PACIFIC METEOROLOGICAL COUNCIL

Outlook: Ocean temperature, Coral Bleaching and Sea level

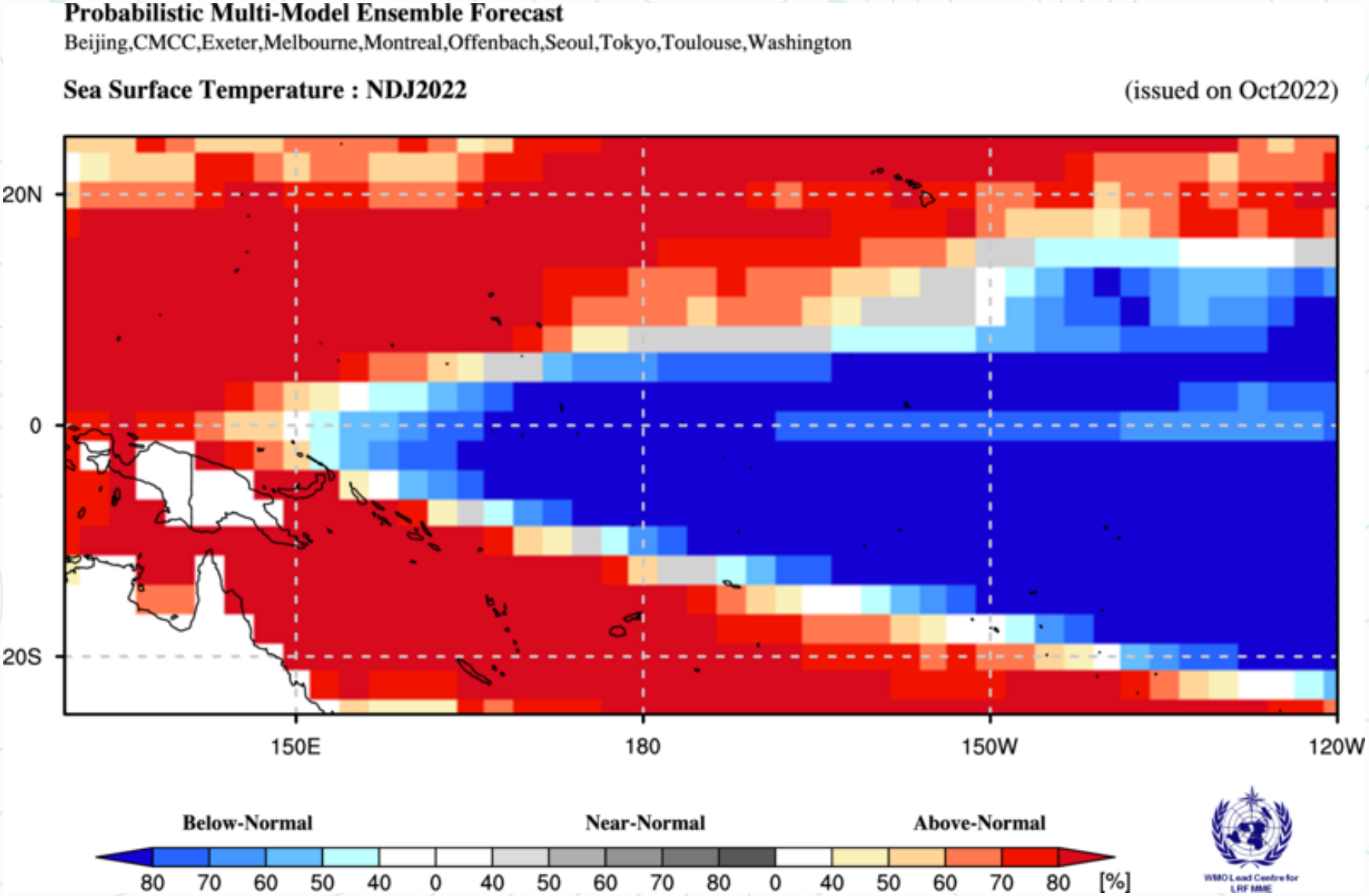
[Judith Giblin (SPC), Zulfikar Begg (SPC), John Marra (NOAA) and Grant Smith (BoM]

PACIFIC METEOROLOGICAL COUNCIL

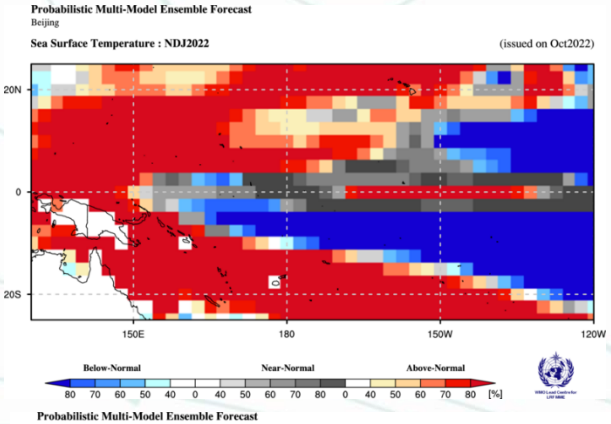
Outline of Presentation

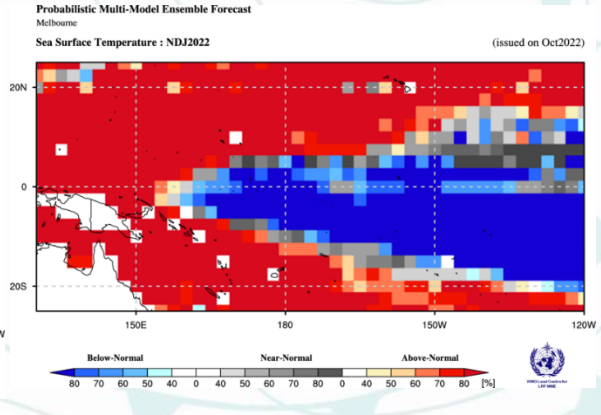
- WMO LRFMME SST
- SLA/Tides
- Coral Bleaching
- Fisheries convergence zone
- Key messages

