

Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 172

Country: Marshall Islands

Part 1: Recent climate

TABLE 1: Monthly Rainfall

Station (include data period)	Oct-2021	Nov-2021	Dec-2021				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Majuro (1954-2021)	384.0	442.5	222.5	216.9	341.6	280.4	25/67
Kwajalein (1945-2021)	278.6	367.5	95.0	136.7	210.0	165.9	9/77

TABLE 2: Three-month Total Rainfall for October to December 2021

Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Majuro (1954-2021)	1049.0	Normal	869.6	1087.4	983.8	39/68
Kwajalein (1945-2021)	741.1	Normal	726.4	828.3	772.6	29/76

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

Very Low: $X < 0.0$

Low: $0 \leq X < 5$

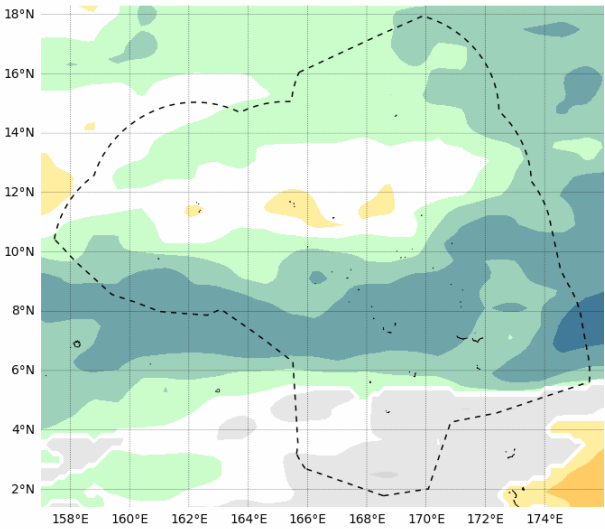
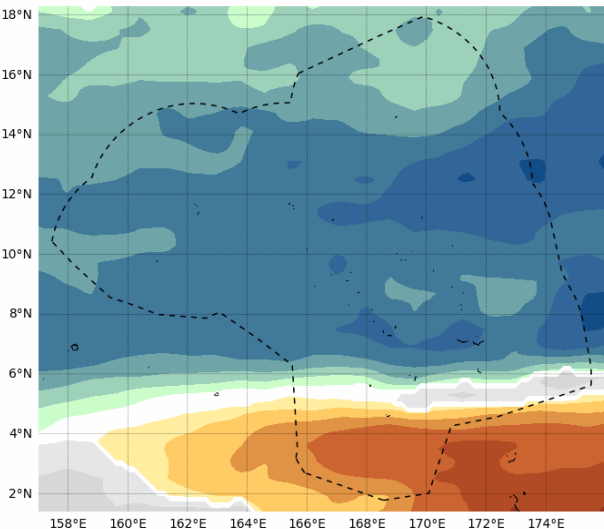
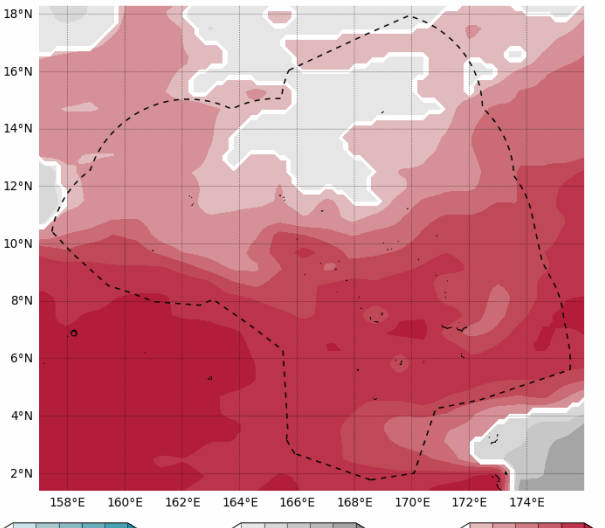
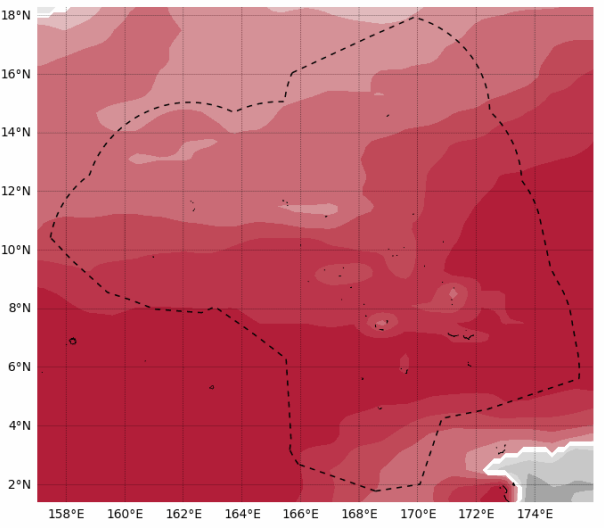
Moderate $5 \leq X < 10$

