

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

In the Matter of

Application of RBC Signals, LLC for an	)	
extension of the 60-Day Special	)	Call Sign: E220185
Temporary Authorization to Operate with	)	
Non-Geostationary Orbit Spacecraft	)	File No.: SES-STA-20250210-00172
	)	

**REQUEST FOR OF THE 60-DAY SPECIAL TEMPORARY
AUTHORIZATION EXTENSION
(S-band 6.0m Antenna Uplink – Deadhorse, Alaska)**

RBC Signals, LLC (“RBC Signals”), pursuant to Section 25.120 of the Commission’s rules, 47 C.F.R. § 25.120, respectfully seeks a 60-day special temporary authorization extension (“STA”) of SES-STA-20250210-00172 to operate its fixed 6.0-meter earth station in Deadhorse, Alaska (the “Deadhorse 6.0m”) to conduct telemetry, tracking, and command (“TT&C”) uplink operations in portions of the 2025- 2100 MHz band (Earth-to-space) band to support the U.S.-licensed satellite Impulse-2¹.

RBC Signals is awaiting a grant of amendment to its earth station application for a nearby ground system (E230151) to add this satellite as a point of communication to its earth station license². RBC Signals respectfully requests the Commission grant this 60-day STA extension to allow it to provide necessary TT&C support during the pendency of the application for longer-term authority. This satellite launched on January 14th 2025. A grant of this STA will allow for LEOP and temporary coverage for Impulse-2 while the longer-term license works through process. This satellite has previously held STA approval on this station.

¹ See *Impulse Space, Inc.*, File No. SAT-LOA-20240417-00081, Call Sign S3194 (Granted Dec. 9, 2024)

² See *RBC Signals, LLC*, File No. SES-MOD-20241024-02204, Call Sign E230151 (filed Oct. 24, 2024).

I. DISCUSSION

RBC Signals is a Redmond, Washington-based company providing innovative earth station services in the United States and around the world both to U.S. government and commercial clients. RBC Signals has provided similar ground station support for multiple spacecraft from the Deadhorse 6.0m³ and nearby 4.5m earth station with no resulting harmful interference. RBC Signals will continue to ensure that its TT&C operations will not cause harmful interference to current or future co-frequency operations and that the interests of the United States are accommodated.

RBC Signals seeks to provide TT&C uplink communications using the Deadhorse 6.0m in portions of the 2025-2110 MHz (Earth-to-space) band to support U.S.-licensed satellite operations, as described below.

A. Satellite Overview

Impulse Space Inc is planning to deploy the Impulse-2 mission from a SpaceX launch vehicle Jan 14, 2025. RBC Signals incorporates by reference the technical and public interest considerations set forth in the underlying satellite applications filed by the satellite operators and highlights the need for TT&C support for these U.S.-licensed satellites.

³ See, e.g., RBC Signals, LLC, File Nos. SES-STA-20230123-00086 (granted Mar. 30, 2023), SES-STA-20221014-01134 (granted Dec. 14, 2022), and SES-STA-20220929-01060 (granted Nov. 28, 2022), SES-LIC-20221121-01273 (Granted Nov. 4, 2024).

B. Summary of Frequency Use

In Table 1 below, RBC Signals presents information on the frequencies requested herein, which are identical for all proposed satellite points of communications and within the range previously coordinated for use by the Deadhorse 6.0m earth station.⁵

Table 1 - Summary of Frequency Use

Satellite	Direction	Center Frequency	Emission Bandwidth
Impulse-2	Earth to Space	2044 MHz	135 KHz
Impulse-2	Earth to Space	2044 MHz	675 KHz
Impulse-2	Space to Earth	8495 MHz	800 KHz
Impulse-2	Space to Earth	8495 MHz	2.9 MHz
Impulse-2	Space to Earth	8495 MHz	6.3 MHz

C. Frequency Allocations and Compatibility

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 2025-2110 MHz band is allocated on a primary basis to non-Federal terrestrial fixed and mobile services. Non-federal Earth-to-space transmissions may be authorized on a case-by-case basis for space research and Earth exploration-satellite service (“EESS”) operations, so long as such operations are conducted on a non-interference basis with Federal and non-Federal users of the band.⁶ RBC Signals will operate these links on a non-interference basis, as required by the Table of Allocations.

The Table of Allocations also provides that the 2025-2110 MHz band is allocated on a primary basis to space operations, EECS, and space research. In the United States, space operations are limited to federal operators, and EECS use by commercial operators is subject to conditions as may be applied on a case-by-case basis and the limitation that any use may not cause harmful interference to authorized operations. RBC Signals understands that there are

⁵ See *supra* n. 1 and 2.

