



**Center for hydro - meteorological
& Environmental station network
(the Hymenet)**

And

**hydrological, meteorological
& Environmental station network**

The HYMENET

- **Position:** The HYMENET is a functional body under National Hydro-Meteorological Service of Vietnam, Ministry of Natural Resources and Environment
- **Function:** Technical supervision & management the hydro-meteorological & environmental (*water & air*) stations network and all the observation activities in order to provide sufficient & adequate data for hydro-meteorological forecasting, water- utilization, disaster mitigation, socio-economic development of the country.

The Network

Meteorological stations network

- Total 176 stations, divided into 3 classes

Class 1: Weather watch: 24/24 hrs

Observation of: *Wind (direction & speed), Rain fall, Air pressure, Air Temperature, Humidity, Sunshine, Evaporations, Land Temperature (ground and deep layers); Cloud, Visibility, Ground conditions, Radiation (at some stations).*

Data collection & transmission: 8 times/day

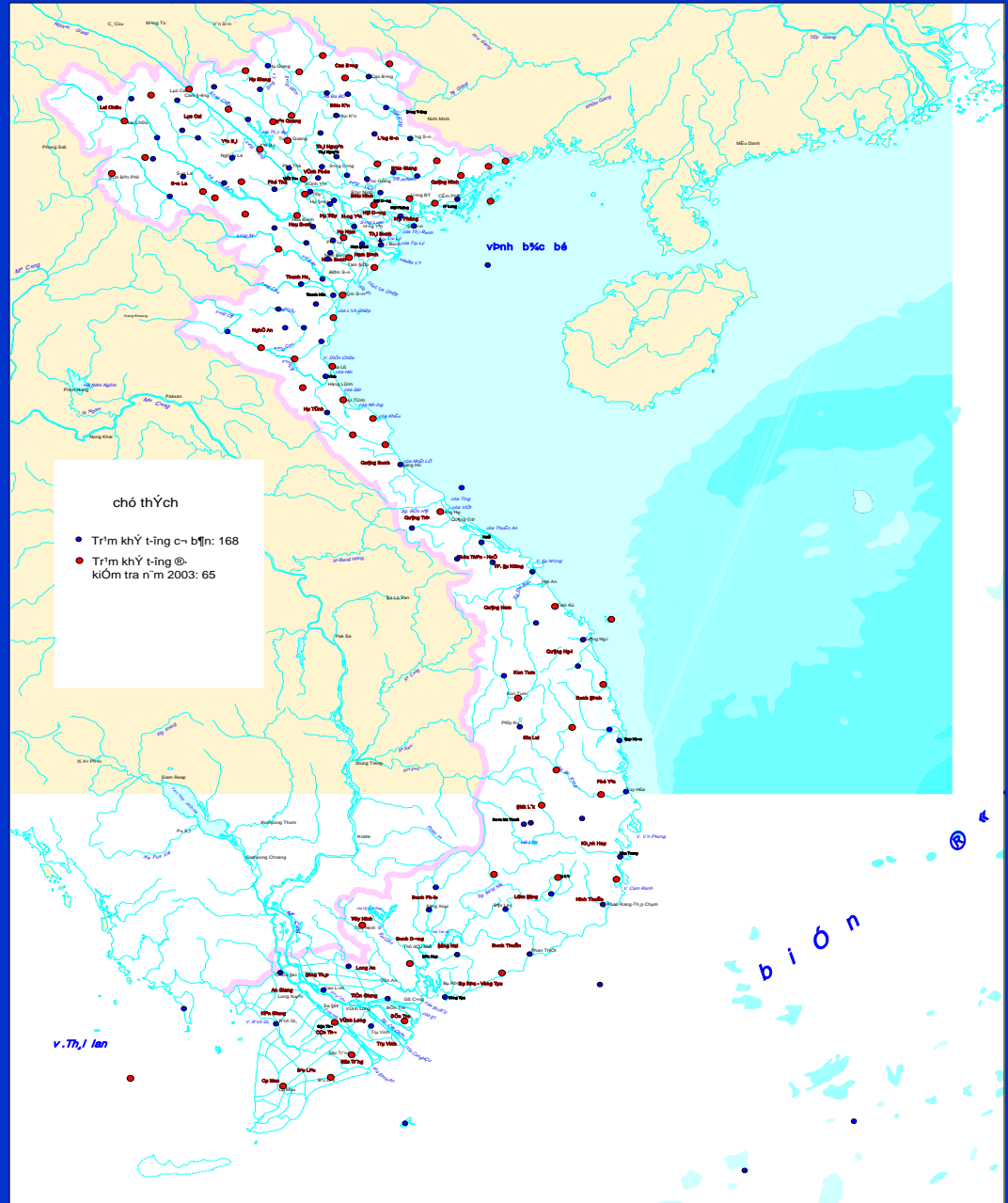
Class 2: *Same as class 1, but not doing the observation of radiation, air pressure (at some stations).*

Data collection & transmission: 4 times/day

Class 3: *Same as class 2, but not doing the observation of air pressure. Data transmission*

