

Savanna Fire Forum

***Sally Cutter
February 2021***



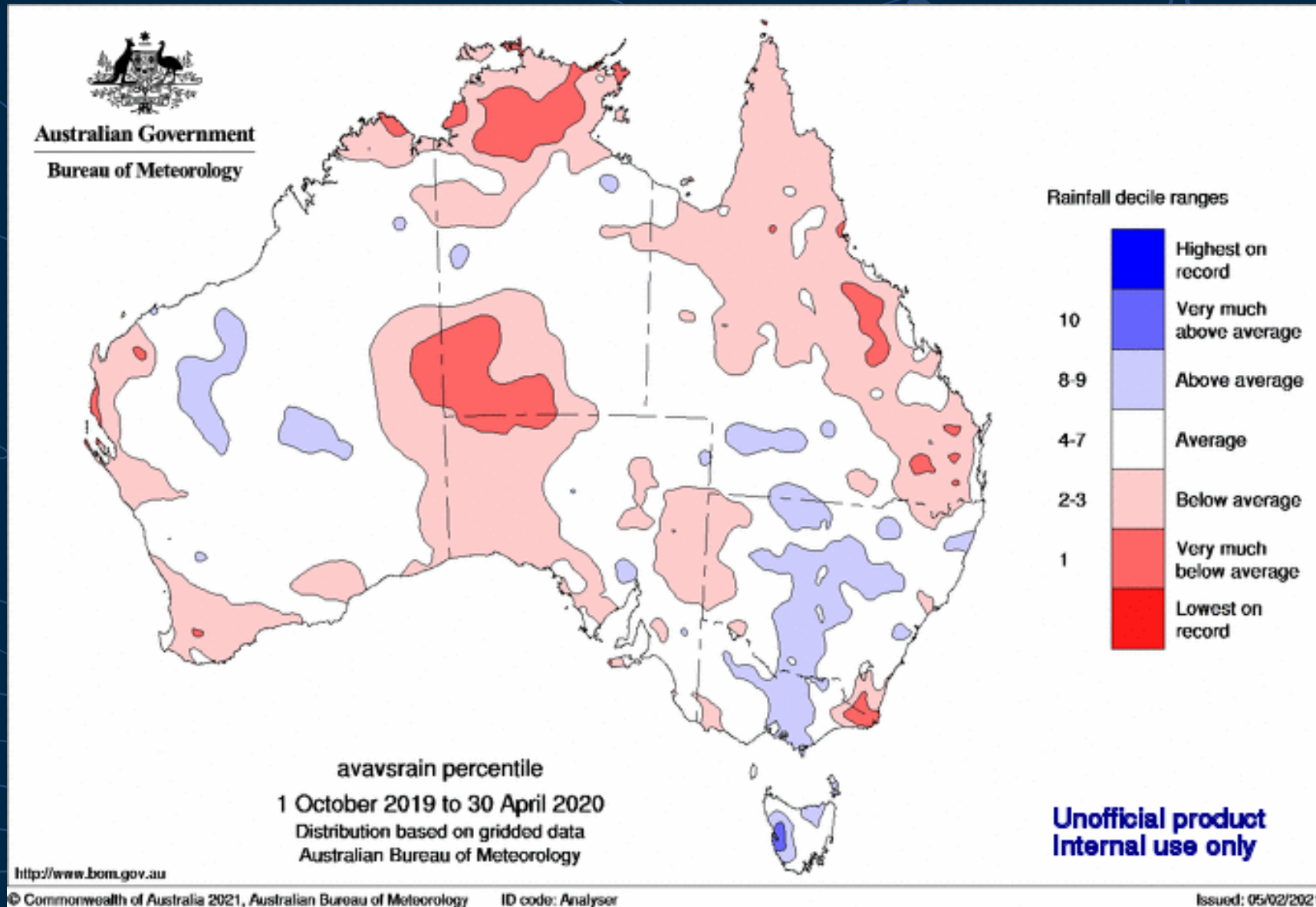
Australian Government
Bureau of Meteorology

