

## Pacific Islands - Online Climate Outlook Forum (OCOF) No. 72

**Country Name: TONGA**

**TABLE 1: Monthly Rainfall**

Station (include data period)			August 2013				
	June 2013 Total	July 2013 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
<b>Northern Division</b>							
Niuafoóu	79.1	204.5	205.4	63.0	126.0	84.5	36/43
Niuaatoputapu	77.3	236.9	194.3	49.7	100.0	66.0	60/67
<b>Central Division</b>							
Vavaú	30.8	221.9	360.9	61.7	125.7	81.0	67/67
Haápai	67.1	110.6	104.2	58.5	112.0	77.0	44/67
<b>Southern Division</b>							
Nukuálofa	77.3	80.0	127.6	67.0	136.3	100.0	41/69
Fuaámotu	84.5	112.5	140.7	75.8	138.3	95.0	23/34

**TABLE 2: Three-monthly Rainfall**

June 2013 to August 2013

[Please note that the data used in this verification should be sourced from table 3 of OCOF #68]

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>Northern Division</b>							
Niuafoóu	489.0	276.0	415.0	361.0	31/43	31,35,34 (-2.0)	Near Consistent
Niuaatoputapu	508.5	231.0	349.1	297.0	60/67	28,38,34 (0.1)	Near Consistent
<b>Central Division</b>							
Vavaú	613.6	253.0	347.7	307.5	61/67	28,35,37 (1.2)	Consistent
Haápai	281.9	190.7	308.9	273.0	38/67	35,31,34 (-2.5)	Near Consistent
<b>Southern Division</b>							
Nukuálofa	284.9	238.0	364.7	298.0	30/69	30,34,36 (-2.8)	Near Consistent
Fuaámotu	337.7	269.4	401.7	366.7	14/34	29,32,39 (-0.7)	Near Consistent

Period: \*below normal/normal/above normal

Predictors and Period used for June 2013 to August 2013 Outlooks (refer to OCOF #65):

**Predictors – SSTa's I & 9 Period; Feb 2013 – April 2013 with 1 month lead.**

\* 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 October to December 2013**

**Predictors and Period used: SSTa's 1@9 – June 2013 to August 2013**

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
<b>Northern Division</b>						
Niuafoóu	29	709.0	71		8.8	63.2
Niuaatoputapu	34	640.0	66		12.6	62.7
<b>Central Division</b>						
Vavaú	28	530.0	72		15.8	67.2
Haápai	25	354.0	75		14.0	67.2
<b>Southern Division</b>						
Nukuálofa	14	351.0	86		27.4	69.8
Fuaámotu	25	364.0	75		8.0	57.6

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
<b>Northern Division</b>							
Niuafoóu	20	632.3	25	840.1	55	4.9	42.1
Niuaatoputapu	19	532.0	29	746.0	52	4.3	37.3
<b>Central Division</b>							
Vavaú	14	381.3	22	624.7	64	17.4	53.1
Haápai	15	267.6	14	423.0	71	17.9	51.6
<b>Southern Division</b>							
Nukuálofa	15	285.3	25	420.3	60	22.6	55.6
Fuaámotu	8	298.5	13	434.5	79	28.1	60.6

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for September to November 2013**

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)		
Nukuálofa	30.00	229	36.67	380	33.33		

## **Summary Statements**

### **Rainfall for July 2013:**

**Northern Division:** Above Normal.

**Central Division:** Above normal in Vava'u, Normal in Ha'apai.

**Southern Division:** Normal in Nuku'alofa, Above normal in Fua'amotu.

### **Accumulated rainfall for June–August 2013, including outlook verification:**

**Northern Division:** Niuafu'ou: Above Normal, forecast was Near Consistent.

Niuaatoputapu: Above Normal, forecast was Near Consistent

**Central Division:** Above in Vava'u, forecast was Consistent

Normal in Ha'apai, forecast was Near Consistent

**Southern Division:** Nuku'alofa: Normal, forecast was Near Consistent

Fua'amotu: Normal, forecast was Near Consistent

### **Outlooks for October-December 2013:**

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

**Northern Division:** Niuafu'ou: Above Normal

Niuaatoputapu: Above Normal.

**Central Division:** Vava'u: Above Normal.

Ha'apai: Above Normal

**Southern Division:** Fua'amotu: Above Normal

Nuku'alofa: Above Normal

#### **2. POAMA: Outlook Normal for Nuku'alofa**

**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:  $X \geq 35$