

# Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 168

Country: Marshall Islands

Part 1: Recent climate

**TABLE 1: Monthly Rainfall**

Station (include data period)	Jun-2021	Jul-2021	Aug-2021				Rank
			Total (mm)	33%tile	67%tile	Median	
	Total (mm)	Total (mm)	Rainfall (mm)				
Majuro (1954-2021)	235.7	239.3	269.2	260.9	321.8	289.5	26/68
Kwajalein (1945-2021)	117.1	204.5	87.1	191.8	289.5	235.5	1/77

**TABLE 2: Three-month Total Rainfall for June to August 2021**

Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Majuro (1954-2021)	744.2	Below normal	810.8	962.9	878.2	14/68
Kwajalein (1945-2021)	408.7	Below normal	672.1	824.2	724.6	2/77

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

Very Low:  $X < 0.0$

Low:  $0 \leq X < 5$

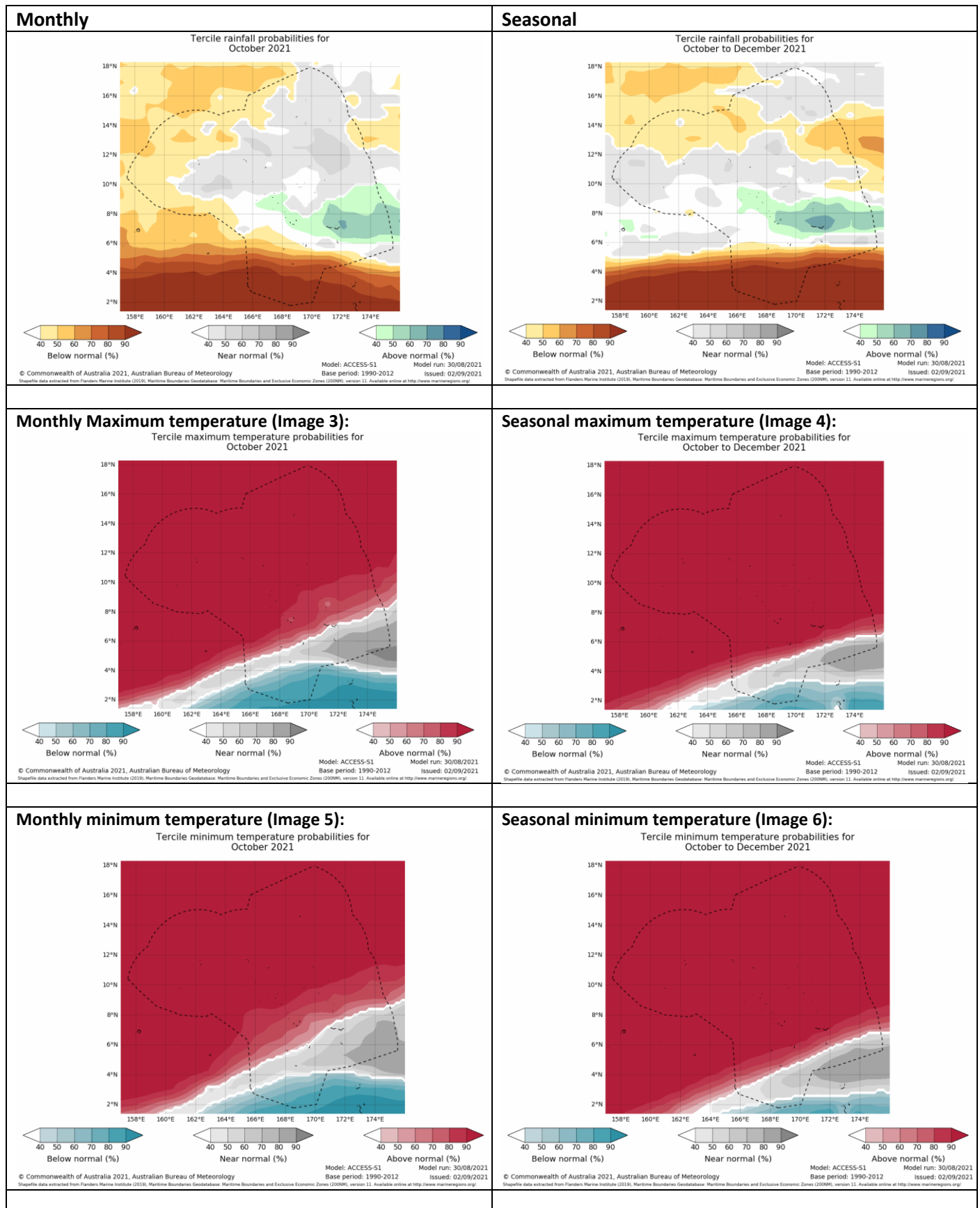
Moderate  $5 \leq X < 10$

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 2021



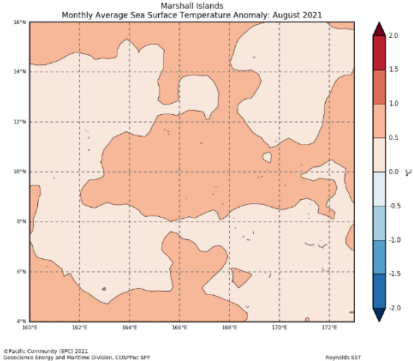
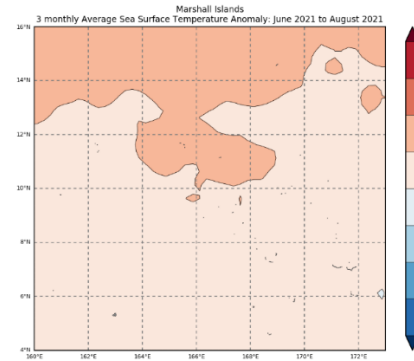
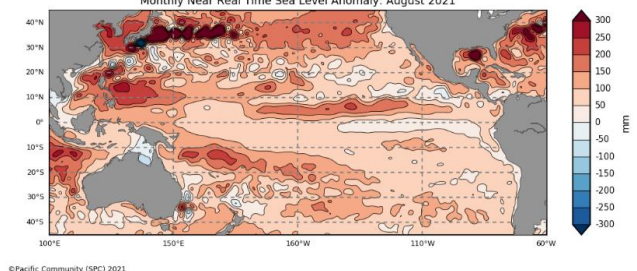
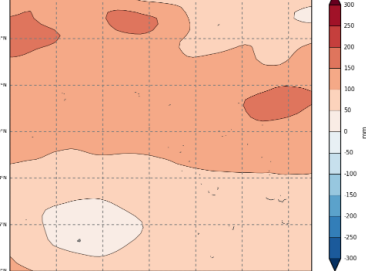
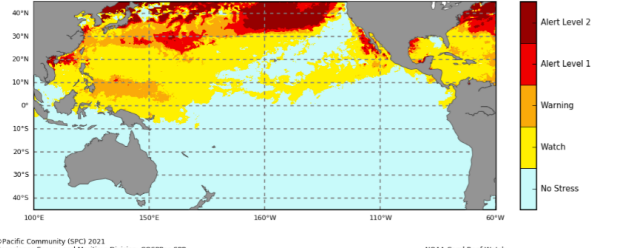
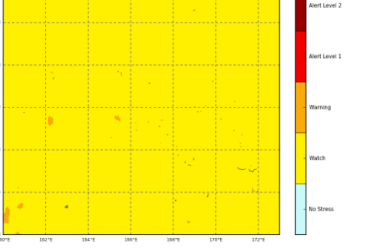
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Very High:  $25 \leq X < 35$       Exceptional:  $X \geq 35$

