

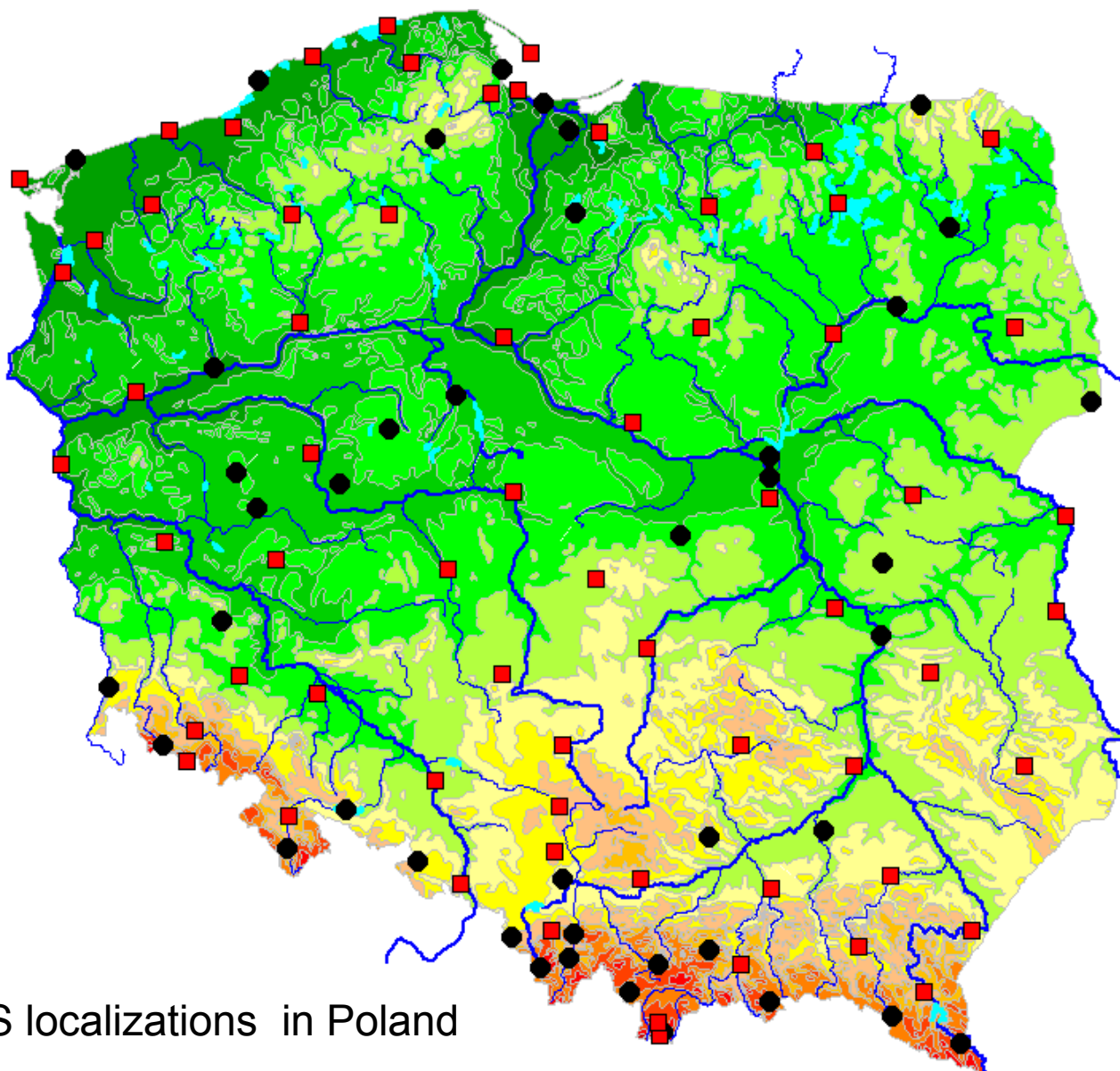


Automatic Weather Stations in synoptical and climatological network of the Institute of Meteorology and Water Management

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During last a few years the meteorological instruments network of Institute of Meteorology and Water Management in Poland (**IMGW**) was modernized to become a modern system. Nowadays, it is equipped with more then 120 automatic weather stations (**AWS**) base on Maws 301 and Milos 500 by Vaisala.

