PACIFIC METEOROLOGICAL COUNCIL

Ocean Conditions Outlook

[Zulfikar Begg (SPC), John Marra (NOAA) and Grant Smith (BoM)]







ustralian Government epartment of Foreign Affairs and Trade



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CSIRO

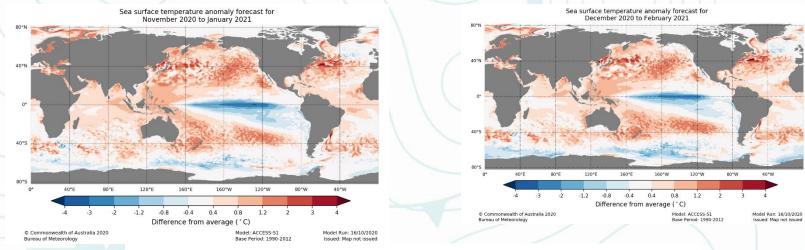


\PCC

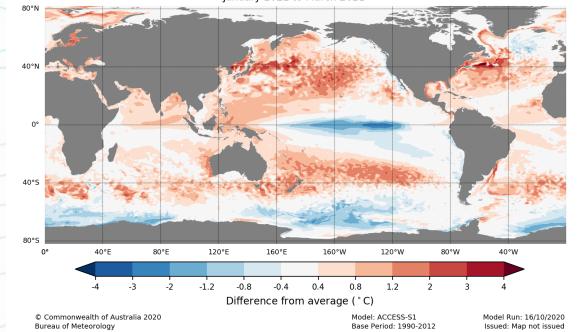


Bureau of Meteorology

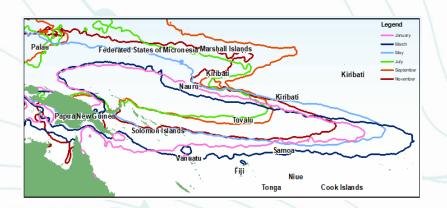


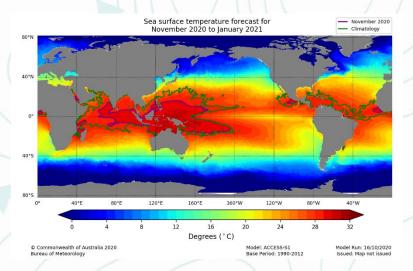


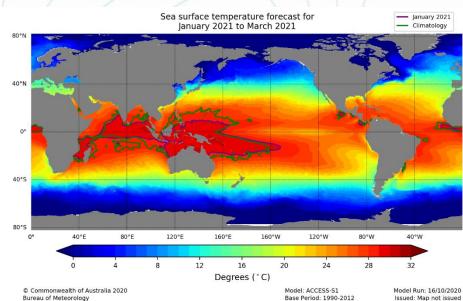
Sea surface temperature anomaly forecast for January 2021 to March 2021

