## FIJI METEOROLOGICAL SERVICE

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# Fiji Ocean Outlook

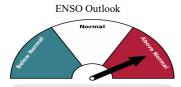
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#### In Brief



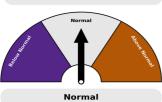
⇒ ENSO status continues to be neutral, with chances for the event to continue in the May to July 2025 period, while climate models also favour continuation of neutral status until the end of 2025.



⇒ *Above normal* sea surface temperatures (SSTs) are likely across the Fiji Waters during June to August 2025.



⇒ The average position of the 29°C South Pacific Convergence Zone (SPCZ) is likely to be displaced south of its normal position, close to Fiji's EEZ, during June to August 2025.

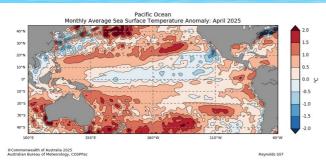


⇒ The 4 weeks coral bleaching outlook is at 'Watch' for northern half of Fiji's EEZ.

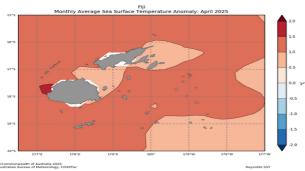
Sea Level Outlook

Near normal sea level likely for the whole of Fiji Group, as well as Rotuma, during the June to August 2025 period.

## Pacific Sea Surface Temperatures (SSTs): Recent Observations



Near normal SSTs were observed across most of the Pacific Ocean, with slightly cooler than normal SST were evident in parts of the central and eastern Pacific.

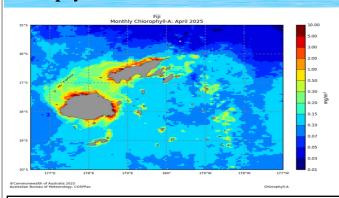


Sea surface temperatures (SSTs) around the Fiji waters were mostly above normal during April, with anomalies ranging from 1.0–1.5°C, and up to 1.5–2.0°C over a small region west of Viti Levu.

#### Possible Applications:

Presence of warmer than usual waters in the central and eastern equatorial Pacific indicate persistence of an El Niño event and cool waters indicate La Niña. Monitoring warm patches of ocean gives insight into the potential for cyclone formation, and possible start or finish of the cyclone season. For further information on ocean temperature refer to <a href="http://oceanportal.spc.int/portal/help/about\_OceanTemperature.pdf">http://oceanportal.spc.int/portal/help/about\_OceanTemperature.pdf</a>

## **Chlorophyll Concentration**

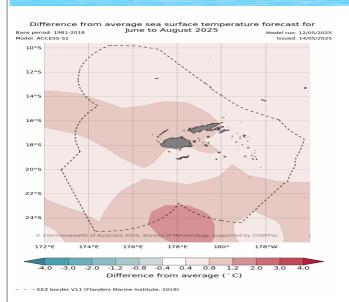


During April, high concentrations of chlorophyll were observed along the northern coast of Vanua Levu, as well as the Western and Central coasts of Viti Levu.

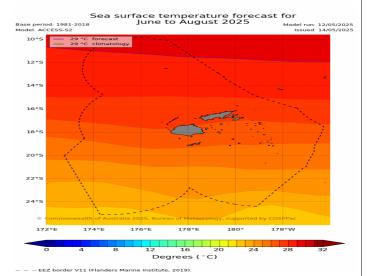
#### Possible Applications:

Chlorophyll concentration can be of great interest to fishermen targeting smaller pelagic (open sea) fish. High concentration of chlorophyll can also provide indication of potential hazardous conditions near the coast from reef fish diseases, such as ciguatera, harmful algal blooms, and outbreak of Crown of Thorns starfish, which is a coral eating pest. For further information on chlorophyll concentration refer to <a href="http://oceanportal.spc.int/portal/help/about\_chlorophyll.pdf">http://oceanportal.spc.int/portal/help/about\_chlorophyll.pdf</a>

## Sea Surface Temperature (SST) Outlook



Above normal SSTs are likely across the Fiji Waters during the June to August 2025 period.

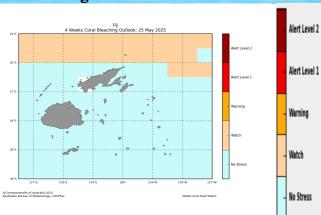


Average position of the 29°C convergence zone is likely to be displaced south of its normal position, close to Fiji's EEZ, during the June to August 2025 period (purple line). line).

#### Possible Applications:

The movement of the convergence zone has an influence on relative abundance of tuna in the Pacific Ocean. The 29°C isotherm around the western Pacific warm pool forms a good proxy for the convergence zone, and can therefore be used to track the gravity center of Skipjack tuna fishing activity. For further information on seasonal sea surface temperature forecast refer to <a href="http://oceanportal.spc.int/portal/help/about\_POAMA\_SST.pdf">http://oceanportal.spc.int/portal/help/about\_POAMA\_SST.pdf</a>

#### Coral Bleaching Outlook



The 4 weeks coral bleaching outlook is at 'Watch' for northern half of Fiji's EEZ.

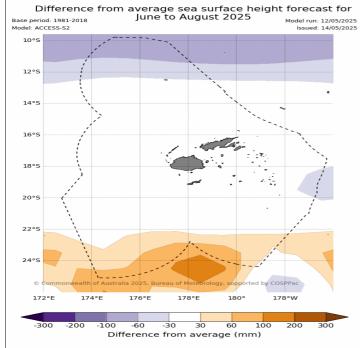
The 8 and 12 weeks coral bleaching outlook is at 'No Stress' for the Fiji Waters.

