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Fiji Islands Climate Summary May 2008

Since: August 1980*

IN BRIEF

May saw a mixed weather pattern typical of transition from wet to dry season. While the month started with a wet pattern, transition to more settled weather conditions took place during the later part of the month as the sub-tropical ridge became more dominant.

May was considerably wetter than normal with generally *above average* recorded across the country. The greatest positive departures from normal were recorded in parts of Western and Northern Divisions. More than twice May's total mean rainfall was recorded at Nacocolevu, Nadi Airport, Lautoka Mill, Viwa Island, Vunisea and Labasa Airport. Record high monthly rainfall was observed at Tokotoko, Navua and Labasa Airport. A new 24hr high of 200mm was also record at Tokotoko on May 15.

Rainfall in many parts of the country was consistent with the average to above average prediction for March to May period, however, below average rainfall was experienced in the Central Division, eastern parts of the Northern Division and the Northern Lau Group.

Maximum and the minimum air temperatures were generally *average* to *below average* in most parts of the country. The country experienced the first cool spell from May 22 to 29 with several sites recording below 18˚C during this period. Tokotoko in Navua and St. Johns College in Levuka both recorded new low monthly minimum temperatures of 20.1˚C and 21.6˚C respectively.

The 2007/08 *La Niña* event has dissipated and the Pacific climate patterns are generally *Neutral* although some aspects of it continue to persist. The model predictions show Pacific temperatures gradually increasing over the coming months, but remaining *near average*. The models also indicate a low chance of either strong warming to El Niño levels or a re-intensification of La Nina conditions during 2008.

For June to August 2008 period, *above average* rainfall is favoured in the Northern and Central Divisions. *Average or above average* rainfall is favoured elsewhere. The confidence level of the prediction is *moderate.*

WEATHER PATTERNS

The South Pacific Convergence Zone (SPCZ) split into two parts in May. A branch lay over the northern parts of Fiji while the other lingered over Rotuma. The presence of the SPCZ over the northern parts of the country and passage of frontal systems from the south brought significant rain during first three weeks. An intense ridge of high pressure brought a marked improvement in the weather with dry southerly winds and cool nights experienced during the later part of the month.

During the first two days of the month the SPCZ lingered over the country directing southwest to northwest winds over most parts of the Fiji Group. On the third day it drifted slightly northward. By May 6, the SPCZ moved back over the Fiji Group bringing rain over most places. The SPCZ then drifted south to lie over the south and southwestern parts of the country on May 7 before moving north again to lie over Viti levu and the Lomaiviti and eastern Lau Groups.

Between May 12-15, the SPCZ drifted north and lay over the northern parts of Vanua Levu and Taveuni bringing rain to these areas. On May 14, Udu Point receiving 139.5 mm within 24hrs. Tokotoko recorded 200.0mm on May 15. The SPCZ intensified when cold front approached from the south and even more rain was received across the country until May 20.

The SPCZ migrated north of Vanua Levu as an intense ridge of high pressure extended over the Group from the southwest. Fresh, cool and dry southerlies were experienced across the country with a strong wind warning issued from May 16-22 and 27-31 for mariners. Fine weather was experienced until the end of the month. Cool nights were experienced from May 22-29.

The presence of the SPCZ over Rotuma during the month resulted in wetter than normal conditions.

RAINFALL IN RECENT MONTHS

Rainfall in May

Rainfall in May ranged from *average* to *well above average* across the country. More than 200% of normal rainfall was experienced at Lautoka Mill, Nadi Airport, Nacocolevu, Vunisea and Labasa Airport. In contrast, Monasavu and Laucala Bay received 80% and 89% respectively. Apart from these areas, the rest of the country received between 101% to 190% of normal rainfall.

Most parts of the country experienced widespread and occasionally heavy rainfall during the first three weeks as troughs of low pressure remained close to Fiji. Notable and significant one day rainfall of 200mm was recorded at Tokotoko in Navua and

Rainfall in the last three months

Rainfall for the March to May 2008 period was expected to be *average* to *above average* across Fiji. The confidence level of the forecast was generally moderate .

Of the twenty three stations that reported in time for this summary, 10 received *average* rainfall, 6 *above average* and 7 *below average* rainfall. Rainfall was less than expected (below average) in the Central Divisions, eastern parts of the Northern Division and the northern Lau Group. Rainfall was also *below average* at Monasavu. The success or the hit rate of the three-month prediction was about 70%.

