



Pre Season Preparedness Briefing

2024/2025 Outlook



Pilbara Pre-Season Briefing

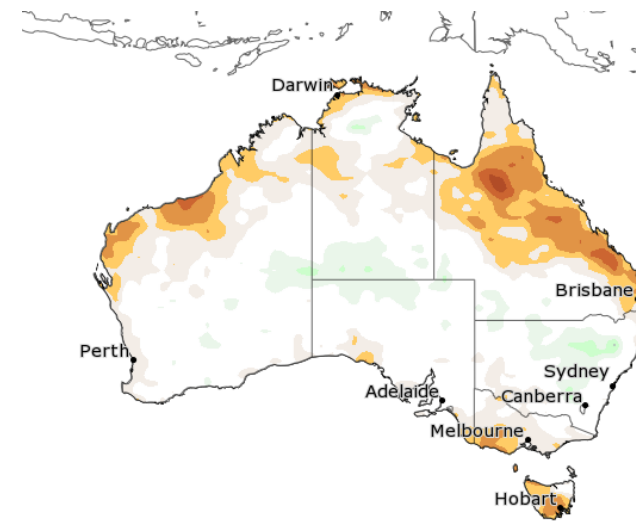
Outlook for the wet season 2024-2025

Joey Rawson
Bureau of Meteorology, Perth

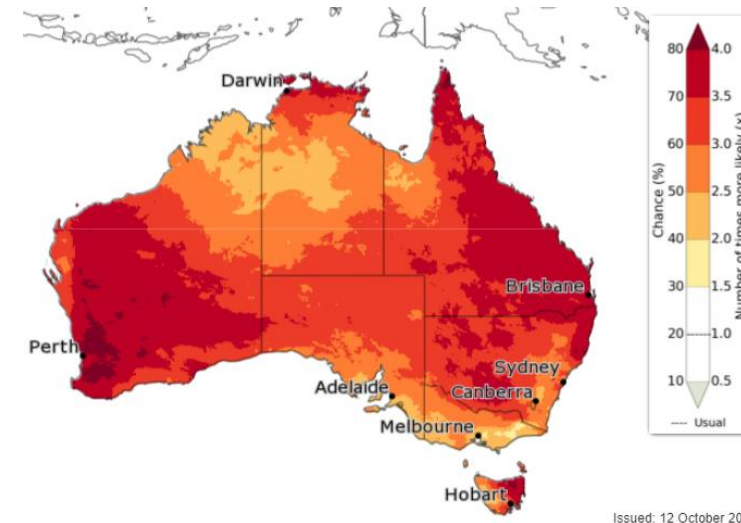
This time last year...

Outlook for 2023-2024

- El Nino *and* Positive IOD
- Less cyclone activity than normal and first cyclone to impact the WA coast occurs later.
- Monsoon onset over northern Australia later than normal (late December or into January)
- Lower than normal risk of widespread flooding.
- The fire season can extend to later in the year in the north (due to lack of rains), start earlier in the south (hotter).
- Very high change of extreme heat conditions



Rainfall - Chance of above median for December to February



Issued: 12 October 2023

Temperature - Chance of being in the highest 20% of the historical range for December to February

