

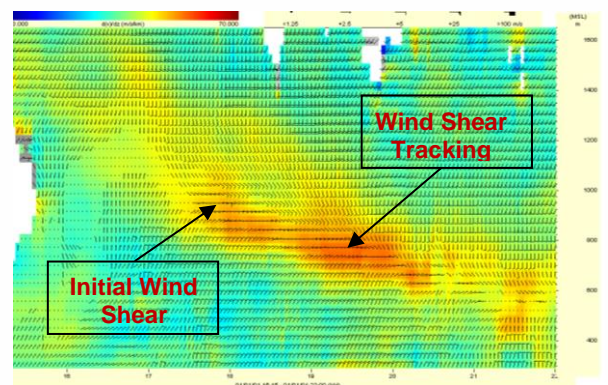
► PCL1300 Wind Profiler

The result of Degreane Horizon's extensive experience in this field, PCL1300 is an unmatched and reliable radar, reaching remarkable results and easy to use. Our expertise in both of the radar's hardware and software components leads to the best technical support for our customers.

Our PCL-1300 wind profiler incorporates a large range of hardware and software refinements which are the result of an ongoing Research and Development collaboration with French and European atmospheric research entities.

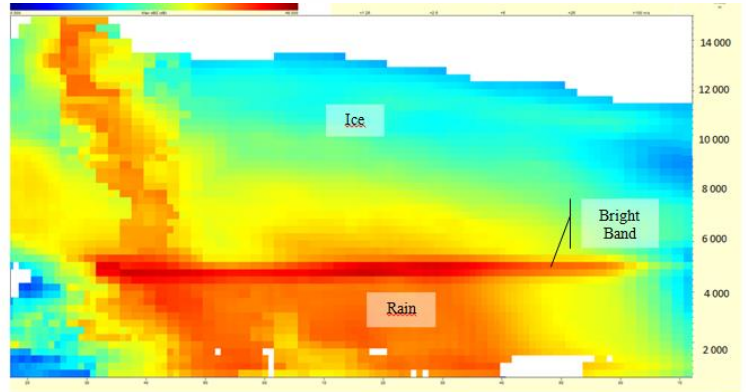
This collaboration ensures that the system benefits from a continuing process of improvement, especially in the areas of advanced signal process and data processing.

Using the backscattering properties of electromagnetic waves through the continuous sounding of the atmosphere, the PCL1300 wind profiler provides vertical profile at altitudes ranging from 75m up to 5000 m depending on the transmit power and atmospheric conditions. It is an automatic equipment that functions 24 hours a day. The PCL1300 wind profiler is a pulsed Doppler radar. It uses as tracer the variations of the air's refractive index created by the turbulence. The PCL1300 can be provided in stationary or transportable configuration, with three or five antenna panels.



> PCL-1300 Wind Profiler Advantages

- Multiple Peak Processing: provides improved range and resolution; field proven in over 10 years of field trials.
- Rejection of strong echoes: processing allows a better tolerance of the radar to the clutter echoes and reduces the requirement of “clutter fence”. Multiple Peak Processing and Statistical Quality Control reliably remove residual clutter.
- Rugged Dipole Array Antenna System: one panel per beam, all controlled by single relay, no moving parts; performance unaffected by rain and snow; MTBF in excess of 20,000 hours.
- Beam Redundancy: the PCL-1300 antenna continues to operate even with damaged antenna elements unlike an electrical beam steering technology and/or any other antenna designs.
- Powerful Standard 3.5 KW Transmitter: built by Degreane; MTBF better than 20,000 hours.



PCL-1300 AT LANNEMEZAN, FRANCE -- PERFORMANCE UNAFFECTED BY HEAVY SNOW

> Characteristics

Frequency	1200 - 1300 MHz (1290 MHz suggested)
Minimum height (dependent on clutter environment, available radio frequency emission bandwidth, and atmospheric conditions)	75 m
Maximal height (dependent on atmospheric conditions and operation mode)	2500 m (500 W) 5000 m (3,5 kW)
Resolution	75 m (500 ns pulse width) 150 m (1000 ns pulse width) 375 m (2500 ns pulse width)
Intrinsic wind speed accuracy	< 1 m/s
Intrinsic wind direction accuracy	< 10°
Antenna gain	27 dBi
Transmit Power	500 W 3500 W
Periodicity of profile computation	Adjustable from 2 minutes

> Options

- 500 W or 3.5 kW Transmitter.
- Stationary or transportable configuration.
- Available in three or five panel configuration.
- Temperature profile when combined with a Radio Acoustic Sounding System (RASS) or a temperature/humidity profiling radiometer.

