

## Wind Speed and Direction Methodology

(Last rev. 18/05/2022)

Wind speed and direction is currently measured electronically the RM Young Wind Monitor Model 05103 anemometer.

Wind speed and direction are sampled once every 10 seconds. The average, minimum and maximum values are recorded at the end of every 15-minute interval.

Sensor elements are replaced with newly recalibrated sensors every year according to the manufacture's recommendations.

The original Campbell Scientific 3-cup anemometer and wind vane were located at a height of ~25m (see Figure 1). This sensor was operated intermittently until February of 2007. It was discontinued based on the belief that the wind measured at that location had little relevance to that experienced at canopy level.

The original crane was dismantled in 2021 and a new crane, located approximately 10m away, was put into operation in January of 2022. The new crane is taller (~70m) compared to the original crane (~60m). The new anemometer is located to the side and near the top of the crane, and it is a certainty that the change in location will result in very different values. The 25m and CraneTop data are treated as separate data series.

Unfortunately, there are no overlapping data between the old and new locations that could be used to derive a correlation between them.

Figure 1



PNM tower showing met. station approximately at the middle of the tower



PNM Cranes (new crane left, old crane right)