

## Electronic Temperature and Relative Humidity Methodology

(Last rev. 07/10/2024)

The San Lorenzo Park (formerly known as Fort Sherman) station (Figure 1) is located approximately 10km southwest of the city of Colon in forest that has only been lightly altered by human activities. It is attached to a large construction crane (Figure 2).

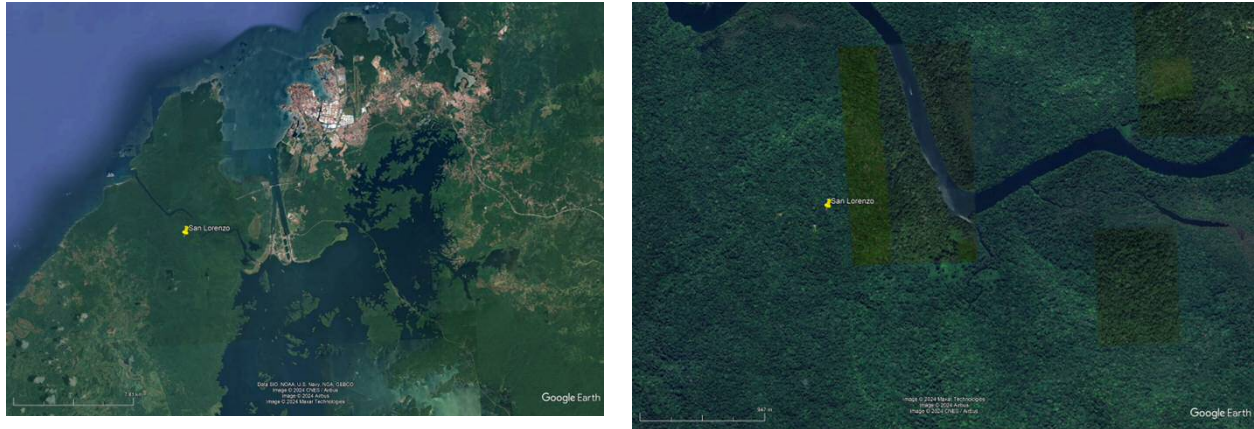
Temperature and relative humidity at the San Lorenzo Park meteorological station are measured electronically at the top of the crane using combination sensors housed in naturally aspirated radiation shields\* approximately 4.5m above MSL on the station platform tower (Figure 3).

\*(From the manufacturer: the naturally aspirated 6 and 10-plate radiation shields' louvered construction allows air to pass freely through the shield, keeping the probe at or near ambient temperature. The shields' white color reflects solar radiation.)

Several types of sensors have been used. Currently, Campbell Sci. HygroVue10 sensors are used at this location (see Figure 4).

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 San Lorenzo Crane

Figure 2



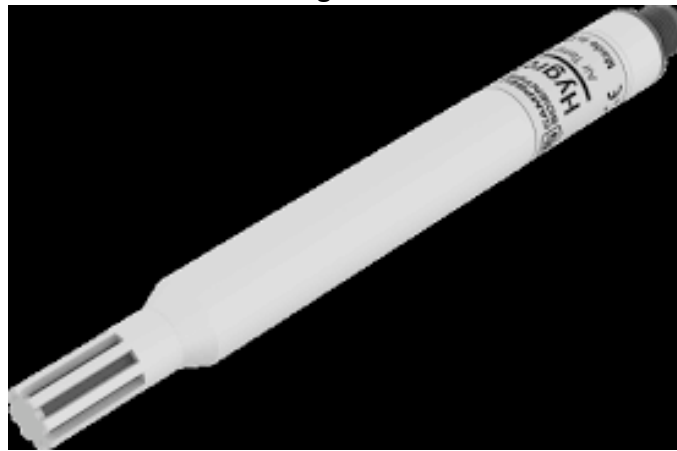
San Lorenzo Crane

Figure 3



San Lorenzo Crane 6-gill radiation shield with sensor

Figure 4



Campbell Sci. HygroVue10 Temperature & Humidity