*** Previously known as the Fiji Islands Weather Summary and Monthly Weather Summary**

TABLE 1 : THREE MONTH RAINFALL : MARCH TO MAY 2008

Station	Actual Rainfall (mm)	Rainfall in the last three months (Below average, average or above average)	No. of Rain days in March 08 (% of total rain)	No. of Rain days in April 08 (% of total rain)	No. of Rain days in May 08 (% of total rain)
Penang Mill, Rakiraki	724.6	Average	17 (28)	25 (30)	13 (42)
Monasavu Dam	848.4	Below Average	18 (22)	22 (50)	14 (28)
Rarawai Mill, Ba	798.3	Average	19 (46)	14 (32)	14 (22)
*Nacocolevu	621.1	Above Average	19 (48)	13 (23)	16 (29)
Viwa Island	727.9	Above Average	14 (37)	15 (28)	15 (35)
Lautoka (FSC Res.)	577.1	Average	22 (40)	14(20)	13 (40)
Nadi Airport	651.3	Average	24 (40)	14 (30)	14 (30)
*Tokotoko, Navua	1145.4	Average	19 (13)	15 (35)	17 (52)
Laucala Bay, Suva	711.4	Below Average	20 (17)	21 (49)	21 (34)
Koronivia	744.0	Below Average	20 (16)	18 (40)	18 (44)
Nausori Airport	772.6	Below Average	17 (17)	18 (34)	20 (49)
Nabouwalu	650.9	Below Average	22 (36)	22 (37)	20 (27)
Labasa Airport	858.1	Above Average	17 (36)	19 (27)	16 (37)
Savusavu Airport	831.5	Above Average	16 (28)	18 (36)	20 (36)
Udu Point	542.4	Below Average	20 (15)	15 (28)	13 (57)
Matei Airport	571.6	Average	30 (21)	30 (34)	28 (45)
Vanua Balavu, Lau	403.4	Average	16 (25)	14 (40)	17 (35)
Lakeba, Lau	731.1	Above Average	16 (28)	15 (44)	16 (28)
Matuku, Lau	486.2	Average	17 (33)	8 (24)	14 (43)
Ono-I-Lau, Lau	409.3	Below Average	14 (35)	9 (16)	10 (49)
Levuka, Ovalau	950.4	Average	19 (42)	15 (27)	17 (31)
*Vunisea, Kadavu	908.1	Above Average	22 (34)	22 (27)	22 (39)
Rotuma	974.5	Average	16 (17)	25 (29)	25 (54)

AIR TEMPERATURES, RELATIVE HUMIDITY AND SUNSHINE IN MAY

Maximum Air Temperatures were generally *average* to *below average*. The greatest positive departures form normal were recorded at St. Johns College in Levuka (1.7˚C) and Lakeba Island (0.9˚C). On the other hand, Nadi Airport recorded highest negative departure of –1.3˚C.

Minimum Air Temperatures were also *average* to *below average* except at Nadi Airport, Labasa Airport and Monasavu which experienced *above average* night-time temperatures. The country experienced the first spell of cooler nights from 22 to 29 May with temperatures falling below 18˚C at several sites on May 29. Penang Mill recorded its second lowest night time temperature of 15.5˚C on May 22. The greatest negative departures were recorded at Vunisea (-1.7ºC) and Lakeba Island (-1.1ºC). The greatest positive departures were recorded at Labasa Airfield (1.1˚C) and Nadi Airport (0.7ºC).

Relative Humidity at 0900hrs was generally *near average*. The greatest positive anomalies were recorded at Nadi Airport (6.3%), Viwa Island (5.5%) and Nacocolevu (4.3%). The greatest negative anomalies were recorded at St. Johns College (-7.2), Matuku Island (-6.0%) and Vunisea Island (-5.5%).

Sunshine & Winds

Sunshine hours were *below average* (16% to 73%) across the country in May.

Weaker than normal (below average) **surface winds** were experienced at all wind recording sites around the country.

