

Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 180

Country: Marshall Islands

Part 1: Recent climate

TABLE 1: Monthly Rainfall

Station (include data period)	Jun-2022	Jul-2022	Aug-2022				Rank
			Total (mm)	33%tile	67%tile	Median	
	Total (mm)	Total (mm)	Rainfall (mm)				
Majuro (1954-2022)	197.6	271.8	219.7	259.3	321.4	287.2	14/69
Kwajalein (1945-2022)	248.4	234.4	325.4	192.2	293.7	237.8	60/78

TABLE 2: Three-month Total Rainfall for June to August 2022

Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Majuro (1954-2022)	689.1	Below normal	802.1	962.4	876.5	8/69
Kwajalein (1945-2022)	808.2	Normal	665.7	819.5	723.4	48/78

NB: The X LEPS % score has been categorised as follows:

Very Low: $X < 0.0$

Low: $0 \leq X < 5$

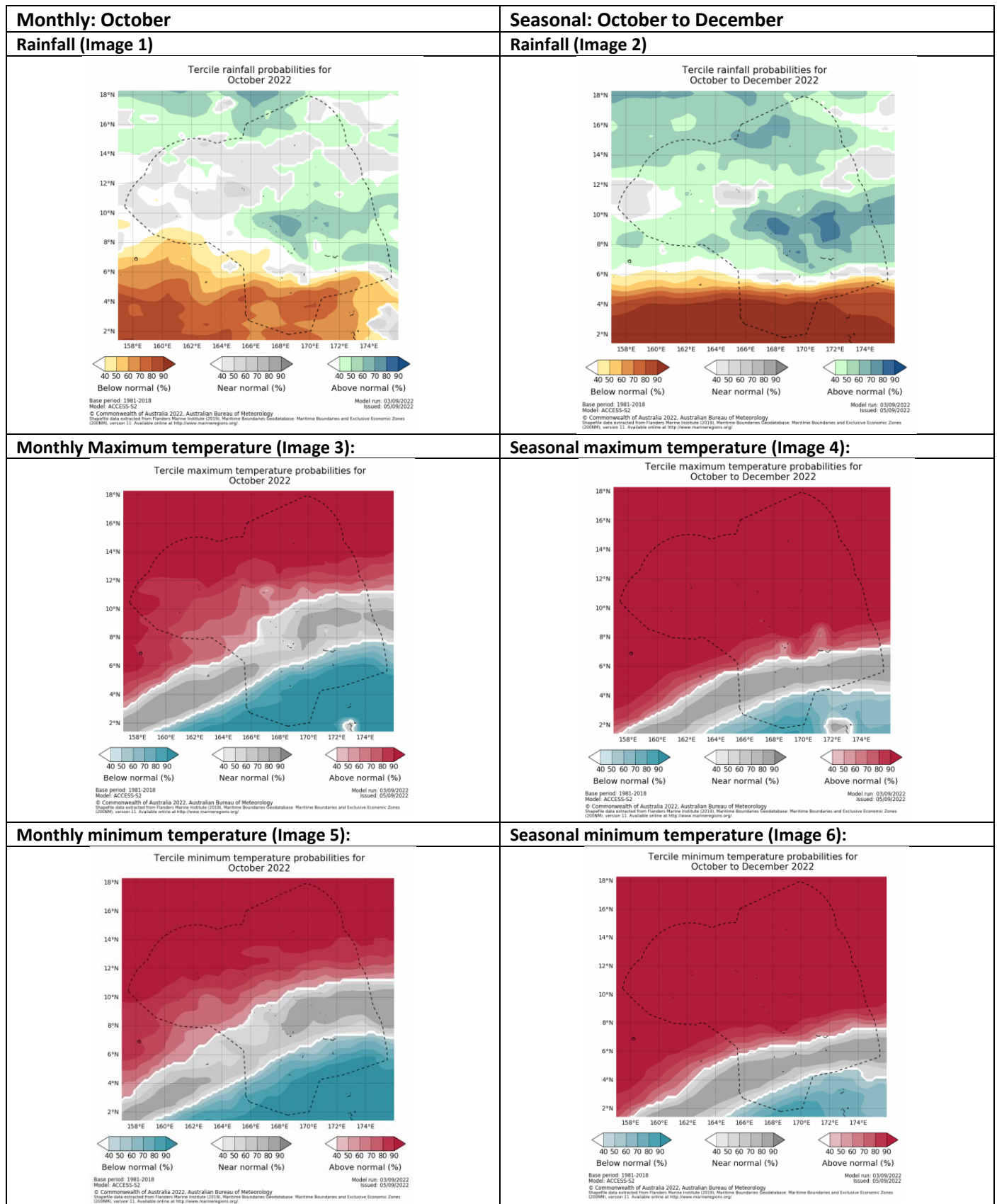
Moderate $5 \leq X < 10$

Good: $10 \leq X < 15$

High: $15 \leq X < 25$

Very High: $25 \leq X < 35$ Exceptional: $X \geq 35$

Part 1i. Monthly and Seasonal Outlooks for October and October to December 2022

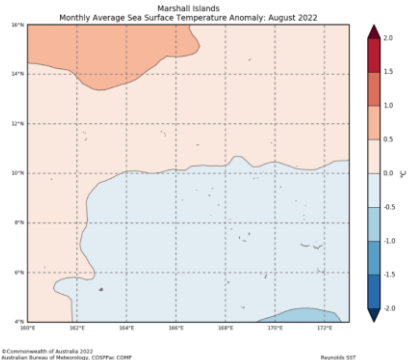
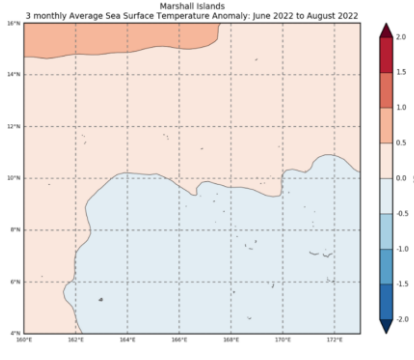
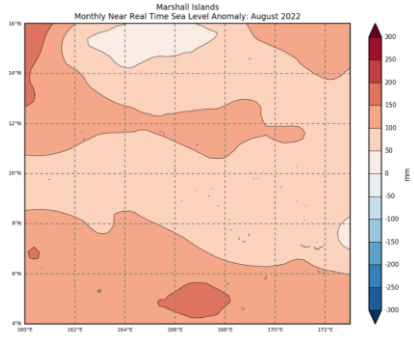
