Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 199

Country: Tonga

Part 1: Recent climate

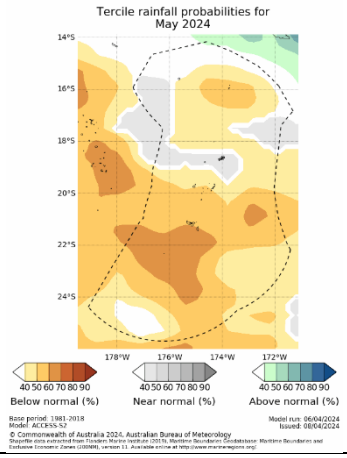
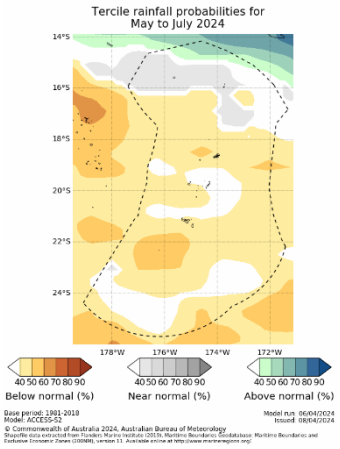
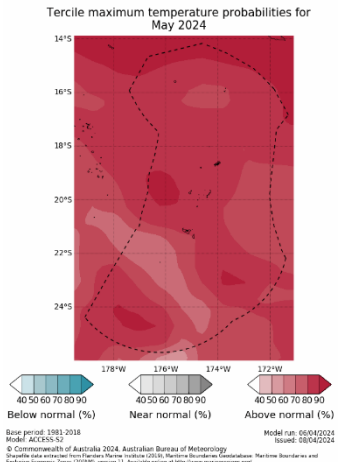
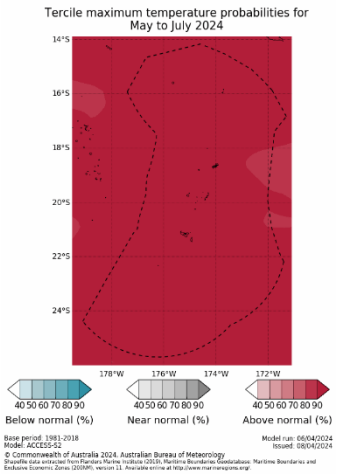
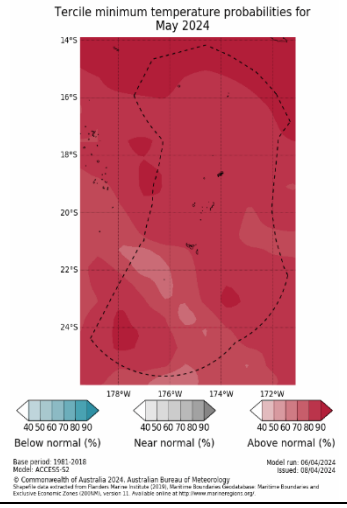
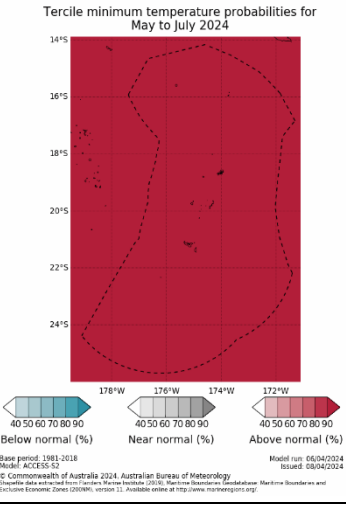
TABLE 1: Monthly Rainfall

Station (include data period)	Jan-2024	Feb-2024	Mar-2024				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Northern Division							
Niuafo'ou (1971-2024)	138.0	362.0	158.0	209.0	3338.0	267.0	9/53
Niuatoputapu (1947-2024)	175.0	390.5	172.0	173.0	274.0	226.5	24/74
Central Division							
Vava'u (1947-2024)	277.5	257.1	758.5	225.3	343.0	290.4	**77/78**
Ha'apai (1947-2024)	195.4	106.8	567.6	179.7	312.7	233.4	**77/78**
Southern Division							
Fua'amotu (1979-2024)	75.3	134.0	637.6	162.8	256.1	197.5	**45/45**
Nuku'alofa (1944-2024)	44.0	141.5	739.0	191.0	268.9	228.5	**80/80**

