Radiometer Physics
A Rohde & Schwarz Company

Novel Product Line FMCW Cloud Radars

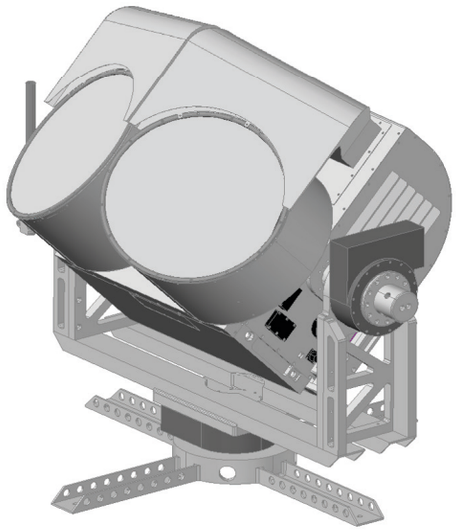
Zenith Polarimetric Doppler Cloud Radar[1]

- High-tech low-cost solution for synergistic ground-based and airborne platforms
- Evaluation of high resolution regional models

- Ka, W, G-band configurations
- Calibration of meteorological radars, including air and space borne systems
- Microphysical retrievals

Scanning Polarimetric Doppler Cloud Radar[1] (available from beginning of 2017)

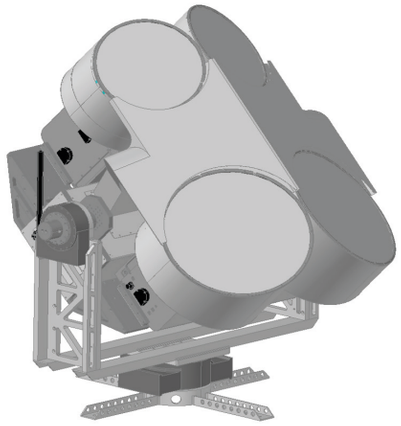
- Fog nowcast
- Ice shape and orientation
- Rain drop size distribution
- Boundary layer characterization
- Lightning detection



- Propagation effects for satellite links
- Qualitatively new precipitation estimation
- Weather nowcast
- Wind retrieval
- Hydrometeor classification

Dual Frequncy 35/94 GHz Polarimetric Doppler Cloud Radar[1] (available from mid of 2017)

- Advanced detection of supercooled liquid
- Attenuation-based precipitation estimation



- Improved ice characterization
- Accurate profiling of liquid water content

[1] Single polariazation version is available upon request

[2] Zenith configuration can be implemented.

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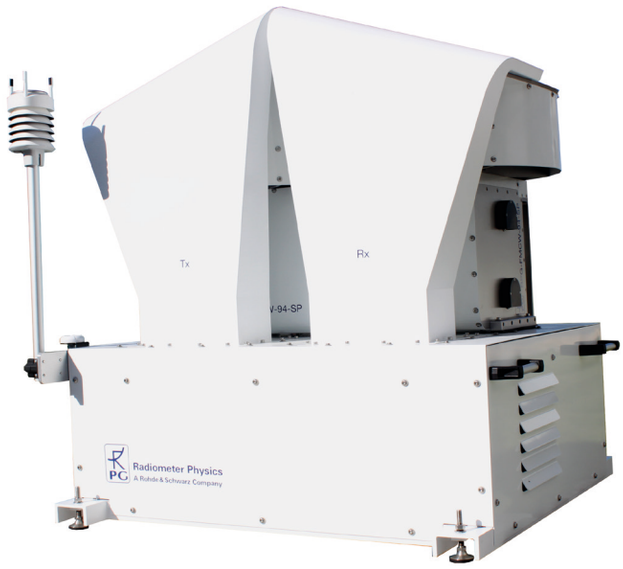
Novel Product Line
FMCW Cloud Radars

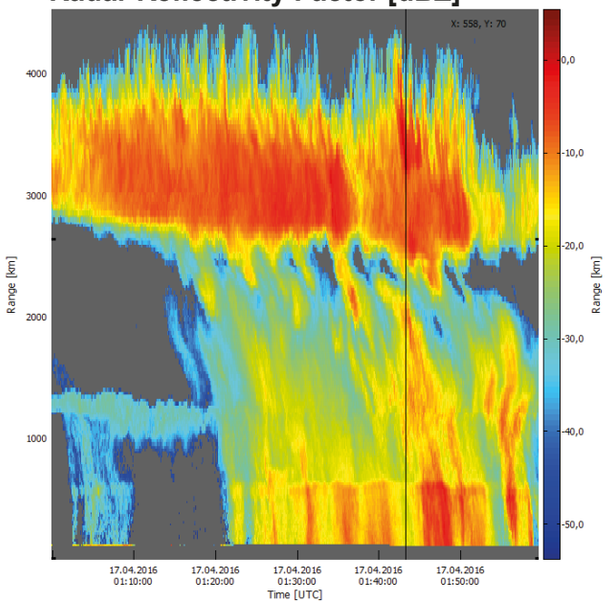
Advantages

- Absolute calibration
- Embedded 89 GHz passive channel
- Company based production chain
- Small form factor
- High electromagnetic compatibility
- Perfect Thermal insulation (25mK)
- No high voltages
- Low cost
- High Doppler resolution (1.7 cm/s)
- Powerful rain mitigation system
- High range resolution (1m)
- High sensitivity
- Small blind zone
- Stable signal shape
- Low noise temperature (400K)
- Embedded weather station

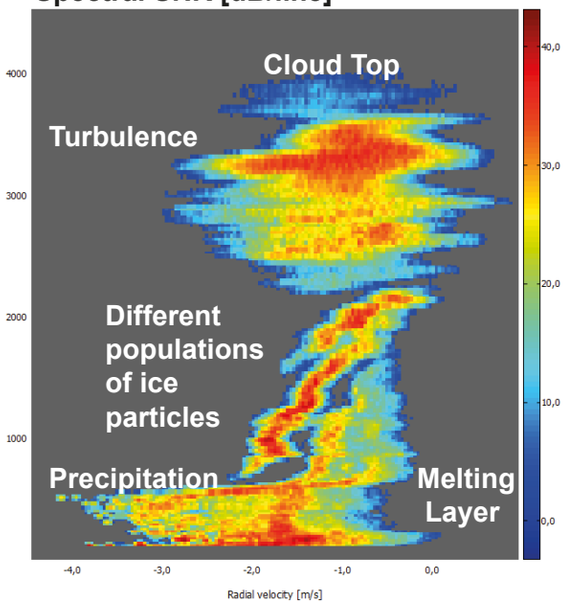


Measurement Example

Radar Reflectivity Factor [dBZ]



Spectral SNR [dB/line]



For more details and observations please refer to the extended brochure.

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