2020 Northern Fire Weather Season

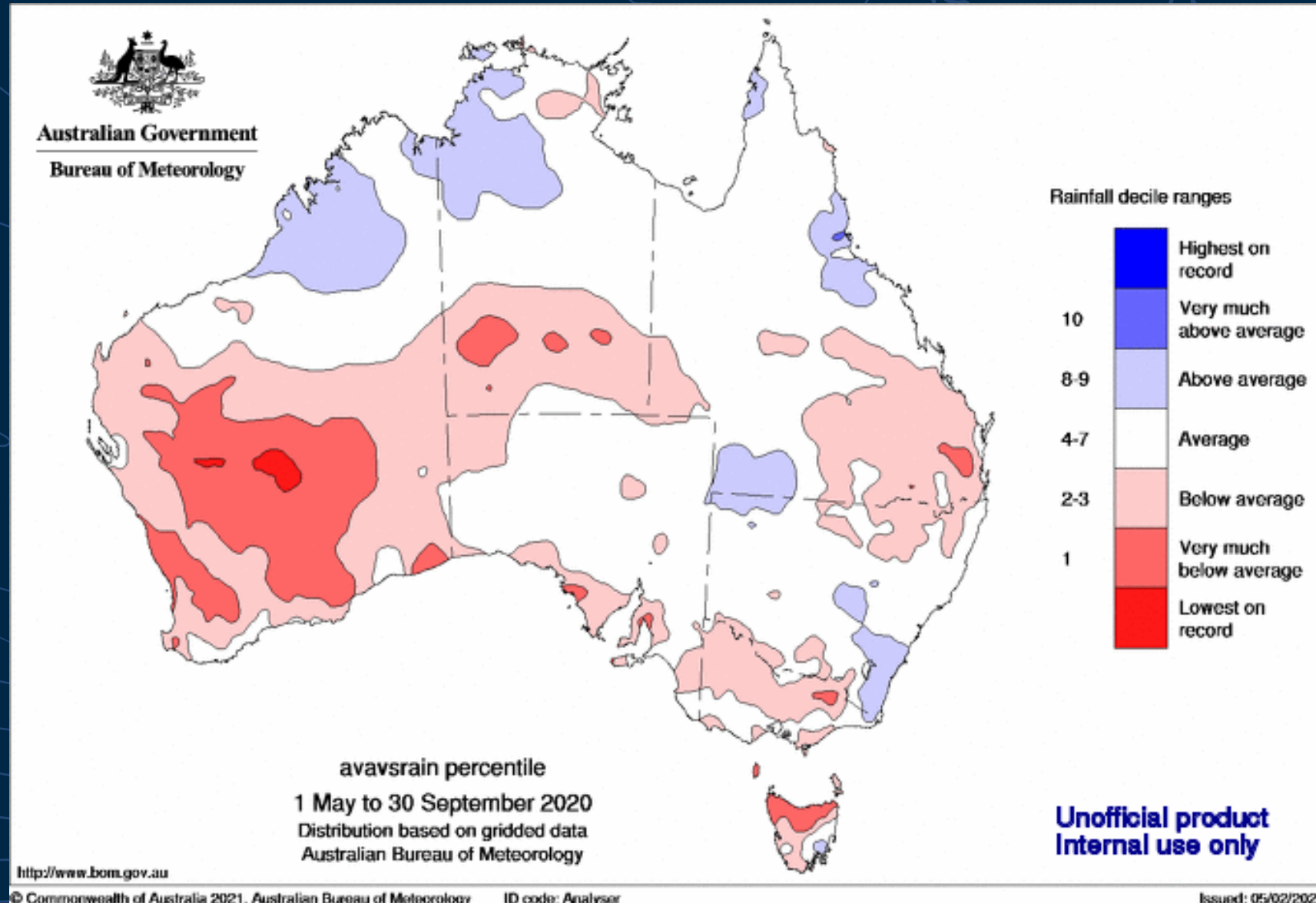


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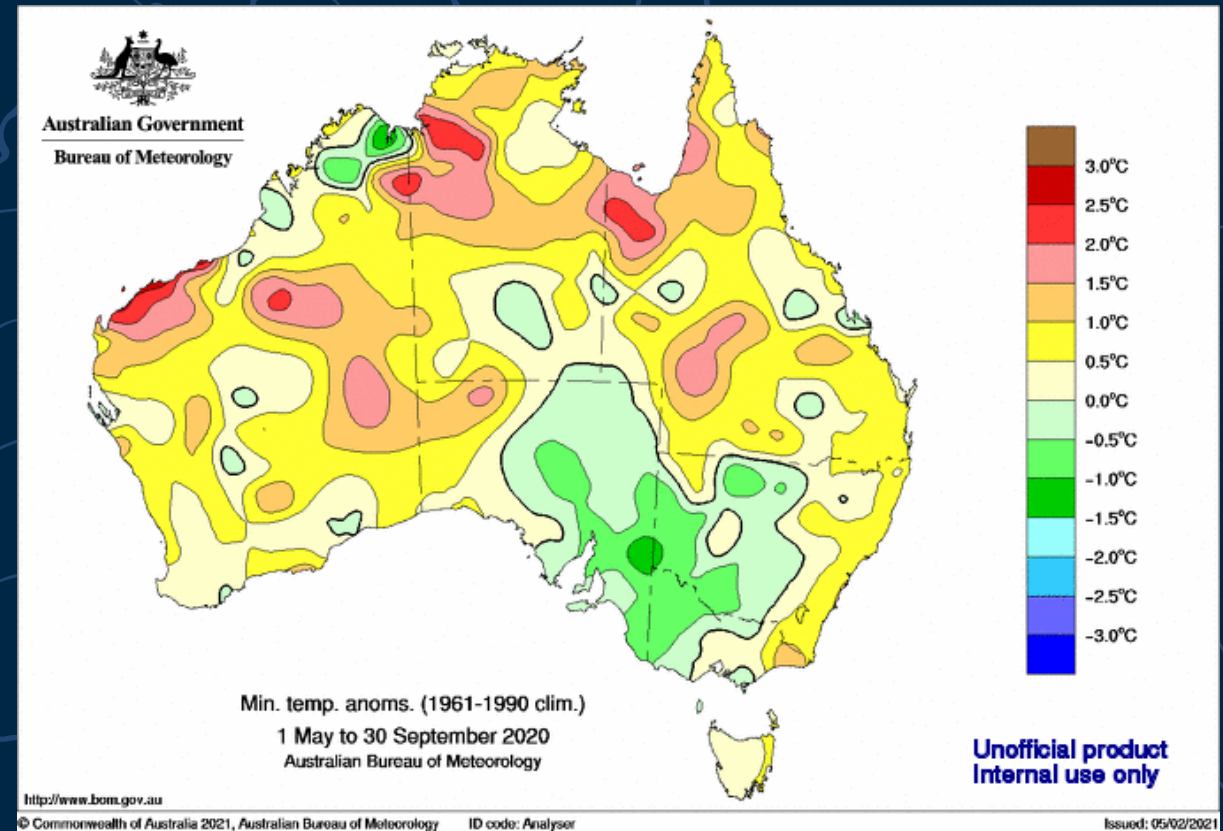
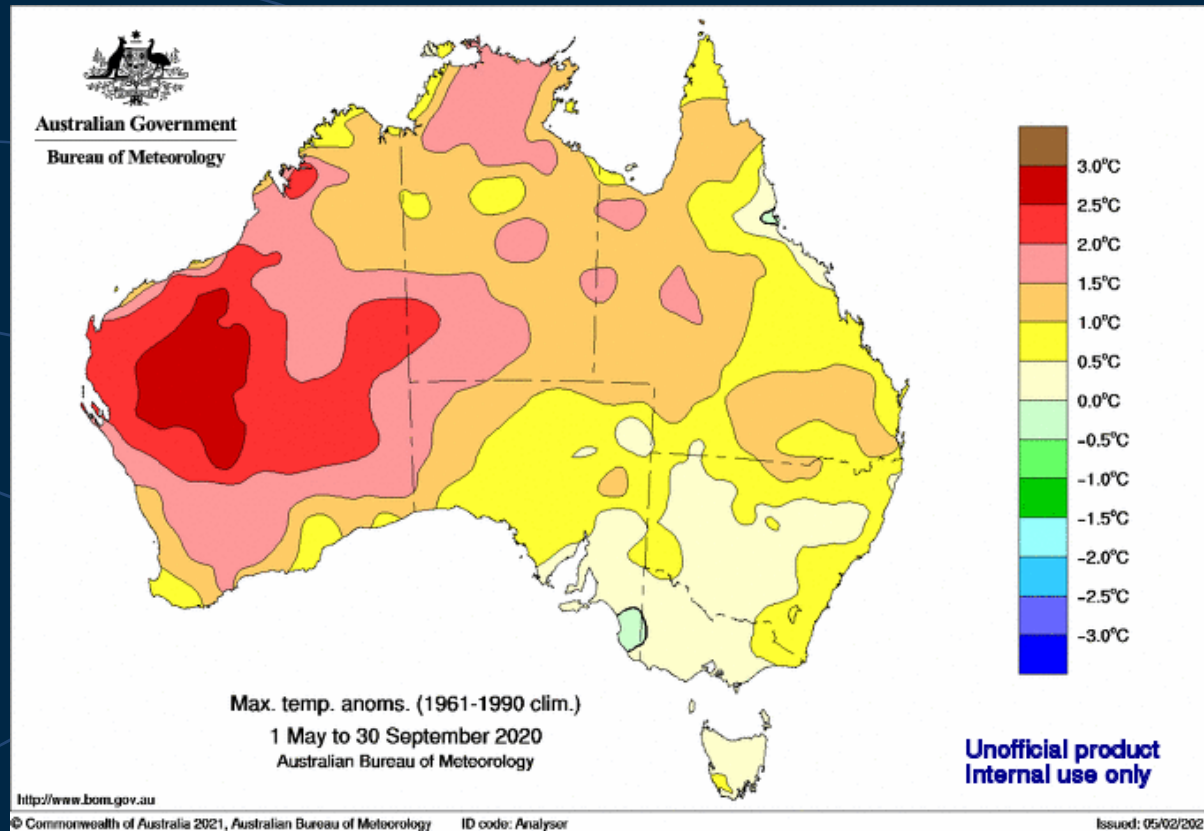
2019/20 Wet season Rainfall



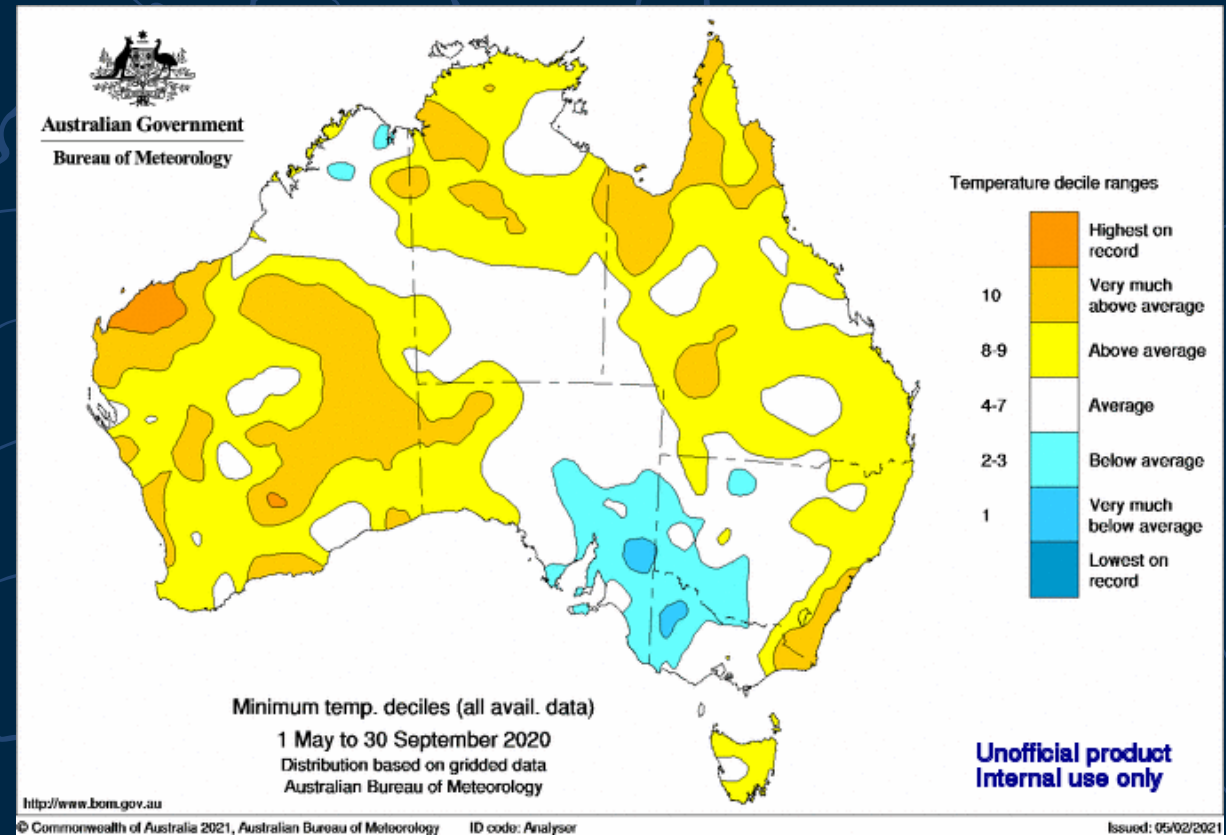
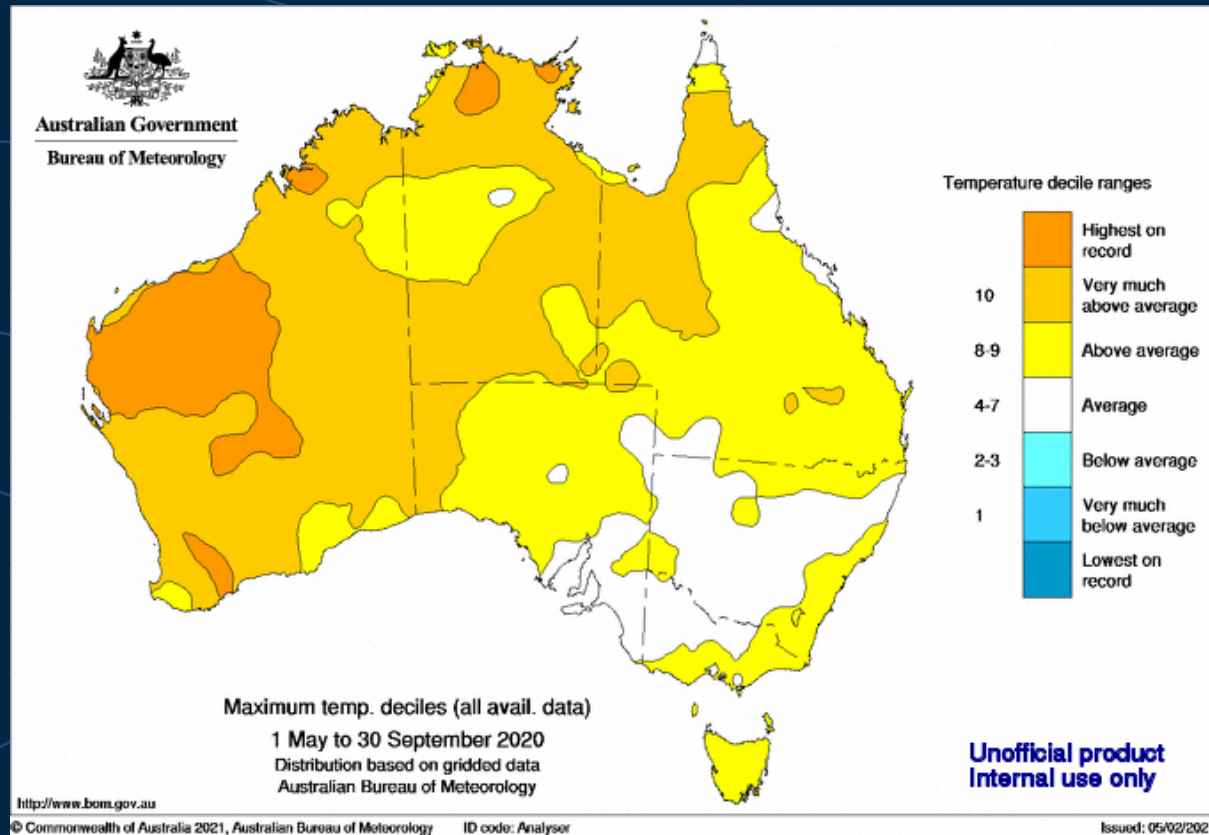
2020 Dry Season Rainfall



