

Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 173

Country: Republic of the Marshall Islands

Part 1: Recent climate

TABLE 1: Monthly Rainfall

Station (include data period)	Nov-2021	Dec-2021	Jan-2022				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Majuro (1954-2022)	442.5	222.5	120.1	158.6	238.0	206.2	13/68
Kwajalein (1945-2022)	367.5	95.0	31.8	59.3	128.7	89.4	13/78

TABLE 2: Three-month Total Rainfall for November 2021 to January 2022

Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Majuro (1954-2022)	785.1	Normal	736.4	918.5	837.0	27/68
Kwajalein (1945-2022)	494.3	Below normal	525.3	650.9	589.1	21/76

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 March and March to May 2022

Monthly: March	Seasonal: March to May
Rainfall (image 1)	Rainfall (image 2)
<p>Tercile rainfall probabilities for March 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapfile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2004M), version 11. Available online at http://www.maritimerregions.org/</p> <p>Model run: 05/02/2022 Issued: 07/02/2022</p>	<p>Tercile rainfall probabilities for March to May 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapfile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2004M), version 11. Available online at http://www.maritimerregions.org/</p> <p>Model run: 05/02/2022 Issued: 07/02/2022</p>
Monthly Maximum temperature (Image 3):	Seasonal maximum temperature (Image 4):
<p>Tercile maximum temperature probabilities for March 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapfile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2004M), version 11. Available online at http://www.maritimerregions.org/</p> <p>Model run: 05/02/2022 Issued: 07/02/2022</p>	<p>Tercile maximum temperature probabilities for March to May 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapfile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2004M), version 11. Available online at http://www.maritimerregions.org/</p> <p>Model run: 05/02/2022 Issued: 07/02/2022</p>
Monthly minimum temperature (Image 5):	Seasonal minimum temperature (Image 6):
<p>Tercile minimum temperature probabilities for March 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapfile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2004M), version 11. Available online at http://www.maritimerregions.org/</p> <p>Model run: 05/02/2022 Issued: 07/02/2022</p>	<p>Tercile minimum temperature probabilities for March to May 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapfile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2004M), version 11. Available online at http://www.maritimerregions.org/</p> <p>Model run: 05/02/2022 Issued: 07/02/2022</p>

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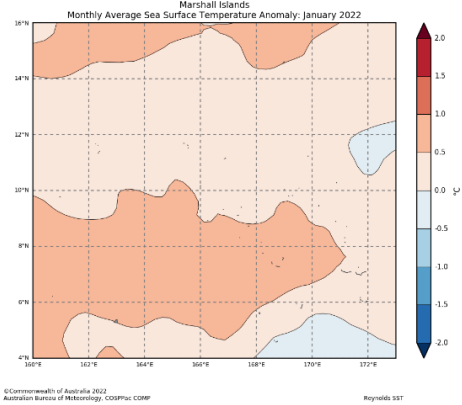
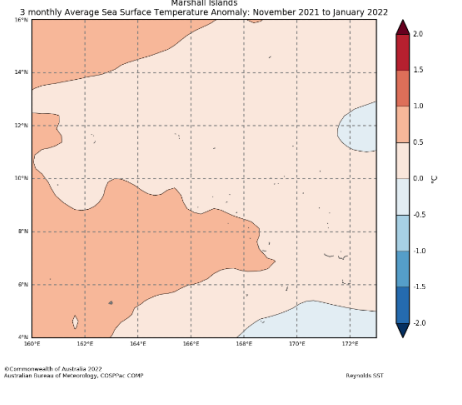
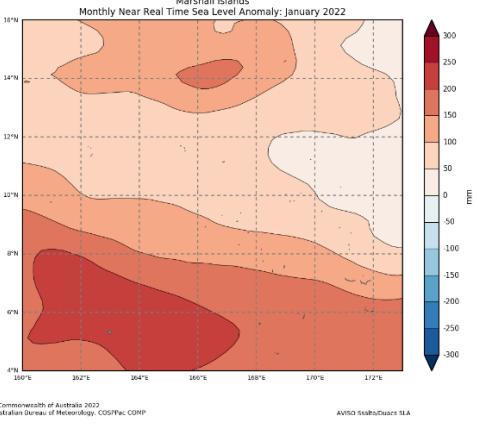
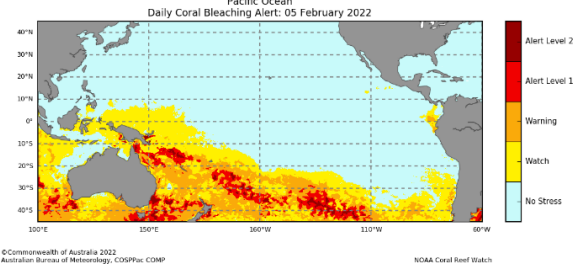
Good: $10 \leq X < 15$

