



1. IN BRIEF

Typical dry season rainfall pattern continues to be experienced at most parts of the country, with more than eighty-five percent of rainfall reporting stations recording *well below average* to *below average* rainfall.

Even though the windward sides of the larger islands experienced occasional trade showers, it was still significantly drier than the *normal*. Overall, out of the 23 rainfall monitoring stations, 14 recorded *well below average* rainfall, 6 *below average*, 2 *average*, and Udu Point was the lone station with *above average* rainfall.

Troughs of low pressure systems affected Fiji especially during the second week of the month. An active trough of low pressure affected the country on the 11th and 12th, which resulted in occasional showers over most places and Levuka recorded its most significant 24-hour rainfall of 74.5mm on the 11th. In addition, Rotuma was also affected by series of troughs of low pressure, with the station managing to record its highest 24-hour rainfall of 73.6mm on the 15th.

On temperatures, the highest day-time air temperature during the month was registered at Laucala Bay (Suva) and Nacocolevu both with 33.9°C on the 19th and 30th respec-

tively, followed by Rotuma with 33.4°C on the 30th, Viwa with 32.3°C on the 5th and Labasa Airport with 32.0°C on the 14th.

The coolest night-time temperatures were recorded during the first week of the month, due to the presence of strong southeast winds present over the country. This resulted in some stations recording night time temperatures of below 13.0°C. The coolest daily night time temperature of 9.9°C was recorded at Nadarivatu, followed by Monasavu with 11.0°C, both on the 4th, Keyasi with 11.0°C on the 5th, Rarawai Mill (Ba) with 12.5°C on the 4th and Nacocolevu with 12.7°C on the 5th.

Winds in the southeasterly wind quadrant were dominant at Nadi Airport while winds in the southeasterly and northeasterly wind quadrant were dominant at Nausori Airport during the month, both at light to moderate strength (Figure 8).

Warmer than normal sea surface temperature anomalies were observed across most of the Fiji Waters during the month (Figure 9).

2. WEATHER PATTERNS

The weather in August was dominated by the southeast trades generated by high pressure systems to the far south of the country. Also, troughs of low pressure systems affected Fiji especially in the middle of the month.

A high pressure system to the far south of the country directed strong southeast winds over Fiji from the 1st and remained dominant till the 9th.

Another high pressure system to the south of Fiji again brought strong southeast winds over the country from the 10th to the 20th. During this period, a trough of low pressure lay to the north and affected the country with occasional rain on the 11th and 12th. The highest 24-hour rainfall recorded was in Levuka on the 11th with 74.5mm.

Another trough of low pressure lay to the east of the country from the 21st to the 22nd but did not cause any significant rainfall.

A third high pressure system to the south of the group directed strong southeast winds over Fiji from the 21st to the 30th.

On the last day of the month, a weak trough lay to the northeast of Fiji but again without any significant rainfall.

Rotuma's weather was also affected by a series of troughs of low pressure systems with the highest 24-hour rainfall recorded was 73.6mm on the 15th.

3. RAINFALL

The suppressed rainfall pattern during the past months continued into the month of August, with more than eighty-five percent of the rainfall reporting stations recording *well below average* to *below average* rainfall. Dry conditions were recorded across the Western and Eastern Divisions and parts of the Central and Northern Divisions. In contrast, it was a wetter than usual month at Udu Point, Koronivia and Rotuma.

Overall, out of the 23 rainfall monitoring stations, 14 recorded *well below average* rainfall, 6 *below average*, 2 *average*, and Udu Point was the lone station with *above average* rainfall (Table 2, Figures 1-5).