Polish meteorological network contains two types of automatic weather stations (AWS):
synoptical and climatological.



AWS localizations in Poland

- Synoptical stations
- Climatological stations

Synoptical Network

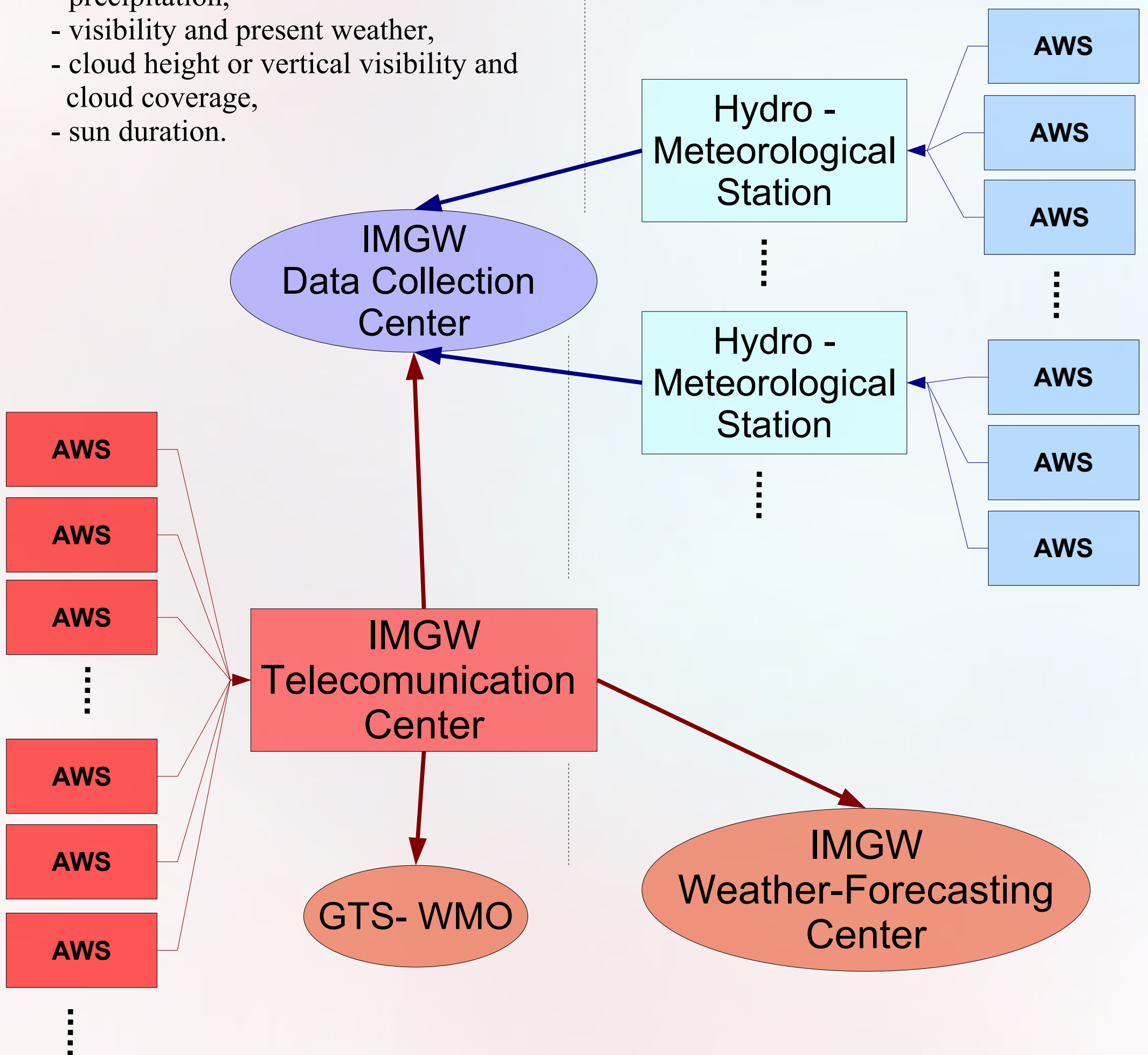
Measurements in synoptical AWS:

- air temperature +2 m above the ground (Stevenson screen),
- air temperature +5 cm above the ground,
- soil temperature (-100cm, -50cm, -20cm, -10cm, -5cm, 0cm, 5cm),
- relative humidity (Stevenson screen),
- air pressure,
- wind speed,
- wind direction,
- precipitation,
- visibility and present weather,
- cloud height or vertical visibility and cloud coverage,
- sun duration.

