

Country: Marshall Islands

Part 1: Recent climate

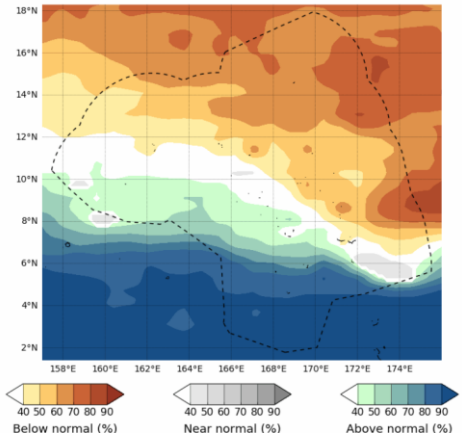
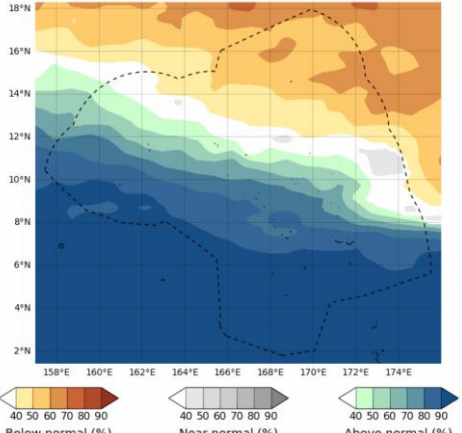
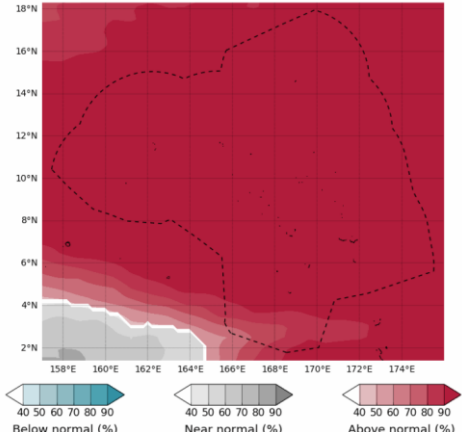
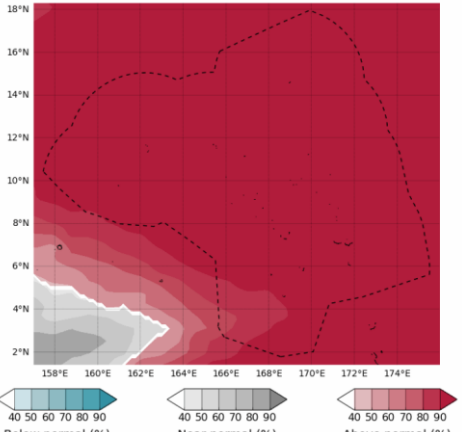
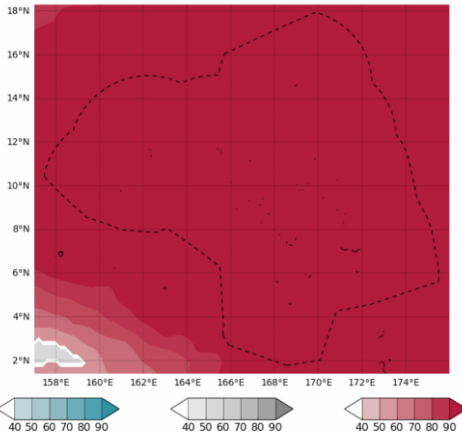
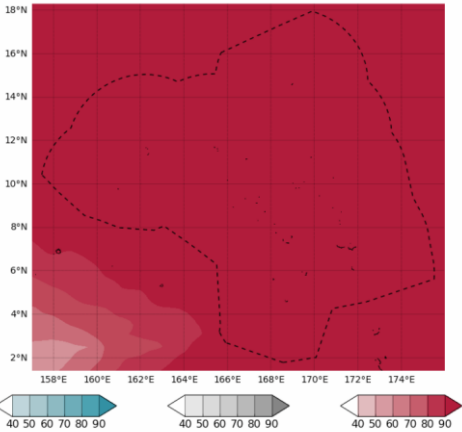
TABLE 1: Monthly Rainfall

Station (include data period)	Mar-2023	Apr-2023	May-2023				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Majuro (1954-2023)	282.4	361.4	262.9	213.5	324.3	271.9	32/69
Kwajalein (1945-2023)	112.5	250.7	588.8	163.9	272.4	207.2	77/79

