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Fiji Ocean Outlook

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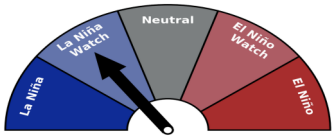
In Brief

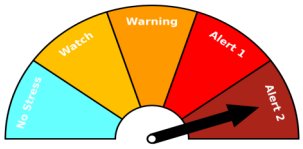


ENSO Outlook

⇒ ENSO status continue to be neutral, however, models still favour development of a weak La Niña during January to March period, with borderline La Niña conditions likely to persist during the February to April 2025 period.

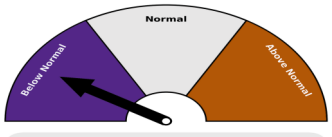
⇒ *Above normal* sea surface temperatures (SSTs) are likely across most of Fiji Waters during March to May 2025.

⇒ The average position of the 29°C South Pacific Convergence Zone (SPCZ) is likely to be displaced south of its normal position and lie over the Fiji Group, during March to May 2025.



Coral Bleaching

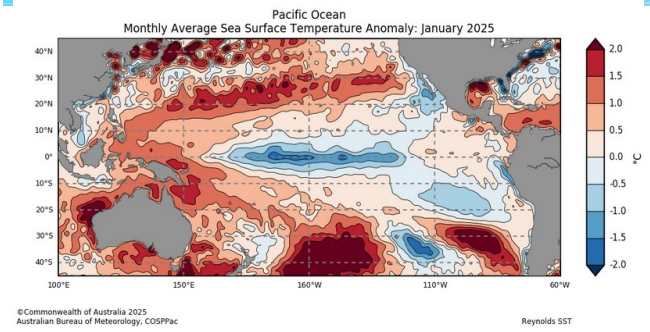
⇒ The 8 weeks coral bleaching outlook is at *'Alert Level 2'* for waters in the Vatu-i-Ra Passage, south of Viti Levu, and east of Suva, while '*Alert 1*' is in place for the rest of the Fiji.



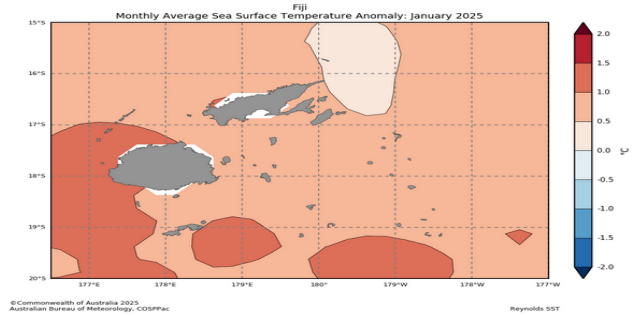
Sea Level Outlook

⇒ *Below normal* sea level likely for Northern Lau Group while *near normal* sea level is likely for the rest of the Fiji Group during the March to May 2025 period.

Pacific Sea Surface Temperatures (SSTs): Recent Observations



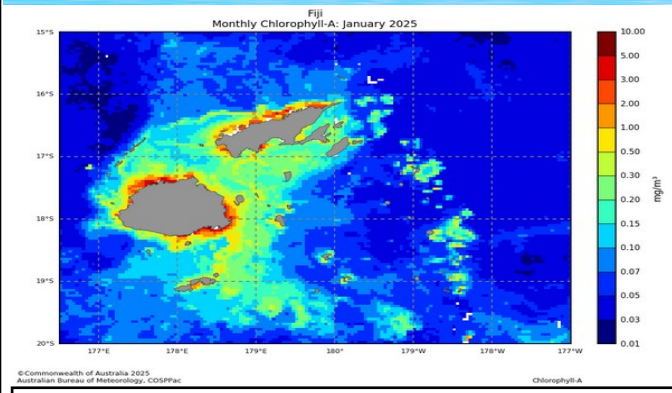
Warmer than normal SSTs were observed in the far western Pacific Ocean. SSTs were up to 1.5°C cooler than average in the central and eastern equatorial Pacific.