Figure 1

Nadi Airport - Temperature & Rainfall Records for the last 13 Months (May 2007 - May 2008)

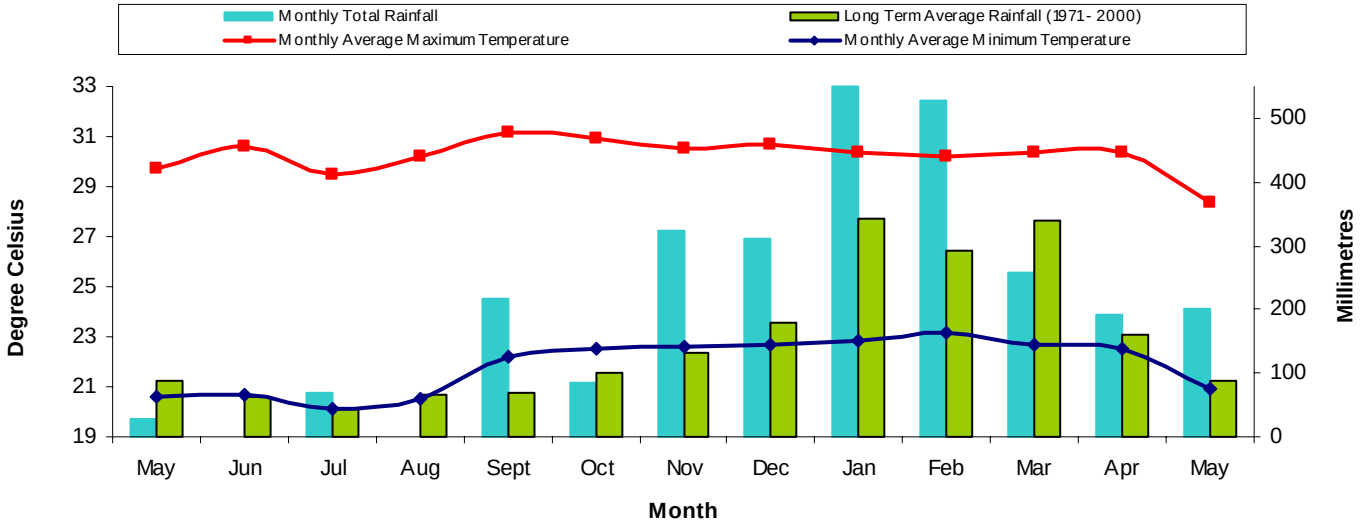


Figure 2

Labasa Airfield - Temperature & Rainfall Records for the last 13 Months (May 2007 - May 2008)

