

Country: Cook Islands

Part 1: Recent climate

TABLE 1: Monthly Rainfall

Station (include data period)	Jul-2024	Aug-2024	Sep-2024				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Penrhyn (1937-2024)	91.0	225.0	113.2	74.0	126.0	111.0	47/86
Rarotonga (1899-2024)	58.4	49.4	175.6	69.8	114.0	89.0	105/126

TABLE 2: Three-month Total Rainfall for July to September 2025

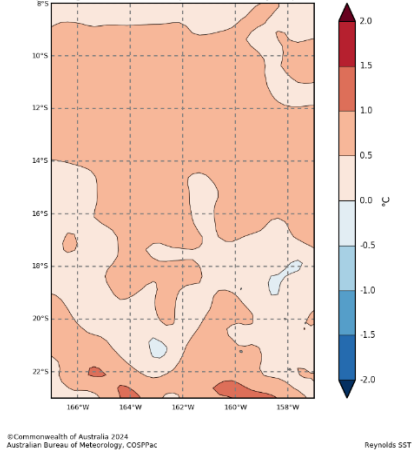
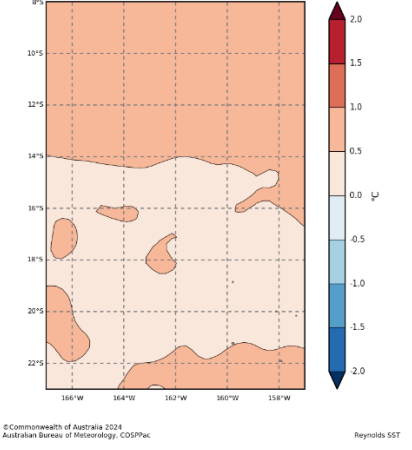
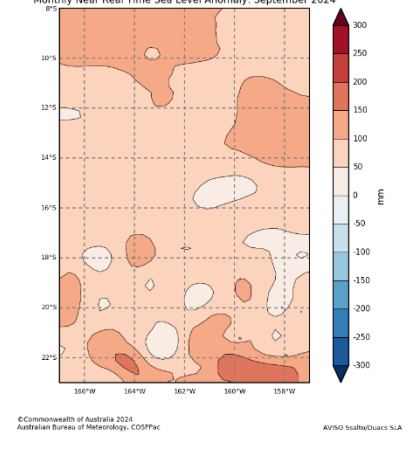
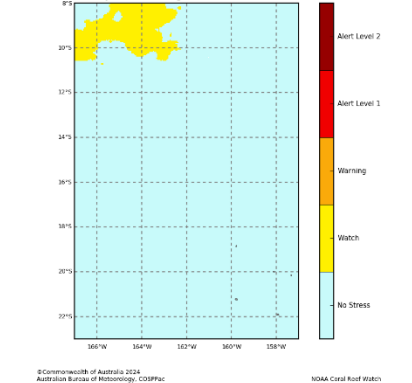
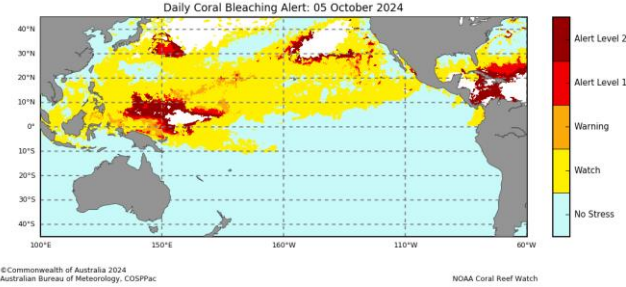
Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Penrhyn (1937-2024)	429.2	Normal	281.2	433.0	337.0	56/86
Rarotonga (1899-2024)	283.4	Normal	252.3	350.0	296.0	53/126