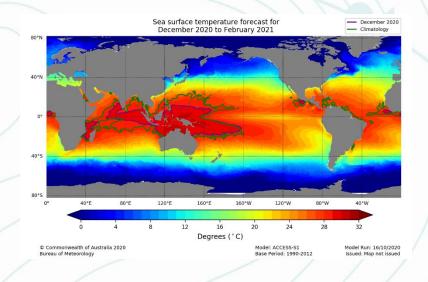


Fisheries Convergence zone

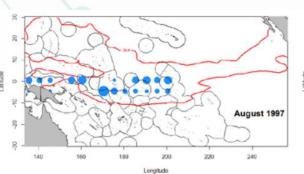


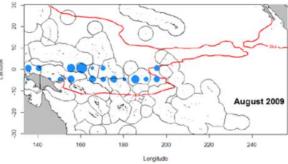


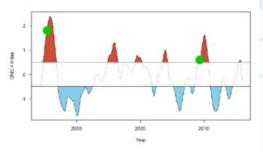


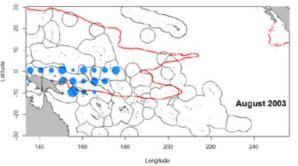


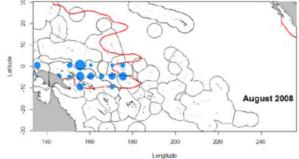
SPC Tuna Factsheet

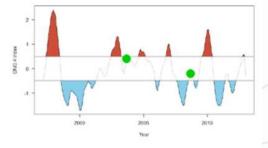


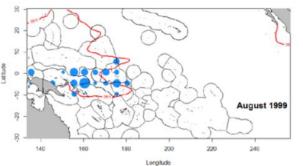


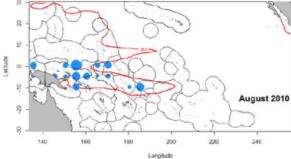


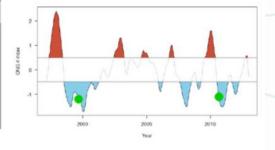




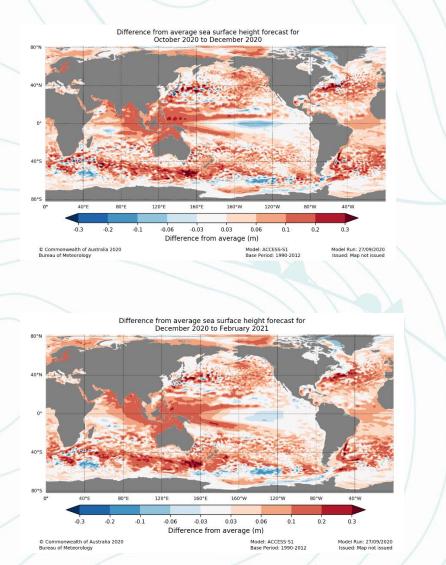




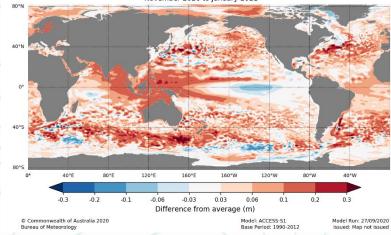




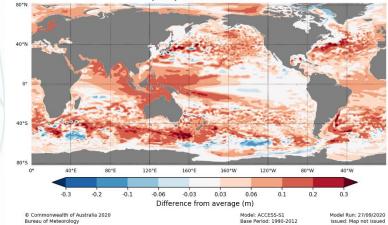
Sea level



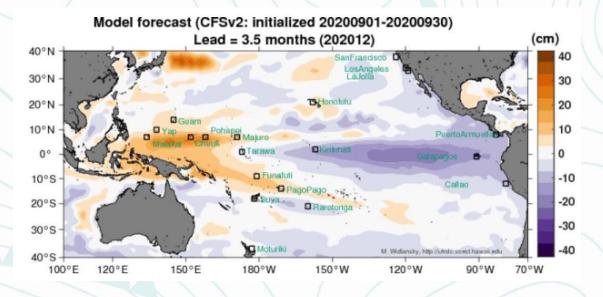
Difference from average sea surface height forecast for November 2020 to January 2021

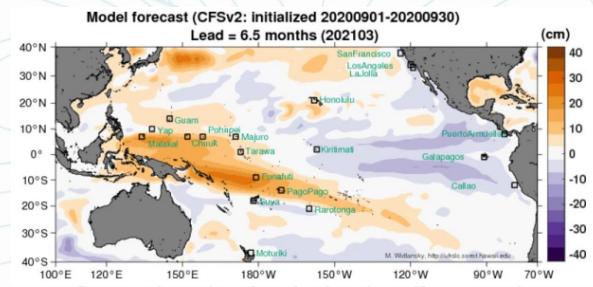


Difference from average sea surface height forecast for January 2021 to March 2021



Sea level

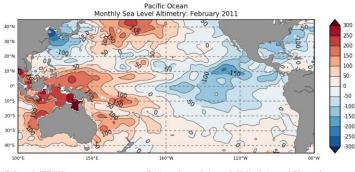




Learning from the past..

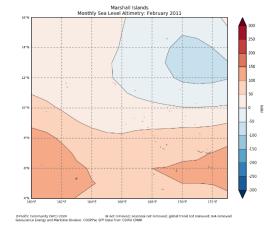
La Niña event of 2011 Smith and Juria (2018)

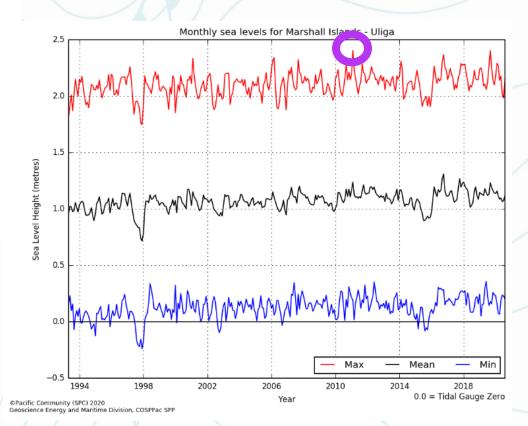
Majuro experienced nuisance flooding with the highest ever tide gauge reading of 2.39m in February which was sufficient to cause overtopping in several places.