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Part 2: Recent Ocean summary statement

Monthly: January 2022

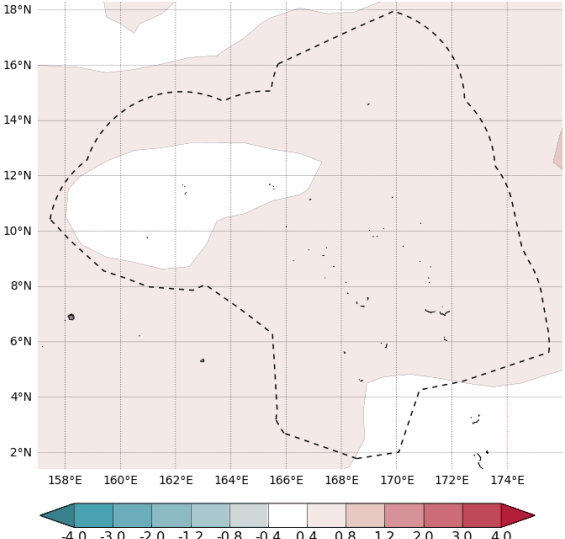
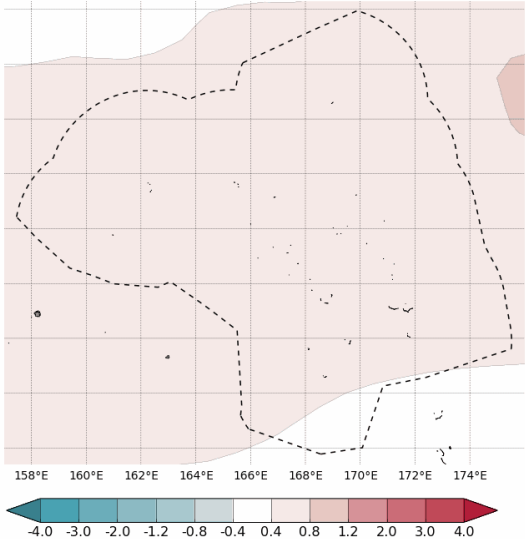
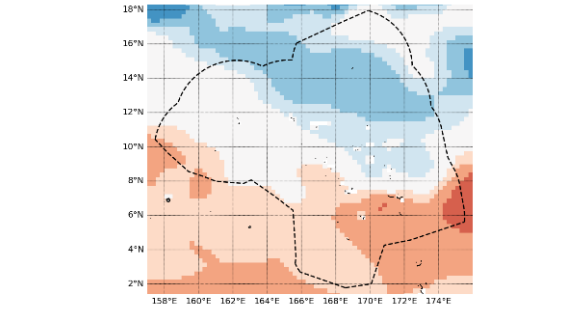
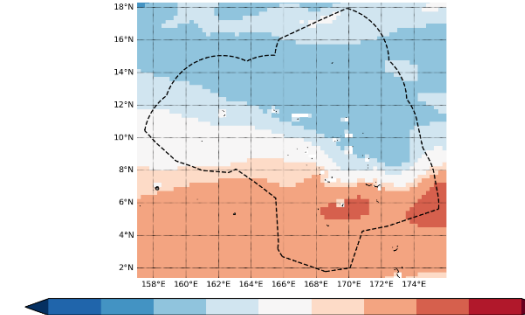
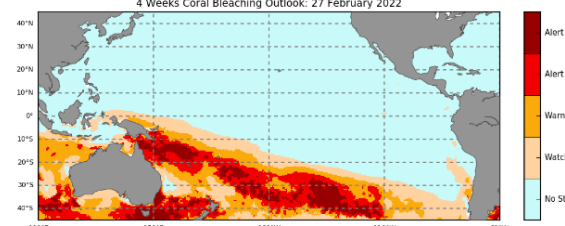
Monthly: January	Last three months: November 2021 to January 2022:
Sea Surface Temperature (Image 1): <div></div>	Sea Surface Temperature (Image 4): <div></div>
Sea level (Image 2): <div></div>	
Daily coral bleaching alert (Image 3): <div></div>	

