

**JMA/WMO Training Workshop on
Calibration and maintenance of Meteorological instruments in RA II (ASIA)**

An overview of Weather Observation practices over Pakistan

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Summary

The Pakistan Meteorological Department (PMD), at the time of its establishment in 1947, inherited only 15 Meteorological Observatories from the Central Meteorological Organization then operating in the Subcontinent. The Department with its continuous efforts has improved weather forecasting capabilities by expanding the network of meteorological observatories, developing methods of observation, improving telecommunication facilities and forecasting techniques. The Department has now over hundred Manual Weather Observing Station (MWOS) and 37 Automatic Weather Observing Stations (AWOS), spatially distributed over the country.

Generally, there are two classes of the MWOS in PMD. First, Class-I Observatories, which are provided with: Barometer (Mercury/Aneroid), Maximum Thermometer, Minimum Thermometer, Dry Bulb, Wet Bulb, Anemometer, Wind Vane, Rain Gauge + Measuring glass, Observing watch, Stevenson Screen. These observatories take synoptic observations at least eight times daily at the standard UTC hours i.e. 0000, 0300, 0600, 0900, 1200, 1500, 1800 and 2100. The second class observatories are Class-II Observatories and are provided with above equipment and record daily at least three (3) synoptic observations at standard hours 0000, 300 & 1200 UTC.

There are some issues, which encounter the morale and zeal of meteorological professionals yet the operation at PMD is maintained with marginal human resource and maintenance of equipment with indigenous skills. There are some calibration issues like required transportation of instruments bearing heavy costs of boarding and lodging. Very old models of equipment do not find a compatible standard instrument for calibration. Spares of various models are not available with companies as they have moved to improved versions.