

## Pacific Islands - Online Climate Outlook Forum (OCOF) No. 76

**Country Name: TONGA**

**TABLE 1: Monthly Rainfall**

Station (include data period)			December 2013				
	October 2013 Total	November 2013 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
<b>Northern Division</b>							
Niuafoóu	208.0	272.6	385.9	228.0	359.0	282.0	30/43
Niutatoputapu	184.1	212.0	458.1	186.0	278.0	240.0	56/67
<b>Central Division</b>							
Vavaú	148.0	118.8	328.3	125.3	250.0	172.0	51/67
Haápai	43.1	32.9	161.8	73.3	158.0	119.9	45/67
<b>Southern Division</b>							
Nukuálofa	160.5	173.0	233.8	75.3	173.0	129.0	61/70
Fuaámotu	130.1	210.0	251.8	131.3	186.2	150.5	30/34

**TABLE 2: Three-monthly Rainfall**

October to December 2013

[Please note that the data used in this verification should be sourced from table 3 of OCOF #72]

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

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	866.5	632.3	840.1	709.0	29/43	20,25, <b>55</b> (4.9)	Consistent
Niutatoputapu	854.2	532.0	746.0	640.0	52/67	19,29, <b>52</b> (4.3)	Consistent
<b>Central Division</b>							
Vavaú	595.1	381.3	624.7	530.0	43/67	14,22, <b>64</b> (17.4)	Near Consistent
Haápai	237.8	267.6	423.0	354.0	19/67	15,14, <b>71</b> (17.9)	In Consistent
<b>Southern Division</b>							
Nukuálofa	567.3	285.3	420.3	351.0	58/70	15,25, <b>60</b> (22.6)	Consistent
Fuaámotu	591.9	298.5	434.5	364.0	30/34	8, 13, <b>79</b> (28.1)	Consistent

Period: \*below normal/normal/above normal

\* 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 February 2014 to April 2014**

**Predictors and Period used: SSTa's 1@9 – October to December 2013**

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
<b>Northern Division</b>						
Niuafoóu	21	888.5	79		4.2	57.9
Niuaotopotapu	38	756.0	62		1.1	51.7
<b>Central Division</b>						
Vavaú	51	826.2	49		4.0	59.4
Haápai	45	646.0	55		3.3	56.3
<b>Southern Division</b>						
Nukuálofa	34	607.0	66		0.3	59.4
Fuaámotu	44	508.5	56		0.3	55.9

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	14	719.7	6	938.3	80	6.5	42.1
Niuaotopotapu	27	685.0	23	845.0	50	2.0	37.9
<b>Central Division</b>							
Vavaú	37	692.0	30	915.0	33	2.6	35.9
Haápai	23	538.0	54	705.0	23	13.5	51.6
<b>Southern Division</b>							
Nukuálofa	20	543.3	26	677.1	54	2.7	29.7
Fuaámotu	29	456.0	16	672.0	55	3.7	47.1

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for February 2014 to April 2014**

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)		
Nukuálofa	33	420	43	583	24		

## **Summary Statements**

### **Rainfall for December 2013:**

**Northern Division:** Above Normal.

**Central Division:** Above Normal.

**Southern Division:** Above Normal.

### **Accumulated rainfall for October – December 2013, including outlook verification:**

**Northern Division:** Above normal, forecast was Consistent.

**Central Division:** Normal for Vava'u, forecast was Near Consistent, Below Normal  
Ha'apai forecast was In Consistent.

**Southern Division:** Above Normal, forecast was Consistent.

### **Outlooks for February 2014-April 2014:**

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

**Northern Division:** Above normal with low to moderate skill.

**Central Division:** Below normal for Vava'u and Normal for Ha'apai with low to good skill.

**Southern Division:** Above normal with low skill.

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

**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:  $X \geq 35$