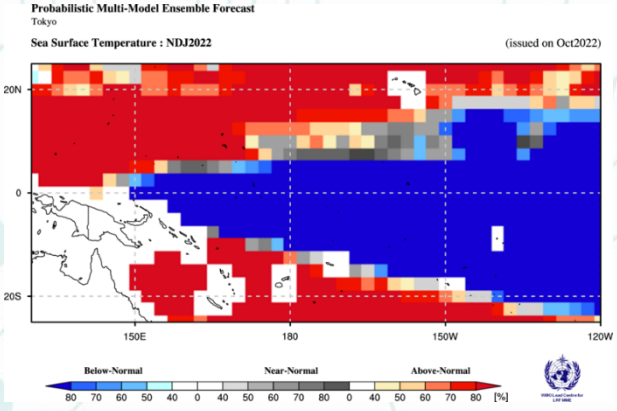
WMO-MME- 3 Month SST

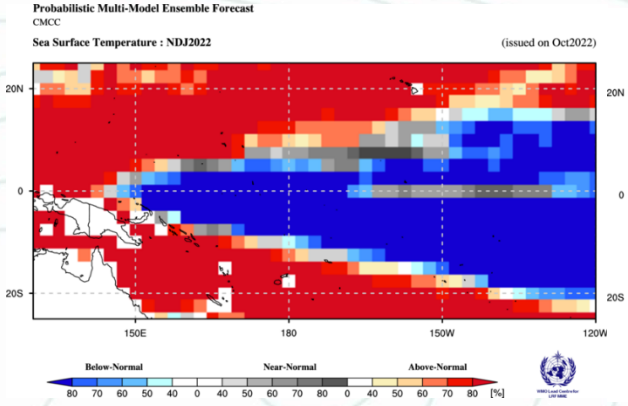


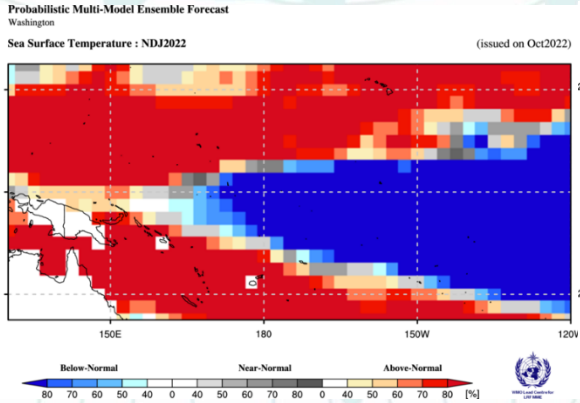
Individual Model –SST: 3 months

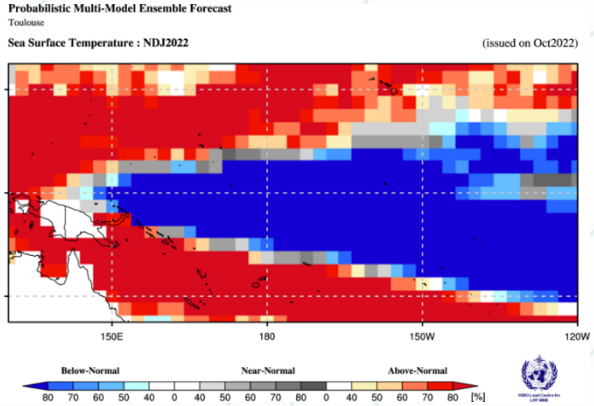


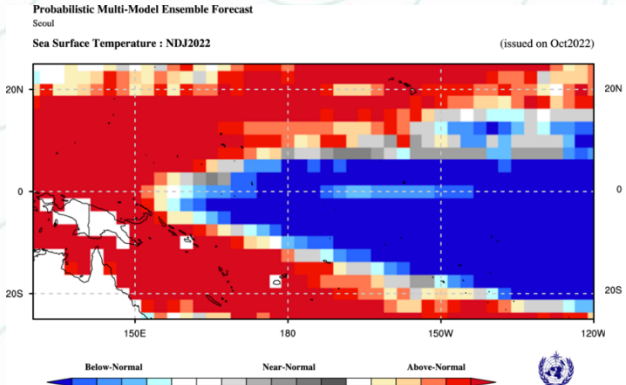