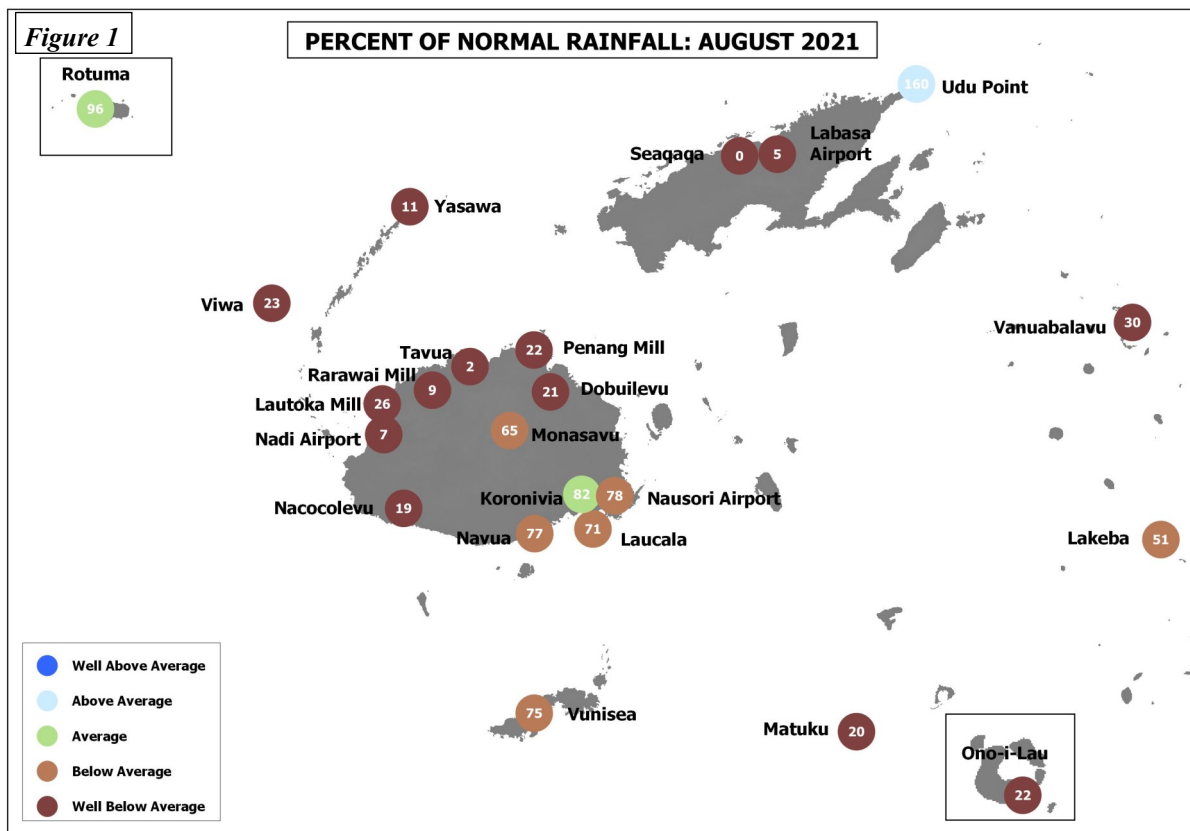
The driest site during the month was at Seaqaqa with no rainfall, followed by Yaqara with 1.0mm, Tavua with 1.5mm, Labasa Airport with 2.0mm, Vaturekuka (Labasa) with 4.0mm, Nadi Airport with 4.9mm, Momi with 5.5mm, Yasawa-i-Rara, Keiyasi, Ellington (Ra) and Nasinu all with 6.0mm, Rarawai Mill (Ba) with 6.4mm and Wainikoro with 6.5mm. On the other hand, the highest total monthly rainfall was recorded at Rotuma with 226.8mm, followed by Navua with 169.0mm, Monasavu with 165.9mm, Levuka with 140.5mm, Koronivia with 129.7mm, Udu Point with 119.6mm, Nausori Airport with 116.2mm,

Laucala Suva with 114.5mm and RKS Lodoni with 113.5mm

An active trough of low pressure affected the country on the 11th and 12th, which resulted in occasional showers over most places and Levuka recording its most significant 24-hour rainfall of 74.5mm on the 11th. In addition, Rotuma’s weather was also affected by a series of low pressure troughs with the highest 24-hour rainfall of 73.6mm reported on the 15th.

Nadarivatu recorded the highest number of rain days (rainfall ≥ 0.1 mm) with 20 days, followed by Navua with 18 days, Monasavu, Koronivia, Laucala Bay (Suva) and Ono-i-Lau all with 17 days, and Nausori Airport and Lomaivuna both with 15 days. On the other hand, there were no rain days recorded at Seaqaqa, followed by Tavua and Yaqara both with 1 day, Nadi Airport, Lautoka Mill, Rarawai Mill (Ba) and Wainikoro all with 2 days.

