MISSION ROBOTIC VEHICLE (MRV)
Next-generation Robotically-Enabled Servicing Vehicle

Launching in 2024, the MRV is SpaceLogistics’ next-generation on-orbit servicing vehicle. The MRV leverages the heritage Rendezvous Proximity Operations and Docking (RPOD) system of its highly-acclaimed predecessor, the Mission Extension Vehicle (MEV), but incorporates a robotic module in place of the MEV’s docking system.

While the MRV’s primary function will be the installation of Mission Extension Pods (MEPs) or other augmentation payloads on current operational satellites, its sophisticated robotics expands the benefits the MEV currently offers to our clients to include:

- Detailed robotic inspection
- Augmentation
- Relocation
- Repair
- Active debris removal
- Refueling
- Docking with non-standard client spacecraft interfaces

About SpaceLogistics

SpaceLogistics, a Northrop Grumman company, is the global leader in the development and deployment of on-orbit satellite servicing systems and the first and only company performing on-orbit servicing for commercial GEO satellites. Our planned series of vehicles will extend service life, provide enhanced capabilities and enable future missions for a variety of customers.

Features:

- Next-gen robotic arm capabilities
- Two visible cameras
- Two infrared cameras
- Two light detection and ranging (LIDAR) sensors
- Dual fault-tolerant RPOD
- Single fault-tolerant MEV bus design
- Refuelable chemical propulsion system for RPOD
- Electric propulsion for orbital maneuvering

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