

UNDERSTANDING WEATHER AND THE WEATHER FORECAST

WEEK 1

Introduction
Weather over the summer
Weather on the web

Terry Hart

2022

Australian Government
Bureau of Meteorology

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Warnings current

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Weather for Tuesday 5 January

City observations ▼

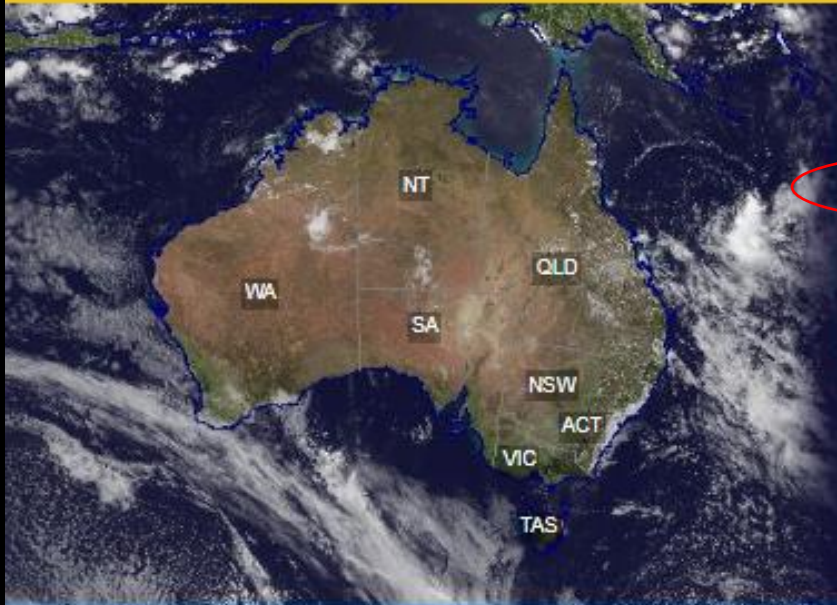
Sydney	Melbourne	Brisbane	Perth	Adelaide	Hobart	Canberra	Darwin
Now	Now	Now	Now	Now	Now	Now	Now
25.8°	18.0°	31.6°	23.9°	19.6°	18.8°	23.7°	31.4°
ESE 13km/h	SSE 13km/h	SE 4km/h	ESE 0km/h	S 17km/h	SE 13km/h	NW 7km/h	NW 19km/h
Max 27°	Max 20°	Max 33°	Max 35°	Max 24°	Max 22°	Max 27°	Max 33°
Shower or two. Possible storm.	Rain, easing in the afternoon.	Partly cloudy.	Sunny.	Partly cloudy.	Possible late shower.	Shower or two.	Possible shower.



Warnings current

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> Weather maps

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Weather for Wednesday 5 December

City observations ▼

Sydney

Now

21.0°

ENE 15km/h

Max 23°

Cloudy.

Melbourne

Now

21.2°

SSW 13km/h

Max 26°

Mostly sunny.

Brisbane

Now

22.8°

ESE 17km/h

Max 28°

Shower or two.

Perth

Now

22.6°

SSW 11km/h

Max 25°

Partly cloudy.

Adelaide

Now

32.9°

NNE 6km/h

Max 34°

Sunny.

Hobart

Now

18.2°

SE 19km/h

Max 23°

Mostly sunny.

Canberra

Now

21.4°

E 11km/h

Max 27°

Partly cloudy.

Darwin

Now

33.3°

W 19km/h

Max 34°


Shower or two.
Possible storm.

Satellite images

[Home](#) > [Australia](#) > [High-definition satellite images](#)
High-definition satellite images

See images from Himawari-8 in the new satellite viewer

This demonstration product is most suitable for people with fast internet connection and high data allowance.



[Explore images now](#)

Low-definition satellite images
[Satellite Viewer Help](#)

Satellite View Selection

Region:

View:

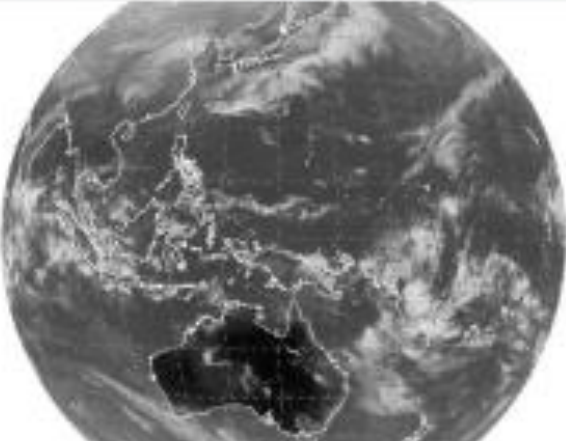
Animals

AES1 | [AES1](#) | [ACD1](#) | [ACS1](#) | [AWS1](#) | [UIC](#)

TUESDAY WEDNESDAY

06:00 06:30 07:00 07:30 08:00 08:30 09:00 09:30 10:00 10:30 11:00 11:30 12:00 12:30 13:00 13:30 14:00 14:30 15:00 15:30 16:00 16:30 17:00 17:30 18:00 18:30 19:00 19:30 20:00 20:30 21:00 21:30 22:00 22:30 23:00 23:30

12:30 AES1 on Wednesday 3 December 2015 | Infrared, grey-scale, Full Disk



Operations Notices

- Explore the new lightning data layer now included with the High-Definition Satellite Viewer

Satellite Data

- Satellite Image Viewer
- About Satellite Images
- About Environmental Satellites
- Multi-Functional Transport Satellite (MITSAT)
- Himawari-8 and -9
- Regional ATOVS (Reconnaissance Services (RANS))

