

CottonInfo: Moisture Manager, 15 December

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Welcome to the CottonInfo Moisture Manager

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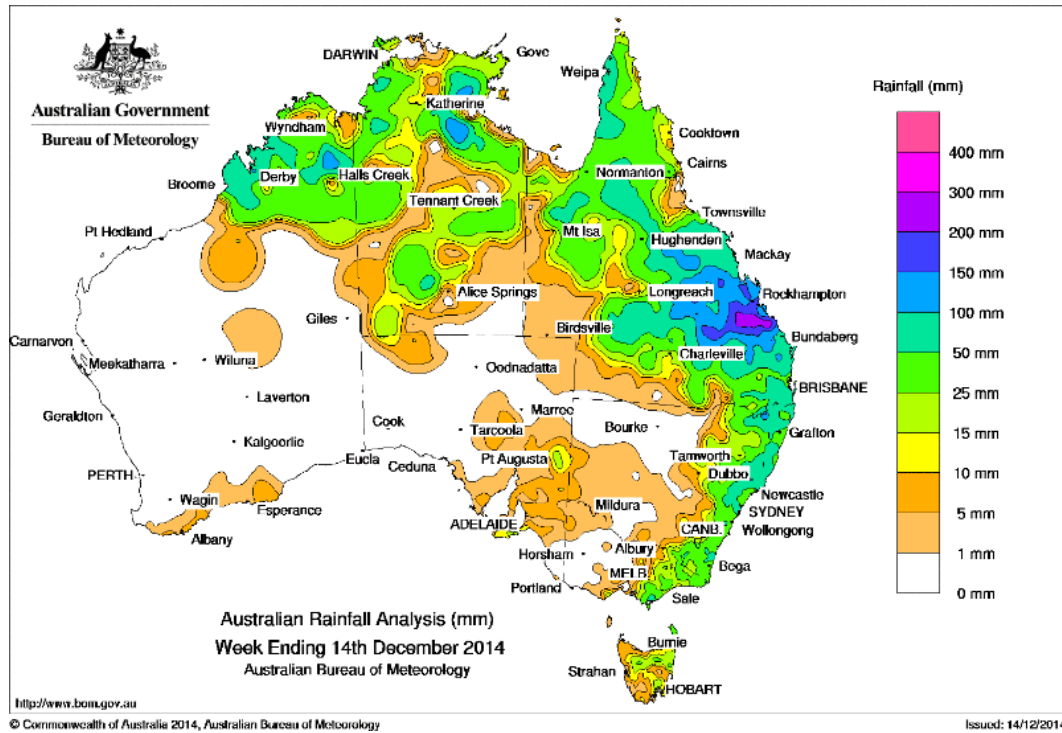
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Latest weather news:

- A number of research agencies predict an active Madden-Julian Oscillation to return to eastern Australia at the end of December.
- Local sea surface temperatures continue to warm, assisting atmospheric moisture supply and **providing optimism for summer rainfall.**
- A generally cooler four week period forecast with multi-week rainfall models showing **potential rainfall events towards the end of December.**
- Atmospheric indicators steadily improving, with the SOI almost neutral (30 day average -5) and the Southern Annular mode in positive phase.
- Longer term prospect predicting a return to neutral El Niño-Southern

Oscillation conditions in 2015.

Observed rainfall analysis (for the week ending 14 Dec):



Summary of climate indicators:

For more information on what the climatic indicators mean, [click here](#).

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Measure	Indicator	Current Status	Forecast Trend
Sea Surface Temperature Indices 	Pacific Ocean – Niño 3.4	+0.9	 Dry
	Pacific Ocean – Composite Index	+0.3	 Dry
	Indian Ocean	0.0	 Neutral
Mean Sea Level Air Pressure 	Southern Oscillation Index	-5	 Neutral
	Southern Annular Mode	0.0	 Wet
Tasman Sea Upper Atmospheric Air Pressure 	Blocking	-20	 Neutral

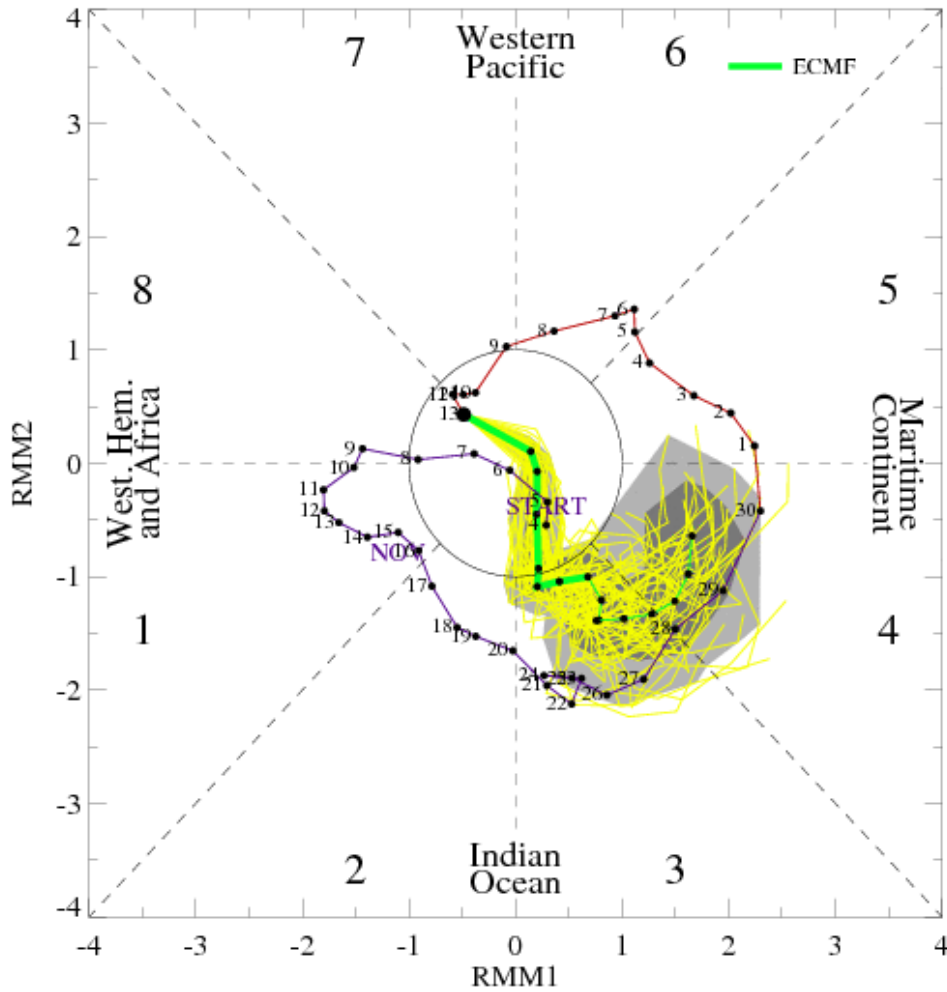
Rainfall and temperature guidance summary:

Source	Model Released	Temperature Forecast	Precipitation Outlook
BOM Extreme Heat Model	15 Dec	Low intensity heat 15-21 December 2014	N/A
Beijing Climate Centre	15 Dec	Average/below to 14 Jan 2015	above average to 14 Jan
NCEP 16-Day	15 Dec	N/A	No significant events forecast
JMA (JPN)	12 Dec	Average/below through to 10 Jan 2015	Rain 27 Dec- 10 Jan 2015

Madden-Julian Oscillation (MJO):

Tracking the path of the MJO can assist in timely changes in weather patterns during the Australian monsoon. The following chart from European agency ECMWF shows the MJO forecast to strengthen in the Australian region in the last week of December. International models are divided on the exact timing of the MJO. All Global MJO models can be viewed [here](#).

MJO Index Forecast for 14Dec2014-28Dec2014



Australian Sea Surface Temperatures:

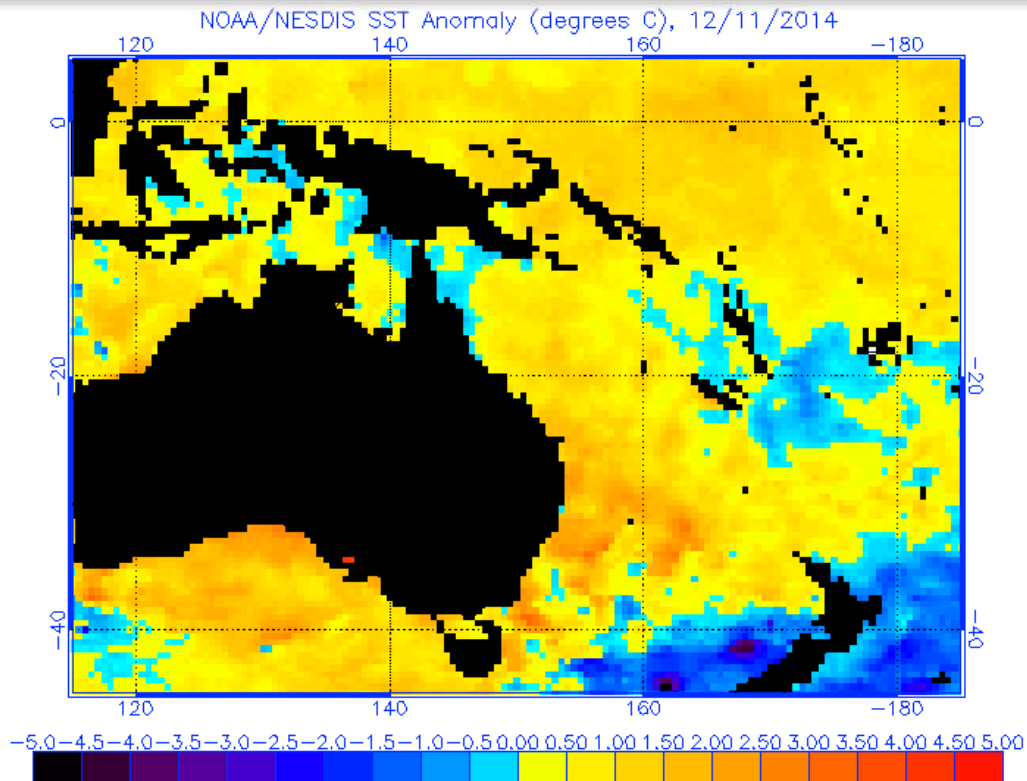
Local Sea surface temperatures can have a significant influence on moisture feeding into cut-off lows, troughs and fronts. The Tropical Convergence Zone north of Papua New Guinea is anomalously warm which is a positive sign. The latest map shows warming in the Gulf and the Coral Sea region over the last fortnight.

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El Niño-Southern Oscillation (ENSO) outlook for 2015:

The latest long term predictions (from Dr David Stephens at the Australian Export Grains Innovation Centre - AEGIC) released on 8 December forecasts a return to neutral conditions in 2015. The overall analysis suggests that there is an 80% chance of neutral conditions and a 20% chance of El Niño occurring.

The leading analogue year for 2015 is 1977. A full summary of the ENSO summary from AEGIC can be found [here](#).

This is the final CottonInfo moisture manager for 2014. We will be returning on 5 January 2015. Merry Christmas and a wet New Year!



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