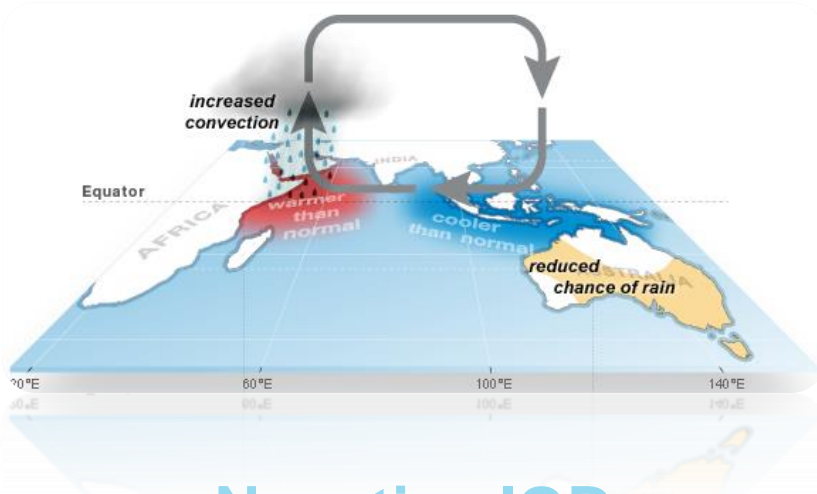


2023-2024 Tropical Cyclones

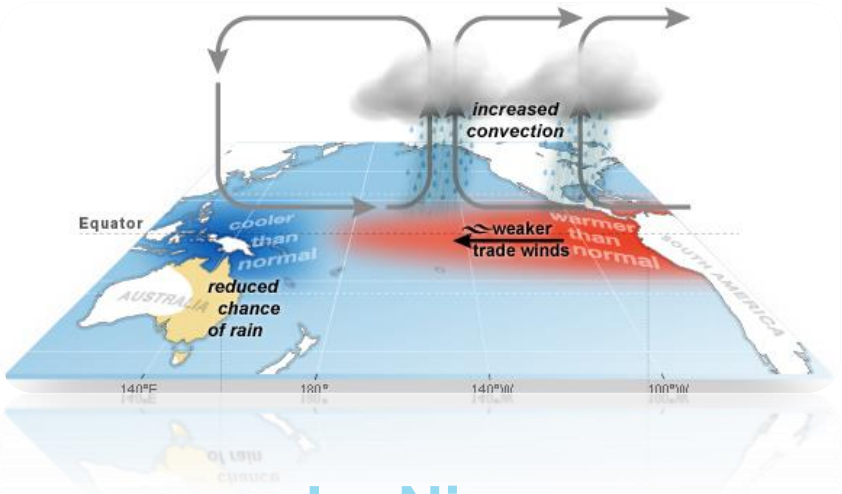


Seasonal Indicators

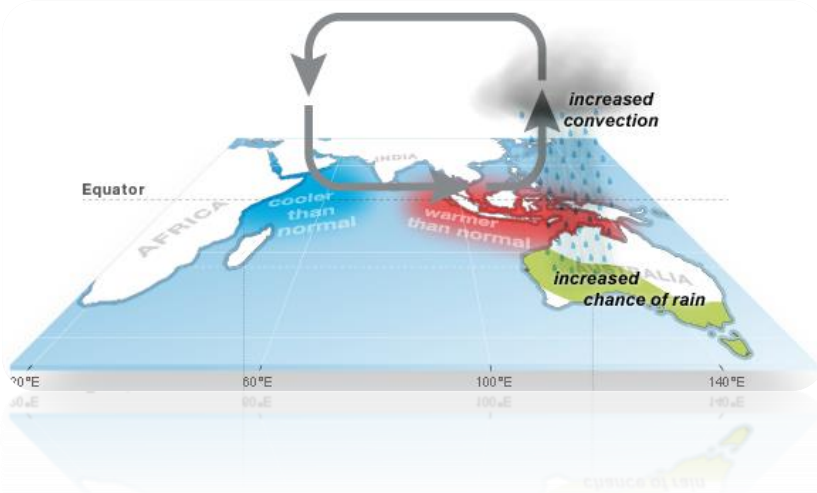
Positive IOD



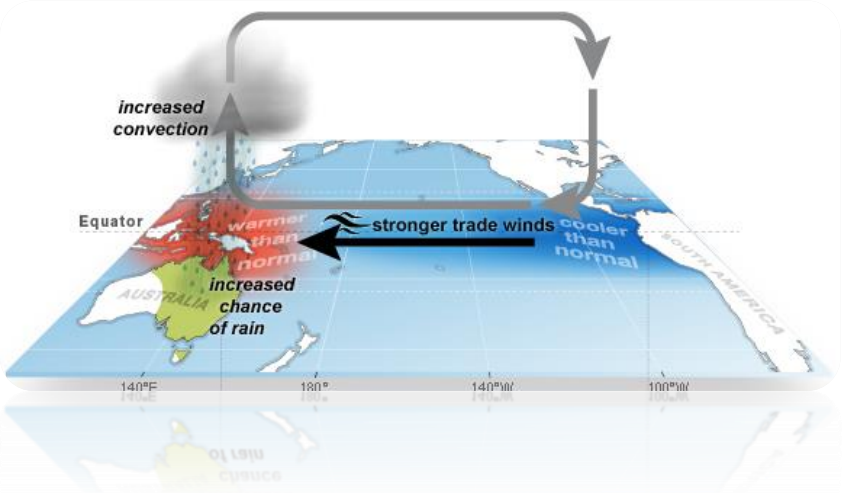
El Nino



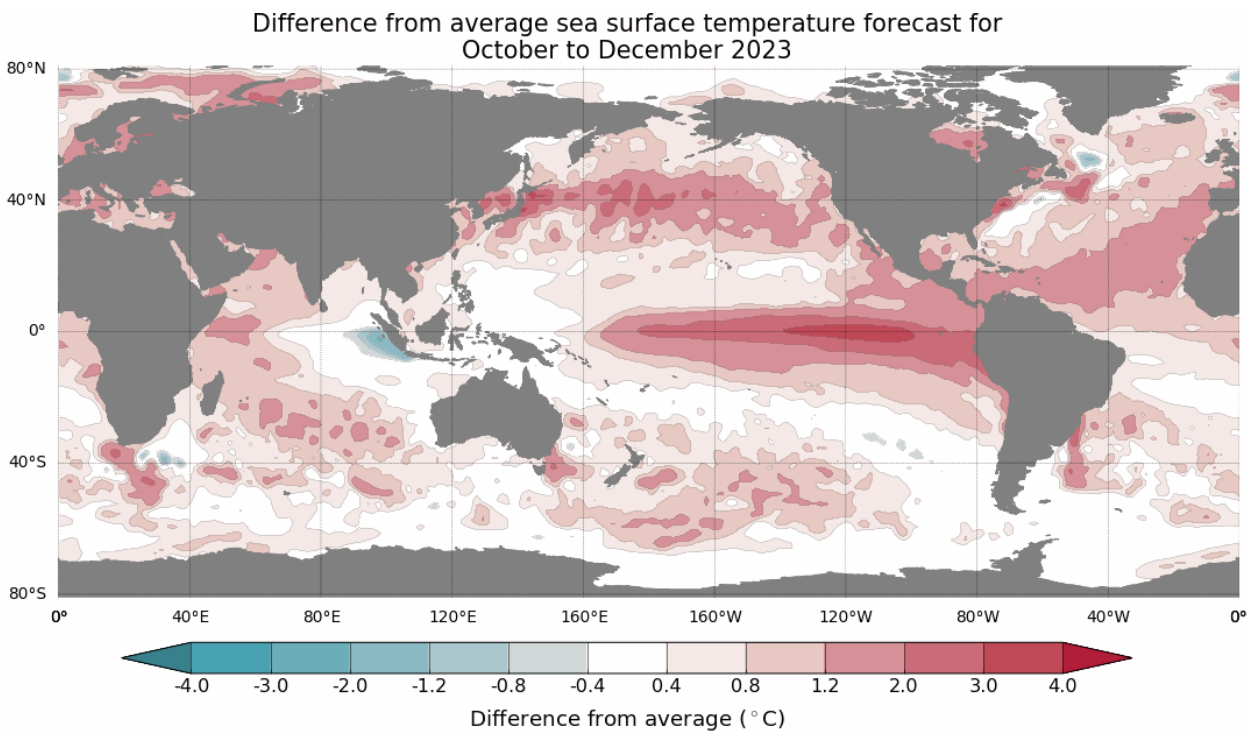
Negative IOD



La Nina



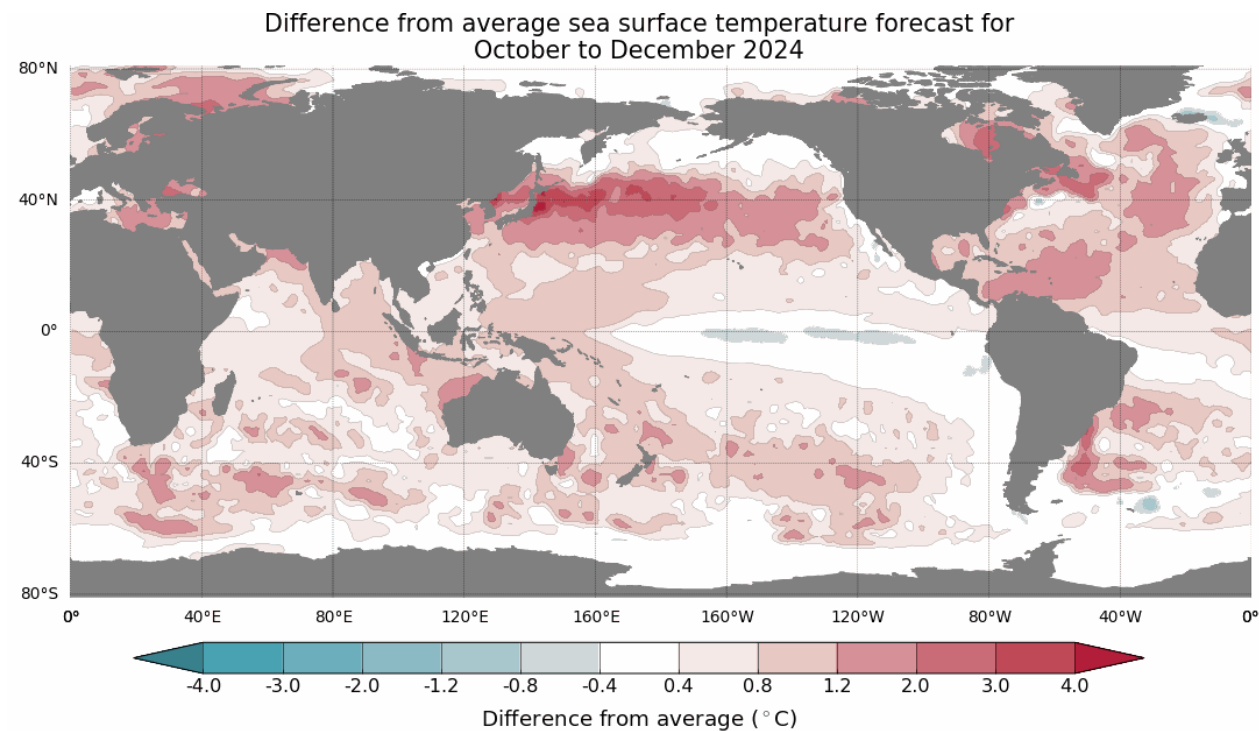
October to December Forecast Sea Surface Temperature Anomalies 2023 vs 2024



www.bom.gov.au/climate
© Commonwealth of Australia 2023, Australian Bureau of Meteorology

Model: ACCESS-S2
Base period: 1981-2018

Model run: 23/09/2023
Issued: 25/09/2023



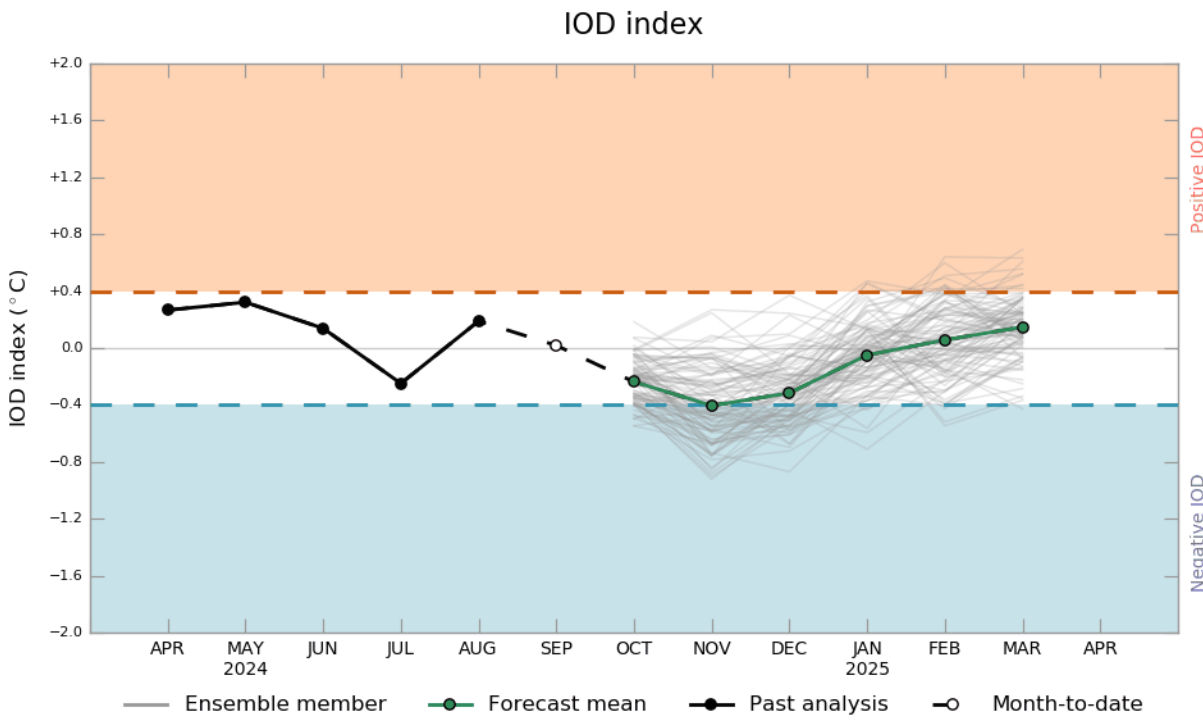
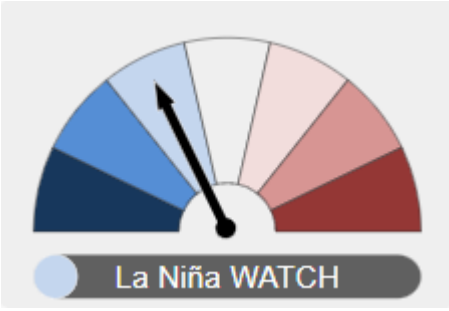
www.bom.gov.au/climate
© Commonwealth of Australia 2024, Australian Bureau of Meteorology

