

## Pacific Islands - Online Climate Outlook Forum (OCOF) No. 75

**Country Name: TONGA**

**TABLE 1: Monthly Rainfall**

Station (include data period)	November 2013						
	September 2013 Total	October 2013 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
<b>Northern Division</b>							
Niuafoóu	227.1	208.0	272.6	170.0	288.1	235.0	26/43
Niutatoputapu	138.0	184.1	212.0	139.7	238.0	183.0	38/67
<b>Central Division</b>							
Vavaú	51.0	148.0	118.8	77.3	178.2	113.5	36/67
Haápai	22.7	43.1	32.9	69.0	134.0	96.5	16/67
<b>Southern Division</b>							
Nukuálofa	116.1	160.5	173.0	42.0	131.3	71.6	51/70
Fuaámotu	123.7	130.1	210.0	43.0	134.0	96.5	29/34

**TABLE 2: Three-monthly Rainfall**

September to November 2013

[Please note that the data used in this verification should be sourced from table 3 of OCOF #71]

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	707.7	448.0	637.0	556.0	30/43	27, 30, 43 (-0.7)	Consistent
Niutatoputapu	534.1	388.3	401.7	482.0	39/67	27, 32, 41 (1.9)	Near Consistent
<b>Central Division</b>							
Vavaú	317.8	365.3	547.0	421.5	18/67	18, 14, 68 (12.8)	In Consistent
Haápai	98.7	246.0	405.3	304.5	5/67	22, 22, 56 (4.9)	In Consistent
<b>Southern Division</b>							
Nukuálofa	449.6	240.6	430.0	354.7	49/69	12, 32, 56 (14.1)	Consistent
Fuaámotu	463.8	252.3	371.8	314.0	25/34	14, 29, 57 (11.1)	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 January 2014 to March 2014**

**Predictors and Period used: SSTa's 1@9 – September to November 2013**

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
<b>Northern Division</b>						
Niuafoóu	21	904.0	79		8.5	62.2
Niuaotoputapu	40	813.0	60		7.1	60.0
<b>Central Division</b>						
Vavaú	42	854.8	58		5.5	60.3
Haápai	28	660.0	72		19.5	75.0
<b>Southern Division</b>						
Nukuálofa	27	636.0	73		28.5	75.0
Fuaámotu	6	603.5	94		33.9	79.4

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	10	757.0	27	969.5	63	9.1	48.6
Niuaotoputapu	23	655.0	41	932.3	36	12.9	36.7
<b>Central Division</b>							
Vavaú	22	688.7	34	937.3	45	9.9	47.6
Haápai	5	562.0	32	778.0	63	26.2	59.4
<b>Southern Division</b>							
Nukuálofa	14	490.7	51	814.6	35	15.9	50.0
Fuaámotu	7	460.0	23	783.0	70	22.3	55.9

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for January 2014 to March 2014**

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)		
Nukuálofa	23	453.0	23	723.0	54		

## **Summary Statements**

### **Rainfall for November 2013:**

**Northern Division:** Normal.

**Central Division:** Normal for Vava'u and Below Normal for Ha'apai.

**Southern Division:** Above Normal.

### **Accumulated rainfall for September – November 2013, including outlook verification:**

**Northern Division:** Normal to Above normal, forecast was Near consistent to Consistent.

**Central Division:** Below normal, forecast was In Consistent.

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

### **Outlooks for January 2014-March 2014:**

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

**Northern Division:** Normal to Above normal with moderate to high skill.

**Central Division:** Above normal with moderate to very high skill.

**Southern Division:** Normal to Above normal with High to very high skill.

#### **2. POAMA:** Outlook Above 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:  $X \geq 35$