

Northern Australia Climate Program

Making the most of the forecast



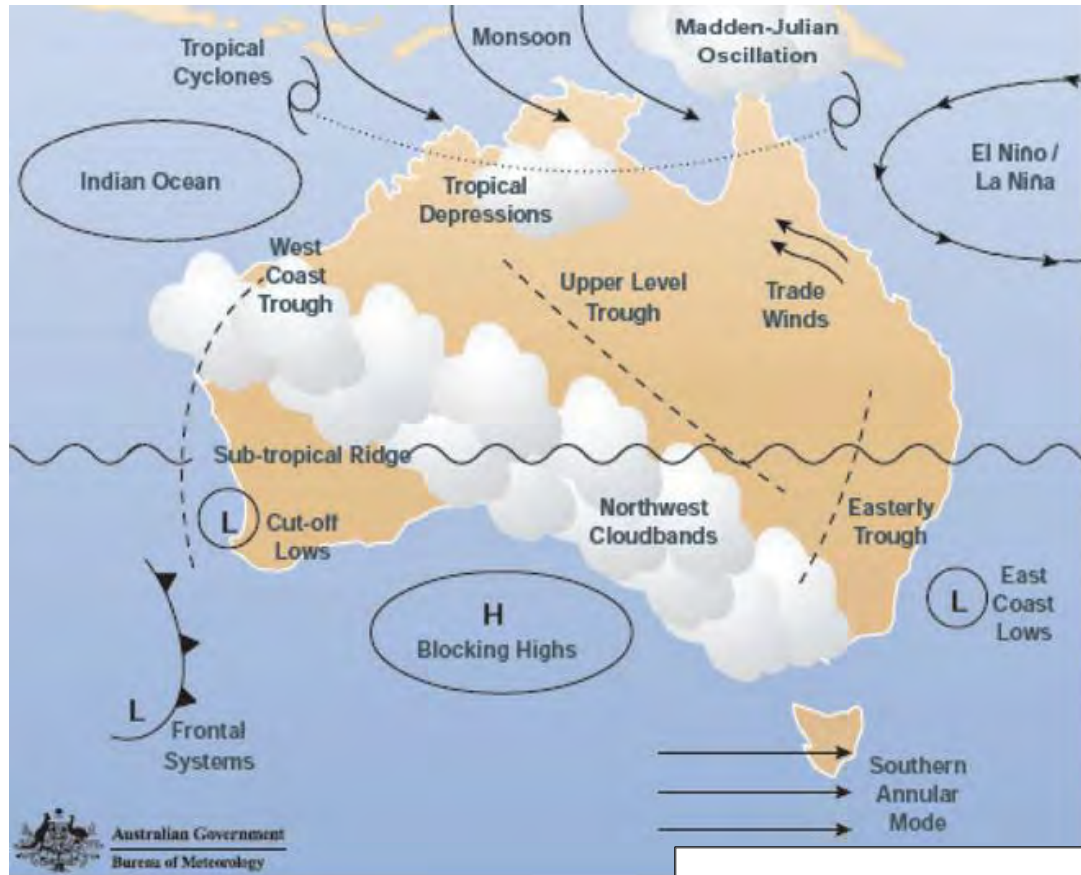
What's covered

- The difference between weather and climate
- How forecasts are derived
- Rainfall variability
- Average vs median
- Where to find information and how to assess it