Model: ACCESS-S2
Base period: 1981-2018

Model run: 30/09/2024
Issued: 02/10/2024



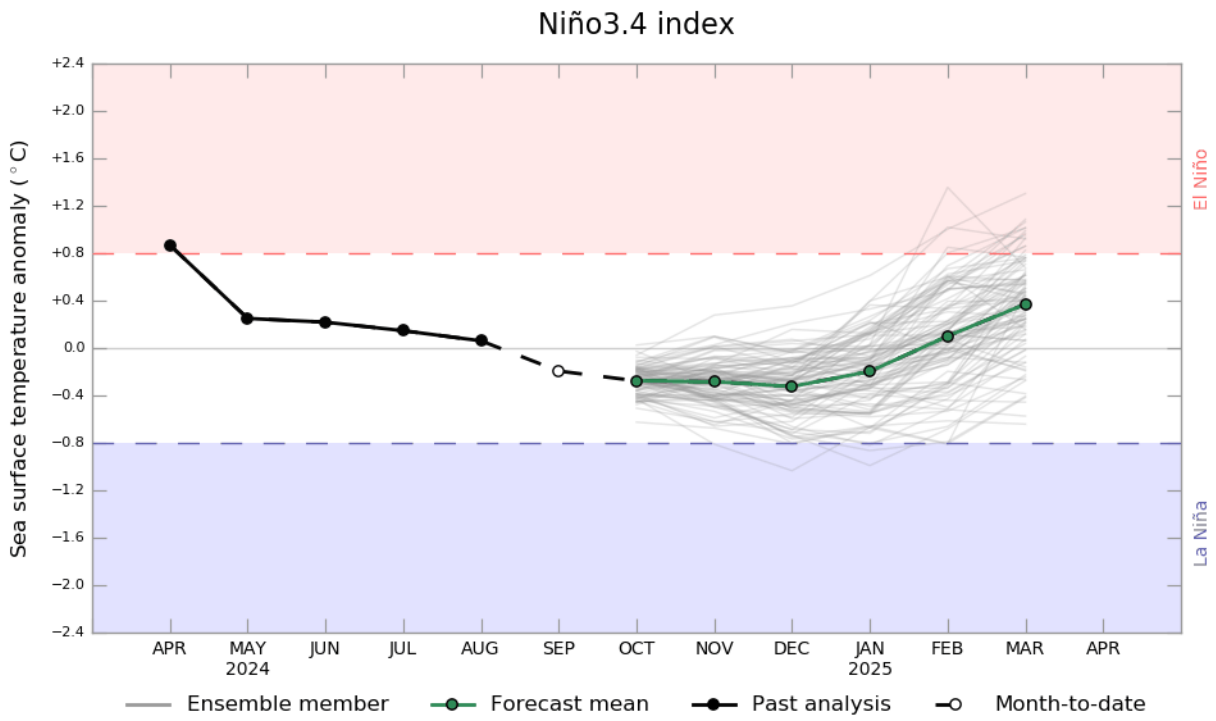
Ocean Indices – IOD and ENSO



www.bom.gov.au/climate
Commonwealth of Australia 2024, Australian Bureau of Meteorology

Past analysis base period: 1991-2020
Forecast base period: 1981-2018

Model: ACCESS-S2
Model run: 28 Sep 2024



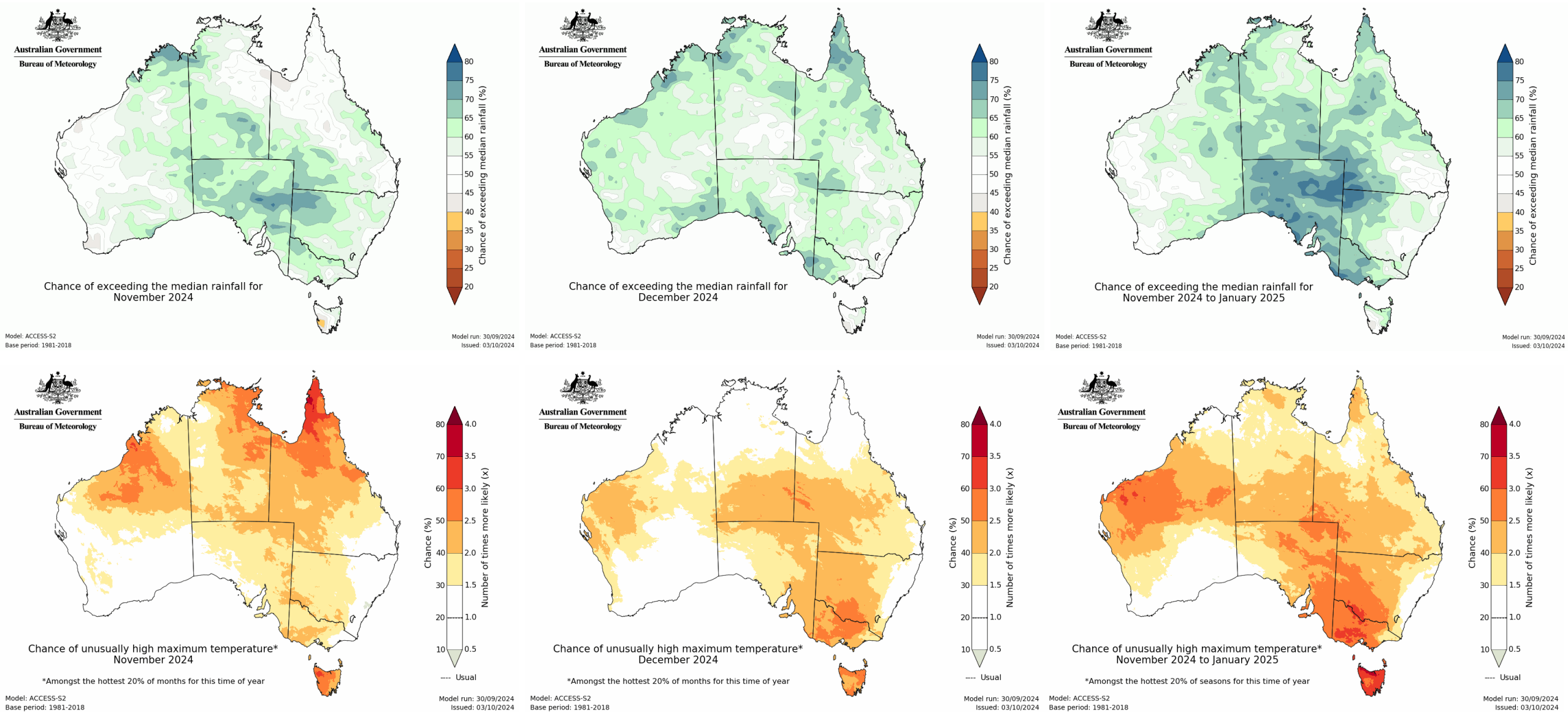
www.bom.gov.au/climate
Commonwealth of Australia 2024, Australian Bureau of Meteorology

Past analysis base period: 1991-2020
Forecast base period: 1981-2018

Model: ACCESS-S2
Model run: 28 Sep 2024



3 Months Rainfall and Temperature Outlook



2024-25 Wet Season hazards

Hazard

Likelihood compared to recent decades



Bushfire



Near average risk during fire season



Extreme heat



Increased chance



Widespread flooding



Average risk



Storm



Close to average



Tropical cyclone



Close to average



Tropical Cyclone Web Page

2024-25

Standard warning banner when TC systems are active

Indication of current system – Link to Track Map

Links to warning products

Link to 7 Day Forecast display

Australian Government
Bureau of Meteorology

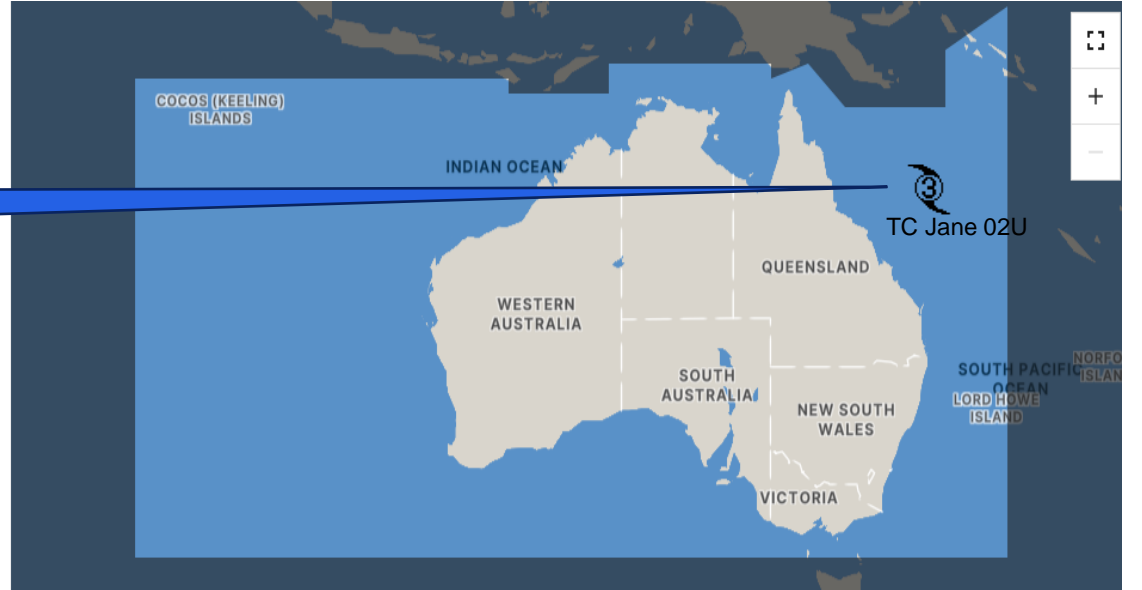
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NSW VIC QLD WA SA TAS ACT NT AUSTRALIA ANTARCTICA

TC Jane 02U

Tropical cyclone

Current tropical cyclones



The map displays Australia and its surrounding waters: the Indian Ocean to the west, the South Pacific Ocean to the east, and the Southern Ocean to the south. Key locations labeled include the Cocos (Keeling) Islands, Western Australia, South Australia, New South Wales, Victoria, Queensland, and Norfolk Island. Tropical Cyclone Jane (02U) is indicated by a cyclone symbol and label in the South Pacific Ocean, east of Australia. A blue line points from the 'Indication of current system' callout to the cyclone symbol.