IB not removed; seasonal not removed; global trend not removed; GIA removed Data from CSIRO CMAR





Highest Tides

Pohnpei Harbour

10 highest tides for 2020				10 highest tides for 2021		
Date	Time	Height (m)		Date	Time	Height
9-May	4:03	1.59		29-Mar	17:00	2.2
16-Nov	15:41	1.58		28-Feb	17:22	2.2
10-Feb	16:12	1.58		28-Apr	4:55	2.1
8-May	3:30	1.58		28-Mar	16:24	2.1
15-Dec	15:30	1.57		1-Mar	17:57	2.1
9-Feb	15:35	1.57		5-Nov	16:28	2.1
17-Nov	16:15	1.56	-	6-Nov	17:06	2.1
9-Mar	15:22	1.56		30-Mar	5:17	2.1
15-Nov	15:07	1.56		29-Apr	5:33	2.1
10-Mar	15:57	1.55		27-Feb	16:47	2.1

The epoch year range for averaging is: 1983 - 2001 The data year range for determining records is: 1969 - 2020

0 9 + 4 0

Height (m)

2.21 2.20

2.19

2.18

2.18

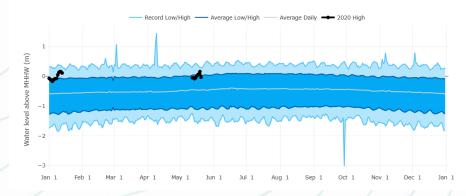
2.17 2.17

2.16

2.16

2.16

Majuro



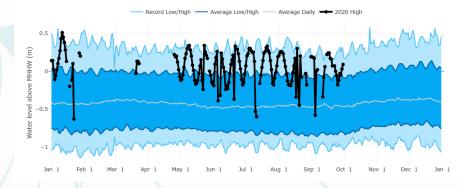
Yap

Lombrum

10 highest tides for 2021				10 highest tides for 2020			
Date	Time	Height (m)		Date	Time	Height (m)	
5-Dec	15:44	1.24	_	14-Dec	15:35	1.21	
4-Dec	15:34	1.23		15-Dec	15:38	1.21	
31-Dec	14:36	1.23		11-Jan	15:21	1.2	
6-Dec	15:26	1.22		13-Dec	15:22	1.2	
11-Jan	15:00	1.22		8-Feb	15:19	1.19	
12-Jan	15:21	1.22		10-Jan	15:00	1.19	
10-Jan	14:40	1.21		16-Dec	15:12	1.19	
13-Jan	15:38	1.20		31-Dec	14:42	1.18	
24-Jun	3:19	1.20		9-Feb	15:54	1.18	
3.Dec	15:22	1.20		19-Nov	14:12	1.18	
Test - Real Test field	a set added to	1.000			1. I.		

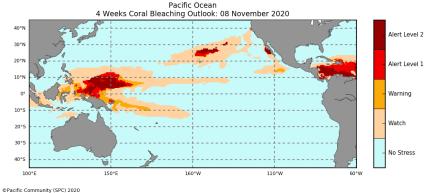
The epoch year range for averaging is: 1983 - 200 The data year range for determining records is: 1978 - 2020

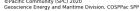
0 0 + 4 0



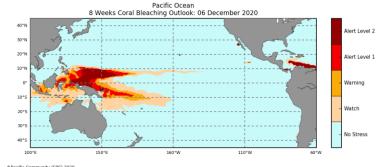
Kapingamarangi

Coral Bleaching



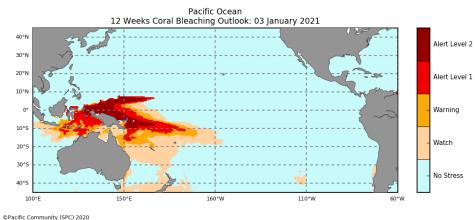


NOAA Coral Reef Watch



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NOAA Coral Reef Watch

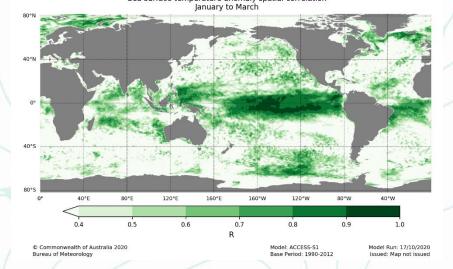




NOAA Coral Reef Watch

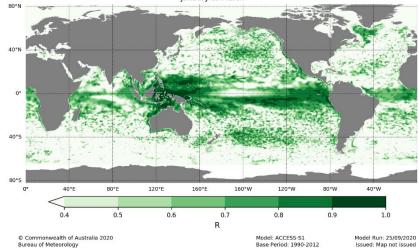
Skill Assessment

Sea surface temperature anomaly spatial correlation November to January 80°1 40° 40% 160°W 120°W 0° 40°F 80°F 120°F 160°F 80°W 40°W 0.4 0.5 0.6 0.7 0.8 0.9 1.0 R © Commonwealth of Australia 2020 Model: ACCESS-S1 Model Run: 17/10/2020 Base Period: 1990-2012 Bureau of Meteorology Issued: Map not issued

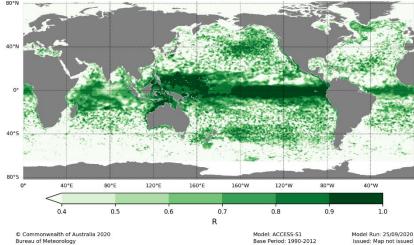


Sea surface temperature anomaly spatial correlation

Difference from average sea surface height spatial correlation January to March



Difference from average sea surface height spatial correlation November to January



Thank you/vinaka