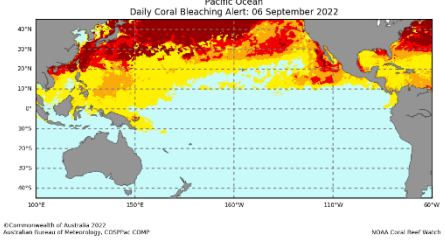
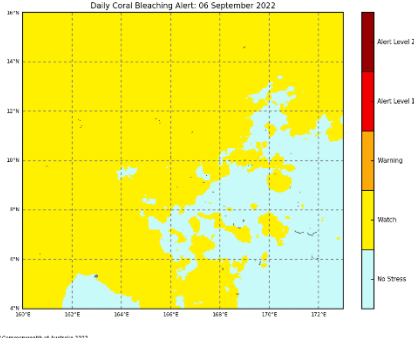


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Part 2: Recent Ocean Observation

Monthly/Three months: August 2022 and June to August 2022

Monthly: August	Last three months: June to August 2022:
<p>Sea Surface Temperature (Image 1):</p>  <p>Monthly Average Sea Surface Temperature Anomaly: August 2022</p> <p>Marshall Islands</p> <p>Reynolds SST</p>	<p>Sea Surface Temperature (Image 4):</p>  <p>3 monthly Average Sea Surface Temperature Anomaly: June 2022 to August 2022</p> <p>Marshall Islands</p> <p>Reynolds SST</p>
<p>Sea level (Image 2):</p>  <p>Monthly Near Real Time Sea Level Anomaly: August 2022</p> <p>Marshall Islands</p> <p>AVISO SeaLevel/SST SLA</p>	
<p>Daily coral bleaching alert (Image 3):</p>  <p>Pacific Ocean</p> <p>Daily Coral Bleaching Alert: 06 September 2022</p> <p>NOAA Coral Reef Watch</p>	 <p>Marshall Islands</p> <p>Daily Coral Bleaching Alert: 06 September 2022</p> <p>NOAA Coral Reef Watch</p>

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Part 2i. Monthly and Seasonal Outlooks for October and October to December 2022