Part 1i. Monthly and Seasonal Outlooks for November and November to January 2025

Monthly: November	Seasonal: November to January
Rainfall (Image 1)	Rainfall (Image 2)
<p>Tercile rainfall probabilities for November 2024</p> <p>Base period: 1981-2018 Model: ACCESS-S2 Model run: 05/10/2024 Issued: 07/10/2024</p> <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>— — EEZ border V11 (Flanders Marine Institute, 2019).</p>	<p>Tercile rainfall probabilities for November 2024 to January 2025</p> <p>Base period: 1981-2018 Model: ACCESS-S2 Model run: 05/10/2024 Issued: 07/10/2024</p> <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>— — EEZ border V11 (Flanders Marine Institute, 2019).</p>
Monthly Maximum temperature (Image 3):	Seasonal maximum temperature (Image 4):
<p>Tercile maximum temperature probabilities for November 2024</p> <p>Base period: 1981-2018 Model: ACCESS-S2 Model run: 05/10/2024 Issued: 07/10/2024</p> <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>— — EEZ border V11 (Flanders Marine Institute, 2019).</p>	<p>Tercile maximum temperature probabilities for November 2024 to January 2025</p> <p>Base period: 1981-2018 Model: ACCESS-S2 Model run: 05/10/2024 Issued: 07/10/2024</p> <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>— — EEZ border V11 (Flanders Marine Institute, 2019).</p>
Monthly minimum temperature (Image 5):	Seasonal minimum temperature (Image 6):
<p>Tercile minimum temperature probabilities for November 2024</p> <p>Base period: 1981-2018 Model: ACCESS-S2 Model run: 05/10/2024 Issued: 07/10/2024</p> <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>— — EEZ border V11 (Flanders Marine Institute, 2019).</p>	<p>Tercile minimum temperature probabilities for November 2024 to January 2025</p> <p>Base period: 1981-2018 Model: ACCESS-S2 Model run: 05/10/2024 Issued: 07/10/2024</p> <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>— — EEZ border V11 (Flanders Marine Institute, 2019).</p>

Part 2: Recent Ocean Observation

Monthly/Three months: September 2024 and July to September 2024

Monthly: September 2024	Last three months: July to September 2024:
Sea Surface Temperature (Image 1):	Sea Surface Temperature (Image 4):
<div><p>Cook Islands</p><p>Monthly Average Sea Surface Temperature Anomaly: September 2024</p><p>©Commonwealth of Australia 2024 Australian Bureau of Meteorology, COSPPac</p><p>Reynolds SST</p></div>	<div><p>Cook Islands</p><p>3 monthly Average Sea Surface Temperature Anomaly: July 2024 to September 2024</p><p>©Commonwealth of Australia 2024 Australian Bureau of Meteorology, COSPPac</p><p>Reynolds SST</p></div>
Sea level (Image 2):	
<div><p>Cook Islands</p><p>Monthly Near Real Time Sea Level Anomaly: September 2024</p><p>©Commonwealth of Australia 2024 Australian Bureau of Meteorology, COSPPac</p><p>AUSO SsaltoDuacs SLA</p></div>	
Daily coral bleaching alert (Image 3):	
<div><p>Cook Islands</p><p>Daily Coral Bleaching Alert: 05 October 2024</p><p>©Commonwealth of Australia 2024 Australian Bureau of Meteorology, COSPPac</p><p>NOAA Coral Reef Watch</p></div>	<div><p>Pacific Ocean</p><p>Daily Coral Bleaching Alert: 05 October 2024</p><p>©Commonwealth of Australia 2024 Australian Bureau of Meteorology, COSPPac</p><p>NOAA Coral Reef Watch</p></div>