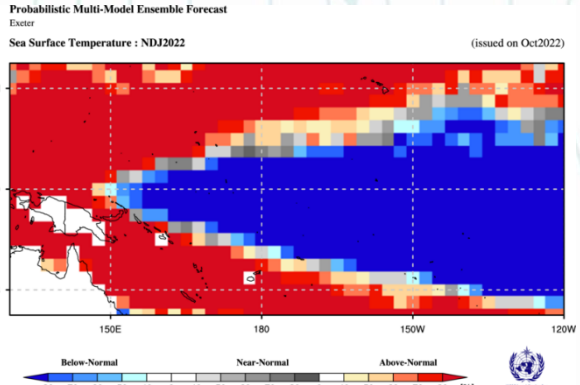


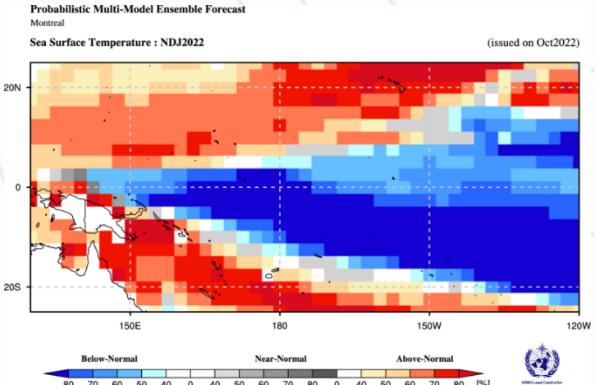




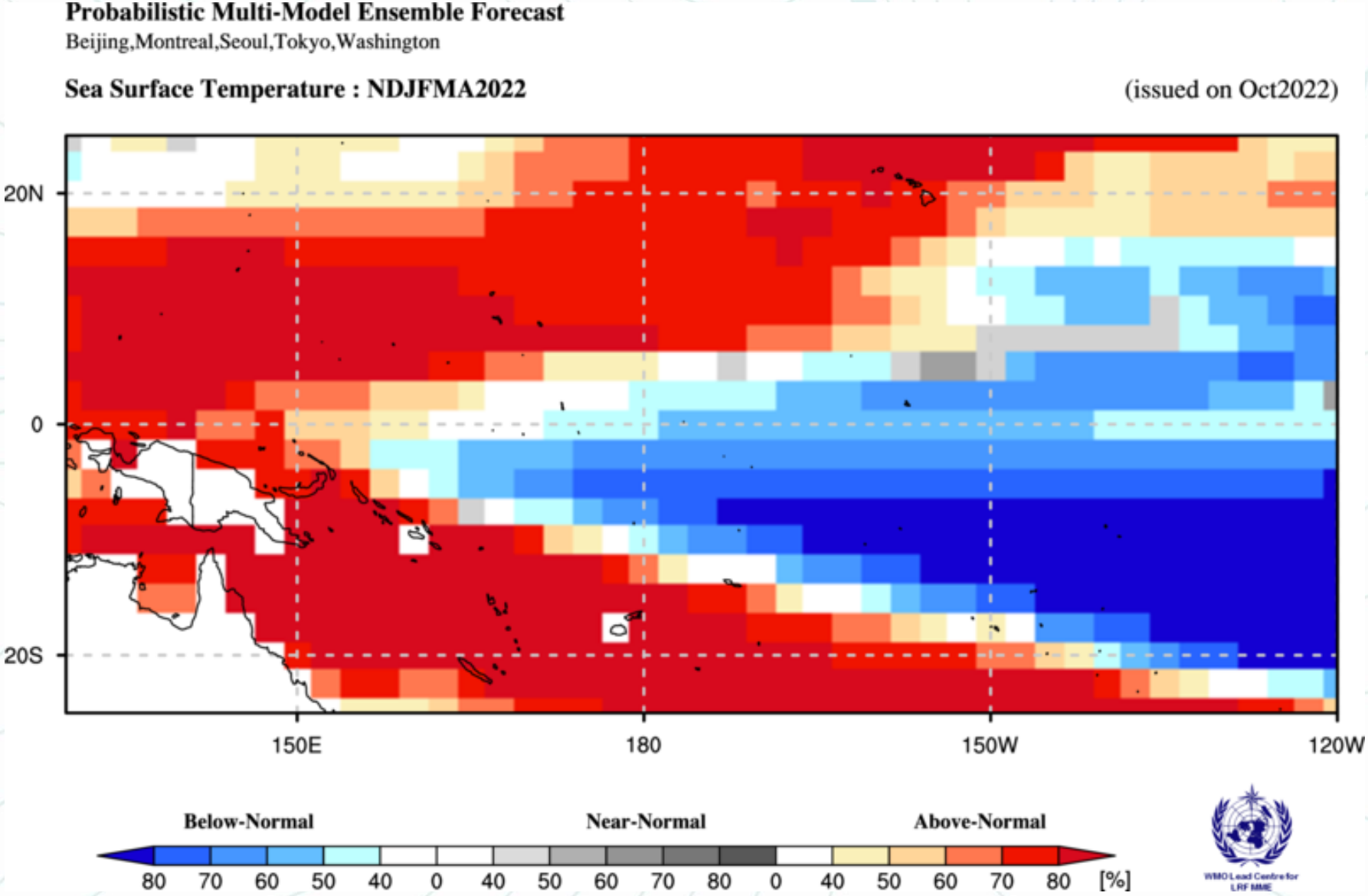




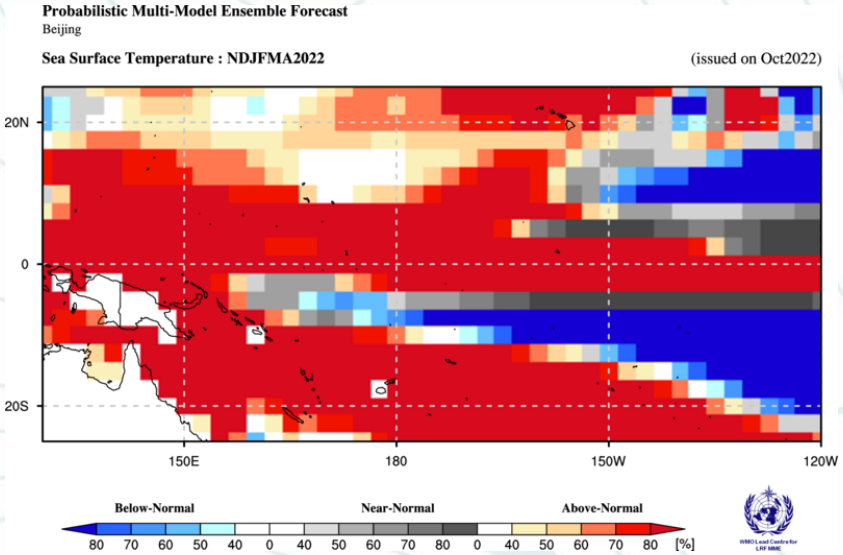


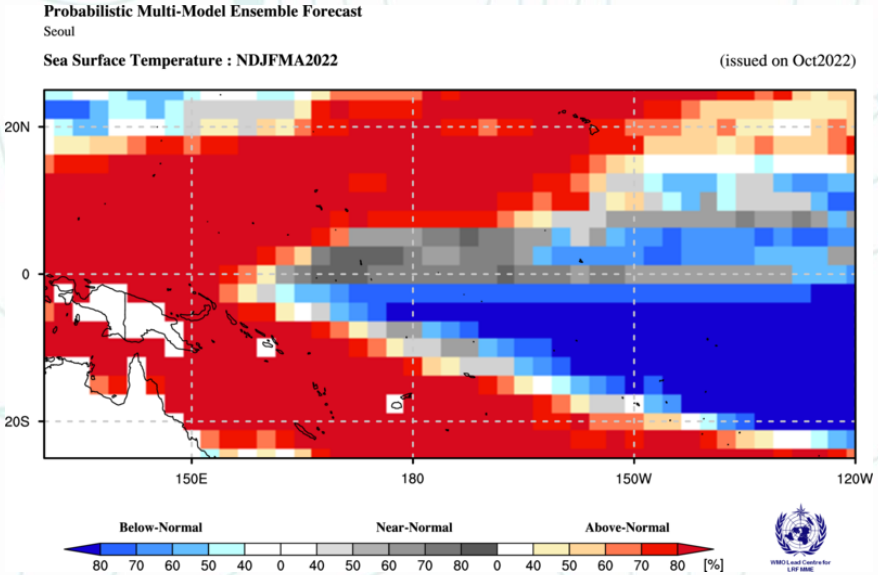


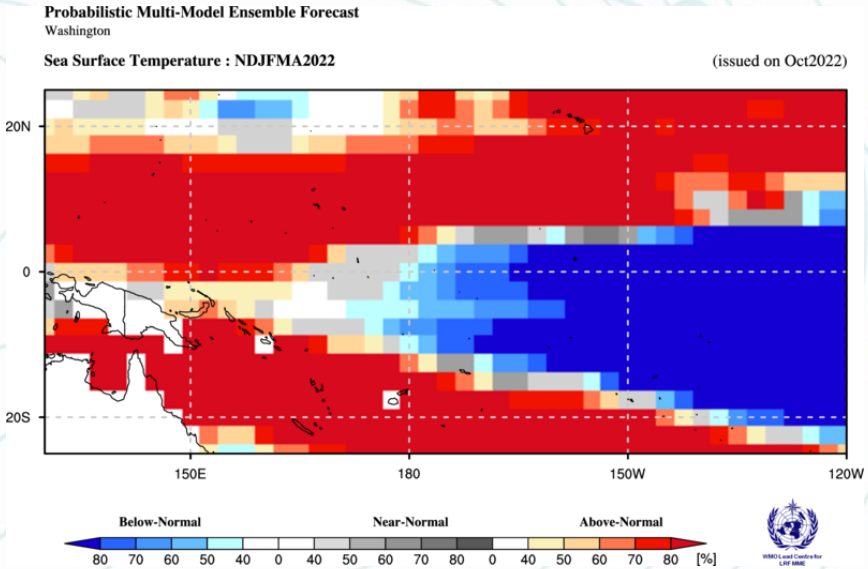
WMO-MME- 6 Month SST

