

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

Country: Cook Islands

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)				
Penrhyn (1937-2022)	252.2	42.0	18.0	81.7	139.0	114.5	2/85
Rarotonga (1899-2022)	64.2	34.5	268.4	76.3	122.0	101.6	117/124

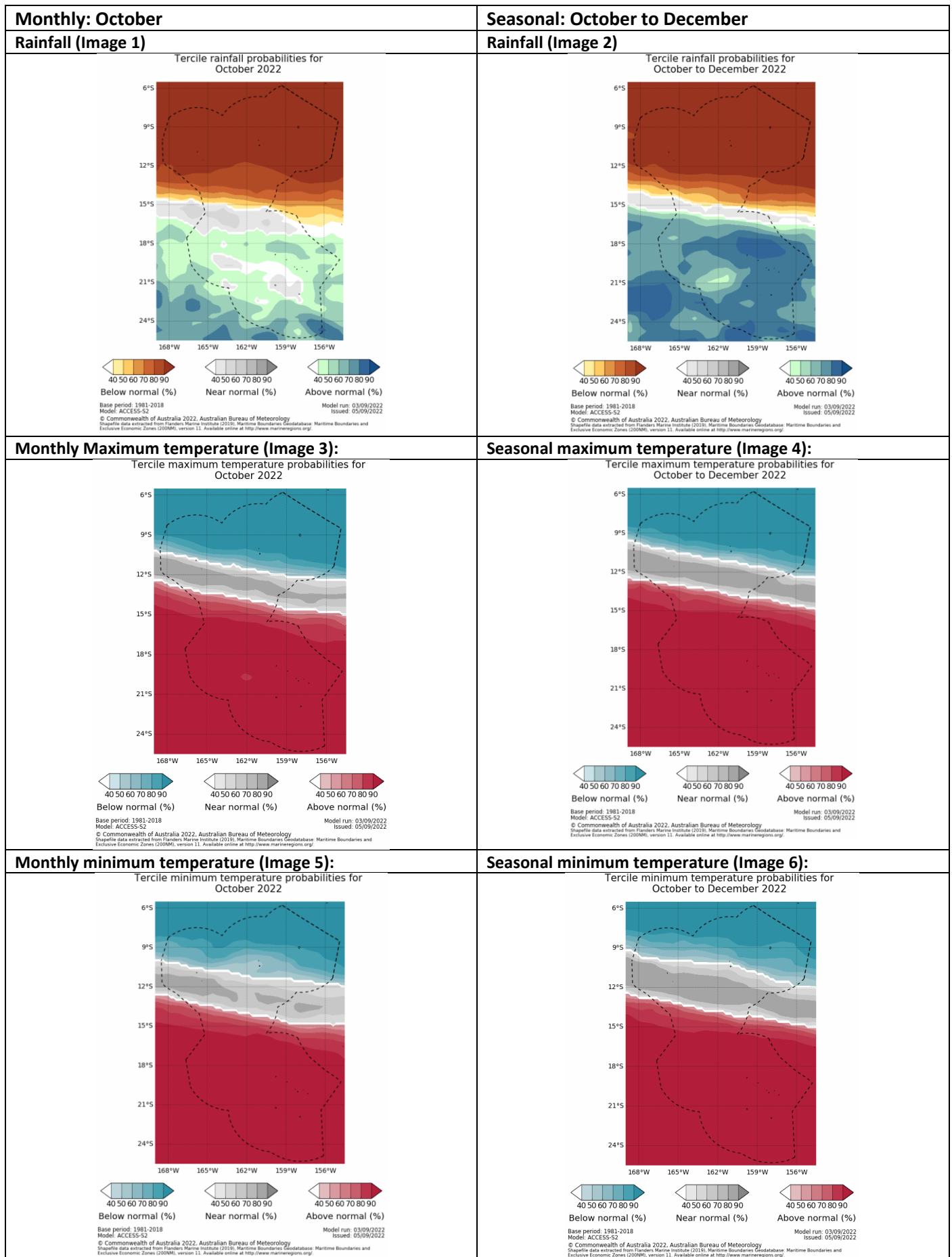
**TABLE 2: Three-month Total Rainfall for June to August 2022**

