

Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 200

Country: Cook Islands

Part 1: Recent climate

TABLE 1: Monthly Rainfall

Station (include data period)	Feb-2024	Mar-2024	Apr-2024				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Penrhyn (1937-2024)	191.2	99.0	224.0	100.0	184.7	129.3	68/85
Rarotonga (1899-2024)	248.0	119.3	220.3	145.3	243.3	196.0	81/126

TABLE 2: Three-month Total Rainfall for February to April 2024

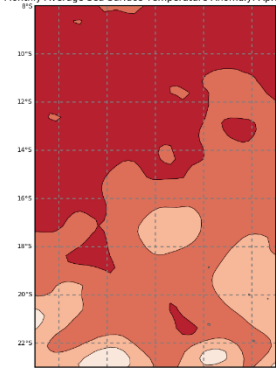
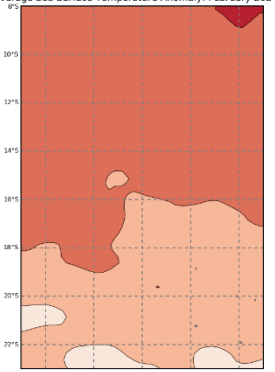
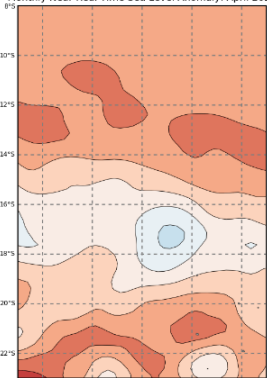
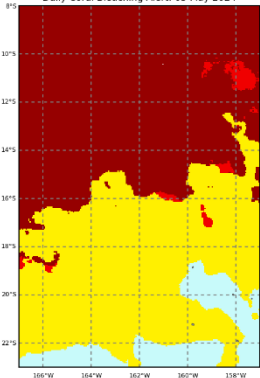
Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Penrhyn (1937-2024)	514.2	Normal	453.9	723.3	581.7	39/84
Rarotonga (1899-2024)	587.6	Normal	557.7	691.5	631.0	45/126

Part 1i. Monthly and Seasonal Outlooks for June and June to August 2024

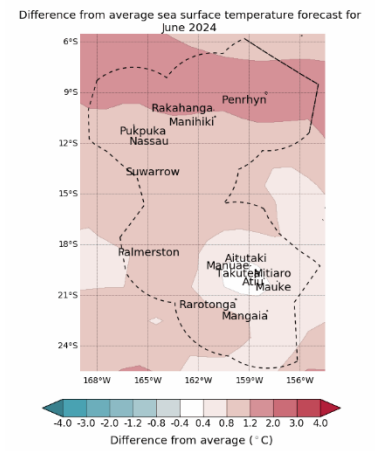
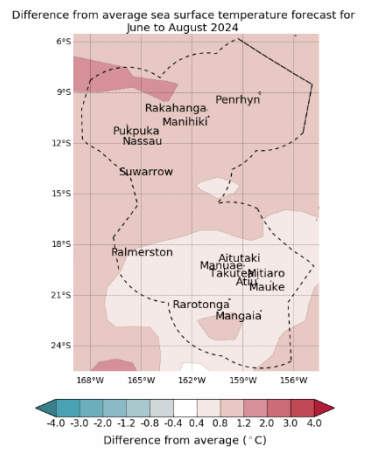
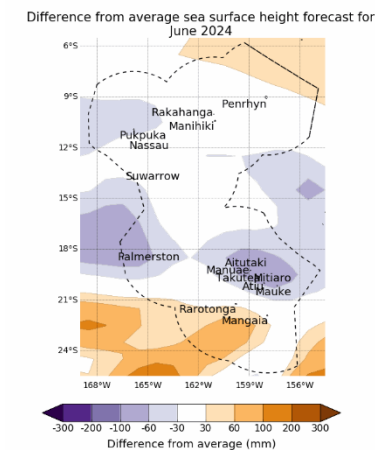
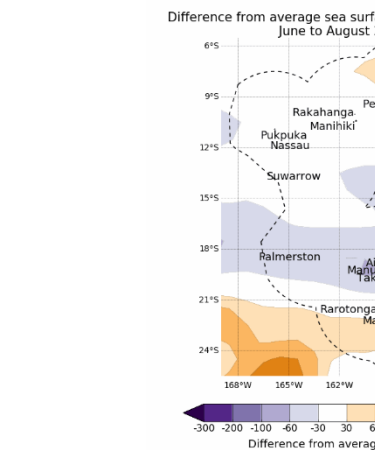
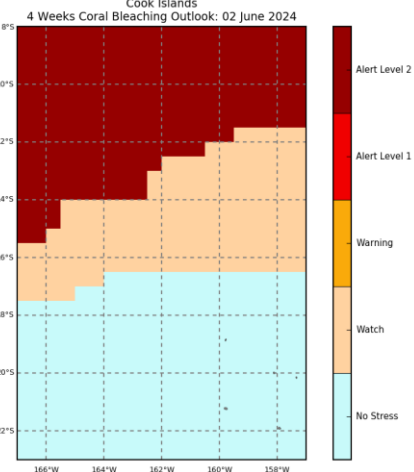
Monthly: June	Seasonal: June to August
Rainfall (Image 1)	Rainfall (Image 2)
Monthly Maximum temperature (Image 3):	Seasonal maximum temperature (Image 4):
Monthly minimum temperature (Image 5):	Seasonal minimum temperature (Image 6):