Applications

- Normalized Difference Vegetation Index (NDVI)
- Solar Exposure
- Arctic: Sea Ice Images
- Sea Surface Temperature
- Interactive Map Viewer
- Atmospheric Motion Vectors (external link)

Obtaining Satellite Data

- Data Requests
- Significant Events
- Registered Users

<http://www.bom.gov.au/australia/satellite/>

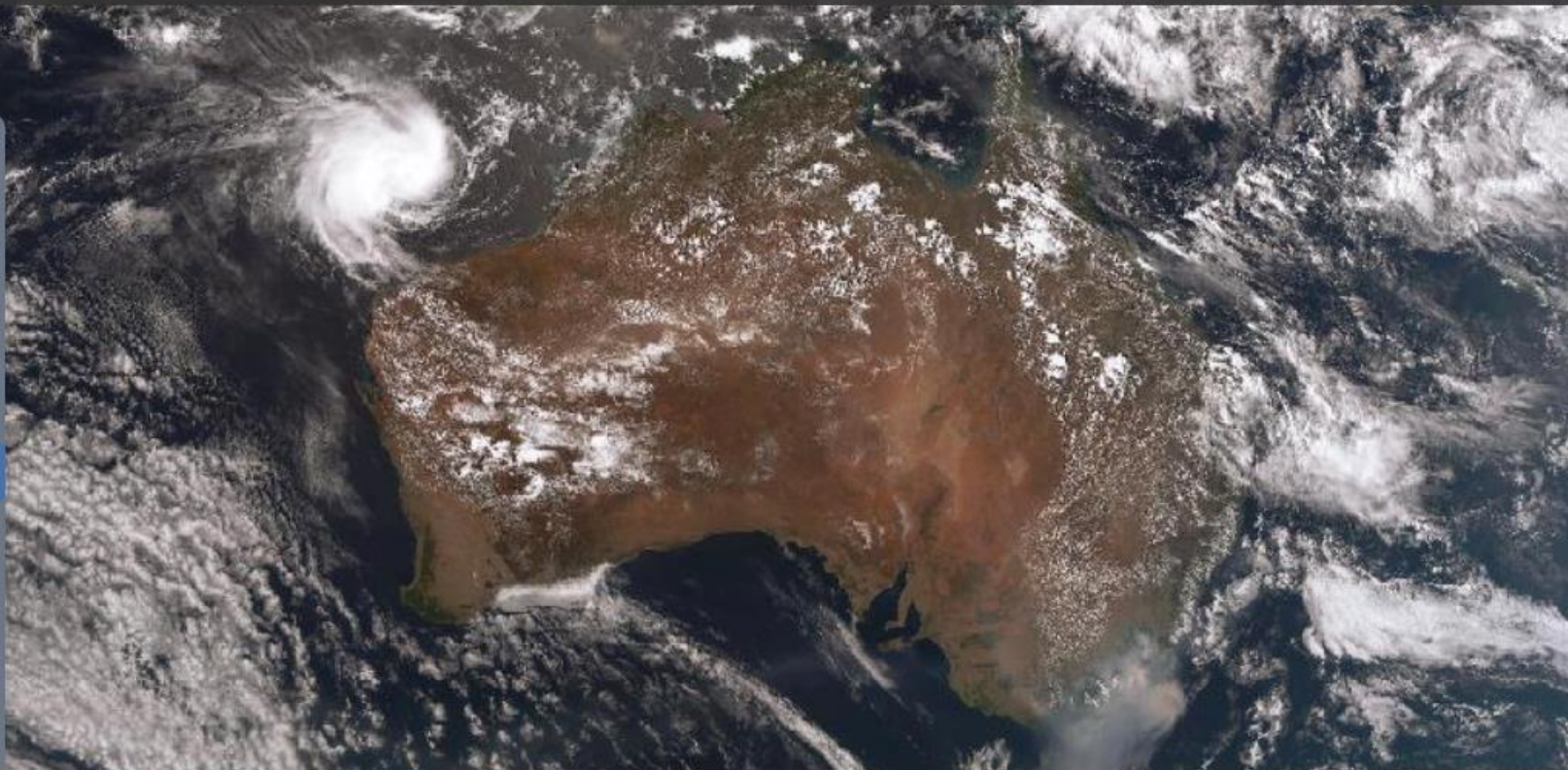
High resolution satellite image time lapse

<http://satview.bom.gov.au/>

- Day + Night
- Visible Greyscale
- Infrared Greyscale
- Infrared + Zehr
- Lightning

- Cities
- Roads
- Boundaries
- Coastal

- Show Coordinates



Monday, 13 January 2020 04:40 pm AEDT

Layers +

Slower — ⏪ ▶ ⏩ + Faster

Australian Government
Bureau of Meteorology

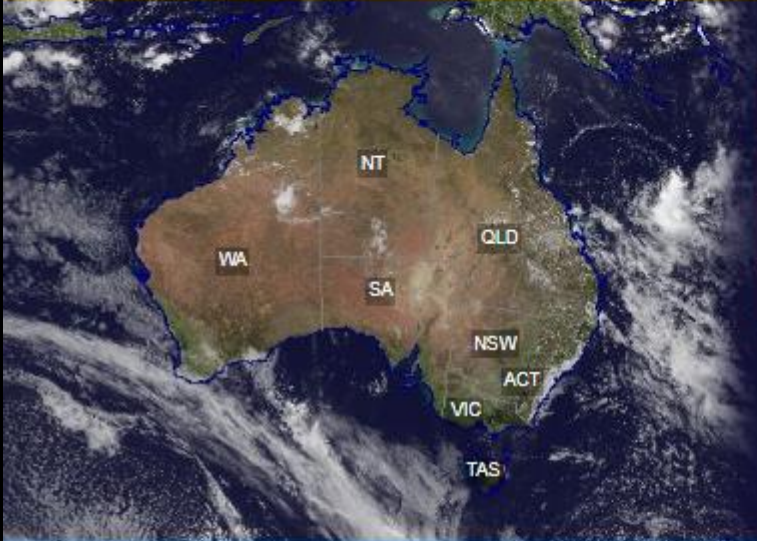
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Weather for Wednesday 5 December

