

196 Spadina Avenue, Suite 400 Toronto, ON Canada M5T 2C2

EXHIBIT A

DESCRIPTION

Pursuant to Section 25.120 of the Rules and Regulations of the Federal Communications Commission ("FCC" or "Commission"), Kepler Communications Inc. ("Kepler") hereby requests Special Temporary Authority ("STA") beginning August 1, 2021 and continuing for 60 days thereafter to operate a Ku-band earth station aboard a moving vessel. Kepler currently provides fixed-satellite service ("FSS") to terrestrial stations in the United States per the conditions of Kepler's market access grant and its blanket license for terrestrial terminals granted by the Commission.¹ Building upon Kepler's current operations, this STA is requested to authorize Kepler's non-geostationary orbit ("NGSO") satellite constellation to communicate with Earth Stations on Vessels ("ESV") near the coastline of the northwestern United States. In particular, this STA is required to enable Kepler to conduct proof-of-concept demonstrations of communications between Kepler's satellites and the United States Research Vessel Sikuliaq ("RV Sikuliaq", IMO: 957894). In support of the RV Sikuliaq's mission, Kepler will demonstrate the functionality of communications with ships in motion and compatibility with Kepler's constellation ahead of a deployment of satellite services for maritime assets in the United States. Kepler intends to file an application for regular authority to communicate with Earth Stations in Motion ("ESIM") in the near future.

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) ("Kepler Grant" or "Market Access Grant"); Kepler Communications Inc., *Radio Station Authorization*, IBFS File No. SES-LIC-20190627-00861 (granted Aug. 17, 2020) ("Blanket License").



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1 DESCRIPTION OF OPERATIONS AND EQUIPMENT

The RV Sikuliaq is an oceanographic research ship owned by the United States National Science Foundation ("NSF"). Operated by the University of Alaska Fairbanks ("UAF"), the RV Sikuliaq undertakes scientific expeditions in the coastal and open water regions of the North Pacific and Arctic Oceans. For its current expedition, the RV Sikuliaq will be travelling north to the Chuchki Sea, passing through the coastal waters of the northwestern contiguous United States and Alaska. The vessel is currently at port in Newport, Oregon, and will travel to Unalaska, Alaska prior to commencing the expedition. Upon grant of the requested STA, Kepler will support the RV Sikuliaq's expedition along the Alaskan coastline by conducting proof-of-concept communications demonstrations with the ship in motion. The RV Sikuliaq's trajectory along the Alaskan coast is provided in Figure 1 below.

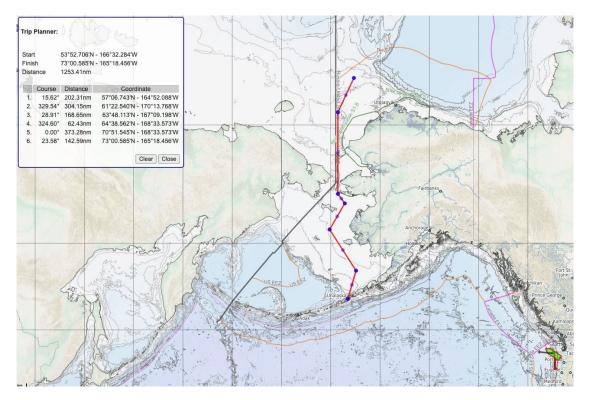


Figure 1 - RV Sikuliaq Expedition Itinerary



Kepler Communications Inc.

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Kepler's support will substantially increase the value which can be extracted from the expedition. In particular, Kepler's satellite communications will enable the researchers aboard the RV Sikuliaq to consistently offload large amounts of scientific data to their home institutions for data processing and receive the results of data analyses throughout the entirety of the expedition.

Communications will be operated within the 11.7-12.7 GHz and 14.0-14.5 GHz bands for downlink and uplink respectively, in alignment with the terms Kepler's Market Access Grant.² The technical characteristics of the antenna aboard the RV Sikuliaq are provided in greater detail in *Exhibit B* to this application.

2 **REGULATORY COMPLIANCE**

All transmissions in the aforementioned bands will conform to the applicable power flux density and equivalent power flux density levels specified by Article 21, Article 22, and Resolution 76 of the ITU Radio Regulations. Furthermore, Kepler will conduct its communications with RV Sikuliaq on a non-interference basis, and will cease operations upon notification of harmful interference from another U.S.-licensed operator.

In accordance with 47 C.F.R. § 17.7, a notification to the FAA is *not* required for the purposes of this STA application. Kepler hereby certifies that antenna structures aboard the RV Sikuliaq will not be constructed or altered for the purposes of testing under this STA.

² See Kepler Grant at 25.



3 PUBLIC INTEREST STATEMENT

Kepler is currently under contract with the University of Alaska Fairbanks to assist them with building further communications capabilities. Part of this contract includes testing and demonstration of Kepler's current capabilities in conjunction with NSF-owned assets. The operations enabled by this STA serve the public interest in the furtherance of U.S. national scientific research objectives. Furthermore, this testing allows Kepler to refine the maturity of its network and further develop its capabilities in communicating with maritime terminals, thereby increasing the breadth of potential critical services which could be provided to the U.S. public in the future.

Respectfully submitted,

<u>/S/ Nickolas G. Spina</u> **Nick G. Spina** Director of Regulatory Affairs