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

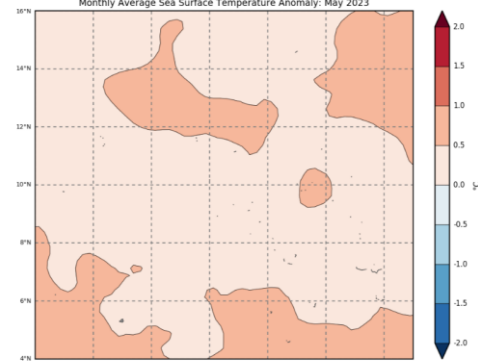
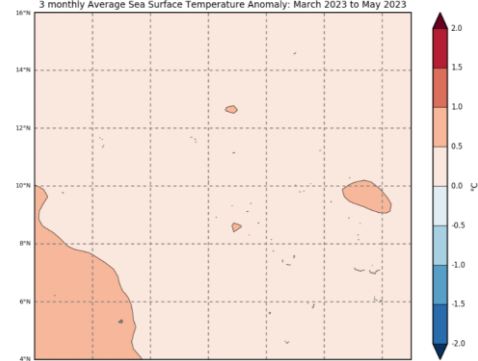
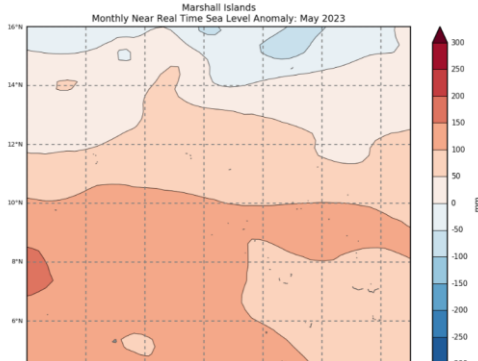
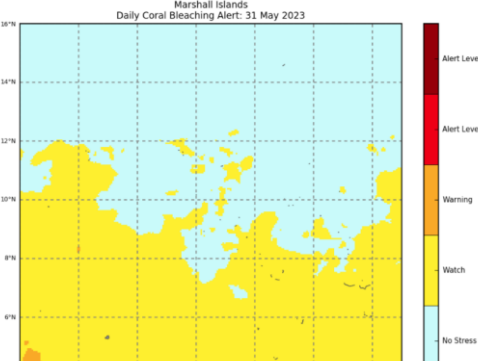
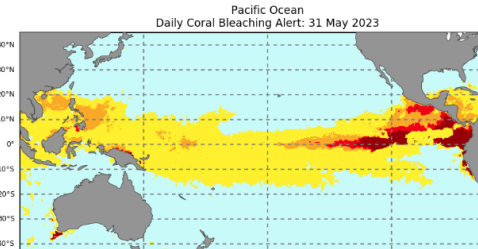
Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Majuro (1954-2023)	906.7	Above normal	693.4	901.4	750.8	46/69
Kwajalein (1945-2023)	952.0	Above normal	375.5	613.4	493.3	72/79

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

Monthly: July	Seasonal: July to September
Rainfall (Image 1)	Rainfall (Image 2)
<p>Tercile rainfall probabilities for July 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Synoptic data extracted from Flanders Marine Institute (2015), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2004M), version 11. Available online at http://www.maritime.gov.au</p> <p>Model run: 03/06/2023 Issued: Map not issued</p>	<p>Tercile rainfall probabilities for July to September 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Synoptic data extracted from Flanders Marine Institute (2015), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2004M), version 11. Available online at http://www.maritime.gov.au</p> <p>Model run: 03/06/2023 Issued: Map not issued</p>
Monthly Maximum temperature (Image 3):	Seasonal maximum temperature (Image 4):
<p>Tercile maximum temperature probabilities for July 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Synoptic data extracted from Flanders Marine Institute (2015), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2004M), version 11. Available online at http://www.maritime.gov.au</p> <p>Model run: 03/06/2023 Issued: Map not issued</p>	<p>Tercile maximum temperature probabilities for July to September 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Synoptic data extracted from Flanders Marine Institute (2015), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2004M), version 11. Available online at http://www.maritime.gov.au</p> <p>Model run: 03/06/2023 Issued: Map not issued</p>
Monthly minimum temperature (Image 5):	Seasonal minimum temperature (Image 6):
<p>Tercile minimum temperature probabilities for July 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Synoptic data extracted from Flanders Marine Institute (2015), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2004M), version 11. Available online at http://www.maritime.gov.au</p> <p>Model run: 03/06/2023 Issued: Map not issued</p>	<p>Tercile minimum temperature probabilities for July to September 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Synoptic data extracted from Flanders Marine Institute (2015), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2004M), version 11. Available online at http://www.maritime.gov.au</p> <p>Model run: 03/06/2023 Issued: Map not issued</p>

