

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 156

Country: Cook Islands

TABLE 1: Monthly Rainfall

Station (include data period)	Jun-2020	Jul-2020	Aug-2020				Rank
			Total (mm)	33%tile	67%tile	Median	
	Total (mm)	Total (mm)	Rainfall (mm)				
Penrhyn (1937-2020)	125.6	132.6	92.0	80.8	141.0	116.5	37/83
Rarotonga (1899-2020)	17.4	155.3	181.2	75.0	119.0	100.5	104/122

TABLE 2: Three-month Rainfall for June to August 2020

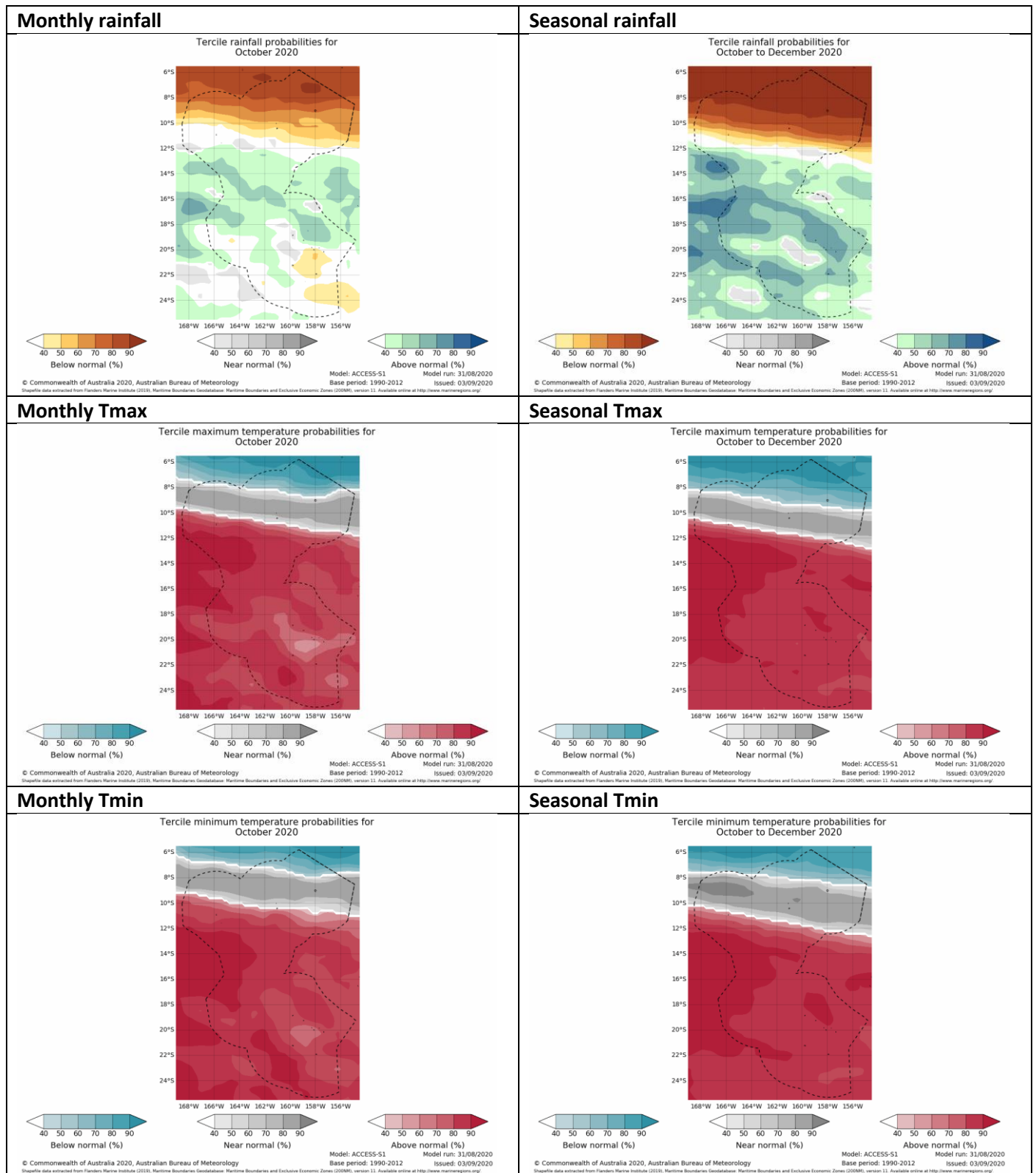
Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities based on NINO3.4 March-April 2020				Verification: Consistent, Near-consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
Penrhyn (1937-2020)	350.2	Normal	257.0	531.3	370.4	42/82	15	36	49	13	Near-consistent
Rarotonga (1899-2020)	353.9	Normal	246.0	364.7	297.5	76/122	41	30	29	0	Near-consistent

TABLE 3: Seasonal Climate Outlooks using SCOPIC for October to December 2020
Predictor and Period used: NINO3.4 for July to August 2020

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Penrhyn (1937-2020)	58	492.0	42		17	61
Rarotonga (1899-2020)	44	459.5	56		12	66

Station	Below Normal (prob)	33%ile Rainfall (mm)	Normal (prob)	67%ile Rainfall (mm)	Above Normal (prob)	LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Penrhyn (1937-2020)	38	372.4	40	634.3	22	24	57
Rarotonga (1899-2020)	24	358.0	38	528.7	38	16	49

Table 4: Monthly and Seasonal Climate Outlooks using ACCESS-S for October to December 2020



Summary Statements

Rainfall for August 2020:

Rainfall for August 2020 was normal for Penrhyn and above normal for Rarotonga.

Accumulated rainfall for June to August 2020, including outlook verification:

Accumulated rainfall for the period of June to August 2020 was normal for both Penrhyn and Rarotonga.

The verification of the outlook issued in May was near-consistent for both stations.

Outlooks for October to December 2020:

1. SCOPIC:

The rainfall outlook for Penrhyn shows a near-equal likelihood of normal and below normal. Above normal is the least likely. Rarotonga's outlook shows a near-equal likelihood of above normal and normal rainfall, below normal is the least likely.

Forecast confidence is high for Penrhyn and Rarotonga.

2. ACCESS-S:

Monthly rainfall:

The October outlook for Penrhyn favours below normal rainfall (70-80% chance), but at Rarotonga the outlook offers little guidance. Above normal rainfall is the favoured or most likely outcome for the central Cook Islands in October.

Seasonal rainfall:

For the October-December period, the outlook favours below normal rainfall over the northern Cook Islands, including Penrhyn, and above normal rainfall over the central and southern Cook Islands region, including Rarotonga.

Monthly maximum and minimum temperatures:

Over the southern three-quarters of the Cook Islands, including Rarotonga, above normal maximum and minimum temperatures are favoured during October, but over the far north of the region, below normal temperatures are favoured. Between these two areas there is a narrow zone where near-normal maximum and minimum temperatures are favoured, including at Penrhyn.

Seasonal maximum and minimum temperatures:

The seasonal temperature outlook pattern is very similar to the monthly pattern: near-normal temperatures are favoured for Penrhyn, while Rarotonga sits in a large area where above normal maximum and minimum temperatures are favoured for the coming three months.

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: $X \geq 35$

Table: 5 Stakeholder Engagement- Evaluations of how effective NMS engage with stakeholders

Product	Date: August 2020	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin		Ministry of Transport	29	18	11
EAR Watch		C.I Govt.	?	?	?
Monthly Climate Briefing					
Ocean Bulletin					
Total			29	18	11