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 February and February to April 2022

Monthly	Seasonal
Rainfall (Image 1)	Rainfall (Image 2)
<p>Tercile rainfall probabilities for February 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.marineregions.org/.</p>	<p>Tercile rainfall probabilities for February to April 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.marineregions.org/.</p>
Monthly Maximum temperature (Image 3):	Seasonal maximum temperature (Image 4):
<p>Tercile maximum temperature probabilities for February 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.marineregions.org/.</p>	<p>Tercile maximum temperature probabilities for February to April 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.marineregions.org/.</p>
Monthly minimum temperature (Image 5):	Seasonal minimum temperature (Image 6):

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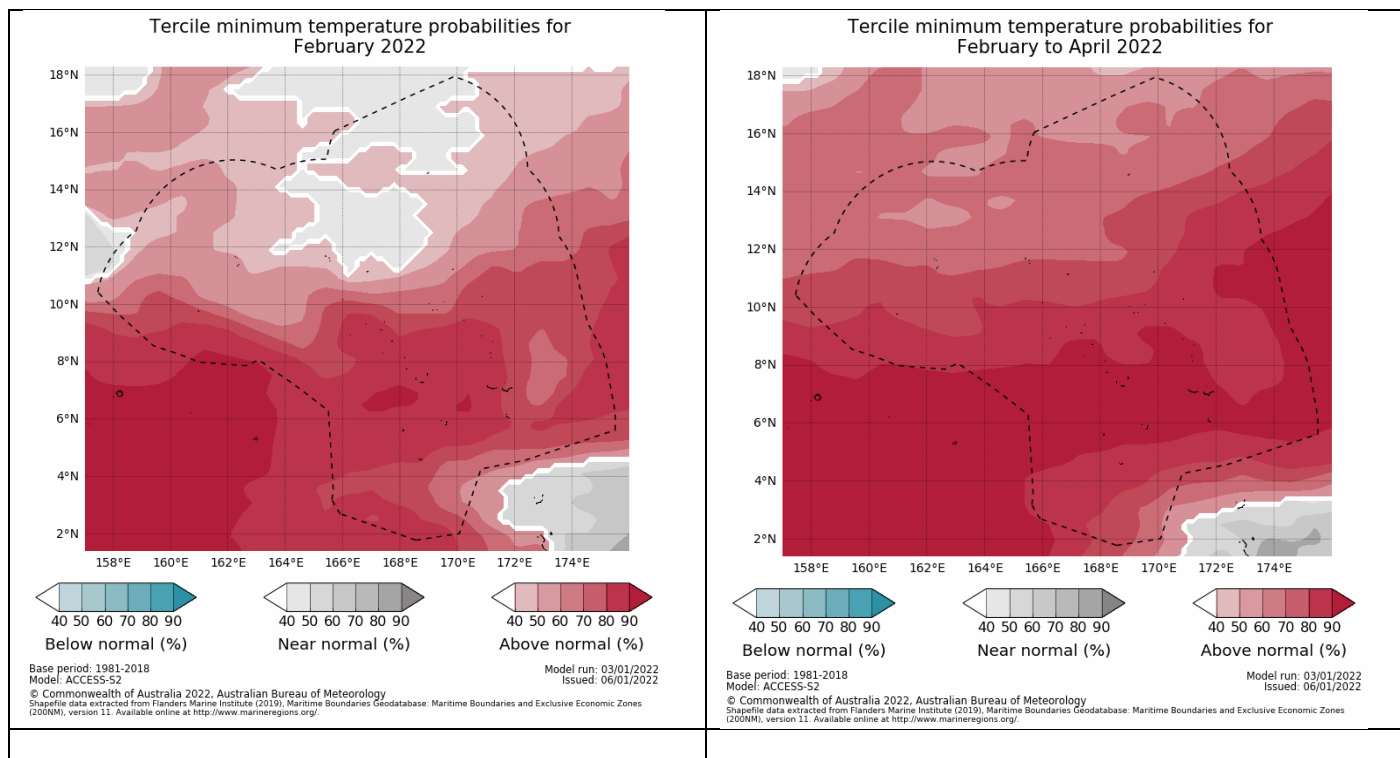
Low: $0 \leq X < 5$

