



Kiribati Meteorological Service

Member of WMO

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Kiribati Ocean Outlook

September to November 2019

Kiribati Meteorological Service Division

Issue: 48

Summary

September 2019

- Kiribati waters will be cooler by -0.5°C to -2.0°C .
- The ocean convergence zone is located at West of Kiribati.
- Coral bleaching is on Alert level 1 at most parts of Gilbert Islands and no thermal stress for most parts of Line and Phoenix islands.
- Sea level will decrease by -0.1m .

Issue Outline:

- Ocean Summary
- SST Anomaly
- SST with warm pool
- Coral Bleaching

Important notes:

Coral Bleaching Effect:

Alert: No thermal stress

Watch: Low-thermal stress

Warning: Coral Bleaching possible

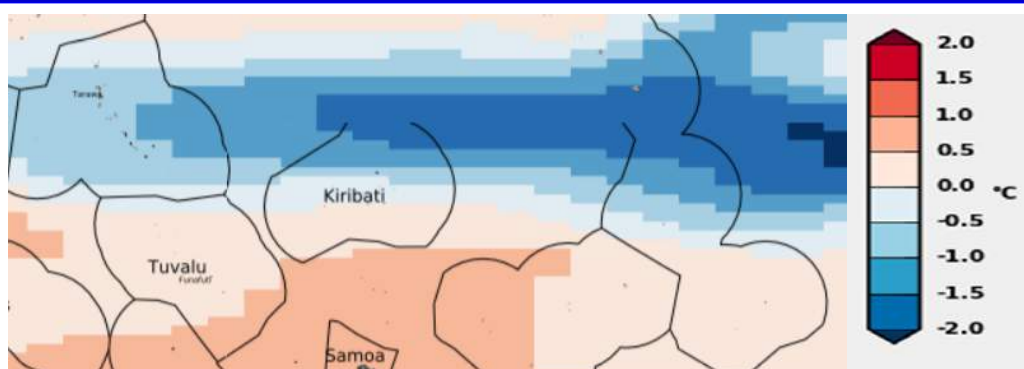
Alert 1: Coral Bleaching likely

Alert 2: Coral mortality likely.

Major Contributors:

1. Climate and Oceans Support Program in the Pacific
2. POAMA

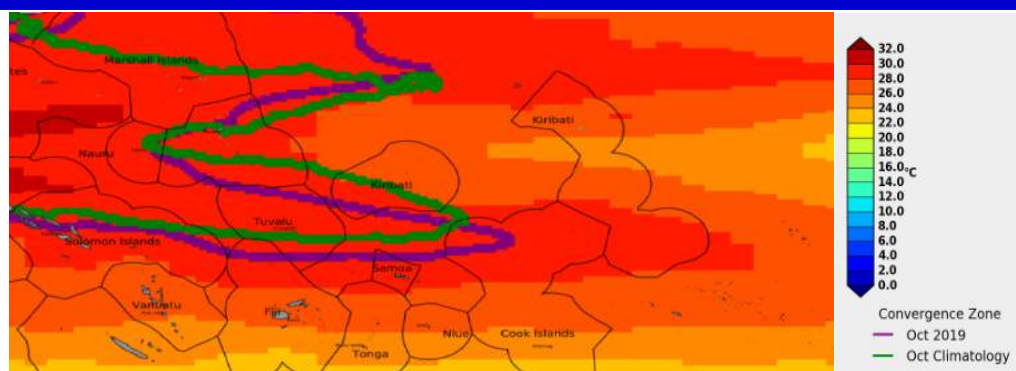
Sea Surface temperature Forecast anomaly



The forecast on SST for the Gilbert island is expected to be cooler by up to -1.0°C while Northern part of Phoenix and Line islands will be cooler by -2.0°C for the coming months. However, Southern most parts of Phoenix and Line islands will be warmer by 0.5°C .

NB: Warm waters is related to more rainfall and cooler waters is related to less rainfall.