City observations

Sydney	Melbourne	Brisbane	Perth	Adelaide	Hobart	Canberra	Darwin
Now	Now	Now	Now	Now	Now	Now	Now
21.0°	21.2°	22.8°	22.6°	32.9°	18.2°	21.4°	33.3°
ENE 15km/h	SSW 13km/h	ESE 17km/h	SSW 11km/h	NNE 6km/h	SE 19km/h	E 11km/h	W 19km/h
Max 23°	Max 26°	Max 28°	Max 25°	Max 34°	Max 23°	Max 27°	Max 34°
Cloudy.	Mostly sunny.	Shower or two.	Partly cloudy.	Sunny.	Mostly sunny.	Partly cloudy.	Shower or two. Possible storm.
0.0mm rain since 9am in Sydney.	0.0mm rain since 9am in Melbourne.	0.0mm rain since 9am in Brisbane.	0.0mm rain since 9am in Perth.	0.0mm rain since 9am in Adelaide.	0.0mm rain since 9am in Hobart.	0.0mm rain since 9am in Canberra.	0.2mm rain since 9am in Darwin.

Current weather observations

Latest Weather Observations for the Melbourne Area

[About weather observations](#) | [Map of Melbourne area stations](#) | [All VIC observations](#) | [Latest VIC observations](#) | [Latest Coastal VIC observations](#)

IDV80900

Issued at 3:21 pm EDT Monday 11 January 2021 (issued every 10 minutes, with the page automatically refreshed every 5 minutes)

Where no observation is available within the last 75 minutes, the latest observation is shown in *italics and coloured* and removed from the table after Station names link to data for the previous 72 hours. [These observations have not been quality controlled.](#)

MELBOURNE AREA

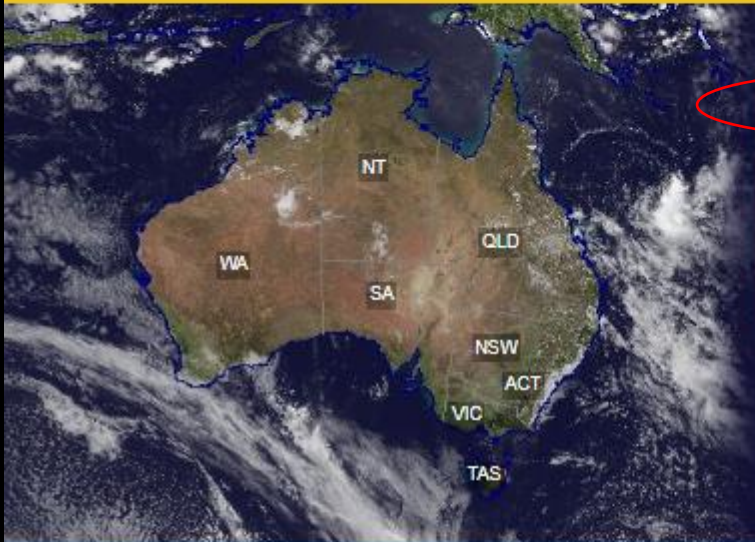
	Date/Time EDT	Temp °C	App Temp °C	Dew Point °C	Rel Hum %	Delta- T °C	Wind					Press MSL hPa	Rain since 9am mm	Low Temp °C time	High Temp °C time	Highest Wind Gust		
							Dir	Spd km/h	Gust km/h	Spd kts	Gust kts					Dir	km/h time	kts time
Melbourne (Olympic Park)	11/03:20pm	36.5	33.7	11.3	22	15.0	NNW	17	22	9	12	1007.9	0.0	19.5 04:37am	36.5 03:20pm	NNW	41 02:04pm	22 02:04pm
Melbourne Airport	11/03:20pm	35.9	27.1	3.6	13	17.1	N	39	44	21	24	1008.5	0.0	18.2 04:16am	36.0 03:00pm	N	57 03:18pm	31 03:18pm
Avalon	11/03:20pm	36.3	28.3	9.0	19	15.7	N	41	54	22	29	1007.3	0.0	15.9 04:51am	37.1 03:17pm	N	54 03:20pm	29 03:20pm
Cerberus	11/03:20pm	35.9	31.6	7.0	17	16.1	N	19	26	10	14	1008.0	0.0	16.4 12:23am	36.4 03:16pm	NNW	41 11:06am	22 11:06am
Coldstream	11/03:20pm	35.7	31.8	8.5	19	15.5	N	19	26	10	14	1009.1	0.0	13.9 05:37am	35.8 01:05pm	NNE	41 01:58pm	22 01:58pm
Essendon Airport	11/03:20pm	35.7	29.7	5.1	15	16.5	NNW	26	41	14	22	1008.3	0.0	18.9 05:39am	36.6 03:16pm	NNW	54 03:11pm	29 03:11pm
Fawkner Beacon	11/03:20pm	-	-	-	-	-	NNW	35	41	19	22	-	-	-	-	N	57 01:48pm	31 01:48pm
Ferry Creek	11/03:20pm	30.8	28.8	8.5	25	12.6	N	9	11	5	6	-	0.0	23.4 12:58am	31.0 03:19pm	NE	33 06:14am	18 06:14am
Frankston (Ballam Park)	11/03:20pm	35.5	32.5	10.5	22	14.7	NNW	17	22	9	12	-	0.0	17.4 04:41am	35.7 03:20pm	NNW	35 02:40pm	19 02:40pm
Frankston Beach	11/03:20pm	-	-	-	-	-	NNW	15	15	8	8	-	-	-	-	NNW	30 02:08pm	16 02:08pm
Geelong Racecourse	11/03:20pm	36.0	29.0	6.2	16	16.4	NNW	32	37	17	20	-	0.0	15.8 04:15am	36.9 02:56pm	N	48 12:56pm	26 12:56pm
Laverton	11/03:20pm	35.8	28.6	7.8	18	15.8	NNW	35	43	19	23	1008.0	0.0	17.1 06:45am	36.3 01:46pm	N	54 01:16pm	29 01:16pm
Moorabbin Airport	11/03:20pm	35.5	30.9	11.2	23	14.4	N	26	39	14	21	1008.1	0.0	17.4 06:02am	36.8 01:55pm	-	50 01:58pm	27 01:58pm
Rhyll	11/03:20pm	30.3	27.4	13.9	36	9.9	NNW	22	26	12	14	1008.3	0.0	19.1 06:53am	32.5 02:47pm	NNW	33 11:58am	18 11:58am
Scoresby	11/03:20pm	35.0	33.9	15.3	30	12.4	N	15	26	8	14	-	0.0	17.0 04:45am	35.9 03:14pm	NNW	44 01:35pm	24 01:35pm
Sheoaks	11/03:20pm	34.3	27.6	5.7	17	15.6	NNW	30	37	16	20	1008.0	0.0	17.1 02:44am	35.4 02:29pm	NNW	48 01:26pm	26 01:26pm
South Channel Island	11/03:20pm	-	-	-	-	-	N	35	37	19	20	-	-	-	-	N	39 10:52am	21 10:52am
St Kilda Harbour RMYS	11/03:20pm	-	-	-	-	-	NW	41	52	22	28	-	-	-	-	NNW	54 01:58pm	29 01:58pm