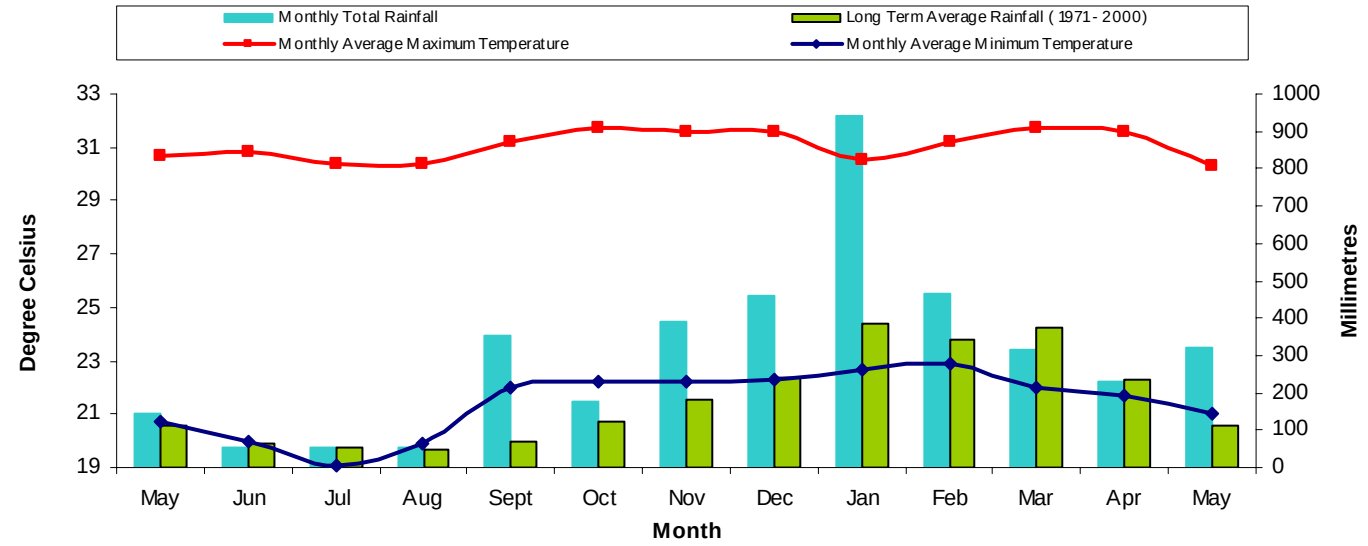
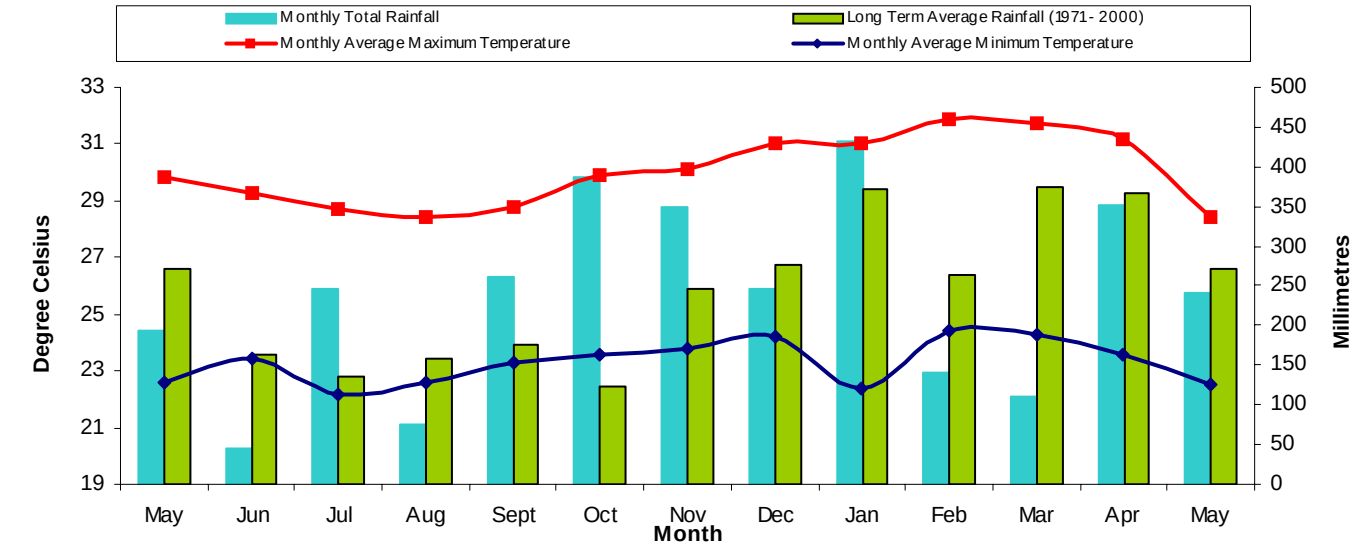


Figure 3

Laucala Bay/Suva - Temperature & Rainfall Records for the last 13 Months (May 2007 - May 2008)



