

Electronic Wind Measurement Methodology

(Last rev. 30/10/2024)

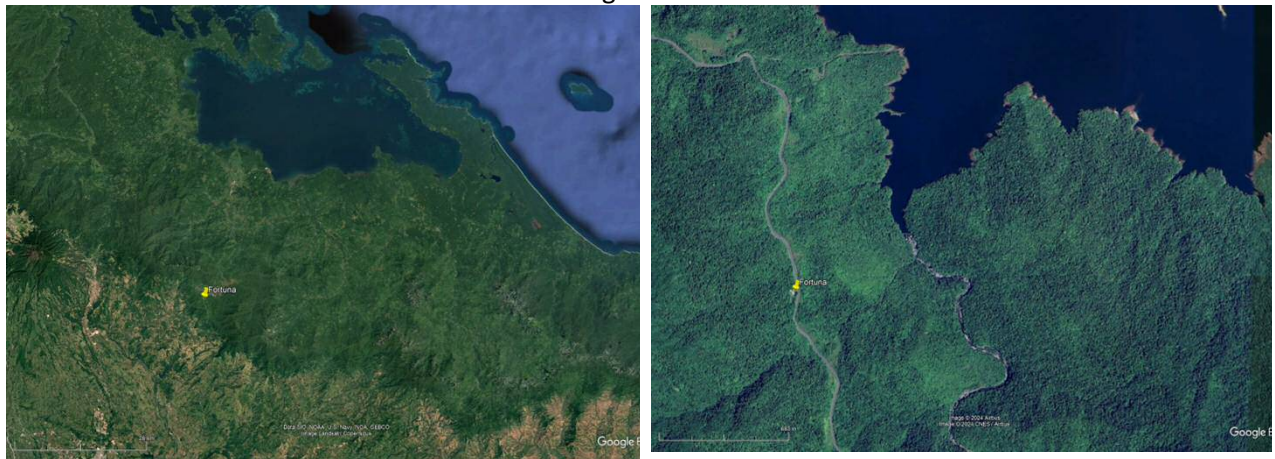
The Fortuna Station (see Figure 1) Wind Speed and direction are measured electronically using a WindSonic 2D Ultrasonic wind sensor (see Fig. 3)

The sensor was installed on Dec 27, 2018 near the top (~10m) of the radio tower that is located on the east side of the main building (see Figure 2)

Wind speed and direction are measured every 10 seconds and recorded every 15 minutes. Data represent the measures of the 15-mins proceeding the time stamp. Data are downloaded approximately every 6-7 months.

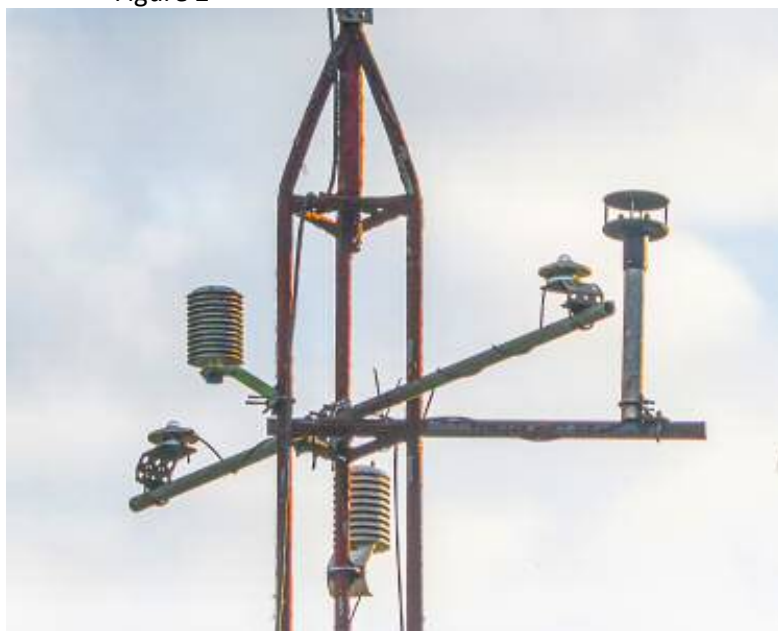
Records are provided with two Quality Control flags. Flag one indicates the fitness for use of each records. Possible values are: good, bad, doubtful, missing. Records are marked as bad if they fail one or more QC tests. Likewise, records are marked as doubtful if they are potentially bad, but without 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 Fortuna Station

Figure 2



Radio tower (left) and close-up of sonic anemometer (right)

Figure 3



WindSonic 2D Ultrasonic wind sensor