TABLE 2: Three-month Total Rainfall for January to March 2024

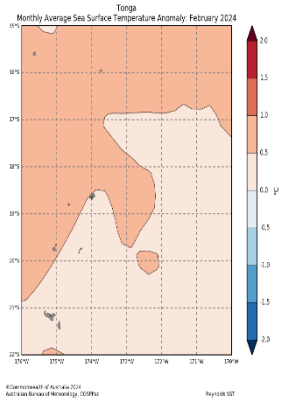
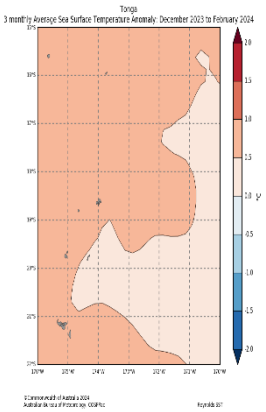
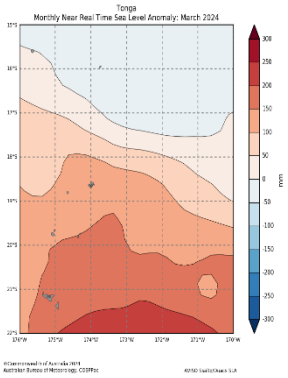
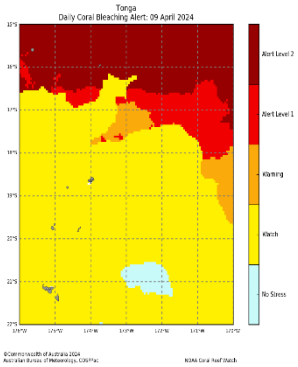
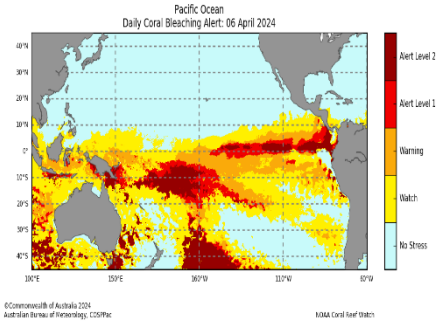
Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Northern Division						
Niuafo'ou (1971-2024)	658.0	Below normal	745.0	948.0	877.0	13/47
Niuatoputapu (1947-2024)	737.5	Normal	645.0	925.0	508.6	32/74
Central Division						
Vava'u (1947-2024)	1293.1	Above normal	729.7	946.7	864.8	70/78
Ha'apai (1947-2024)	869.8	Above normal	566.1	787.7	660.5	61/78
Southern Division						
Fua'amotu (1979-2024)	846.9	Above normal	479.3	791.0	722.1	**45/45**
Nuku'alofa (1944-2024)	924.5	Above normal	522.0	853.7	687.5	**80/80**

Part 1i. Monthly and Seasonal Outlooks for May and May to July 2024

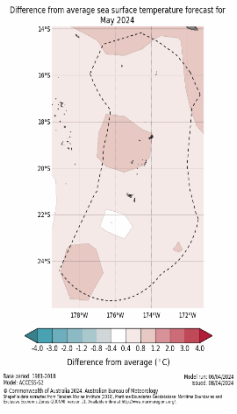
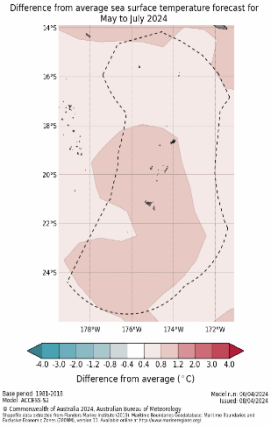
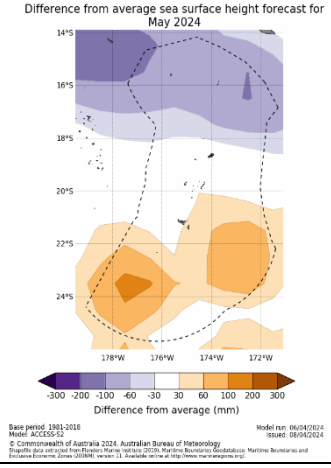
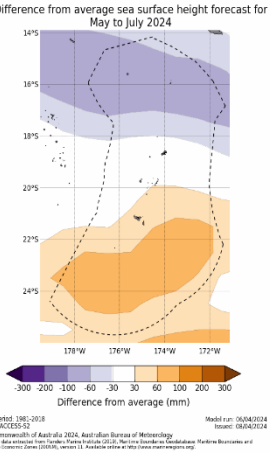
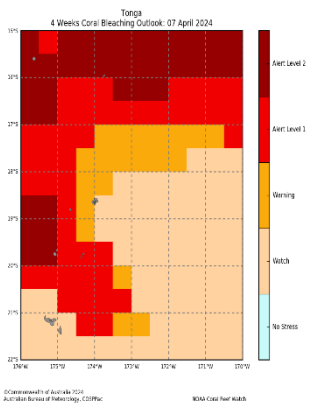
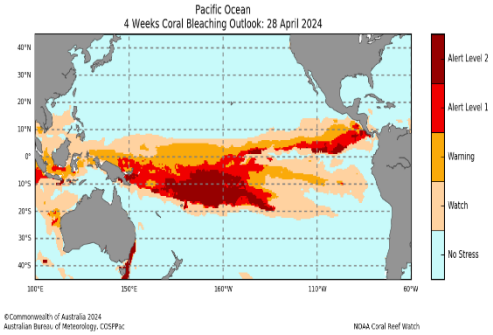
Monthly: May	Seasonal: May to July
Rainfall (Image 1)	**Rainfall (Image 2)**
	