TC Jane 02U


About this map

Details for: TC Jane (02U)

- [Forecast Track Map](#)
- [Tropical Cyclone Information Bulletin](#)
- [Ocean Wind Warning](#)

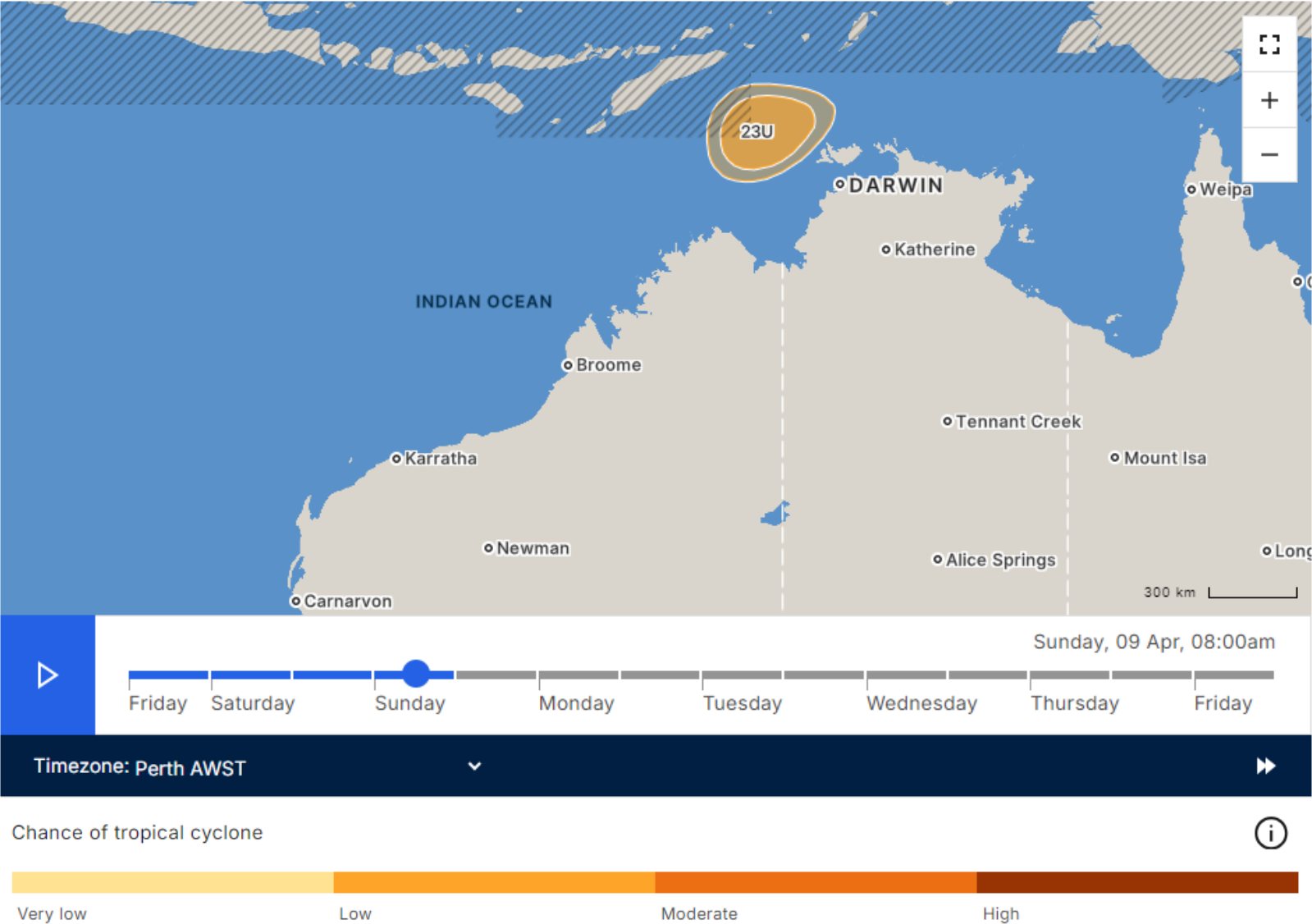
Related links

- [Tropical cyclones 7 day forecast](#) →
- [Australian seasonal outlooks](#) →
- [Tropical cyclone knowledge centre](#) →