# Part 2: Recent Ocean summary statement

## Monthly: August 2021

<p><b>Monthly: August</b></p> <p><b>Sea Surface Temperature (Image 1):</b></p>  <p>© Pacific Community (SPC) 2021 Geoscience Energy and Maritime Division, COSPPac SPP Reynolds SST</p>	<p><b>Last three months: June to August 2021:</b></p> <p><b>Sea Surface Temperature (Image 4):</b></p>  <p>© Pacific Community (SPC) 2021 Geoscience Energy and Maritime Division, COSPPac SPP Reynolds SST</p>
<p><b>Sea level for the Pacific Ocean (Image 2):</b></p>  <p>© Pacific Community (SPC) 2021 Geoscience Energy and Maritime Division, COSPPac SPP AVISO Ssalto/Duacs SLA</p>	<p><b>Sea level for the RMI (Image 3):</b></p>  <p>© Pacific Community (SPC) 2021 Geoscience Energy and Maritime Division, COSPPac SPP AVISO Ssalto/Duacs SLA</p>
<p><b>Daily coral bleaching alert for Pacific Ocean (Image 5):</b></p>  <p>© Pacific Community (SPC) 2021 Geoscience Energy and Maritime Division, COSPPac SPP NOAA Coral Reef Watch</p>	<p><b>Daily coral bleaching alert for the RMI (Image 6):</b></p>  <p>© Pacific Community (SPC) 2021 Geoscience Energy and Maritime Division, COSPPac SPP NOAA Coral Reef Watch</p>

