

VHF Radar Sensor for Measurement of Terrestrial Vegetative Biomass

American Electronics, Inc.
Vienna, VA



INNOVATION

Innovative airborne radar system for the measurement of biomass in dense tropical forests.

ACCOMPLISHMENTS

- ◆ Product developed is BioSAR™.
- ◆ A pulse-coherent radar system capable of collecting data at low frequencies in a downward-looking mode.
- ◆ The Very High Frequency (VHF) radar signal penetrates the smaller forest canopy components, allowing a scattering measurement directly related to the biometry of the tree boles and large branches.

COMMERCIALIZATION

- ◆ Department of Defense Legacy program has sponsored follow-on flights of the BioSAR instrument in Panama and Costa Rica.
- ◆ Flights were conducted in coordination with other NASA vegetation-measurement instruments on the NASA C-130.
- ◆ American Electronics has received \$280k in Phase III funding from DoD.



BioSAR™

GOVERNMENT SCIENCE/APPLICATIONS

- ◆ BioSAR™ supports NASA's Earth Science Enterprise by providing a method of remote measurement of biomass greater than 200 tons/hectare.
- ◆ Eighty percent of the Earth's vegetative biomass resides in forests with high biomass density, and BioSAR™ is a low-cost remote sensing instrument that will provide critical biomass measurements.

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