Moderate $5 \leq X < 10$

Good: $10 \leq X < 15$

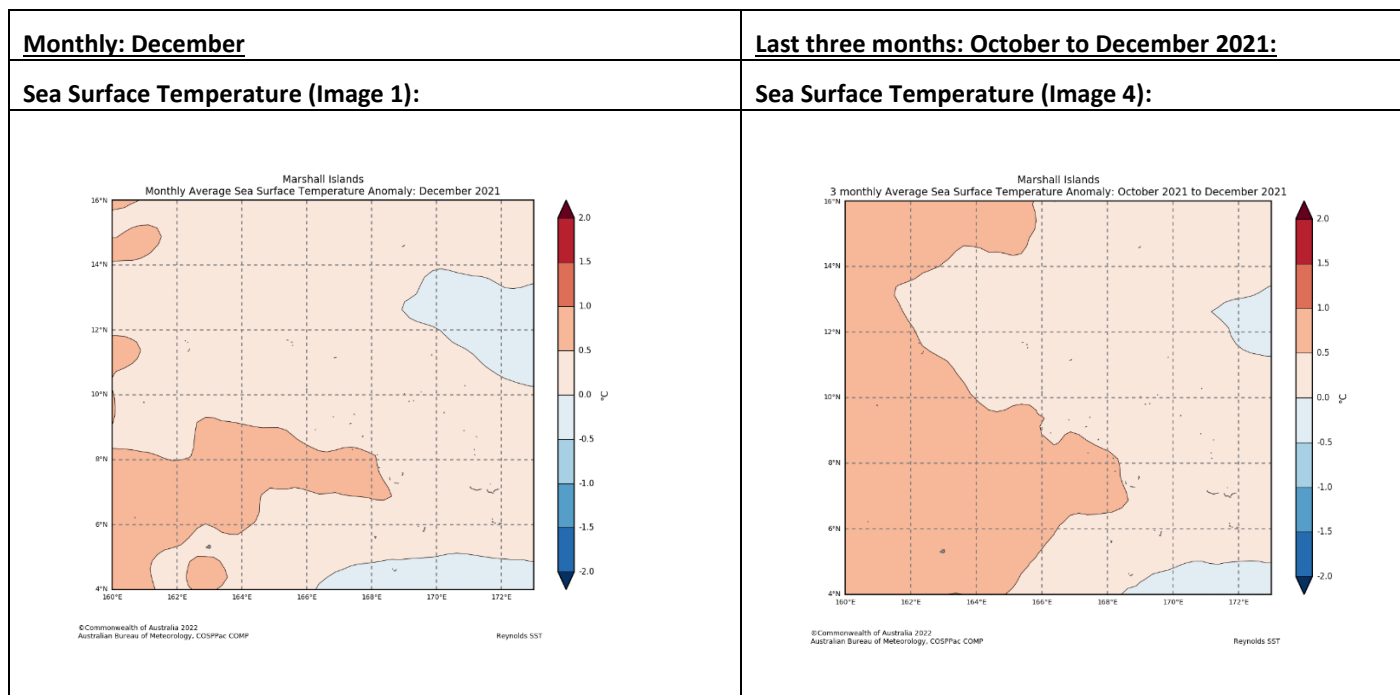
High: $15 \leq X < 25$

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



Part 2: Recent Ocean summary statement

Monthly: December 2021



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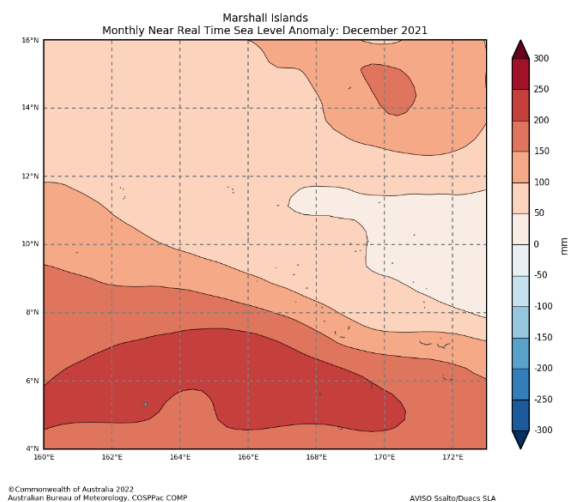
Moderate $5 \leq X < 10$

Good: $10 \leq X < 15$

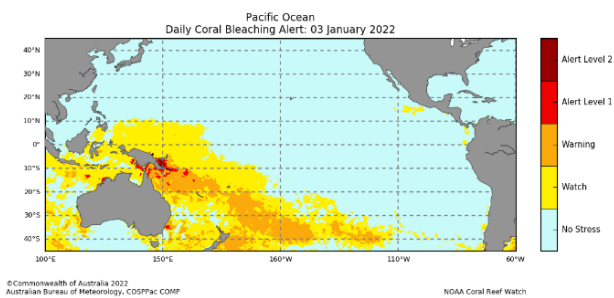
High: $15 \leq X < 25$

