

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of

Application of RBC Signals LLC for a)	
60-Day Special Temporary Authorization)	Call Sign:
To Operate an Earth Station To Provide)	
Tracking, Telemetry & Command to a)	File No.:
U.S.-Licensed Satellite)	

REQUEST FOR SPECIAL TEMPORARY AUTHORITY

RBC Signals LLC (“RBC Signals”), pursuant to Section 25.120 of the Commission’s rules, 47 C.F.R. § 25.120, respectfully requests an expedited 60-day special temporary authorization (“STA”) to operate the previously-licensed Yagi ground station (the “400 MHz Yagi”) at an existing facility in Deadhorse, Alaska, to communicate with the U.S.-licensed Astranis Demosat-2 satellite, a low-Earth orbit (“LEO”) non-geostationary satellite orbit (“NGSO”) cubesat operated by Astranis Space Technologies Corp. (“Astranis”). RBC Signals seeks to perform tracking, telemetry and command (“TT&C”) for the Astranis Demosat-2 in the 401.6-401.75 MHz band (Earth-to-space/space-to-Earth) and requests expedited grant of this 60-day STA due to unforeseen and unidentified interference at Astranis’ currently authorized TT&C site.

The proposed TT&C operations are virtually identical to those already authorized at the RBC Signals facility in Deadhorse, Alaska,¹ and thus there is no material change in the potential for interference from RBC Signals’ authorized operations at that location. Accordingly, grant of the requested STA – which is necessitated by extraordinary and unforeseen circumstances that prevent proper functioning of Astranis’ original TT&C site – will serve the public interest,

¹ See RBC Signals, LLC, File Nos. SES-STA-20170613-00643 (“*RBC Signals 60-day STA*”) and SES-STA-20170731-00848 (“*RBC Signals 180-day STA*”). These authorizations enabled RBC Signals to provide TT&C support for the 3 Diamonds NGSO satellites in the 401-402 MHz band.

convenience and necessity.

I. DISCUSSION

TT&C for the Astranis Demosat-2 satellite was to be supported from a site in Fairbanks, Alaska, pursuant to Astranis' experimental authorization.² Unknown interference has forced Astranis to seek TT&C support from a different facility and it has partnered with RBC Signals, which is able to provide immediate support for the Astranis Demosat-2 mission using its currently authorized TT&C earth station in Deadhorse, Alaska. Grant of this STA request is critical for the ongoing reliability of the Astranis mission and will allow for the short-term continuation of services while RBC Signals and Astranis attempt to address the interference issue at the Fairbanks facility and secure regular authority for TT&C operations from Deadhorse (should they be unsuccessful in resolving the issues in Fairbanks).

RBC Signals has conferred with Commission staff regarding the emergency nature of this situation and received verbal and email confirmation from Commission staff to immediately begin TT&C operations on a non-interference basis.³ RBC Signals files this request to secure formal 60-day STA authority and will file an application for regular authority for these operations shortly.⁴

RBC Signals' short-term TT&C operations, which are conducted on an unprotected and non-interference basis and only as-needed to communicate with the satellite as it passes over the Deadhorse earth station (between one and six times per day), are identical to the operations

² See Astranis Space Technologies Corp., File Nos. 1624-EX-ST-2017 and 0113-EX-ST-2017, Call Sign WL9XAF (*"Astranis Experimental Authorization"*).

³ See Email Correspondence with Paul Blais, Chief, Systems Analysis Branch, Satellite Division, International Bureau, *RE: URGENT – Astranis Satellite TT&C Issue* (Jan. 17, 2018).

⁴ RBC Signals will soon file an application for regular authority for its Deadhorse, Alaska, facility that will include TT&C support for the Astranis Demosat-2 satellite.

previously described in the *Astranis Experimental License* application.⁵ RBC Signals incorporates by reference the satellite and earth station information previously provided by Astranis, and provides the draft FCC Form 312 Schedule B for information relating to the operating parameters of the 400 MHz Yagi with Astranis Demosat-2.

The proposed TT&C operations are also consistent with the TT&C operations already authorized by the Commission and conducted by RBC Signals at the Deadhorse facility.⁶ RBC Signals' existing operations in the 401-402 MHz band at Deadhorse have not caused interference to other users of the band and RBC Signals will work with Commission, NTIA, and NOAA staff to ensure that the additional Astranis Demosat-2 operations will not create any increase in potential interference to current or future government users. If RBC Signals learns that its operations are causing harmful interference to others, it will suspend or modify its operations to immediately resolve such interference.

The United States Table of Frequency Allocations ("Table of Allocations"), Section 2.106 of the Commission's rules, 47 C.F.R. § 2.106, provides that the 401-402 MHz band is shared on a co-primary basis between meteorological aids and space operations services. RBC Signals seeks to perform TT&C uplink and downlink operations in the 401.6-401.75 MHz band pursuant to the co-primary space operations allocation in this band.⁷

The public interest would be served by a grant at the earliest practicable time of a 60-day STA to allow RBC Signals to perform TT&C functions for the Astranis Demosat-2 satellite using

⁵ See Astranis Space Technologies Corp., File Nos. 1624-EX-ST-2017 and 0113-EX-ST-2017, Call Sign WL9XAF, Updated Narrative and Attachments (filed on Aug. 8, 2017).

⁶ See *RBC Signals 60-day STA* and *RBC Signals 180-day STA*.

⁷ See 47 C.F.R. § 2.1 (defining "space operations" as "a radiocommunication service concerned exclusively with the operation of spacecraft, in particular space tracking, space telemetry, and space telecommand.").

the 400 MHz Yagi in Deadhorse, Alaska. Grant of this STA request will further the public interest by ensuring that RBC Signals' can provide immediate and critical TT&C support for the Astranis Demosat-2 satellite, thus enabling the continued control of this U.S.-licensed satellite and facilitating the development of next-generation satellite technologies. The proposed operations will cause no increase in interference to existing user of the band and RBC Signals acknowledges that any action on the requested STA will not affect the Commission's ultimate determination with respect to any forthcoming application for longer-term earth station authority for these operations.

II. CONCLUSION

As discussed herein, grant of the requested STA is warranted by unique and unforeseen circumstances and would strongly serve the public interest. In view of these circumstances, and because the proposed operations are essentially identically to those already authorized at the Deadhorse facility, RBC Signals respectfully requests grant of this 60-day STA pursuant to Section 25.120 of the Commission's rules, 47 C.F.R. § 25.120, at the earliest practicable time.⁸

⁸ 47 C.F.R. § 25.120(a). The Commission may authorize RBC Signals to commence operations under this STA sooner than 3 working days "upon due showing of extraordinary reasons... which could not have been earlier foreseen by the applicant."