



## **AiRANACULUS® Awarded Phase II NASA Contract for Advanced Space Communications System**

### *Self-aware Network Platform Will Improve Performance and Reliability of Deep Space Communications*

CHELMSFORD, Mass. ([PRWEB](#)) October 27, 2021 -- AiRANACULUS®, a private, Massachusetts-based technology company providing early stage research, development, prototyping and consulting services, announced it has been awarded a Phase II NASA Small Business Innovation Research contract for development of an advanced space communications system to support upcoming missions to the Moon and Mars. Under the new contract, AiRANACULUS will demonstrate and deliver an intelligent network platform to increase performance, efficiency and reliability of mission communications.

The AiRANACULUS platform, known as CLAIRE, is designed to address major issues facing deep space networks, including long transmission delays, multiple sources of interference and other unexpected service disruptions. CLAIRE will provide a Cognitive Control Plane, a spectrum- and service-aware network platform capable of autonomously monitoring and managing data flows to meet scientific, navigation and network Quality of Service (QoS) objectives. The CLAIRE system will incorporate a variety of state-of-the-art technologies such as multi-band radio frequency sensing, advanced signal processing and machine learning to dynamically detect and respond to changes in spectrum availability, network congestion and QoS requirements. The self-aware platform will automatically reconfigure the network to avoid communication delays, optimize network resource utilization, and ensure high priority packets are delivered reliably.

AiRANACULUS will be supported by IQ-Analog which fabricates state-of-the-art direct digital transceiver chipsets, NorthWest Research Associates and Newton Technologies LLC.

For more information, please visit [www.airanaculus.com](http://www.airanaculus.com).

#### About AiRANACULUS

AiRANACULUS ([www.airanaculus.com](http://www.airanaculus.com)) is at the forefront in Intelligent RF and Networking Solutions for applications ranging from Space to Smart Cities. The company has assembled the world's leading experts to provide algorithms, reference architectures and products in signal processing, cross-layer analysis, cybersecurity and networking to create spectrum aware technologies capable of re-configuring radio and sensor systems for optimal performance in congested and contested environments.



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