

## Pacific Islands - Online Climate Outlook Forum (OCOF) No. 119

**Country Name: COOK ISLANDS**

**TABLE 1: Monthly Rainfall**

Station (include data period)	July 2017						
	May 2017 Total	June 2017 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
<b>PENRHYN</b>	159.2	70.0	<b>42.4</b>	79.7	159.5	116.0	13/81
<b>RAROTONGA</b>	113.6	77.7	<b>45.3</b>	58.0	123.0	88.0	28/119

**TABLE 2: Three-monthly Rainfall  
May to July 2017**

[Please note that the data used in this verification should be sourced from table 3 of OCOF #115]

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)?
<b>PENRHYN</b>	<b>271.6</b>	283.5	482.3	351.0	23/78	32/ <b>39</b> /29 18.3%	Near-consistent
<b>RAROTONGA</b>	<b>236.6</b>	292.0	408.0	343.5	20/119	32/ <b>34</b> / <b>34</b> 3.2%	Near-consistent

Period: \*below normal/normal/above normal

Predictors and Period used for May to July 2017 Outlooks (refer to OCOF #115):

### NINO3.4 SST Anomalies JAN – MAR 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  
September to November 2017**

**Predictors and Period used: NINO3.4 SST Anomalies JUNE – JULY 2017**

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
PENRHYN	29	389.8	71		36.6%	73.8%
RAROTONGA	55	358.0	45		2.0%	53.7%

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	67%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
PENRHYN	16	318.5	37	486.7	47	30.0%	52.3%
RAROTONGA	40	299.0	32	437.0	28	5.9%	44.8%

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for  
September to November 2017**

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	67%ile rainfall (mm)	Upper Tercile (prob)		
PENRHYN	43	325	21	643	36		
RAROTONGA	40	297	27	404	33		

## **Summary Statements**

### **Rainfall for July 2017:**

Rainfall for the month of July 2017 was below normal for both Penrhyn and Rarotonga stations.

### **Accumulated rainfall for May to July 2017, including outlook verification:**

Accumulated rainfall for the period of May through to the end of July 2017 was below normal for both Penrhyn and Rarotonga stations.

SCOPIC outlook verification for the past three months was near-consistent for both Penrhyn and Rarotonga stations. Skill or confidence in the forecast was high for Penrhyn but low for Rarotonga.

### **Outlooks for September to November 2017:**

#### **1. SCOPIC:**

Rainfall forecast for the upcoming months of September to November 2017 shows above normal as the most likely at Penrhyn, with normal being the next most likely to occur. Meanwhile Rarotonga's outlook shows below normal as the most likely, with normal being the next most likely.

Confidence in the outlook is very high at Penrhyn and moderate at Rarotonga.

#### **2. POAMA:**

Outlook from POAMA indicates below normal rainfall is the most likely outcome for both Penrhyn 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:  $X \geq 35$