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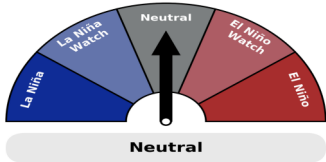
Fiji Ocean Outlook

Volume : 6

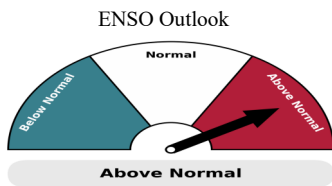
Issue : 6

Issued: June 20, 2024
 Next Issue: July 19, 2024

In Brief



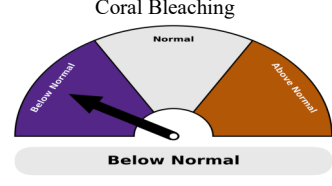
⇒ The El Niño–Southern Oscillation (ENSO) is currently neutral and is likely to remain neutral until at least July 2024, with a transition to La Niña state likely during August to October 2024 period.



⇒ Above normal sea surface temperatures (SSTs) are likely across most of Fiji Waters during July to September 2024.



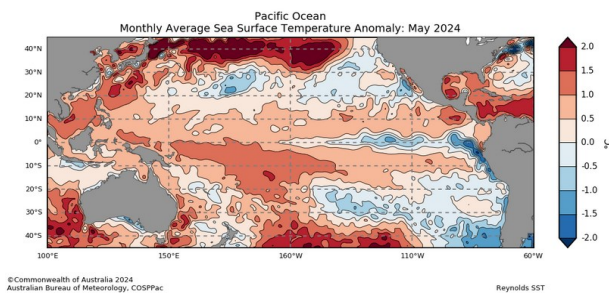
⇒ The average position of the 29°C convergence zone is likely to be displaced south of its normal position, close to Fiji’s EEZ, during the July to September 2024 period.



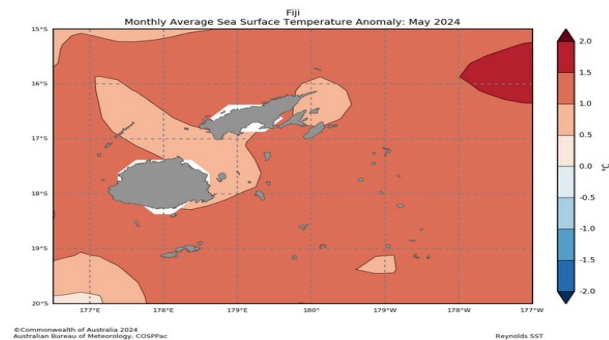
⇒ The 4, 8 and 12 weeks coral bleaching outlook is at ‘No Stress’ level across the Fiji Waters.

⇒ Below normal sea level is likely for Rotuma, while near normal sea level is likely for the rest of the Fiji Group, during the July to September 2024 period.

Pacific Sea Surface Temperatures (SSTs): Recent Observations



Warmer than normal SSTs were observed across most of the equatorial Pacific Ocean. These anomalies increased to generally 1.2°C to 2°C, extending from Fiji to the central southern Pacific Ocean. SSTs were up to 2°C cooler than average in the eastern equatorial Pacific. Compared to April 2024, the magnitude and extent of cool anomalies in the tropical Pacific have increased.

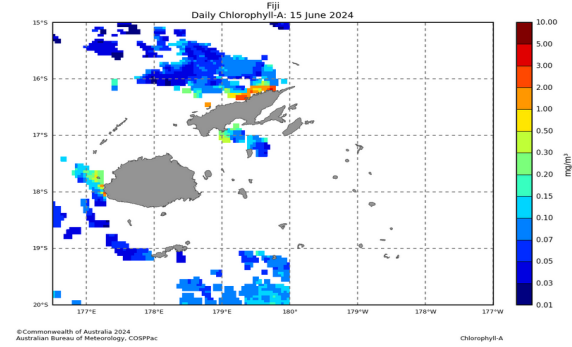


SSTs around the Fiji Waters were mostly above normal during May, with anomalies of 1.0°C to 1.5°C observed across the country.

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

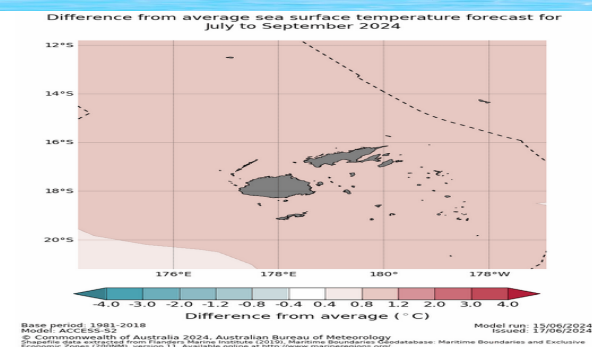


Daily chlorophyll concentration - 15th June 2024. High concentrations of chlorophyll were observed along the north coast of Vanua Levu, and western coasts of Viti Levu.

