

Country: Marshall Islands

Part 1: Recent climate

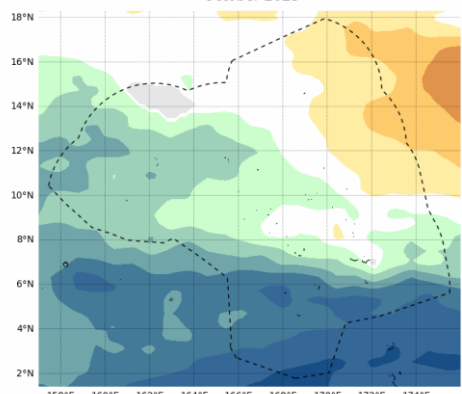
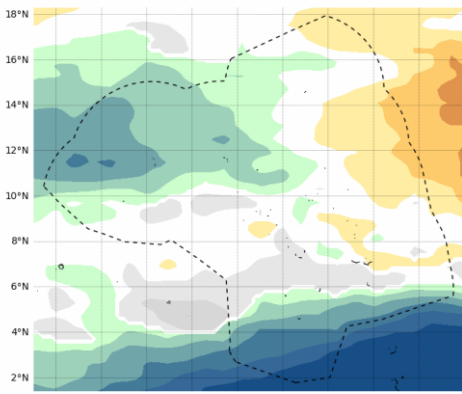
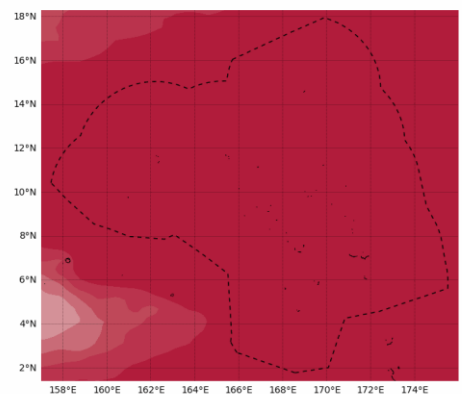
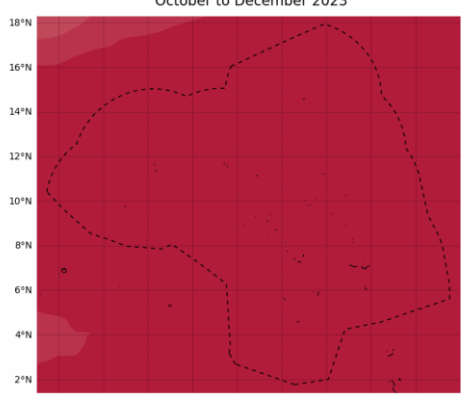
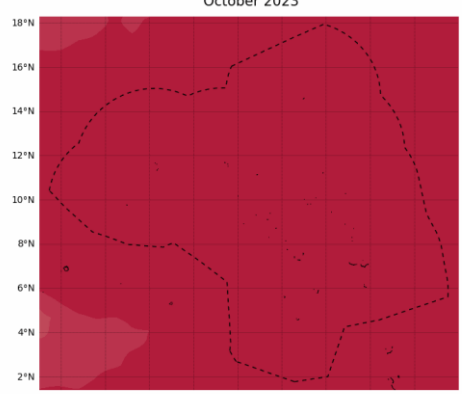
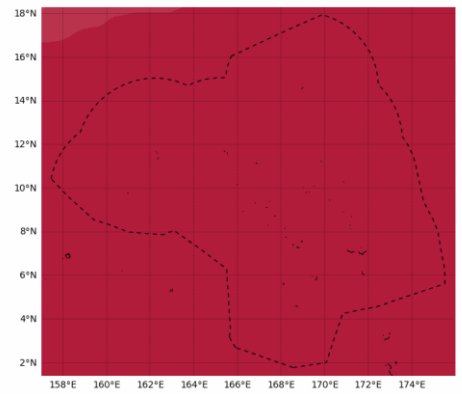
TABLE 1: Monthly Rainfall

Station (include data period)	Jun-2023	Jul-2023	Aug-2023				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Majuro (1954-2023)	293.6	199.9	281.2	259.3	321.4	287.2	33/70
Kwajalein (1945-2023)	252.2	113.0	199.6	192.2	293.7	237.8	29/79