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Part 2i. Monthly and Seasonal Outlooks for March and March to May 2022

Monthly: March	Seasonal: March to May
Monthly sea surface temperature (Image 5):	Seasonal sea surface temperature (Image 6):
<p>Difference from average sea surface temperature forecast for March 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapfile data extracted from Flanders Marine Institute (2019). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.maritimerregions.org/</p> <p>Model run: 05/02/2022 Issued: 07/02/2022</p>	<p>Difference from average sea surface temperature forecast for March to May 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapfile data extracted from Flanders Marine Institute (2019). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.maritimerregions.org/</p> <p>Model run: 05/02/2022 Issued: 07/02/2022</p>
Monthly sea level (Image 7):	Seasonal sea level (Image 8):
<p>Difference from average sea surface height forecast for March 2022</p>  <p>© Commonwealth of Australia 2022 Bureau of Meteorology</p> <p>Model: ACCESS-S2 Base Period: 1981-2018</p> <p>Model Run: 28/01/2022 Issued: 02/02/2022</p>	<p>Difference from average sea surface height forecast for March 2022 to May 2022</p>  <p>© Commonwealth of Australia 2022 Bureau of Meteorology</p> <p>Model: ACCESS-S2 Base Period: 1981-2018</p> <p>Model Run: 28/01/2022 Issued: 02/02/2022</p>
4-week Coral Bleaching (Image 9):	
<p>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 27 February 2022</p>  <p>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSP/PCP</p> <p>NOAA Coral Reef Watch</p>	

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Summary Statement

Monthly and last three months: January 2022/November 2021 to January 2022 statement (Highly significant changes)

Below normal rainfall was recorded at both Majuro and Kwajalein for the month of January 2022.

For the period of November 2021 to January 2022, Majuro recorded normal rainfall while Kwajalein recorded below normal rainfall.

Part 1i. Monthly and Seasonal Outlooks for March and March to May 2022

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

The rainfall outlook for March 2022 is very likely to be above normal at both Majuro and Kwajalein. The outlook for the RMI for the period March to May is very likely to be above normal at most part of the country.

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: January/November 2021 to January 2022 (Highly significant changes)

Most of the islands experienced average to above average SST reaching 1°C warmer than normal during the month of January 2022. For the period (November to January), 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 150 mm. While Kwajalein and rest of the islands observed sea level higher than normal ranging from 50 to 100 mm during the month of January 2022.

NO STRESS status for Coral Bleaching was in place for most of the RMI during the month of January 2022.

Part 2i. Monthly and Seasonal Outlooks for March and March to May 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

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

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

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

Product	Date: January 2022	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin					
EAR Watch					
Monthly Climate Briefing	01/21/2022	CSO & NDMO	6	3	3
Ocean Outlook					
Climate data request					
Total			6	3	3

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