TECHNICAL DATASHEET

# RAPTOR® FBS-ST

## Stratosphere/Troposphere Radar Wind Profiler

RAPTOR®
RADAR WIND PROFILERS

### System
- RAPTOR FBS-ST Radar Wind Profiler
- Scalable from Boundary Layer to Troposphere winds

### Applications
- Weather forecasting
- Aviation operations
- Space Launch Support

### Transmit Frequency
- 449 MHz nominal or custom

### Antenna
- High performance phased array with Yagi elements

### Beam Steering
- Multiple-azimuth, multiple-zenith full beam steering

### Transmitter
- Solid state, scalable from 2 to 24 kW

### Receiver
- Fully digital IF generation and reception

### Height Resolution
- 75 to 1000 m

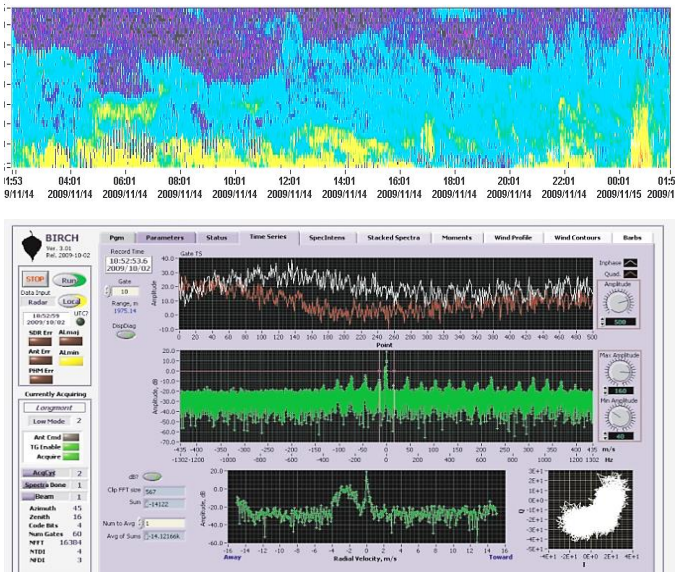
### Range
- 160 m to 16+ km (climate dependent)

### 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 allow high performance and simple installation and maintenance. Pictures shows system installed at U.S. National Weather Service (NWS) Radar Operations Center (ROC) in Norman, OK.

radiometrics
Ahead of the Weather®

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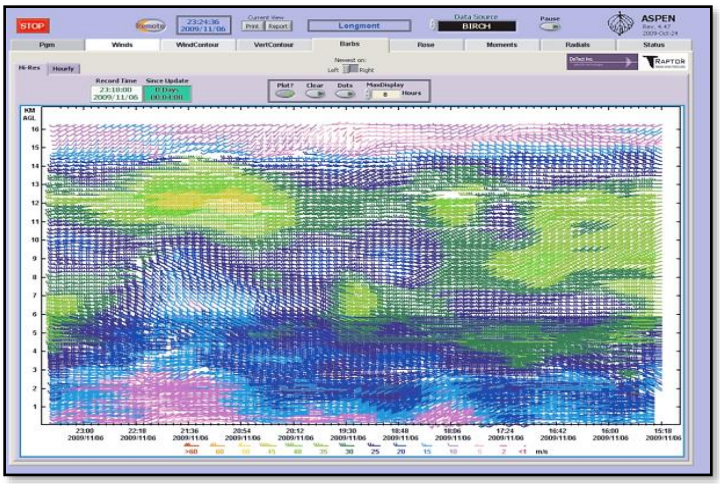
# RAPTOR FBS-ST

The **Radiometrics RAPTOR line of Radar Wind Profilers** provides unattended, real-time operational support for

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.

Radiometrics can also provide a MP-3000A microwave radiometer allowing for wind, temperature and humidity profiling.

**RAPTOR** systems can be configures to comply with country or projects-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.




Customizable, user friendly display of wind speed and direction.

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*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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