

Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 187

Country: Niue

Part 1: Recent climate

TABLE 1: Monthly Rainfall

Station (include data period)	Jan-2023	Feb-2023	Mar-2023				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Hanan Airport (1905-2023)	338.9	522.2	304.6	194.4	306.3	254.0	81/118

TABLE 2: Three-month Total Rainfall for January to March 2023

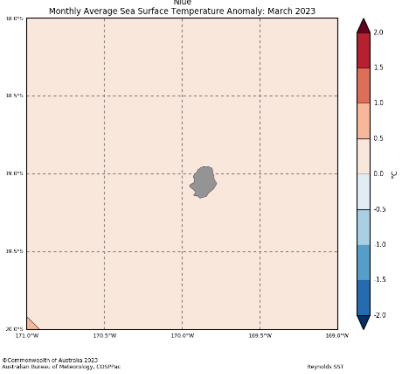
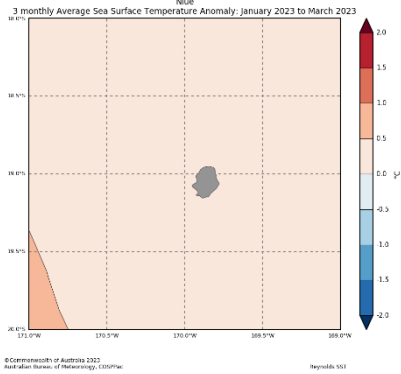
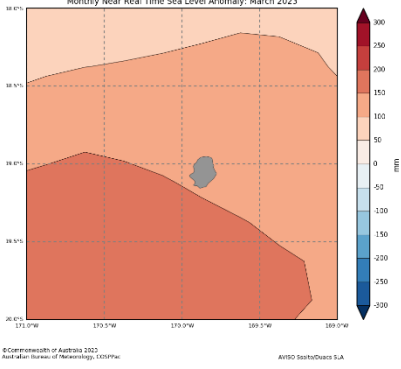
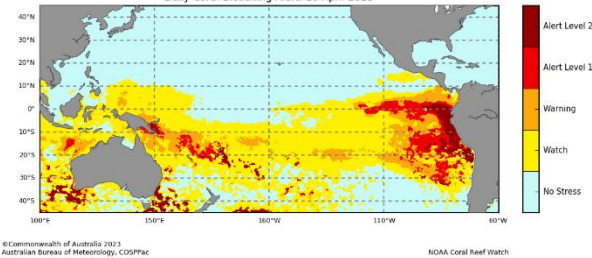
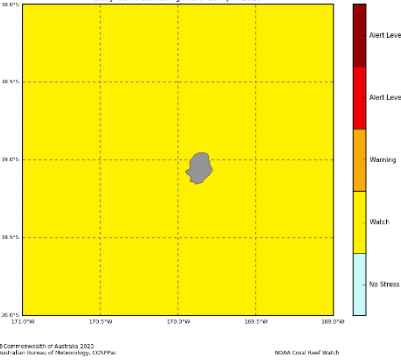
Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Hanan Airport (1905-2023)	1165.7	Above normal	689.3	948.8	782.6	104/118