Warnings current

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Warning services



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Weather for Wednesday 5 December

City observations



Sydney	Melbourne	Brisbane	Perth	Adelaide	Hobart	Canberra	Darwin
Now	Now	Now	Now	Now	Now	Now	Now
21.0°	21.2°	22.8°	22.6°	32.9°	18.2°	21.4°	33.3°
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Radar Images

Select location to see its image (or use Radar sites tables: [NSW/ACT](#) | [VIC](#) | [QLD](#) | [WA](#) | [SA](#) | [TAS](#) | [NT](#))



Dedicated Weather Watch Radars should be online at all times, with images updated approximately every 10 minutes, unless there are technical difficulties or scheduled maintenance.

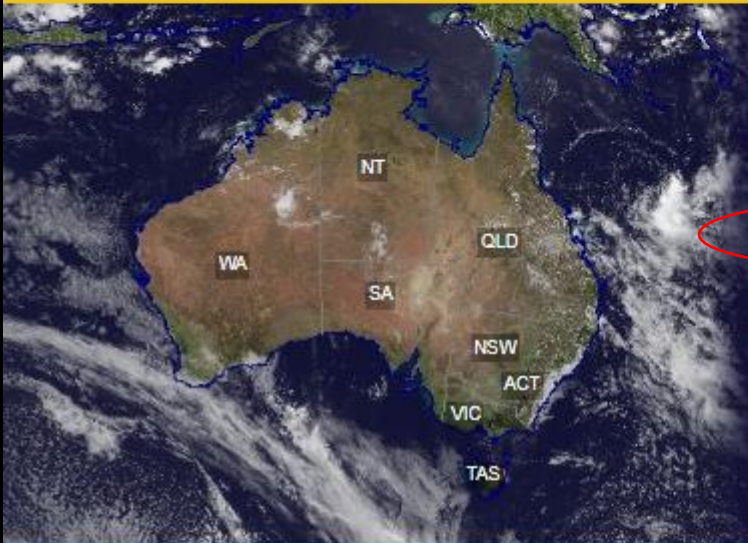
Part-time Windfinding Radars have routine periods when weather watch coverage is not available [See availability table](#).



