

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

Summarizing Report on Met. Instruments and their calibrations

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Summary

In order to achieve meteorological observations In the State of Qatar, we use several types of instruments and several methods of calibration.

First element – air pressure we measure it manually as same as automatically by AWS. Mercury Barometer is the best instrument we use to measure air pressure. In Addition, we use electronic Aneroid. In recent time, our instruments still without any calibration processes because of calibration references absent. The only thing we do is a verification of instruments each with others.

For temperatures (air and soil), we use mercury, alcohol and electrical sensors (in case of AWS).No calibration or verification is made in recent time.

For rain falls we use, 200 cm² orifice, rain gauges, rain recorders and AWS rain gauge. The only calibration made here is with rain recorder: Zero set and 10 point set. For relative humidity, we use hair- hygrograph which we calibrate manually for 95-100% point. We also use AWS for this purpose – also no calibration made for these sensors.

For sunshine duration we use sunshine recorder. And, for radiation measurements we use Pyranometer- Graph and AWS.

Wind elements are measured by several types of instruments: ultrasonic sensors and wind cups (both in AWS and MUNRO 54 electro-mechanical station). MUNRO station is calibrated by special calibration unit for both speed and direction.

Future plane

We look to calibrate all instruments and move to full compliance with WMO regulations as soon as we can.

Full personnel training is already going on for this plan. The training is occupied both of maintenance and instruments calibration in both of manual and AWS.