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Redwire Will Launch Superalloy Manufacturing Technology and Plant Science Experiments to Space Station Aboard SpaceX's 24th Cargo Resupply Mission

JACKSONVILLE, Fla.--(BUSINESS WIRE)-- Redwire Corporation (NYSE: RDW), a leader in space infrastructure for the next generation space economy, is launching four payloads on SpaceX's 24th cargo resupply services (CRS) mission for NASA to the International Space Station (ISS) focused on advanced materials manufacturing and plant science experiments in low-Earth orbit. SpaceX CRS-24 mission is scheduled to lift off on Tuesday, December 21 at 5:06 a.m. EST from Launch Complex 39A at NASA's Kennedy Space Center in Florida.

"The Redwire capabilities launching on this mission signal an exciting opportunity to increase the throughput of in space manufacturing and life sciences R&D in space," said Andrew Rush, President & COO of Redwire. "Over the past 15 months, we've launched four new manufacturing capabilities to the space station and are launching three plant biology experiments on this mission alone. Redwire's expanded capabilities are working to accelerate technology development and scientific discovery that will improve life on Earth and drive a space-for-Earth economy."

Redwire will host an in-person "Launch & Learn" media luncheon at 1 p.m. EST Monday, Dec. 20 at the Kennedy Space Center Visitor Complex to discuss the company's four payloads launching on this mission. Media will have the opportunity to learn more about the Redwire technology being launched and speak with subject matter experts. Media wishing to attend the luncheon must contact Tere Riley at: Tere.Riley@redwirespace.com.

The Redwire technology launching on this mission includes in-space manufacturing technology and plant biology experiments from the company's latest acquisition, Techshot, which demonstrates the breadth of Redwire's on-orbit capabilities to accelerate more scientific discovery and deliver more beneficial products to Earth.

Turbine Superalloy Casting Module

Redwire will be launching the Turbine Superalloy Casting Module (TSCM), a commercial in-space manufacturing device designed to provide proof-of-principle for polycrystalline superalloy part manufacturing in microgravity for terrestrial use. Applications for this technology include turbine engines in industries such as aerospace and power generation. TSCM was developed in partnership with NASA's ISS Research Integration Office at Johnson Space Center.

MVP-PLANT-01

MVP-PLANT-01 is an investigation launching on SpaceX-24 that will use Redwire's Multi-Use Variable-Gravity Platform (MVP) to profile and monitor shoot and root development of plants in microgravity to understand the regulatory mechanisms involved in plant responses to a novel environment. MVP-PLANT-01 can contribute designing plants to withstand extreme terrestrial environments and long-duration spaceflight. The investigation will also validate Redwire MVP Phytofuge experiment modules for future plant investigations on the ISS. The Phytofuge module is one of several different experiment modules developed for use in conjunction with the MVP facility. The modules were developed by Redwire engineers to enable early-stage seedling plant growth in a variable gravity environment.

Veggie PONDS-03R

Also launching on SpaceX-24 is Veggie PONDS-03R, a technology demonstration that explores how plants respond to microgravity and demonstrates technology for reliable vegetable production on orbit. This flight will also validate the Passive Orbital Nutrient Delivery System (PONDS) hardware, which was originally developed by Tupperware Brands and validated by recently acquired Techshot. The PONDS hardware is designed for flight inside NASA's Vegetable Production System (Veggie) facility. PONDS can grow a wide variety of plants in space and requires far less monitoring and maintenance time from flight crews than other passive plant growth devices.

Unlocking the Cotton Genome to Precision Genetics

Also as part of the SpaceX-24 mission, Redwire is working with researchers from Clemson University to support the *Unlocking the Cotton Genome to Precision Genetics*(Plant Habitat-05) investigation, which will utilize the Advanced Plant Habitat (APH), an automated plant growth facility managed by Redwire that is used to conduct bioscience research aboard ISS. The investigation will cultivate several cotton genotypes from cotton plant tissue cultures exposed to spaceflight. This project is sponsored by the ISS National Lab and stems from a previous Cotton Sustainability Challenge. The knowledge gained from the investigation could enable the growth of cotton plants that more efficiently use water and adapt to changing environments.

To learn more about the science and technology that Redwire is launching on SpaceX's 24 cargo resupply mission, visit: www.redwirespace.com

About Redwire

Redwire Corporation (NYSE: RDW) is a leader in space infrastructure for the next generation space economy, with valuable IP for solar power generation and in-space 3D printing and manufacturing. With decades of flight heritage combined with the agile and innovative culture of a commercial space platform, Redwire is uniquely positioned to assist its customers in solving the complex challenges of future space missions. For more information, please visit www.redwirespace.com.

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