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Climate vs Weather



Seasonal Forecasts

Models Statistical vs Dynamical

Statistical

Compares current conditions to past conditions to provide a forecast



Dynamical

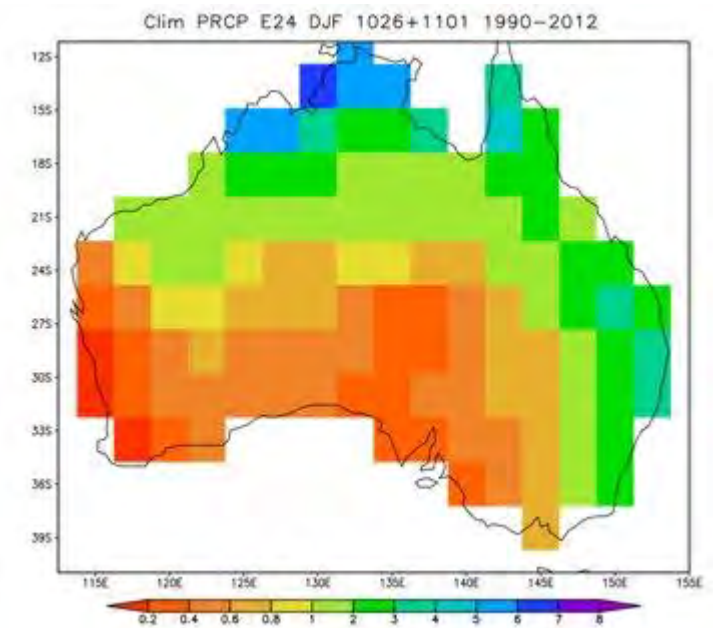
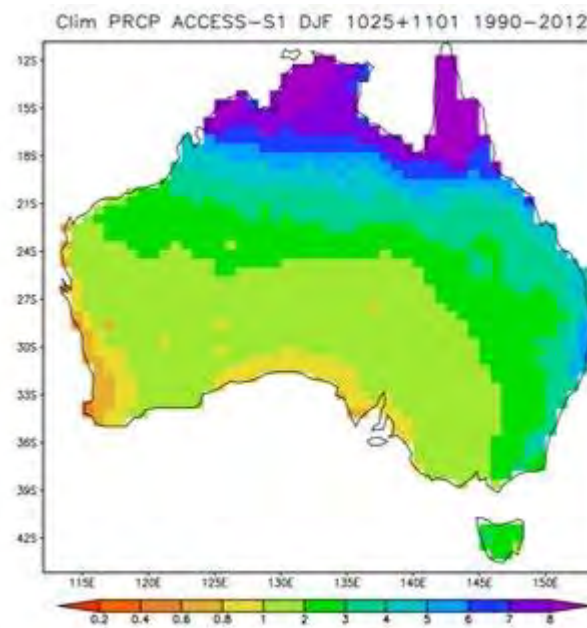
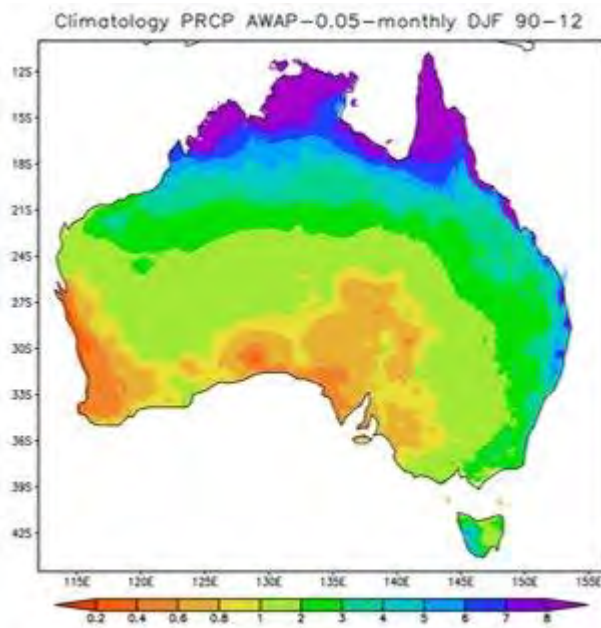
Uses current ocean and atmospheric conditions combine with understanding of the physical processes