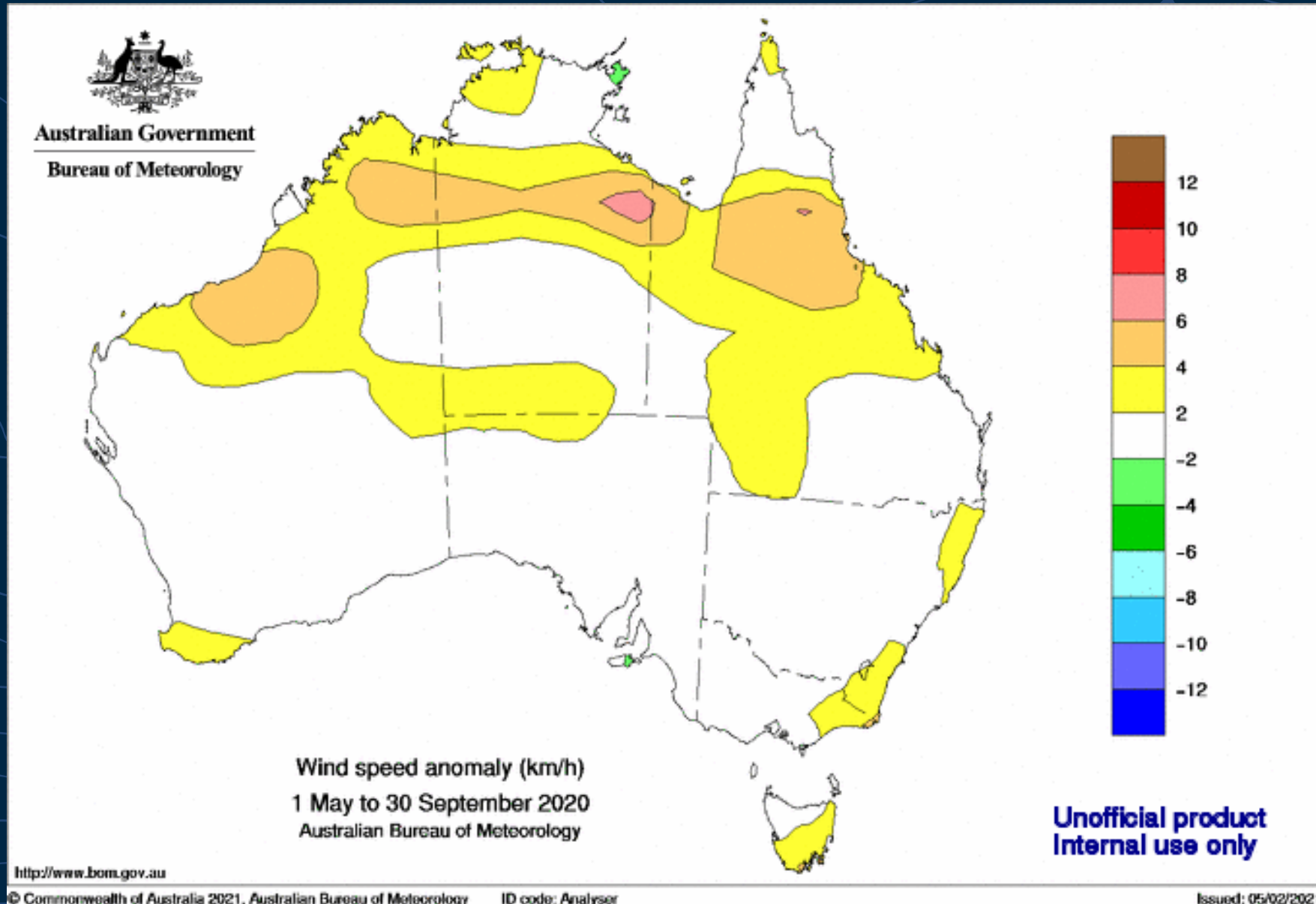
2020 Dry Season Temperature anomalies



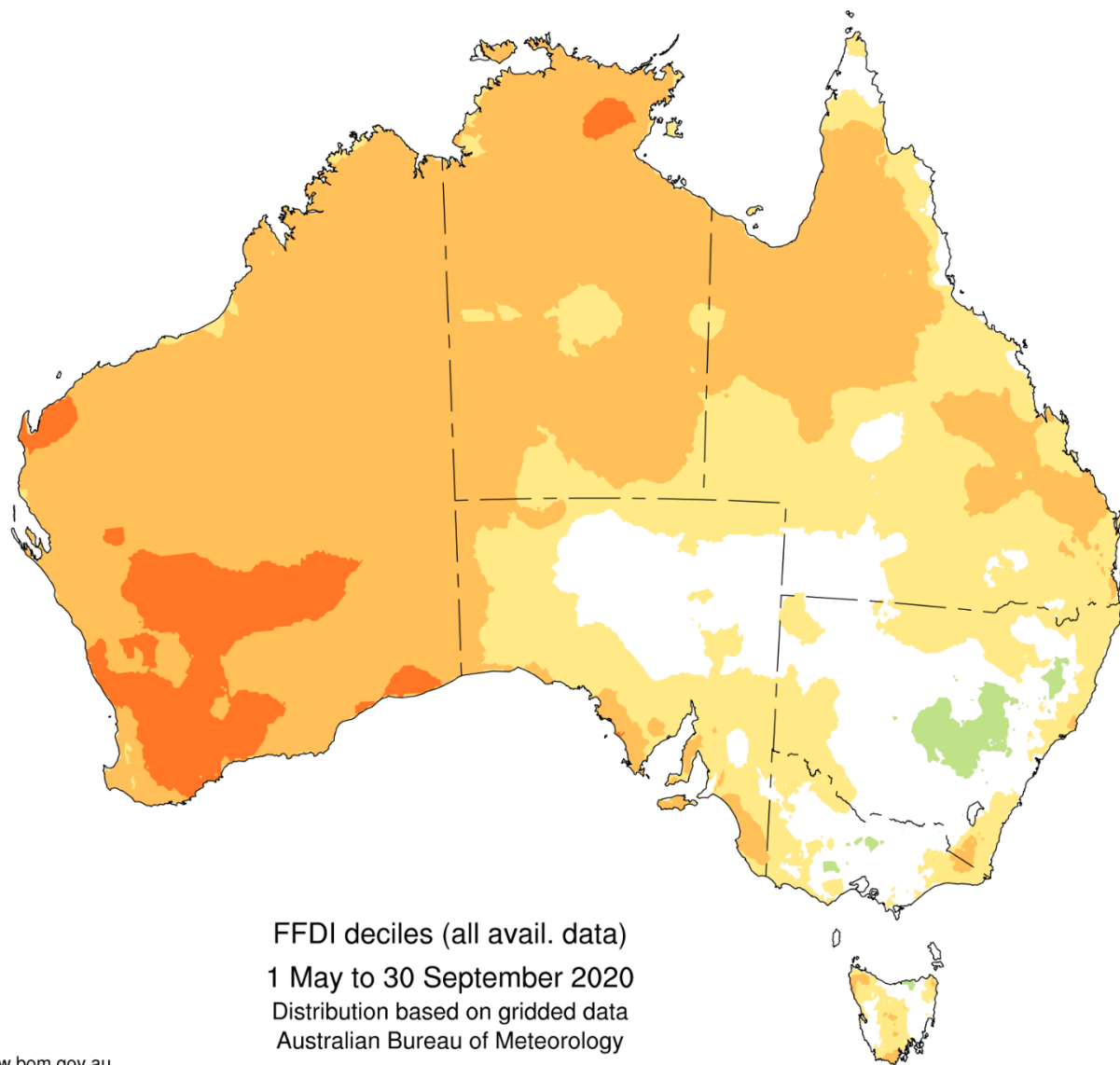
2020 Dry Season Temperature percentiles



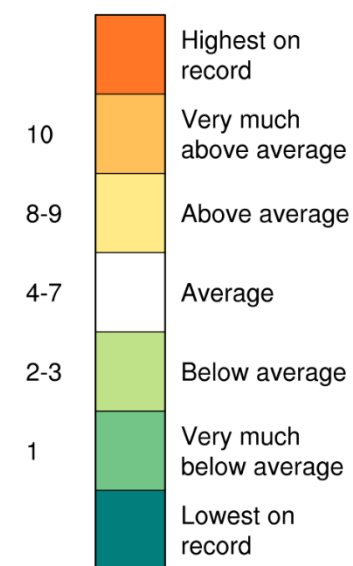
2020 Dry Season Wind Speed anomalies



2020 Dry Season FFDI



FFDI decile ranges

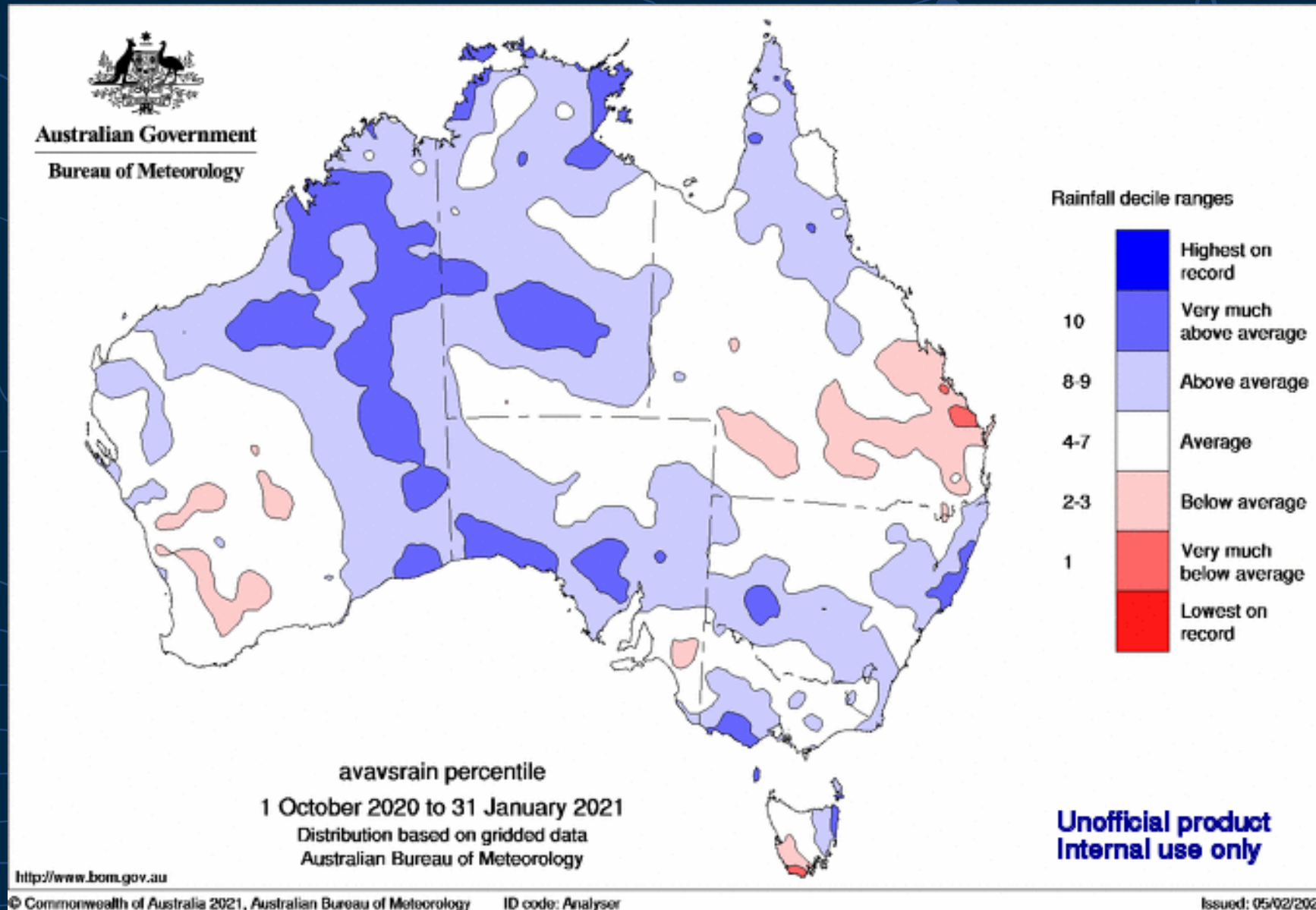


Unofficial product
Internal use only

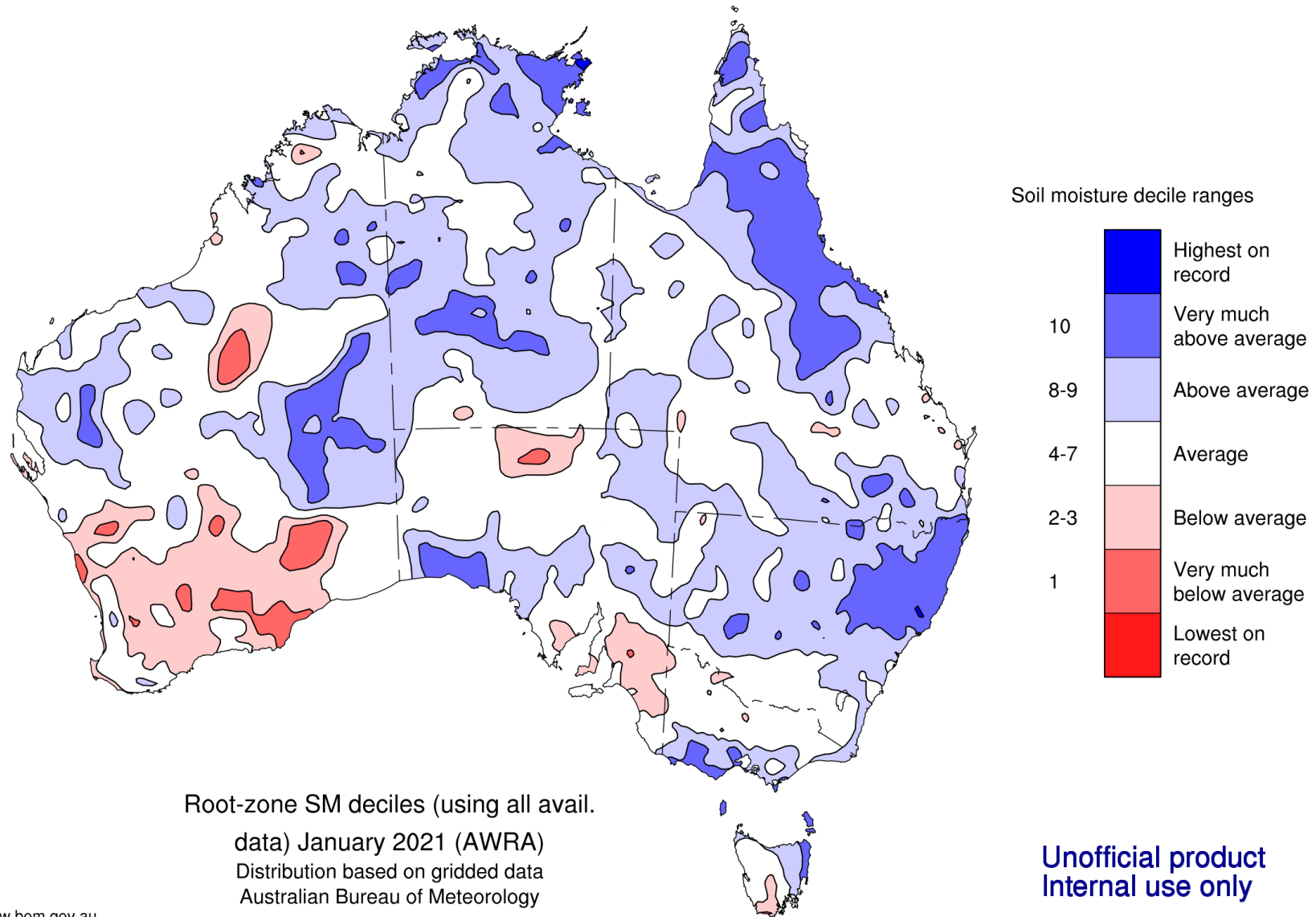
2020 Dry Season Summary

Kimberley	Top End	North Queensland
<ul style="list-style-type: none">• Above average maximum temperatures• Near average minimum temperatures• Above