

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 85

Country Name: Cook Islands

TABLE 1: Monthly Rainfall

Station (include data period)	September 2014						
	July 2014 Total	August 2014 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Penrhyn (1937-Sep 2014)	29.1	29.5	49.1	74.3	142	108.5	17/75
Rarotonga (1899-Sep 2014)	147.2	102.1	54.8	74	126	94	24/116

TABLE 2: Three-monthly Rainfall July to September 2014

[Please note that the data used in this verification should be sourced from table 3 of OCOF #81]

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	107.7	297.3	474.3	342	4/75	35/48/17 (11.8%)	Near consistent
Rarotonga	304.1	255	364	295	62/116	35/36/29 (-3.0%)	Consistent

Period: *below normal/normal/above normal

Predictors and Period used for July to September 2014 Outlooks (refer to OCOF #79):
SSTa's 1&9 (Mar-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 November 2014 to January 2015

Predictors and Period used: Nino 3.4 (2mnths)

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
Penrhyn	26%	568.8	74%		28%	66.7%
Rarotonga	58%	579	42%		10%	59.4%

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
Penrhyn	16%	360	39%	732.3	45%	19.4%	53.3%
Rarotonga	43%	503	35%	687	22%	19.4%	50%

TABLE 4: Seasonal Climate Outlooks using POAMA2 for November 2014 to January 2015

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)		
Penrhyn	30%	467	37%	766	33%		
Rarotonga	21%	304	33%	530	46%		

Summary Statements

Rainfall for September 2014:

Penrhyn experienced below normal rainfall for the month of September with only 49.1mm. Rarotonga also experienced below normal rainfall for the period with the amount of 54.8mm recorded.

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

Penrhyn rainfall for the period July to September was below normal with 107.7mm recorded, while rainfall was normal for Rarotonga with a total of 304.1mm recorded. Outlook verification was near consistent forecast for Penrhyn (good skill), consistent forecast for Rarotonga (very low skill)

Outlooks for November 2014 to January 2015:

1. SCOPIC: The Penrhyn seasonal rainfall outlook for November 2014 to January 2015 shows that the most likely outcome is above normal with normal the next most likely outcome. Confidence in the outlook during this time of the year is high. Rarotonga outlook shows that the most likely outcome is below normal with normal the next most likely outcome. Confidence in the outlooks during this period is also high.

2. POAMA: The most likely rainfall outcome for Rarotonga is above normal. At Penrhyn, the outlook offers little guidance as the chances of above-normal, normal and below-normal rainfall are similar.

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: $X \geq 35$