Models – How they have improved

Observations

New model

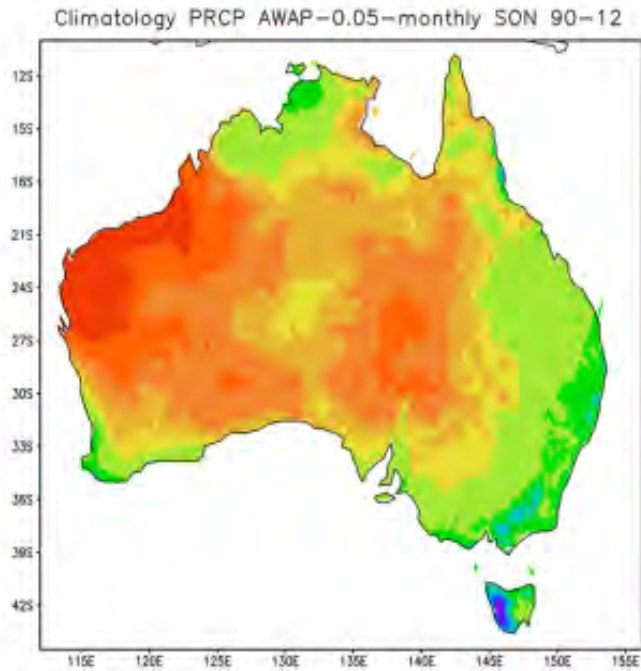
Previous model



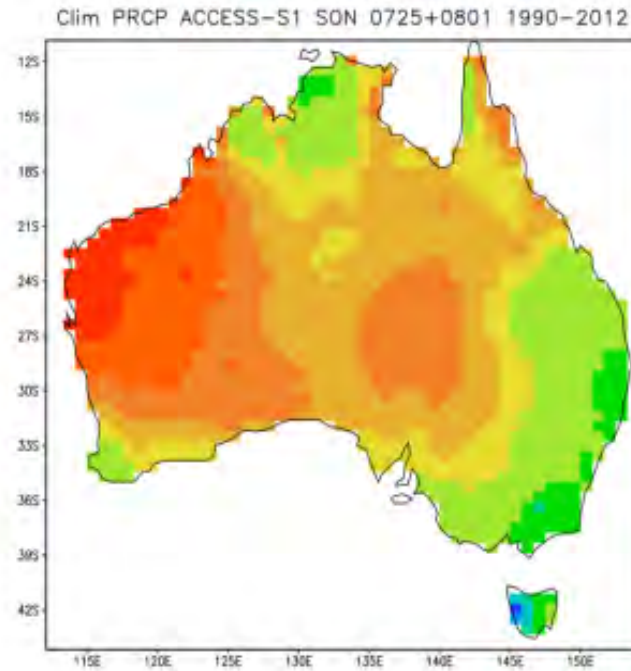
Example: Mean rainfall (mm/day) for summer (December – February)

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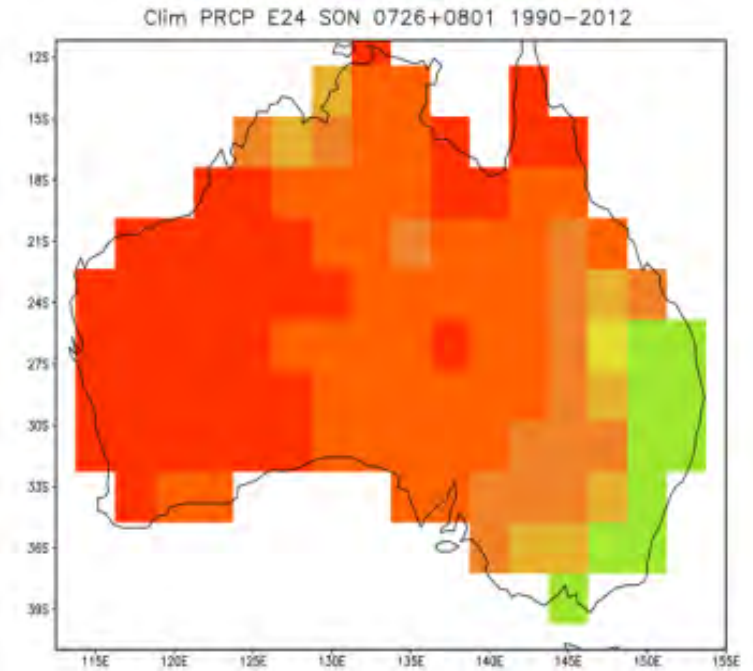
Observations



