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Fiji Ocean Outlook

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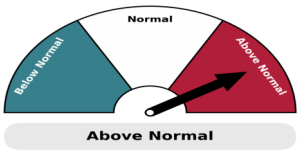
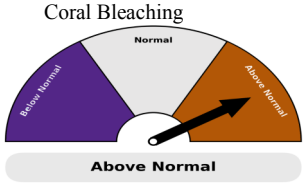
In Brief

ENSO Outlook



SST Outlook

Coral Bleaching



Sea Level Outlook

⇒ La Niña continues to persist in the tropical Pacific Ocean.

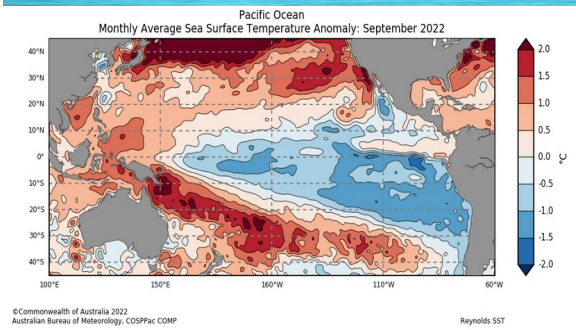
⇒ *Above normal* sea surface temperatures (SSTs) are likely to be observed within the Fiji Waters during November 2022 to January 2023.

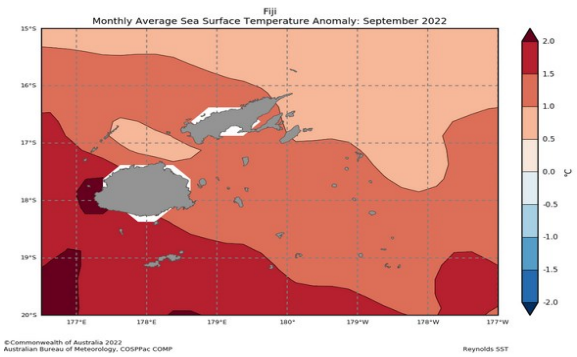
⇒ The average position of the 29°C convergence zone is likely to be displaced south of its normal position, closer to Fiji's Exclusive Economic Zone (EEZ) during November 2022 to January 2023.

⇒ The 8 weeks coral bleaching outlook is at '*Warning*' for Rotuma and surrounding waters, with '*Watch'* for waters around Viti Levu and Vanua Levu. The 12 weeks outlook, is at '*Watch*' across the Fiji Waters.

⇒ Sea level is likely to be *above normal* across most of Fiji's EEZ during the November 2022 to January 2023 period.

Pacific Sea Surface Temperatures (SSTs): Recent Observations





Below normal sea surface temperatures persisted across most of the central and eastern equatorial Pacific Ocean during September, with warm anomalies present in the western Pacific Ocean. Compared to August, cool anomalies have strengthened in the central and eastern equatorial Pacific.

The above pattern is consistent with a La Niña event.

SSTs around the Fiji Waters were mostly warmer than normal during September, with anomalies between 1.5°C-2.0° C observed west of Viti Levu, Vatulele, Beqa and parts of southern Lau Group, while anomalies of 1.0°C-1.5°C were observed for the rest of the Fiji Group.

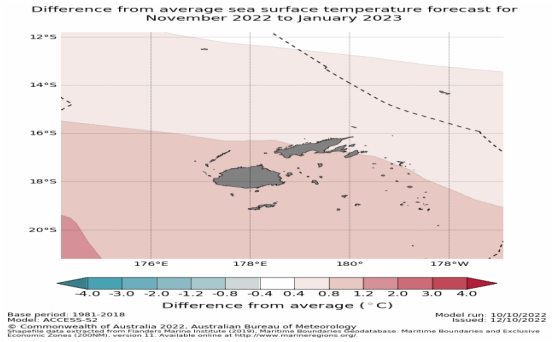
Possible Applications:
Presence of warmer than usual waters in the central and eastern equatorial Pacific indicate persistence of an El Niño event and cool waters indicate La Niña.
Monitoring warm patches of ocean gives insight into the potential for cyclone formation, and possible start or finish of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