Part 2: Recent Ocean Observation

Monthly/Three months: April 2024 and February to April 2024

Monthly: April 2024	Last three months: February to April 2024:
Sea Surface Temperature (Image 1):	Sea Surface Temperature (Image 4):
<div><p>Cook Islands</p><p>Monthly Average Sea Surface Temperature Anomaly: April 2024</p><p>©Commonwealth of Australia 2024 Australian Bureau of Meteorology, COSIPac</p><p>Reynolds SST</p></div>	<div><p>Cook Islands</p><p>3 monthly Average Sea Surface Temperature Anomaly: February 2024 to April 2024</p><p>©Commonwealth of Australia 2024 Australian Bureau of Meteorology, COSIPac</p><p>Reynolds SST</p></div>
Sea level (Image 2):	
<div><p>Cook Islands</p><p>Monthly Near Real Time Sea Level Anomaly: April 2024</p><p>©Commonwealth of Australia 2024 Australian Bureau of Meteorology, COSIPac</p><p>AVISO SeaWiFS/SIA</p></div>	
Daily coral bleaching alert (Image 3):	
<div><p>Cook Islands</p><p>Daily Coral Bleaching Alert: 05 May 2024</p><p>©Commonwealth of Australia 2024 Australian Bureau of Meteorology, COSIPac</p><p>NOAA Coral Reef Watch</p></div>	