PRELIMINARY CLIMATOLOGICAL SUMMARY FOR MAY 2008

	RAINFALL					AIR TEMPERATURES								SUNSHINE	
	TOTAL	*	RAIN DAYS	MAX. FALL		AVERAGE DAILY MAX.	#	MIN.	#	EXTREME MAX.		MIN.		TOTAL	*
	MM	%	+	MM	ON	C	C	C	C	C	ON	C	ON	HRS	%
NADI AIRPORT	201	226	14	56	19	28.4	-1.3	20.9	0.7	32.0	3	17.4	29	147	70
SUVA/LAUCALA BAY	241	89	21	39	2	28.0	-0.5	22.5	0.3	30.9	1	20.1	23	106	73
NACOCOLEVU	183	215	16	59	8	28.2	-0.7	19.5	-0.2	32.0	4	15.5	29	111	69
ROTUMA	523	177	25	91	25	30.1	0.1	24.2	-0.4	32.4	7	21.4	30	117	61
VIWA	252	225	15	79	6	29.4	0.2	23.4	-0.6	32.6	2	20.6	27		
UDU POINT	308	185	13	140	14	29.0	-0.2	23.3	-0.2	31.5	1	21.5	21		
SAVUSAVU AIRFIELD	298	151	20	44	13	28.3	-0.2	21.6	-0.7	31.0	9	20.0	23		
LABASA AIRFIELD	321	279	16	77	20	30.3	0.1	21.0	1.1	32.8	25	18.3	23		
NABOUWALU	173	101	20	39	8	28.4	0.6	23.0	-0.2	31.8	8	20.7	24		
KORONIVIA	328	132	18	68	15	27.8	-0.3	20.9	-0.1	30.9	7	17.0	29		
NAUSORI AIRPORT	377	152	20	103	15	27.5	-0.4	20.3	-0.9	30.4	7	16.0	29		
NAVUA/TOKOTOKO	593	206	17	200	15	27.5	-1.1	20.1	0.4	30.0	7	16.5	27		
MONASAVU	238	80	14	76	20	22.3	-0.3	17.8	0.8	25.2	1	14.6	29		
LAUTOKA AES	226	272	13	61	8	28.8	-0.7	21.5	-0.0	30.9	1	17.8	29		
BA/RARAWAI MILL	173	182	14	46	8	29.6	-1.0	19.5	0.4	32.7	17	15.5	29		
PENANG MILL	306	190	13	107	19	28.6	0.1	21.3	-0.8	31.4	1	15.5	22		
MATEI AIRFIELD	260	112	28	36	6	28.6	0.1	22.8	-0.1	30.5	6	21.0	22		
VANUABALAVU	143	108	17	35	13	28.6	-0.0	23.4	-0.1	31.3	1	20.8	14		
LAKEBA	206	153	16	60	15	28.9	0.9	21.7	-1.1	29.9	21	18.9	14		
ST. JOHNS COLLEGE	293	157	17	66	13	29.0	1.7	21.6	0.1	30.5	1	18.5	22		
VUNISEA	350	220	22	59	8	27.3	-1.2	21.4	-1.7	30.3	1	18.2	25		
MATUKU	208	134	14	60	15	26.7	-0.9	22.1	-0.4	29.5	1	19.5	5		
ONO-I-LAU	198	192	10	61	6	27.2	0.5	21.7	-0.4	32.5	1	19.2	29		

RAINFALL OUTLOOK FOR FIJI ISLANDS - JUNE TO AUGUST 2008

The 2007/08 *La Niña* event has dissipated and the Pacific climate patterns are generally ***neutral*** although some aspects of the *La Niña* continue to persist. Lingering La Nina signals include the continued presence of cooler than average water on the equator near the Date-line, accompanied by reduced cloud and enhanced trade winds. Overall though, the tropical Pacific has been warming gradually during the past few months, with ocean temperature now near normal in the central and eastern areas. SOI has been falling since March and it has fallen to –4.3 in May. Computer predictions show Pacific temperatures gradually increasing over the coming season, but remaining near average. The models also indicate a low chance of either strong warming to El Niño levels or a re-intensification of La Nina conditions during 2008.

Based on recent ocean and atmospheric conditions, *Above average* rainfall is favoured in the Northern and Central Divisions. *Average or above average* rainfall is favoured elsewhere. The confidence level of the prediction is *moderate.*

TABLE 2– CLIMATE RECORDS ESTABLISHED IN MAY 2008

Element	Station	Observed (record)	On	Rank	Previous (record)	Year	Records Began
Monthly Total Rainfall	Labasa Airport	320.6mm	-	New High	304.6mm	1989	1956
Monthly Total Rainfall	Tokotoko, Navua	592.6mm	-	New High	514.9mm	1994	1992
Daily Total Rainfall	Tokotoko, Navua	200.0mm	15th	New High	160.0mm	1994	1992
Monthly Max Temp	Nadi Airport	28.4°C	-	New Low	28.7°C	1945	1942
Monthly Min Temp	Tokotoko, Navua	20.1°C	-	New Low	20.2°C	1997	1992
Daily Min Temp	St. Johns, Levuka	21.6°C	-	New Low	21.8°C	1996	1984

Normal *- Long term average from 1971 to 2000.*

Average *- Rainfall between 80 to 119%.*

Well Below Average *- Rainfall less than 39%.*

Above Average *- Rainfall between 120 to 199%.*

Below Average *- Rainfall between 40 to 79%.*

Well Above Average *- Rainfall more than 200%.*

This summary is prepared as soon as possible following the end of the month, once climate data is received from various recording stations around Fiji and ENSO information is received from various Meteorological Agencies around the World. Delays in data collection, communication and processing occasionally arise. While every effort is made to verify observational data, the Fiji Meteorological Service does not guarantee the accuracy and reliability of the analysis and rainfall predictions presented, and accepts no liability for any losses incurred through the use of this summary and its contents. The contents of the summary may be freely disseminated provided the source is acknowledged. All requests for data should be directed to the Fiji Meteorological Service HQ in Namaka, Nadi.