## About latest weather observations

### **Latest Weather Observations**

Weather observations show what weather has occurred. The 'Latest Weather Observations' pages include Automatic Weather Station and manual observations. Reporting schedules vary according to station type. Reports that are more than 75 minutes old are shown in italics and are coloured. Stations that have high frequency reporting schedules include some additional 'highest' and 'lowest' weather details.

### **Latest Weather Observations for each state**

The state 'Latest Weather Observations' pages list stations that reported within the previous 24 hours. Stations that have high frequency reporting schedules also include 'highest' and 'lowest' temperature details. Stations are grouped by forecast district. A linked district index has been included near the top of the page to streamline access to relevant stations.

### Latest Weather Observations for each capital city area

Capital city pages include reports from stations in the area around the capital city that reported within the previous 24 hours. They include the highest wind gust for stations with high frequency reporting schedules, in addition to the details reported in the state Latest Weather Observation pages. The other stations remain listed in the state Latest Weather Observations pages and the station pages also remain accessible via the capital city area clickable maps.

# Latest 72 hours weather observations for each station

Each station name is linked to a corresponding latest 72 hours weather observations page. These station observation pages can also be accessed via the clickable weather station maps. The latest 72 hours of weather observations are listed from the most recent report at the top of the page, to the oldest report at the bottom of the page.

### **Further station observations**

The Latest 72 hour station pages also include a link near the top of the page, titled 'Recent months' at that station. The recent observations are monthly summaries of daily weather observations. Some, mostly newer stations, do not have corresponding summary pages. The links for these stations provide a state station index so other relevant stations may be selected.

#### **Station information**

The 72 hour pages for each station include some basic station details to help identify the station. Some Bureau pages, including the 'Latest Weather Observations' use shorter, or more publicly recognisable names than the official station names. The 'Station Details', which include the Bureau of Meteorology station number, the official station name and location information, can be useful when you are comparing Bureau pages to ensure you are viewing the relevant station.

#### Example:

Station	ID:	Name: OUYEN (POST	Lat:	Lon:	Height: 50.3	
Details	76047	OFFICE)	-35.06	142.31	m	

# Clickable station maps

The observation station maps indicate the locations of weather observation stations and the corresponding Forecast Districts. Click on the station names to access corresponding latest 72 hours observation pages. Some longer station names have been abbreviated in the maps. Roll your mouse over the station name to see the full name displayed.

Some locations have more than one station. In areas where the names are crowded, only the most frequently reporting station for the location is linked from the map. All stations that have reported in the previous 24 hours are listed in the 'Latest Weather Observations' products.

Click on the Forecast District names in the map legend, or district area numbers on the map, to link to the corresponding district section in the 'Latest Weather Observations' page.

### Other formats

The 72 hour station histories are available in a number of formats for use as a data feed. Click on the link called 'Other Formats' to view them.

- JavaScript Object Notation format (JSON) in row-major order.
- JavaScript Object Notation format (JSON) in column-major order.
- Comma delimited format used in spreadsheet applications.

## Terms and abbreviations

To save space on the screen, most observation table columns have abbreviated headings.

#### **Example**

Note: The 'Latest Weather Observations for Antarctica' includes a slightly different set of information and headers.

Heading	Meaning	
Station Name	Name used to identify the observation station within this product.	
	Official Bureau names may vary, particularly when a number of different types of stations are closely located.	
	Station name abbreviations:	
	<ul><li>RS: Research Station</li><li>AWS: Automatic Weather Station</li></ul>	
Date/Time	Date and time of the observation. Observations are collected and displayed in the main time zone for each state and territory. Some locations listed under a state and territory may have a different local time, for example, weather stations on offshore islands or near state borders.  12:00am refers to midnight. 12:00pm refers to midday or noon.	hh:mm - 12 hour clock
Temp (°C)	Ambient temperature.	degrees
Temp (C)	Ambient temperature.	Celsius