average rainfall• FFDI above average	<ul style="list-style-type: none">• Above average maximum temperatures• Above average minimum temperatures• Above average rainfall in the west• FFDI above average	<ul style="list-style-type: none">• Average to above average maximum temperatures• Above average minimum temperatures• Near average rainfall• FFDI above average

Wet season rainfall 2020-21 so far



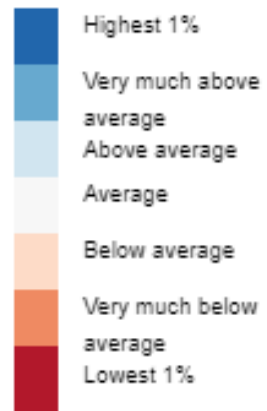
Recent Soil Moisture



Current Soil Moisture

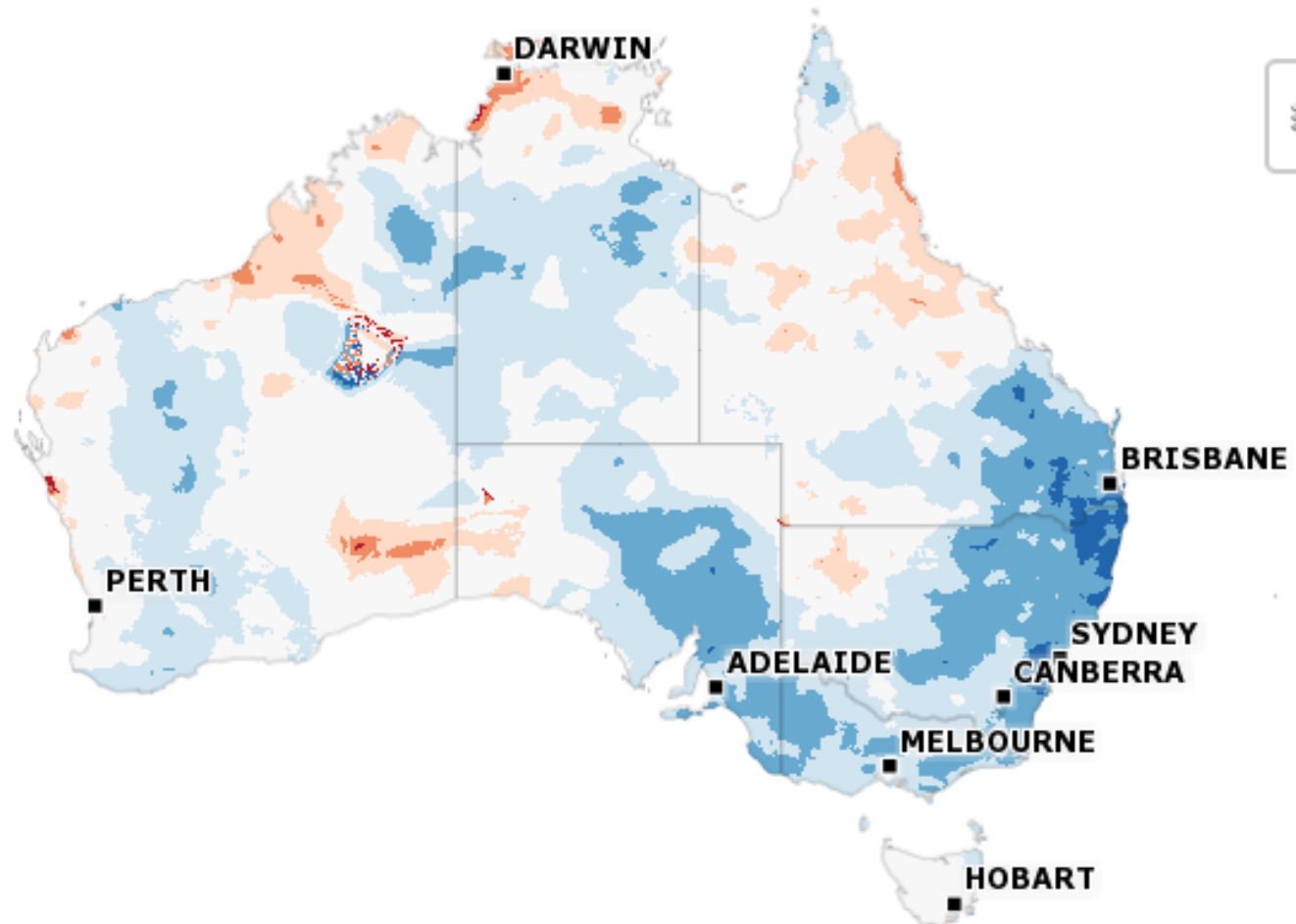
Displaying: Upper soil moisture, Month-to-date 15 February 2020