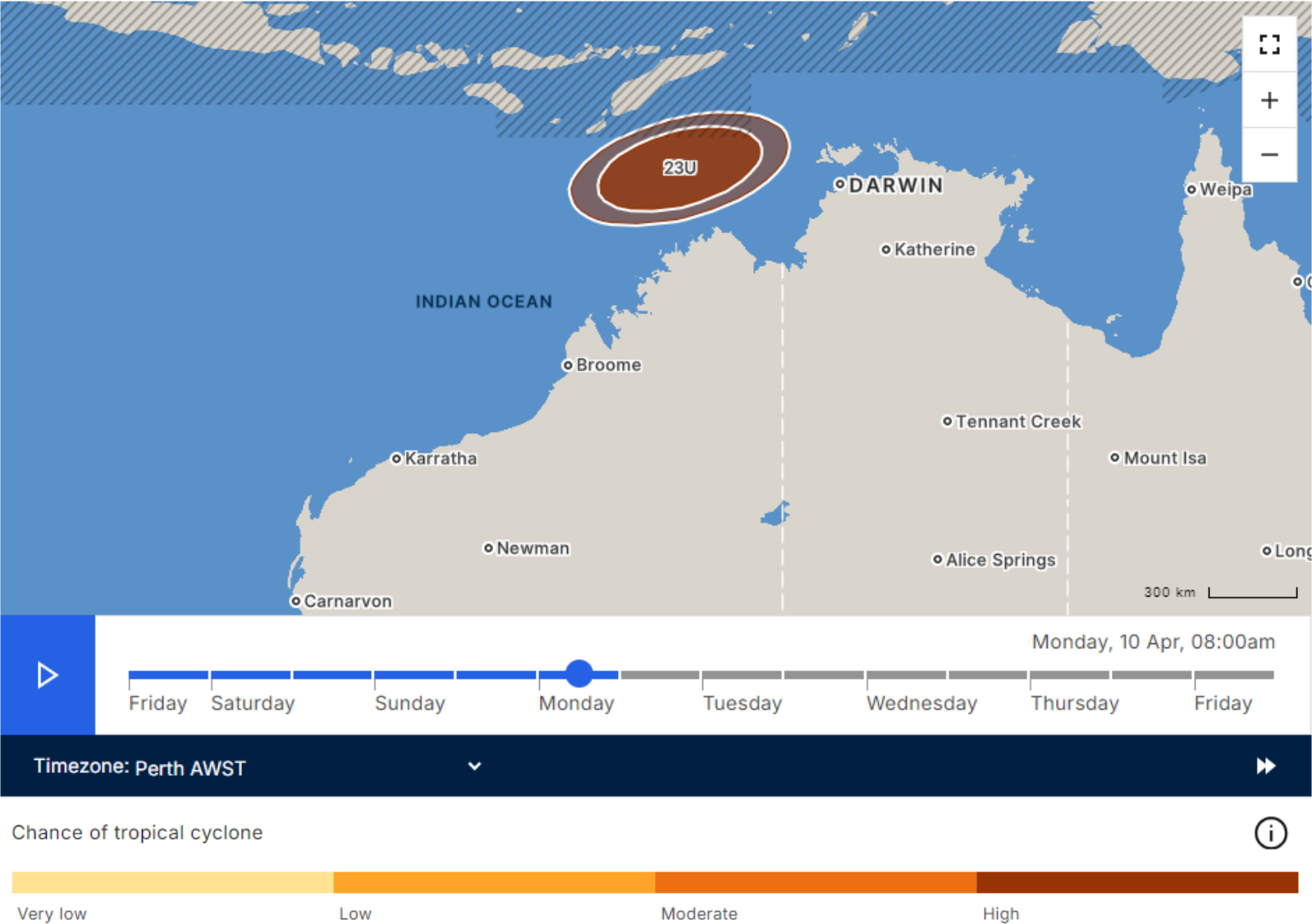
Tropical Cyclone 7 Day Forecast

23U (pre-Ilsa) – Day 2 Forecast



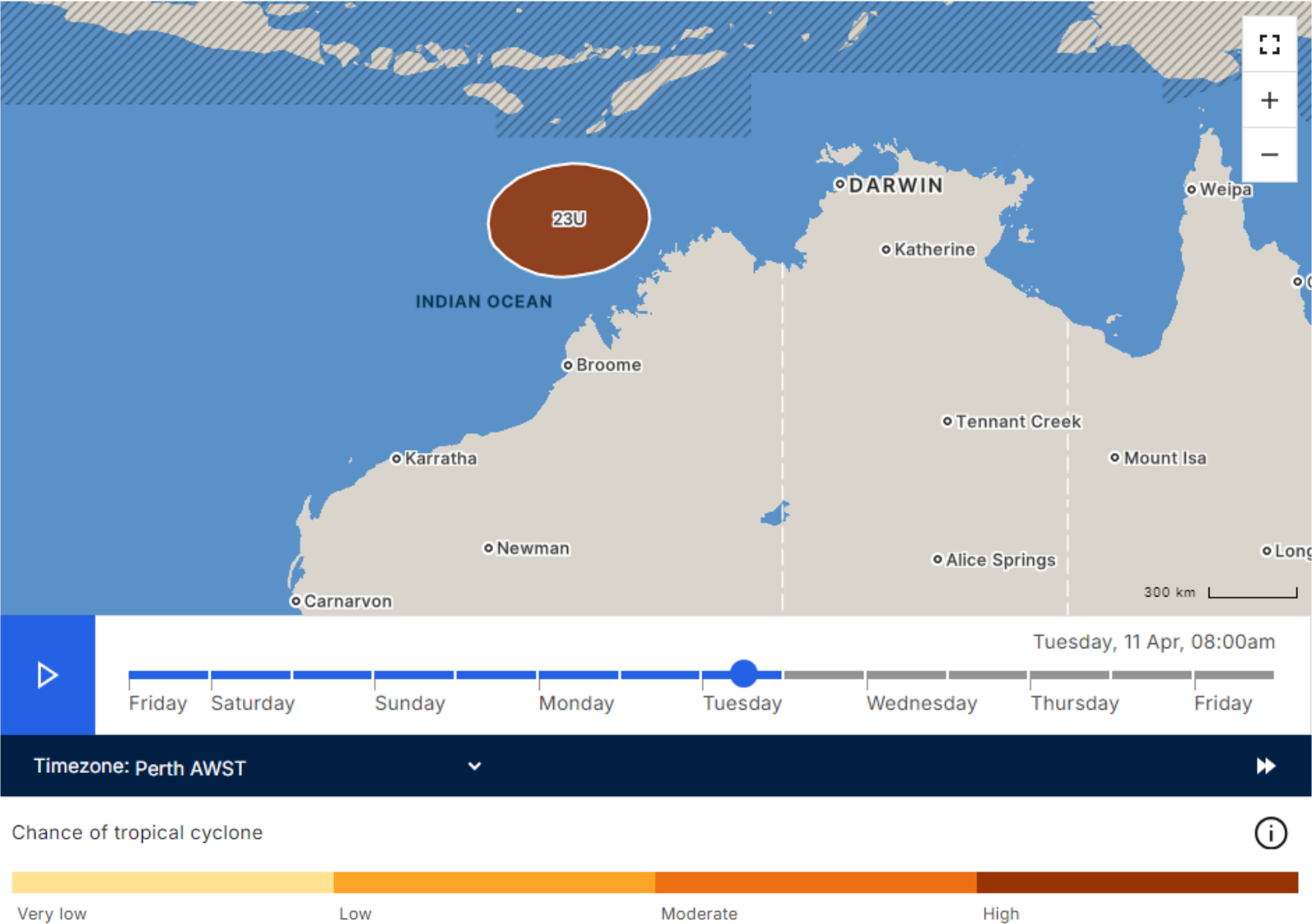
Tropical Cyclone 7 Day Forecast

23U (pre-Ilsa) – Day 3 Forecast

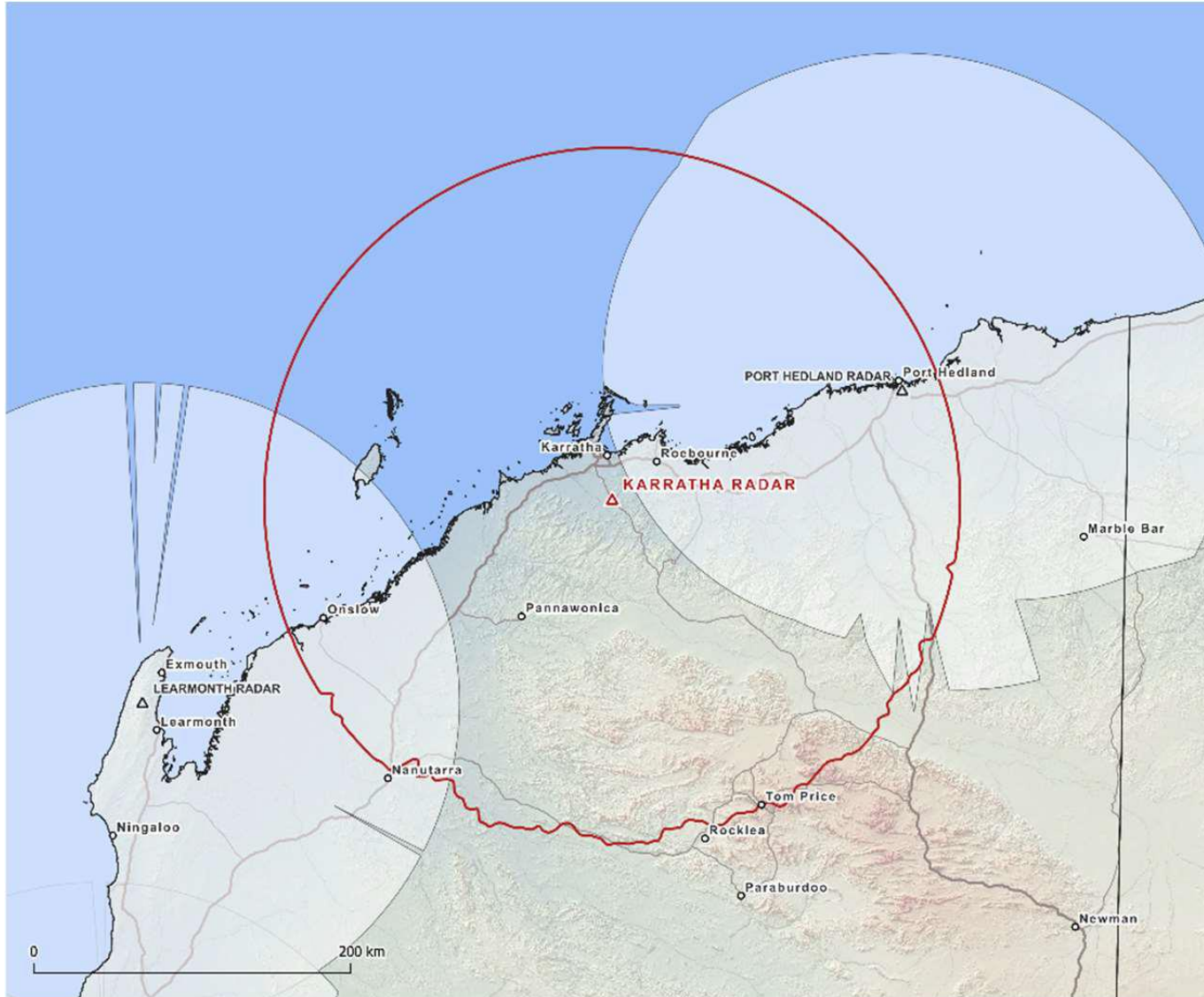


Tropical Cyclone 7 Day Forecast

23U (pre-Ilsa) – Day 4 Forecast



New Radar at Karratha replacing Dampier Radar



Go live of the new radar system will be on 17th October 2024.

Located approximately 26 km south of Karratha.





Thank you

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The Bureau of Meteorology



Australian Warning System changes

For more information: statepublicinfo@dfes.wa.gov.au



FOR A SAFER STATE



The Australian Warning System (AWS)



What is it?

The **Australian Warning System** is a **national approach** to warnings for natural hazards including bushfire, flood, storm, cyclone and heatwave.

Why did we do it?

To deliver a more **consistent approach** to warnings, **no matter where you are or what hazards you face.**

When was it implemented?

The new framework was introduced for cyclone, storm and flood **on 15 July 2024.** Action statements were also added to the three hazards, as well as bushfire at this time.

AWS Warning Levels

There are three warning levels with consistent names, colours and triangle icons.

Advice: An incident is active. Be aware and keep up to date.

Watch and Act: There is a possible threat. Take action now to stay safe.

Emergency Warning: There is a threat to lives and homes. Take immediate action.

Fire



Storm



Flood

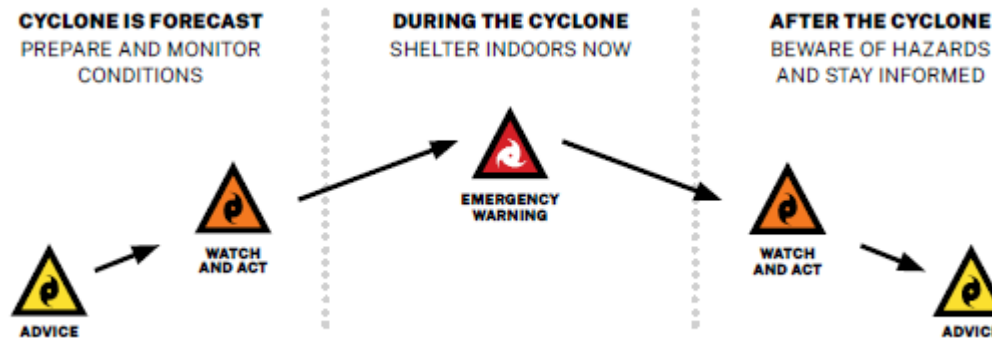


Cyclone



AWS warnings escalate and de-escalate

The three levels of warning change to reflect the increasing, or decreasing, risk to life or property.





