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Identifying Radio Frequency (RF) and GPS Interferences for Military Applications with Satellite Data from Spire Global

Spire will play a pivotal role in the DEEP prototype effort by supplying Slingshot Aerospace with GPS telemetry data

VIENNA, Va.--(BUSINESS WIRE)-- Spire Global, Inc. (NYSE: SPIR), a leading provider of space-based data, analytics and space services, today announced the expansion of their existing partnership with Slingshot Aerospace. On September 30, 2021, the U.S. Space Force awarded Slingshot Aerospace a $2 million contract to develop a prototype analytics tool that utilizes space-based location data from proliferated low Earth orbit (pLEO) constellations to identify potential sources of electronic ground interference. Spire will play a pivotal role in the contract by supplying Slingshot Aerospace with GPS telemetry data, a task underway since the two companies began collaborating in 2021. Slingshot's pLEO Data Exploitation and Enhanced Processing (DEEP) prototype will automate manual data exploitation techniques to deliver intuitive, easily digestible data products at low latencies for military operations. The DEEP prototype contract is funded through the Space Systems Command's (SSC) Commercially Augmented Space Inter-Networked Operations (CASINO) program, which develops and demonstrates the military utility of proliferated LEO satellite architectures.

Identifying and mitigating ground-based radio-frequency (RF) and GPS interferences is a critical component of national security and U.S. Space Force operations. RF signals intercepted in open airspace are liabilities that directly threaten on-orbit space assets and military missions. Even in the absence of enemy interference and intentional jamming, RF signals from radio stations, cell phones, and various electronics cause interruptions and interferences - a problem exacerbated by the growth of modern communications technology. The DEEP prototype is an effort by the U.S. military to take advantage of existing commercial satellite telemetry data to readily identify these sources of interference and correct any potential problems before they become a threat.

"Safe, reliable, and dependable space operations rely on the signals from global navigation satellite systems (GNSS) such as GPS. Today, radio frequency interference of those signals pose a direct threat to everyone's on-orbit space systems. The DEEP project is focused on the ability to identify and characterize the potential sources of that interference, anywhere on the planet, as a critical step in preserving the safe and reliable operation of global space assets." – Melanie Stricklan, CEO & Co-founder, Slingshot Aerospace.

Spire's pLEO constellation of 100+ satellites are collecting and disseminating data to enable monitoring and detection of GNSS radio frequency interference (RFI) that degrade the quality, reliability, and usability of GNSS/GPS position, navigation, and time (PNT) services.

With over 40 science-grade GNSS receiver payloads deployed across a range of low Earth orbits, Spire is capable of providing persistent near-global coverage of a wide range of GNSS observables and payload telemetry.

"Spire is excited to deepen our existing partnerships with both Slingshot Aerospace and U.S. Space Systems Command. Through the DEEP effort, Spire will support both Slingshot and SSC with our mission critical expertise in GNSS signal processing and demonstrated ability to detect terrestrial GNSS interference sources, including GPS jammers." - Kamal Arafeh, Senior Vice President of Sales, Spire.

The DEEP prototype contract was awarded on September 30, 2021 through the Space Enterprise Consortium (SpEC) OTA vehicle managed by NSTXL. Spire will provide data to Slingshot Aerospace for the contract duration.

About Spire Global, Inc.

Spire (NYSE: SPIR) is a leading global provider of space-based data, analytics, and space services, offering access to unique datasets and powerful insights about Earth from the ultimate vantage point so that organizations can make decisions with confidence, accuracy, and speed. Spire uses one of the world's largest multi-purpose satellite constellations to source hard to acquire, valuable data and enriches it with predictive solutions. Spire then provides this data as a subscription to organizations around the world so they can improve business operations, decrease their environmental footprint, deploy resources for growth and competitive advantage, and mitigate risk. Spire gives commercial and government organizations the competitive advantage they seek to innovate and solve some of the world's toughest problems with insights from space. Spire has offices in San Francisco, Boulder, Washington DC, Cambridge, Ontario, Glasgow, Oxfordshire, Luxembourg, and Singapore. To learn more, visit http://www.spire.com.

About Slingshot Aerospace

Slingshot Aerospace, Inc. is creating world-class space simulation and analytics solutions. The company brings the space domain into the digital environment and fuses data from different sources to provide a full, dynamic orbital picture. In doing so, Slingshot Aerospace customers can make decisions at the speed of relevance and achieve clarity in complex environments. Launched in 2017 and based in Austin, TX, and Los Angeles, CA, Slingshot Aerospace seeks to help government and commercial customers accelerate space sustainability to create a safer, more connected world. Visit slingshotaerospace.com and follow Slingshot Aerospace on Twitter, Facebook and LinkedIn.

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