New model



Previous model

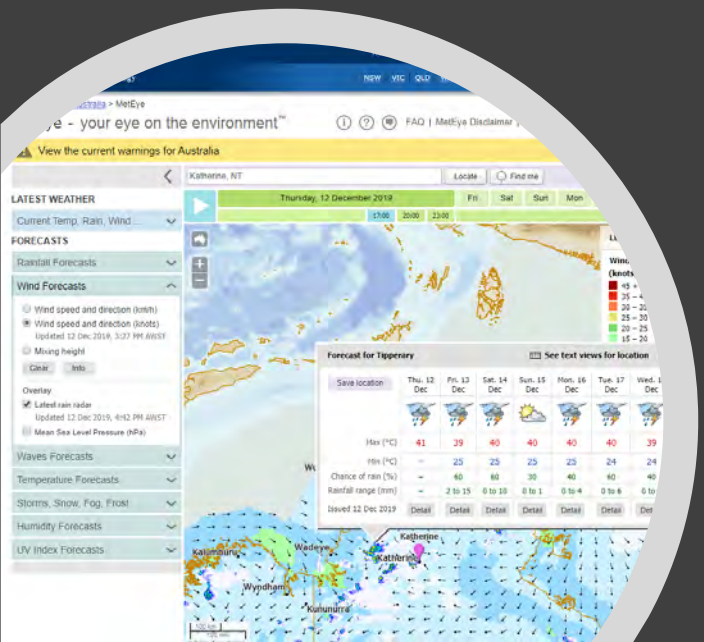
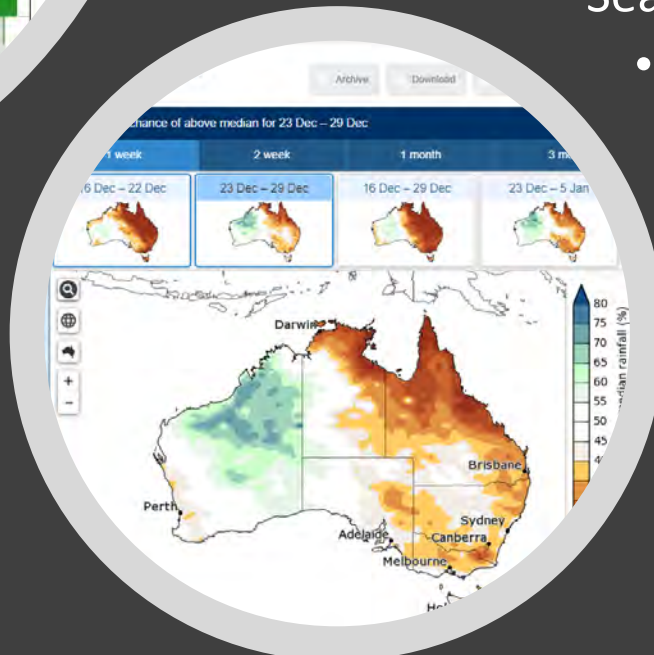
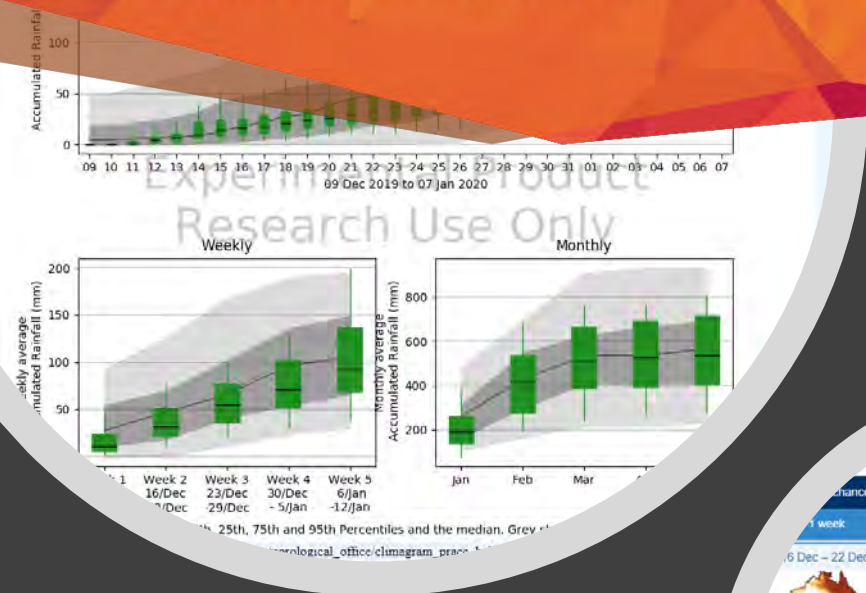


Example: Mean rainfall (mm/day) for spring (September - November)