Warnings current

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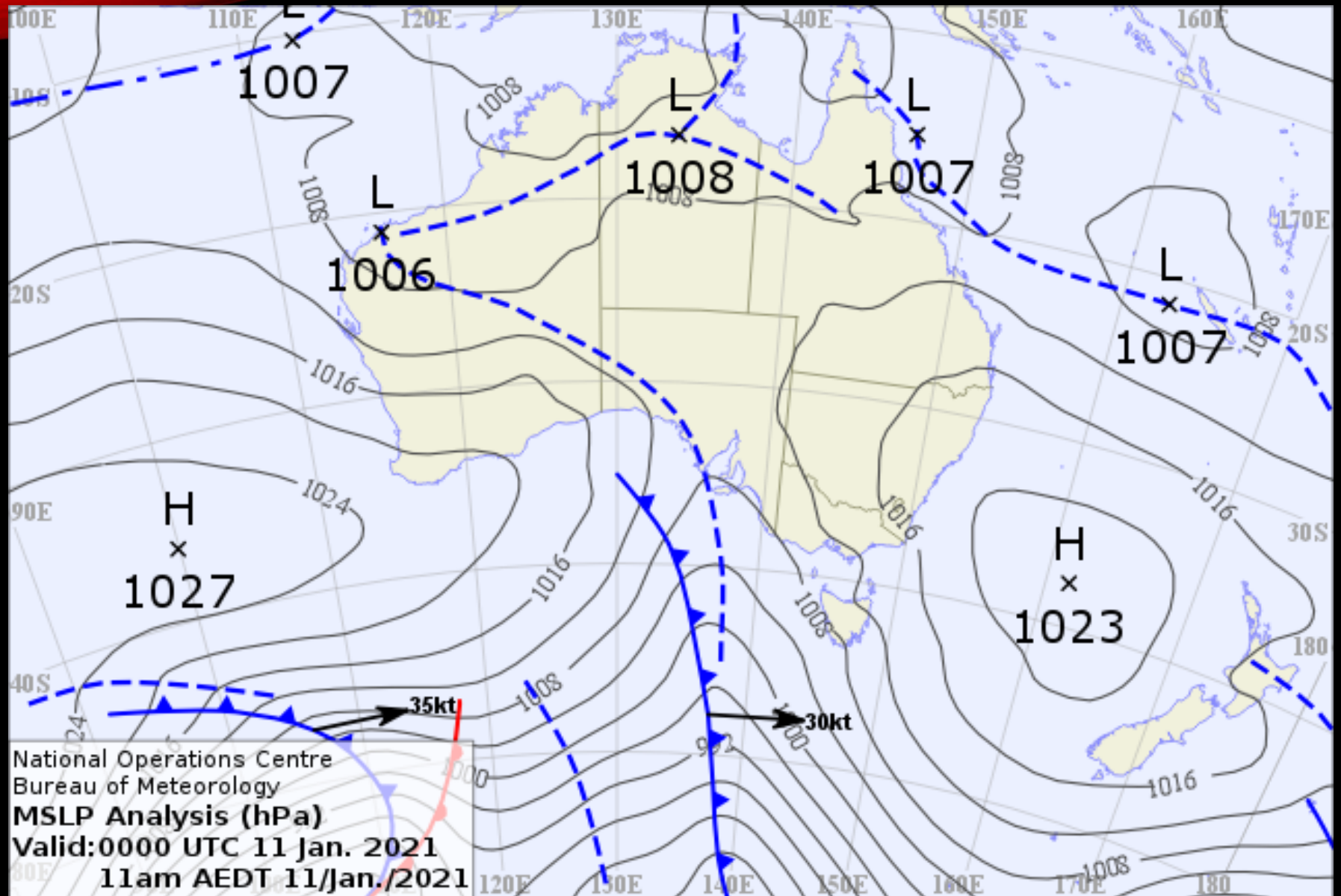
Advertisement

