

## Need to forecast precipitation more accurately

... or wish to improve advance warning capabilities?



**Biral** specialise in instruments to measure precipitation, with one of the most comprehensive ranges including the very latest advances in precipitation detection - the Micro Rain Radar (MRR) and the Laser Precipitation Monitor (LPM)

The unique MRR uses remote sensing technology to provide an incredibly detailed precipitation profile from the surface up to several kilometers and is set to become the operational standard for precipitation measurements.

The LPM provides a highly accurate and cost effective drop size distribution measurement in real-time of precipitation with over 400 classification bins and operational status output.

For more details on the MRR and LPM see overleaf, or to see our full range of precipitation instruments visit

### MRR & LPM:

- highly reliable
- suitable for use in remote & extreme environments
- require little or no maintenance
- suited for long-term unattended operation

## Biral - for all your precipitation measurements!

### Micro Rain Radar (MRR)



The Micro Rain Radar (MRR) is a unique instrument to measure the vertical profiles of rain rate (to a maximum of 6 km), liquid water content and drop size (from 0.2 mm) distribution (DSD), radar reflectivity and fall velocity.

The MRR provides information for now-casting of precipitation i.e it will detect the start of precipitation (liquid, freezing or frozen) from ground level to high above the radar well in advance of the start of precipitation at ground level, providing adequate warning time.

The MRR system consists of a small antenna dish, radar electronics unit and RS-232 data transmission interface. PC based software is available for online control, data visualisation, transfer and storage.

The MRR uniquely measures DSD inherently (not inferred) regardless of wind speed!

### Laser Precipitation Monitor (LPM)



This cost effective precipitation monitor provides real-time, reliable and accurate measurements on all precipitation in several standard formats such as SYNOP, METAR, NWS and many more.

The LPM measures the amount, intensity, type (i.e drizzle, rain, hail etc) and velocity of precipitation as small as 0.16 mm in diameter as well as details on the MOR during precipitation events.

This sensor can be used for stand alone precipitation measurements or combined with our range of humidity / temperature, wind speed and wind direction sensors to form a comprehensive weather station.

The data from all sensors is reported via the LPM in a single time correlated data string for output to a datalogger or PC (optional PC software can be used to display and archive the data).

Several modes of operation are available.