Total: 176 stations

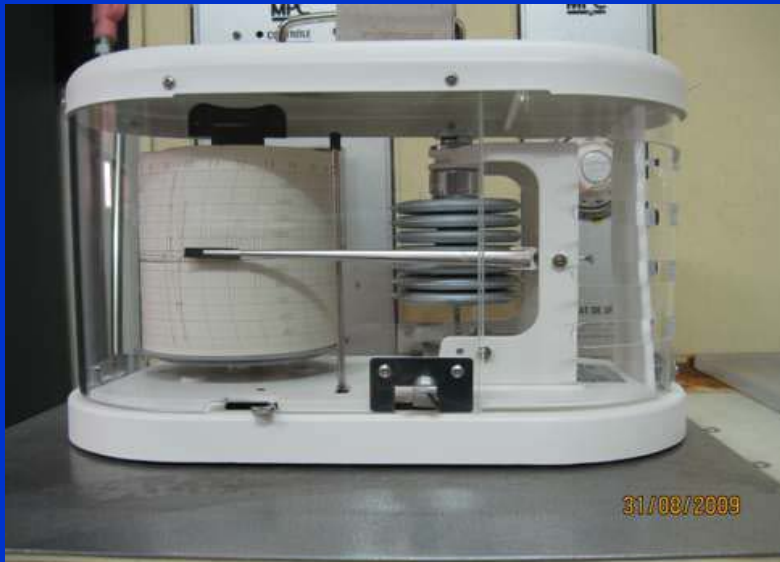
- Class 1: 58
- Class 2: 70
- Class 3: 48
- Synoptic : 131
- Climatic : 43
- Radiation : 13
- Agro. met. : 27
- Belong to Global Observing System: 25



Instruments in operational use

Pressure gauge:

- KEW Barometer (China) every 3 years
- Vaisala PTB220 Digital Barometer (Finland) every years



- KEW Barometer
(China)



Instruments in operational use

Temperature record: Fischer, model 525S

Calibration: every three years



Instruments in operational use

Humidity: Fischer: model 325 (Germany)

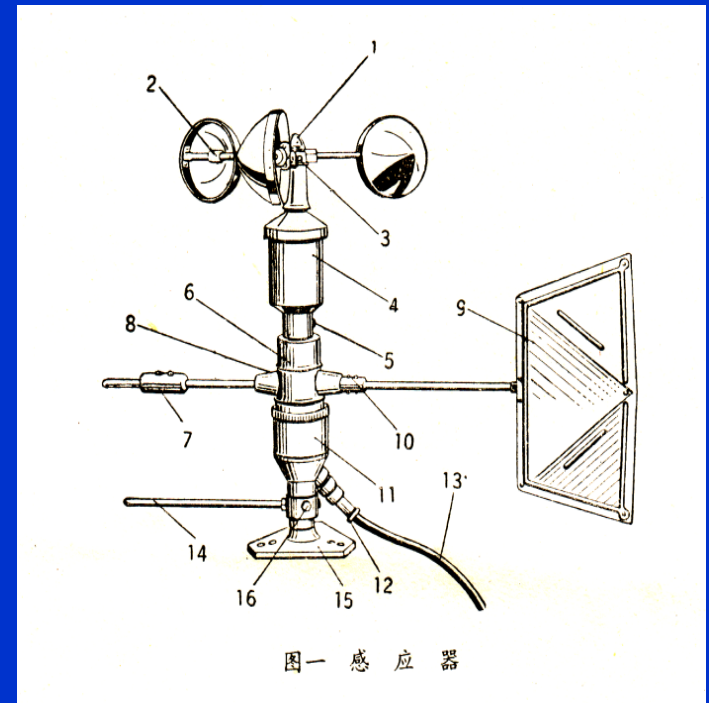
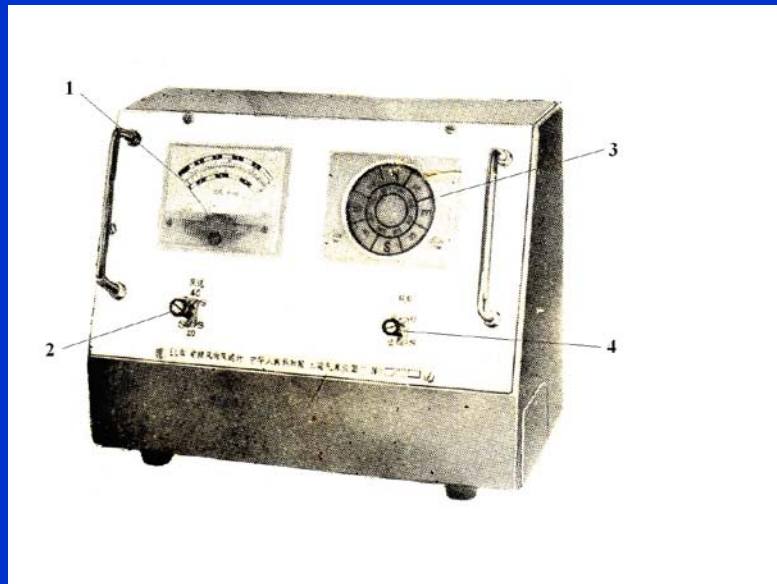
Calibration: every year



