

March 29, 2021

## VIA IBFS

Momentus Inc. 3050 Kenneth Street Santa Clara, CA 95054

Marlene H. Dortch Secretary Federal Communications Commission 45 L Street, NE Washington, DC 20554

## RE: Submission of Updated Orbital Debris Assessment Report for VR-2 IBFS File No.: SAT-STA-20200831-00102

Dear Ms. Dortch:

Momentus Inc. ("Momentus") submits an updated orbital debris assessment report ("ODAR") to reflect recent changes to the customer payloads on the Vigoride-2 ("VR-2") mission<sup>1</sup> and by this letter updates the narrative to reflect the changes in the customer payloads. As demonstrated in the attached ODAR, VR-2 remains compliant with the Commission's orbital debris mitigation requirements.

VR-2 will be transporting sixteen (16) individual payloads (individually, "Payload 1" through "Payload 16," and collectively, the "Payloads"), on behalf of twelve (12) customers (collectively, the "Customers"). Tables 1 below provides a summary of the payloads and customer information.<sup>2</sup> Table 2 provides a summary of additional, non-deployable payloads and customer information.

Payload:	Launched on behalf	Licensing	Size	Mass
	of:	Jurisdiction:		
BRONCOSAT-1	Bronco Space	United States	1.5U	1.75kg
GUARDIAN-ALPHA	Orbital Astronautics,	New Zealand	3.0U	5kg
	Inc.			
NEPTUNO	Deimos Engineering	Spain	3.0U	3.94kg
	& Systems			
ORESAT0	Portland State	United States	1.0U	1.2kg
	Aerospace Society			
QMR-KWT	Solar Space Ltd.	Bulgaria	1.0U	1.16kg

<sup>&</sup>lt;sup>1</sup> The attached ODAR also includes the changes specified in the ODAR filed on February 10, 2021. *See* Letter to Marlene H. Dortch, Secretary, FCC, from Philip Hover-Smoot, Associate General Counsel, Momentus (February 10, 2021) (submitting updated ownership exhibit and ODAR to reflect a change in the launch date, certain orbital insertion parameters, and concept of operations).

<sup>&</sup>lt;sup>2</sup> Please note that to the extent the data provided in these tables differs from that provided to any other agency, this data merely represents the most up-to-date payload information available. All necessary updates will be communicated soon to other relevant agencies.



SPARTAN	EnduroSat	Bulgaria	6.0U	9.1kg
GOSSAMER	LunaSonde	United Kingdom	1.0U	1.2kg
FEES-2	GP Advanced Projects S.r.l	Italy	0.3U	0.3kg
STORK-1	SatRevolution	Poland	3.0U	4.06kg
STORK-2	SatRevolution	Poland	3.0U	4.06kg
STORK-3	SatRevolution	Poland	3.0U	4.06kg
STEAMSAT-2	SteamJet	Poland	3.0U	4.6kg
IRIS-A	Odysseus	Taiwan	2.0U	2.5kg
TROPICS PATHFINDER	NASA	USA	3.0U	5.3kg
KEPLER-16 <sup>3</sup>	Kepler	Canada	6.0U	10.6kg
KEPLER-17	Kepler	Canada	6.0U	10.6kg

Table 1. VR-2 Customer Payloads

Payload:	Transported on behalf of:	Licensing Jurisdiction:	Size	Mass
Deployer (x4)	ISI Launch (Netherlands)	N/A	12U	7.6kg
Deployer (x2)	FOSSA Systems	Spain	N/A	3.5kg
Deployer (x1)	Planetary Systems Corp.	USA	3U	3.8kg

Table 2. VR-2 Non-Deployable Customer Payloads

If you require any further information related to this application, please contact Philip Hover-Smoot at 415.254.1295 or via phhs@momentus.space.

Very Respectfully,

Philip Hover-Smoot Deputy General Counsel Chief Ethics & Compliance Officer Momentus Inc.

Attachment: Momentus VR-2 ODAR (dated March 15, 2021)

CC: Merissa Velez

<sup>&</sup>lt;sup>3</sup> Please note, the Kepler satellites are to be delivered on a best-efforts basis to a 550km SSO orbit. As such, if SpaceX deploys the VR-2 below 550 km, the Kepler payloads may be deployed after both the deployment of all other customer payloads and the initial orbit raise of the VR-2 to a 550km SSO deployment orbit.