TABLE 2: Three-month Total Rainfall for June to August 2023

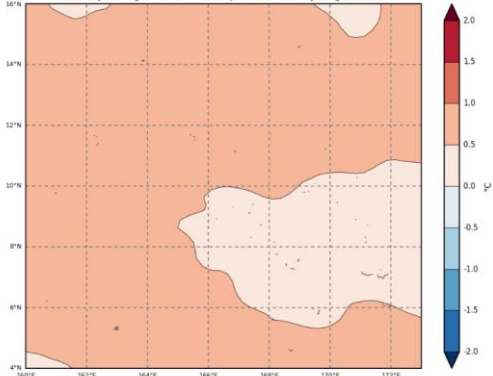
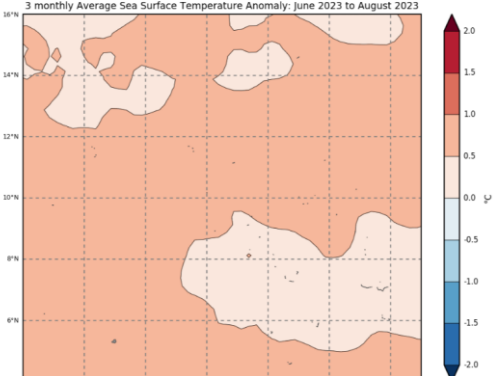
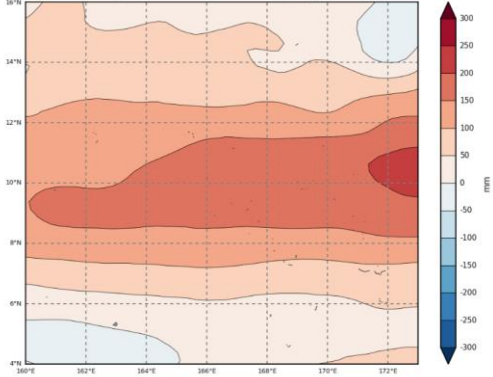
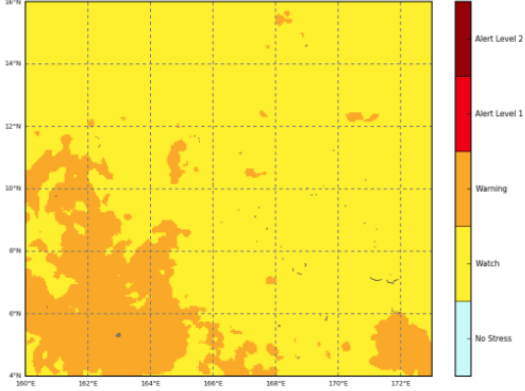
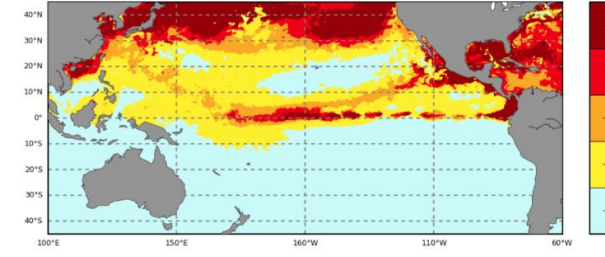
Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Majuro (1954-2023)	774.7	Below normal	796.1	961.8	874.8	18/70
Kwajalein (1945-2023)	564.8	Below normal	652.8	813.3	723.4	15/79