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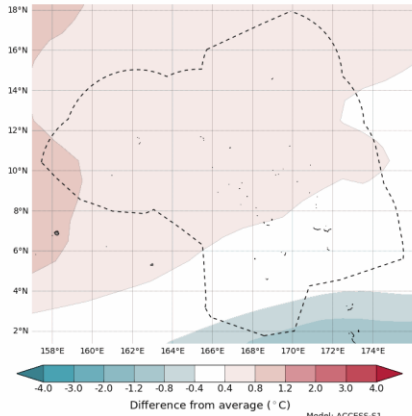
Very High:  $25 \leq X < 35$  Exceptional:  $X \geq 35$

# Part 2i. Monthly and Seasonal Outlooks for October and October to December 2021

## Monthly: October

### Monthly sea surface temperature (Image 7):

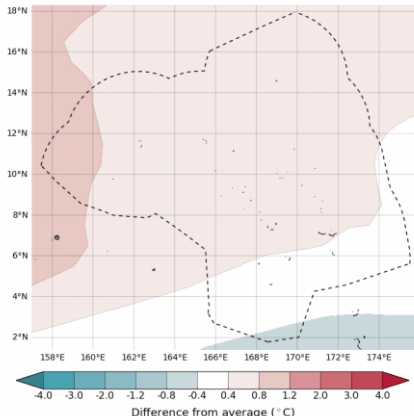
Difference from average sea surface temperature forecast for October 2021



## Seasonal: October to December

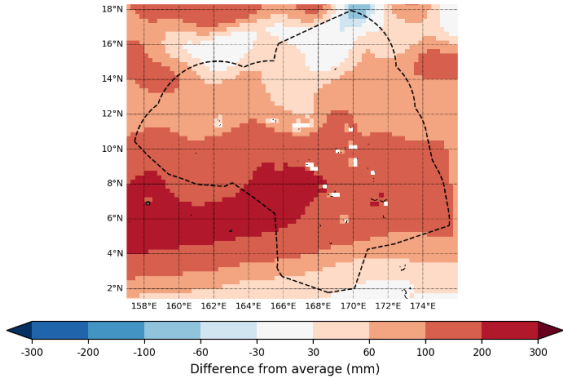
### Seasonal sea surface temperature (Image 9):

Difference from average sea surface temperature forecast for October to December 2021



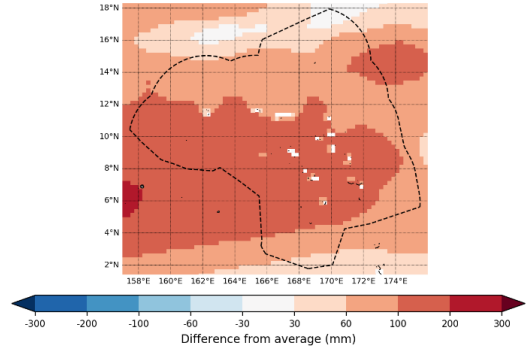
## Monthly sea level (Image 9):

