

TERRARAD TECH

ENVIRONMENTAL RADIOMETERS AND REMOTE SENSING TECHNOLOGIES

At TerraRad Tech, we are working to create synergies between society and our planet's finite natural resources.

Microwave radiometers for global climate and hydrology monitoring

The TerraRad Portable L-band Radiometer, or PoLRa, is based on the European Space Agency (SMOS) and the NASA (SMAP) satellites, using the same passive remote sensing technique.

PoLRa features

- 1** Measures soil moisture to penetration depths of 5 to 10 cm through vegetation.
- 2** Software package for soil moisture and L-band Vegetation Optical Depth (L-VOD) retrieval maps or time-series.
- 3** Dual polarization (horizontal & vertical) brightness temperatures.

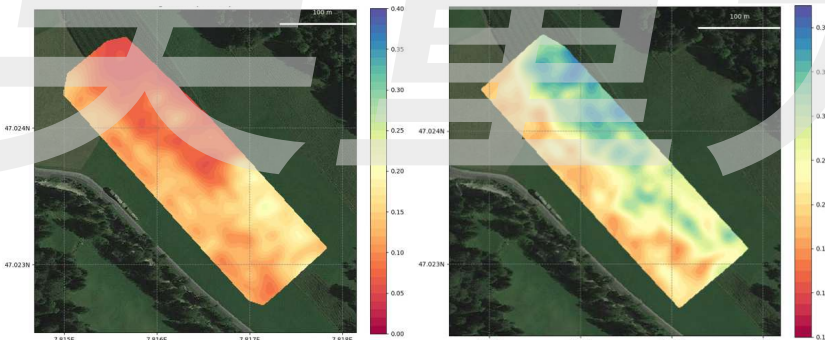


PoLRa on DJI Matrice 600

Vegetation Optical Depth

June 16, 2020

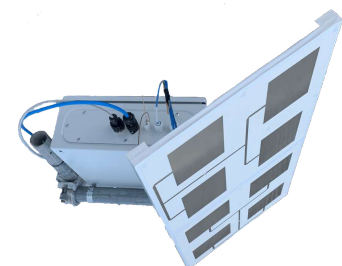
August 25, 2020



Maps showing change in L-VOD over corn and hay field

Drone-based PoLRa	Specifications
Pixel resolution	Down to 6m
Accuracy	~2% vol. water
Weight	2.5 Kg
Coverage	~30 Hectares / Hour

Ground-based PoLRa	Specifications
Resolution	0.15 K (NEΔT) at 1 sec integration time
Calibration	Absolute accuracy ~1.5 K
Size	30cm x 60cm antenna panel
Input power	6-18V DC or 110-240V AC



Ground-based PoLRa

Partners:



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