

CottonInfo: Moisture Manager, 5 January

[View this email in your browser](#)

Welcome to the 2015 Moisture Manager

In this edition:

- [Latest weather and climate news](#)
- [Observed rainfall analysis \(Dec 2014\):](#)
- [Summary of climate indicators:](#)
- [Rainfall and temperature guidance summary:](#)
- [Madden-Julian Oscillation \(MJO\):](#)
- [Australian Sea Surface Temperatures:](#)
- [Tasman Sea Atmospheric Blocking](#)
- [:](#)

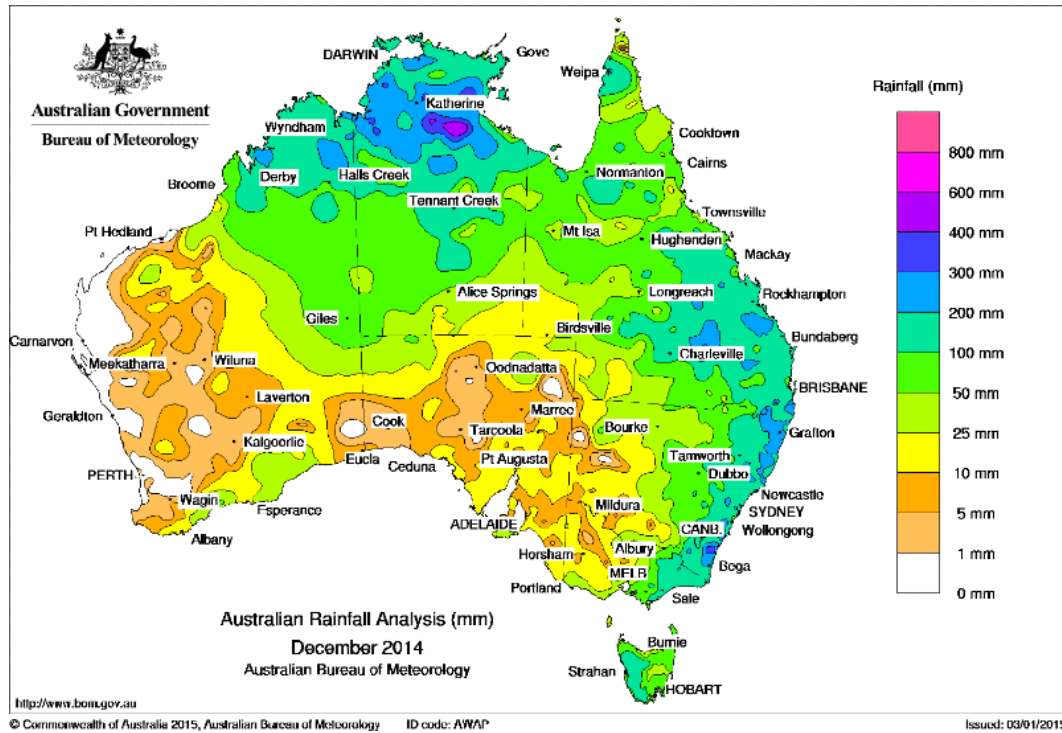
Latest weather and climate news:

- The latest Madden-Julian Oscillation (MJO) delivered much-needed storm rainfall to most cotton areas during December and the New Year period.
- Local sea surface temperatures continue to warm, assisting atmospheric moisture supply and **providing further optimism for summer rainfall.**
- Critical atmospheric indicators are hindering general rainfall events, with the Southern Oscillation Index (SOI) in neutral/negative phase and the Tasman Sea blocking in a sustained period of negative values.
- Average temperatures forecast for most cotton areas through

January: **no extreme heat events predicted.**

- The MJO is unlikely to affect the Australian region for the remainder of January.

