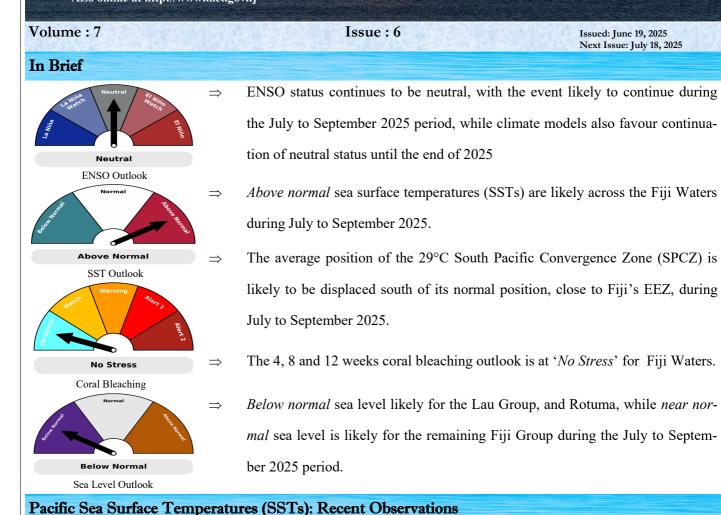
FIJI METEOROLOGICAL SERVICE Private Mail Bag (NAP0351) Nadi Airport, Fiji Ph: +679 6724888, Fax: +679 6720430

Email: climate@met.gov.fj Also online at http://www.met.gov.fj

Fiji Ocean Outlook



<figure>

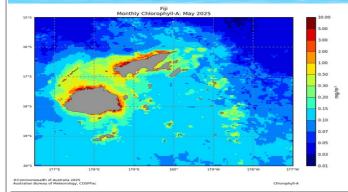
Above normal SSTs were observed across most of the Pacific Ocean, with slightly cooler than normal SST were evident in parts of the central and eastern Pacific.

Sea surface temperatures (SSTs) around the Fiji waters were generally *above normal* during May, with anomalies ranging from 1.0-1.5°C, and up to 1.5-2.0°C over a small region, off west of Viti Levu, as well as south of Vatulele.

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 <u>http://oceanportal.spc.int/portal/help/about_OceanTemperature.pdf</u>

Chlorophyll Concentration

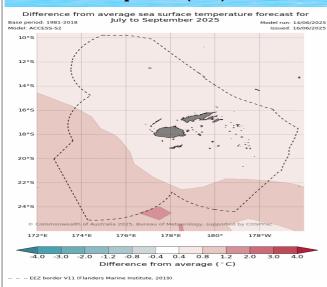


During May, high concentrations of chlorophyll were observed along the northern coast of Vanua Levu, as well as the western and central coasts of Viti Levu.

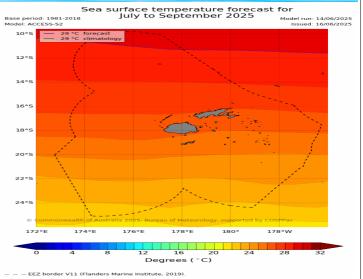
Possible Applications:

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 http://oceanportal.spc.int/portal/help/about_chlorophyll.pdf

Sea Surface Temperature (SST) Outlook



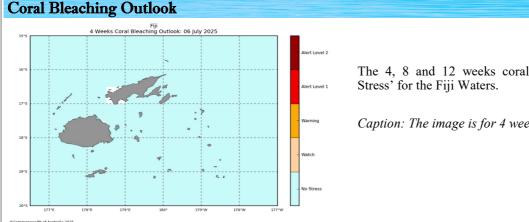
Above normal SSTs are likely across the Fiji Waters during the July to September 2025 period.



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 July to September 2025 period (purple 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 http://oceanportal.spc.int/portal/help/about_POAMA_SST.pdf



The 4, 8 and 12 weeks coral bleaching outlook is at 'No

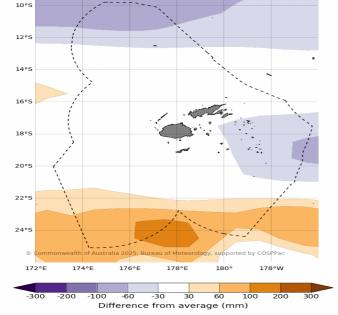
Caption: The image is for 4 weeks outlook.

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 http://oceanportal.spc.int/portal/help/about_coralbleaching.pdf

Sea Level Outlook

Difference from average sea surface height forecast for July to September 2025 Model ACCESS-52 10°5



Below normal sea level likely for the Lau Group, and Rotuma, while *near normal* sea level is likely for the remaining Fiji Group during the July to September 2025 period.

Possible Applications:

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

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 http://oceanportal.spc.int/portal/help/about POAMA_Sea_Level.pdf

Tide Predictions (July to September 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 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
10 Sep	20:21	2.04m	9 Sep	13:24	0.45m	9 Sep	19:15	2.25m	8 Sep	12:25	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 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
10 Sep	20:03	2.13m	8 Sep	12:29	0.23m	9 Sep	19:06	2.07m	8 Sep	12:14	0.23m

All date and time are in Fiji Standard Time.

Moon Phases (July to Sept	Ioon Phases (July to September 2025)							
New Moon	First Quarter 🌘	Full Moon	Last Quarter 🌒					
	3 rd July	11 th July	18 th July					
25 th July	2 nd August	9 th August	16 th August					
23 rd August	31 st August	8 th September	14 th September					
22 nd September	30 th September							

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 $+0.8^{\circ}$ 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 $+0.4^{\circ}$ C.

 $\begin{array}{l} \textbf{Below Normal} - \text{ indicates that SST anomalies fall within the lowest 3rd of observations in a 37 year period, typically equal to or below -0.8 ^{\circ}C. \end{array}$

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.