There was no new rainfall record established during the month



Normal: Long term average from 1981 to 2010
 Well Below Average: Rainfall less than 40% of normal
 Below Average: Rainfall between 40 to 79%
 Rain Day: Rainfall ≥ 0.1 mm

Average: Rainfall between 80 to 119%
 Above Average: Rainfall between 120 to 199%
 Well Above Average: Rainfall greater than or equal to 200% of normal

4. AIR TEMPERATURES

A. Maximum Day-time Air Temperatures

Generally *near normal* air temperatures were observed at most parts of Fiji during the month. Out of the 19 climate stations, 3 recorded anomalies $\geq +0.5^{\circ}\text{C}$, 13 within $\pm 0.5^{\circ}\text{C}$ and 3 stations recorded anomalies of $\leq -0.5^{\circ}\text{C}$.

Warmest days on average were recorded at Yaqara with 30.2°C followed by Yasawa-i-Rara with 30.1°C , Lautoka Mill and Rarawai Mill (BA) both with 29.6°C and Viwa with 29.5°C . On the other hand, Monasavu recorded the coolest days on average with 20.9°C , followed by Nadarivatu with 22.4°C , Ono-i-Lau with 25.0°C , Vunisea with 25.6°C and Sigatoka with 26.4°C .

The highest day-time air temperature during the month was registered at Laucala Bay (Suva) and Nacocolevu both with 33.9°C on the 19th and 30th respectively, followed by Rotuma with 33.4°C on the 30th, Viwa with 32.3°C on the 5th and Labasa Airport with 32.0°C on the 14th. In contrast, the coolest daytime air temperature of 17.7°C was at Monasavu on the 12th, followed by Nadarivatu with 19.2°C on the 27th, and Lomaivuna with 20.8°C , RKS Lodonu with 21.8°C and Korolevu with 21.9°C , all on the 12th respectively.

There were no new record registered during the month.

B. Minimum Night-time Air Temperatures

Generally *below normal* night - time temperatures were recorded over most parts of the country during the month. Of the 17 stations, 2 recorded anomalies $\geq +0.5^{\circ}\text{C}$, 5 within $\pm 0.5^{\circ}\text{C}$, while 10 registered anomalies $\leq -0.5^{\circ}\text{C}$.

The coolest days on average was at Nadarivatu with a mean monthly average of 13.7°C , followed by Monasavu with 14.6°C , Keiyasi with 15.7°C , Lomaivuna with 16.6°C and Rarawai Mill (Ba) with 16.8°C . On the other hand, the warmest night time temperatures on average was observed at Viwa with 23.2°C , followed by Udu Point with 22.5°C , Levuka with 22.0°C and Lakeba with 21.3°C .

The coolest night-time temperatures were recorded during the first week of the month. The lowest daily minimum air temperature of 9.9°C was recorded at Nadarivatu, followed by Monasavu with 11.0°C , both on the 4th, Keyasi with 11.0°C on the 5th, Rarawai Mill (Ba) with 12.5°C on the 4th and Nacocolevu with 12.7°C on the 5th. On the other hand, the warmest night time temperature of 24.9°C was recorded at Viwa, followed by Lakeba with 24.7°C , both on the 1st, Laucala Bay (Suva) and Udu Point with 23.9°C , both on the 20th.

Rotuma and Vunisea (Kadavu) could not be analysed due to missing observations. There were no new record established during the month.

TABLE 1. CLIMATE RECORDS ESTABLISHED IN AUGUST 2021

There were no new records established during the month

Note: All comparisons in this summary are with respect to "Climatic Normals". This is defined to be the average climate condition over a 30-year period. Fiji uses 1981-2010 period as its "climatic normal" period.