Observed rainfall analysis (Dec 2014):



Summary of climate indicators:

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

[Subscribe](#)

[Share](#) ▼

[Past Issues](#)

[Translate](#)

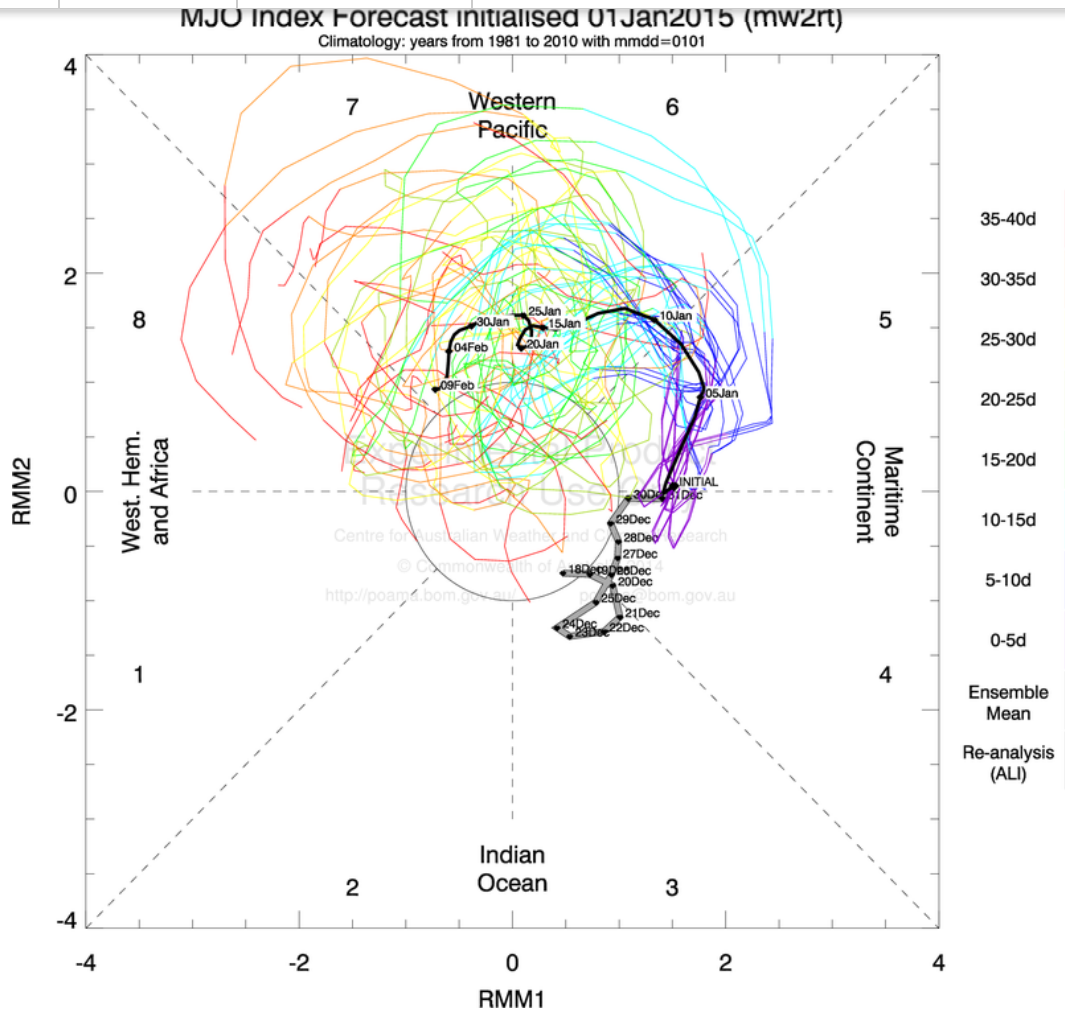
Measure	Indicator	Current Status		Forecast Trend
Sea Surface Temperature Indices 	Pacific Ocean – Niño 3.4	+0.6		Dry
	Pacific Ocean – Composite Index	+0.3		Dry
	Indian Ocean	0.0		Neutral
Mean Sea Level Air Pressure 	Southern Oscillation Index	-7		Neutral
	Southern Annular Mode	1.0		Wet
Tasman Sea Upper Atmospheric Air Pressure 	Blocking	-30		Dry

Rainfall and temperature guidance summary:

Source	Model Released	Temperature Forecast	Precipitation Outlook
BOM Extreme Heat Model	4 Jan	Moderate intensity heat 5-14 Jan: Central/Sthn NSW	N/A
POAMA Multi-week(BOM)	4 Jan	Warmer in Sthn NSW Jan: Average remainder	No signal for wetter/drier conditions
Beijing Climate Centre	3 Jan	Above average temps all areas to 16 Jan	Average/below to end Jan
NCEP 16-Day	5 Jan	N/A	Rain events: 11 Jan (C-NSW) 16 Jan (N-NSW, QLD)