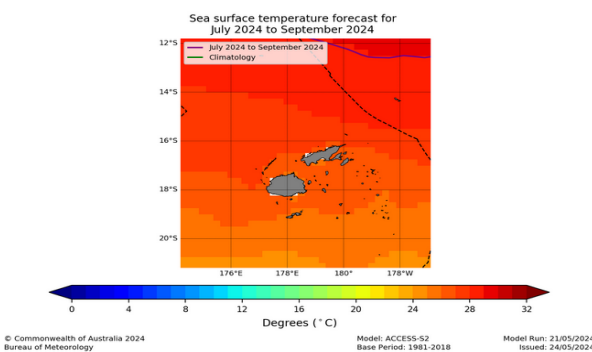
Possible Applications:

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 most of Fiji Waters during the July to September 2024 period.

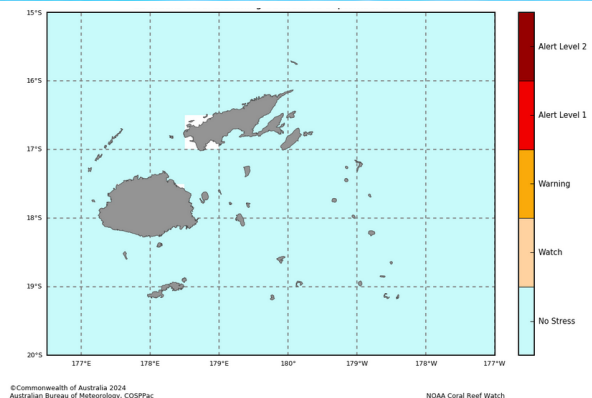


Average position of the 29°C convergence zone is likely to be displaced south of its normal position, close to Fiji's EEZ, during the July to September 2024 period (purple line).

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

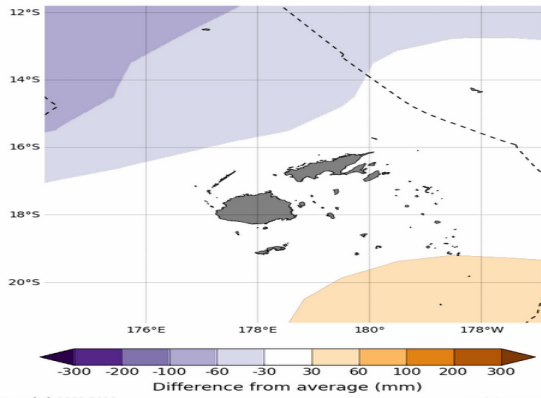
Caption: The image is for 12 weeks outlook.

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 2024



Base period: 1981-2018
Model: ACCESS-S2
© Commonwealth of Australia 2024. Australian Bureau of Meteorology
Shapefile data extracted from Flanders Marine Institute (2019). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2000n), version 11. Available online at <http://www.maritime-geo.org/>
Model run: 15/06/2024
Issued: 17/06/2024

Below normal sea level is likely for Rotuma, while *near normal* sea level is likely for the rest of the Fiji Group, during the July to September 2024 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 (July to September 2024)

Suva Tidal Gauge						Lautoka Tidal Gauge					
Monthly Highest Tide			Monthly Lowest Tide			Monthly Highest Tide			Monthly Lowest Tide		
Date	Time	Height	Date	Time	Height	Date	Time	Height	Date	Time	Height
24 July	08:20	1.99m	23 July	14:01	0.34m	23 July	07:14	2.21m	23 July	13:43	0.27m
21 Aug	07:10	2.06m	21 Aug	13:34	0.33m	21 Aug	06:54	2.31m	21 Aug	13:16	0.24m
20 Sep	20:05	2.10m	19 Sep	13:05	0.37m	19 Sep	19:00	2.35m	18 Sep	12:04	0.27m

All date and time are in Fiji Standard Time.

Moon Phases (July to September 2024)

New Moon ●	First Quarter ◐	Full Moon ○	Last Quarter ◑
6 th July	14 th July	21 st July	28 th July
4 th August	13 th August	20 th August	26 th August
3 rd September	11 th September	18 th September	25 th September

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.