

## Electronic Relative Humidity Methodology

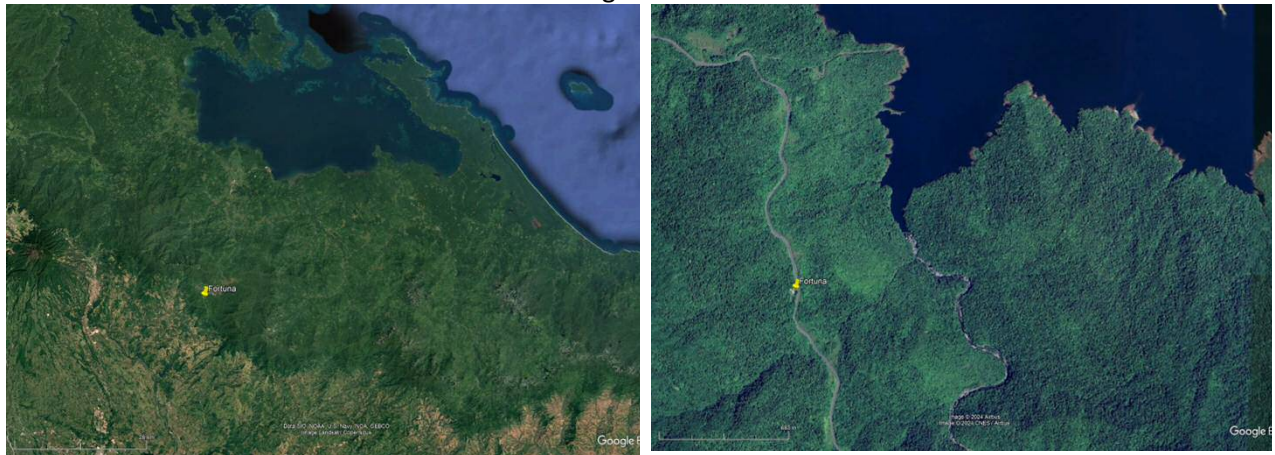
(Last rev. 30/10/2024)

The electronic measurement of relative humidity began in December of 2023, with the installation of a Campbell Sci. HygroVue10 Temperature & Humidity sensor replaced a standard 10-gill solar radiation shield near the top (~10m) of the radio tower that is located on the east side of the main building. See Figures 1, 2 and 3.

HygroVue10 sensors sample every 10 seconds. The average, minimum and maximum values are recorded at the end of every 15 minute interval. Data are downloaded approximately every 6-7 months.

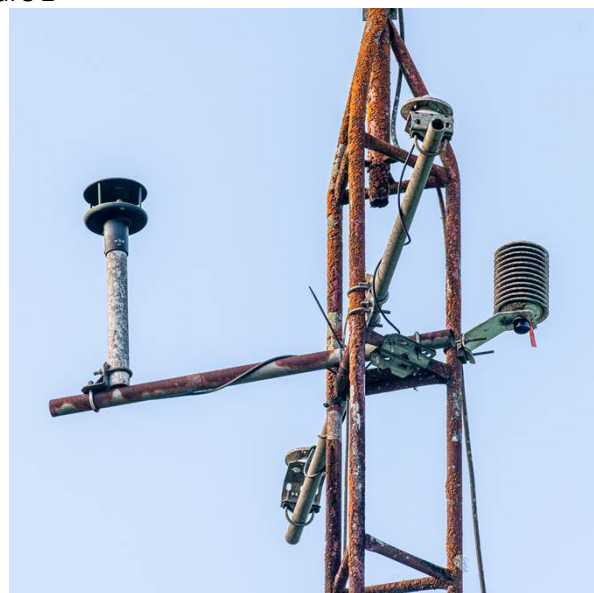
Records are provided with two Quality Control flags. Flag one indicates the fitness for use of each record. Possible values are: good, bad, doubtful, missing. Records are marked as bad if they fail one or more QC tests. Likewise, records are marked as doubtful if they are potentially bad, but without 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 tower 10-gill Radiation shield (right)

Figure 3



Campbell Sci. HygroVue10 Temperature & Humidity sensor