Pacific Islands - Online Climate Outlook Forum (OCOF) No. 121

Country Name: Cook Islands

TABLE 1: Monthly Rainfall

Station (include data period)			September 2017				
	July 2017 Total	August 2017 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
PENRHYN	42.4	25.2	**57.8**	74.0	137.0	108.5	22/79
RAROTONGA	45.3	31.6	**34.5**	73.0	126.0	94.0	15/119

TABLE 2: Three-monthly Rainfall
July to September 2017
[Please note that the data used in this verification should be sourced from table 3 of OCOF #117]

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	**125.4**	294.3	470.5	342.0	8/79	17/31/**52** 15.2%	Inconsistent
RAROTONGA	**111.4**	255.0	364.0	296.5	5/119	**38**/24/**38** -1.8%	Near-Consistent

Period:*below normal/normal/above normal

Predictors and Period used for July to September 2017 Outlooks (refer to OCOF #117):
NINO3.4 SST Anomalies April – May 2017

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* Forecast is <u>consistent</u> when observed and predicted (tercile with the highest probability) categories coincide (are in the same tercile).
Forecast is <u>near-consistent</u> 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 <u>inconsistent</u> 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 2017 to January 2018

Predictors and Period used: NINO3.4 SST Anomalies August – September 2017

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
PENRHYN	54	579	46		25.4%	70.1%
RAROTONGA	48	578	52		7.5%	59.7%

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	67%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
PENRHYN	29	370	45	755	26	30.9%	59.7%
RAROTONGA	29	503	36	687	35	12.5%	43.3%

TABLE 4: Seasonal Climate Outlooks using POAMA2 for

November 2017 to January 2018

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	67%ile rainfall (mm)	Upper Tercile (prob)		
PENRHYN	91	530	5	892	4		
RAROTONGA	27	451	9	661	64		

Summary Statements

Rainfall for September 2017:
Rainfall in the Cook Islands was below normal for both stations.

Accumulated rainfall for July to September 2017, including outlook verification:
Accumulated rainfall for the period of July through to the end of September 2017 was below normal for both Cook Islands stations.

SCOPIC outlook verification for the past three months was inconsistent for Penrhyn with high confidence from the models. Rarotonga was near-consistent with very low skill.

Outlooks for November 2017 to January 2018:
1. SCOPIC:
Outlook for the upcoming months of November 2017 to January 2018, indicates normal rainfall as the most likely outcome for Penrhyn with below-normal being the next most likely to occur. Rarotonga's outlook offers little guidance as the chance of above-normal, normal and below-normal are similar.

Confidence in the outlook is very high at Penrhyn.

2. POAMA:
Outlook from POAMA favours below-normal rainfall as the most likely outcome for Penrhyn, while Rarotonga is favouring above-normal rainfall for its outcome.

3. PICASO:
Unable to get the NDJ outlook, maybe next time.

NB: The X LEPS % score has been categorised as follows:

Very Low: X < 0.0   Low: 0 ≤ X < 5   Moderate 5 ≤ X < 10   Good: 10 ≤ X < 15   High: 15≤ X < 25

Very High: 25 ≤X < 35   Exceptional: X ≥ 35