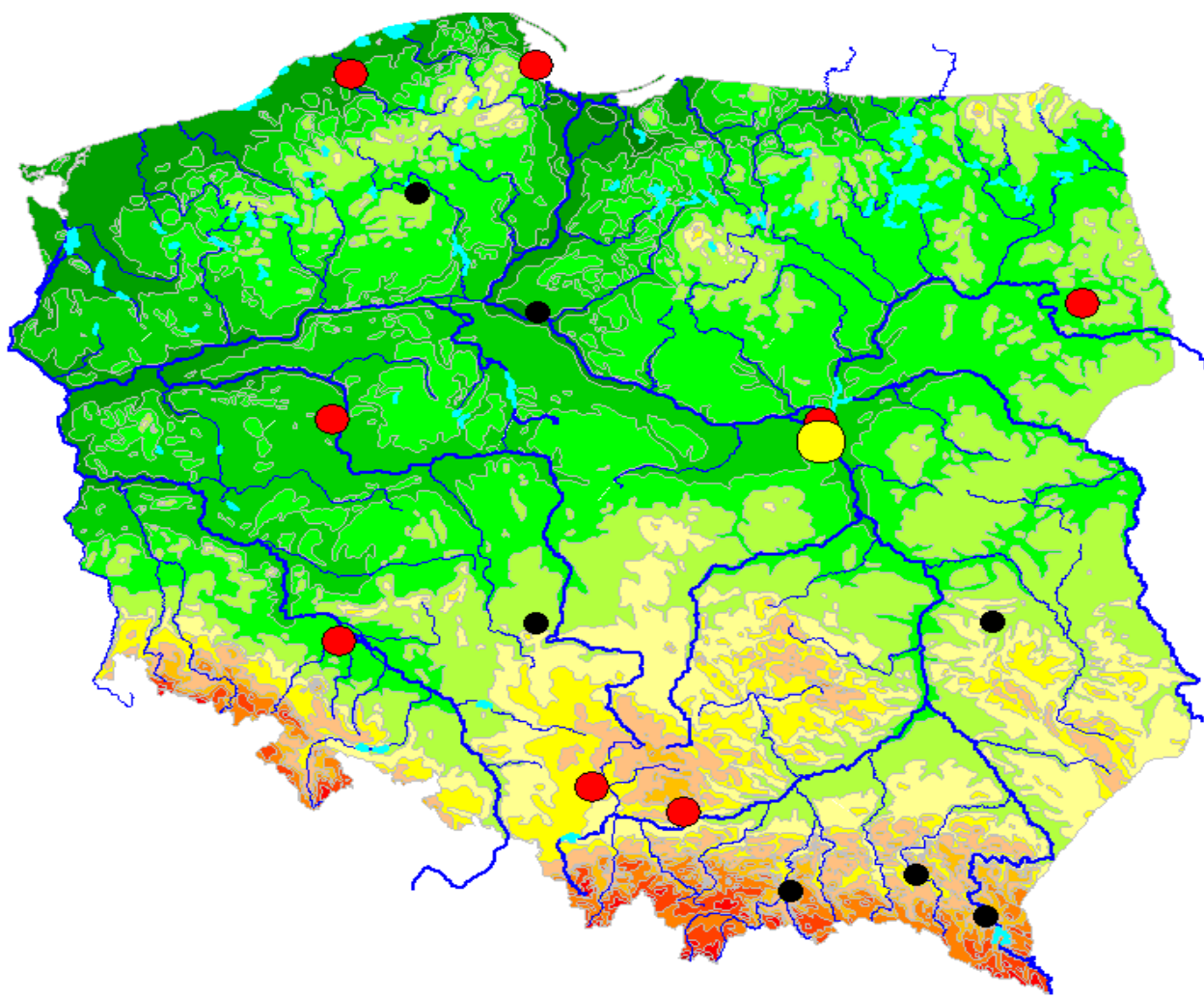
Climatological Network

Measurements in climatological AWS:

- air temperature +2 m above the ground (Stevenson screen),
- air temperature +5 cm above the ground,
- relative humidity (Stevenson screen),
- wind speed,
- wind direction,
- precipitation.



data collecting and transmission

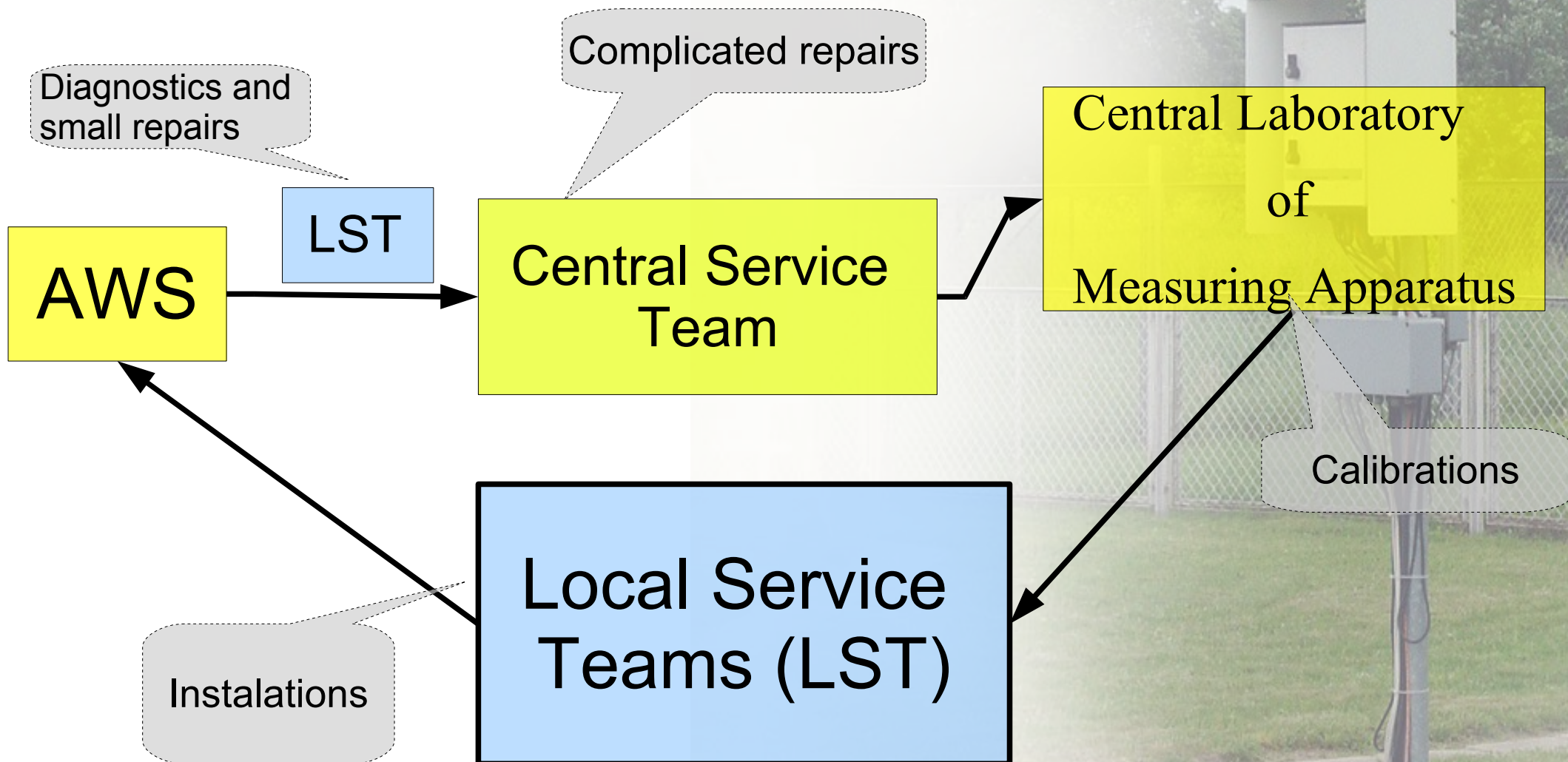


- Central Service Team
- Local Service Teams
- Local Maintenance Teams

Service teams localizations

Routine tasks of service teams:

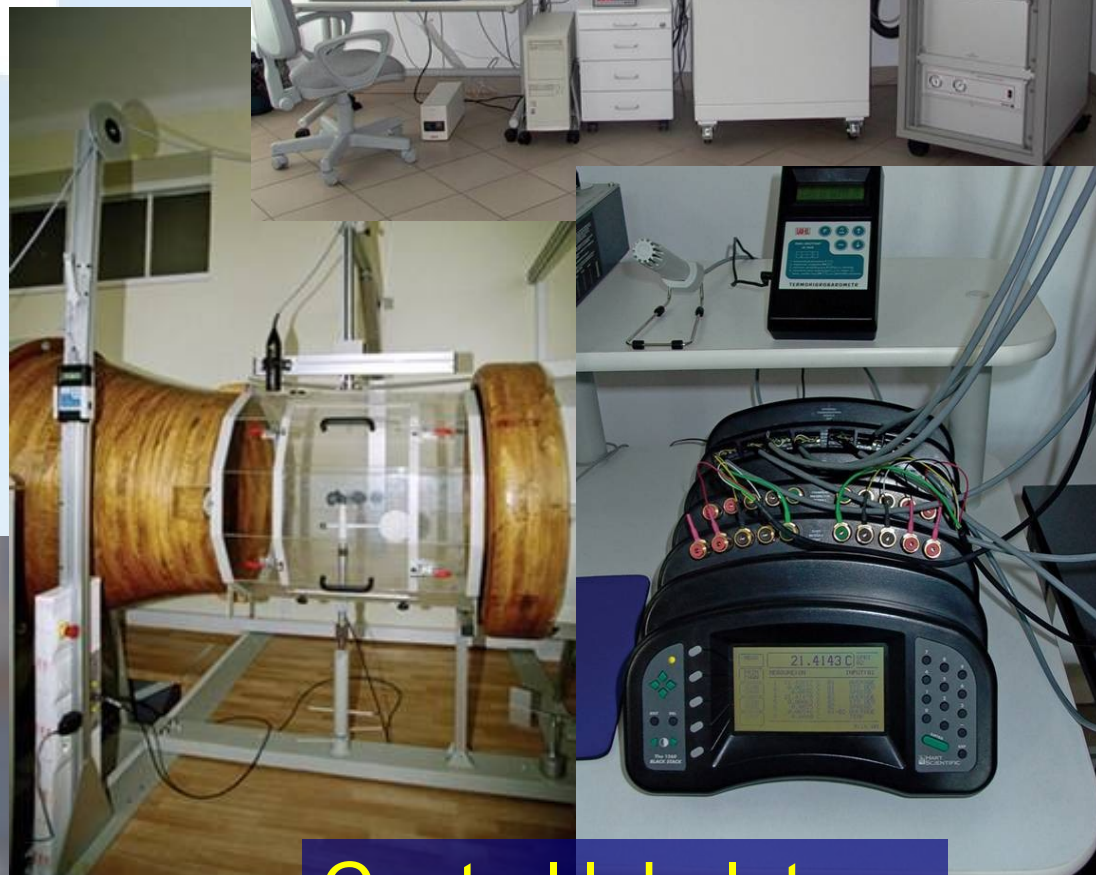
- instruments cleanness control,
- correctness of operation of AWS components checking,
- system ingredients maintenance,
- software testing,
- periodic instruments replacement (calibration validity).



Typical instrument circulation on IMGW AWS network

Sensors calibrations:

- temperature: every year,
- humidity: twice a year,
- pressure: every two years,
- wind: every two years,
- precipitation: every year,
- visibility: if necessary (every year testing)
- cloud height: if necessary (every year testing)



Central laboratory



Mobile laboratory

Network Management Software

The programme is designed for network metadata managing.

It collects all data about IMGW stations and enables digital documents flow.