New colours.
New warning levels.

Get to know them



Western Australia has new cyclone warnings.

We're no longer using the old blue, yellow, red alert system.



ADVICE

An incident is active.
Be aware and keep up to date.



WATCH AND ACT

There is a possible threat.
Take action now to stay safe.

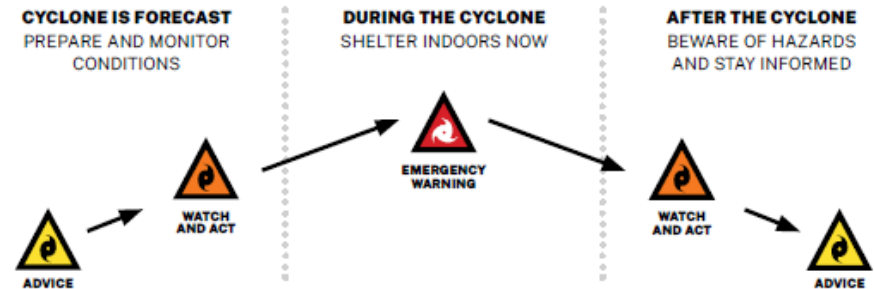


EMERGENCY WARNING

There is a threat to lives and homes.
Take immediate action.

UNDERSTANDING THE NEW WARNING SYSTEM FOR NATURAL DISASTERS

There are three warning levels which move up and down to reflect the risk to your life or property before, during and after a natural disaster. These are the same warning levels used for bushfires. The warning level will be followed by an action such as "Monitor Conditions" or "Shelter Indoors Now" giving you clear information about how to stay safe. Learning these three levels and how to respond to them could save your life.



For more information visit [EMERGENCY.WA.GOV.AU](https://www.emergency.wa.gov.au)

Action Statements

- Each warning level has a set of action statements to give the community clearer advice about what to do.
- Action statements allow us to issue tailored and personalised messages to the community.
- Action statements can be used flexibly across all three warning levels, and contextualised for each hazard within each state or territory.
- Action statements are reviewed annually based on feedback from jurisdictions.

Advice

- Prepare now
- Stay informed
- Monitor conditions
- Avoid the area
- Return with caution
- Avoid smoke
- Threat is reduced

Watch and Act






- Prepare to leave
- Leave now (if you are not prepared)
- Prepare to take shelter
- Move/stay indoors
- Stay near shelter
- Walk two or more streets back
- Monitor conditions as they are changing
- Be aware of ember attack
- Move to higher ground (away from creeks/rivers/coast)
- Limit time outside (cyclone, heat, asthma)
- Avoid the area/avoid the flooded area
- Stay away from damaged buildings and other hazards
- **Prepare for isolation**
- Protect yourself against the impacts of extreme heat
- Do not enter flood water
- Not safe to return
- Prepare your property (cyclone/storm)

Emergency Warning

- Leave (immediately, by am/pm/hazard timing)
- Seek/take shelter now
- Shelter indoors now
- Too late/dangerous to leave

Cyclone Warnings Triggers

The following action statements have been pre-filtered for Cyclone and are available for use, at the discretion of the RDC/IC.

	ESCALATING			DE-ESCALATING	
Warning Level	Advice 	Watch & Act 	Emergency Warning 	Watch & Act 	Advice 
Description	An incident is active but there is no immediate threat to lives or homes.	There is a possible threat to lives or homes.	There is a threat to lives and homes.	There remains a possible threat to lives and homes.	An incident remains active but there is no immediate threat to lives and homes.
Actions	PREPARE NOW	PREPARE TO LEAVE/ PREPARE TO EVACUATE	SHELTER INDOORS NOW	STAY AWAY FROM DAMAGED BUILDINGS AND OTHER HAZARDS	STAY INFORMED
	STAY INFORMED	LEAVE NOW/ EVACUATE NOW		STAY INDOORS	RETURN WITH CAUTION
	MONITOR CONDITIONS	PREPARE TO TAKE SHELTER		MONITOR CONDITIONS	THREAT IS REDUCED
	AVOID THE AREA	PREPARE FOR ISOLATION		NOT SAFE TO RETURN	
		PREPARE YOUR PROPERTY			



EmergencyWA

Prepare

Warnings and incidents

Recovery

Australian Warning System

Call 000 in a life threatening emergency

Both

Map

List



Filters



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Warnings



Bushfire Advice

AVOID THE AREA - DALYELLUP

4 hours ago



Bushfire Advice

MONITOR CONDITIONS - KUNUNURRA

2 hours ago



Bushfire Advice

PREPARE NOW - DRYSDALE RIVER

4 hours ago



Bushfire Advice

THREAT IS REDUCED - KUNUNURRA and LAKE ARGYLE

4 hours ago



Storm Advice

THREAT IS REDUCED - PARTS OF THE PERTH METROPOLITAN, MIDWEST GASCOYNE, GOLDFIELDS MIDLANDS

6 hours ago



Centres and Closures

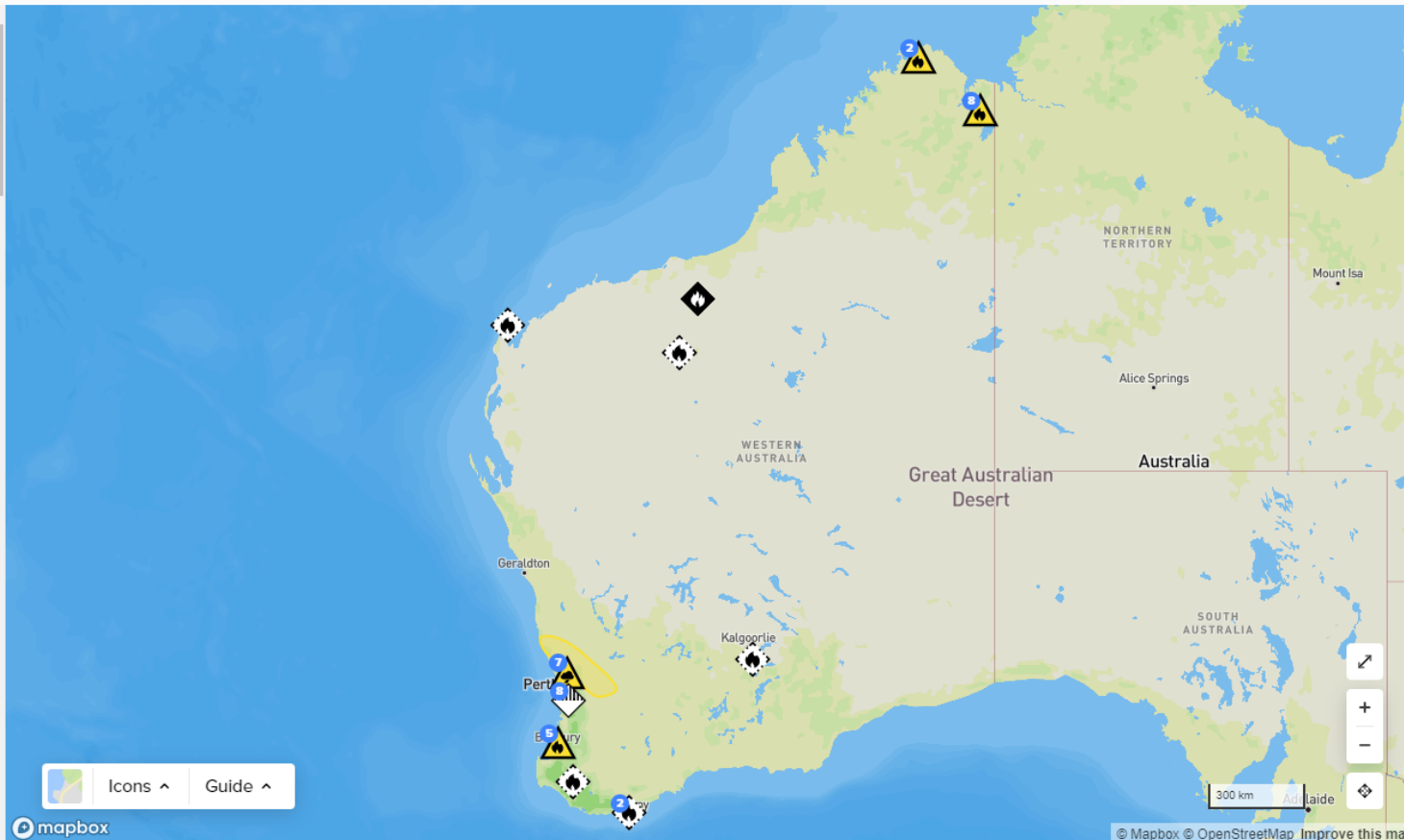
Incidents



Bushfire

KUNUNURRA, SHIRE OF WYNDHAM-EAST KIMBERLEY

47 minutes ago



View text version of warnings and incidents

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DFES
Department of Fire & Emergency Services