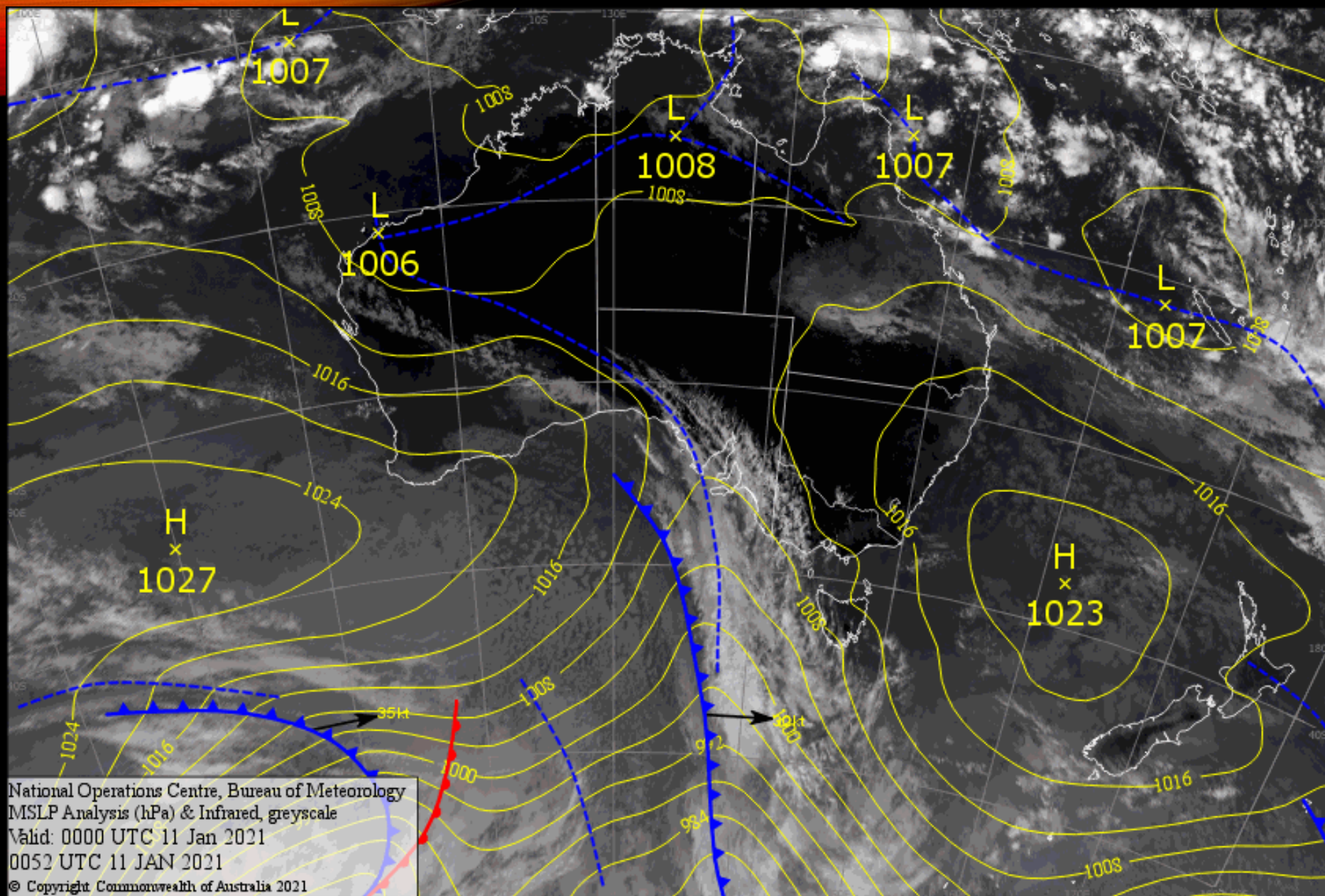
Weather for Wednesday 5 December

City observations



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Weather maps – show lines of equal pressure at sea level

Three basic rules for reading weather maps in our part of the world:

- The wind blows clockwise around lows, and anticlockwise around highs (in the Southern Hemisphere; the opposite way in the Northern Hemisphere)
- the closer the isobars (lines of equal pressure), the stronger the wind
- rain and thunderstorms tend to occur in the low pressure zone between highs.

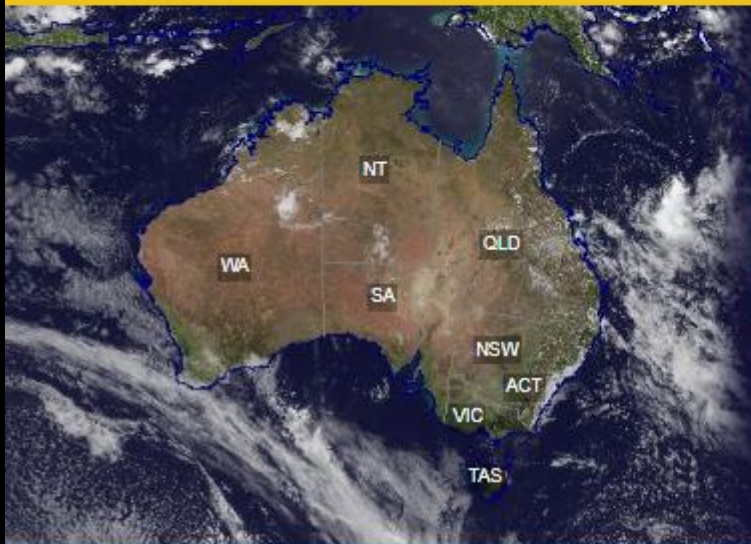
Why this is so, will be the topic for the next few weeks!



Warnings current

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Weather for Wednesday 5 December

City observations ▼

Sydney	Melbourne	Brisbane	Perth	Adelaide	Hobart	Canberra	Darwin
Now	Now	Now	Now	Now	Now	Now	Now
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[Bureau Home](#) > [Australia](#) > [Victoria Weather and Warnings](#)

Victoria Weather and Warnings




[View the current warnings for Victoria](#)


Forecasts


[All forecasts](#)

[Melbourne forecast](#)

 [7-day town forecasts via clickable map](#)

[Marine services](#)

 [District and marine forecasts via clickable map](#)

 [Weather and wave forecast maps – next 7 days \(MetEye\)](#)

[Weather system maps – next 4 days](#)

[Australian Alps Weather](#)




[Alpine weather overviews](#)

Observations

[All observations](#)

[Melbourne area latest observations](#)


[VIC latest observations](#)

 [Latest rainfall & river conditions via clickable map](#)

Radars

[Melbourne radar](#)



 [Select location to see its image.](#)

[All radar sites for Victoria](#)


Past Weather

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[Climate averages](#)

 [Maps](#)

 [Monthly statistics](#)

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Outlooks

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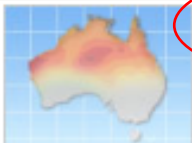
Weather Maps

<http://www.bom.gov.au/australia/charts/>

[Bureau Home](#) > [Australia](#) > [Weather maps](#)

Weather Maps

Numerical Weather and Ocean Prediction Maps



- [Interactive Weather and Wave Forecast Maps](#)
- [Numerical Weather Prediction \(NWP\) Products](#)

Australian Region



- [Mean Sea Level Pressure \(MSLP\) map](#)
- [Latest Colour Mean Sea-Level Pressure Analysis and Infrared Greyscale Satellite](#)
- [Short-term forecast](#)
- [Forecast map for next 4 days](#)
- [UV Forecast](#)

Tropical Region



Mean Sea Level Pressure (MSLP)

- [Asia MSLP Analysis 00 UTC](#)

Gradient Level Wind (GLW)

- [Gradient Level Wind Analysis: 00 UTC or 12 UTC](#)
- [Pacific Ocean GLW \(A\): 00 UTC or 12 UTC](#)
- [Indian Ocean GLW \(B\): 00 UTC or 12 UTC](#)

Southern Hemisphere



- [Southern Hemisphere MSLP Analysis](#)
- [Pacific Ocean MSLP Analyses](#)
- [Indian Ocean MSLP Analyses](#)