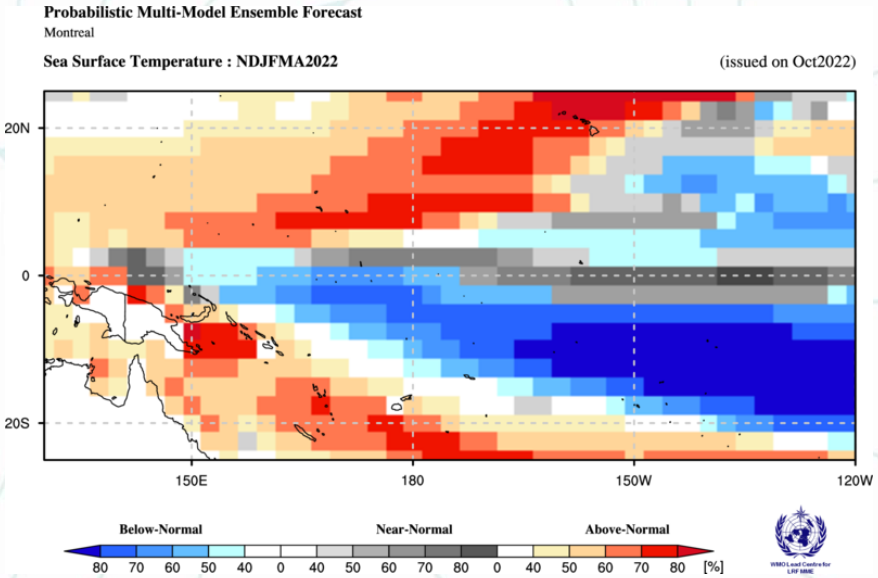


Individual Model –SST: 6 months

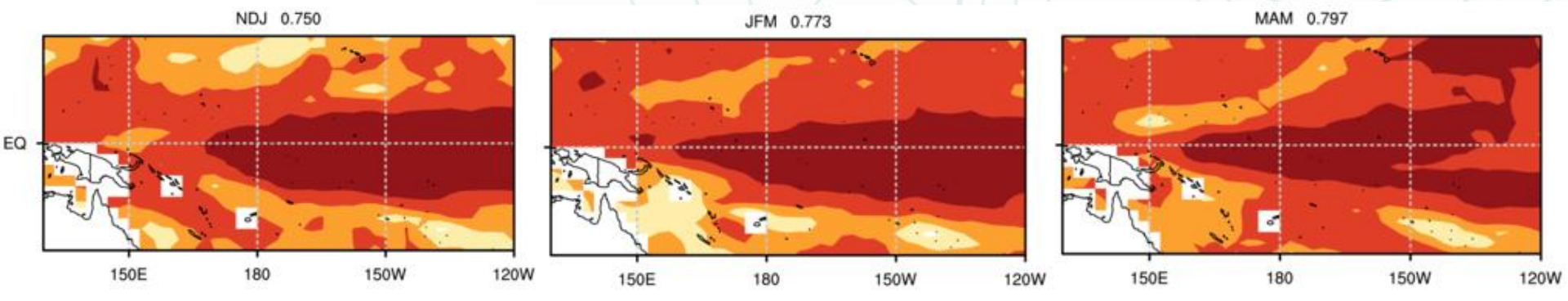






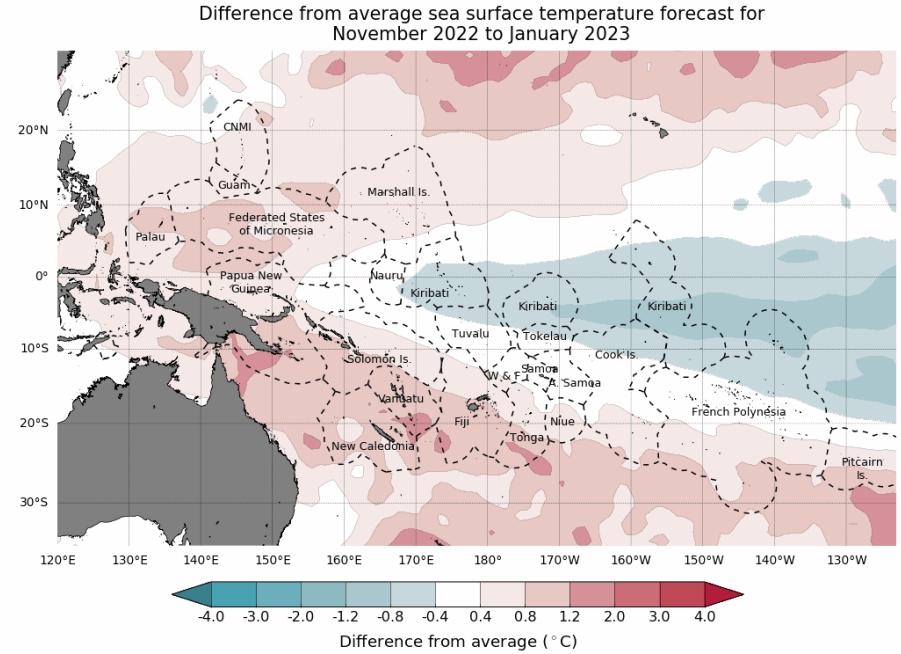


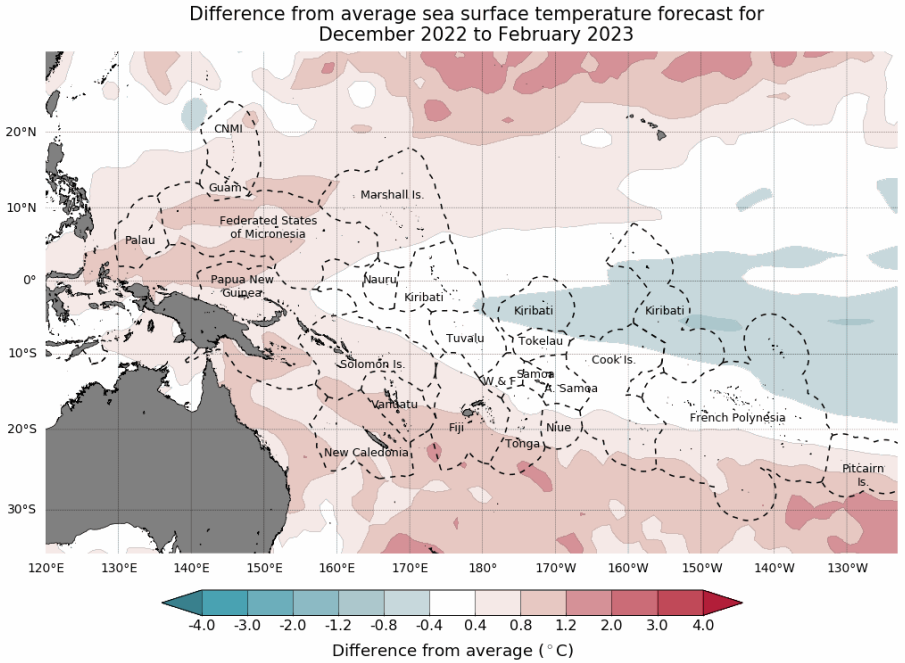
Skill

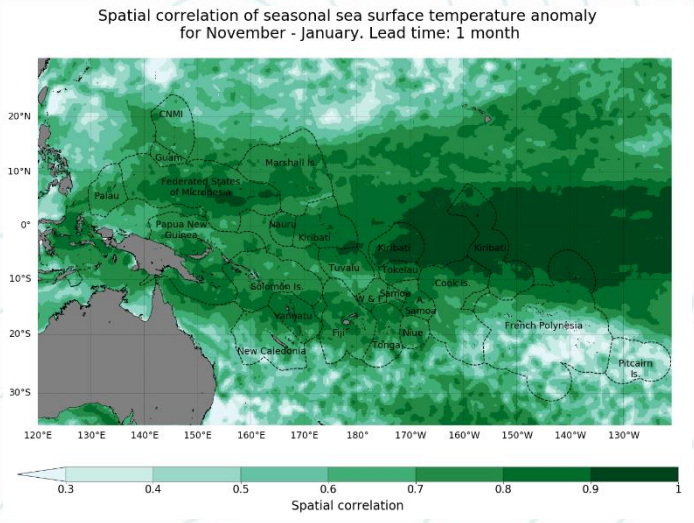

NDJ 0.750
