



Tonga Ocean Update

Issued: 16 October 2026

Recent observation

TONGA METEOROLOGICAL SERVICE

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Domestic Terminal, Fua'amotu Airport, Tonga

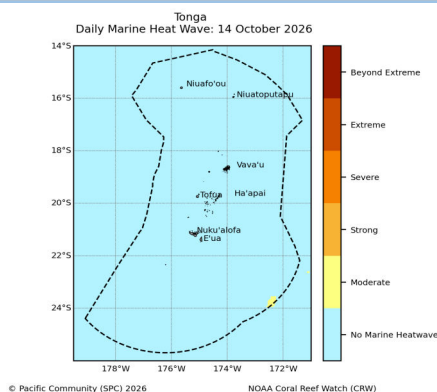
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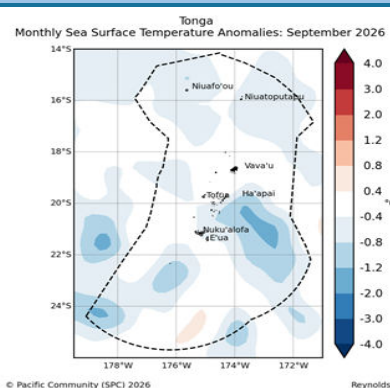
- **The current strong El Niño continues to strengthen in the Pacific.**
- No Marine Heat Wave over Tonga during September and up to date.
- Below average sea surface temperatures observed over Tonga in September.
- Mostly above average sea level anomalies observed across most parts of Tonga in September.
- Coral Bleaching has been at no stress level for Tonga waters.

Marine Heat Wave



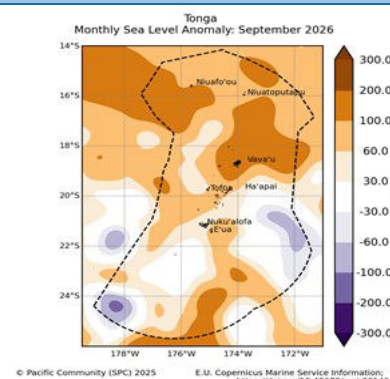
Daily monitoring shows no marine heatwave over Tonga in the past month. Marine heat wave combined with increasing temperature on land and sea are contributing to stress to marine ecosystems resulting in coral bleaching.

Sea Surface Temperature



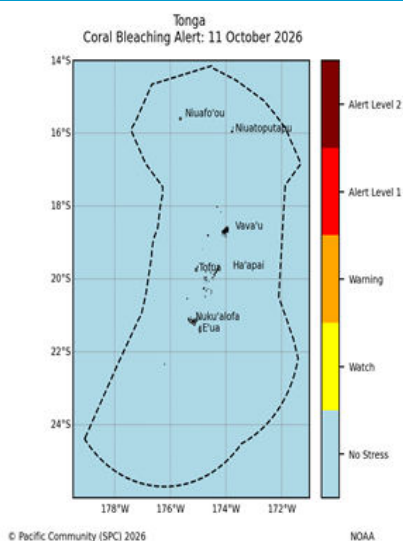
Cooler than average sea surface temperature was observed across the country in September. Presence of warmer than average waters can affect marine environment and coastal waters which is indication of heat stress on the marine ecosystem.

Sea-level height



Sea level height during September shows below average (-30 to -60mm) below sea level anomalies about parts of Ha'apai and Tongatapu & 'Eua waters. The rest of Tonga showed 60mm-200mm above sea level anomalies. Stakeholders can use this forecast to make decisions about the protection of communities and infrastructure against coastal inundation, especially when there is extreme high tide.

Coral Bleaching



Coral bleaching was at no stress level for Tonga.

10 highest tides for 2026

Date	Time	Height (m)
26-Dec	9:21	1.89
27-Dec	10:17	1.88
05-Jan	9:08	1.87
25-Dec	8:25	1.87
04-Jan	8:12	1.86
06-Jan	10:02	1.85
28-Dec	11:14	1.85
03-Jan	7:14	1.84
03-Feb	8:53	1.84
27-Nov	9:38	1.84

10 lowest tides for 2026

Date	Time	Height (m)
18-Jun	4:16	0.21
17-Jun	3:22	0.21
16-Jul	3:06	0.21
17-Jul	3:59	0.21
19-Jun	5:11	0.24
16-Jun	2:29	0.24
20-May	4:33	0.25
18-Jul	4:49	0.25
19-May	3:39	0.25

Tidal predictions show the highest & lowest tides of the year for Nuku'alofa. The next highest and lowest tide will be on the 28th October with the highest tide of 1.78m at 08:57pm and the lowest tide will be 0.31m on the 29th at 03:24am. This information is very useful to everyone who wants to know these events especially to those stakeholders and people who are interested in tide predictions for guidance. Monitoring of highest tides is important as it can have negative impacts if occurred at the same time with high sea swell and strong wind.