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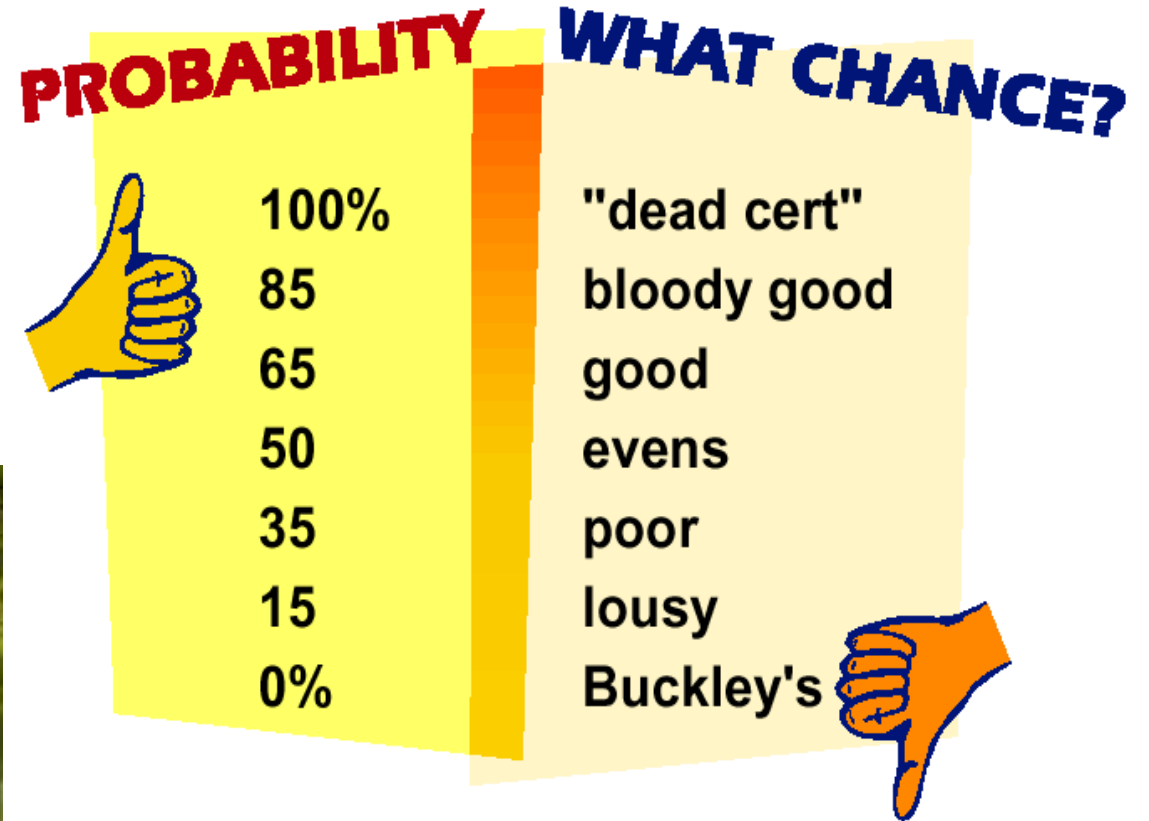
Tools

- Weather forecasts – short term (1 – 7 days)
- Seasonal forecasts – longer term (2 weeks – 3 months)
 - 3 – 6 months currently under development



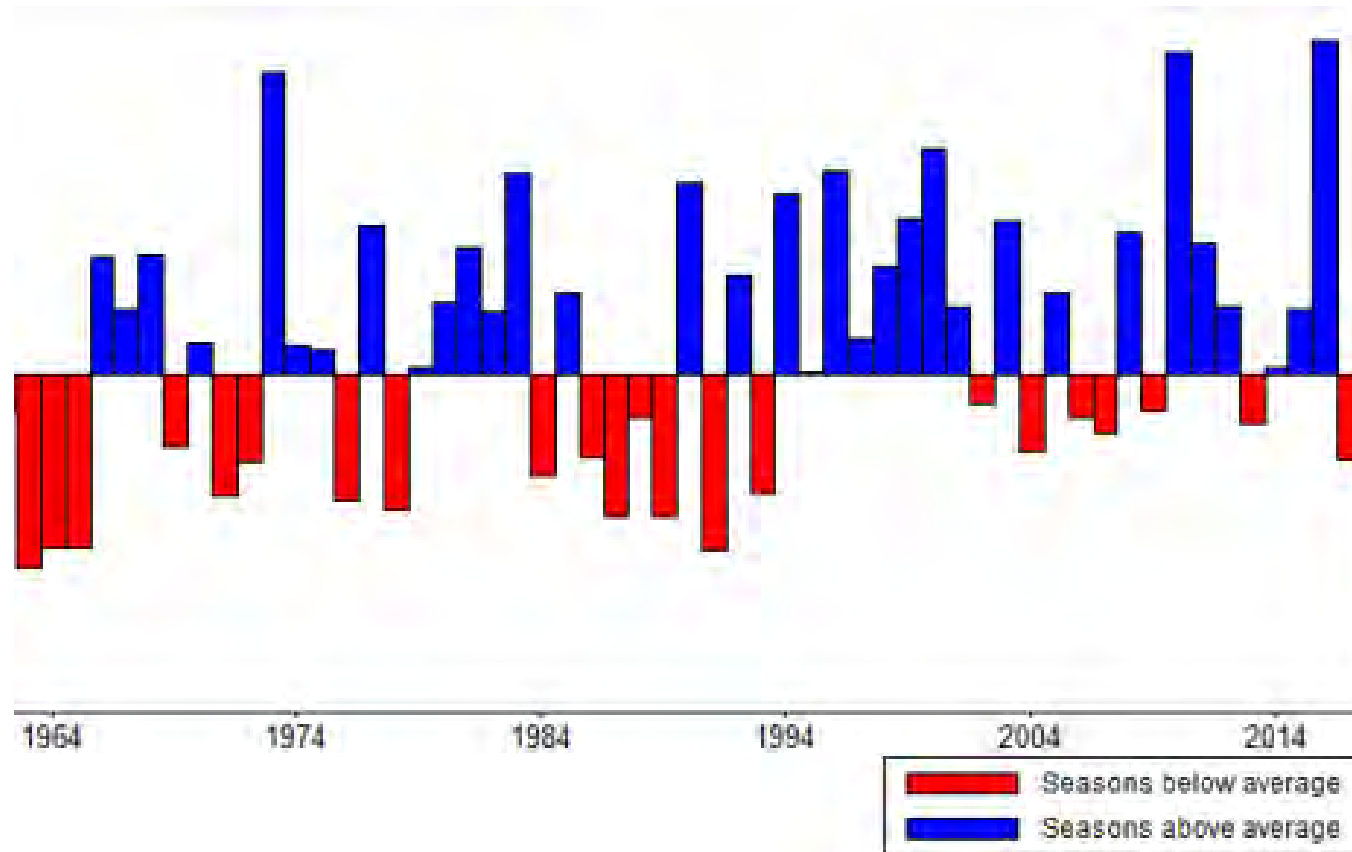
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Probabilities – What are the chances?



