

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

Country: Palau

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)				
Koror (1951-2022)	355.1	409.5	332.0	318.3	424.7	349.2	27/72

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

Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Koror (1951-2022)	1096.6	Below normal	1112.8	1328.9	1204.3	23/72

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

Monthly: October	Seasonal: October to December
<p>Rainfall (Image 1)</p> <p>Tercile rainfall probabilities for October 2022</p> <p>Base period: 1961-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Climate data extracted from Forecast Performance Archive (2018). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.met.no/maritimeorg/.</p>	<p>Rainfall (Image 2)</p> <p>Tercile rainfall probabilities for October to December 2022</p> <p>Base period: 1961-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Climate data extracted from Forecast Performance Archive (2018). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.met.no/maritimeorg/.</p>
<p>Monthly Maximum temperature (Image 3):</p> <p>Tercile maximum temperature probabilities for October 2022</p> <p>Base period: 1961-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Climate data extracted from Forecast Performance Archive (2018). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.met.no/maritimeorg/.</p>	<p>Seasonal maximum temperature (Image 4):</p> <p>Tercile maximum temperature probabilities for October to December 2022</p> <p>Base period: 1961-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Climate data extracted from Forecast Performance Archive (2018). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.met.no/maritimeorg/.</p>
<p>Monthly minimum temperature (Image 5):</p> <p>Tercile minimum temperature probabilities for October 2022</p> <p>Base period: 1961-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Climate data extracted from Forecast Performance Archive (2018). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.met.no/maritimeorg/.</p>	<p>Seasonal minimum temperature (Image 6):</p> <p>Tercile minimum temperature probabilities for October to December 2022</p> <p>Base period: 1961-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Climate data extracted from Forecast Performance Archive (2018). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.met.no/maritimeorg/.</p>

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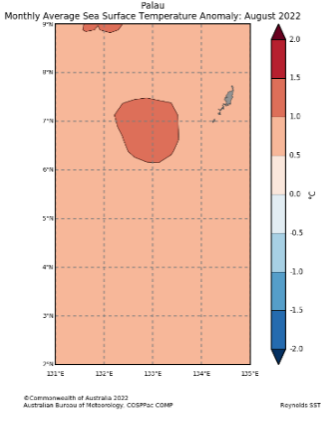
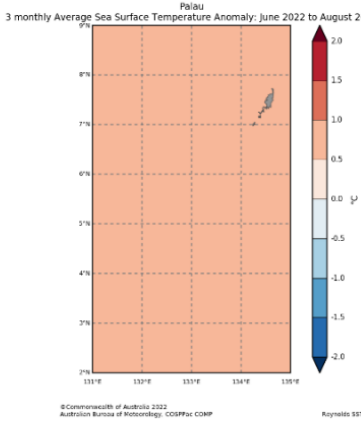
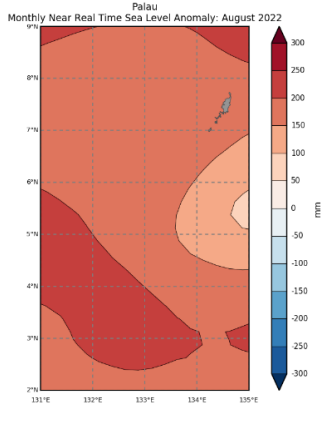
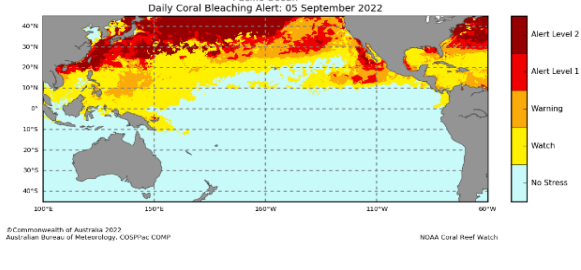
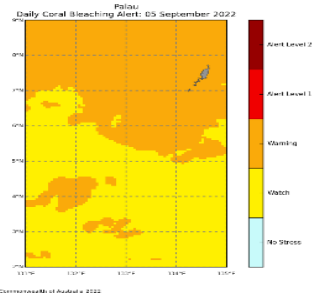
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Part 2: Recent Ocean Observation