Upper soil moisture



Values

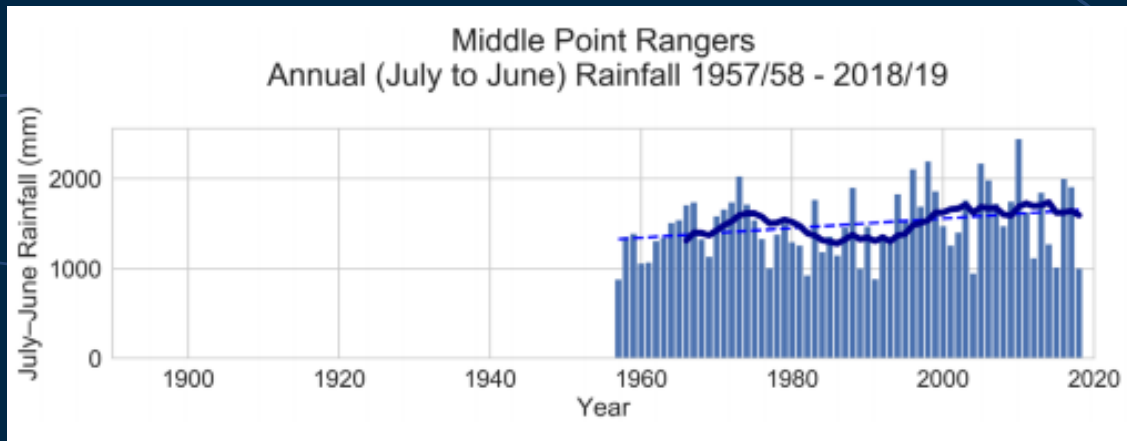
Actual **Relative**



Climate Trends

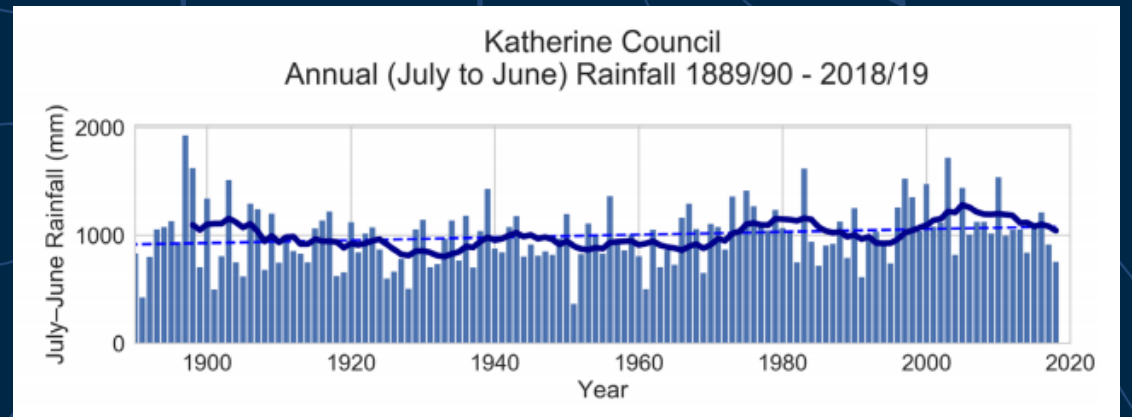
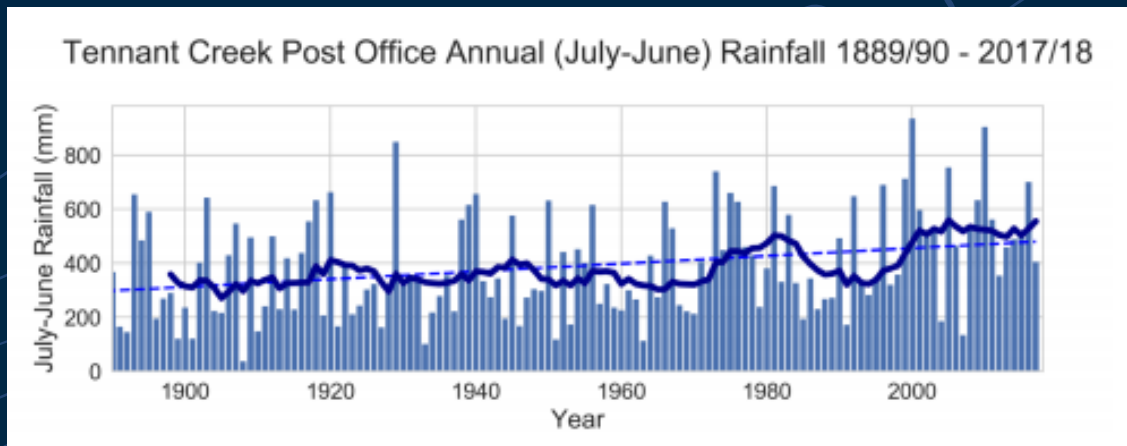


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Rainfall has increased in the NT during the past 30 years

Top End 11% (110mm)



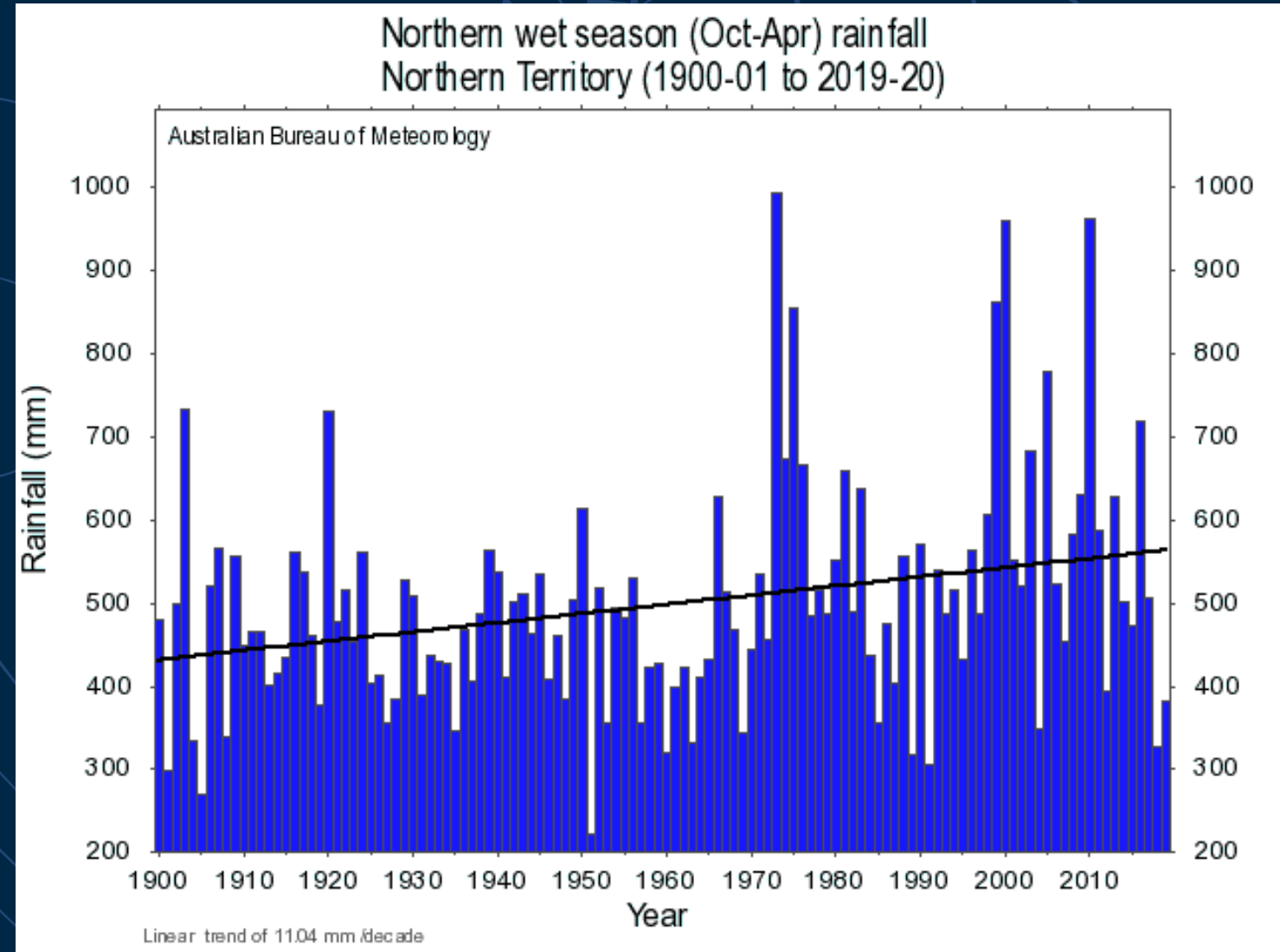
Top End 11% (110mm)

Barkly 14% (60mm)

Northern Australia's changing climate



Rainfall (northern wet season)

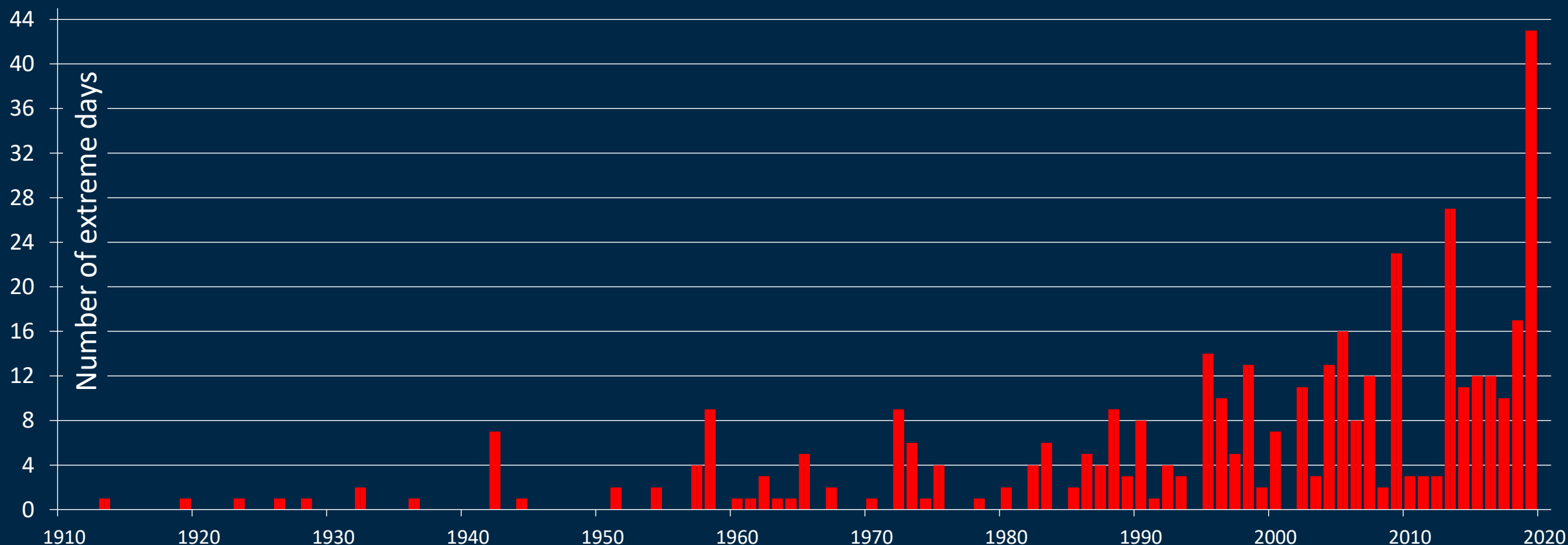




Increasing Extreme Heat Events

- 2019 was Australia's warmest year on record (+1.52C above average)
- 2020 was Australia's 4th warmest year on record (+1.15C above average), despite an active La Niña

