

## Pacific Islands - Online Climate Outlook Forum (OCOF) No. 118

**Country Name:** COOK ISLANDS

**TABLE 1: Monthly Rainfall**

Station (include data period)			June 2017				
	April 2017 Total	May 2017 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
<b>PENRHYN</b>	289.0	159.2	<b>70.0</b>	97.7	169.9	129.2	18/79
<b>RAROTONGA</b>	244.4	113.6	<b>77.7</b>	68.0	114.7	94.5	46/119

**TABLE 2: Three-monthly Rainfall  
April to June 2017**

[Please note that the data used in this verification should be sourced from table 3 of OCOF #114]

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>518.2</b>	315.0	526.0	383.0	50/77	<b>38/37/25</b> 13.9%	Near-consistent
<b>RAROTONGA</b>	<b>435.7</b>	373.0	485.0	423.5	64/119	<b>28/35/37</b> 6.0%	Near-consistent

Period: \*below normal/normal/above normal

Predictors and Period used for April 2017 to June 2017 Outlooks (refer to OCOF #114):

### NINO3.4 SST Anomalies Dec 2016 – Feb 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 August to October 2017**

Predictors and Period used: NINO3.4 SST Anomalies April – June 2017

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
PENRHYN	26	355.4	74		14.2%	61.5%
RAROTONGA	52	337.5	48		-1.4%	55.2%

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
PENRHYN	20	292.3	25	439.3	55	8.8%	44.6%
RAROTONGA	46	273.0	19	394.0	35	0.9%	49.3%

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for August to October 2017**

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)		
PENRHYN	21	308	55	473	24		
RAROTONGA	46	251	18	372	36		

## **Summary Statements**

### **Rainfall for June 2017:**

During the month of June Penrhyn recorded below normal rainfall amounts, while Rarotonga recorded normal amounts of rainfall.

### **Accumulated rainfall for April to June 2017, including outlook verification:**

Accumulated rainfall for the period of April through to the end of June 2017 was 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 good for Penrhyn and just moderate for Rarotonga.

### **Outlooks for August to October 2017:**

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

Rainfall forecast for the upcoming months of July to September 2017 favours above normal at Penrhyn with normal being the next most likely to occur. Meanwhile Rarotonga's outlook shows below normal is the most likely category, with above normal being the next most likely; normal is the least likely to occur.

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

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

Outlook from POAMA indicates normal rainfall for Penrhyn as the most likely, while below normal rainfall is the most likely for 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:  $X \geq 35$