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Ocean Outlook for November 2026 to January 2027

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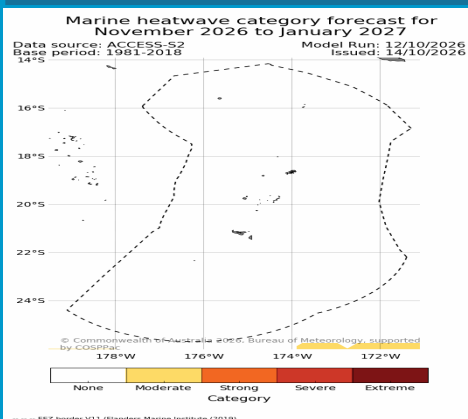
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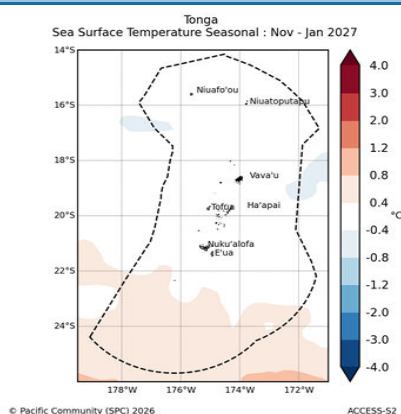
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The current strong El Niño continues to strengthen in the Pacific. Warming will continue in the tropical Pacific over the next three months and is expected to peak in December.

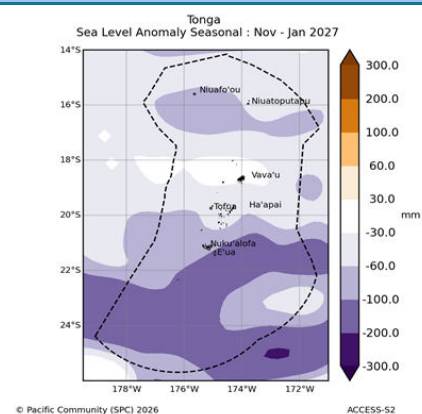
- Below average sea surface temperature anomalies in November 2026—January 2027
- Sea level height is forecast to be below average for Tonga (-30mm to -200mm)
- Coral Bleaching is at no Stress Level for Tonga waters during the forecast period.
- Fisheries convergence zone is located very far north from Tonga during the forecast period.
- No Marine Heat Wave alert for Tonga for the forecast period.

Marine Heat Wave Forecast

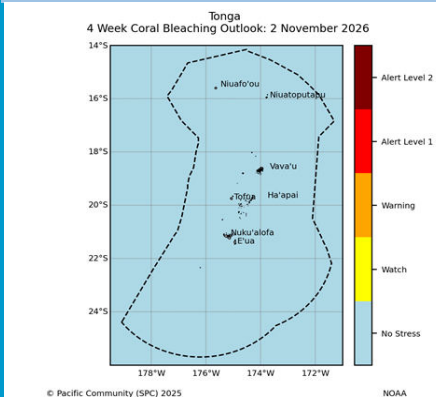
No marine heat wave alert for Tonga for the forecast period. Close monitoring is advised as weekly variations can lead to higher than expected impacts.

Sea Surface Temperature Forecast

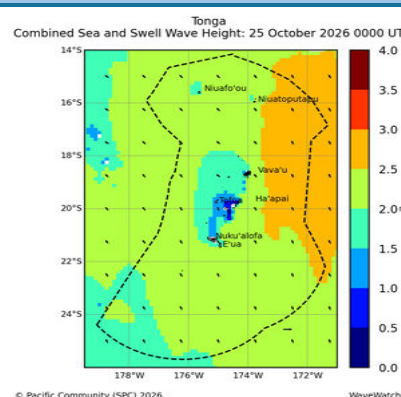
Below average sea surface temperature is predicted for Tonga. Presence of warmer than average waters intensifies stress of marine ecosystems and risks to fish and coral reefs. This information is important for communities awareness and close monitoring is therefore advised as daily and weekly variations may occur.

Sea-level height

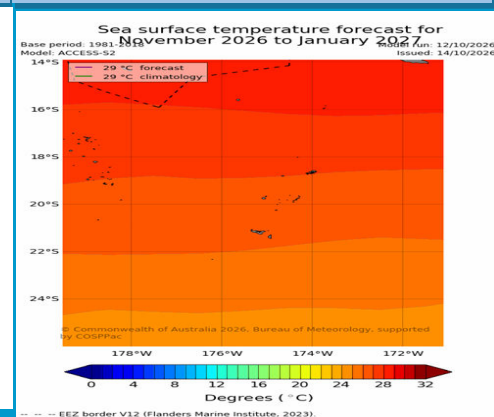
Sea level height forecast shows below average -30 to -200mm sea level height across Tonga in the next 3 months. Stakeholders can use this forecast to make decisions about the protection of communities and infrastructure against coastal inundation, especially when there is extreme high tide.

Coral Bleaching Outlook

Coral bleaching forecast no stress for Tonga waters. Coral bleaching is a common signal of stress in coral reefs and marine ecosystems caused by warmer sea temperatures. Close monitoring is advised especially to Fisheries and related stakeholders.

Combined Sea and Swell Wave Height

Tonga combined sea and swell wave height by 25th October shows majority of the waves will come from the south. The average wave height in October will be 1.5 to 2.5m over most of Tonga. Wave height of 2.5m to 3.0m will be about eastern waters of Tongatapu, 'Eua, Ha'apai and up across to Niuaotupapu as shown above.

Fisheries convergence zone

The boundary between warm and cold ocean water is rich in nutrients and attracts Tuna. This convergence zone is normally located to the far north of the Niuaas and during the forecast period, it is forecast to be displaced a little to the south but still far north of Tonga. This information can be used by stakeholders to know where tuna can be found during this time period.

Disclaimer: "This map is used for illustrative purposes only and does not represent any official endorsement or acceptance of those boundaries by the Government of the Kingdom of Tonga".