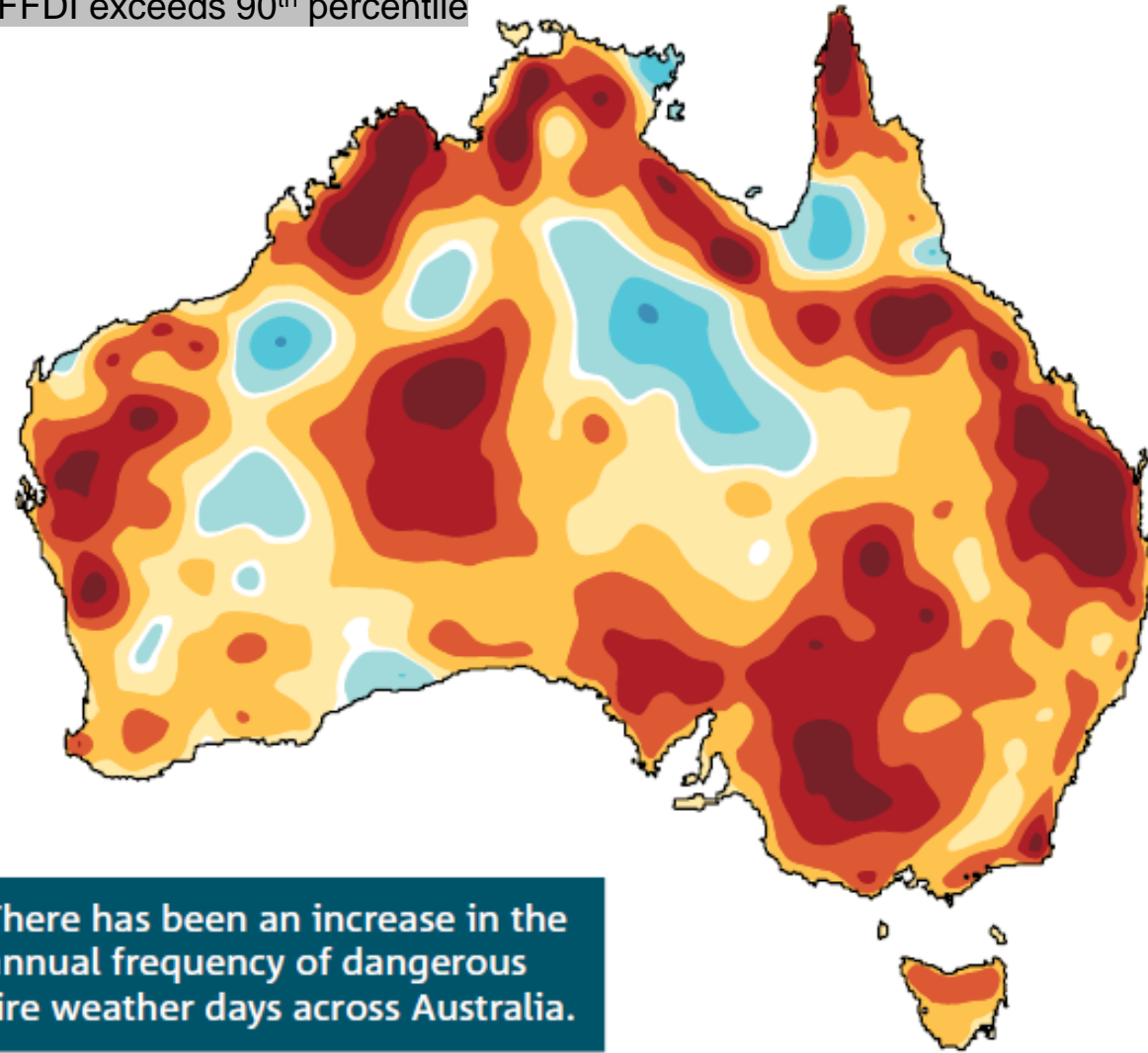
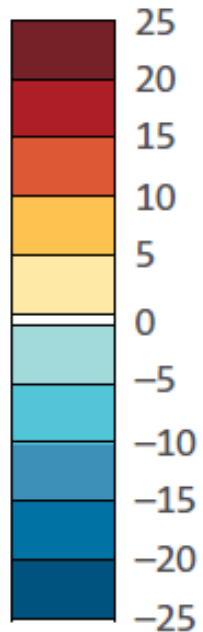
Number of days each year where the Australian daily area-averaged mean temperature is extreme



Worsening fire weather conditions

Numbers of days when FFDI exceeds 90th percentile

Change in number
of dangerous fire
weather days



Source: Bureau of Meteorology

There has been an increase in the annual frequency of dangerous fire weather days across Australia.

2020/21 Wet Season Outlook



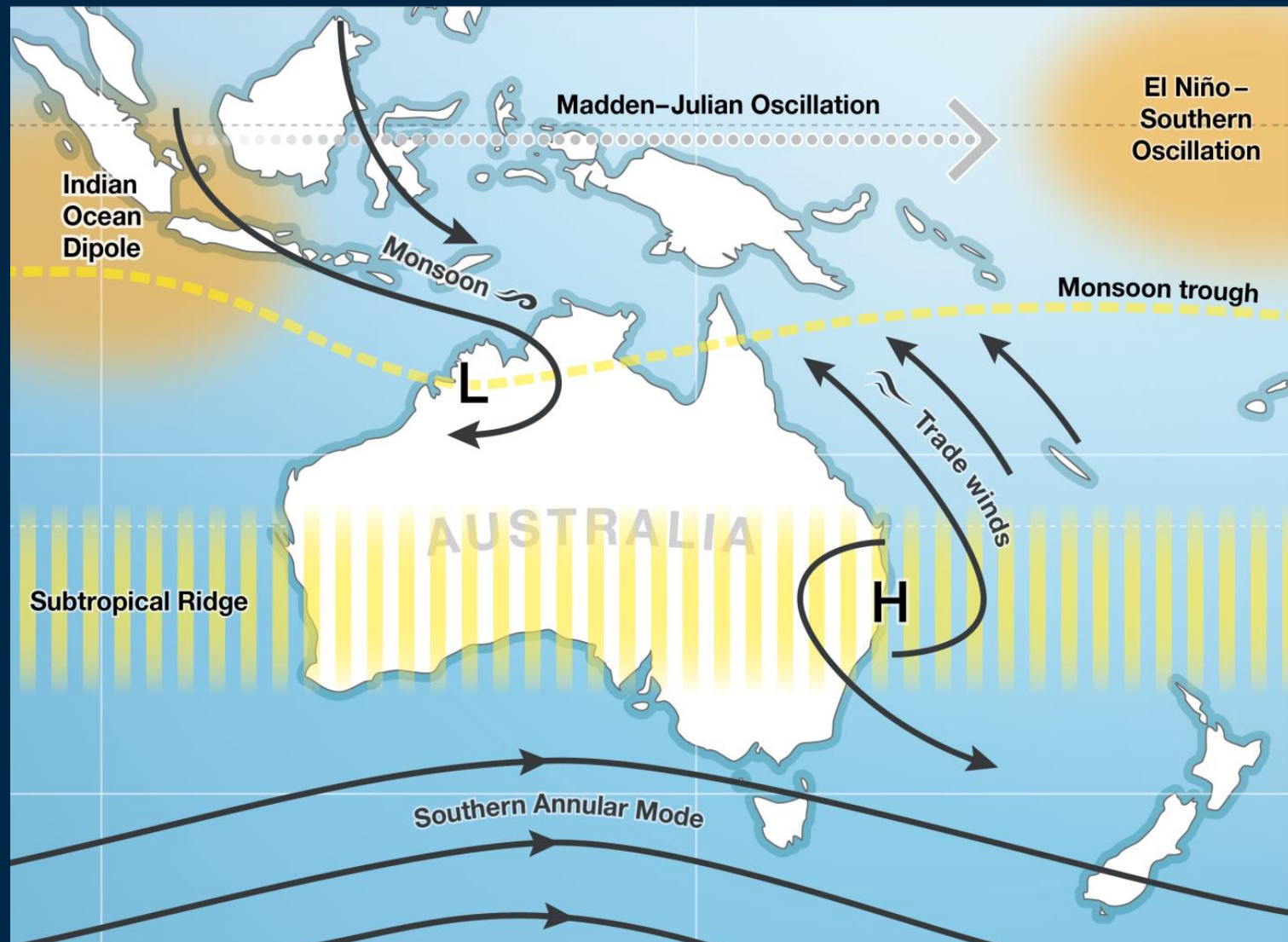
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Climate Drivers



