



NOAA/National Severe Storms Laboratory Norman, OK



Shared Mobile Atmospheric Research and Teaching Radar

NSSL - OU - Texas Tech - Texas A&M

SMART-R Characteristics:

Platform: 4700 International dual-cab diesel truck

Dimensions: length ~10 m (32 ft. 10 in.); height ~4.1 m (13 ft. 6 in.); weight ~11,800 kg (~26 tons)

Power: 10-kW diesel generator

Radar Characteristics:

Transmitter Frequency: 5635 MHz (5.5 cm wavelength; C-band)

Pulse duration: 0.2 - 2.0 μ s

Antenna: 2.54 m diameter

Beamwidth: 1.5° circular

Rotation Rate: 0-33 deg/s

Signal Processor:

Max bins per ray: 2048

Bin spacing: 66.7 - 2000 m

Products: Reflectivity, radial velocity, spectrum width

<http://www.nssl.noaa.gov/smartradars/>