## Climate Outlook Dec 2021 - Jan 2022

## SOI TRACKER:

The monthly average SOI for November was positive 11.73 (+11.73) compared to positive $7.66(+7.66)$ in October. Therefore the SOI phase for November came out as "Consistently Positive".

|  | SOI VALUE | SOI PHASE |
| :--- | :---: | :---: |
| End of December 2020 | 16.77 | "Consistently Positive" |
| End of January 2021 | 15.85 | "Consistently Positive" |
| End of February 2021 | 11.31 | "Consistently Positive" |
| End of March 2021 | -0.46 | "Rapidly Falling" |
| End of April 2021 | 0.58 | "Consistently Near Zero" |
| End of May 2021 | 3.9 | "Consistently Near Zero" |
| End of June 2021 | 0.04 | "Consistently Near Zero" |
| End of July 2021 | 16.26 | "Rapidly Rising" |
| End of August 2021 | 4.43 | "Consistently Positive" |
| End of September 2021 | 9.19 | "Consistently Positive" |
| End of October 2021 | 7.66 | "Consistently Positive" |
| End of November 2021 | 11.73 | "Consistently Positive" |



## RAINFALL OUTLOOK

- Median rainfall for December-January at Macknade is equal to 542.4 mm .
- Based on the new SOI phase, we have calculated the chance of exceeding median rainfall for December-January for the Herbert region to be $61 \%$. (A $50 \%$ chance is what would be considered the 'normal chance' of experiencing above median rainfall).
- The Upper Quartile (top quartile of rainfall) for December-January at Macknade is equal to 831.7 mm .
- Based on past rainfall events over a period of more than 110 years, the chance of experiencing excessively high rainfall (i.e. rainfall greater than the upper quartile) is equal to $42 \%$. ( $25 \%$ chance is what would be considered the 'normal chance' of experiencing excessively high rainfall.)


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## DECEMBER-JANUARY RAIN OUTLOOK FOR INGHAM IN DETAIL:

Since 1892 when rainfall records commenced at Macknade, there have been 36 occasions when the SOI phase at the end of November was "Consistently Positive". These years were:

| 1892 | 1893 | 1894 | 1908 | 1909 | 1910 | 1916 | 1917 | 1921 | 1922 | 1924 | 1928 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1929 | 1933 | 1935 | 1938 | 1943 | 1948 | 1950 | 1955 | 1961 | 1962 | 1964 | 1970 |
| 1971 | 1975 | 1988 | 1998 | 1999 | 2000 | 2007 | 2008 | 2010 | 2011 | 2017 | 2020 |

During those 36 years, total rainfall for December-January exceeded the median 22 times. Therefore the chance of exceeding median rainfall for December-January is $22 / 36=61 \%$.

A high amount of rainfall (i.e. rain greater than 831.7 mm ) resulted 15 times. So the chance of high rainfall is equal to $15 / 36=42 \%$.

There have been 36 years when the SOI phase at the end of November was in a Consistently Positive phase (coloured Bars)
In 22 of those years the rainfall during Dec-Jan exceeded the median.
The chance that the Rainfall during Dec-Jan will exceed the median $=22 / 36=61 \%$ In 15 of those years the Rainfall during Dec-Jan exceeded the Upper Quartile.
The chance that the Rainfall during Dec-Jan will exceed the Upper Quartile $=15 / 36=42 \%$


Comparison to Last Year

| SOI Phase | Dec 2021 - Jan 2022 | Dec 2020 - Jan 2021 |
| :--- | :---: | :---: |
| Chance of above median rainfall | $61 \%$ | Consistently Positive |
| Chance of excessively high rainfall | $42 \%$ | $60 \%$ |

For information on sea surface temperatures and general climate information, please see
http://www.longpaddock.qld.gov.au and http://www.bom.gov.au/climate/ahead.

## Disclaimer:

The seasonal climate forecasting information provided in this document is presented for the purposes of raising awareness of the potential value of seasonal climate forecasting information and should be considered as a guideline only. The user assumes all risk for any liabilities, expenses, losses, damages and costs resulting directly or indirectly from the use of the climatic forecast information.