JFM 0.773
MAM 0.797
EQ
150E
180
150W
120W


-0.9
-0.7
-0.5
-0.2
0.2
0.5
0.7
0.9

ACCESS-S: SST Anomalies







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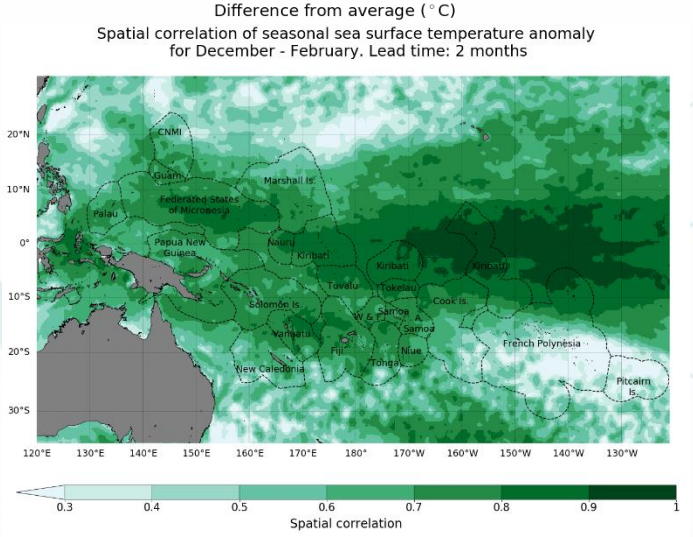
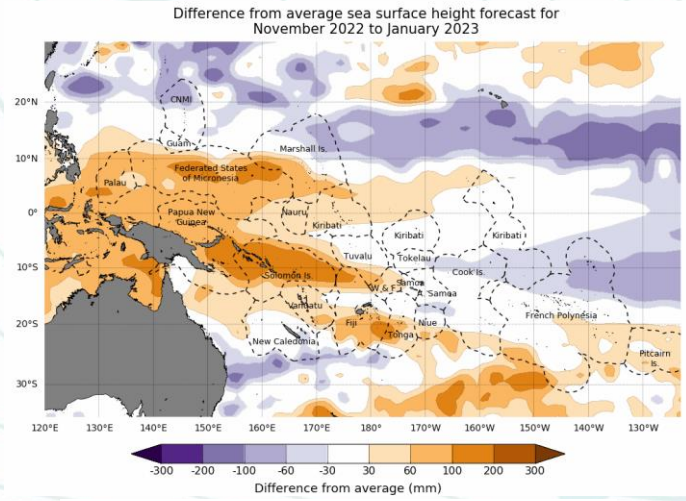
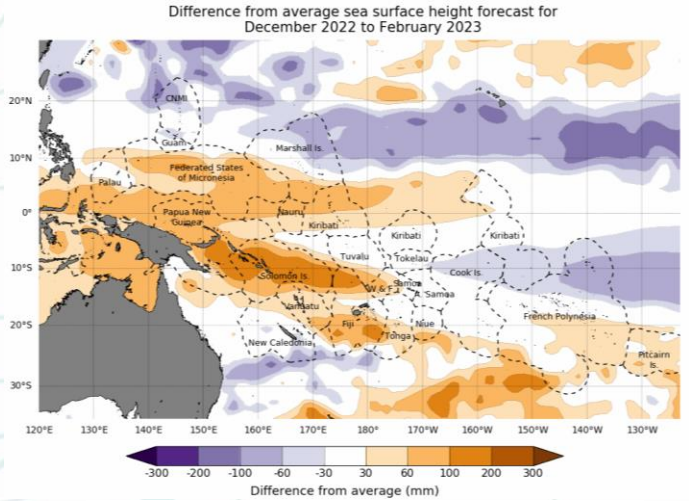
