

Capella Space Selects Tethers Unlimited to Provide Radios for Nanosatellite Radar System

BOTHELL, WA., 7 December 2016 – Capella Space, a venture-funded startup developing a constellation of small satellites to provide global, persistent radar imagery of the Earth, has selected Tethers Unlimited, Inc. (TUI) to provide its SWIFT® X-band software defined radios to enable high-performance synthetic aperture radar (SAR) measurements by Capella’s satellites.

SAR is a form of radar that uses the motion of the radar antenna over a targeted region to greatly improve the resolution relative to conventional scanned-beam radar. SAR systems can acquire 3D maps of the Earth, even through cloud cover and at night, so they are very useful for applications such as monitoring vehicle traffic at shopping malls, measuring snow pack in the mountains, monitoring ships, and measuring commodities such as oil reserves. Capella Space is developing a constellation of 40 small, affordable nanosatellites to provide SAR imagery of the entire Earth, with fresh images every hour. “After looking at many options for our SAR radio, including an in-house design, we decided to work with Tethers Unlimited through an exclusive joint relationship. We are very impressed by Tether’s work both in terms of performance and reliability and are excited to be partnering with a leader in this industry to bring high resolution commercial SAR imagery to the U.S. market,” said Payam Banazadeh, Capella Space’s CEO.

Capturing SAR measurements requires a radio receiver with high precision and very high data throughput capabilities. “We developed the SWIFT radios with demanding applications such as synthetic aperture radar in mind,” said Dr. Rob Hoyt, TUI’s CEO. “The SWIFT radios pack a tremendous amount of performance and precision into a volume about the size of a kid’s juice box, so they can fit in systems as small as CubeSats, which are about the size of a loaf of bread. Despite their small size, the SWIFT radios have the horsepower necessary to enable these small, low-cost satellites to perform sensing and communications missions that traditionally would require large satellites costing tens or hundreds of millions of dollars. We are very excited to be supporting Capella Space’s efforts to develop a system that can provide frequent, high-resolution SAR imagery to customers in commercial, defense, and environmental fields.”

About Tethers Unlimited, Inc.

Tethers Unlimited, founded in 1994 by Dr. Rob Hoyt and Dr. Robert L. Forward, develops transformative technologies for Space and Defense missions. Its technology portfolio includes advanced space propulsion systems, programmable radios for small satellites, and technologies for in-space manufacturing. To learn more about TUI and its products, please visit www.tethers.com.

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About Capella

Capella Space is a Silicon Valley venture-backed company that will provide persistent and reliable information from space with its planned constellation of (very small) satellites. Capella's satellites can see through the clouds and at night time using Synthetic Aperture Radar (SAR) techniques which makes them immune to bad weather or light conditions. Capella will deliver information that informs a wide range of global decisions to save money, time, and lives. Capella’s first satellite is launching in late 2017 as the first U.S. commercial SAR satellite to enter the market. For media inquiry contact info@capellaspace.com

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