SSTs around the Fiji Waters were mostly above normal during January, with anomalies of 1.0-1.5°C observed west of Viti Levu and southeast of Kadavu.

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

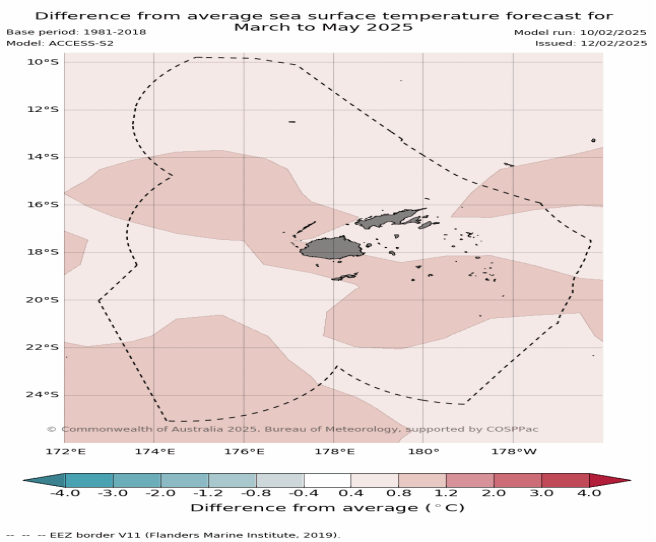
Chlorophyll Concentration



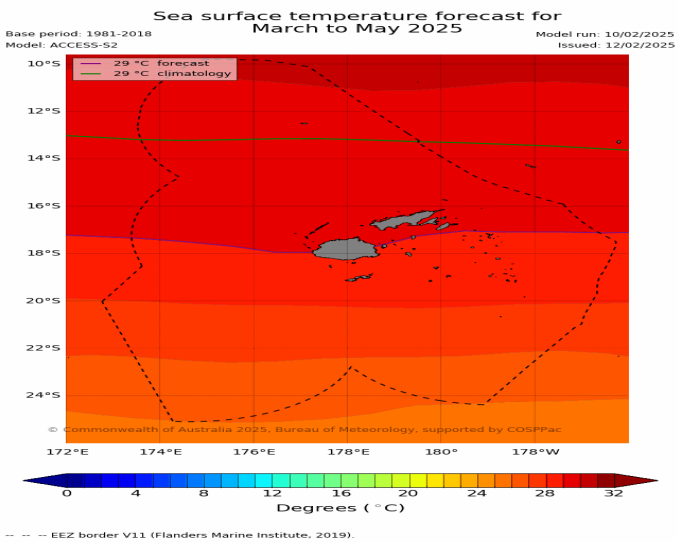
During January, high concentration of chlorophyll were observed along the northern coast of Vanua Levu, western and central coasts of Viti Levu, as well as parts of Kadavu.

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



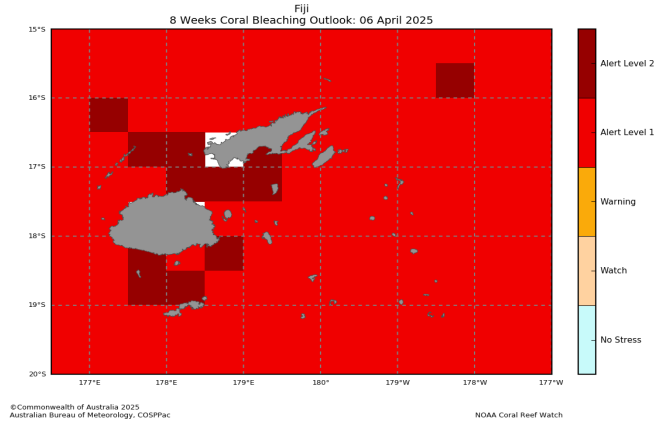
Above normal SSTs are likely across most of Fiji Waters during the March to May 2025 period.