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Seasonal variability – Fitzroy Crossing

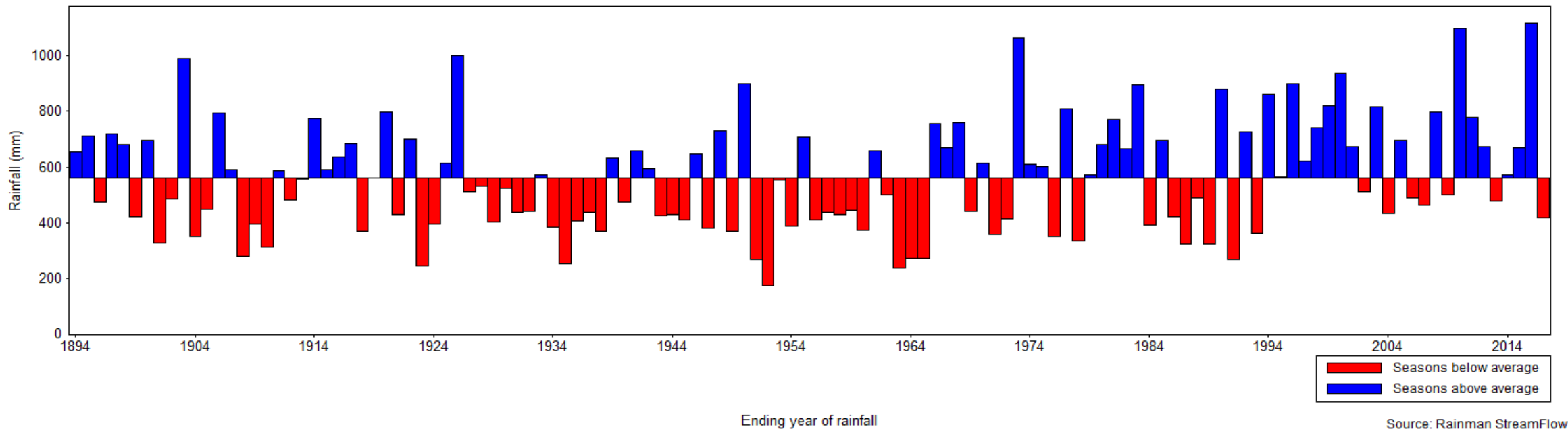


Source: Rainman StreamFlow

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Seasonal variability – Fitzroy Crossing

Seasonal rainfall (12 months, Jul in year 1 to Jun in year 2) at FITZROY CROSSING COMPOSITE+
Long-term average rainfall (12 months, Jul in year 1 to Jun in year 2) is 562 mm