Part 1i. Monthly and Seasonal Outlooks for May and May to July 2023

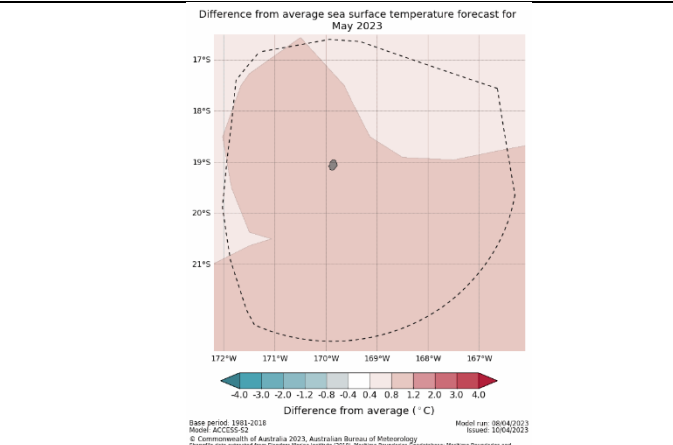
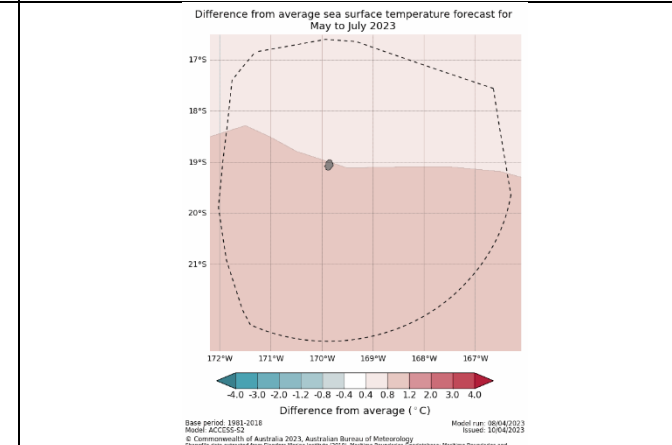
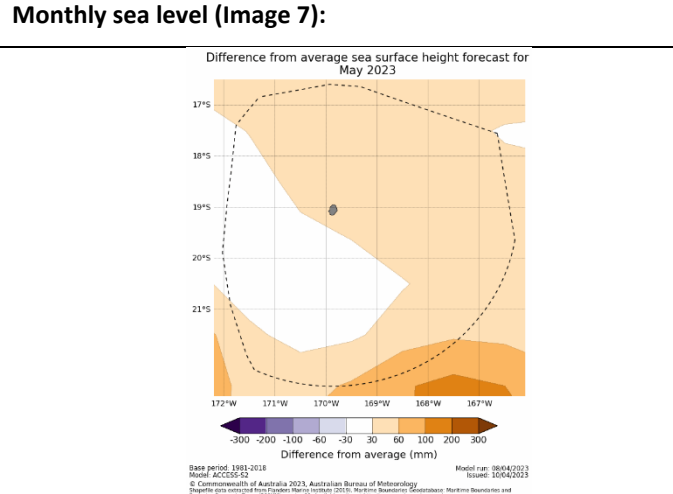
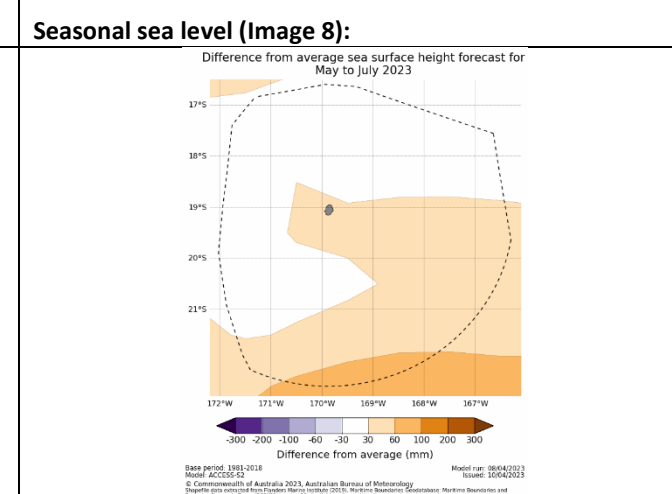
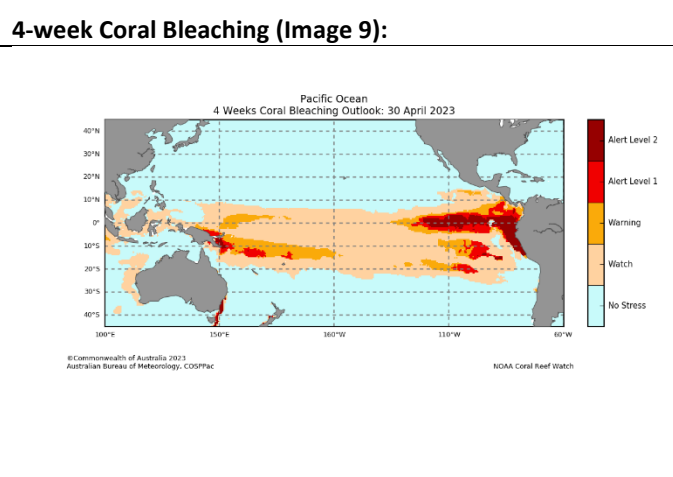
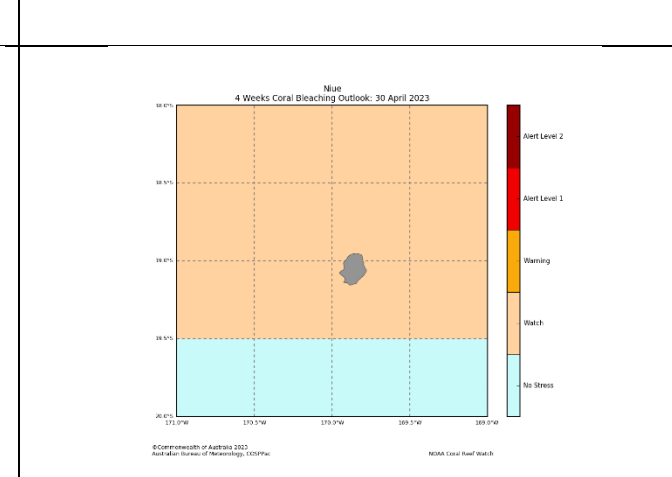
<div>Monthly: May</div> <div>Rainfall (Image 1)</div> <div><p>Tercile rainfall probabilities for May 2023</p><p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Datafile data collected from European Centre for Medium-Range Weather Forecasts (ECMWF) Reanalysis (ERA5) Map issued: 08/04/2023 Model run: 08/04/2023 Issued: Map not issued</p></div>	<div>Seasonal: May to July</div> <div>Rainfall (Image 2)</div> <div><p>Tercile rainfall probabilities for May to July 2023</p><p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Datafile data collected from European Centre for Medium-Range Weather Forecasts (ECMWF) Reanalysis (ERA5) Map issued: 08/04/2023 Model run: 08/04/2023 Issued: Map not issued</p></div>
<div>Monthly Maximum temperature (Image 3):</div> <div><p>Tercile maximum temperature probabilities for May 2023</p><p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Datafile data collected from European Centre for Medium-Range Weather Forecasts (ECMWF) Reanalysis (ERA5) Map issued: 08/04/2023 Model run: 08/04/2023 Issued: Map not issued</p></div>	<div>Seasonal maximum temperature (Image 4):</div> <div><p>Tercile maximum temperature probabilities for May to July 2023</p><p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Datafile data collected from European Centre for Medium-Range Weather Forecasts (ECMWF) Reanalysis (ERA5) Map issued: 08/04/2023 Model run: 08/04/2023 Issued: Map not issued</p></div>
<div>Monthly minimum temperature (Image 5):</div> <div><p>Tercile minimum temperature probabilities for May 2023</p><p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Datafile data collected from European Centre for Medium-Range Weather Forecasts (ECMWF) Reanalysis (ERA5) Map issued: 08/04/2023 Model run: 08/04/2023 Issued: Map not issued</p></div>	<div>Seasonal minimum temperature (Image 6):</div> <div><p>Tercile minimum temperature probabilities for May to July 2023</p><p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Datafile data collected from European Centre for Medium-Range Weather Forecasts (ECMWF) Reanalysis (ERA5) Map issued: 08/04/2023 Model run: 08/04/2023 Issued: Map not issued</p></div>