Monthly Maximum temperature (Image 3):	**Seasonal maximum temperature (Image 4):**
	
Monthly minimum temperature (Image 5):	**Seasonal minimum temperature (Image 6):**
	

Part 2: Recent Ocean Observation

Monthly/Three months: March 2024 and January to March 2024

Monthly: March 2024	**Last three months: January to March 2024:**
Sea Surface Temperature (Image 1):	**Sea Surface Temperature (Image 4):**
	
Sea level (Image 2):	
	
Daily coral bleaching alert (Image 3):	
	

Part 2i. Monthly and Seasonal Outlooks for May and May to July 2024

Monthly: May	Seasonal: May to July
Monthly sea surface temperature (Image 5):	**Seasonal sea surface temperature (Image 6):**
	
Monthly sea level (Image 7):	**Seasonal sea level (Image 8):**
	
4-week Coral Bleaching (Image 9):	
	

Summary Statement

Monthly and last three months: March 2024/January to March 2024 statement

March rainfall was below normal at Niuafo'ou and Niuatoputapu, but substantially above normal for the rest of the Country. Fua'amotu and Nuku'alofa recorded their highest March rainfall, while Vava'u and Ha'apai had their second highest March rainfall on record.

January to March rainfall was below normal for Niuafo'ou, normal for Niuatoputapu, and above normal for the rest of Tonga. Fua'amotu and Nuku'alofa posted their highest January to March rainfall on record.

Part 1i. Monthly and Seasonal Outlooks for May and May to July 2024

Monthly /Seasonal rainfall and temperature Outlook statements

May rainfall is likely or very likely to be below normal for most islands in Tonga, the main exception being Vava'u where near-normal rainfall is likely.

The rainfall for May to July is likely to be near-normal over the northern islands, and below normal over most remaining islands.

Maximum and minimum temperatures during May and averaged over May to July, are very likely to be above normal over the country.

Part 2: Recent Ocean summary statement

Monthly and last three months: March 2024/January to March 2024

March and averaged over January to March ocean temperatures around Tonga were up to 1.0°C above normal.

March sea levels around were 100 to 200mm above normal in Central and Southern Tonga, but near normal around Northern Tonga

Coral bleaching alert reveals "Alert Level 2" for Northern Tonga but 'Watch' for Central and Southern Tonga.

Part 2i. Monthly and Seasonal Outlooks for May and May to July 2024

Ocean Variable statement

May ocean temperatures and average over May to July ocean temperatures around Tonga are predicted to be 0.4 to 1.2°C above normal.

May sea levels and averaged over May to July sea levels are predicted to be 30 to 100mm below normal for the Niuas, and 30 to 60mm above normal for Tongatapu and Ha'apai group. Elsewhere, sea levels are predicted to be near normal.

The 4-week coral bleaching outlook to 28th April 2024 shows 'Watch' for Tongatapu, 'Warning' for Vava'u, "Alert Level 1" for Ha'apai, and "Alert level 2" for the Niuas..

IN BRIEF for Teleconference

- Rainfall was below normal for the Niuas, above normal for the rest of the Country. May to July, below normal for Niuafo'ou, normal for Niuatoputapu, above normal rainfall for the rest of Tonga.

- The rainfall outlook generally indicates little guidance most likely in May but above normal for total rainfall over May to July
- SSTs were above normal for March and January to March. The outlook shows above normal SSTs for the next one and three months.
- Sea-surface heights (SSHs) were near to above normal for March. For May and May to July near-normal sea surface heights are predicted for Vavau, below normal for Niuas and above normal for Tongatapu and Haapai.
- Coral bleaching alert reveals "Alert Level 2" for Northern Tonga but 'Watch' for Central and Southern Tonga.

TABLE 3: Stakeholder Engagement- Evaluations of how effective NMS engage with stakeholders

Product	Date: March 2024	Stakeholder	Total Number of Participants	Number of Male	Number of Female	Comments (If there are comments from you Stakeholders)
Climate Bulletin	3 March	Government ministries, NGOs,Media,Private Sector	155	118	37	
EAR Watch						
Monthly Climate Briefing						
Ocean Outlook	3 March	Government ministries, NGOs,Media,Private Sector	155	118	37	
Climate data request						
		Total	**310**	**236**	**74**	