Part 1i. Monthly and Seasonal Outlooks for October and October to December 2023

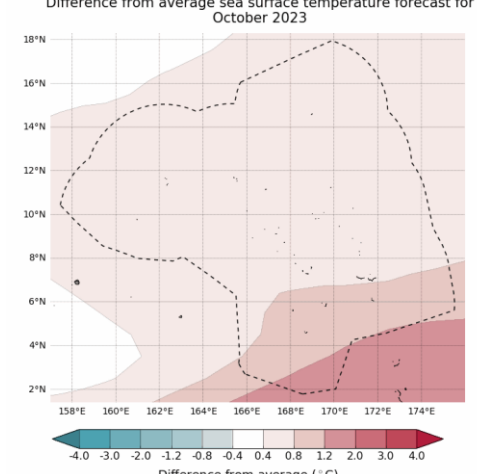
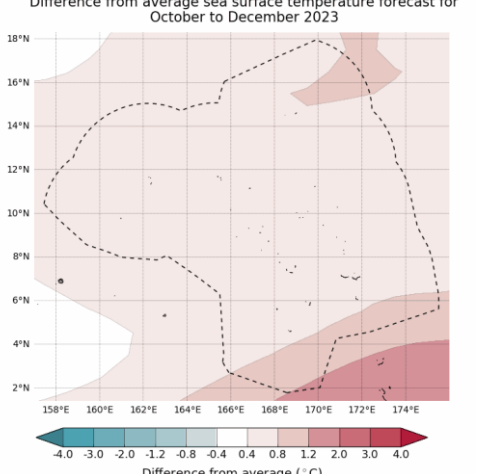
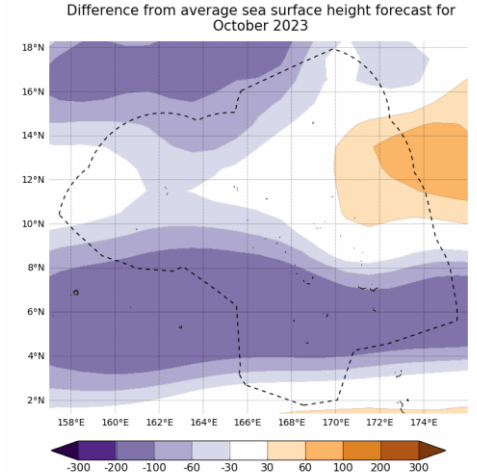
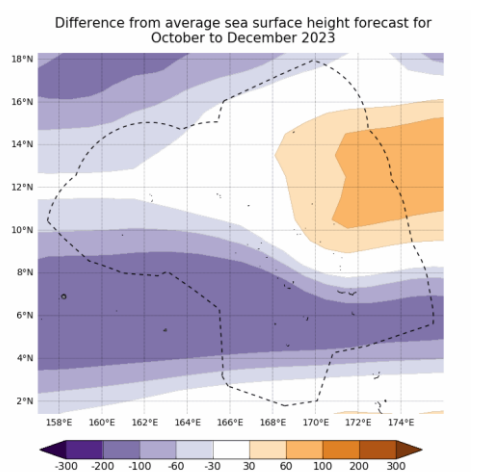
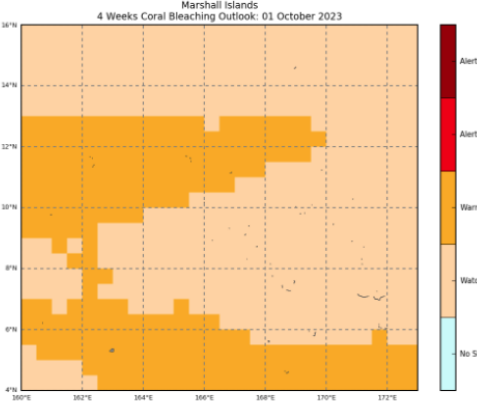
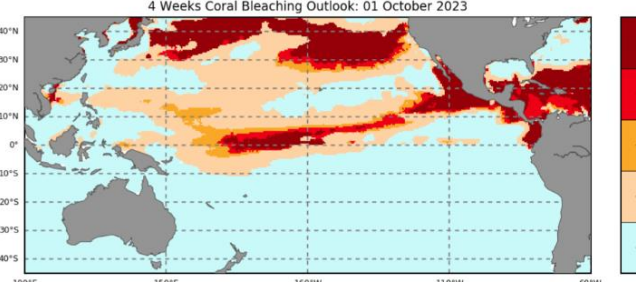
Monthly: October	Seasonal: October to December
Rainfall (Image 1)	Rainfall (Image 2)
<p>Tercile rainfall probabilities for October 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023. Australian Bureau of Meteorology Shapfile data extracted from Flanders Marine Institute (2018). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.maritimerregions.org/. Model run: 02/09/2023 Issued: 04/09/2023</p>	<p>Tercile rainfall probabilities for October to December 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023. Australian Bureau of Meteorology Shapfile data extracted from Flanders Marine Institute (2018). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.maritimerregions.org/. Model run: 02/09/2023 Issued: 04/09/2023</p>
Monthly Maximum temperature (Image 3):	Seasonal maximum temperature (Image 4):
<p>Tercile maximum temperature probabilities for October 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023. Australian Bureau of Meteorology Shapfile data extracted from Flanders Marine Institute (2018). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.maritimerregions.org/. Model run: 02/09/2023 Issued: 04/09/2023</p>	<p>Tercile maximum temperature probabilities for October to December 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023. Australian Bureau of Meteorology Shapfile data extracted from Flanders Marine Institute (2018). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.maritimerregions.org/. Model run: 02/09/2023 Issued: 04/09/2023</p>
Monthly minimum temperature (Image 5):	Seasonal minimum temperature (Image 6):
<p>Tercile minimum temperature probabilities for October 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023. Australian Bureau of Meteorology Shapfile data extracted from Flanders Marine Institute (2018). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.maritimerregions.org/. Model run: 02/09/2023 Issued: 04/09/2023</p>	<p>Tercile minimum temperature probabilities for October to December 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023. Australian Bureau of Meteorology Shapfile data extracted from Flanders Marine Institute (2018). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.maritimerregions.org/. Model run: 02/09/2023 Issued: 04/09/2023</p>