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>Palau Monthly Average Sea Surface Temperature Anomaly: August 2022</p> <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPPac COMP Reynolds SST</p>	<p>Sea Surface Temperature (Image 4):</p>  <p>Palau 3 monthly Average Sea Surface Temperature Anomaly: June 2022 to August 2022</p> <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPPac COMP Reynolds SST</p>
<p>Sea level (Image 2):</p>  <p>Palau Monthly Near Real Time Sea Level Anomaly: August 2022</p> <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPPac COMP AVISO SeaLevelDACS SLA</p>	
<p>Daily coral bleaching alert (Image 3):</p>  <p>Pacific Ocean Daily Coral Bleaching Alert: 05 September 2022</p> <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPPac COMP NOAA Coral Reef Watch</p>	 <p>Palau Daily Coral Bleaching Alert: 05 September 2022</p> <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPPac COMP 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 Daghighi et al. (2022) <i>Journal of Marine Research</i> 80(1), 1-15. doi:10.1093/mr/80.1.1</p> <p>Model Run: 05/09/2022 Issued: 06/09/2022</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 Daghighi et al. (2022) <i>Journal of Marine Research</i> 80(1), 1-15. doi:10.1093/mr/80.1.1</p> <p>Model Run: 05/09/2022 Issued: 06/09/2022</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</p> <p>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</p> <p>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>Palau 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

Normal rainfall was recorded at Koror for the month of August 2022, and below normal rainfall was recorded at Koror for the period June to August 2022.

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

Monthly /Seasonal rainfall and temperature Outlook statements

The outlook for Koror and the whole country for the month of October 2022 shows rainfall is very likely to be above normal, especially for the southwest islands of Palau. October to December rainfall for Koror and greater Palau is also very likely to be above normal.

Maximum and minimum temperatures for Koror and Palau are very likely to be above normal for October 2022 and for the period October to December 2022.

Part 2: Recent Ocean summary statement

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

Koror and the whole country experienced above average SST in the month of August 2022 and for the period June to August 2022, with significant SSTs between 0.5 to 1.0°C above average.

Sea Level statement

Koror and majority of the country experienced sea level heights of +150mm to +200mm for August 2022 while the southwest islands showed significant sea level anomalies of +200mm to +250mm.

Daily Bleaching Alert statement

Coral bleaching is on a Warning Level for Koror and majority of the country.

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

Ocean Variable statement

Monthly and Seasonal Sea Surface Temperature statement

The outlook for the Koror and the whole country shows a significant sea surface temperature difference of 0.8°C to 1.2°C for October 2022 and similarly for the period October to December 2022.

Monthly and Seasonal Sea Surface Height Outlook statement

The outlook for Koror, the main islands and their adjacent waters are most likely to be above average for October 2022 and for the period October to December 2022. Significant sea levels of +100 to +200mm above average forecasted for the southwest islands.

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4-weeks Coral Bleaching Outlook statement

There is a coral bleaching Warning for Koror and majority of the country for the next four weeks.

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
EAR Watch	2	National Emergency Committee (NEC) <ul style="list-style-type: none"> • Office of the Vice President • Office of the President • NEMO Coordinator • National Weather Service • Bureau of Budget and Planning • Bureau of Tourism • Bureau of Commercial Development • Attorney General's Office • Bureau of Youth, Applied Arts and Careers • Bureau of Public Health • Bureau of Public Work • Bureau of Public Safety • Palau Community College • Bureau of Education Administration • Palau Public Utility Corporation • Palau National Communication Corporation • Bureau of Foreign Affairs& Trade • Bureau of Domestic Affairs • Bureau of Agriculture • Governors Association • Palau Red Cross Society • Environment Quality Protection Board • Bureau of Aviation • Division of Property and Supply • Palau Chamber of Commerce • Palau Visitor's Authority 	28	19	9

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		<ul style="list-style-type: none"> Bureau of Customs & Boarder Protection Koror State Government			
Total			285	19	9

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