Average position of the 29°C convergence zone is likely to be displaced south of its normal position and lie over the Fiji Group, during the March to May 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

Coral Bleaching Outlook



The 4 weeks coral bleaching outlook is at *'Alert 1'* for waters in the Western Division, Vatu-i-Ra Passage, north of Kadavu and east of Suva, while '*Warning*' is in place for the rest of the Fiji.

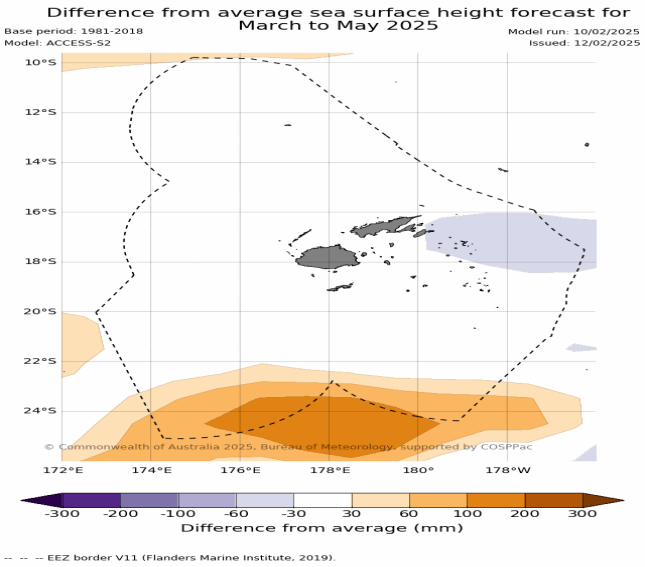
The 8 weeks coral bleaching outlook is at *'Alert Level 2'* for waters in the Vatu-i-Ra Passage, south of Viti Levu, and east of Suva, while '*Alert 1*' is in place for the rest of the Fiji.

The 12 weeks coral bleaching outlook is at *'Alert Level 2'* for waters northern tip of Vanua Levu, '*Alert 1'* is in place for rest of the northern Division, northern Lau Group, and north of Viti Levu, while '*No stress'* is in place for the rest of the Fiji Waters.

Caption: The image is for 8 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



Below normal sea level likely for northern Lau Group, while *near normal* sea level is likely for the rest of the Fiji' Group during the March to May 2025 period.

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

Tide Predictions (March to May 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
31 Mar	07:37	2.14m	31 Mar	14:00	0.41m	31 Mar	07:15	2.36m	1 Mar	00:50	0.33m
29 Apr	07:13	2.13m	29 Apr	13:44	0.31m	28 Apr	06:03	2.37m	29 Apr	13:21	0.25m
27 May	06:00	2.09m	28 May	13:29	0.27m	27 May	05:43	2.32m	28 May	13:10	0.22m

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
31 Mar	07:23	2.24m	1 Mar	00:55	0.18m	30 Mar	06:21	2.14m	1 Mar	00:41	0.18m
28 Apr	06:11	2.23m	29 Apr	13:26	0.09m	28 Apr	05:53	2.15	28 Apr	12:20	0.10m
27 May	05:48	2.18m	28 May	13:13	0.06m	27 May	05:32	2.11	28 May	13:01	0.07m

All date and time are in Fiji Standard Time.

The lowest tide of the year will be on 28th May at Lautoka, Suva, Port Denarau and Vatia Wharves and will be 0.27m, 0.22m, 0.06m and 0.07m in height, respectively.

Moon Phases (March to May 2025)

New Moon ●	First Quarter ◑	Full Moon ○	Last Quarter ◐
	7th March	14th March	23rd March
29th March	5th April	13th April	21st April
28th April	5th May	13th May	20th May
27th May			

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°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.