



**Before
Radio Spectrum Management
Wellington, New Zealand**

In the Matter of)
)
The Consultation on Re-planning options for) Consultation date: March 2020
frequency bands within 1710 - 2300 MHz)

**COMMENTS OF
KEPLER COMMUNICATIONS INC.**

Kepler Communications Inc. (Kepler) thanks Radio Spectrum Management (RSM) for providing the opportunity to participate in the aforementioned consultation. Kepler appreciates the open and thoughtful tact with which RSM has presented its proposal for the 1800 MHz duplex gap, the Paired 2100 MHz band expansion, the Unpaired 2000 MHz band, and the Paired 2200 MHz band. Kepler echoes the comments of the Commercial Smallsat Spectrum Management Association (CSSMA), for which it is a member, and further wishes to comment directly to supplement the positions taken by the CSSMA, among other things. At present, Kepler’s maintains a presence in New Zealand in the form of a partnership with the Southland regional development agency, Great South, for the management of multiple Kepler ground stations established at its Awarua facilities. We are keen to invest further in New Zealand by bringing our innovative services to domestic consumers and businesses.

In particular, we want to highlight that we are presently developing a narrowband MSS system to service Internet-of-Things (IoT) deployments within some of the bands subject to the consultation. Specifically, Kepler’s system is designed to operate in what has been identified as the Paired 2200 MHz band. At present, we have a satellite ready to offer services in this band

already pre-manifested on a rocket awaiting launch. We have scheduled the launch and deployment of up to 15 more satellites by the end of 2020 to further build out this service. Not only would Kepler be excited to see an opening of these bands to such MSS services in the future, but it has already begun discussions with Great South to establish a new fixed ground station for testing the performance of its newly launched satellite antennas operating in these bands. Kepler chose to continue its partnership with Great South because of its world-class service level and management quality. This represents the third ground station Kepler will have established at the facility, and importantly, it serves as yet another example of the attractiveness of New Zealand for global space operators abroad. The comments proposed by the CSSMA speak to these shared interests and align with the trending directions of the broader smallsat market.

Finally, Kepler would like to expand on a point raised by the CSSMA regarding the paths that legacy MSS deployments have historically taken over the last 15 years. Many of these licensees did not deploy MSS systems as originally envisioned when they acquired their licenses around the world, but in the end elected to partially or entirely sub-lease the spectrum for alternative services.¹ NewSpace MSS providers are fundamentally juxtaposed in virtually every way from their larger predecessors. We are economically incentivized to begin providing a service and building a quality market as soon as possible, as a matter of business survival. We are

¹ Multiple independent operators have taken different routes around the globe to re-purpose MSS frequencies after obtaining licensure. For example, Globalstar sought to add terrestrial functions within its licensed bands in Canada and the U.S., see Globalstar, *Notice of Application Received from Globalstar Canada Satellite Co. for Ancillary Terrestrial Component (ATC) Authority in the 2.4 GHz Band (2483.5-2500 MHz)*, ISED Published Documents, <https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11521.html> (Dec. 20, 2019); *Terrestrial Use of the 2473-2495 MHz Band for Low-Power Mobile Broadband Networks; Amendments to Rules for the Ancillary Terrestrial Component of Mobile Satellite Service Systems*, Report and Order, FCC 16-181 (Dec. 23, 2016). Dish Networks, EchoStar, and subsidiary Terrestrial have long held on to under-used MSS spectrum, and DISH has openly pursued the use of its spectrum assets to deliver mobile broadband services. Half of Europe's Pan-European allocation in this band went to Echostar, and the other half went to Inmarsat (who then used it to deploy the hybrid-terrestrial European Aviation Network). See Official Journal of the European Union, COMMISSION DECISION of 13 May 2009 on the selection of operators of pan-European systems provide mobile satellites services (MSS), 2009/449/EC (Jun. 12, 2009).



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innovative, agile, and efficient; our systems are smaller, cheaper, and more adaptable, and do not pose a remotely similar threat of ending up as dead, sunk capital. Moreover, the IoT market has burgeoned through its infancy over the last decade, and is poised to bloom. For all these reasons, Kepler strongly supports the opening of New Zealand's regulations to allow greater participation from space services both domestically and around the world, in both the Mobile Satellite Service and the Space Operations Service as applicable.

Respectfully Submitted

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