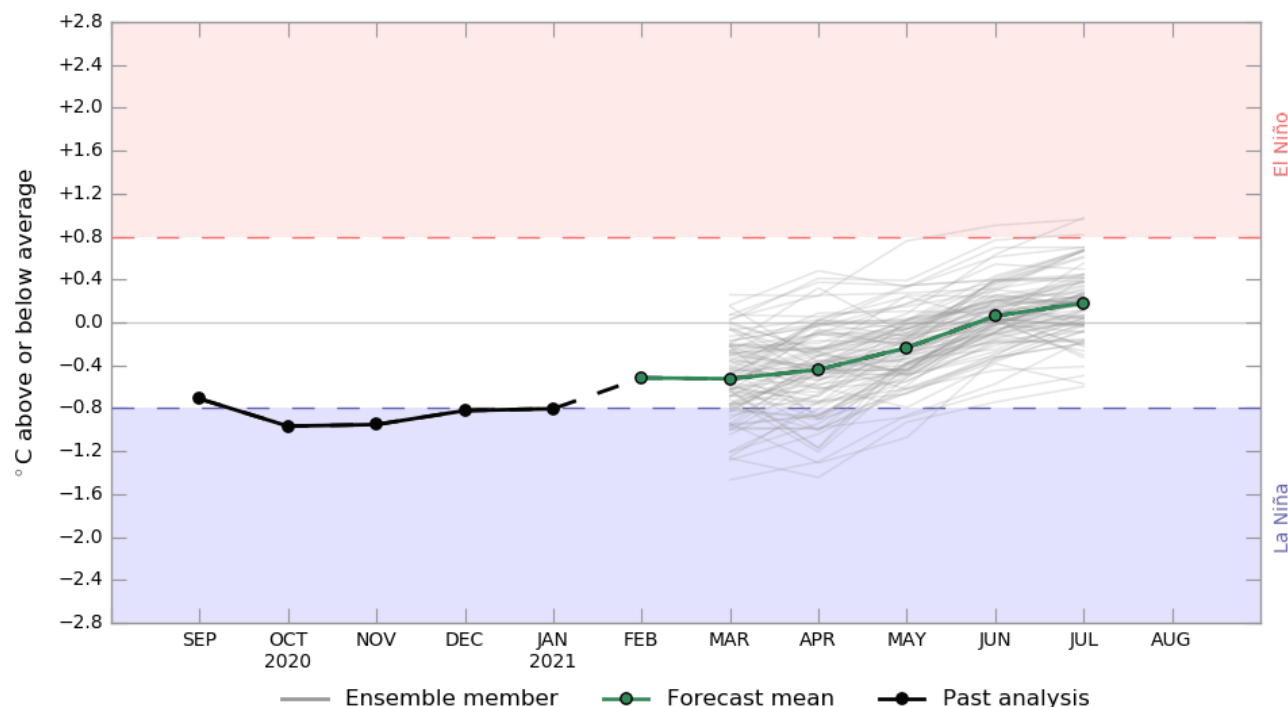


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ENSO Outlook

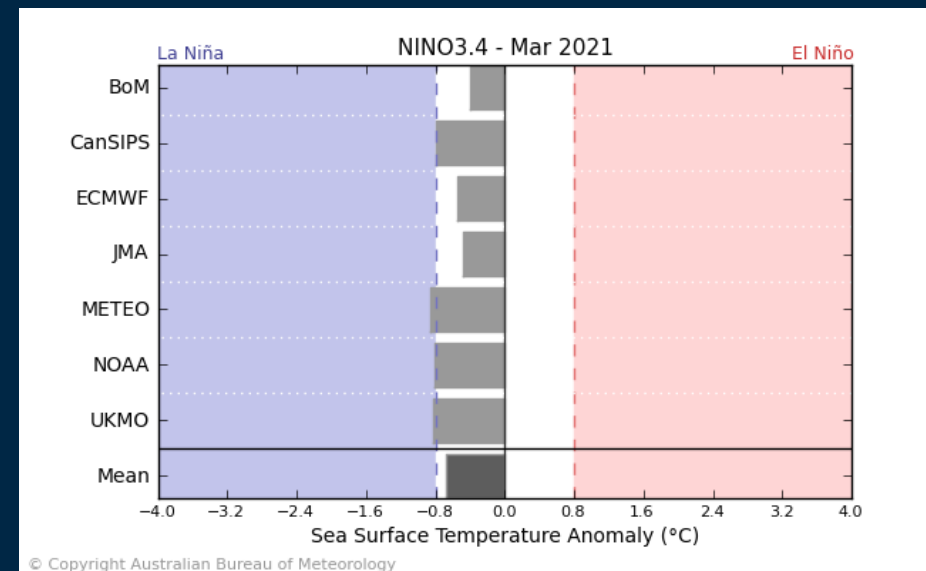
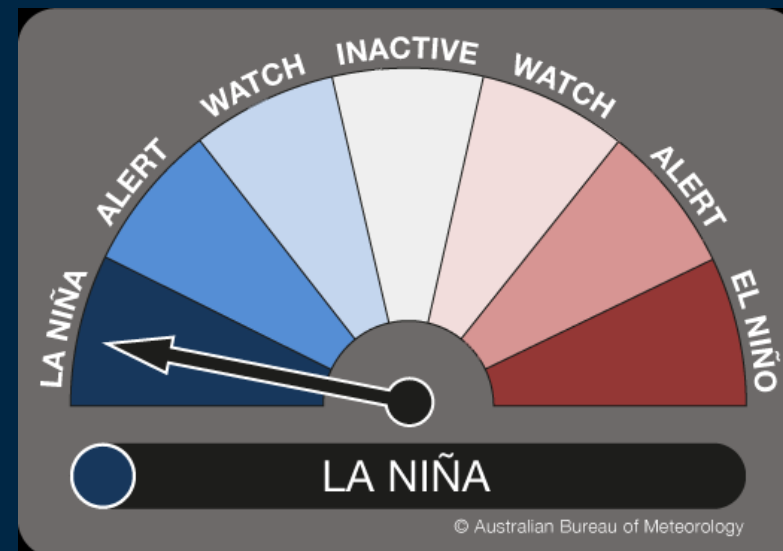
La Niña continues across the Pacific Ocean. Expected to persist until at least end of February 2021

Monthly sea surface temperature anomalies for NINO3.4 region



www.bom.gov.au/climate
Commonwealth of Australia 2021, Australian Bureau of Meteorology

Issued: Plot not issued
Model run: 2 Feb 2021
Model: ACCESS-S1
Base period 1990-2012

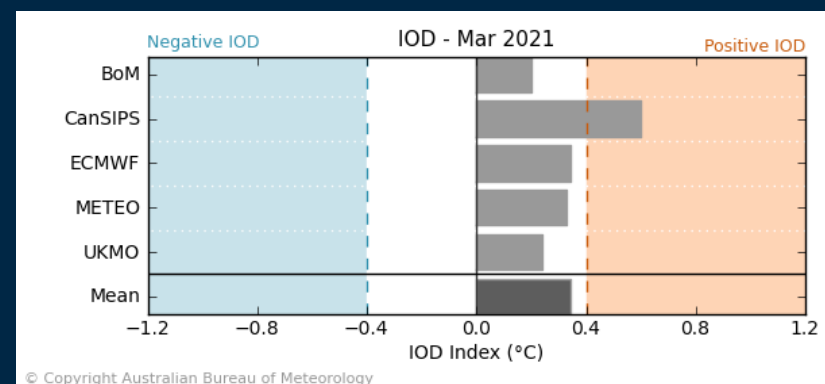
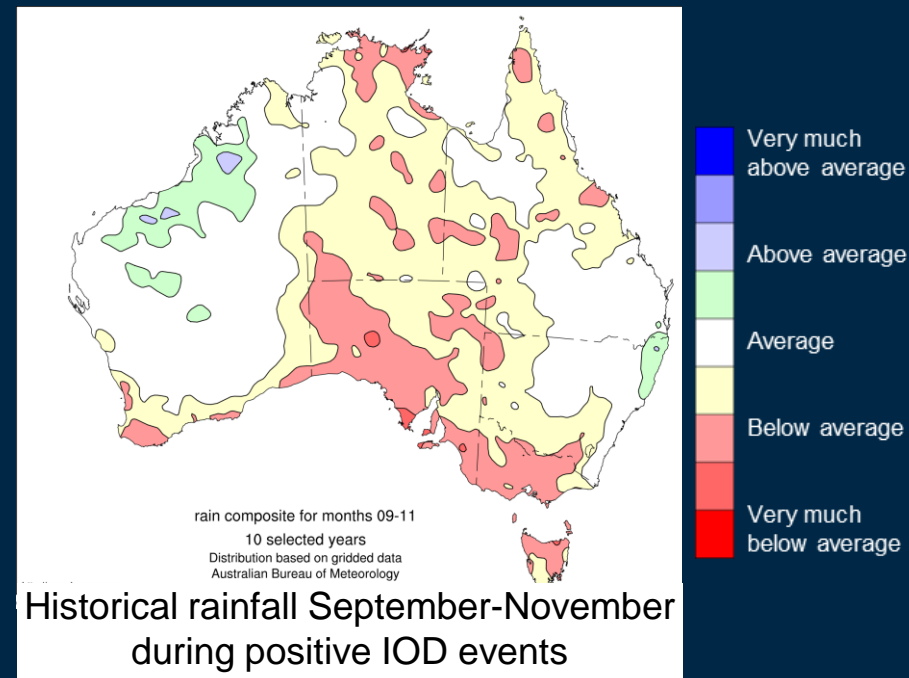
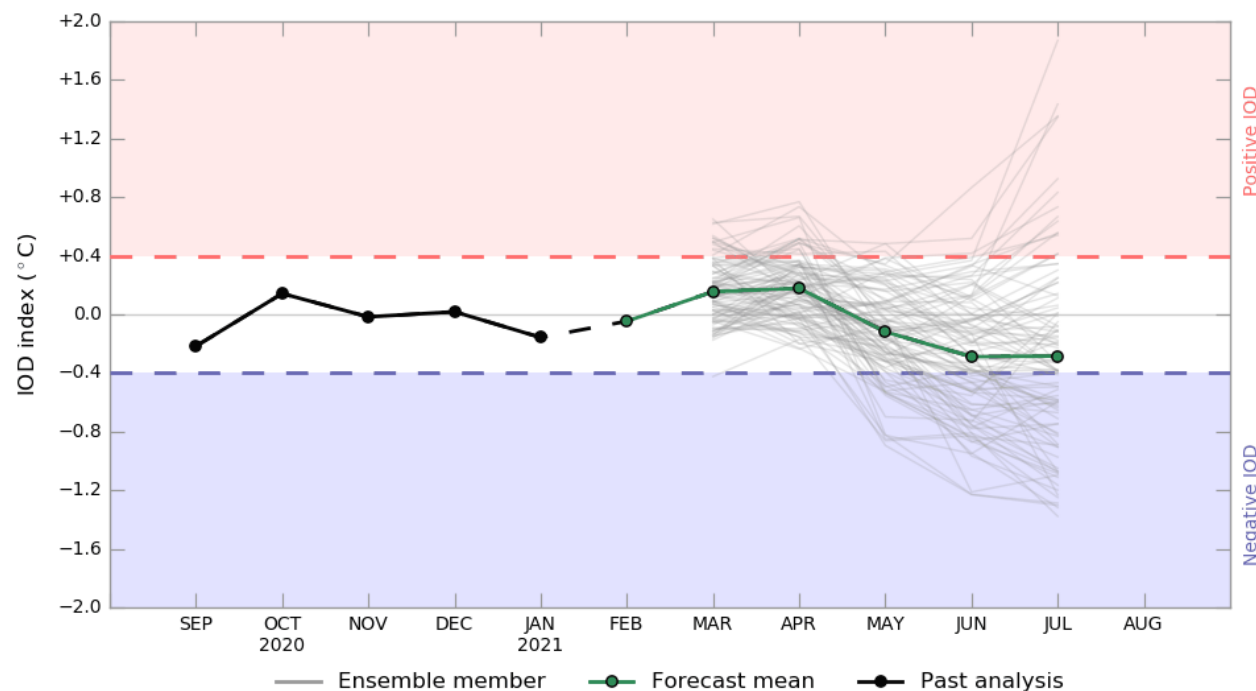