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

Sea level (Image 2):



Daily coral bleaching alert (Image 3):



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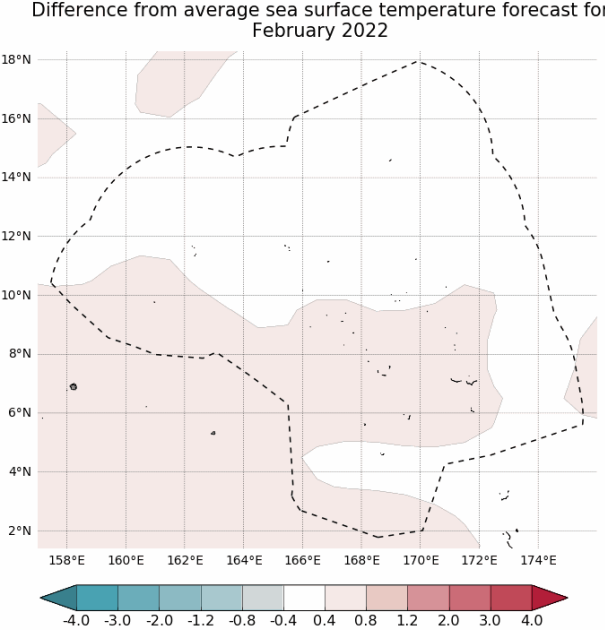
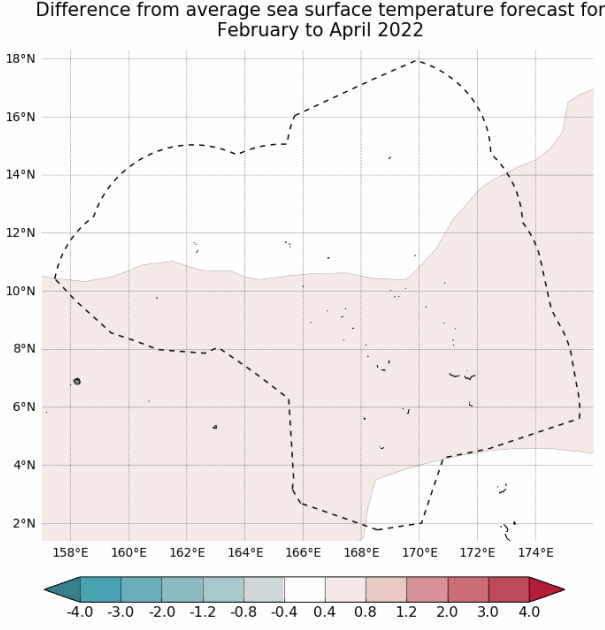
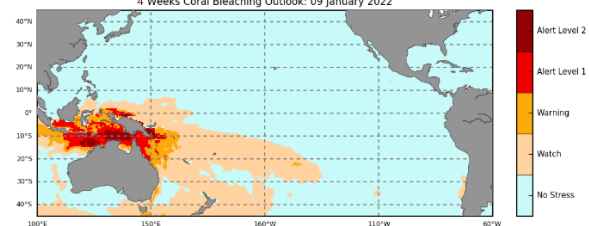
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Part 2i. Monthly and Seasonal Outlooks for February and February to April 2022