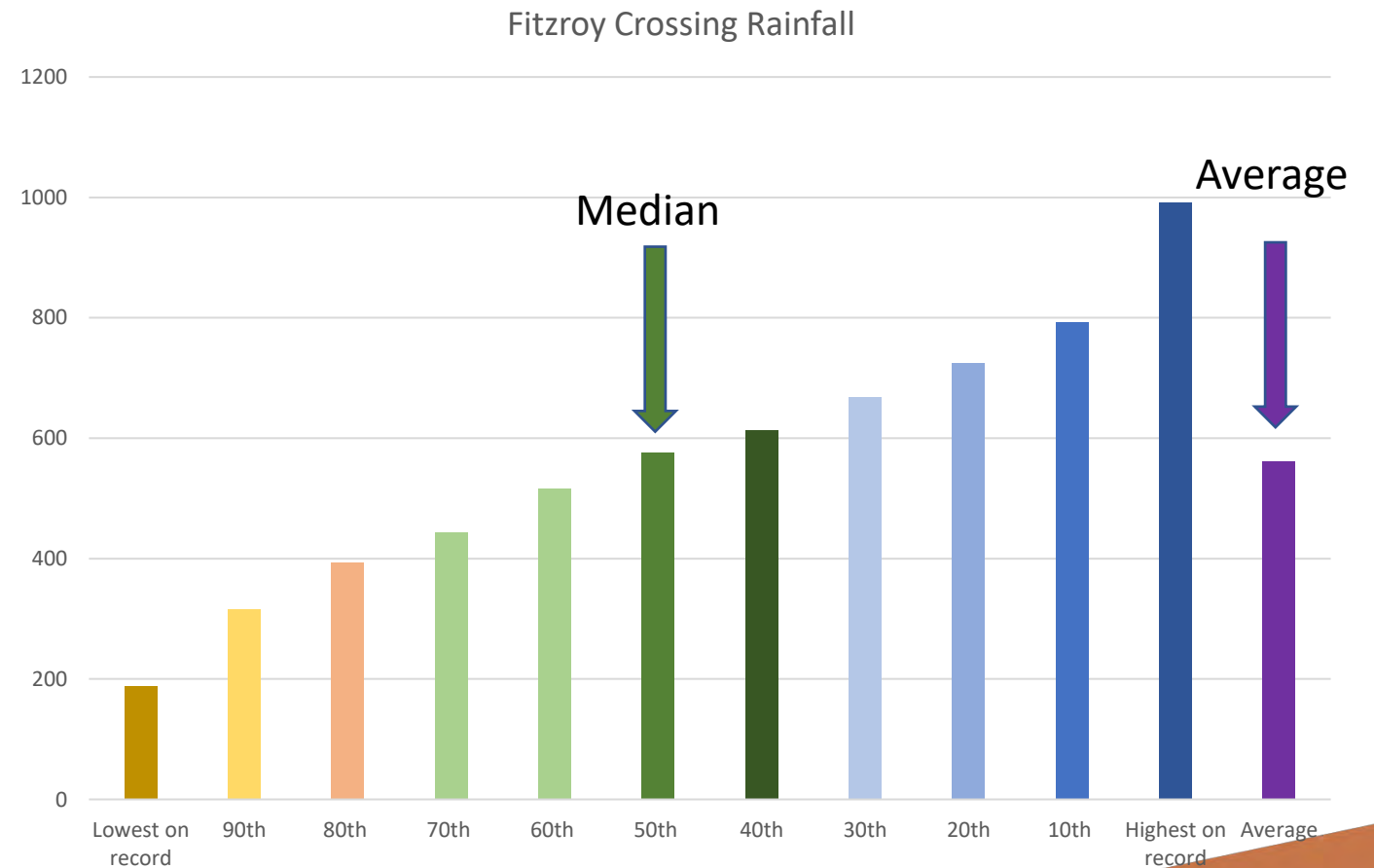
Source: Rainman StreamFlow

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Fitzroy Crossing Rainfall

1893 - 2018

Total Rainfall July -June	
Lowest on record	188
9 years out of 10	316
8 years out of 10	394
7 years out of 10	445
6 years out of 10	516
5 years out of 10 (Median)	576
4 years out of 10	614
3 years out of 10	668
2 years out of 10	725
1 year in 10	794
Highest on record	991
Average	562

