

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 83

Country Name: Cook Islands

TABLE 1: Monthly Rainfall

Station (include data period)	July 2014						
	May 2014 Total	June 2014 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Penrhyn (1937-Jul 2014)	135.2	33.2	29.1	82	154	116	7/78
Rarotonga (1899-Jul 2014)	119.0	114.7	147.2	58	120	88	89/116

TABLE 2: Three-monthly Rainfall May to July 2014

[Please note that the data used in this verification should be sourced from table 3 of OCOF #79]

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	197.5	287.3	482.3	350.4	11/75	26/45/29 (13.8%)	Near Consistent
Rarotonga	380.9	293	410	345	66/116	28/30/42 (1.1%)	Near Consistent

Period: *below normal/normal/above normal

Predictors and Period used for May to July 2014 Outlooks (refer to OCOF #79):

SSTa's 1&9 (Jan-Mar)

* 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 September to November 2014

Predictors and Period used: NINO3.4(2 Months)

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
Penrhyn	37%	389.9	63%		32.5%	74.2%
Rarotonga	52%	358	48%		0.3%	53.1%

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
Penrhyn	19%	324	41%	480.7	40%	29.6%	56.5%
Rarotonga	37%	299	33%	437	30%	4.1%	43.8%

TABLE 4: Seasonal Climate Outlooks using POAMA2 for September to November 2014

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)		
Penrhyn	6%	308	49%	473	45%		
Rarotonga	12%	251	70%	372	18%		

Summary Statements

Rainfall for July 2014:

Penrhyn experienced lower than normal rainfall for the month of July with only 29.1mm. It is the 7th driest July in all of Penrhyn's records. In contrast to Penrhyn, Rarotonga for the month of July was actually wetter than normal conditions with the amount of 147mm recorded.

Accumulated rainfall for May to July 2014, including outlook verification:

Penrhyn's rainfall for the period May to July was lower than normal with 197.5mm recorded, while rainfall was normal for Rarotonga with a total of 381mm recorded. Outlook verification was near consistent for both Islands of the Cooks.

Outlooks for September to November 2014:

1. SCOPIC:

The Penrhyn seasonal rainfall outlook for September to November shows that the most likely outcome is normal with above normal the next most likely. The confidence in the outlooks during this time of the year is very high. Rarotonga's outlook offers little guidance for the upcoming season as the chances of above normal, normal and below normal are close. However, history suggests the outlook confidence for this period is low.

2. POAMA:

The most likely rainfall outcome for Penrhyn is normal with a close above normal rainfall the next most likely. Rarotonga's outlook is most likely to be normal rainfall with the least likely to be lower than normal.

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: $X \geq 35$