Samoa Ocean Outlook

December 2018

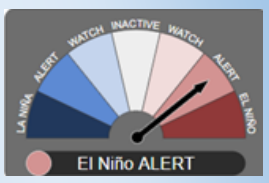
Issue: 07

Issue Outline:

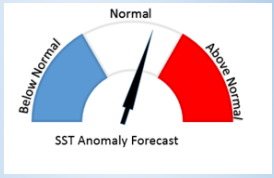
- Ocean Summary
- Ocean Temperature
- Convergence Zone
- Coral Bleaching
- Sea Level Forecast

Climate Status:

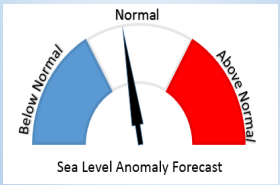
ENSO Update: ALERT



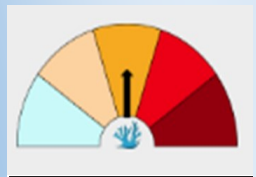
Sea Surface Temperature:



Sea Level Forecast:



Coral Bleaching Forecast:



Alert Level
No Stress
Bleaching Watch
Bleaching Warning
Bleaching Alert Level 1
Bleaching Alert Level 2

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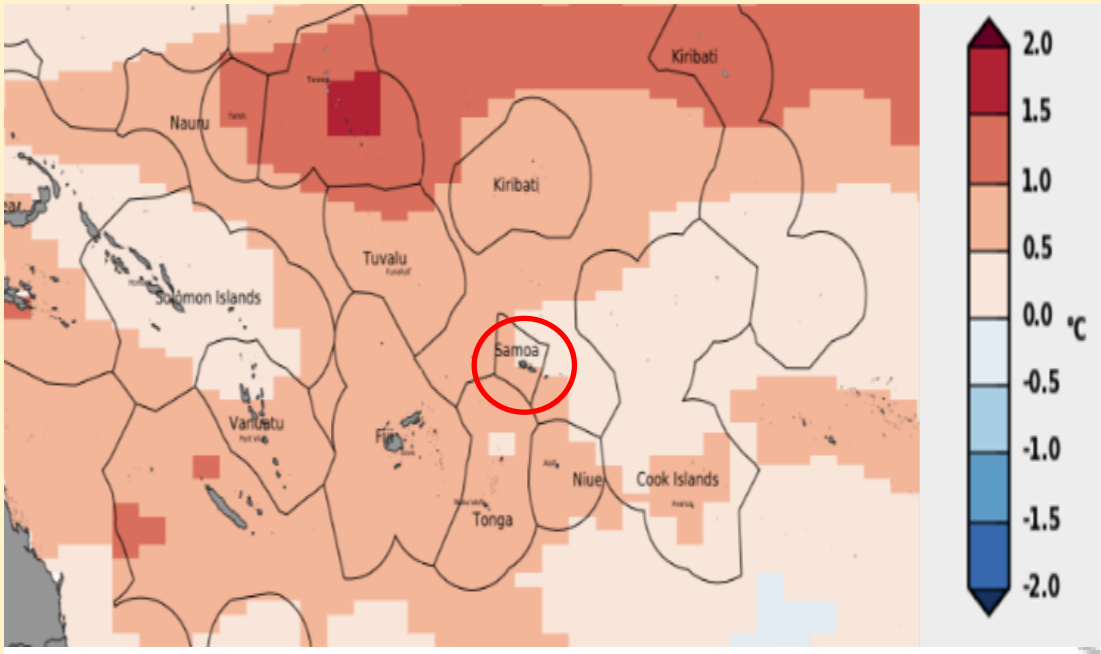
Summary