Station	Three-month Total	33%tile	67%tile	Median	Rank	
	Rainfall (mm)					
Penrhyn (1937-2022)	312.2	Normal	257.0	519.3	350.2	37/84
Rarotonga (1899-2022)	367.1	Above normal	248.0	364.8	309.0	83/124

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



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# Part 2: Recent Ocean Observation

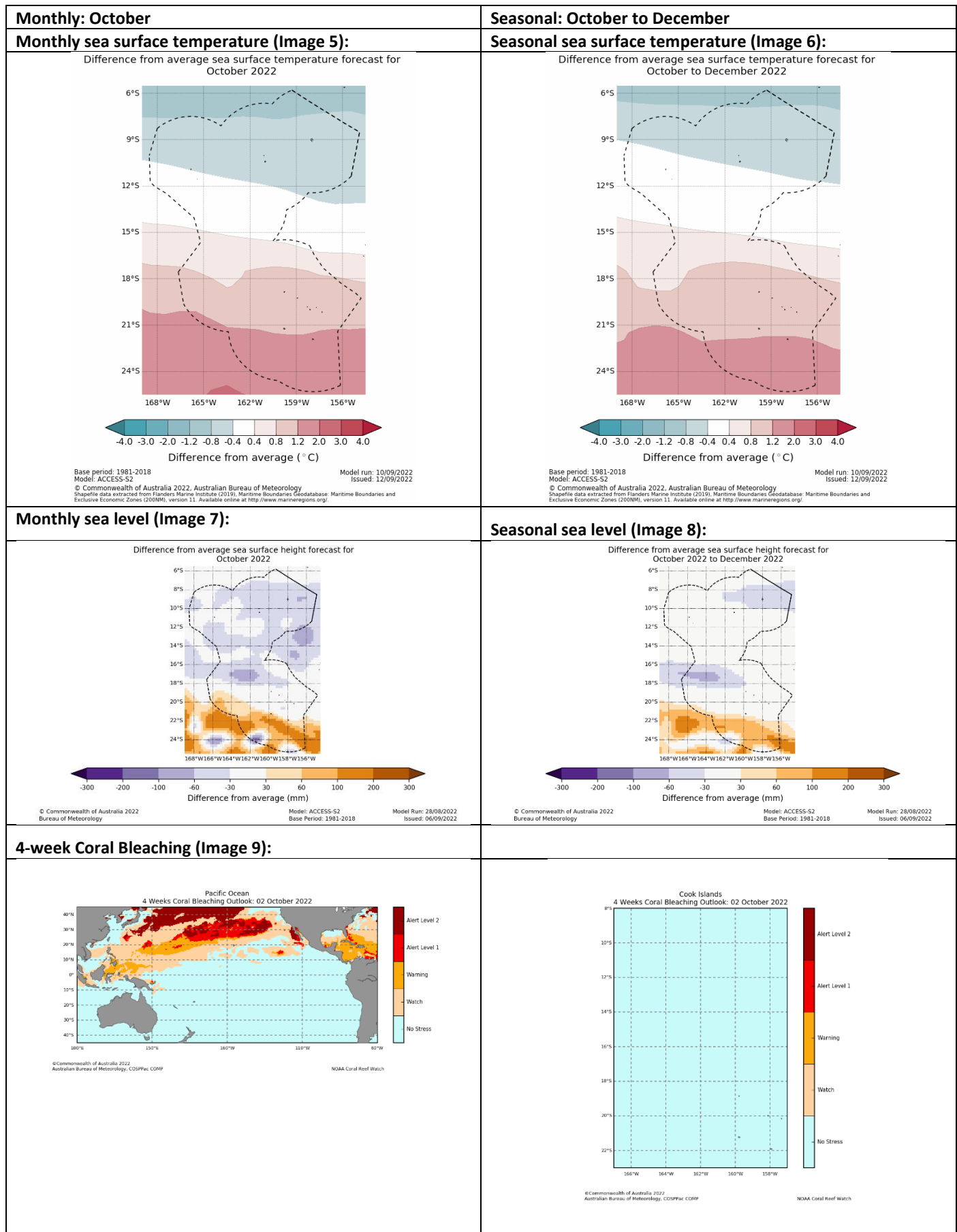
## Monthly/Three months: August 2022 and June to August 2022

