

Beyond Gravity to provide off-the-shelf computer to Quantum Space's Ranger multi-purpose vehicle

Beyond Gravity, a leading supplier to the space industry, will provide its constellation On Board Computer (cOBC) to Quantum Space's inaugural flight of its Ranger multi-purpose vehicle, which will take payloads to geostationary and cislunar orbits.

Beyond Gravity, a leading supplier to the space industry, today announced it will provide its constellation On Board Computer (cOBC) to [Quantum Space](#)'s inaugural flight of its Ranger multi-purpose vehicle, which will take payloads to geostationary and cislunar orbits.

The cOBC provides a host of functions including on-board processing, Global Navigation Satellite System (GNSS) receiver, ground communication as well as both platform and payload interfaces. In-space computing through the cOBC allows Ranger to process data and imagery more efficiently and comprehensively. The computer is fully redundant and offers flight-proven fault detection, isolation, and recovery (FDIR) as well as radiation mitigation to provide a highly reliable solution.

Computer entirely based on commercial components

"This will be the first time that our constellation On Board Computer flies around the moon," said Thomas Badinand, sales manager, Beyond Gravity. "We are seeing high demand in the market for the cOBC from both large primes and newer players. The

computer is entirely based on commercial components, which results in much lower cost, shorter lead times, and higher performance.”

Computer with MAX software suite from Rocket Lab


The cOBC is the central command and data handling unit designed for small to large satellites and available for very small to very large quantities. The cOBC for Ranger includes the [MAX software suite](#) from Rocket Lab, which is a comprehensive toolset including flight software, ground segment, and simulation. The cOBC is now being offered with the MAX flight software suite in collaboration with Rocket Lab as a standard offering.

“Need for robust and dependable avionics is paramount”

“As Quantum Space continues to develop missions for GEO (geostationary Earth orbit) and cislunar space where independence from ground communications becomes more challenging, the need for robust and dependable avionics is paramount,” said Ben Reed, chief technology officer, Quantum Space. “Beyond Gravity has risen to this challenge with the development of its competitive, radiation-hardened, and reliable on-board computing technology.” The flight model of the computer will be delivered to Quantum Space in mid-2024.

About Beyond Gravity

Beyond Gravity, headquartered in Zurich, Switzerland, is the first startup to combine agility, speed, and innovation with decades of experience and proven quality. Approximately 1'600 employees at 13 locations in seven countries (Switzerland, Sweden, Austria, Germany, USA, Portugal and Finland) develop and manufacture products for satellites, launch vehicles and the semiconductor industry with the goal of advancing humanity and enabling exploration of the world and beyond. In 2022, the

A wide-angle photograph of the Earth's horizon from space, showing the blue curve of the planet against a black background filled with stars.

company generated revenues of approximately CHF 356 million. More information at: www.beyondgravity.com

About Quantum Space

Quantum Space is redefining a new space ecosystem, providing payload transportation and critical infrastructure services in geostationary and cislunar space. The company's fleet of vehicles are purpose built to deliver payloads and provide essential in-space data and communications services for customers. Services provided by the company's fleet will help organizations access and understand what's happening in space to accelerate economic growth and strengthen national security. For more information on Quantum Space, visit www.quantumspace.us or email sales@quantumspace.us.

About Rocket Lab

Founded in 2006, Rocket Lab is an end-to-end space company with an established track record of mission success. The company delivers reliable launch services, satellite manufacture, spacecraft components, and on-orbit management solutions that make it faster, easier and more affordable to access space. Visit www.rocketlabusa.com.

Image and video material for use at your own discretion:

Image 1: "The computer is entirely based on commercial components, resulting in lower cost, shorter lead times, and higher performance." Rendering of a constellation On Board Computer from Beyond Gravity. Credit: Beyond Gravity.

Image 2: Quantum's Ranger Multi-operations vehicle designed for beyond-LEO operations. Credit: Quantum Space.

Video: Learn how Beyond Gravity is pushing boundaries of what is technically feasible for the benefit of humankind.

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This media release can also be found at www.beyondgravity.com/news