Instruments in operational use

Wind measurement: Calibration: every three years

Model: EL (China)



Instruments in operational use

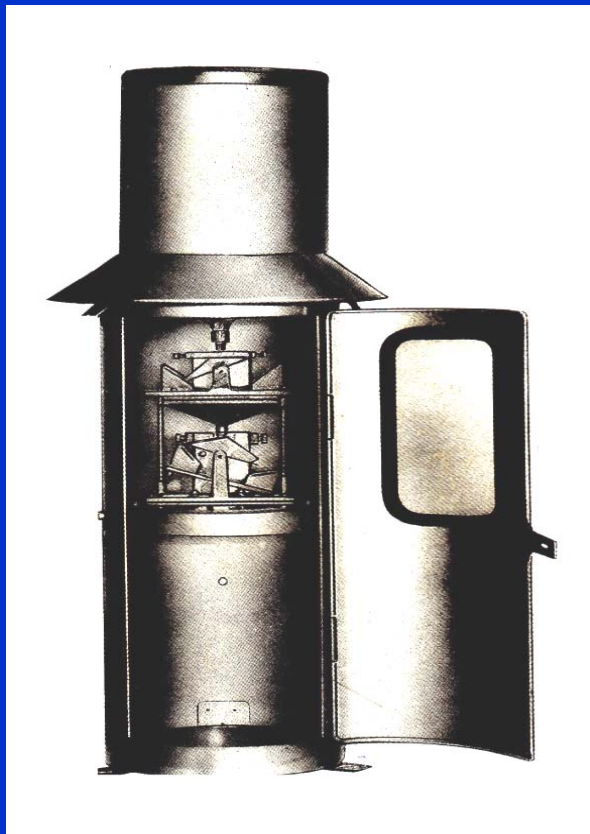
Anemometer: Young (USA)
Calibration: every three years



Instruments in operational use

Measured rainfall: SL1 (China)

Calibration: every three years



Instruments in operational use

Sunshine Recorder: Campbell Stock

Check: every three years



Standards and equipments for calibration

Standards and equipments for calibration

Temperature



Super thermometers 1575 USA



Calibration instrument
VT4011 (Germany)

Equipments for calibration, Specification

Manufacturer: Germany

Model: VT 4011

Specification: Temperature range -40 to
+180° C

Temperature stability $\pm 0,2$ to $\pm 0,5^{\circ}\text{C}$

Standards and equipments for calibration

Humidity



Hygro – M3 USA



DJM10A China

Equipments for calibration, Specification

Manufacturer: China

Model: DJM10A

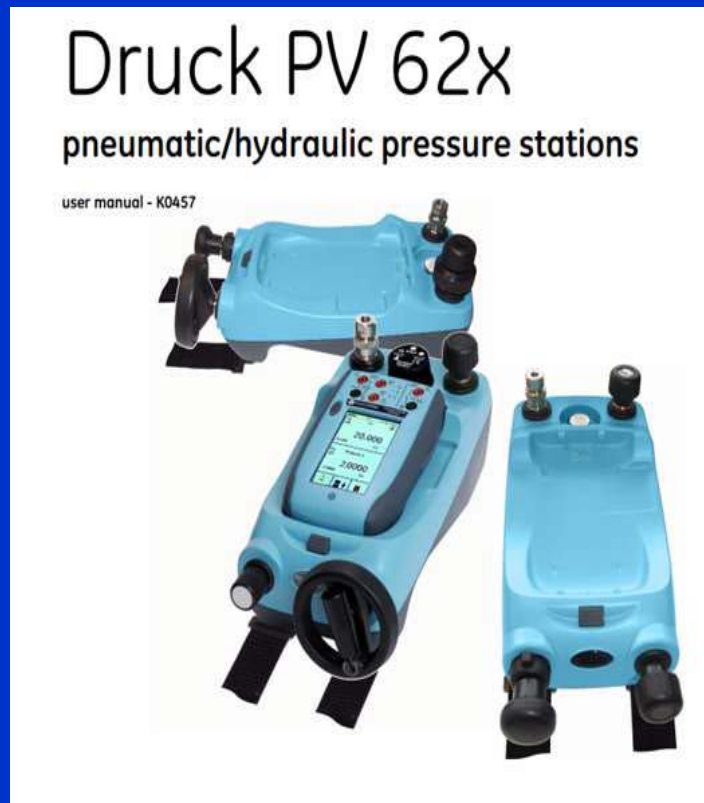
Humidity adjustment range 20% ÷ 100% RH

Non uniformity of humidity field: $\pm 1\%$ RH

Humidity control error: $\pm 1,5\%$ RH

Standards and equipments for calibration

Pressure



Digital pressure DPI 620



Pressure chamber

Standards and equipments for calibration

Wind



Wind tunnel 406 B (USA)

Equipments for calibration, Specification

Manufacturer: USA

Model: 406 - B

Specification: measuring range 0,6 to 60m/s

Non uniformity of speed field 1%.



Thank you for attention !