Monthly: February	Seasonal: February to April
Monthly sea surface temperature (Image 5):  <p>Difference from average sea surface temperature forecast for February 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2019). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.marinerregions.org/</p> <p>Model run: 03/01/2022 Issued: 05/01/2022</p>	Seasonal sea surface temperature (Image 6):  <p>Difference from average sea surface temperature forecast for February to April 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2019). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.marinerregions.org/</p> <p>Model run: 03/01/2022 Issued: 05/01/2022</p>
Monthly sea level (Image 7):	Seasonal sea level (Image 8):
4-week Coral Bleaching (Image 9):  <p>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 09 January 2022</p> <p>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPac COMP</p> <p>NOAA Coral Reef Watch</p>	

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Summary Statement

Monthly and last three months: December 2021/October to December statement (Highly significant changes)

Below normal rainfall was recorded at Kwajalein for the month of December 2021. On the other hand, normal rainfall was registered at Majuro.

Both Majuro and Kwajalein recorded normal rainfall for the period of October to December 2021.

Part 1i. Monthly and Seasonal Outlooks for February and February to April 2022

Monthly /Seasonal rainfall and temperature Outlook statements (Highly significant changes)

The rainfall outlook for February 2022 is likely to be above normal for both Majuro and Kwajalein. The outlook for RMI for the period February to April is very likely to be above normal.

The monthly and seasonal minimum and maximum temperature outlook is very likely to be above normal for most of the islands in the RMI.

Part 2: Recent Ocean summary statement

Monthly and last three months: December/October to December 2021 (Highly significant changes)

Most of the islands experienced average to above average SST reaching 1°C warmer than normal during the month of December 2021. For the period (October to December), the western islands including Kwajalein experienced above average SST ranging from 0.5 to 1.0 °C while Majuro and nearby atolls had an increase of temperature by 0.5 °C.

The monthly sea level anomaly was significantly higher than normal at Majuro and nearby atolls ranging from 100 to 250 mm. While Kwajalein and rest of the islands observed sea level higher than normal ranging from 50 to 100 mm during the month of December.

NO STRESS status for Coral Bleaching was in place for most of the RMI during the month of December.

Part 2i. Monthly and Seasonal Outlooks for February and February to April 2022

Ocean Variable statement (Highly significant changes)

The monthly and seasonal outlook for the RMI archipelago shows a significant temperature difference of 0.4 to 0.8°C.

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The monthly and seasonal outlook for central RMI shows a significant sea surface heights difference of 30 to 60 mm, while average sea levels for the central and northern atolls, and 60 to 100 mm for the southern atolls.

The 4 weeks Coral Bleaching Outlook shows a NO STRESS' status for most of the islands in the RMI.

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

Product	Date: December 2021	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin					
EAR Watch					
Monthly Climate Briefing	12/20/21	Office of the Chief Secretary (CSO) and National Disaster Management Office (NDMO)	6	3	3
Ocean Outlook					
Climate data request					
Total			6	3	3

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