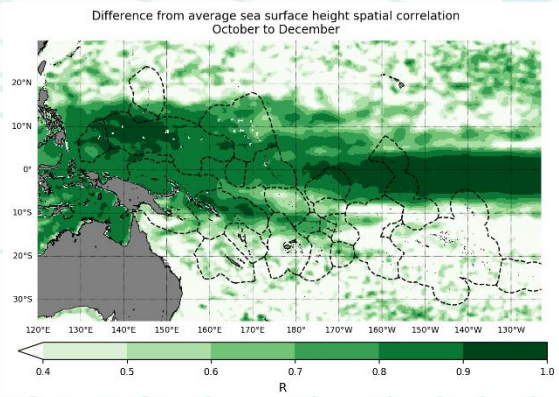


Sea Level Anomaly

ACCESS-S1







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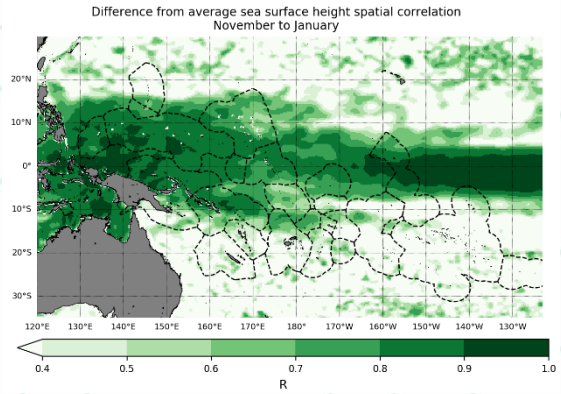
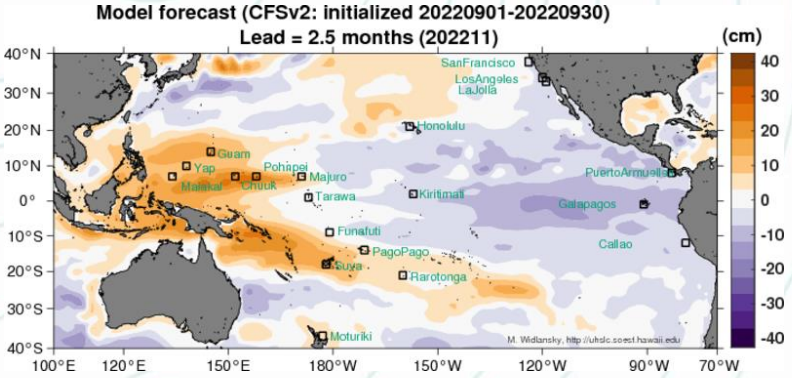
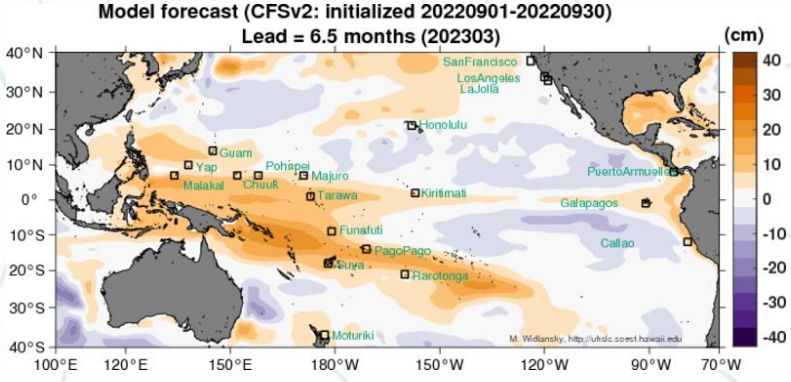


