

RAPTOR® FBS-T

Scalable Lower-Troposphere Radar Wind Profiler



System

- RAPTOR FBS-T Tropospheric Radar Wind Profiler (“quarter-scale”)

Applications

- Aviation Support
- Weather forecasting
- Atmospheric Research

Transmit Frequency

- 449-MHz band nominal or custom

Antenna

- Planar phased array, scalable Yagi elements

Beam Steering

- Multiple-azimuth, multiple-zenith full beam steering

Transmitter

- Solid state, 2 or 4 kW

Receiver

- Fully digital IF generation and reception

Height Resolution

- 75 to 500 m

Range

- 160 m to 8+ km (climate dependent)

AC Power

- 120 or 240 VAC, 50 or 60 Hz single phase

Network and Accessibility

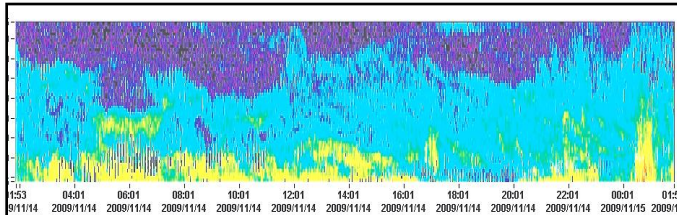
- Network, cellular, serial available

Supported Operating Systems

- Windows® or Linux

Options

- Radiometer for full thermodynamic profiling
- RASS for virtual temperature only



Display of range corrected radar returned power (top). Image shows turbulent layers and clouds. Diagnostic time series and spectra display (bottom) allows investigation of hardware problems or radio frequency interference.



Yagi antenna elements deliver easy installation and maintenance. Components are user replaceable in the field for maximum uptime and improved data quality.



The Radiometrics RAPTOR® line of Radar Wind Profilers provides unattended, real-time operational

Weather forecasting and aviation, aerospace, military, research, and other applications demanding high-quality meteorological data products. Our modular, scalable RAPTOR systems are engineered and constructed to high standards incorporating commercial off-the-shelf (COTS) components,

reducing costs of ownership and enabling technology insertion and upgrade opportunities.

The RAPTOR FBS-T is nominally a 449MHz band radar for tropospheric wind profiling. The system uses a scalable fixed-mount phased array antenna with easily maintainable Yagi elements and phase shifter electronics. A server-class PC is used for radar control and signal processing.

RAPTOR systems can be configured to comply with country or project-specific operating requirements. Customizable options include but are not limited to: transmit power, operational frequency, antenna size, computer operating system, RASS, and AC operating voltage.



Radiometrics is a world leader in ground-based remote sensing offering several models of microwave profiling radiometers, acoustic wind profilers and radar wind profilers. The instruments can be sold individually or integrated into SkyCast®: a full wind and thermodynamic profiling system, providing continuous radiosonde-like performance in the boundary layer and lower troposphere. Radiometrics was founded in 1987 and has delivered over 500 systems worldwide.

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