Part 2: Recent Ocean Observation

Monthly/Three months: March and January to March 2023

Monthly: March		Last three months: January to March 2023:	
Sea Surface Temperature (Image 1):		Sea Surface Temperature (Image 4):	
<div><p>Niue</p><p>Monthly Average Sea Surface Temperature Anomaly: March 2023</p></div>		<div><p>Niue</p><p>3 monthly Average Sea Surface Temperature Anomaly: January 2023 to March 2023</p></div>	
Sea level (Image 2):			
<div><p>Niue</p><p>Monthly Near Real Time Sea Level Anomaly: March 2023</p></div>			
Daily coral bleaching alert (Image 3):			
<div><p>Pacific Ocean</p><p>Daily Coral Bleaching Alert: 10 April 2023</p></div>		<div><p>Niue</p><p>Daily Coral Bleaching Alert: 10 April 2023</p></div>	

Part 2i. Monthly and Seasonal Outlooks for May and May to July 2023

Monthly: May		Seasonal: May to July	
Monthly sea surface temperature (Image 5):		Seasonal sea surface temperature (Image 6):	
 <p>Difference from average sea surface temperature forecast for May 2023</p> <p>Base period: 1981-2018 Model: ACCESS-52 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Disaster preparedness from Disaster Management Institute (2015), Marine Research Centre Exclusive Economic Zones (2008), version 1.1. Available online at http://www.marine.gov.au</p> <p>Model run: 06/04/2023 Issue: 10/04/2023</p>		 <p>Difference from average sea surface temperature forecast for May to July 2023</p> <p>Base period: 1981-2018 Model: ACCESS-52 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Disaster preparedness from Disaster Management Institute (2015), Marine Research Centre Exclusive Economic Zones (2008), version 1.1. Available online at http://www.marine.gov.au</p> <p>Model run: 06/04/2023 Issue: 10/04/2023</p>	
Monthly sea level (Image 7):		Seasonal sea level (Image 8):	
 <p>Difference from average sea surface height forecast for May 2023</p> <p>Base period: 1981-2018 Model: ACCESS-52 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Disaster preparedness from Disaster Management Institute (2015), Marine Research Centre Exclusive Economic Zones (2008), version 1.1. Available online at http://www.marine.gov.au</p> <p>Model run: 06/04/2023 Issue: 10/04/2023</p>		 <p>Difference from average sea surface height forecast for May to July 2023</p> <p>Base period: 1981-2018 Model: ACCESS-52 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Disaster preparedness from Disaster Management Institute (2015), Marine Research Centre Exclusive Economic Zones (2008), version 1.1. Available online at http://www.marine.gov.au</p> <p>Model run: 06/04/2023 Issue: 10/04/2023</p>	
4-week Coral Bleaching (Image 9):			
 <p>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 30 April 2023</p> <p>© Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</p> <p>NOAA Coral Reef Watch</p>		 <p>Niue 4 Weeks Coral Bleaching Outlook: 30 April 2023</p> <p>© Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</p> <p>NOAA Coral Reef Watch</p>	

Summary Statement

Monthly and last three months: March 2023/January to March 2023 statement

Hanan Airport's March rainfall was normal, and for the last three months it was above-normal.

Part 1i. Monthly and Seasonal Outlooks for May and May to July 2023

Monthly /Seasonal rainfall and temperature Outlook statements

The outlook offers little guidance for Niue's May rainfall, but for May to July the rainfall is likely to be above normal.

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

Part 2: Recent Ocean summary statement

Monthly and last three months: March 2023/January to March 2023

March ocean temperatures were near-normal of up to 0.5°C.

Averaged over January to March, ocean temperatures were above normal by up to 0.5°C.

March sea levels around Niue were above normal by up to 200mm.

Coral bleaching is on "Watch" status for Niue waters.

Part 2i. Monthly and Seasonal Outlooks for May and May to July 2023

Ocean Variable statement

May ocean temperatures around the main island is predicted to be above normal, within 0.8 degrees of average in May.

Averaged over May to July, ocean temperatures are predicted to be above normal ranging from 0.8 to 1.2 degrees.

Monthly and seasonal sea levels are forecasted to be near normal around Niue, increasing to 30 to 200mm above normal in the southeast of the EEZ.

Coral bleaching outlook for the next four weeks reveals 'Watch to No Stress' status for Niue.

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

Product	Date: March 2023	Stakeholder	Total Number of Participants	Number of males	Number of females
Climate Bulletin					
EAR Watch					
Monthly Climate Briefing	22/03/23 23/03/23	Niue Women Council	30	3	27
Ocean Outlook					
Climate data request					
Total			30	3	27