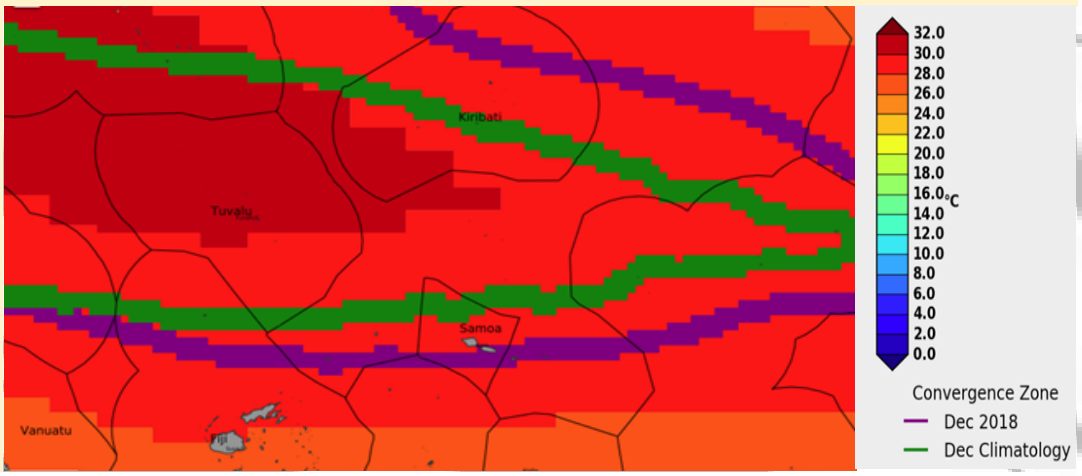
- An increase of about 0.5^{0}C to 1.0^{0}C in Sea Surface temperature is anticipated for December.
- Convergence Zone expected to position South of the Islands.
- Coral bleaching status has shifted to Warning as El Nino probability increases to 70%.
- A drop of about 50mm in sea level is expected in the upcoming season for Samoa.

Sea Surface Temperature Forecast Anomaly



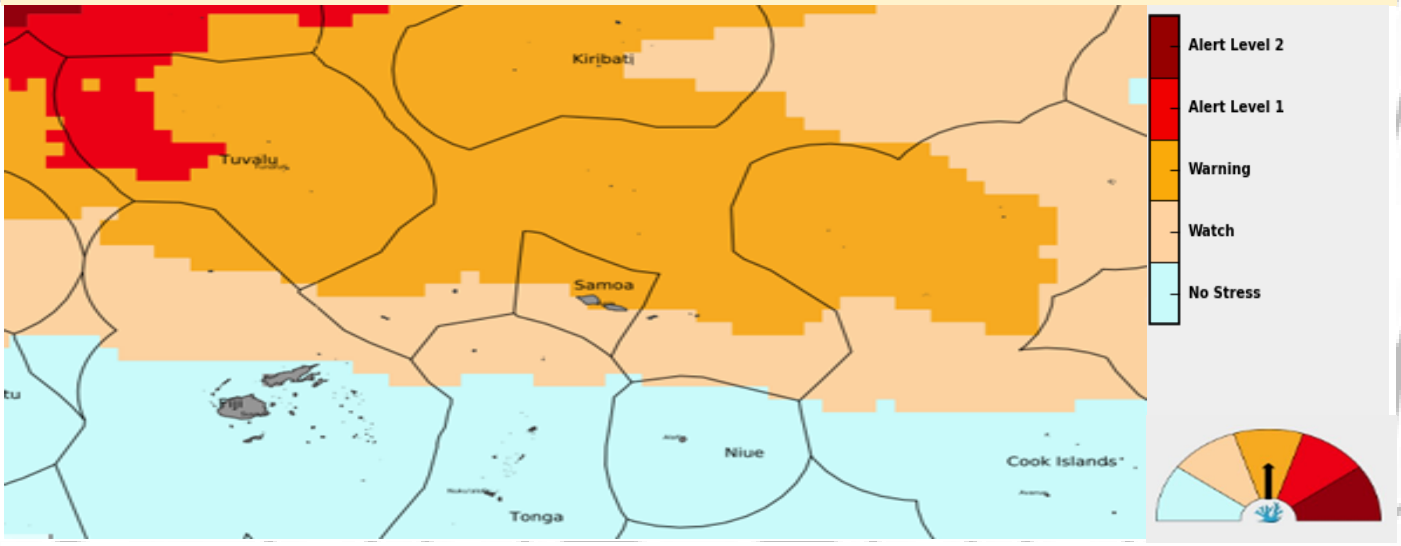
Model prediction suggests a 0.5^{0}C-1.0^{0}C warmer Sea Surface Temperatures for Upolu and the Southern part of Savaii. Northern region of Savaii will be expecting a 0.0^{0}C-0.5^{0}C increase in SST. Extreme change in SST is also anticipated for the islands positioned just north of Samoa.

