

Electronic Wind Speed and Direction

(Last rev. 13/11/2024)

Wind speed and direction are measured at the top of AVA tower which is located to the north of the 50ha plot on Barro Colorado Island (BCI) (see Figure 1 and 2).

Wind speed and direction has been measured electronically with several models of the RM Young Wind Monitor family (See figure 3).

The RM Young Wind Monitor Model 05103 is used.

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.

Records are provided with two Quality Control flags. Flag one indicates the fitness for use of each records. Possible values are: good, bad, doubtful, missing. Records are marked as bad if they fail one or more QC tests. Likewise, records are marked as doubtful if they are potentially bad, but without sufficiently strong evidence to be marked as bad. The second QC variable provides that reason for marking a variable as bad or doubtful. Potential values are: range, step, persistence, drift. At this time only range tests have been applied.

Figure 1



Location of the AVA Tower. Red lines are trails. White rectangle is the 50ha plot.

Figure 2



Figure 3



RM Young Wind Monitor on top of AVA Tower