

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 155

Country: Cook Islands

TABLE 1: Monthly Rainfall

Station (include data period)	May-2020	Jun-2020	Jul-2020				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Penrhyn (1937-2020)	58.0	125.6	132.6	79.0	141.6	112.0	53/84
Rarotonga (1899-2020)	148.0	17.4	155.3	58.0	107.0	88.5	101/122

TABLE 2: Three-month Rainfall for May to July 2020

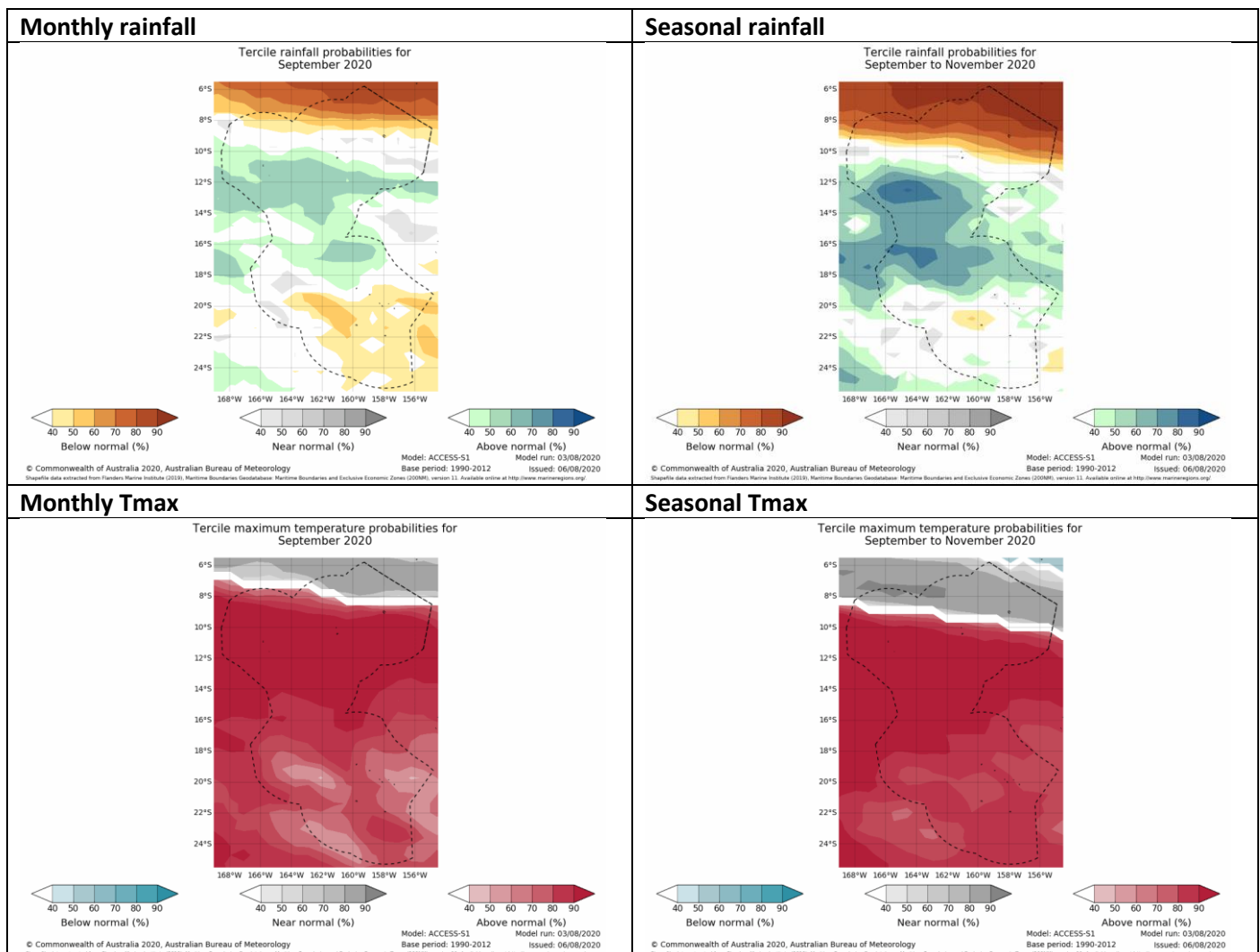
Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities based on NINO3.4 February-March 2020				Verification: Consistent, Near- consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
Penrhyn (1937-2020)	316.2	Normal	287.4	488.6	351.0	34/81	19	36	45	16	Near- consistent
Rarotonga (1899-2020)	320.7	Normal	303.0	392.0	341.0	54/122	40	36	24	5	Near- consistent

