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Under New DARPA SBIR Contract, OmniEarth Applies Machine Learning to Multiple Satellite Sources for Improved Soil Moisture Knowledge

ARLINGTON VA, 6 February 2017 –The US Defense Advanced Research Projects Agency (DARPA) has awarded OmniEarth a Small Business Innovation Research (SBIR) Phase I contract to develop a precision soil moisture mapping model in support of Topic SB162-0009, Software/Analytics Exploiting Commercial Satellite Imagery. This award, OmniEarth's first federal contract, represents a strategic win and provides a strong basis to expand on their existing base of commercial and local government customers.

Under the DARPA contract, OmniEarth aims to develop a precision soil moisture mapping model by fusing information from a number of sources, notably commercially-available synthetic aperture radar (SAR) and multispectral imagery, to enhance the military's ability to assess, manage and predict soil conditions for tactical decision making. OmniEarth has applied similar techniques in its commercial water product by fusing information from multiple satellite and aerial sources with GIS, parcel data, and customer-specific information to create water budgets to the parcel level with ≥ 95% accuracy.

Lars Dyrud, OmniEarth's president and CEO, says "We're very excited to get started on this work. Accurate and precise knowledge of soil moisture impacts many military activities—from IED detection to advanced weather forecasting." Current state-of-the-art for remote sensing of soil moisture is on a scale of tens to hundreds of meters – too coarse for most military needs. OmniEarth, however, believes that by fusing information from numerous sources, as they've done for other products, they can approach the meter-scale needed for military applications.

Precision soil moisture mapping has broad impacts beyond military applications. Better soil moisture knowledge will inform and improve OmniEarth's water and agricultural products, and will lead to more accurate weather forecasting.

About OmniEarth

OmniEarth improves our subscribers' ability to visualize the world around them by enhancing their ability to see, analyze, and react to change in real time. Through a constant stream of geoinformatics, OmniEarth subscribers always have access to imagery and derived information products from any location on Earth – on demand and over time. Our desire to investigate unanswered questions about our changing planet has led us to produce a reliable, constant data stream and enhanced decision-making tools for subscribers in the agriculture, energy, civil and military markets ... and everyone else who wants to better understand Earth. www.omniearth.net

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