

AWS Network of HNMS : A brief presentation and the experience gained of its use

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"Automatic weather stations for environmental intelligence – the AWS in the 21st century."

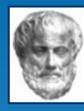




OHNMS Weather Station Network

• Consists of 110 weather stations :

- 27 fully manned
- 33 semi-automated
- 50 automatic



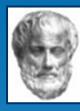


Circles: Fully manned Triangles: Semi-automated Squares: Automatic



•HNMS Automatic Weather Stations (AWS):

- Vaisala MAWS 110 and MILOS520
- They measure:
- Wind
- Temperature
- Humidity
- Pressure
- Precipitation



•AWS Sensors

• Temperature-Humidity (QMH102 or HMD45D)





•AWS Sensors

• Pressure (PMT16A)



• Wind (WAA151 & WAV 151)







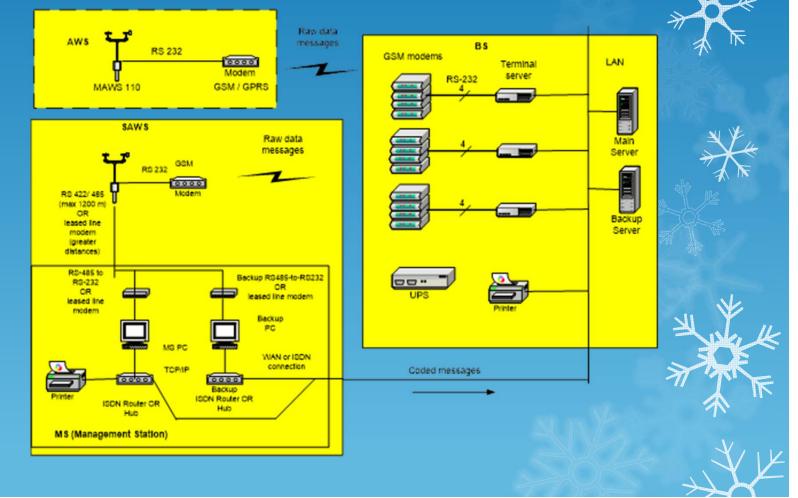
•AWS Sensors

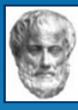
• Precipitation (RG13)

• Precipitation detection



●SAWS-AWS system architecture *





•SAWS-AWS software



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• Experience gained

• Maintenance

- Availability in spare parts.
- Cost of the necessary infrastructure (appropriate tools, standard devices for sensor calibration etc.).
- Technicians have to stay away from their base (at a hotel) during their transition to maintain or to repair a fault at AWS sites.
- The cost of transportations is often high.

• Malfunction of sensors (False rain)



OConclusions

- It is absolutely necessary to boost maintenance infrastructure. All the aspects of maintenance are strongly depended on financial support. Having in mind the current financial problems, it is very important to minimize the cost of maintenance. Therefore, more efficient financial management requires a better organization of the maintenance system.
- The second point is clearly stated by WMO excerpt, which refers to the need of technical personnel retraining:
- "As an AWS is based on the application of technology that differs considerably from the equipment at conventional stations and networks, a comprehensive review of existing training programmes and of the skills⁴ of the necessary technical staff is obviously required."



Thank you very much for your attention !