Part 2: Recent Ocean Observation

Monthly/Three months: August and June to August 2023

<div>Monthly: August</div>		<div>Last three months: June to August 2023:</div>	
<div>Sea Surface Temperature (Image 1):</div>		<div>Sea Surface Temperature (Image 4):</div>	
<div><div><div>Monthly Average Sea Surface Temperature Anomaly: August 2023</div><div>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</div><div>Reynolds SST</div></div></div>		<div><div><div>3 monthly Average Sea Surface Temperature Anomaly: June 2023 to August 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>Monthly Near Real Time Sea Level Anomaly: August 2023</div><div>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</div><div>AVISO SeaWiFS SLA</div></div></div>			
<div>Daily coral bleaching alert (Image 3):</div>			
<div><div><div>Marshall Islands Daily Coral Bleaching Alert: 31 August 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 Daily Coral Bleaching Alert: 31 August 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 October and October to December 2023

Monthly: October	Seasonal: October to December
Monthly sea surface temperature (Image 5):	Seasonal sea surface temperature (Image 6):
<p>Difference from average sea surface temperature forecast for October 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023. Australian Bureau of Meteorology Geospatial data extracted from Tides and Currents Institute (2018). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2004M), version 11. Available online at http://www.maritime.gov.au</p> <p>Model run: 04/09/2023 Issued: 06/09/2023</p>	<p>Difference from average sea surface temperature forecast for October to December 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023. Australian Bureau of Meteorology Geospatial data extracted from Tides and Currents Institute (2018). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2004M), version 11. Available online at http://www.maritime.gov.au</p> <p>Model run: 04/09/2023 Issued: 06/09/2023</p>
Monthly sea level (Image 7):	Seasonal sea level (Image 8):
<p>Difference from average sea surface height forecast for October 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023. Australian Bureau of Meteorology Geospatial data extracted from Tides and Currents Institute (2018). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2004M), version 11. Available online at http://www.maritime.gov.au</p> <p>Model run: 04/09/2023 Issued: 06/09/2023</p>	<p>Difference from average sea surface height forecast for October to December 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023. Australian Bureau of Meteorology Geospatial data extracted from Tides and Currents Institute (2018). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2004M), version 11. Available online at http://www.maritime.gov.au</p> <p>Model run: 04/09/2023 Issued: 06/09/2023</p>
4-week Coral Bleaching (Image 9):	
<p>Marshall Islands 4 Weeks Coral Bleaching Outlook: 01 October 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: 01 October 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: August 2023/June to August 2023 statement

The rainfall for August was above normal for both Majuro and Kwajalein. For the past three months, rainfall was below normal at both stations.

Part 1i. Monthly and Seasonal Outlooks for October and October to December 2023

Monthly /Seasonal rainfall and temperature Outlook statements

The rainfall for October is likely or very likely to be above normal over southern, central, and northwestern RMI, including Majuro. In northeast RMI, the outlook shows October's rainfall is likely or very likely to be below normal. The outlook offers little guidance for a narrow region between these, including Kwajalein.

The rainfall for October to December is likely or very likely to be above normal over southern and northwestern RMI. In the central RMI, including Majuro and Kwajalein, the outlook offers little guidance, while for northeastern areas, below normal rainfall is likely.

Maximum and minimum temperatures during October and averaged over October to December are likely or very likely to be above normal across the RMI.

Part 2: Recent Ocean summary statement

Monthly and last three months: August 2023/June to August 2023

August ocean temperatures around most of the RMI were utmost 1.0°C above normal, while 0.5°C near normal for the central RMI including Majuro and Kwajalein.

Averaged over June to August, ocean temperatures around most of the RMI were utmost 1.0°C above normal, with 0.5°C near normal for the central RMI including Majuro and Kwajalein.

August sea levels around the central and northern atolls were 50mm to 300mm above normal.

Coral bleaching was on WARNING status for southern and western waters, while the rest of the RMI's water was on WATCH status.

Part 2i. Monthly and Seasonal Outlooks for October and October to December 2023

Ocean Variable statement

October ocean temperatures around the central and northern RMI are predicted to be 0.4 to 0.8°C above normal, while 0.8 to 1.2°C above normal in the southern RMI.

Averaged over October to December, ocean temperatures around the RMI are predicted to be 0.4 to 0.8°C above normal.

October and averaged over October to December sea levels around the southern, central and northwestern RMI are predicted to be -30mm to -200mm below normal. An area of above normal sea level ranging over 30mm to 100mm is predicted for the northeastern RMI.

Coral bleaching outlook, the southern and northwestern waters of the RMI are in WARNING status, while a WATCH status is in place for the central and northern waters.

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

Product	Date: August 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	08/18/23	Office of the Chief Secretary and the National Disaster Management Office	6	4	2	
Ocean Outlook						
Climate data request						
Total			6	4	2	