

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

|                                               |   |            |
|-----------------------------------------------|---|------------|
| In the Matter of                              | ) |            |
|                                               | ) |            |
| RBC Signals LLC                               | ) | Call Sign: |
|                                               | ) |            |
| Application of for a 30-Day Special Temporary | ) | File No.:  |
| Authorization To Operate an Earth Station To  | ) |            |
| Provide Tracking, Telemetry & Command to a    | ) |            |
| U.S.-Licensed Satellite                       | ) |            |

**APPLICATION 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 30-day special temporary authority (“STA”) to provide emergency tracking, telemetry and command (“TT&C”) in additional S-band (uplink) and X-band (downlink) frequencies for the Momentus Space LLC (“Momentus”) Vigoride-3 (“VR-3”) mission.<sup>1</sup> Due to an anomaly, communications with the VR-3 spacecraft currently can only occur on different center frequencies than previously authorized and RBC Signals seeks authority to operate on these new frequencies.<sup>2</sup> The requested authority is necessitated by extraordinary and unforeseen circumstances and grant will serve the public interest, convenience, and necessity.

**I. DISCUSSION**

The VR-3 spacecraft was deployed from a Space Exploration Technologies Corporation (“SpaceX”) Falcon 9 launch on May 25, 2022. After launch, an anomaly caused VR-3 to operate on frequencies that are not included in its authorization and in the companion earth station authority requested by RBC Signals.<sup>3</sup> Specifically, RBC Signals proposed to provide TT&C

---

<sup>1</sup> See Momentus Space LLC, File No. SAT-STA-20211216-00195 (granted April 28, 2022).

<sup>2</sup> Momentus has filed an application to add the new TT&C frequencies identified herein. See Momentus Space LLC, File No. SAT-STA-20220527-00056 (filed May 27, 2022).

<sup>3</sup> See File Nos. SES-STA-20220415-00412 (180-day STA) and SES-STA-20220509-00469 (30-day STA). In the context of clarifying certain elements of its STA applications in advance of launch, RBC Signals has

support to the VR-3 using its 4.5m Orbit Gaia-100 earth station in Deadhorse, Alaska with a 100 kilohertz uplink carrier at center frequency 2075.0 MHz (*i.e.*, 2074.95–2075.05 MHz) and a one megahertz downlink carrier at center frequency 8200.0 MHz (*i.e.*, 8199.5–8200.5 MHz).<sup>4</sup> Herein, RBC Signals requests authority for TT&C operations using the same carrier bandwidths and power levels at uplink center frequency 2067.5 MHz (*i.e.*, 2067.45–2067.55 MHz) and downlink center frequency 8250.0 MHz (*i.e.*, 8249.5–8250.5 MHz).

The United States Table of Frequency Allocations (“Table of Allocations”) provides that the 2025–2110 MHz band (Earth-to-space) band is allocated to space operations and the Earth-exploration satellite service (“EESS”). Space operations are limited to Federal operators and EESS 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.<sup>5</sup> RBC Signals has coordinated its earth station uplink operations throughout the 2025–2110 MHz band.<sup>6</sup> RBC Signals is also supporting Momentum in its coordination efforts with NASA and other Federal government agencies to ensure compatibility of the proposed operations.

Given that RBC Signals only seeks to perform transmit operations using a 100 kilohertz carrier bandwidth from 2067.45–2067.55 MHz and given the remote location of the Deadhorse facility in the North Slope of Alaska, RBC Signals believes that the proposed operations will not present a potential for interference to other spectrum users of the band and has not identified any conflicting Federal operations. RBC Signals will operate on an unprotected, non-interference basis

---

been informed by the staff that the requested operating authority is in the process of being granted by the Commission’s administrative staff.

<sup>4</sup> The RBC Signals STA applications inadvertently identified a broader range of operating frequencies. See File Nos. SES-STA-20220415-00412 and SES-STA-20220509-00469 (at Narrative and Draft Form 312).

<sup>5</sup> See 47 C.F.R. § 2.106, n. US347.

<sup>6</sup> See File Nos. SES-STA-20220415-00412 and SES-STA-20220509-00469, Erratum (May 12, 2022) (updating emission designator in coordination materials).

and, if it learns that its operations are causing harmful interference to other operations, it will suspend or modify its operations to resolve such interference.

The 8025-8400 MHz band is allocated on a primary basis for non-Federal EESS operations (space-to-Earth) and other non-Federal operations may be authorized on a case-by-case basis.<sup>7</sup> RBC Signals seeks to support receive-only TT&C, with limited satellite imaging,<sup>8</sup> in the 8249.5–8250.5 MHz band. RBC Signals incorporates by reference space-to-Earth interference analysis and coordination showings provided by Momentus for the proposed receive-only operations.<sup>9</sup>

RBC Signals’ short-term TT&C operations are conducted on an unprotected and non-interference basis and only as-needed to communicate with the VR-3 spacecraft as it passes over the Deadhorse earth station. RBC Signals incorporates by reference the satellite and earth station information previously provided by Momentus and RBC Signals, as clarified and supplemented herein.

To the extent necessary, RBC Signals requests waiver of the U.S. Table of Frequency Allocations, 47 C.F.R. § 2.106, to permit the proposed TT&C operations.<sup>10</sup> RBC Signals submits that any necessary waiver is warranted given the limited use and coordination of the frequencies, the non-interfering nature of such use, and the public interest justification supporting the mission.

The public interest would be served by expeditious grant of the requested 30-day STA to allow RBC Signals to provide immediate and critical TT&C support for the VR-3 spacecraft, thus enabling control of this U.S.-licensed satellite. The proposed operations will cause no increase in interference to existing users of the bands.

---

<sup>7</sup> See 47 C.F.R. § 2.106, fn. US 258.

<sup>8</sup> Such use will also include transmission of limited imagery of the payloads during deployment primarily to provide mission assurance and selected images for publicity or marketing purposes. Although such imagery is limited to the spacecraft itself, Momentus holds a commercial remote sensing license issued by the National Oceanic and Atmospheric Administration (“NOAA”) for the operations of imaging sensors.

<sup>9</sup> See File No. SAT-STA-20211216-00195, *Momentus April 13, 2022 Update* at Exhibit 2.

<sup>10</sup> The Commission may waive any of its rules if there is “good cause” to do so. 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).

## **II. CONCLUSION**

As discussed herein, grant of the requested STA is warranted in view of the unique and unforeseen circumstances, as well as the strong public interest reasons, present here. Given the urgency of the circumstances, RBC Signals respectfully requests grant of this 30-day STA at the earliest practicable time.<sup>11</sup>

---

<sup>11</sup> The Commission may authorize RBC Signals to commence operations under this STA sooner than three working days “upon due showing of extraordinary reasons... which could not have been earlier foreseen by the applicant.” 47 C.F.R. § 25.120(a).