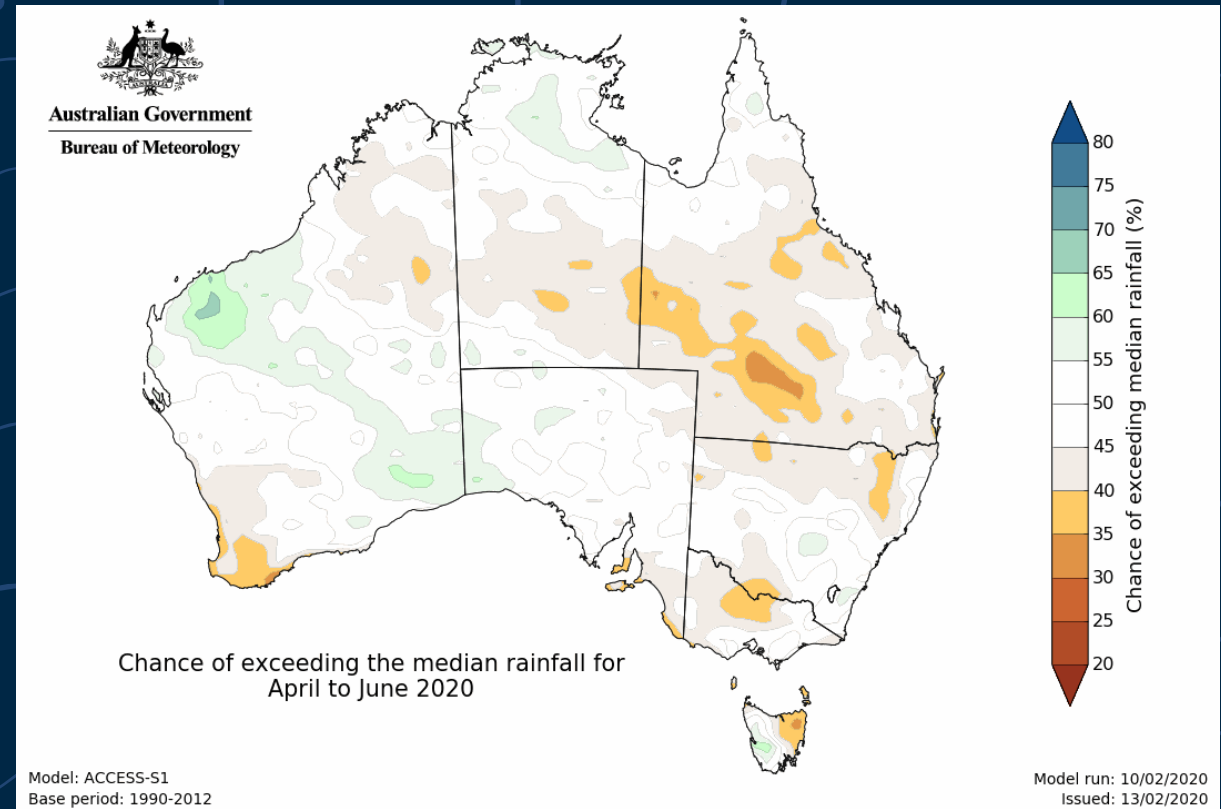
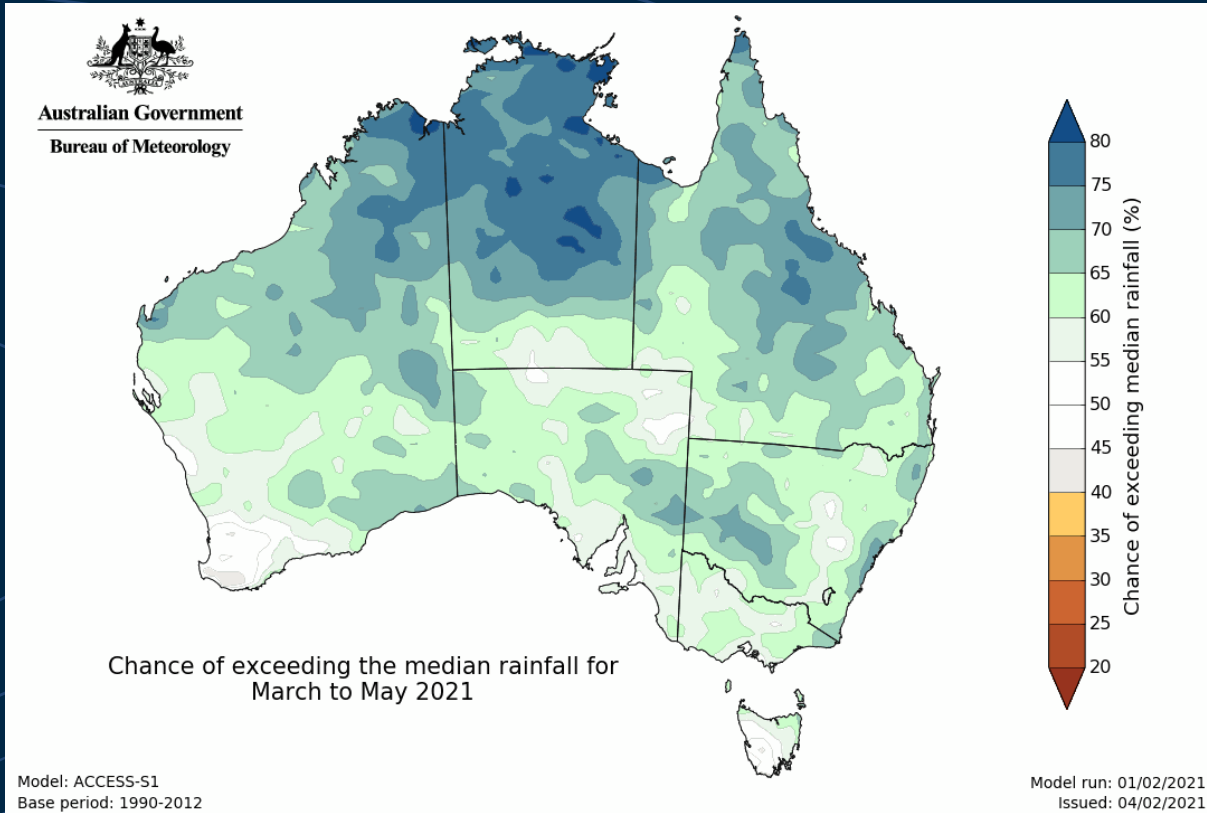
Indian Ocean Dipole

- IOD is currently neutral – it does not affect Australia's climate from ~December to April
- IOD forecast skill is low this time of year.

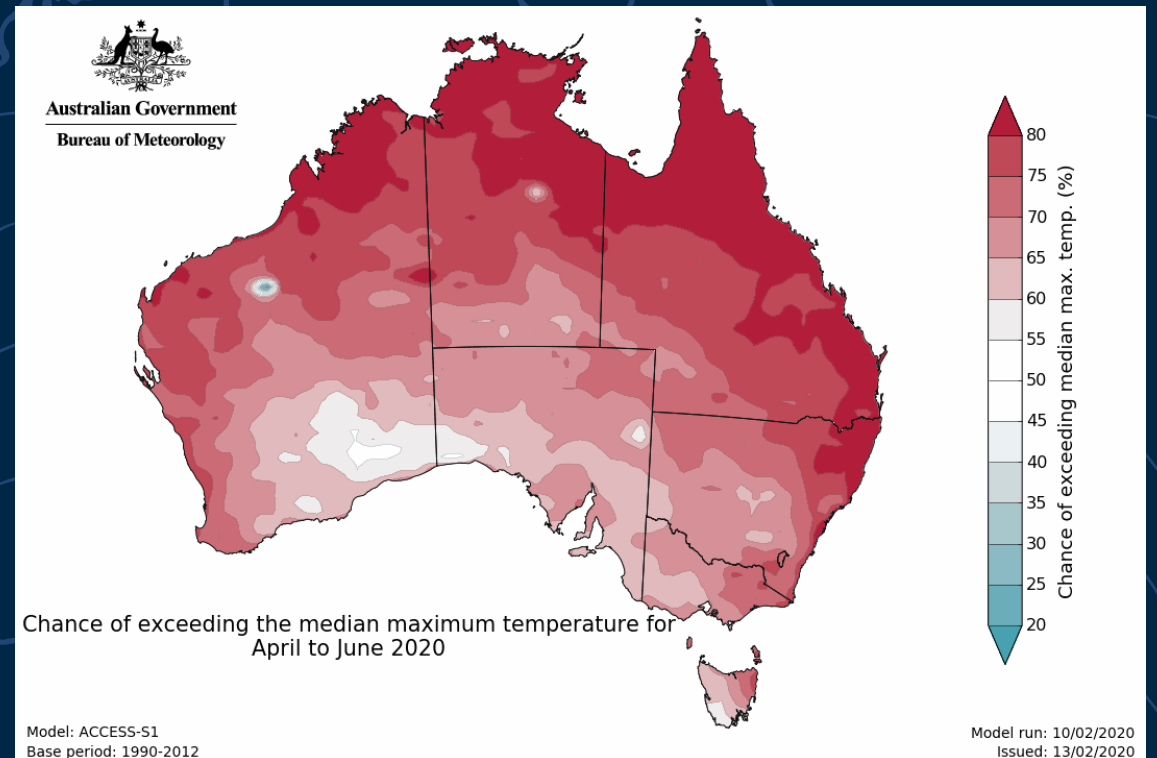
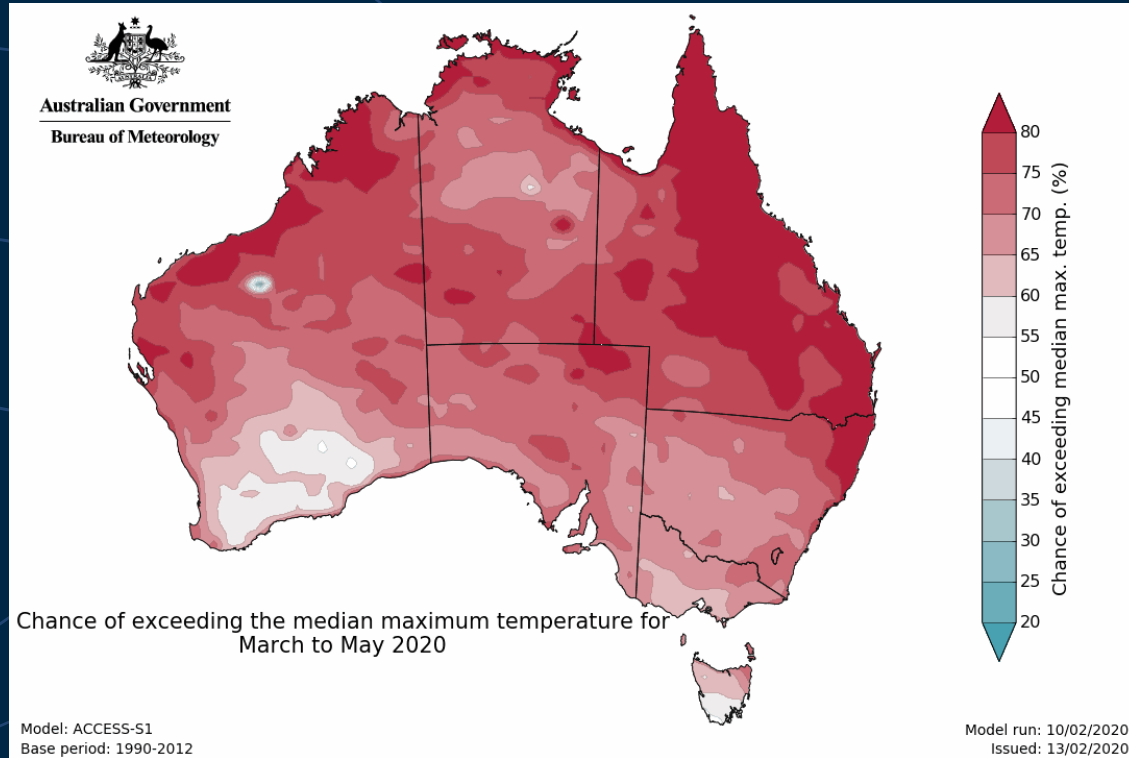
Monthly sea surface temperature anomalies for IOD region



Rainfall outlook



Maximum Temperature outlook





Thanks

Questions?