

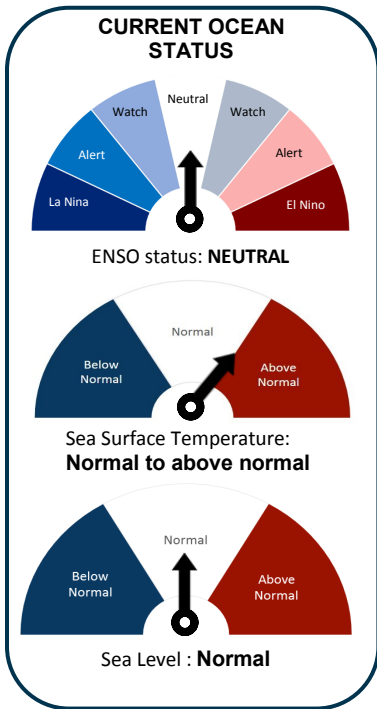
Vanuatu Ocean Outlook

Vanuatu Meteorology & Geo-Hazards Department



August 2019

Issue 03



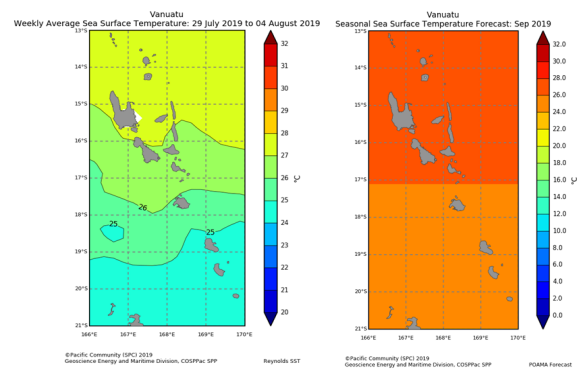
August Ocean Summary:

- The El Niño–Southern Oscillation (ENSO) is neutral.
- Waters remain slightly warmer than average over Vanuatu.
- Trade winds have remained close to average.
- SOI remained near the El Niño threshold.
- Luganville Harbour : Lowest Tide: 02nd at 11:55hrs - 0.08m , Highest tide: 31st at 04:53hrs - 1.87m.
- Port Vila Harbour : Lowest Tide: 02nd at 12:44hrs – 0.07m, Highest tide: 31st at 05:42hrs - 1.54m.
- Ocean Outlook (September to November)**
- Cooling Sea Surface temperatures (SST) is expected over Vanuatu in the upcoming months.
- Sea level anomalies for September to November will be normal to below normal (0mm to – 50mm) over Vanuatu.
- Trade winds over the Equatorial Pacific will continue to weaken, while over Vanuatu southeast trades remain moderate.
- Next extreme high tide will be on 31st August 2019, 04:53hrs at a height of 1.87m. (Luganville Harbour)

Sea Surface Temperatures

- Latest SSTs for August showed temperature range of 24.0°C to 28.0°C from southern to northern Vanuatu.
- Forecast for September shows temperatures for the southern region will likely range from 22.0°C to 24.0°C, while temperatures in the northern region will likely range from 24.0°C to 26.0°C.

Common name	Species	All occurrences (C)	Abundant occurrences (C)
Skipjack	Katsuwonus pelamis	17-30	20-29
Yellowfin	Thunnus albacares	18-31	20-30
Bigeye	T.obesus	11-29	13-27
Albacore	T. alalunga	13-25	15-21
Southern	Bluefin T.maccoyii	10.5-21	17-20

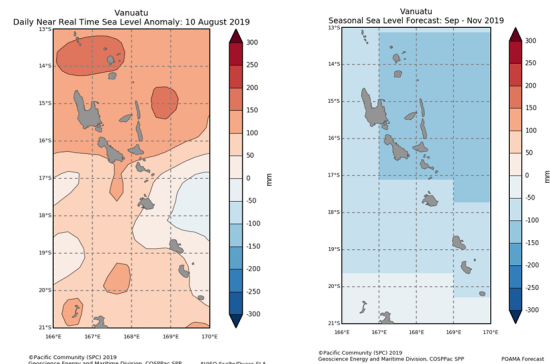


Sea Level

- As of 10th August, southern Vanuatu experienced mostly normal sea level, while SL in the northern region ranges from 100mm to 200mm above normal.
- Below normal sea level (0mm to – 150mm) is forecasted for the next three months (September to November).