Part 2i. Monthly and Seasonal Outlooks for November and November to January 2025

Monthly: November	Seasonal: November to January
<div>Monthly sea surface temperature (Image 5):</div> <div><p>Difference from average sea surface temperature forecast for November 2024</p><p>Base period: 1981-2018 Model: ACCESS-S2 Model run: 05/10/2024 Issued: 07/10/2024</p><p>© Commonwealth of Australia 2024 Australian Bureau of Meteorology, supported by COSPPac</p><p>-- EEZ border V11 (Flanders Marine Institute, 2019).</p></div>	<div>Seasonal sea surface temperature (Image 6):</div> <div><p>Difference from average sea surface temperature forecast for November 2024 to January 2025</p><p>Base period: 1981-2018 Model: ACCESS-S2 Model run: 05/10/2024 Issued: 07/10/2024</p><p>© Commonwealth of Australia 2024 Australian Bureau of Meteorology, supported by COSPPac</p><p>-- EEZ border V11 (Flanders Marine Institute, 2019).</p></div>
<div>Monthly sea level (Image 7):</div> <div><p>Difference from average sea surface height forecast for November 2024</p><p>Base period: 1981-2018 Model: ACCESS-S2 Model run: 05/10/2024 Issued: 07/10/2024</p><p>© Commonwealth of Australia 2024 Australian Bureau of Meteorology, supported by COSPPac</p><p>-- EEZ border V11 (Flanders Marine Institute, 2019).</p></div>	<div>Seasonal sea level (Image 8):</div> <div><p>Difference from average sea surface height forecast for November 2024 to January 2025</p><p>Base period: 1981-2018 Model: ACCESS-S2 Model run: 05/10/2024 Issued: 07/10/2024</p><p>© Commonwealth of Australia 2024 Australian Bureau of Meteorology, supported by COSPPac</p><p>-- EEZ border V11 (Flanders Marine Institute, 2019).</p></div>
<div>4-week Coral Bleaching (Image 9):</div> <div><p>Cook Islands 4 Weeks Coral Bleaching Outlook: 20 October 2024</p><p>© Commonwealth of Australia 2024 Australian Bureau of Meteorology, COSPPac</p><p>NOAA Coral Reef Watch</p></div>	<div><p>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 20 October 2024</p><p>© Commonwealth of Australia 2024 Australian Bureau of Meteorology, COSPPac</p><p>NOAA Coral Reef Watch</p></div>

Summary Statement

Monthly and last three months: September 2024/July to September 2024 statement

The rainfall for September was normal over Penrhyn and above normal for Rarotonga station. Meanwhile, rainfall over the past three months of July to September was normal over both Penrhyn and Rarotonga.

Part 1i. Monthly and Seasonal Outlooks for November and November to January 2025

Monthly /Seasonal rainfall and temperature Outlook statements

The rainfall for November favours below normal very likely over Penrhyn, and shows above normal as most likely over Rarotonga station.

The rainfall for November 2024 to January 2025 for Penrhyn shows continued trend of below normal is very likely and to expect near normal rainfalls for Rarotonga.

Maximum and minimum temperatures during November and averaged over November 2024 to January 2025 are very likely to be above normal for all of the Cook Islands.

Part 2: Recent Ocean summary statement

Monthly and last three months: September 2024/July to September 2024

September and averaged over July to September, ocean temperatures around Cook Islands were utmost 1.0°C above normal.

September sea levels around both Penrhyn and Rarotonga were 50mm to 100mm above normal.

‘No Stress’ coral bleaching for the Cooks.

Part 2i. Monthly and Seasonal Outlooks for November and November to January 2025

Ocean Variable statement

November and averaged over November 2024 to January 2025 ocean temperatures around Penrhyn is expected to be near normal at -0.4 to 0.4°C and Rarotonga is predicted to be around 0.4 to 0.8°C above normal.

November and averaged over November 2024 to January 2025 sea levels around both Penrhyn and Rarotonga is predicted to be near normal at -30mm to 30mm.

IN BRIEF for Teleconference

- Rainfall: Normal rainfall was observed for Penrhyn while normal to above normal for Rarotonga.
- The rainfall outlook shows below normal rainfall very likely for Penrhyn and normal to above normal for Rarotonga next 1-3 month
- SSTs were above normal for September and averaged over July to September. The outlook shows near normal to above normal SSTs for the next one and three months.
- Sea-surface heights (SSHs) were showing near normal for September The outlook shows near normal to above normal SSHs for the next one and three months.
- Coral bleaching levels for Cooks, suggest ‘No Stress’

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

Product	Date: September 2024	Stakeholder	Total Number of Participants	Number of Male	Number of Female	Disability	Age group	Comments (If there are comments from you Stakeholders)
Climate Bulletin								Soon to be finalized
EAR Watch		Red Cross, Island Council and Executive Officers, To Tatou Vai, etc.....	58	?	?	?	?	
Monthly Climate Briefing		Climate Change	10	4	6	?	?	
Ocean Outlook								Soon to be finalized
Climate data request		Ministry of Marine Resources, Local Newspaper, To Tatou Vai	5	2	3	?	?	
Total			73	?	?	?	?	