UoH





Highest Tides

FSM-Pohnpei

Highest Tide for 2023		
Date	**Time**	**Height (m)**
22-Jan	15:48	1.61
20-Feb	15:40	1.61
7-May	03:47	1.56
Highest Tide for 2022		
Date	**Time**	**Height (m)**
24-Dec	15:47	1.59
25-Nov	15:48	1.58
25-Dec	16:30	1.57

PNG-PM

Highest Tide for 2023		
Date	**Time**	**Height (m)**
20-Feb	9:24	2.99
22-Jan	9:47	2.93
20-Mar	8:20	2.92

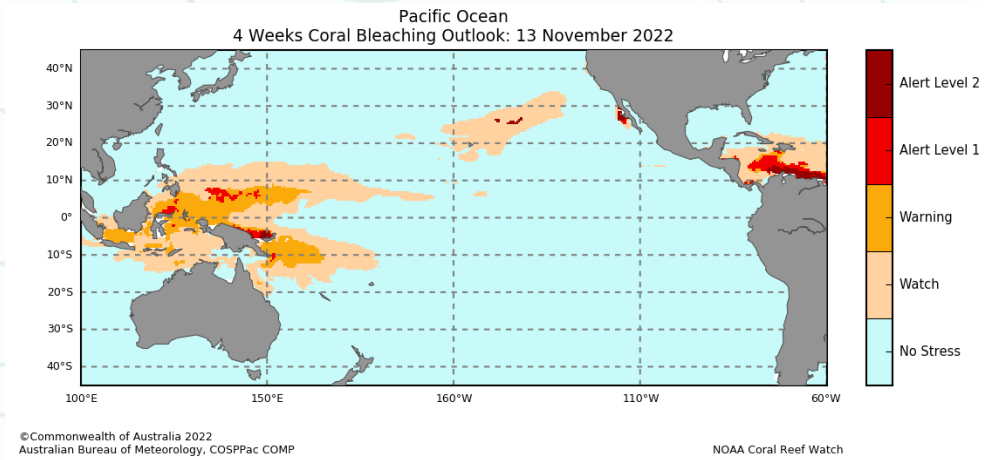
RMI-Majuro

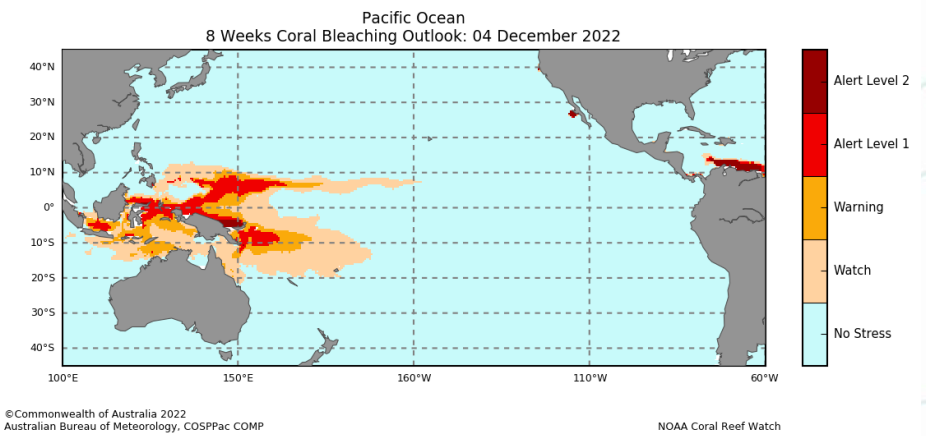
Highest Tide for 2023		
Date	**Time**	**Height (m)**
21-Feb	17:26	2.26
1-Sep	05:00	2.20
21-Mar	16:28	2.21

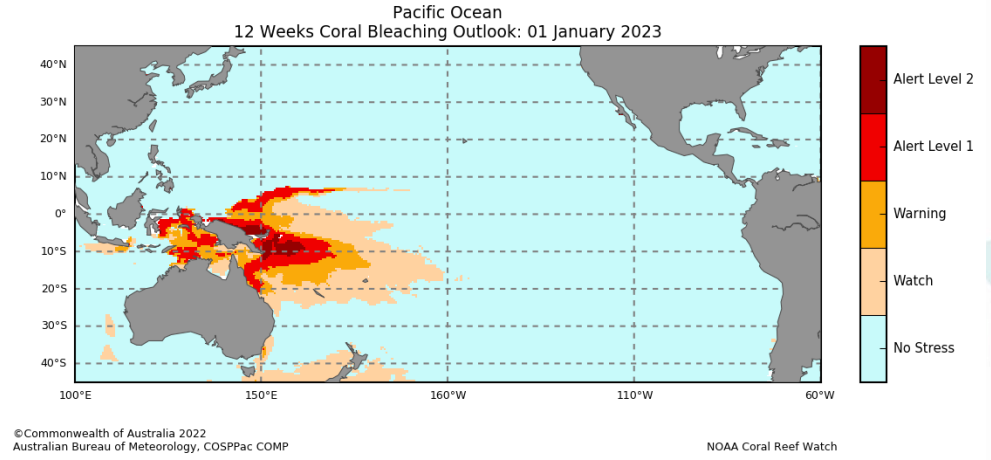
TV - Funafuti

Highest Tide for 2023		
Date	**Time**	**Height (m)**
20-Feb	17:18	3.30
21-Mar	16:58	3.25
22-Jan	17:18	3.34
Highest Tide for 2022		
Date	**Time**	**Height (m)**
24-Dec	17:37	3.14