Caption: The image is for 4 weeks outlook.

#### Possible Applications

Once a potential bleaching event is detected, a management plan should be implemented to reduce the impacts of bleaching. For further information on coral bleaching refer to <a href="http://oceanportal.spc.int/portal/help/about\_coralbleaching.pdf">http://oceanportal.spc.int/portal/help/about\_coralbleaching.pdf</a>

## Sea Level Outlook



*Near normal* sea level likely for the whole of Fiji Group, as well as Rotuma, during the June to August 2025 period.

-- -- EEZ border V11 (Flanders Marine Institute, 2019)

### Possible Applications:

Stakeholders can use forecasts of extreme sea level to make decisions about the protection of communities and infrastructure against coastal inundation. For further information on sea level refer to <a href="http://oceanportal.spc.int/portal/help/about\_POAMA\_Sea\_Level.pdf">http://oceanportal.spc.int/portal/help/about\_POAMA\_Sea\_Level.pdf</a>

## Tide Predictions (June to August 2025)

Suva						Lautoka					
Monthly Highest Tide			Monthly Lowest Tide			Monthly Highest Tide			Monthly Lowest Tide		
Date	Time	Height	Date	Time	Height	Date	Time	Height	Date	Time	Height
25 Jun	05:44	2.04m	26 Jun	13:15	0.29m	25 Jun	05:30	2.25m	26 Jun	13:00	0.24m
25 Jul	06:44	2.00m	25 Jul	13:00	0.35m	25 Jul	06:12	2.21m	25 Jul	12:45	0.28m
23 Aug	06:09	1.95m	11 Aug	13:56	0.44m	23 Aug	05:56	2.18m	22 Aug	11:43	0.37m

Port Denarau						Vatia					
Monthly Highest Tide		Monthly Lowest Tide			Monthly Highest Tide			Monthly Lowest Tide			
Date	Time	Height	Date	Time	Height	Date	Time	Height	Date	Time	Height
25 Jun	05:34	2.10m	26 Jun	13:01	0.07m	25 Jun	05:22	2.05m	26 Jun	12:51	0.08m
25 Jul	06:16	2.06m	25 Jul	12:47	0.13m	25 Jul	06:03	2.04m	25 Jul	12:36	0.14m
11 Aug	07:22	2.04m	23 Aug	12:26	0.22m	23 Aug	05:46	2.02m	22 Aug	11:32	0.22m

All date and time are in Fiji Standard Time.

## Moon Phases (June to August 2025)

New Moon	First Quarter 🌘	Full Moon	Last Quarter 🌓	
	3 <sup>rd</sup> June	11 <sup>th</sup> June	19 <sup>th</sup> June	
25 <sup>th</sup> June	3 <sup>rd</sup> July	11 <sup>th</sup> July	18 <sup>th</sup> July	
25 <sup>th</sup> July	2 <sup>nd</sup> August	9 <sup>th</sup> August	16 <sup>th</sup> August	
23 <sup>rd</sup> August	31 <sup>st</sup> August			

## **Explanatory Notes**

Anomalies – denote the departure of an element (sea surface temperature and sea level) from its long-period average value for a particular location.

Sea Surface Temperature (SST) - the temperature of the water's surface. It is usually measured using buoys, ship data, and satellites.

#### Sea Surface Temperature (SST) Outlook

**Above Normal** – indicates that SST anomalies fall within the highest 3rd of observations in a 37 year period, typically equal to or above  $\pm 0.8^{\circ}$ C.

Near Normal – indicates that SST anomalies lies in the middle 3rd of observations in a 37 year period, typically between –0.4°C and +0.4°C.

**Below Normal** – indicates that SST anomalies fall within the lowest 3rd of observations in a 37 year period, typically equal to or below -0.8°C.

#### **Coral Bleaching Outlook**

**No Stress** – Thermal stress is unlikely.

Watch - Low-level of thermal stress.

**Warning** – Coral bleaching possible.

**Alert 1** – Coral bleaching is likely.

**Alert 2** – Coral mortality is Likely.

#### Sea Level Outlook

**Above Normal** – indicates that sea level anomalies fall within the highest 3rd of observations in a 37 year period, typically equal to or above +60mm.

**Near Normal** – indicates that sea level anomalies lies in the middle 3rd of observations in a 37 year period, typically between – 60mm and +60mm.

**Below Normal** – indicates that sea level anomalies fall within the lowest 3rd of observations in a 37 year period, typically equal to or below –60mm.

**El Niño** events are associated with warming of the central and eastern tropical Pacific. El Niño events usually result in reduction of Fiji's rainfall. Often the whole of Fiji is affected in varying degrees and it is quite unusual for one part of the country to experience a prolonged dry spell, while the other is in a wet spell.

La Niña events are associated with cooling of the central and eastern tropical Pacific. Usually La Niña results in wetter than normal conditions for Fiji, occasionally leading to flooding during the Warm/Wet Season. (November to April).

When ENSO is **Neutral**, that is, neither El Niño nor La Niña, it has little effect on global climate, meaning other climate influences are more likely to dominate.

**Disclaimer:** While Fiji Meteorological Service takes all measures to provide accurate information and data, it does not guarantee 100% accuracy of the information presented in this outlook. The Department should be sought for expert advice, clarifications and additional information as and when necessary. The user assumes all risk resulting directly or indirectly from the use of this outlook.