Related Information

- ▶ [Analysis & Prediction Operations Bulletins](#)
- ▶ [Interpreting the MSLP Analysis](#)
- ▶ [Interpreting the Gradient Level Wind Analysis \(Asia Region\)](#)



NWP Data Files

- ▶ [ACCESS Data Files Documentation](#)
- ▶ [AUSWAVE Data Files Documentation](#)

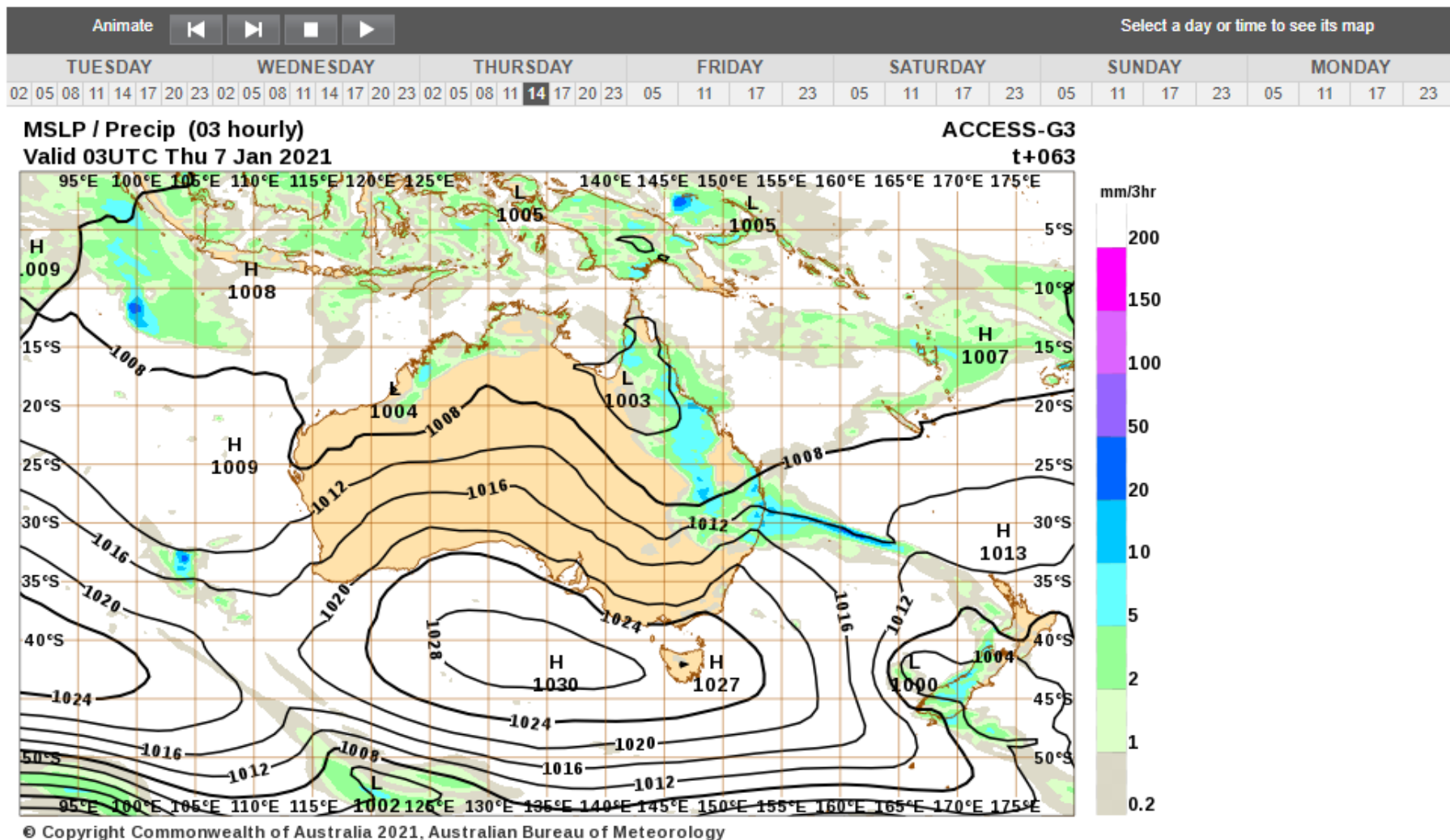
Map Archives

- ▶ [Analysis Chart Archive](#)
- ▶ [Climate Map Archive](#)



Computer forecast weather maps

<http://www.bom.gov.au/australia/charts/viewer/>



Forecast for 14:00 AEDT on Thursday 7 January 2021



Warnings current

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- > Rain radar
- > Satellite
- > Weather maps
- > MetEye



Forecast for Friday 7 December

City observations

Sydney	Melbourne	Brisbane	Perth	Adelaide	Hobart	Canberra	Darwin
Now	Now	Now	Now	Now	Now	Now	Now
22.5°	34.8°	24.2°	21.7°	37.8°	29.2°	27.6°	32.2°
NE 25km/h	NW 24km/h	SE 20km/h	SW 17km/h	W 11km/h	NNE 13km/h	ENE 15km/h	WNW 24km/h
17° 26°	25° 38°	19° 26°	13° 26°	28° 38°	15° 27°	13° 32°	29° 35°
Mostly sunny.	Hot. Windy.	Shower or two.	Sunny.	Very hot. Partly cloudy.	Partly cloudy.	Sunny.	Possible shower or storm.
0.0mm rain since 0am in Sydney.	0.0mm rain since 0am in Melbourne.	0.0mm rain since 0am in Brisbane.	0.0mm rain since 0am in Perth.	0.0mm rain since 0am in Adelaide.	0.0mm rain since 0am in Hobart.	0.0mm rain since 0am in Canberra.	0.0mm rain since 0am in Darwin.