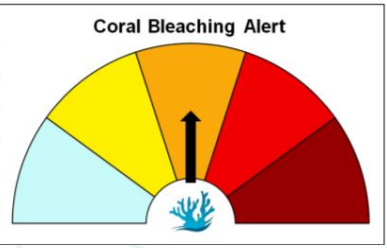
Coral Bleaching







Alert Level	Effect
No Data	No alert data available
No Stress	No thermal stress
Bleaching Watch	Low-level thermal stress
Bleaching Warning	Coral bleaching possible
Bleaching Alert Level 1	Coral bleaching likely
Bleaching Alert Level 2	Coral mortality likely

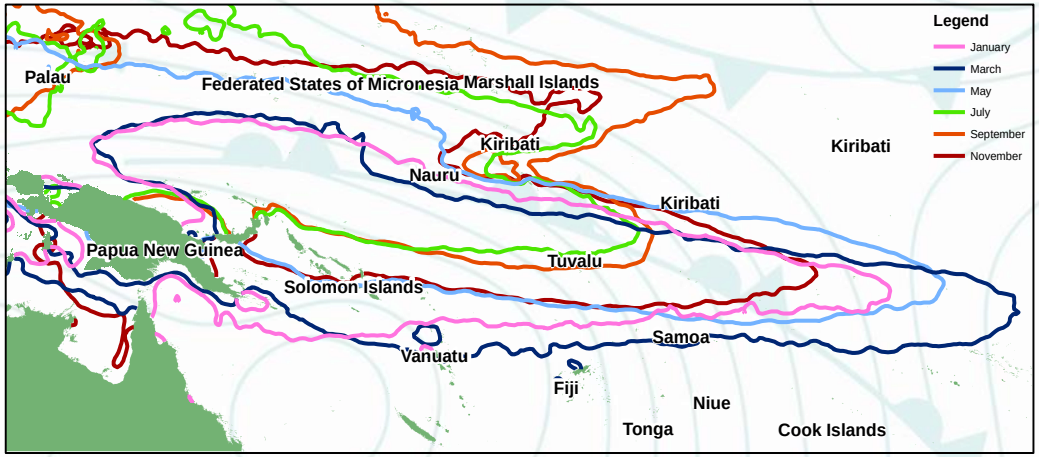


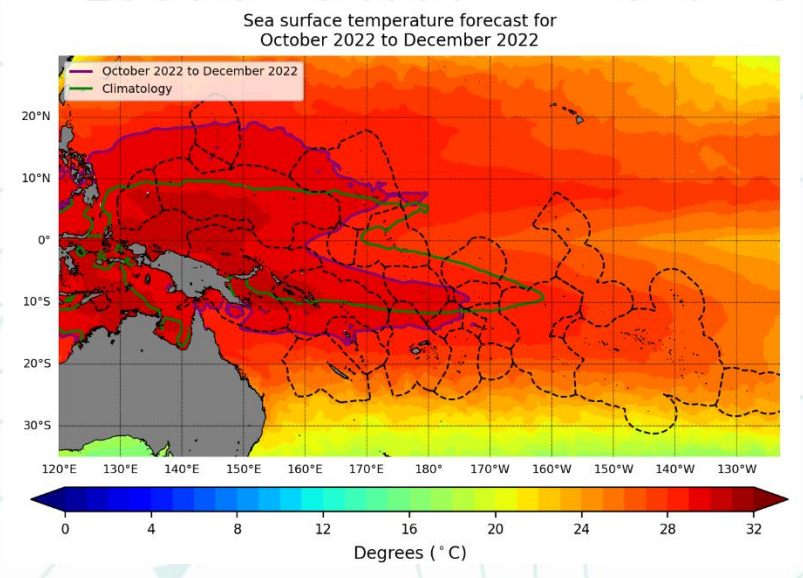
Coral Bleaching

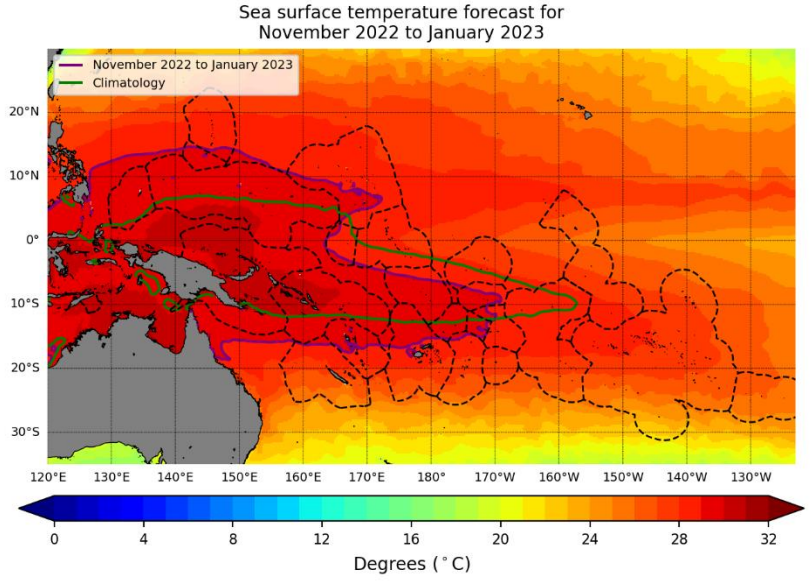
- Bleaching can also be caused by:
  - freshwater inflows
  - salinity changes
  - nutrient pollution
  - intense light

Airport Reef, Tutuila, American Samoa
https://coralreefwatch.noaa.gov/satellite/analyses_guidance/global_coral_bleaching_2014-17_status.php

Fisheries Convergence Zone







Key Messages:

- Warmer than normal for most countries in the west, including COSPPac partner countries in the south. Cooler along the equator towards the east.
- Sea level favoured to be higher than normal for most countries.
- Coral Beaching on alert levels for PNG, FSM, Palau
- Fisheries convergence zone is likely to sit further west compared to average in the tropical Pacific, and extend further southward and northward in the far western Pacific

Thank you/Vinaka