detailed EPFD analysis regarding Kepler's NGSO network received Commission approval under Kepler's market access grant.[1] In its Order and Declaratory Ruling, the Commission found that the EPFD analysis provided in Kepler's Petition was sufficient to justify its grant of market access.

Because Kepler only has 15 of its authorized 140 in operation today (and will have 17 by the end of the requested authorization), its actual EPFD will be much lower than that considered by the analysis provided in its market access grant.

Kepler has designed its system to operate with GSO exclusion angles as high as 20 degrees to comply with EPFD limits when servicing hundreds to thousands of user terminals. However, Kepler currently has only 15 satellites in orbit (and will have 17 by the end of the requested STA authorization period), none of which have multi-access capability. Therefore, the stringent exclusion angles considered by Kepler's market access grant are not strictly necessary to meet the limits of Article 22 for the scope of this licence.

For convenience, a demonstration of PFD compliance with a single earth station is provided below using the worst-case antenna parameters specified by this application.

Detailed Calculation:

A detailed calculation of compliance with the Article 22 EPFD uplink limits is hereby provided. For conservatism, the emission with the greatest potential for harmful interference is chosen for analysis. This emission is described in the table below.

Table 1: Worst-case emission parameters

System	Input Power (W)	Bandwidth (MHz)	EIRP Spectral Density (dBW/Hz)
Cobham Sailor 600	6	40	-30.54

[1] *See* Kepler Communications Inc., *Petition for Declaratory Ruling to Grant Access to the U.S. Market for Kepler's NGSO FSS System*, Order and Declaratory Ruling, FCC 18-162 (Nov. 19, 2018).

ITU RR Article 22.5D specifies an EPFD↑ limit in the 13.75 – 14.5 GHz band of:

$$EPFD_{\uparrow} = -160\ dB\left(\frac{W}{m^2 \cdot 40\ kHz}\right)$$

This limit may not be exceeded for any percentage of time. From ITU RR 22.5C.1, the EPFD generated by a system of earth stations towards stations in the GSO is calculated as follows:

$$EPFD = 10\log_{10}\left[\sum_{i=1}^{N_a} 10^{\frac{P_i}{10}} \times \frac{G_t(\theta_i)}{4\pi d_i^2} \times \frac{G_r(\varphi_i)}{G_{r,max}}\right]$$

Where i is the index of a given transmitting earth station, P_i is the antenna input power for the earth station in the appropriate reference bandwidth, θ_i is the off-axis angle between the earth station boresight and the GSO arc, $G_t(\theta_i)$ is the transmit antenna gain (as a ratio) of the earth station, d_i is the distance between the earth station and the GSO arc, φ_i is the off-axis angle of the geostationary receive antenna to the offending earth station, and $G_{r,max}$ is the max gain (as a ratio) of the antenna of the geostationary receive station. This application concerns only a single earth station, therefore the equation can be simplified as follows:

$$EPFD = 10\log_{10}\left[10^{\frac{P}{10}} \times \frac{G_t(\theta)}{4\pi d^2} \times \frac{G_r(\varphi)}{G_{r,max}}\right]$$

The concerned operation filed by the application will use the following parameters:

Table 2: EPFD input parameters

Parameter	Value	Justification
P_i	6 W	Maximum input power delivered to the antenna.
θ	5°	Kepler earth stations maintain a 5° exclusion zone around the GSO arc at all times. As the earth station is tracking Kepler's NGSO satellites, it will automatically cease transmissions at θ <= 5°.
G_t (θ)	G_t (θ) = 29-25log$_{10}$(θ) = 11.52 dB = 14.21 (real)	Off-axis gain derived from NGSO gateway antenna performance standard given by 47 C.F.R. §25.209(h) (used in lieu of the fact that no specific standards apply to NGSO user terminals). Alternatively and to be conservative, one could use the higher gain value specified by §25.209(a)(5) that typically applies to GSO FSS user terminals transmitting in the plane perpendicular to the GSO arc. This limit is given as G_t (θ) = 32-25log$_{10}$(θ), and its use would have the effect of increasing the final calculated EPFD value by 3 dB. However, the final calculation result demonstrates that even with this change the earth station would still operate well under the Article 22 limit.
d	37920 km	Distance to GSO using an ES latitude of 45° (ES assumed to be located in Oregon, USA, i.e., starting point of the RV Ikuliaq, and assuming spherical Earth).
G_r (ϕ) / $G_{r,max}$	1	We have assumed that the boresight of the victim GSO receive antenna is pointed directly at the offending earth station. Therefore G_r (ϕ) = $G_{r,max}$ and the resulting ratio is 1.

Further, we calculate our expected power density based on the 40M0G7W transmission filed with the application.

$$P = \frac{P_i}{BW} = \frac{6\ W}{40 \times 10^6\ Hz} = 1.5 \times 10^{-7} \frac{W}{Hz}$$

Placing this into a 40 kHz reference bandwidth:

$$P_d = \left(1.5 \times 10^{-7} \frac{W}{Hz}\right) * \left(\frac{40{,}000\ Hz}{40\ kHz}\right) = 6.0 \times 10^{-3} \frac{W}{40\ kHz} = -22.22 \frac{dBW}{40\ kHz}$$

Using these values, we have:

$$EPFD = 10\log_{10}\left[10^{\frac{-22.22}{10}} \times \frac{14.21}{4\pi(37{,}920{,}000)^2} \times 1\right]$$

$$EPFD = -173.26 \frac{dBW}{m^2 \cdot 40\ kHz}$$

Therefore, when transmitting at full power in the worst-case geometry (i.e. earth station boresight has an angular separation to the GSO arc of 5°), the power received at the GSO will be 13.26 dB below the limit set by Article 22.

Certification of General Compliance:

Kepler hereby certifies that its operations as proposed will comply with all existing and future coordination agreements between Canada and other administrations and where applicable, as well as agreements made directly between Kepler and other NGSO, GSO, and terrestrial operators. Such operations will also comply with all terms and conditions listed in its associated market access grant.