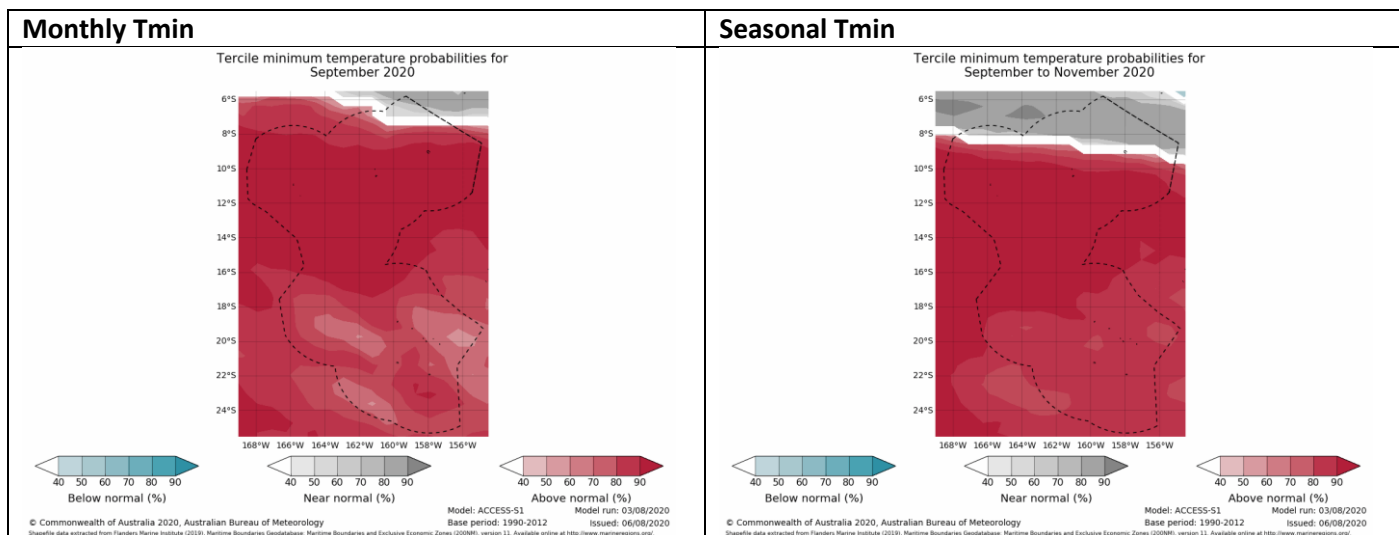
TABLE 3: Seasonal Climate Outlooks using SCOPIC for September to November 2020
Predictor and Period used: NINO3.4 for June to July 2020

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Penrhyn (1937-2020)	54	367.5	46		27	72
Rarotonga (1899-2020)	49	355.0	51		2	57

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)	35	312.1	40	486.7	25	22	52
Rarotonga (1899-2020)	31	292.0	35	401.0	34	3	34

Monthly and Seasonal Climate Outlooks using ACCESS-S for September to November 2020





Summary Statements

Rainfall for July 2020:

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

Accumulated rainfall for May to July 2020, including outlook verification:

Accumulated rainfall for the period of May to July 2020 was normal for both Penrhyn and Rarotonga.

Outlooks verification was near-consistent for both Penrhyn and Rarotonga.

Outlooks for September to November 2020:

1. SCOPIC:

The rainfall outlook for Penrhyn shows normal as the most likely outcome, with below normal being the next most likely; above normal is the least likely outcome. Rarotonga's outlook offers little guidance as the chances of above-normal, normal and below-normal are similar.

Forecast confidence is high for Penrhyn and low for Rarotonga.

2. ACCESS-S:

Seasonal rainfall:

The outlook for Penrhyn favours below normal rainfall (70-80% chance), while at Rarotonga below normal is the most likely outcome (40-50% chance). The outlook favours above normal rainfall over the central Cook Islands region.

Seasonal maximum and minimum temperatures:

Near-normal maximum and minimum temperatures are favoured for Penrhyn with 80-90% chance, and a above normal maximum and minimum temperatures are favoured at Rarotonga,.

Monthly rainfall:

The one-month outlook shows below normal is the most likely outcome (40-50% chance) at both Penrhyn and Rarotonga. Above normal rainfall is the favoured or most likely outcome for the central Cook Islands in September.

Monthly maximum and minimum temperatures:

Above normal maximum and minimum temperatures during September are favoured at both Penrhyn ($\geq 90\%$ chance) and Rarotonga (70-80% chance). This forecast also applies for nearly the whole of Cook Islands.

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: July 2020	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin		Ministry of Transport	24	16	8
EAR Watch		Cook.Islands Govt.	?	?	?
Monthly Climate Briefing					
Ocean Bulletin					
Total			?	?	?