Difference from average sea surface height forecast for October 2021

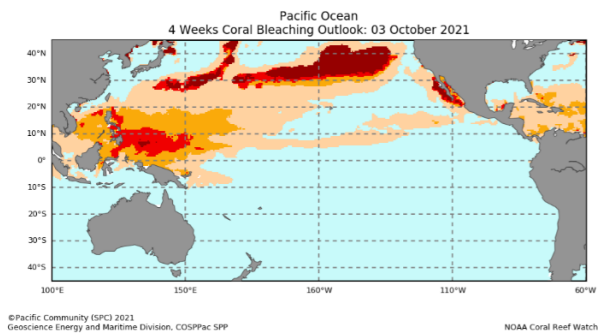


## Seasonal sea level (Image 10):

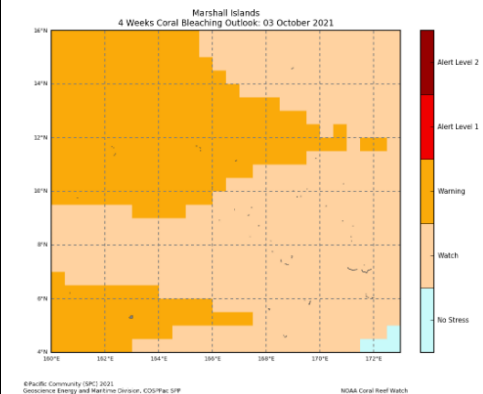
Difference from average sea surface height forecast for October 2021 to December 2021



## 4-week Coral Bleaching for Pacific Ocean (Image 11):



## 4-week Coral Bleaching for the RMI (Image 12):



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## Summary Statement

### Monthly and last three months: August 2021/June to August statement

Normal rainfall was recorded at Majuro, while below normal was registered at Kwajalein. It was the driest August on record for Kwajalein.

For the past three months, below normal rainfall was recorded at both stations. This was the 2<sup>nd</sup> driest June to August on record at Kwajalein.

## Part 1i. Monthly and Seasonal Outlooks for October and October to December 2021

### Monthly /Seasonal rainfall and temperature Outlook statements

The October and October to December outlook for the northern RMI is mixed with likely near normal rainfall in October, apart from Kwajalein and neighbouring atolls where the outlook is likely to be above-normal rainfall. The outlook for the southern islands, which includes Majuro is very likely to be above-normal. For the southern-most islands, below-normal is the very likely .

Above normal maximum temperature is very likely across the northern RMI including Kwajalein for October while very likely near-normal for Majuro and very likely above normal at the southern islands. The seasonal maximum temperature outlook is likely to be above normal for most of the RMI. Near-normal to above normal is very likely for the southern-most islands.

The monthly minimum temperature outlook is very likely to be above normal for most of the northern RMI including Kwajalein while near-normal for Majuro and southern atolls. Above normal seasonal minimum temperature is very likely for most of the RMI including both Majuro and Kwajalein with exception of the southern-most islands, the outlook is likely to be near-normal.

## Part 2: Recent Ocean summary statement

### Monthly and last three months: August/June to August 2021

Most of the RMI archipelago experienced above normal SST in the month of August 2021 with a maximum temperature increase of 1°C. Similar to the monthly pattern warmer than average SSTs were experienced across the Republic for the past three months, June to August 2021. Highest SSTs were ranging from 0.5 to 1.0 degrees above average, located way up north across the northern-most islands in the RMI.

The sea level anomaly across the RMI were significantly higher than normal in the month of August, with most of the waters surrounding the archipelago in the range of 50 to 2500mm above average. This additional sea level anomaly needs to be taken into account when using the tide calendars by adding it onto the high/low tide levels.

With warm SSTs experienced around most of the RMI, the daily coral bleaching alert shows a “Watch” status for all of the Republic.

## Part 2i. Monthly and Seasonal Outlooks for October and October to December 2021

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## Ocean Variable statement

The outlook for the RMI archipelago shows a temperature difference of -0.4-1.2°C for October. The seasonal outlook for the RMI shows SSTs are likely to be close to average for the period of October to December.

The Monthly Sea Level outlook across the RMI shows that sea surface heights are likely to be above average for October. In the western RMI, islands located south-southwest of Kwajalein are predicted to reach 200 mm to 300 mm above average. The seasonal outlook across the RMI shows sea surface heights are likely to be above average for most parts of the Republic.

The Coral Bleaching outlook shows a “Watch” status for both Majuro and Kwajalein. A “Warning” status is in place for northern and north-western islands.

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

Product	Date: August 2021	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin					
EAR Watch					
Monthly Climate Briefing	20 August	Chief Secretary Office (CSO) and National Disaster Management Office (NDMO)	6	3	3
Ocean Outlook					
<b>Total</b>			<b>6</b>	<b>3</b>	<b>3</b>

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