TECHNICAL DATASHEET

RAPTOR® XBS-BL

Boundary Layer Radar Wind Profiler

RAPTOR®
RADAR WIND PROFILERS

System
- RAPTOR XBS-BL Radar Wind Profiler

Applications
- General forecasting
- Fire weather forecasting
- Aviation operations

Transmit Frequency
- 915 MHz or 1290 MHz nominal, or custom

Antenna
- Approximately 2.4 m (8') diameter phased array

Beam Steering
- 6-beam oblique and 1-vertical

Peak Power
- 700 W to 2000 W options

Height Resolution
- 75 to 500 m

Range
- 110 m to 3+ km (climate dependent)

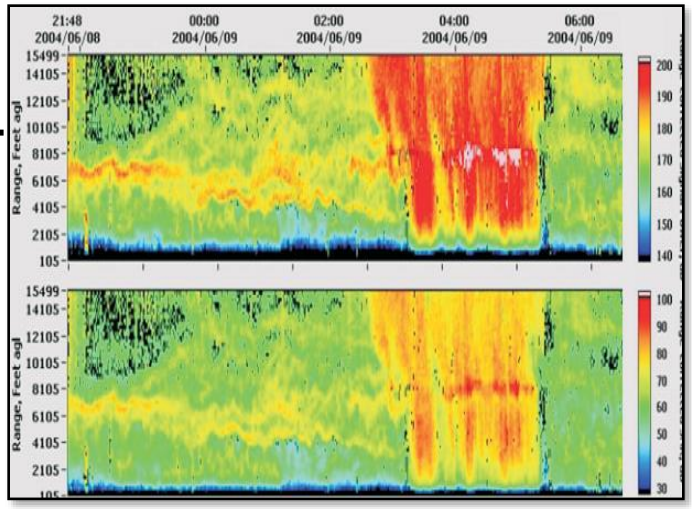
AC Power
- Less than 1500 Watts

Accuracy
- < 1 m/s; <10° for wind speeds > 5 m/s
- < 15° for wind speeds 5 m/s

Remote Access
- Network, cellular, serial available

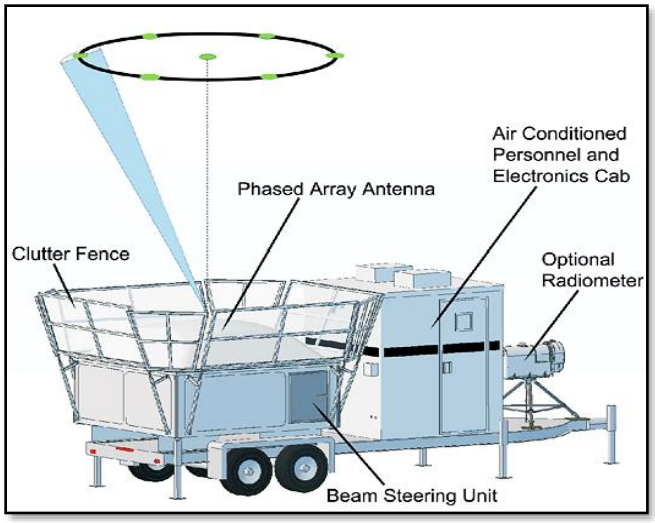
Supported Operating Systems
- Windows® or Linux

Options
- Radiometer for full thermodynamic profiling
- RASS for virtual temperature only
- Trailer or static mount options



Top: Display of range corrected radar returned power. Image shows turbulent layers and clouds.
Bottom: Diagnostic time series and spectra display for troubleshooting hardware or radio frequency interference.

Radiometrics RAPTOR XBS-BL represents a revolutionary, unique design in Radar Wind Profiler technology offering a high performance, digital system in a compact, portable design that is simple and quick to set up.



XBS-BL trailer-mount unit showing components and options available. Data collected at seven points above antenna; six oblique beams can be used for VAD processing.

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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.

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.

The **RAPTOR XBS-BL** is nominally a 915 MHz or 1290 MHz radar for boundary-layer wind profiling. The system has a weatherproofed phased array antenna, server-class PC for radar control and signal processing, and a comprehensive software package that includes quality control function for the winds. The XBS-BL can be delivered in a trailer or permanent mount form.

RAPTOR XBS-BL used for winds support at the Albuquerque International Balloon Fiesta.

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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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