Our services

 Agriculture	 Climate and Past Weather	 Water Information	 Aviation Weather Services
 Marine and Ocean	 UV and Sun Protection	 Environmental Information	 Registered Users and Data Services

News and events

- > Latest media releases
- > Latest ENSO wrap-up
- > Special climate statements
- > Bureau service report 2017-18
- > Service announcements
- > All news and events

Specialised services

- > Business change
- > Research
- > WMD activities
- > Business Solutions
- > Defence services
- > Space weather services



Heatwaves forecast



Help shape the future of Bureau services




BOM Weather App available now



Business and Public Sector Solutions

Climate and past data

<http://www.bom.gov.au/climate/>

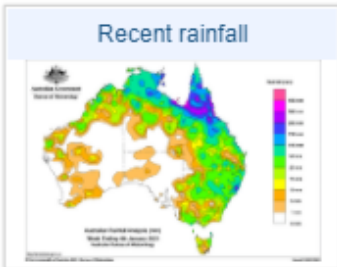


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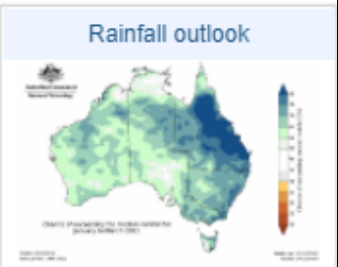
Bureau Home > Long-range weather and climate

Long-range weather and climate



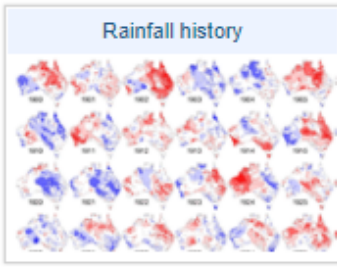
Recent rainfall

Map of Australia showing rainfall patterns. Legend: 0-100mm (blue), 100-200mm (green), 200-300mm (yellow), 300-400mm (orange), 400-500mm (red), 500-600mm (purple).



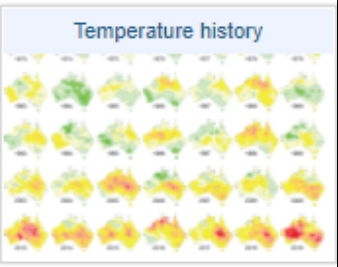
Rainfall outlook

Map of Australia showing rainfall outlook. Legend: 0-100mm (blue), 100-200mm (green), 200-300mm (yellow), 300-400mm (orange), 400-500mm (red), 500-600mm (purple).



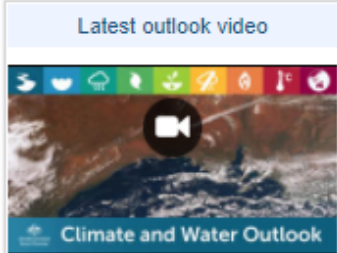
Rainfall history

Grid of 12 small maps showing rainfall history for each month from 2019 to 2020.



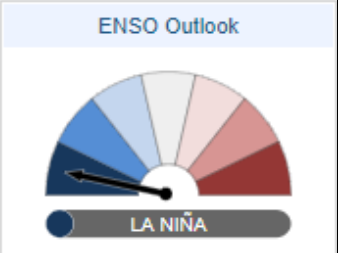
Temperature history

Grid of 12 small maps showing temperature history for each month from 2019 to 2020.




Latest outlook video

Climate and Water Outlook

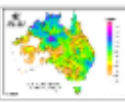


ENSO Outlook


LA NIÑA




Monthly, seasonal, annual and event summaries.
[Climate reports and summaries](#)



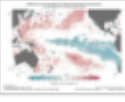
Moderate to heavy falls across the northern tropics; moderate falls across eastern Australia.
[Weekly rainfall report](#) 22 Dec 2020




Monsoon arrives early at Darwin
[Weekly tropical climate note](#) 22 December 2020




First quarter of 2021 likely to be wetter than average, particularly eastern states; warmer days in coastal regions; warmer nights almost Australia-wide.
[Rainfall and temperature outlooks](#) 24 December 2020



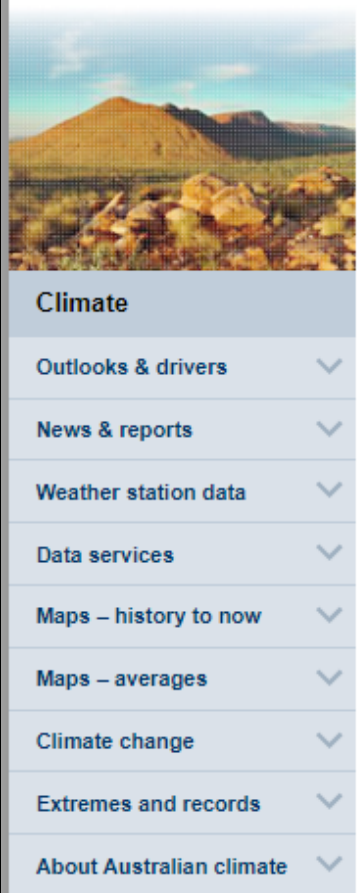
La Niña continues; may be approaching its peak
[Climate Driver Update](#) 22 December 2020



Deficiencies expand in southeast Queensland and continue in WA
[Drought statement](#) 4 December 2020



Early rainfall onset likely for most of northern Australia
[Northern rainfall onset outlook](#) 27 August 2020



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