

## Electronic Solar Radiation Methodology

(Last rev. 30/10/2024)

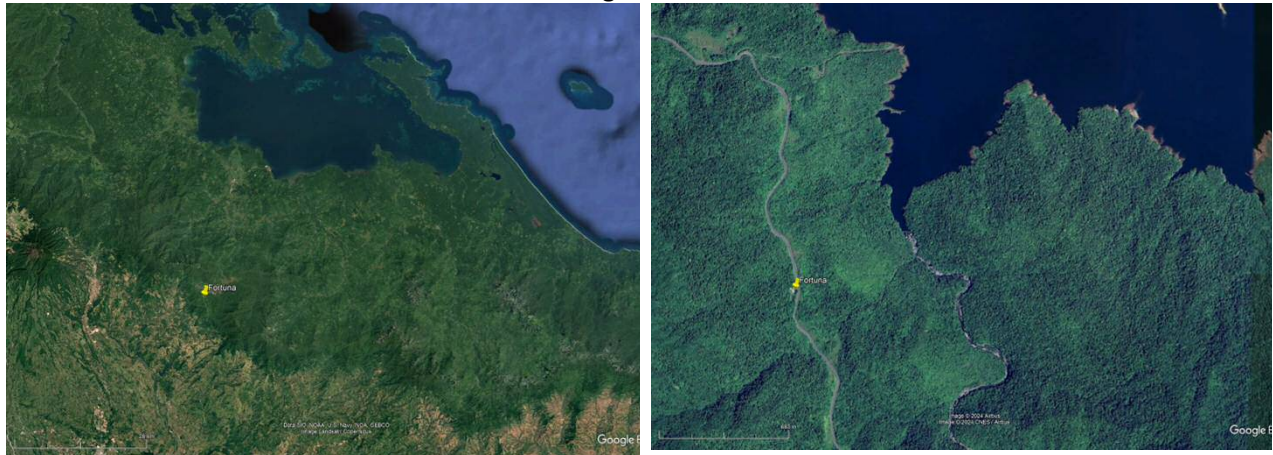
Incoming solar radiation is measured close to the top of the station radio tower platform tower located on the east side of the main building (see Figure 1 and 2).

Two pyranometers was used, designated as North (n) and South (s). The reported value is the larger of both sensors for any given reporting interval (see Figure 3).

Incoming solar radiation is sampled once every 10 seconds. The average, minimum and maximum values are recorded every 15 minutes. 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 solar radiation sensors located at either end of the cross-tube (right)

Figure 3.



Kipp & Zonen SPLite2 (left) and CMP3 (right) sensors