Monthly: August	Last three months: June to August 2022:
<p><b>Sea Surface Temperature (Image 1):</b></p> <p>Cook Islands Monthly Average Sea Surface Temperature Anomaly: August 2022</p> <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPPac COMP</p> <p>Reynolds SST</p>	<p><b>Sea Surface Temperature (Image 4):</b></p> <p>Cook Islands 3 monthly Average Sea Surface Temperature Anomaly: June 2022 to August 2022</p> <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPPac COMP</p> <p>Reynolds SST</p>
<p><b>Sea level (Image 2):</b></p> <p>Cook Islands Monthly Near Real Time Sea Level Anomaly: August 2022</p> <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPPac COMP</p> <p>AVISO SeaWiFS/SeaWiFS SLA</p>	
<p><b>Daily coral bleaching alert (Image 3):</b></p>	
<p>Pacific Ocean Daily Coral Bleaching Alert: 06 September 2022</p> <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPPac COMP</p> <p>NOAA Coral Reef Watch</p>	<p>Cook Islands Daily Coral Bleaching Alert: 06 September 2022</p> <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPPac COMP</p> <p>NOAA Coral Reef Watch</p>

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



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## Summary Statement

### Monthly and last three months: August 2022/June to August 2022 statement (Highly significant changes)

Below normal rainfall was recorded at Penrhyn station and below normal for Rarotonga station for August 2022. Penrhyn station recorded its second driest August on record while Rarotonga recorded its eight wettest August. The 3-month (June-August) rainfall accumulation was normal for Penrhyn and above normal for Rarotonga station.

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

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

Rainfall outlook for next month is very likely to be below normal for Penrhyn and above normal for Rarotonga station. The 3-month (October-December 2022) rainfall outlook for Penrhyn is very likely to be below normal, while Rarotonga is very likely to be above normal.

Temperature outlook patterns is similar for next month and next 3 months which is very likely to be below normal for Penrhyn, and above normal is very likely for all Southern Cooks including Rarotonga.

## Part 2: Recent Ocean summary statement

### Monthly and last three months: August/June to August 2022 (Highly significant changes)

#### Sea Surface Temperature statement

Penrhyn and the Northern Cooks experienced below normal SST while most of the Southern Cooks including Rarotonga experienced above average SST of utmost 1.5°C for August 2022. Central Cooks experienced near normal conditions.

#### Sea level statement

Above normal for all Cooks waters in August 2022 ranging from 50mm to 250mm.

#### Daily bleaching alert statement

'No stress' coral bleaching alert status was seen for all of Cooks for August 2022.

#### Last three months Sea Surface Temperature statement

For the June to August 2022 period, warmer than average SSTs were experienced for central and the Southern Cooks of utmost 1.5 °C. The Northern Cooks, including Penrhyn was below normal.

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

### Ocean Variable statement (Highly significant changes)

#### Monthly sea surface temperature statement

Monthly and seasonal outlook shows below average for Penrhyn and above average for Southern Cooks including Rarotonga with a significant temperature difference of 0.8 to 1.2°C for October 2022.

#### Seasonal Sea Surface Temperature statement

Seasonal outlook similar to the monthly outlook.

#### Monthly sea level statement

Outlooks are likely to be below average for Penrhyn and above normal for Rarotonga in October 2022.

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## Seasonal sea level statement

Similar to monthly outlook.

**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
Climate Bulletin		MoT (Ministry of Transport)	29	17	12
EAR Watch		C.I Govt. Stakeholders and Public	?	?	?
Monthly Climate Briefing		Climate Change	8	2	6
Ocean Outlook					
Climate data request		MMR (Ministry of Marine Resources)	1		1
<b>Total</b>			<b>38</b>	<b>19</b>	<b>19</b>

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