<p>Monthly: October</p>	<p>Seasonal: October to December</p>
<p>Monthly sea surface temperature (Image 5):</p>	<p>Seasonal sea surface temperature (Image 6):</p>
<p>Difference from average sea surface temperature forecast for October 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Geographic data extracted from Pangea's Marine Institute (2020). The Online Dictionary of Geographical, Maritime Boundaries and Exclusive Economic Zones (ODMB), version 11. Available online at http://www.marineboundaries.org</p> <p>Model run: 05/09/2022 Issued: 07/09/2022</p>	<p>Difference from average sea surface temperature forecast for October to December 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Geographic data extracted from Pangea's Marine Institute (2020). The Online Dictionary of Geographical, Maritime Boundaries and Exclusive Economic Zones (ODMB), version 11. Available online at http://www.marineboundaries.org</p> <p>Model run: 05/09/2022 Issued: 07/09/2022</p>
<p>Monthly sea level (Image 7):</p>	<p>Seasonal sea level (Image 8):</p>
<p>Difference from average sea surface height forecast for October 2022</p> <p>© Commonwealth of Australia 2022 Bureau of Meteorology</p> <p>Model: ACCESS-S2 Base Period: 1981-2018 Model Run: 28/08/2022 Issued: 06/09/2022</p>	<p>Difference from average sea surface height forecast for October 2022 to December 2022</p> <p>© Commonwealth of Australia 2022 Bureau of Meteorology</p> <p>Model: ACCESS-S2 Base Period: 1981-2018 Model Run: 28/08/2022 Issued: 06/09/2022</p>
<p>4-week Coral Bleaching (Image 9):</p>	
<p>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 02 October 2022</p> <p>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPPac COMP</p> <p>NOAA Coral Reef Watch</p>	<p>Marshall Islands 4 Weeks Coral Bleaching Outlook: 02 October 2022</p> <p>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPPac COMP</p> <p>NOAA Coral Reef Watch</p>

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Summary Statement

Monthly and last three months: August 2022/June to August 2022 statement

Below normal rainfall was recorded at Majuro, while above normal rainfall was recorded at Kwajalein. For June to August, Majuro recorded below normal rainfall, while Kwajalein recorded normal rainfall.

Part 1i. Monthly and Seasonal Outlooks for October and October to December 2022

Monthly /Seasonal rainfall and temperature Outlook statements

October rainfall is likely to be above normal at both Majuro and Kwajalein. The outlooks, however, differ for most parts of RMI's EEZ, with normal rainfall the most likely outcome for north-western islands, including Bikini and Enewetak atolls. The outlook indicates below average rainfall is very likely for islands situated south of 6°N, including Namdrik and Ebon.

October to December rainfall is very likely to be above normal for both stations and most parts of the RMI's EEZ, while below average rainfall is very likely for islands south of 6°N.

The October maximum and minimum temperature outlooks for RMI are mixed, with normal temperature likely for central RMI, above normal temperature very likely for northern parts of RMI, and below normal very likely for southern portion of the Republic.

Averaged over October to December, above normal maximum and minimum temperatures are very likely for most parts of the RMI, except for the southern portion where the outlooks indicate near-normal temperatures to below normal temperature very likely.

Part 2: Recent Ocean summary statement

Monthly and last three months: August/June to August 2022

For August and June to August, SSTs were near-normal for most of the RMI, except for the northern and north-western islands with utmost 1 °C above normal SSTs were observed.

August sea level anomalies ranging from 50 to 100 mm above average were observed across the central RMI, with significant 100 to 200 mm above average sea level anomalies in the northern and southern parts of the RMI.

WATCH status was placed for Coral Bleaching for the entire RMI, except for the islands below 8°N, with NO STRESS status was in placed.

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Part 2i. Monthly and Seasonal Outlooks for October and October to December 2022

Ocean Variable statement

The monthly and seasonal outlooks show near-normal SSTs for most of the RMI for October and October to December.

The monthly and seasonal sea level outlooks show above average sea levels of 30mm to 200mm in western and southern parts of RMI. Near normal sea level forecasted for northern RMI, with below normal sea level anomalies of utmost -60mm for eastern RMI.

Coral Bleaching outlook is on WATCH status for northern and western parts of RMI's EEZ, with the remaining on NO THERMAL STRESS status.

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

Product	Date: August 2022	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin					
EAR Watch					
Monthly Climate Briefing	08/23/22	Office of the Chief Secretary, and National Disaster Management Office	7	4	3
Ocean Outlook					
Climate data request					
Total			7	4	3

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