

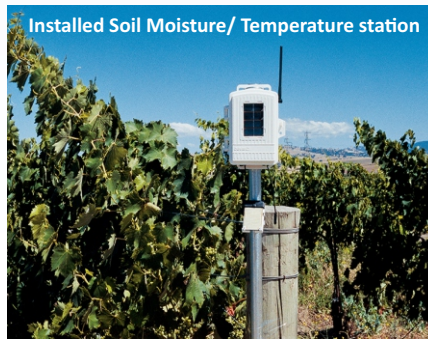
Automated Moisture & Temperature Observations at 4 Depths in the Soil Installation in Hulhule, Male, Maldives

Main Partners: Foundation for Environment, Climate, and Technology [FECT]; Maldives Meteorological Services [MMS]; NASA's Goddard Space Flight Center [GSFC]; **Sponsors:** US National Academy of Sciences (NAS) and USAID.

It is important to observe soil moisture and soil temperature data in the Maldives as these data are critical for establishing the hydrological budgets, monitoring for drought, and validation of remotely sensed data from satellites. There have been one such stations in the Maldives but it is not operationally. With the sponsorship of the PEER program of the NAS and USAID, we have installed a solar powered automated soil moisture and temperature station in the MMS observatory in Hulhule. This verify the availability of water in the hydrological cycle in the Maldives. We have used the Weather envoy 8x to record data from the soil moisture station. It logs data from up to 8 different transmitters, in any combination, and report to a weather database. At present readings are taken at 4 soil depth levels.



HandOver of Soil Moisture Instrumentation to Maldives Meteorological Service

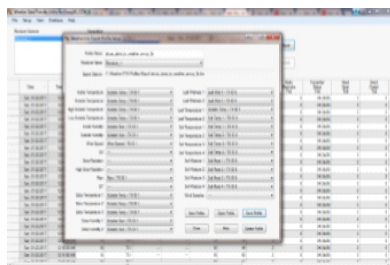


Installed Soil Moisture/ Temperature station

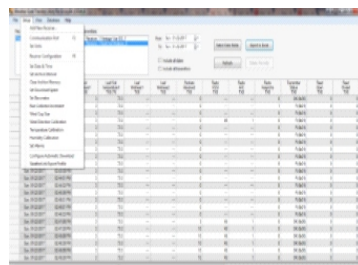


Display of Data

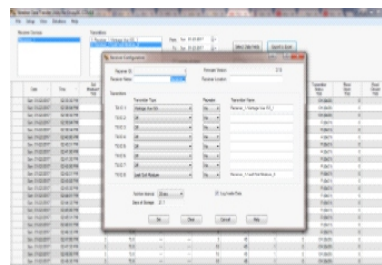
Live Data: The internet based software included in the equipment features the main models. It is accessible from the computer. Below we show the figures from the interface.



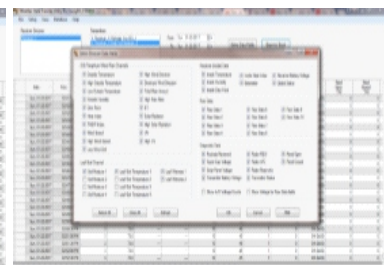
Profile setup of weather envoy 8x (1)



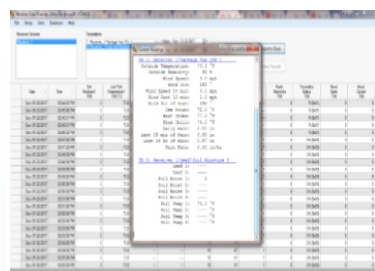
Weather envoy 8x menu settings (2)



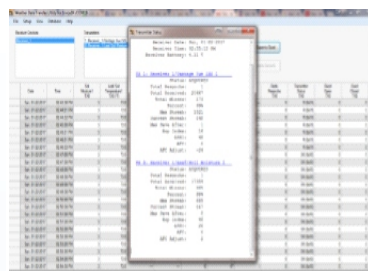
Receiver configuration - Displaying davis vantage vue (3)



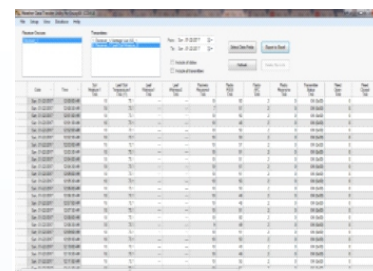
Data fields that can be shown in the data- (4)



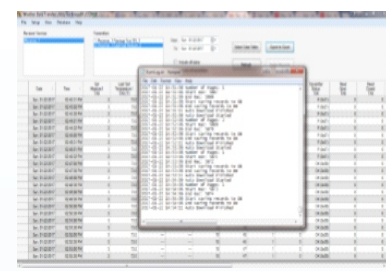
Current readings of soil moisture and soil temperature (5)



Current reading acquired of soil moisture station (6)



Data base view in weather envoy 8x (7)



Event logs of current operations going in the envoy software (8)

About FECT: The Foundation for Environment, Climate and Technology is a non-profit organization dedicated to the application of science for societal welfare and ecological sustainability registered in Sri Lanka Comoros and New York for over 15 years. We work with universities, research institutes and other public, private and civic organizations.

About MMS: A meteorological service was established in Maldives in the early 1940s. Working under different offices of the government throughout the years, meteorological office became Maldives Meteorological Service (MMS) in 2009. Today, MMS is responsible for the seismological and meteorological services.

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