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Spire Global Receives First Data from HyMS Demonstrator Satellite; Advancing Next-Generation Atmospheric Intelligence

Milestone validates hyperspectral microwave sensing capability, complementing existing Radio Occultation data to deliver more comprehensive atmospheric observations

VIENNA, Va.--(BUSINESS WIRE)-- [Spire Global, Inc.](#) (NYSE: SPIR) (“Spire” or “the Company”), a global provider of space-based data, analytics and intelligence, has successfully received its first data from the Hyperspectral Microwave Sounder (HyMS) demonstrator satellite, marking the mission’s “first light” milestone and validating its hyperspectral microwave sensing capabilities.

The HyMS instrument launched as a technology demonstrator in early 2026, designed to evaluate the impact of a first-of-its-kind hyperspectral microwave sounder in a compact form factor in orbit. HyMS captures detailed internal views of the Earth’s atmosphere, measuring key atmospheric variables including temperature, humidity, and precipitation.

Demand for high-quality atmospheric data continues to grow as weather-related disruptions increasingly impact industries such as aviation, energy, agriculture, government operations, and more. The HyMS demonstrator expands Spire’s weather sensing capabilities, increasing the range of atmospheric observations available to government and commercial customers worldwide, particularly in data-sparse regions and during severe weather events where forecast accuracy is most critical.

Microwave sounding data is widely recognized as one of the most impactful inputs for weather forecasting systems, yet traditional microwave sounders typically observe only a limited number of channels. Spire’s HyMS sensor introduces hyperspectral microwave sounding, enabling more than 1,000 sensing channels across key water vapor and temperature bands. This

capability supports high-vertical-resolution atmospheric profiling while improving resilience to radio frequency interference (RFI) in critical microwave weather bands.

Combined with Spire’s Radio Occultation (RO) data, which captures high-vertical-resolution temperature and moisture profiles, these complementary sensing methods have the potential to provide a complete and more resilient picture of atmospheric conditions.

“With our Hyperspectral Microwave Sounder satellite, we are working towards bridging a critical gap in global weather observation,” said Theresa Condor, CEO of Spire Global. “This mission proves we can deliver the sophisticated moisture and temperature profiling needed, but at the speed and scale of a commercial constellation. It’s a powerful addition to our existing atmospheric sensing capabilities, allowing us to provide a more holistic view of the

planet, even in the most challenging weather conditions.”

Spire's weather data is currently used by leading weather agencies including NOAA, EUMETSAT, and the UK Met Office, as well as commercial weather organizations globally.

About Spire Global, Inc.

Spire (NYSE: SPIR) is a global provider of space-based data, analytics and space services, offering unique datasets and powerful insights about Earth so that organizations can make decisions with confidence in a rapidly changing world. Spire builds, owns, and operates a fully deployed satellite constellation that observes the Earth in real time using radio frequency technology. The data acquired by Spire's satellites provides global weather intelligence, ship and plane movements, and spoofing and jamming detection to better predict how their patterns impact economies, global security, business operations and the environment. Spire also offers Space as a Service solutions that empower customers to leverage its established infrastructure to put their business in space. Spire has offices across the U.S., Canada, UK, Luxembourg and Germany. To learn more, visit spire.com.

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