

Narrative

Momentum Space LLC (“Momentum”) requests special temporary authority (“STA”)¹ to operate the UHF beacon on the Vigoride-5 (“VR-5”) spacecraft for an additional period of 14 days.²

As discussed in the application, the beacon transmissions contain data from GPS receivers onboard the spacecraft and are used to facilitate the acquisition of the satellite after deployment, thereby reducing the probability that Momentum will not be able to communicate with the spacecraft as a result of any anomalies.³

Momentum has successfully tracked the VR-5 spacecraft through use of the beacon during initial commissioning, and is conducting testing to improve quality of the reception of the GPS data in the beacon signal. Continuing to operate the beacon for an additional 14 days will allow Momentum to continue to track the vehicle during the commissioning phase and to test and refine the beacon’s operation, enabling Momentum to provide greater reliability on current and future missions. For the above reasons, Momentum requests that the International Bureau grant this application expeditiously.

Technical Information:

The beacon will have the following technical parameters, which are identical to those previously authorized by the International Bureau under the VR-5 Grant:

Center Frequency: 400.5 MHz
Bandwidth: 20 kHz
Antenna Gain: 5.2 dBi
Modulation: 2GFSK
RF Output Power: 9.5 dBW EIRP

The duty cycle of the transmissions will be 6 seconds every 60 seconds. Momentum will use a built-in timer as a failsafe to ensure termination of the beacon at the end of 14 days.

Momentum expects to continue to receive the data from the beacon transmissions at the Deadhorse, Alaska ground station previously authorized by the International Bureau.

¹ 47 C.F.R. § 25.120.

² On November 15, 2022, the International Bureau (“IB”) granted Momentum authority to deploy and operate VR-5. *See* Stamp Grants, Momentum Space LLC, File Nos. SAT-LOA-20220504-00047, SAT-AMD-20220729-00075 (granted November 15, 2022) (“VR-5 Grant”). VR-5 was deployed into orbit on January 3, 2023. *See* Letter from Tony Lin, Counsel to Momentum, to Marlene Dortch, FCC (dated January 4, 2023).

³ *See* Amendment Application Narrative at 1-2.