Heading	Meaning	Units
App Temp (°C)	Steadman Apparent Temperature. May also be referred as AT in other observation products.	degrees Celsius
	About Thermal Comfort Observations	
Dew Point (°C)	Temperature to which air must be cooled for dew to form.	degrees Celsius
Rel Hum (%)	Relative humidity.	percent
Delta-T (°C)	Delta-T is Wet Bulb Depression (Air Temperature - Wet Bulb Temperature).(Not included for Antarctic observations)	degrees Celsius
Wind Dir	Wind Direction. Direction relative to True North, from which the wind is blowing.	16 Compass Points
Wind Speed (Knots)	Wind observations averaged over 10 minutes.	knots
Wind Gust (Knots)	Wind gust is measured over 3 seconds.	knots
Wind Speed (km/h)	Wind observations averaged over 10 minutes.	kilometres per hour
Wind Gust (km/h)	Wind gust is measured over 3 seconds.	kilometres per hour
Press MSL (hPa)	Atmospheric pressure reduced to mean sea level.	hectopascals
Press QNH (hPa)	"Press QNH" is QNH pressure. The correction from station level pressure to QNH pressure is based on the conditions specified by the International Standard Atmosphere. QNH pressure is used by pilots to set the altimeter of their aircraft. QNH pressure is closely related to Mean Sea Level Pressure (MSLP) at low elevations, and can vary significantly from MSLP at high elevations.	hectopascals
Rain since 9 am	Precipitation since 9 am.	millimetres
(Precipitation) mm	Sometimes only known to the nearest whole millimetre.	
	Rainfall that is less than 0.2mm, but greater than zero is reported as 0.1mm.	
	Rainfall amounts may be rounded to the nearest millimetre in the observations at 00.00, 03.00, 06.00, 09.00,12.00,15.00,18.00 and 21.00 local time.	
Low Temp (°C)	"Low Temp" is the Overnight low temperature, measured in degrees Celsius, from 6 pm through to 9 am on the current calendar day.	degrees Celsius
	These values are available for stations with high frequency reporting schedules. The report time for each lowest value is included beneath the value.	
	Note: Minimum temperatures in the Bureau's climate records are measured from 9 am to 9 am and may differ from the values shown in the table.	

Heading	Meaning	Units
High Temp (°C)	"High Temp" is the Daytime high temperature, measured in degrees Celsius, from 6 am to 9 pm on the current calendar day.  These values are available for stations with high frequency reporting schedules. The report time for each highest value is included beneath the value.  Note: Maximum temperatures in the Bureau's climate records are measured from 9 am to 9 am and may differ from the values shown in the table.	degrees Celsius
Highest Wind Gust	"Highest Wind Gust" is Highest Wind Gust measured from midnight to midnight for the current calendar day. These values are available for capital city area stations with high frequency reporting schedules. The report time for each Highest Wind Gust value is included beneath the value.	
Highest Wind Gust Dir	Wind gust direction at time of highest wind gust.	16 Compass Points
Highest Wind Gust Speed (km/h)	Wind gust speed in km/h at time of highest wind gust.	kilometres per hour
Highest Wind Gust Speed (knots)	Wind gust speed in knots at time of highest wind gust.	knots

### Observation data archives and station lists.

The Bureau's Climate section maintains observation data archives, station lists and details. Climate data and further information | Weather Station directory

# **Observation data collection**

Weather data are obtained from different types of observing stations around Australia, on offshore islands, and in the Antarctic. They include bureau staffed and cooperative observer stations, automatic weather stations, meteorological satellites and drifting ocean buoys, ships and aircraft that collect weather data.

At the majority of locations, Automatic Weather Stations (AWSs) send data frequently. Some provide data every minute, while others report on an hourly basis. The AWSs are designed to provide data for the Bureau's forecasting, warning, and information services, as well as providing data for the Bureau's climate database.

At some locations Bureau observers supplement the temperature, humidity, pressure and wind observations with observations of cloud and other elements such as sea state. These are referred to as 'Visual Observations' in some products. These manual observations are reported less frequently. For most of the day, three hourly instrument readings are made of temperature, air pressure, humidity, rainfall, and wind speed and direction, and visual observations are made of cloud cover and visibility. In addition to the 'surface' observations, at some stations the temperature and humidity of the upper atmosphere are obtained by balloon-borne instruments to an altitude of 25 kilometres.

The Bureau also has a network of more than 400 part-time observers who provide further surface observations.

# **Observation data quality**

Observations on the Latest Weather Observations web pages are updated from the Bureau of Meteorology's real-time database. These include data provided from portable automatic weather stations (PAWS) and from sites that are manually operated and update less frequently. Limited quality checks are performed. It is possible for incorrect values to appear. Please check the <u>disclaimer</u> before using these data.

With the exception of data from the portable category of sites, you may search for data that have been quality checked using our <u>climate data online</u> service. If you have questions about our products, or data requests, please <u>contact us</u>.

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