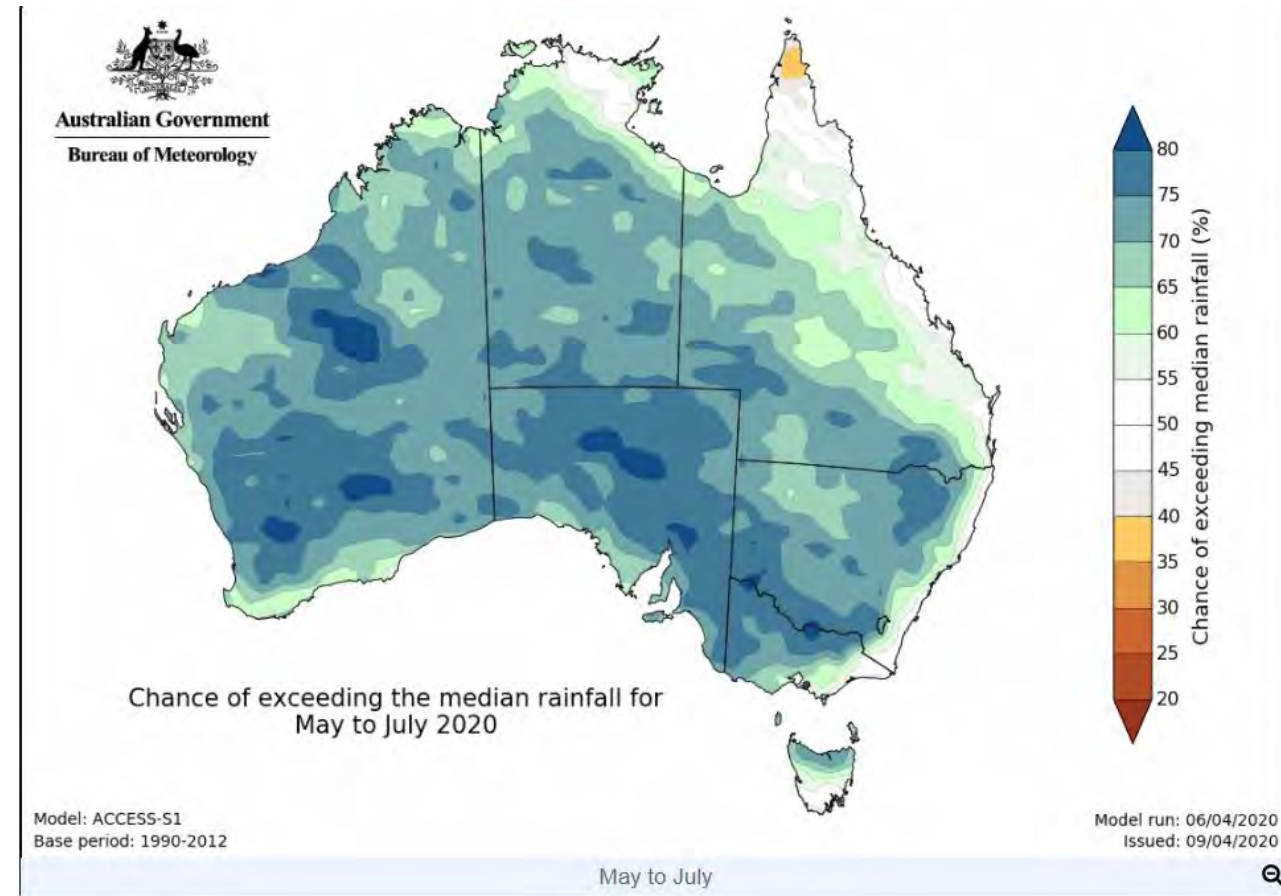


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Average vs Median

Year	May	June	July
2009	0	1	5
2010	44	4	0
2011	0	0	16
2012	0	4	0
2013	73	0	0
2014	8	0	0
2015	0	0	0
2016	112	0	9
2017	1	53	0
2018	0	0	0
Total	238	62	30
Average	23.8	6.2	3
Median	0.5	0	0

All years	May	June	July
Average	11.8	8.4	6.2
Median	0	0	0



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Where to from here?

- **Facebook**

- Climate Info for WA NT rain
- Climate Info for Southern Queensland
- Climate Info for North Queensland
- Central Queensland's Climate Mates

- **Northern Australia Climate Program**

nacp.org.au

Contact details of all Climate Mates

- **Forecasting for Decision Making**

- On-line course
- Self-paced workbook

nacp.org.au/outreach/training/launchpad