Part 2: Recent Ocean Observation

Monthly/Three months: May and March to May 2023

<div>Monthly: May</div> <div>Sea Surface Temperature (Image 1):</div> <div><div><div>Marshall Islands</div><div>Monthly Average Sea Surface Temperature Anomaly: May 2023</div><div>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</div><div>Reynolds SST</div></div></div>	<div>Last three months: March to May 2023:</div> <div>Sea Surface Temperature (Image 4):</div> <div><div><div>Marshall Islands</div><div>3 monthly Average Sea Surface Temperature Anomaly: March 2023 to May 2023</div><div>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</div><div>Reynolds SST</div></div></div>
<div>Sea level (Image 2):</div> <div><div><div>Marshall Islands</div><div>Monthly Near Real Time Sea Level Anomaly: May 2023</div><div>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</div><div>AVISO SeaWiFS/QuikSCAT SLA</div></div></div>	
<div>Daily coral bleaching alert (Image 3):</div> <div><div><div>Marshall Islands</div><div>Daily Coral Bleaching Alert: 31 May 2023</div><div>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</div><div>NOAA Coral Reef Watch</div></div></div>	<div><div><div>Pacific Ocean</div><div>Daily Coral Bleaching Alert: 31 May 2023</div><div>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</div><div>NOAA Coral Reef Watch</div></div></div>

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

Monthly: July	Seasonal: July to September
<p>Monthly sea surface temperature (Image 5):</p> <p>Difference from average sea surface temperature forecast for July 2023</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Shapfile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2004N), version 11. Available online at http://www.maritime.gov.au</p> <p>Model run: 05/06/2023 Issued: 07/06/2023</p>	<p>Seasonal sea surface temperature (Image 6):</p> <p>Difference from average sea surface temperature forecast for July to September 2023</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Shapfile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2004N), version 11. Available online at http://www.maritime.gov.au</p> <p>Model run: 05/06/2023 Issued: 07/06/2023</p>
<p>Monthly sea level (Image 7):</p> <p>Difference from average sea surface height forecast for July 2023</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Shapfile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2004N), version 11. Available online at http://www.maritime.gov.au</p> <p>Model run: 05/06/2023 Issued: 07/06/2023</p>	<p>Seasonal sea level (Image 8):</p> <p>Difference from average sea surface height forecast for July to September 2023</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Shapfile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2004N), version 11. Available online at http://www.maritime.gov.au</p> <p>Model run: 05/06/2023 Issued: 07/06/2023</p>
<p>4-week Coral Bleaching (Image 9):</p> <p>Marshall Islands 4 Weeks Coral Bleaching Outlook: 02 July 2023</p> <p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</p> <p>NOAA Coral Reef Watch</p>	<p>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 02 July 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: May 2023/March to May 2023 statement

Normal rainfall was recorded at Majuro for the month of May, while Kwajalein recorded above normal rainfall. It was the third wettest May on record for Kwajalein. For March to May, above normal was recorded at both stations, and it was the eighth wettest on record for Kwajalein.

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

Monthly /Seasonal rainfall and temperature Outlook statements

The rainfall for July is likely or very likely to be above normal over southern RMI. In most parts of the northern RMI, July's rainfall is likely or very likely to be below normal. Separating these two areas is a narrow strip where there is little guidance; it includes both Majuro and Kwajalein.

The rainfall for July to September is likely or very likely to be above normal over central and southern RMI, including at Majuro and Kwajalein. In northern RMI, the outlook shows July to September's rainfall is likely or very likely to be below normal.

Maximum and minimum temperatures during July and averaged over July to September are very likely to be above normal across the Marshall Islands.

Part 2: Recent Ocean summary statement

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

May ocean temperatures around the southern and northern RMI's water were 0.5 to 1.0°C above normal, with 0.0 to 0.5°C near normal in the central RMI.

Averaged over March to May, ocean temperatures around the Marshall Islands were utmost 0.5°C near normal.

May sea levels across the central and southern RMI were 100mm to 150mm above normal, with 50mm to 100mm in the easternmost RMI where Majuro is included.

Coral bleaching at WATCH status for the central and southern RMI's waters.

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

Ocean Variable statement

July ocean temperatures across the Marshalls are predicted to be 0.4 to 0.8°C above normal.

Averaged over July to September, ocean temperatures for the entire RMI's water are predicted to be 0.4 to 0.8°C above normal.

July sea levels around Majuro and nearby atolls to the north are predicted to be 30mm to 60mm above normal, while below normal sea level of -30mm to -100mm for the north-western atolls in the RMI.

Averaged over July to September, sea levels northeast of Majuro is predicted to be 30mm to 60mm above normal, while below normal sea level of -30mm to -100mm is predicted in the southern and northern waters of the RMI.

Coral bleaching outlook is at WATCH status for central and southern waters.

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

Product	Date: May 2023	Stakeholder	Total Number of Participants	Number of Male	Number of Female	Comments (If there are comments from you Stakeholders)
Climate Bulletin						
EAR Watch						
Monthly Climate Briefing	05/19/23		6	3	3	
Ocean Outlook						
Climate data request						
Total			6	3	3	