Both

Map

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Warnings 6



Bushfire Emergency Warning

17 days ago

TOO LATE TO LEAVE - MOONYOONOOKA, GEORGINA and MINNENOOKA



Bushfire Emergency Warning

17 days ago

LEAVE NOW - CAPE BURNEY, RUDDS GULLY, GREENOUGH, NARNGULU, BOOTENAL, MERU, GEORGINA, WALKAWAY and GERALDTON AIRPORT



Bushfire Watch and Act

17 days ago

MONITOR CONDITIONS - MOONYOONOOKA, GEORGINA and MINNENOOKA



Bushfire Watch and Act

17 days ago

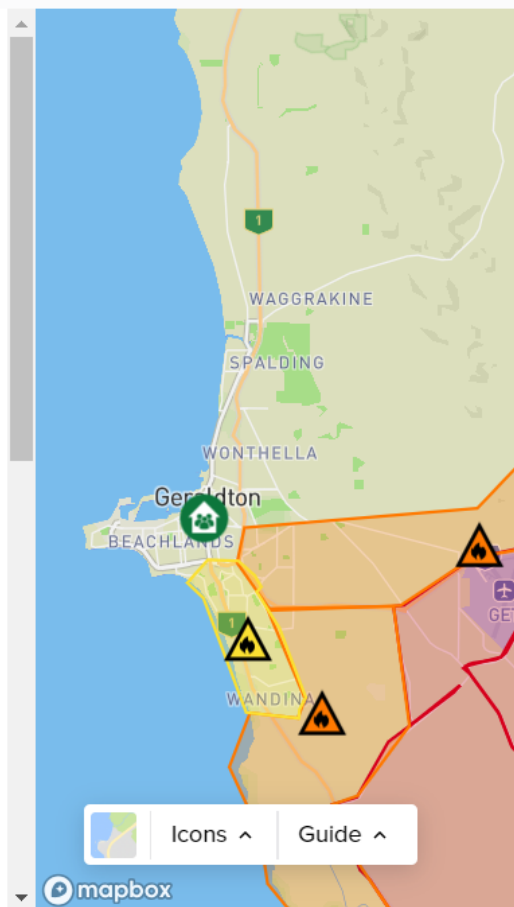
MONITOR CONDITIONS - RANGEWAY, UTAKARRA, KARLOO, DEEPDALE and MOONYOONOOKA



Bushfire Watch and Act

17 days ago

LEAVE NOW IF YOU ARE NOT PREPARED - CAPE BURNEY, RUDDS GULLY, GREENOUGH, NARNGULU, MERU, KARLOO



Icons

Guide

mapbox

The following alert has been issued by the Department of Fire and Emergency Services (DFES).

Please note changes to the Watch and Act Warning Area, Centres and closures and Extra Information.

Issued 18 September 2024 2:14 PM



Bushfire Emergency Warning

TOO LATE TO LEAVE - MOONYOONOOKA, GEORGINA and MINNENOOKA

17 days ago



Bushfire Emergency Warning

LEAVE NOW - CAPE BURNEY, RUDDS GULLY, GREENOUGH, NARNGULU, BOOTENAL, MERU, GEORGINA, WALKAWAY and GERALDTON AIRPORT

17 days ago



Bushfire Watch and Act

MONITOR CONDITIONS - MOONYOONOOKA, GEORGINA and MINNENOOKA

17 days ago



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Warnings

Bushfire 68

Coastal Hazard

Cyclone 1

Damaging Winds 1

Earthquake

Flood

Hazardous Materials 2

Heatwave 1

Warnings 6



Bushfire Emergency Warning

TOO LATE TO LEAVE - MOONYOO
MINNENOOKA



Bushfire Emergency Warning

LEAVE NOW - CAPE BURNEY, RUD
NARNGULU, BOOTENAL, MERU, G
and GERALDTON AIRPORT



Bushfire Watch and Act

MONITOR CONDITIONS - MOONY
and MINNENOOKA



Bushfire Watch and Act

MONITOR CONDITIONS - RANGEWAY, UTAKARRA,
KARLOO, DEEPDALE and MOONYOONOOKA

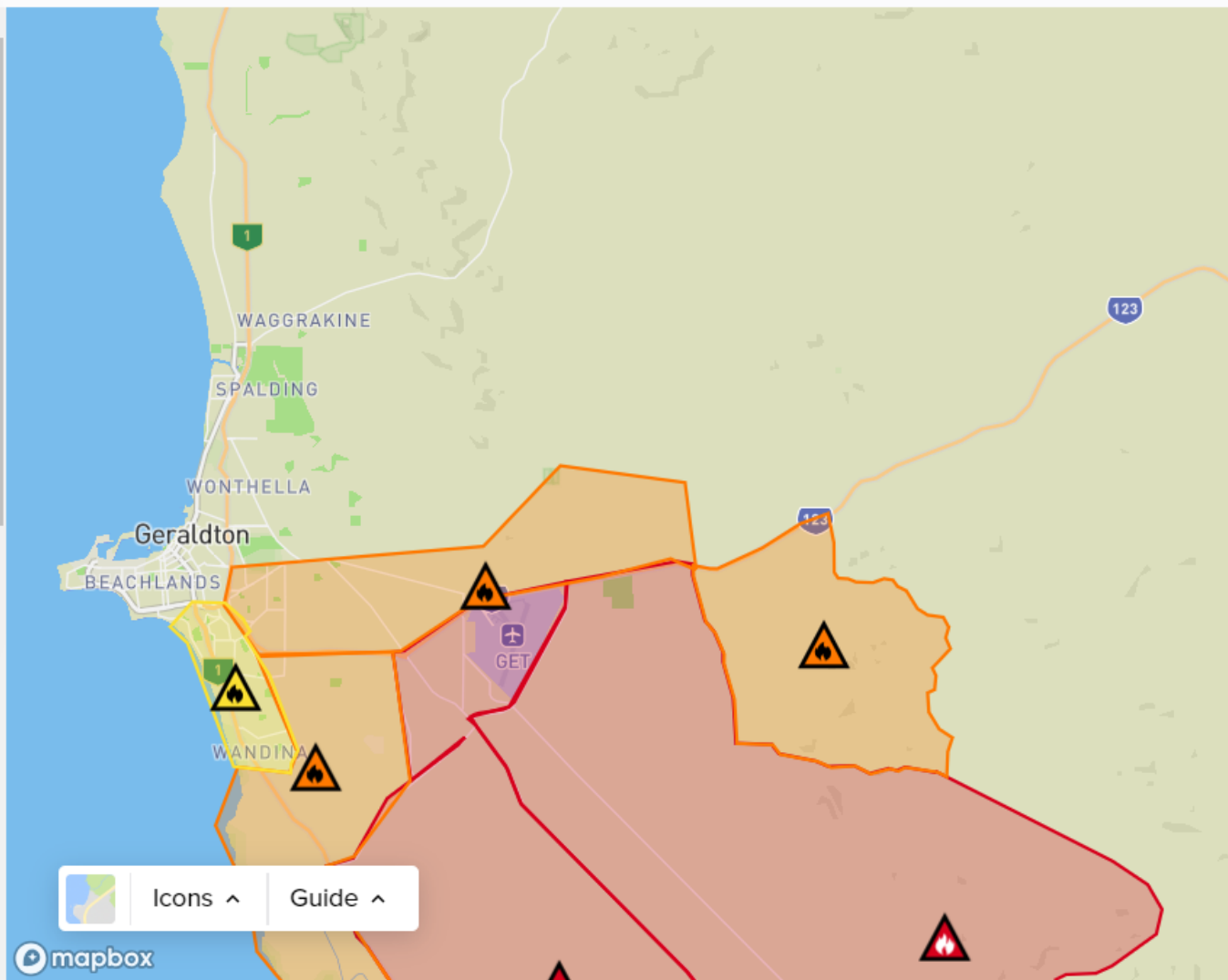
17 days ago



Bushfire Watch and Act

LEAVE NOW IF YOU ARE NOT PREPARED - CAPE BURNEY,
BUDDS CULLY, GREENOUGH, NARNGULU, MERU, KARLOO

17 days ago





Both

Map

List



Filters



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Search maps

Warnings 5



Bushfire Watch and Act
MONITOR CONDITIONS - WILLARE



Bushfire Watch and Act
MONITOR CONDITIONS - KUNUNURRA and LAKE



Bushfire Advice
STAY INFORMED - KING LEOPOLD RANGES



Bushfire Advice
STAY INFORMED - FITZROY CROSSING, MOUNT
HARDMAN and ST GEORGE RANGES



Cyclone Advice
THREAT IS REDUCED - NULLAGINE to NEWMAN

4 hours ago

Centres and Closures 0

Incidents 0

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^ District boundaries

DFES regions ☒

Local Governments ☒

Pastoral ☐

^ Weather

Cyclone track ☐

Rain radar ☒

Thunderstorm tracker ☐

Satellite ☐

Weather layers legend

Rain radar



Icons ^

Guide ^

AWS Training

Two online modules have been developed and are available via DFES' Mobilise Me platform dfes.mobilise-me.com

AWS Awareness

An overview of the Australian Warning System and how it applies in Western Australia.
Delivered as a self-paced, e-learning awareness module.

Applying the AWS

A scenario-based assessment module for decision makers and those who support the issuing of public information.

What do these changes mean for you?