Chlorophyll Concentration

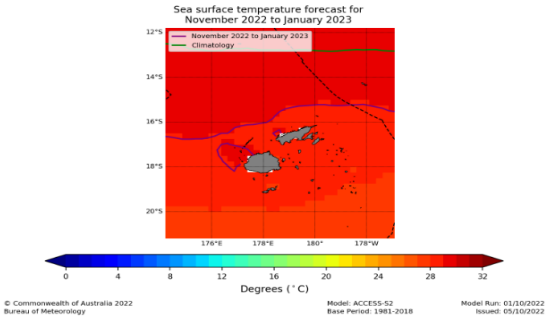
Chlorophyll concentration map is not available due to technical issues.

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



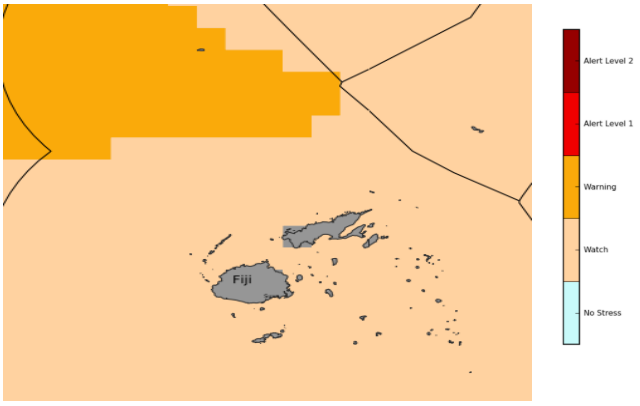
The SSTs in most of the Fiji Waters are likely to be *above normal* during the November 2022 to January 2023 period.



While the average position of the 29°C convergence zone (CZ) is usually located to far north of Fiji during this time of the year (green line), it is likely to be displaced south of its normal position, closer to Fiji's Exclusive Economic Zone (EEZ) during the November 2022 to January 2023 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



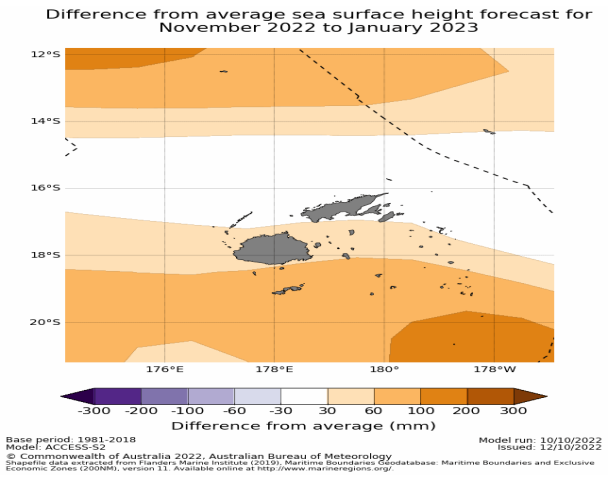
The 4 weeks coral bleaching outlook is at *'No Stress'* across the Fiji Waters.

The 8 weeks coral bleaching outlook is at '*Warning*' for Rotuma and surrounding waters, with '*Watch'* for waters around Viti Levu and Vanua Levu.

The 12 weeks coral bleaching outlook is at '*Watch'* across Fiji Waters.

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



Above normal sea level is likely across most of Fiji's EEZ during the November 2022 to January 2023 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 (November 2022 to January 2023)

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**
25 Nov	19:15	2.05m	26 Nov	01:51	0.36m	24 Nov	18:07	2.30m	26 Nov	01:30	0.31m
24 Dec	18:57	2.10m	26 Dec	02:30	0.31m	24 Dec	18:44	2.35m	25 Dec	01:19	0.24m
22 Jan	18:43	2.14m	24 Jan	02:11	0.30m	22 Jan	18:33	2.41m	23 Jan	01:05	0.20m

All date and time are in Fiji Standard Time.

Moon Phases (November to January 2023)

New Moon ●	First Quarter ◑	Full Moon ○	Last Quarter ◐
	1st November	9th November	17th November
24th November	1st December	8th December	16th December
23rd December	30th December	7th January	15th January

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.*