



## Day 8- Fact Sheet 21

### Tales of the Todd- Read all about it!

# Observing Weather

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Every hour of every day, weather observers around the world collect millions of pieces of information about the weather. Most of it is gathered by specialist officers such as those from the Australian Bureau of Meteorology (BOM), which are advised by the World Meteorological Organisation (WMO) and work to common standards of measurement. The information gathered is freely exchanged globally between all of the services in order to monitor the Earth's climate and to provide warnings against bushfires, floods, droughts, tropical cyclones, tornados and other potentially dangerous events.

The equipment used varies from simple thermometers and barometers to sophisticated radar and satellites. That all of these elements come together to give a global understanding of the Earth's weather is a tribute to the cooperation of the world's scientific bodies.

Most meteorological services also rely on networks of part time and volunteer observers. In Australia the Bureau of Meteorology operates some 62 stations with its own staff, but employs around 500 part time observers (shire council staff, teachers at remote schools such as and pastoralists (Identify) to take a range of measurements such as temperature and rainfall at key locations around the country. It also obtains information from around 6,000 volunteers who record daily rainfall, 2,000 "storm spotters" and 400 voluntary observing ships. The bureau also operates a network of 320 automatic Weather Stations that continually record and transmit information.

The list of elements measured at most bureau staffed stations is extensive- atmospheric pressure, air temperature, cloud (amount type and height), evaporation, humidity, lightning flash count, precipitation, sunshine, soil temperatures, visibility, wind speeds and so on. Find out what they measure in CA).

In many cases the equipment needed for these measurements is complex and expensive. Yet much can be learned about the weather from a set of more basic measurements made with relatively inexpensive equipment.