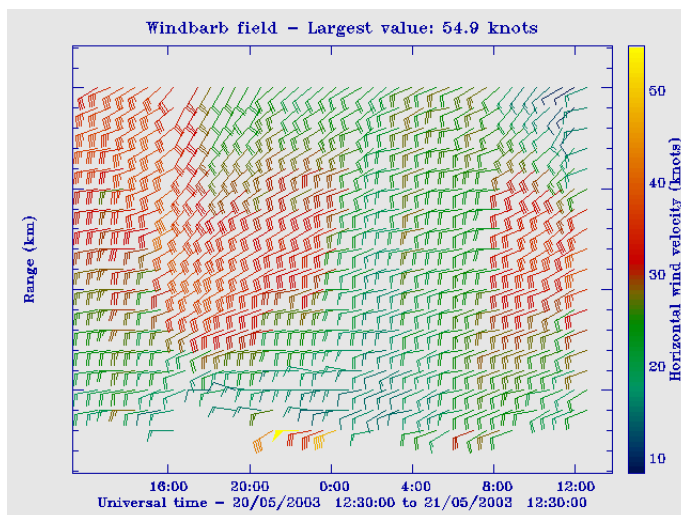


STX-II SERIES MODULAR RADAR

VHF UPPER-AIR WINDPROFILER



Example Windbarb Display

KEY FEATURES:

- ◆ Upper-air wind profiling system
- ◆ Sampling range 1km—20km AGL
- ◆ Real-time Wind Profiles
- ◆ Low Operating Costs
- ◆ Fully Automated, Unattended Operation
- ◆ Doppler Beam Swinging (DBS) Operation
- ◆ Remote Monitoring and Control
- ◆ BUFR Output for easy Data Assimilation
- ◆ Unaffected by Precipitation, Bird or Insect Migration

Typical Radar Installation

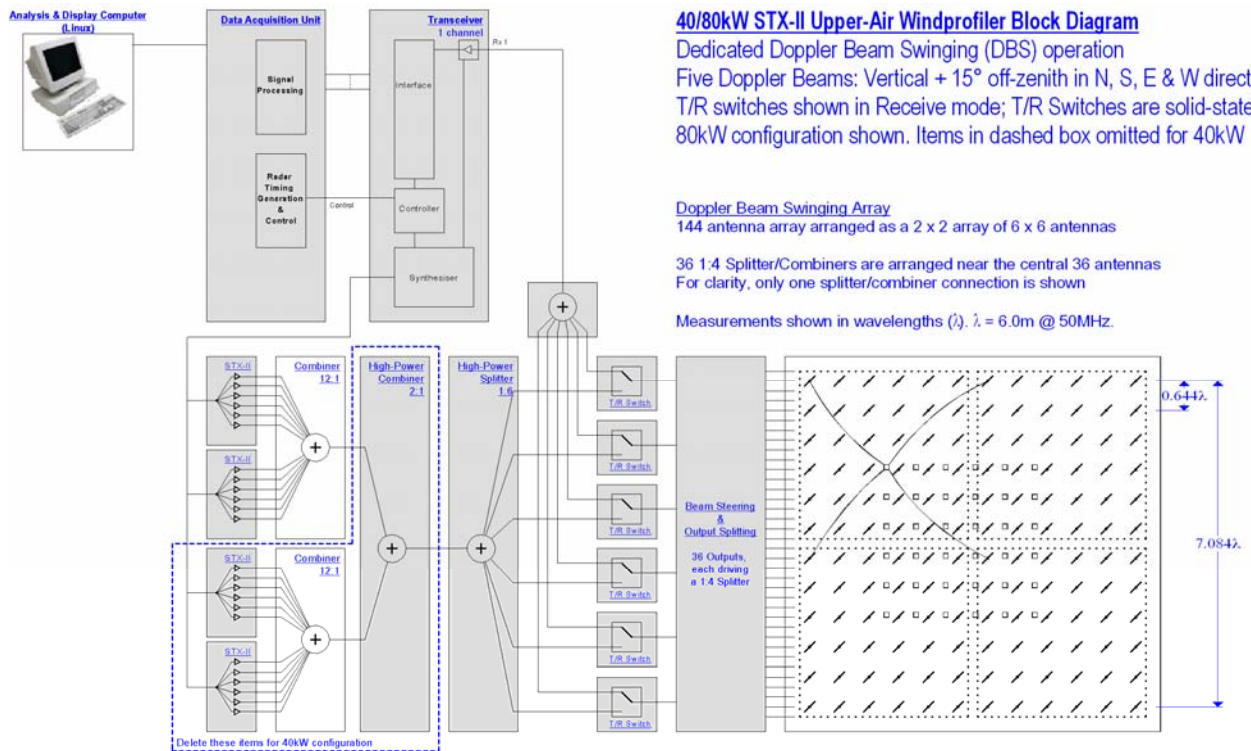


ATRAD wind profilers provide a highly cost-effective measuring solution with a very low total cost of ownership. Ongoing maintenance requirements are minimal, operation is unattended and there are no recurring consumable costs. Any number of radars may be remotely controlled from a central location. BUFR data output is provided to enable easy data assimilation into existing observation networks.

The ATRAD Upper-Air Windprofiler uses Doppler Beam Swinging (DBS) techniques to provide real-time vertical profiles of horizontal wind speed and direction at heights of up to 15 - 20km above ground level. It operates in the low-VHF frequency range, providing significant cost benefits and eliminating data contamination arising from precipitation, birds or insects.

The Upper-Air Windprofiler provides a low-cost alternative to meteorological balloon stations for wind profiling applications. Alternatively, it may be used in conjunction with a meteorological balloon station to reduce the number of costly balloon flights per day. It also has applications in rocket & space launch operations and scientific research.





SYSTEM CHARACTERISTICS	
Radar Configuration	Stratospheric/Tropospheric Radar Dedicated-Doppler Beam Steering Operating mode Solid State STX-II Transmitter modules combined to produce nominal 40/80kW @ 10% duty cycle output power level
Operating Frequency Range	40-64 MHz (actual operating frequency fixed at time of manufacture)
Antenna Configuration	144 Antenna (12 x 12 square array)
Antenna Beamwidth	7° (3dB points, one-way)
Radar Receiver	Single coherent (complex) radar receiver channel
Beamsteering method	Relay Switched, cable phase delays
Analysis modes	DBS: Doppler Beam Swinging
Remote Control	Remote monitoring and control via internet, ethernet or dialup modem connection
Data Output	Standard ATRAD Data Format BUFR Format
Sampling Range	1km-20km <i>Note: Data is sampled over this range. Maximum height coverage achieved is determined by radar power, atmospheric conditions and is subject to seasonal and diurnal variation. Minimum height coverage is affected by local clutter conditions</i>
Range Resolution	User configurable from 100m to 1200m Standard settings are 100m (low mode) and 600m (high mode)
Options	Alternative Power Configurations (20 or 60 kW) Other Antenna Configurations available to suit specific requirements



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Export Brochure

Specifications subject to change without notice or obligation

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