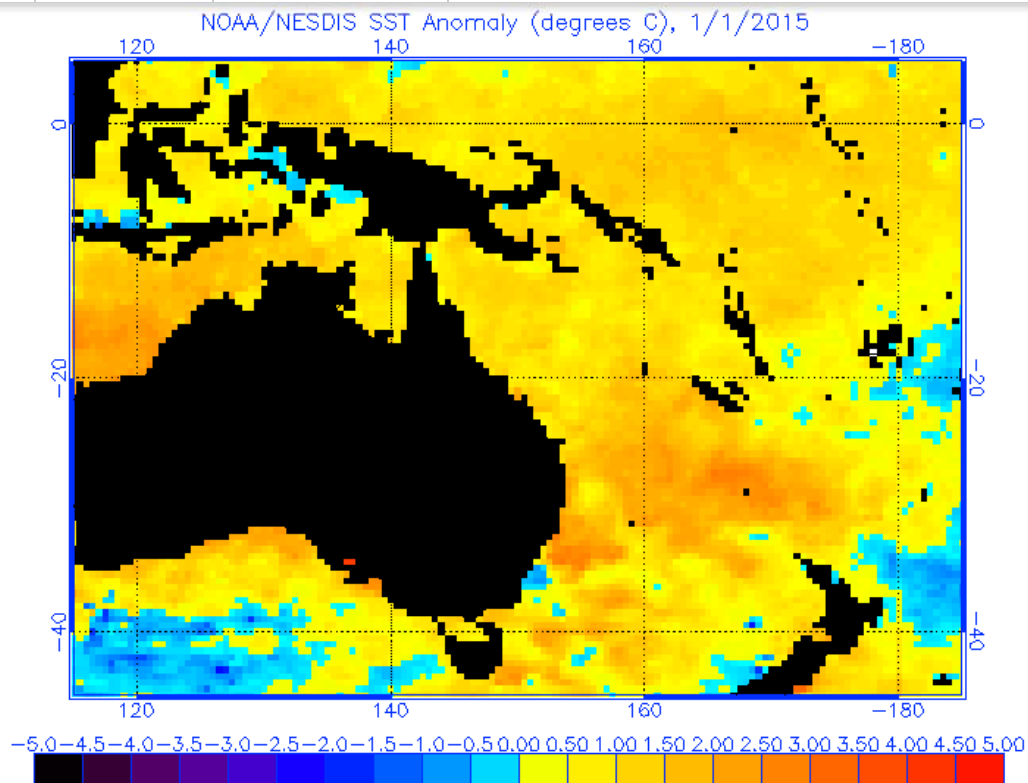
Madden-Julian Oscillation (MJO):

Tracking the path of the MJO can assist in timely changes in weather patterns during the Australian monsoon. The following chart from the Australian Bureau of Meteorology shows the MJO forecast to move into phase six, weakening as it passes the Australian region. International models monitor the path of the next MJO wave and can be viewed [here](#).



Australian Sea Surface Temperatures:

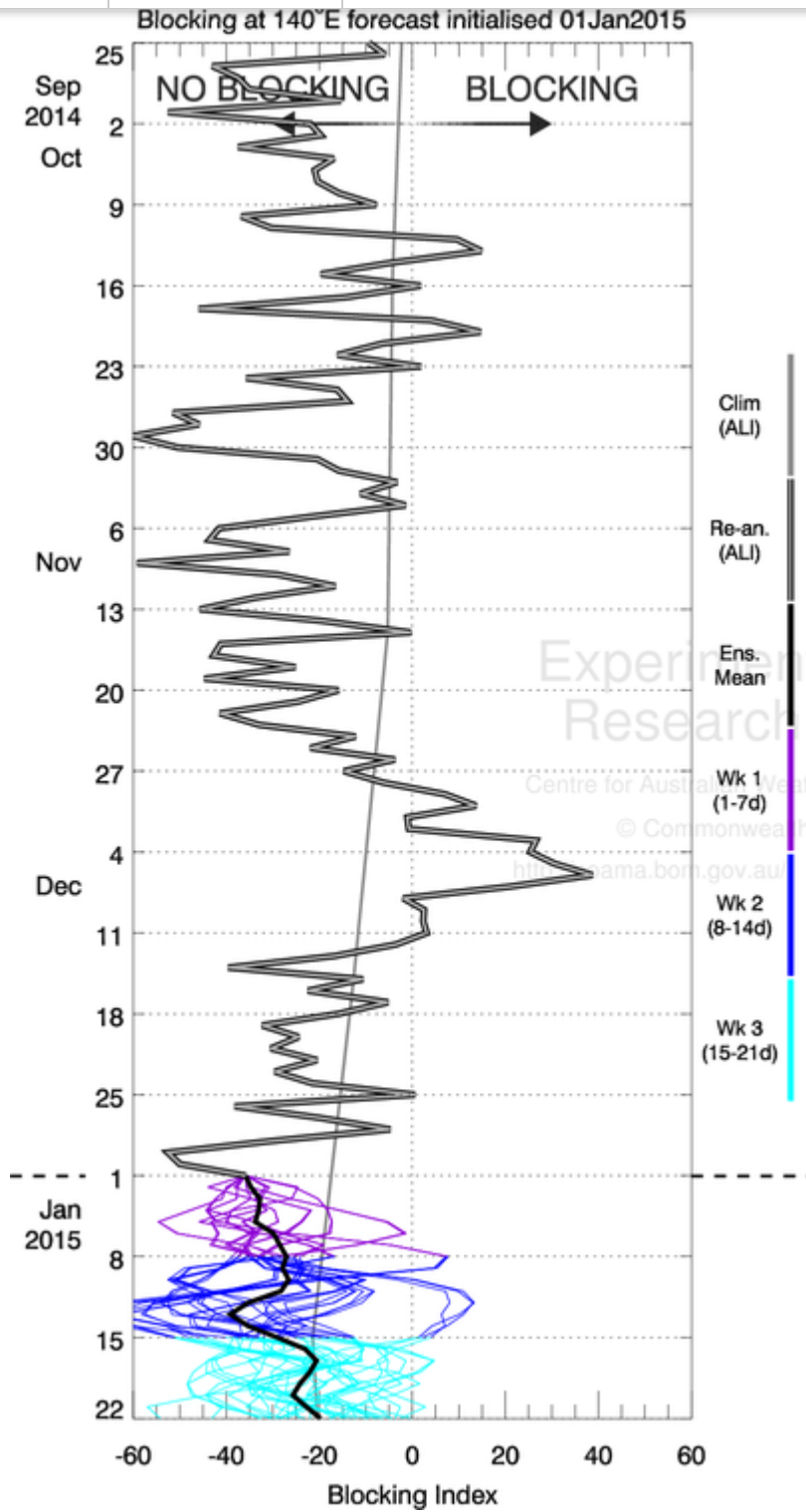
Local sea surface temperatures can have a significant influence on moisture feeding into cut-off lows, troughs and fronts. The latest sea surface temperatures from the National Oceanic and Atmospheric Administration (US) show anomalously warm water in key areas in the Indian Ocean and Coral Sea for eastern Australian moisture supply.



Tasman Sea Atmospheric Blocking (140°E):

- Tasman Sea Atmospheric Blocking is a key ingredient for rainfall in most cotton growing areas.
- The Blocking Index describes the degree of splitting in the mid-level westerly jet stream that influence synoptic systems over much of the continent.
- A **positive blocking index** can create a cut-off low pressure system which is a major contributor to rainfall in cotton areas from the Darling Downs southwards.
- The chart shows blocking currently in negative phase with following a brief stint in positive territory during the 4 December MJO event.
- Scientists at the Bureau of Meteorology are currently working on improving predictability of atmospheric blocking. Currently predictability is reduced beyond a lead time of 7-10 days.

Tasman Sea Blocking Index (140°E) with observed values (grey line) and forecast values (black line).



Share Tweet Forward

[Subscribe](#)

[Share](#) ▼

[Past Issues](#)

[Translate](#)



is a joint initiative of



Best Practice 

Copyright © 2015 CottonInfo, All rights reserved.

[unsubscribe from this list](#) [update subscription preferences](#)

Before relying on the material in any important matter, users should carefully evaluate its accuracy, currency, completeness and relevance for their purposes, and should obtain any appropriate professional advice relevant to their particular circumstances. Header photo courtesy Cotton Australia and Jamie Condon.