Sea Surface temperature forecast with convergence zone



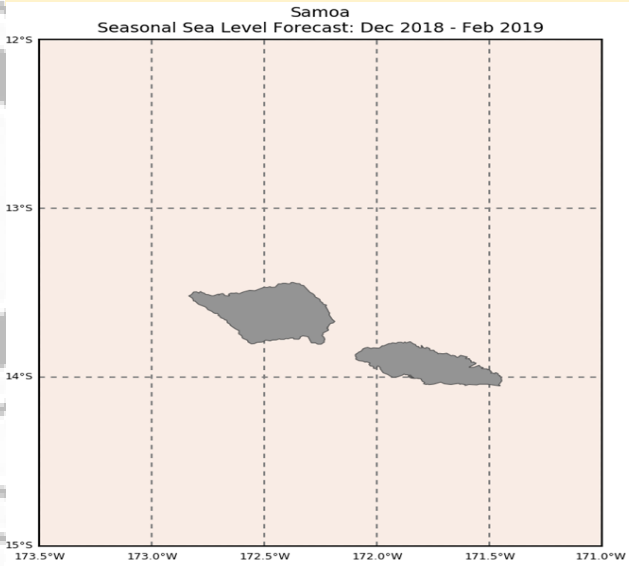
Due to its continuous Southward movement, the convergence Zone (Purple) is anticipated to place South of the group. This situation will be ideal for fishing as it now very close to shore. *N.B Convergence zones are where cold and warm water meet, and are rich in nutrients, attracting lots of fish.*

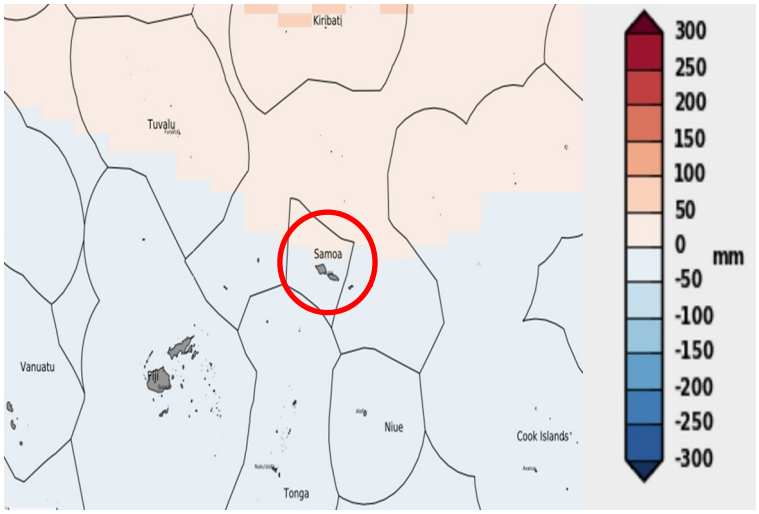
Coral Bleaching



For November, the Coral Bleaching Outlook has now shifted to Coral Bleaching Warning. Warm waters for Samoa in December 2018 will have an effect on the corals. The ENSO Outlook is at El Nino Alert, with a 70% chance of this phenomenon to occur. Responsible sectors are advised to continue monitoring.

Seasonal Sea Level Forecast





Generally, sea level for the Samoa region is predicted a 0-50mm drop in sea level. In the Equatorial region however, an increase in sea level is predicted for most islands, and continues to drop as you continue to move down South of the Equator.

This forecast is based on the combined long-term effects of temperature, salinity and wind on the water levels and do not include daily changes in tide or weather.

Major Contributors:

- Pacific Ocean Portal: oceanportal.spc.int
- Bureau of Meteorology: http://www.bom.gov.au/climate/enso/