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Road to Using Drones and Rovers on Mars Begins on Active Volcano in Italy

Skypersonic – a division of Red Cat Holdings – has been hired by NASA to provide technology for simulated Mars mission

CATANIA, Italy, Aug. 02, 2022 (GLOBE NEWSWIRE) -- Skypersonic, which in 2021 signed a five-year contract with NASA to provide drone and rover software, hardware and support to NASA's simulated Mars mission, has validated its software and hardware on Mt. Etna, an active volcano in Sicily where the landscape is similar to Martian geology.

Skypersonic's "Skycopter" drone can be piloted virtually anywhere, from virtually anywhere, as the Skypersonic team demonstrated on Mt. Etna during a 15-day test. Using Skypersonic's ground-breaking Long Range Real-Time Remote Piloting System, the drone and rover on the active volcano in Italy were controlled by personnel in Houston, Texas, in real time. Whereas most drones cannot be piloted without connecting to the GPS network, Skycopter uses technology that is able to control and track the drone in locations – such as Mars – where GPS is not available.

"This was a grueling test that we passed with flying colors," said Skypersonic CEO Giuseppe Santangelo. "We look forward to the ultimate test – on Earth, at least – when our technology will be used during NASA's upcoming yearlong simulated Mars mission. We are confident of also passing this test. During the simulated Mars mission, four crew members living and working in a 1,700-square-foot module on Earth, called Mars Dune Alpha, will carry out a series of missions – including remotely guided exploration and collection of specimens from rugged terrain elsewhere on Earth, up to thousands of miles away."

The results of the successful test on Sicily's active volcano – which included the collection of samples by the rover, an essential capability for Martian robotic exploration – were demonstrated to Italian media during a July press conference on Mt. Etna near the Catania Astrophysical Observatory. On hand for the demonstration were Santangelo and Dr. Salvatore Caffo, executive volcanologist at Etna Park. Once again, the pilot was in Houston. The project was a collaboration between Skypersonic, the University of Turin and Etna Park.

About Skypersonic
Headquartered in Detroit with a European office in Turin, Italy,Skypersonic is a leader in the use of drones for industrial inspections and first response emergency situations, as well as in "Remotely Flying Drones Anywhere™" via its ground-breaking Long Range Real-Time Remote Piloting System. Skypersonic's flagship is the Skycopter: a drone with a tiltable video camera that is designed to work in extreme conditions and ultra-tight spaces. It is enclosed and protected by an external aerodynamic, ultra-light and ultra-resistant cage to ensure safety and avoid damage to inspected structures and to the airframe itself. It is also fitted with an ultra-bright 360° LED lighting system for applications in complete darkness, and sensors to detect gases and radiation can also be added. Skycopter uses Skyloc technology: a real-time location and monitoring system able to control and track with

extremely high accuracy the movements of the drone in indoor scenarios or where GPS is not available. Skypersonic also invented the first-ever worldwide civil real-time remote piloting system that allows piloting in FPV (first-person view) any drone (not just the Skycopter) located anywhere from a generic internet station located anywhere.

About Red Cat Holdings

Red Cat Holdings is a publicly traded company (NASDAQ: RCAT) that provides drone products, technologies and services to the fastest-growing market segments in the drone industry through four operating subsidiaries: Skypersonic (providing drones for industrial inspections and first response emergencies that can be piloted from anywhere in the world), Teal Drones (military-grade drones), Fat Shark (headsets for FPV drones that allow for an incredibly immersive experience) and Rotor Riot (a leader in providing product, services and support to the high-performance drone market).

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