DFES is asking you to review your policies, procedures, manuals, training materials, signage and other documents and collateral to ensure your agency or business is up to date and understands the AWS.

DFES can assist with providing high-res icons and potentially other graphics that may assist with your updates.

In most cases, particularly for cyclone, it's likely the changes you need to make will be as simple as replacing Blue for Advice, Yellow for Watch and Act and Red for Emergency Warning.

However, depending on how you use these as triggers, some additional consideration may need to be given.

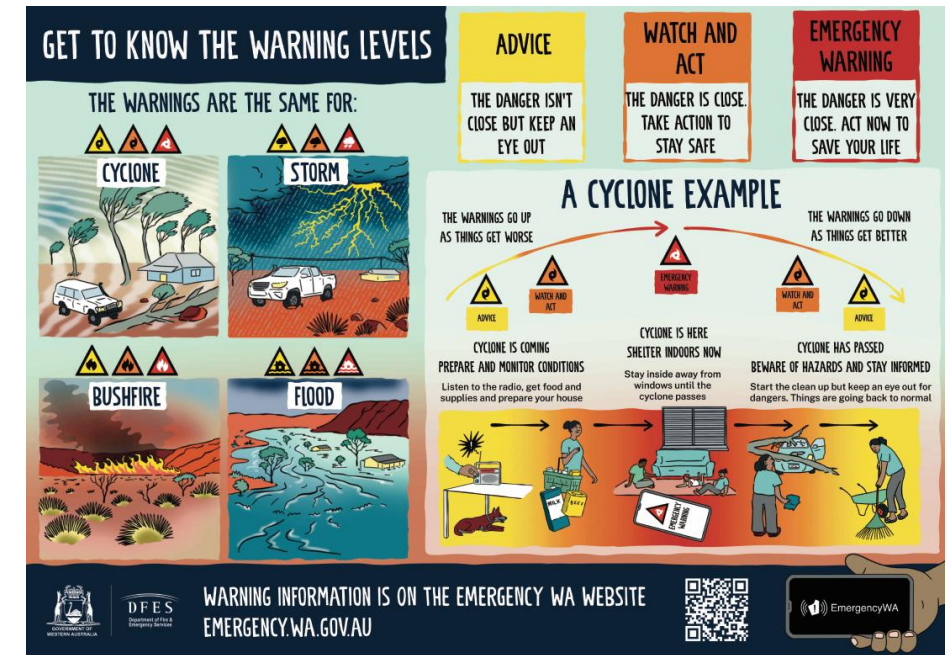
Worth noting, the Bureau of Meteorology's Cyclone Watch and Warning, Flood Watch and Warning and Severe Weather and Severe Thunderstorm products will not be changing.

Cyclone impact checklist

- Policies and procedures
- Training/on boarding information
- On site light/flag etc cyclone warning signage
- Information available at site accommodation/dongas
- Have you informed all your contractors and subsidiaries?
- Can you utilise intranet etc to promote the changes?
- Encourage and promote the review or development of individual home/family response plans and checklists for the cyclone season.

AWS Advertising

- Over 28,000 letters explaining the changes were sent to households in cyclone-prone areas
- Campaign (digital, television and radio) has been seen close to 6 million times by over 1.1 million people, with the majority of these located in the North West.
- New cyclone magnets and posters and all hazards poster
- Explainer videos
- Visual infographic with cyclone example
- Explored unique ways to communicate including drink coasters, floor decals at roadhouses/petrol stations/murals



AWS Advertising

- AWS advertising has now transitioned to a cyclone “Game Plan” advertising campaign.
- Materials feature a reminder about the new cyclone warning system.

YOU WOULDN'T PLAY FOOTY WITHOUT A GAME PLAN.

Preparing for cyclone season is no different.

Have a plan, pack your emergency kit and stay informed via Emergency WA. Make sure you know the new warning levels, too.

ADVICE **WATCH AND ACT** **EMERGENCY WARNING**

Q EMERGENCY WA

[WHAT'S YOUR CYCLONE GAME PLAN?]

GOVERNMENT OF WESTERN AUSTRALIA DFES Department of Fire & Emergency Services

YOU WOULDN'T GO FISHING WITHOUT A GAME PLAN.

Preparing for cyclone season is no different.

Have a plan, pack your emergency kit and stay informed via Emergency WA. Make sure you know the new warning levels, too.

ADVICE **WATCH AND ACT** **EMERGENCY WARNING**

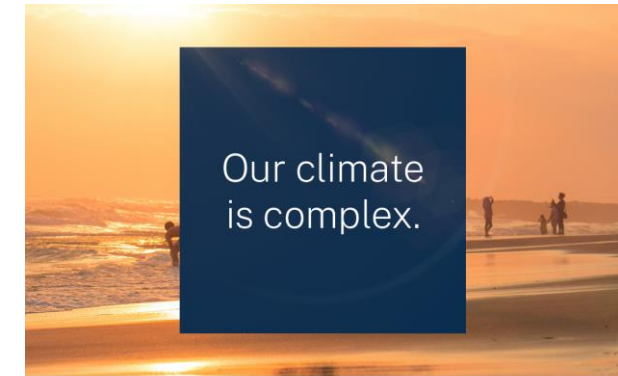
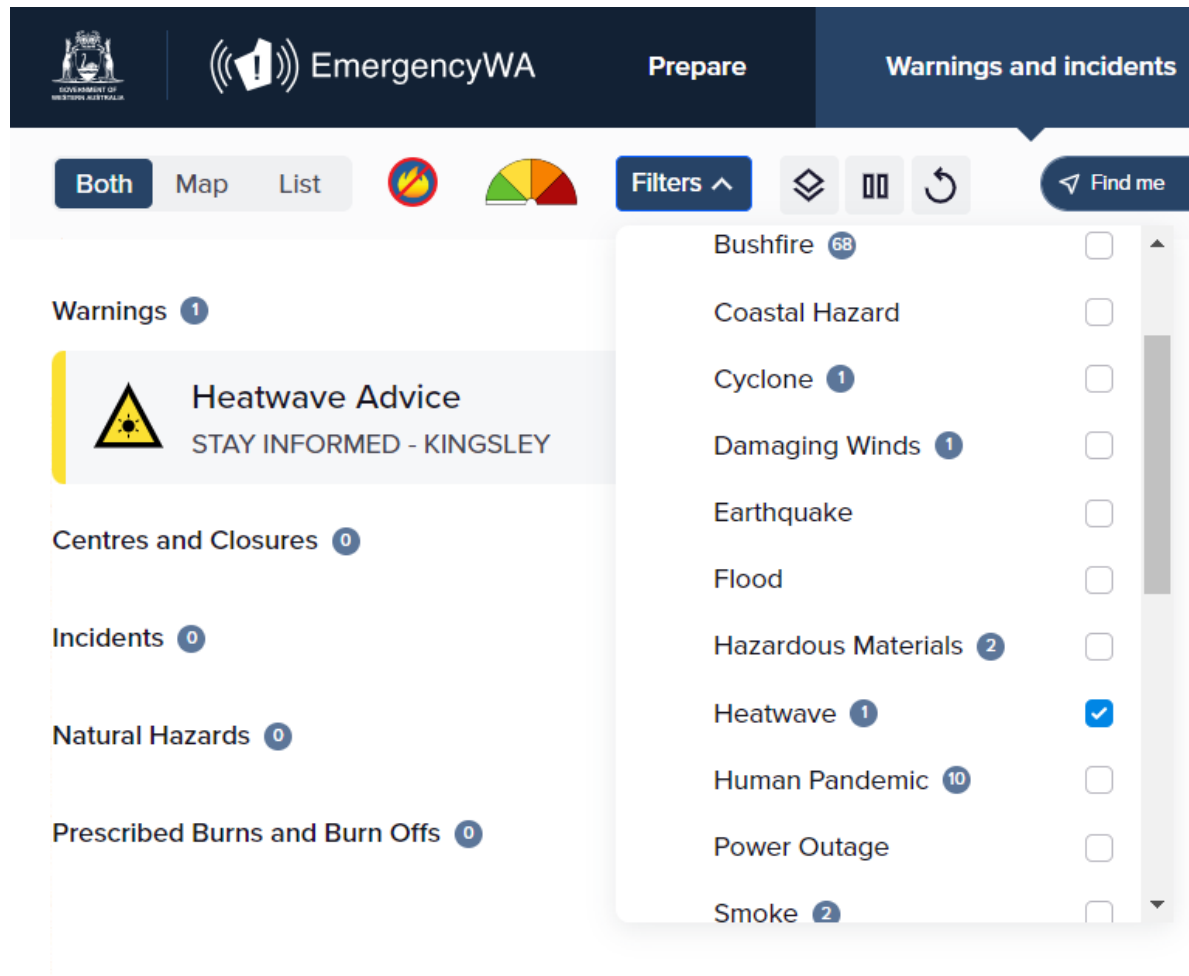
Q EMERGENCY WA

[WHAT'S YOUR CYCLONE GAME PLAN?]

GOVERNMENT OF WESTERN AUSTRALIA DFES Department of Fire & Emergency Services

AWS Heatwave Warnings

- Department of Health began issuing AWS Heatwave warnings on Emergency WA in 2022.
- Use the filter menu to include or exclude heatwave warnings to make your warning experience easier on Emergency WA.



Now there's a simple warning system for natural disasters.