Application

- Extreme high tides can cause inundation of waves overland (seas-flooding) during bad weather / windy conditions causing rough seas.

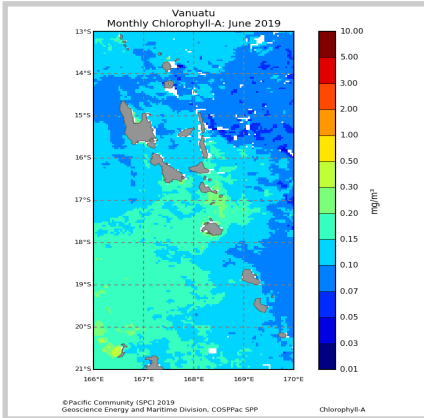
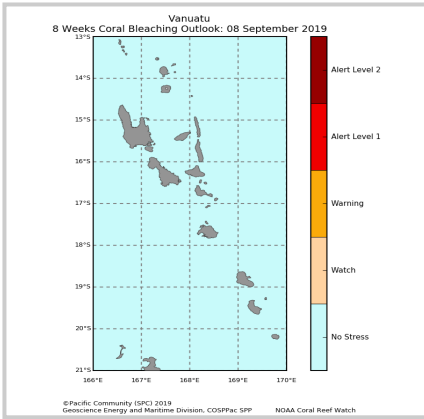


Coral Reef Watch

Current Coral Reef Alert for the Vanuatu Region remains at No Stress, and will continue to be at No Stress within the next month (September). This means that there is no chance of having any damage to coral.

Application

- Coral reef provide food for fishes and shells. When there is coral bleaching, the corals can die and the whole food chain is affected.
- Limiting fishing in the region can increase fish populations, which in turn maximizes the consumption of plant growth and limits their impact on the corals.



Monthly Chlorophyll

Chlorophyll concentrations of up to 0.30mg/m³ was observed between Shefa and Malampa provinces in June. Latest data for August shows waters between Shefa and Malampa maintained higher concentrations of chlorophyll compared to other areas.

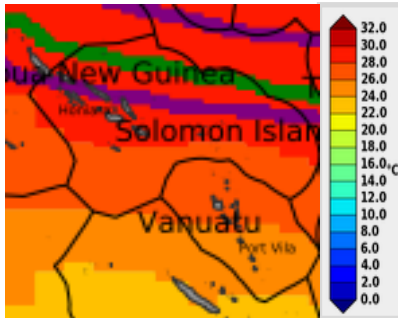
Application

- Fishermen targeting smaller pelagic (open sea) fish may be interested in the chlorophyll concentration.

Sea Surface Temperature With Convergence Zone

The green line is the average position of the Warm pool –cold tongue Convergence zone. For August 2019, models predict it (edge of warm pool-cold tongues convergence zone) (purple) will cross Solomon Islands horizontally. Sea Surface Temperatures are forecasted to be within 24.0°C to 26.0°C within the next month.

Application: Along the eastern edge of Warm pool-cold tongue Convergence zone is rich with nutrient which support high abundance of tuna.







Top Highest and Lowest Tides for September to November 2019 for Luganville & Port Vila Harbour

Luganville Harbour					
Lowest Tide	Date	Time (VUT)	Highest Tide	Date	Time (VUT)
0.15m	28 Sep	10:22 am	1.83m	01 Sep	05:40 am
0.23m	28 Oct	23:08 pm	1.87m	28 Oct	16:43 pm
0.20m	26 Nov 27 Nov	22:58 pm 23:42 pm	1.87m	25 Nov 26 Nov	15:41 pm 16:18 pm

Port Vila Harbour					
Lowest Tide	Date	Time (VUT)	Highest Tide	Date	Time (VUT)
0.17m	01 Sep	13:04 pm	1.59m	30 Sep	18:50 pm
0.22m	30 Oct	00:46 pm	1.62m	28 Oct	17:36 pm
0.18m	28 Nov	00:31 am	1.61m	25 Nov	16:27 pm

Moon Phases for the next 3 Months (September to November 2019)

New Moon 	First Quarter 	Full Moon 	Last Quarter 
	6th of September	14th of September	22nd of September
29th of September	6th of October	14th of October	21st of October
28th of October	4th of November	13th of November	20th of November
27th of November			