Part 2i. Monthly and Seasonal Outlooks for June and June to August 2024

<p>Monthly: June</p> <p>Monthly sea surface temperature (Image 5):</p>  <p>Difference from average sea surface temperature forecast for June 2024</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2024, Australian Bureau of Meteorology Sea surface data extracted from SeaWiFS Marine Institute (2019), Maritime Boundaries Geodatabase Maritime Boundaries and Exclusive Economic Zones (2004), version 1.1. Available online at http://www.maritime.gov.au</p> <p>Model run: 06/05/2024 Issued: 06/05/2024</p>	<p>Seasonal: June to August</p> <p>Seasonal sea surface temperature (Image 6):</p>  <p>Difference from average sea surface temperature forecast for June to August 2024</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2024, Australian Bureau of Meteorology Sea surface data extracted from SeaWiFS Marine Institute (2019), Maritime Boundaries Geodatabase Maritime Boundaries and Exclusive Economic Zones (2004), version 1.1. Available online at http://www.maritime.gov.au</p> <p>Model run: 06/05/2024 Issued: 06/05/2024</p>
<p>Monthly sea level (Image 7):</p>  <p>Difference from average sea surface height forecast for June 2024</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2024, Australian Bureau of Meteorology Sea level data extracted from SeaWiFS Marine Institute (2019), Maritime Boundaries Geodatabase Maritime Boundaries and Exclusive Economic Zones (2004), version 1.1. Available online at http://www.maritime.gov.au</p> <p>Model run: 06/05/2024 Issued: 06/05/2024</p>	<p>Seasonal sea level (Image 8):</p>  <p>Difference from average sea surface height forecast for June to August 2024</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2024, Australian Bureau of Meteorology Sea level data extracted from SeaWiFS Marine Institute (2019), Maritime Boundaries Geodatabase Maritime Boundaries and Exclusive Economic Zones (2004), version 1.1. Available online at http://www.maritime.gov.au</p> <p>Model run: 06/05/2024 Issued: 06/05/2024</p>
<p>4-week Coral Bleaching (Image 9):</p>  <p>Cook Islands 4 Weeks Coral Bleaching Outlook: 02 June 2024</p> <p>Alert Level 2 Alert Level 1 Warning Watch No Stress</p> <p>© Commonwealth of Australia 2024 Australian Bureau of Meteorology, COSPPac</p> <p>NOAA Coral Reef Watch</p>	

Summary Statement

Monthly and last three months: April 2024/February to April 2024 statement

The rainfall for April was above normal over Penrhyn and near-normal over Rarotonga. For the past three months, rainfall was near-normal for both Penrhyn and Rarotonga.

Part 1i. Monthly and Seasonal Outlooks for June and June to August 2024

Monthly /Seasonal rainfall and temperature Outlook statements

The rainfall for June is very likely to be above normal over the northern Cook Islands, including Penrhyn. Rainfall is likely to be below normal at some southern islands, but the outlook for Rarotonga offers little guidance.

The rainfall for June to August follows a similar pattern, with above normal very likely in the north, but little guidance for some southern islands, including Rarotonga.

Maximum and minimum temperatures during June and averaged over June to August are very likely to be above normal for all of the Cook Islands.

Part 2: Recent Ocean summary statement

Monthly and last three months: April 2024/February to April 2024

April ocean temperatures were 1.5 to 2.0°C above normal around Penrhyn, and 1.0 to 1.5°C above normal around Rarotonga.

Averaged over February to April, ocean temperatures were 1.0 to 1.5°C above normal around Penrhyn, and 0.5 to 1.0°C above normal around Rarotonga.

April sea levels were 100 to 150mm above normal around Penrhyn and 150 to 200mm above normal for Rarotonga.

There is a coral bleaching '*Alert Level 2*' for northern Cook Islands.

Part 2i. Monthly and Seasonal Outlooks for June and June to August 2024

Ocean Variable statement

June ocean temperatures are predicted to be 1.2 to 2.0°C above normal around Penrhyn, and 0.4 to 0.8°C above normal around Rarotonga.

Averaged over June to August, ocean temperatures are predicted to be 0.8 to 1.2°C above normal around Penrhyn, and 0.4 to 0.8°C above normal around Rarotonga.

June sea levels around both Penrhyn and Rarotonga are predicted to be near-normal, -60 to -30mm below normal for Palmerston and Atutaki.

Averaged over June to August, sea levels are predicted to be 30 to 60mm above normal around Penrhyn, 60 to 30mm below normal for Palmerston and Atutaki and near-normal for Rarotonga

The 4-week coral bleach outlook gives '*Alert level 2*' for northern Cook Islands.

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

Product	Date: April 2024	Stakeholder	Total Number of Participants	Number of Male	Number of Female	Comments (If there are comments from you Stakeholders)
Climate Bulletin						
EAR Watch		Red Cross, Island Council and Executive Officers, To Tatou Vai, etc.....	39	?	?	
Monthly Climate Briefing		Climate Change	8	?	?	
Ocean Outlook						
Climate data request		Ministry of Marine Resources, Local Newspaper	2		2	
Total			49	?	?	