

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 96

Country Name: Cook Islands

TABLE 1: Monthly Rainfall

Station (include data period)	August 2015						
	June 2015 Total	July 2015 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Penrhyn (1937-Aug 2015)	36.0	32.5	22.4	79.5	152.5	117.5	3/78
Rarotonga (1899-Aug 2015)	87.2	10.6	52.0	72.6	119.7	97.5	18/86

TABLE 2: Three-monthly Rainfall June to August 2015

[Please note that the data used in this verification should be sourced from table 3 of OCOF #92]

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	90.9	263.8	540.0	383.8	2/77	8/34/58	Inconsistent
Rarotonga	149.8	254.0	365.0	300.0	6/86	34/33/33	Consistent

Period: *below normal/normal/above normal

Predictors and Period used for June to August 2015 Outlooks (refer to OCOF #92):

NINO3.4: Apr-May

* 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
October to December 2015**

Predictors and Period used:

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
Penrhyn	6	489.5	94		19.4	64.1
Aitutaki	98	469.8	2		31.2	78.1
Rarotonga	89	481.5	11		11.7	67.7

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
Penrhyn	0	380.0	17	624.0	83	26.8	54.7
Aitutaki	77	396.2	21	565.3	2	18.9	54.7
Rarotonga	81	410.0	14	544.7	5	14.0	47.7

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for
October to December 2015**

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)		
Penrhyn	24		5		71		
Aitutaki	94		5		1		
Rarotonga	73		18		9		

Summary Statements

Rainfall for August 2015:

In August, Penrhyn and Rarotonga recorded below normal rainfall.

Accumulated rainfall for June to August 2015, including outlook verification:

Penrhyn and Rarotonga rainfall for the period May-July was below normal. Outlook verification was inconsistent with the forecast for Penrhyn and consistent with the forecast for Rarotonga.

Outlooks for October to December 2015:

1. SCOPIC: Penrhyn season rainfall outlook for Oct-Dec 2015 favours above normal. Aitutaki and Rarotonga outlook favours below normal. Confidence in the outlooks during this period is very high for Penrhyn, good for Aitutaki and high for Rarotonga.

2. POAMA: the most likely rainfall outcome for Penrhyn is above normal and below normal for Aitutaki and Rarotonga.

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: $X \geq 35$