

PRESS RELEASE: FOR IMMEDIATE DISTRIBUTION**Millennium Space Systems ALTAIR™ Pathfinder Satellite Surpasses 10,000 Hours in Orbit**

EL SEGUNDO, California—July 24, 2018: Millennium Space Systems announced Tuesday that on May 17, its ALTAIR™ Pathfinder satellite surpassed a full year of successful on-orbit operations. The satellite now has more than 10,000 hours of flight heritage. Initially planned as a six-month mission, Pathfinder has achieved all planned goals and more than doubled its intended operational lifetime.

ALTAIR™ Pathfinder spacecraft in final integration at the Millennium Space Systems satellite factory in El Segundo

Since its launch in 2017, ALTAIR™ Pathfinder has accomplished a series of experimental and operational objectives, thereby increasing ALTAIR™ designs from Technology Readiness Level (TRL) 5 (breadboard testing) to

TRL 9 (flight proven through successful mission operations). ALTAIR™ data handling, software, RF communications, power and guidance, navigation & control subsystems are now available at TRL 9 for upcoming operational missions.

Millennium operates ALTAIR™ Pathfinder from a mission operations center (MOC) at the company's factory in El Segundo, Calif. The on-site MOC gives Millennium a unique end-to-end capability, with engineering continuity from initial space system design through to in-orbit mission operations.

"Pathfinder has been an extremely important satellite to operate," said Millennium's mission director, Griffith Russell. "Operations have been largely automated, and the ALTAIR™ bus has proven itself resilient as an experimental and technology-demonstration platform. Using Millennium's on-site MOC means that we can always work directly with the ALTAIR design engineers during operations. The extended mission life has allowed us to further explore subsystem functional performance and longevity in advance of upcoming operational missions which use the ALTAIR™ hardware and software."

Britt Christy, Millennium's lead flight software engineer for ALTAIR™ Pathfinder, added: "the operational experience gained through this extended operations phase improves mission assurance for the next wave of ALTAIR™-based spacecraft. Pathfinder clearly demonstrates that Millennium can quickly produce and operate reliable satellites meeting demanding mission requirements."

The ALTAIR™ product line supports half-ESPA and ESPA-class missions with reliable, affordable and flexible space access. Although Pathfinder was packaged in a standard "cubesat" for ease of launch, Millennium designed the ALTAIR™ avionics and software for a wide range of high performance small satellite missions. Compared to "cubesats," ALTAIR™ provides enhanced reliability and mission assurance, plus improved pointing accuracy, communications bandwidth, onboard computing, data storage capacity and intersatellite crosslinks. Millennium is presently incorporating ALTAIR™ avionics and software into satellites ranging from a few kilograms to hundreds of kilograms in mass. The company is delivering multiple ALTAIR™-based satellites to government customers, and the first operational ALTAIR™ satellite is scheduled to launch in fall of 2018.

ABOUT MILLENNIUM SPACE SYSTEMS

Millennium Space Systems is a privately held, employee-owned company founded in November 2001, providing alternative, relevant and affordable solutions to today's aerospace challenges. The company designs flight systems and develops mission and system solutions for the Intelligence Community, Department of Defense, National Aeronautics & Space Administration, and commercial customers.

More Information about Millennium Space Systems: www.millennium-space.com.

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