Antaris Demonstrates Self-Healing Satellite Capability for U.S. Space Force, Expands to Additional Space Vehicles

TrueTwin™ delivers autonomous detection, classification, and recovery from on-orbit anomalies at scale.

LOS ALTOS, CA, UNITED STATES, May 6, 2026 /EINPresswire.com/ -- Antaris™, the leading platform for software-defined space and all-domain missions, today announced the successful validation of its self-healing satellite capability developed under contract with the U.S. Space Force. This work demonstrates that self-healing does not require a new class of satellite, but is a software-defined capability that can be applied across existing and future space assets, including satellites already on orbit.

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> *John Trionfo, President of Defense Solutions, Antaris*

Using its TrueTwin™ virtualization environment, Antaris generated diverse satellite bus and payload configurations and flew high-iteration mission scenarios. By pairing nominal operations with injected faults, TrueTwin™ produced robust datasets to train and validate Antaris AI/ML models that autonomously detect, classify, and respond to anomalies. These software-driven responses enable real-time recovery from on-orbit disruptions—preserving mission continuity, protecting the spacecraft, and alerting ground operators to potential adversarial activity.

The effort aims to enhance the resilience and operational availability of U.S. and allied space systems in contested environments, where rapid response to anomalies and system degradation is essential.

"Resilience in space is no longer a hardware or operator-led effort," said John Trionfo, President of Defense Solutions at Antaris. "It's about deploying systems that can adapt in real time. By virtualizing satellites in TrueTwin™, we can test and deploy self-healing capabilities at a scale not possible with traditional approaches, ensuring systems can stay on mission, extend overall mission life, and strengthen operational readiness without requiring new hardware."

The program is expanding to additional space vehicles, further validating the approach across a broader range of mission profiles and satellite architectures.

About Antaris

Antaris is the software platform for all-domain mission virtualization, enabling defense organizations to develop, test, and operate missions from space to the sea floor—driving faster decisions, reducing risk, and delivering resilient mission execution in contested environments. With investors including WestWave Capital, Lockheed Martin Ventures, Streamlined, Acequia, HCVC, E2MC, and Possible Ventures, Antaris is revolutionizing AI for space.

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