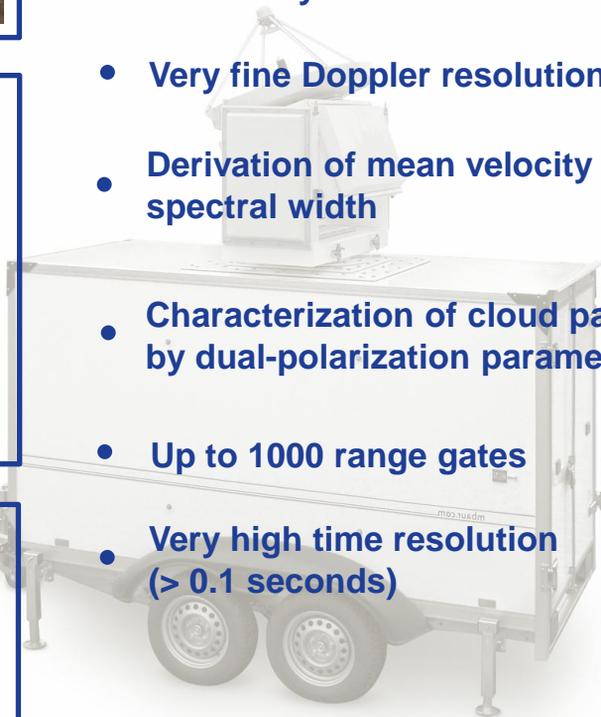


# Cloud Radar MIRA-35



- Tropospheric profiler for long term observation of clouds
- Full hemisphere scanning option for 3-dimensional imaging of clouds structures
- Profiles of Doppler spectra and reflectivity
- Very fine Doppler resolution (5 cm/s)
- Derivation of mean velocity and spectral width
- Characterization of cloud particles by dual-polarization parameters
- Up to 1000 range gates
- Very high time resolution (> 0.1 seconds)

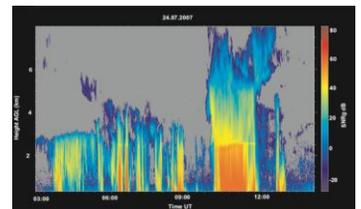
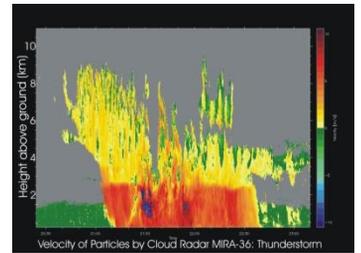
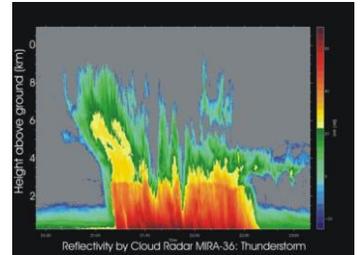


# Cloud Radar MIRA-35

## Typical Applications

- Research in meteorology
- Wake vortex monitoring
- Icing hazard detection
- Cloud particle characterization
- Eddy correlation fluxes
- Wind shear detection
- Synergy with other remote sensing instruments
- Fog detection and nowcasting
- Meteorological networks
- Research stations
- Industrial sites
- Airports
- Marine and offshore platforms
- Wind energy
- input for weather prediction
- Sport events

MIRA-35 is a Ka-Band Doppler radar with high sensitivity allowing to observe even light clouds. It is designed for unattended long-term operation. MIRA-35-S is mounted on a pedestal allowing elevation and azimuth scanning within zenith angles from -90 to +90° and azimuth angles from 0 to 360° (continuous rotations).



Transmit Frequency	33 – 37 GHz, 35.2 GHz recommended by ECC
Peak Power / Average Power	30 kW / 30 – 60 W
Sensitivity	- 53 dBZ (5 km range, 30 m range resolution and 10s time resolution, 1m antenna)
Max. Measuring Range	Depending on pulse width and PRF up to 60 km
Min. Measuring Range	150 m full sensitivity above 450 m
Max. Number of Gates	1000
Min. Time Resolution	0.1 s
Beam Width	0.5° with 1 m and 0.3 with 2 m antenna
Antenna Diameter	1 m, 1.2 m, or 2 m
Pulse Width	100 – 400 ns
Pulse Repetition Frequency	2.5 to 10 kHz
Velocity Resolution	5 cm/s
Polarization Parameters	Linear polarization on transmit, co and cross polarized signals are received simultaneously . LDR, and co-cross-correlation can be computed. Alternatively STAR mode can be provided.
Dimensions of the radar electronics	Transmitter 19" Chassis 9 U, Receiver 4 U, PC 4 U (depth of all units 530 mm).
Power consumption depending on the duty cycle	Radar: 950 W at 1/500 600 W at 1/1000 PC+DSP 150 W Air Conditioning 800 W for the vertically viewing and 1.6 kW for the scanning system.