⁶ See 47 C.F.R. § 2.106, fn. US347.

certain U.S. government operations conducted in the 2025-2110 MHz band, including use by the National Aeronautics and Space Administration (“NASA”).⁷ RBC Signals will continue its coordination efforts with NASA and other government agencies to ensure compatibility of the proposed operations.

D. Frequency Coordination and Interference

Previous coordination reports which supported the Deadhorse 6.0m and nearby 4.5 meter earth station show no interference cases. RBC Signals understands that the satellite operators have coordinated access to the required frequencies for their respective operations. RBC Signals notes that it has operated in the subject spectrum using the Deadhorse 6.0m without any harmful interference incidents.

Nonetheless, RBC Signals will operate the Deadhorse 6.0m on an unprotected, non-interference basis and if RBC Signals learns that its operations are causing harmful interference to other operations, it will suspend or modify its operations immediately to resolve such interference.

The 24/7 point of contact for the proposed operations is:

John Ames
RBC Signals Operations
Email: john.ames@rbcsignals.com
Mobile: 719.502.6206

E. Waiver Request

To the extent necessary, RBC Signals requests waiver of the Table of Allocations to permit the proposed TT&C transmit operations in the 2025-2110 MHz band. Specifically, a

⁷ See https://www.ntia.doc.gov/files/ntia/publications/compendium/2025.00-2110.00_01MAR14.pdf.

waiver may be appropriate to the extent the Commission concludes that any of the proposed operations do not conform to the available non-Federal allocations in the band.

The Commission may waive any of its rules for “good cause” shown.⁸ In general, waiver is appropriate if (i) special circumstances warrant a deviation from the general rule; and (ii) such deviation would better serve the public interest than would strict adherence to the rule.⁹ Special circumstances justify grant of the requested waivers and grant will not undermine the policy objectives of the rules and will otherwise serve the public interest.

Given RBC Signals’ limited spectrum use, prior use of the same frequencies for the same operations using the Deadhorse 6.0m without interference incident, and successful coordination of these frequencies, the public interest would be served by permitting the 6.0m Earth Station to support the operations of the satellites identified herein. RBC Signals will continue to ensure that its earth station transmit operations do not increase the potential for interference into current or future U.S. government or commercial users. RBC Signals therefore respectfully requests, if a waiver is needed, that it be granted by the Commission.

F. Public Interest Consideration

RBC Signals is at the forefront of reinventing TT&C and earth station support solutions and grant of the requested application would promote U.S. leadership in innovative satellite technologies and services. RBC Signals will conduct all operations in accordance with the Commission’s rules and requirements. RBC Signals is attaching a draft Form 312 Schedule B

⁸ See 47 C.F.R. § 1.3; *Northeast Cellular Tel. Co. v. FCC*, 897 F.2d 1164 (D.C. Cir. 1990); *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969).

⁹ See *Northeast Cellular*, 897 F.2d at 1166; see also *WAIT Radio*, 418 F.2d at 1157.

and incorporates by reference the public interest considerations included in the applications, as well as the operational specifications included in the authorizations, of the subject spacecraft.¹⁰

Grant of this application will further the public interest by enabling TT&C support for the Impulse-2 mission. In addition, there have been no instances of harmful interference from TT&C uplink operations at this facility in the subject spectrum and RBC Signals will continue to ensure interference-free operations from its Deadhorse 6.0m earth station.

II. CONCLUSION

Based on the foregoing, RBC Signals respectfully requests that the Commission grant this 60-day STA extension to enable the Deadhorse 6.0m to provide TT&C uplink services for the Impulse-2 mission as requested herein.

¹⁰ RBC requests leave to update the technical or operational data associated with this application should the Commission seek any clarifying or supplemental information in considering this request.

EXHIBIT A

RBC Signals, LLC – Application for ground station operations to support Impulse-2 mission from its 6.0 meter earth station in Deadhorse, Alaska

Call Sign E220185

Antenna	
Antenna Description	SeaTel EO 6000 S/X
Antenna size	6.0m
Transmit Center Frequency	2044 MHz
Receive Center Frequency	N/A
Polarization	Right Hand Circular
Bandwidths	135 kHz, 675 KHz
Transmit Gain	34.1 dBi
Maximum EIRP Density per Carrier	39.72 dBW/4 KHz for 135 KHz and 32.73 dBW/4 KHz for 675 KHz
Latitude (NAD83)	70° 12' 42" N
Longitude (NAD83)	148° 24' 43" W
Point of Communication	
Satellite	Impulse-2
Call Sign	S3194
Satellite Type	NGSO
Orbit*	525 km; 97.5° inclination