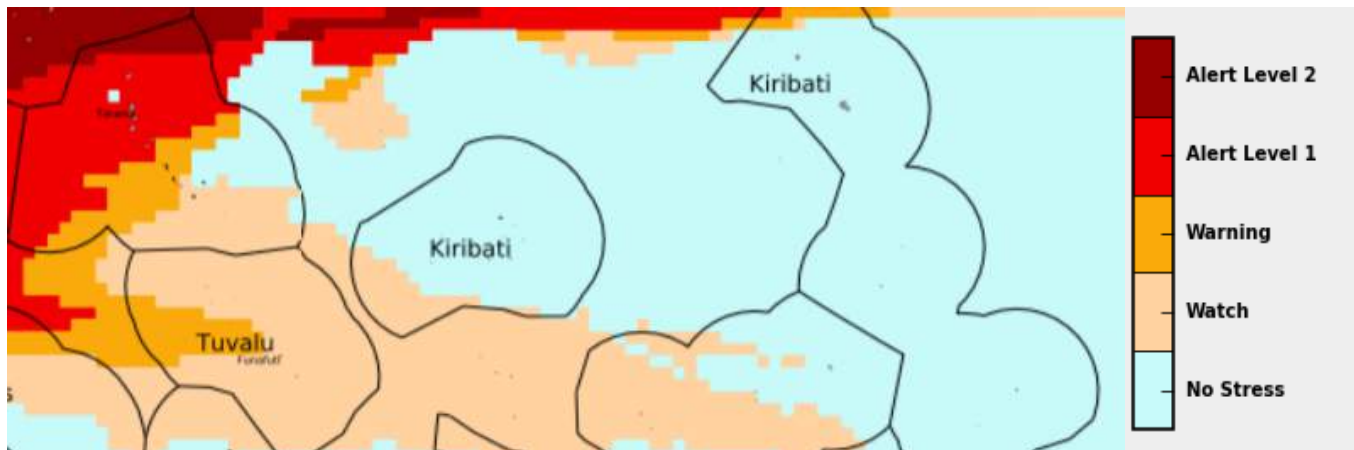
Sea Surface temperature forecast with Ocean Convergence Zone



The ocean convergence zone is anticipated to lie over Northern parts of Gilbert and Southern parts of Phoenix group for the upcoming months. Therefore, Northern parts of Gilbert and Southern part of Phoenix group is probably rich in nutrient and more favorable for migratory fish. So, this is a good time for fishing vessels to fish in the Kiribati waters particularly in the Gilbert group.

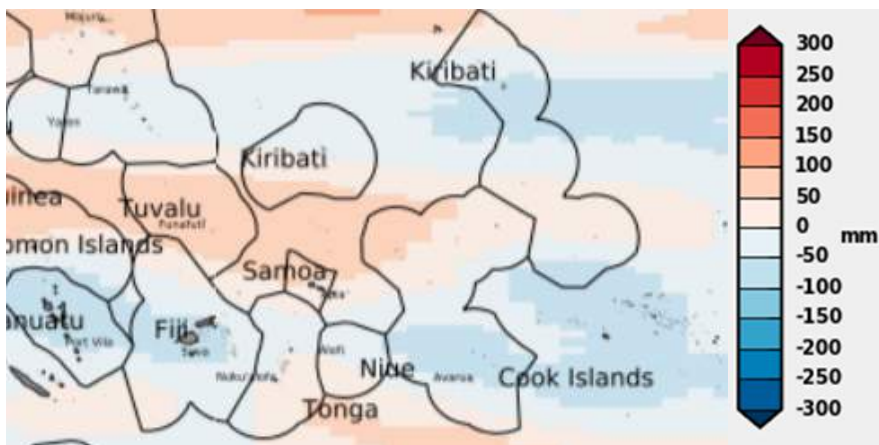
Note: This information needs to be verified with MFMRD.

Coral Bleaching



The coral bleaching outlook for most part of the Gilbert group is on Alert Level 1 while some parts of the Southern Gilbert group is on Warning and Watch. However, most parts of Line and Phoenix group shows no thermal stress. Since coral bleaching is likely to exist at most parts of Gilbert group, sea water at this area is not so attractive in terms of tourist pleasure or snorkeling around the site— though on the other hand the Line and Phoenix groups were expected to be very attractive in terms of their colorful corals and other species worth exploring underwater.

Seasonal Sea Level Forecast and Extreme Spring Tide Prediction



The seasonal sea level forecast for most parts of Gilbert and Northern Phoenix and Line group is decreased by -0.1m (100mm) for September to November. However, Southern parts of Phoenix and Line group will be lower by 0.05m (50mm).

For preparedness, the **third highest** tide of the year is on the **29th (0436am) of September** with height of **2.93m**. Therefore, coastal communities should be cautious as this might cause flooding and erosion at low-lying areas.

Month	Date	Time	Height (m)	Moon Phase
September	28th	0358	2.89	New Moon
	29th	0436	2.93	
	29th	1659	2.86	
	30th	0515	2.88	
	30th	1734	2.84	
October	27th	1559	2.84	New Moon
	28th	0415	2.80	
	28th	1634	2.89	
	29th	1711	2.87	
November	26th	1666	2.82	New Moon
	27th	1653	2.81	

This forecast is based on the ocean atmosphere model (POAMA) produced by Bureau of Meteorology, Australia.