

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 125

Country Name: COOK ISLANDS

TABLE 1: Monthly Rainfall

Station (include data period)			January 2018				
	November 2017 Total	December 2017 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Penrhyn	36.4	190.6	96.8	116.0	302.1	173.0	20/80
Rarotonga	130.2	292.3	212.0	175.7	283.7	214.0	59/120

**TABLE 2: Three-monthly Rainfall
November 2017 to January 2018**

[Please note that the data used in this verification should be sourced from table 3 of OCOF #121]

Station	Three-month Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking	Forecast probs.* (include LEPS)	Verification* (Consistent, Near-consistent Inconsistent)?
Penrhyn	323.8	370.0	755.0	579.0	20/80	29/ 45 /26 30.9%	Near-consistent
Rarotonga	634.5	503.0	687.0	578.0	71/119	29/ 36 /35 12.5%	Consistent

Period: *below normal/normal/above normal

Predictors and Period used for November 2017 to January 2018 Outlooks (refer to OCOF #121): NINO3.4 SST Anomalies August – September 2017

* Forecast is consistent when observed and predicted (tercile with the highest probability) categories coincide (are in the same tercile).

Forecast is near-consistent when observed and predicted (tercile with the highest probability) differ by only one category (i.e. terciles 1 and 2 or terciles 2 and 3).

Forecast is inconsistent when observed and predicted (tercile with the highest probability) differ by two categories (i.e. terciles 1 and 3).

**TABLE 3: Seasonal Climate Outlooks using SCOPIC for
March to May 2018**

Predictors and Period used: NINO3.4 SST Anomalies Dec 2017 – Jan 2018

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
Penrhyn	61	488.6	39		7.4%	60.6%
Rarotonga	36	581.0	64		11.2%	62.7%

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	67%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
Penrhyn	41	386.3	36	654.2	23	5.6%	36.4%
Rarotonga	24	515.4	34	653.7	42	5.3%	37.3%

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for
March to May 2018**

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	67%ile rainfall (mm)	Upper Tercile (prob)		
Penrhyn	88	500	7	850	5		
Rarotonga	55	453	18	581	27		

Summary Statements

Rainfall for January 2018:

For the month of January, Penrhyn had below normal rainfall, and Rarotonga had normal rainfall.

Accumulated rainfall for November 2017 to January 2018, including outlook verification:

Accumulated rainfall for the 3 month period of November 2017 to January 2018 was below normal for Penrhyn station, and normal for Rarotonga.

SCOPIC outlook verification for said period was consistent at Rarotonga and near-consistent for Penrhyn, with good to very high confidence respectively.

Outlooks for March to May 2018:

1. SCOPIC:

Outlook for the upcoming months of March to May 2018, indicates below normal rainfall as the most likely outcome for Penrhyn with normal being the next most likely to occur. The outlook for Rarotonga indicates above normal as the most likely outcome with normal amounts of rainfall as the next most likely to occur.

Confidence in the outlook is moderate for both Penrhyn and Rarotonga.

2. POAMA:

The POAMA outlook favours below-normal rainfall for the coming three months at both sites.

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: $X \geq 35$