TABLE 2. DAILY CLIMATE REPORTING SITES: SUMMARY FOR AUGUST 2021

	RAINFALL				AIR TEMPERATURES								SUNSHINE		
	TOTAL	RAIN	MAX.	FALL	AVERAGE DAILY				EXTREME		TOTAL	*			
	MM	* DAYS	MM		MAX.	#	MIN.	#	MAX.	MIN.	HRS				
		%	+	MM ON	C	C	C	C	C	ON	C	ON		%	
NADI AIRPORT	4.9	7	2	5	11	28.6	0.1	18.8	0.0	31.0	20	15.0	5	236	106
LAUCALA BAY	114.5	71	17	43	11	26.4	-0.5	20.8	-0.2	28.4	6	17.7	25	168	119
NACOCOLEVU RESEARCH	16.0	19	6	6	2	27.3	-0.4	17.4	-0.6	31.1	31	12.7	5	169	105
ROTUMA ISLAND	226.8	96	20	74	15	29.4	0.1	MISSING		30.9	12	MISSING		154	74
VIWA (AWS)	15.5	23	4	13	11	29.5	1.4	23.2	0.7	31.1	30	19.8	5		
UDU POINT WEATHER	119.6	160	9	67	12	27.1	-1.3	22.5	0.1	29.1	6	19.4	2		
SAVUSAVU AIRFIELD	STATION CLOSED														
LABASA AIRFIELD	2.0	5	6	2	31	29.2	-0.3	17.6	-1.2	31.4	30	13.5	5		
NABOUWALU	STATION CLOSED														
KORONIVIA RESEARCH	129.7	82	17	41	11	26.5	-0.1	19.1	-0.5	29.5	19	15.4	25		
NAUSORI AIRPORT	116.2	78	15	48	11	26.4	0.2	18.9	-0.8	29.6	30	15.0	4		
NAVUA (AWS)	169.0	77	18	42	15	26.8	0.3	19.1	0.3	29.5	30	14.7	25		
MONASAVU HYDRO DAM	165.9	65	17	36	16	20.9	-0.5	14.6	-0.7	25.4	19	11.0	4		
FSC LAUTOKA MILL	19.9	26	2	20	11	29.6	1.2	18.9	-1.1	32.0	14	16.0	25		
FSC RARAWAI MILL	6.4	9	2	6	11	29.6	-0.2	16.8	-0.7	31.7	21	12.5	4		
FSC PENANG MILL	16.6	22	6	11	11	27.7	-0.1	19.8	-0.7	29.8	31	14.0	6		
MATEI AIRFIELD	STATION CLOSED														
VANUABALAVU	23.0	30	9	10	11	26.8	-0.1	20.9	-1.2	28.6	18	19.0	15		
LAKEBA (AWS)	47.0	51	7	27	12	26.8	0.3	21.3	0.3	29.2	6	16.1	4		
YASAWA-I-RARA	6.0	11	3	4	11	30.1	1.7	20.9	-1.3	32.1	30	19.6	24		
VUNISEA	96.5	75	11	43	15	25.6	-0.2	MISSING		28.7	6	MISSING			
MATUKU (AWS)	24.0	20	13	20	11	MISSING OBSERVATIONS									
ONO-I-LAU	25.8	22	17	5	12	25.0	0.0	20.8	0.8	27.8	6	18.5	9		
YAQARA AWS	1.0		1	1	11	30.2		20.8		33.9	19	16.5	6		
LEVUKA AWS	140.5		14	75	11	28.3		22.0		32.3	5	19.7	2		
KEIYASI AWS	6.0		3	5	11	29.2		15.7		33.9	30	11.0	5		
LOMAIVUNA AWS	82.0		15	21	11	26.8		16.6		31.3	30	12.9	25		
NADARIVATU AWS	11.5		6	7	25	22.4		13.7		27.2	19	9.9	4		
RKS LODONI AWS	113.5		12	30	11	27.1		18.7		30.2	1	14.4	6		
MOMI AWS	5.5		3	3	11	MISSING OBSERVATIONS									
SIGATOKA AWS	9.0		9	3	16	26.4		17.8		28.2	30	13.6	5		
ELLINGTON (RA) AWS	6.0		3	3	11	26.5		20.1		28.4	22	16.5	2		
VATUREKUKA AWS	4.0		3	3	31	27.7		18.4		30.2	30	14.3	24		
KOROLEVU AWS	83.5		11	20	12	28.6		19.3		33.4	30	15.3	4		
WAINIKORO AWS	6.5		2	5	31	28.1		19.2		30.2	19	14.5	6		
SAQANI AWS	U/S														
SEAQAQA TB3	0.0		0	0		U/S									
DOBUILEVU TB3	20.0		21	11	7	11									
NASINU TB3	6.0		3	4	25										
TAVUA TB3	1.5		2	1	2	11									

	TEMPERATURE(C)				HUMIDITY	WIND	SUN RAD
	MEAN	DRY	WET	(AVERAGE AT 9AM)			
		DRY	WET	RH% VP		%OF	MJ/
NADI AIRPORT	23.7	24.6	20.2	65	23.1	8.2	
LAUCALA BAY	23.6	24.3	21.1	74	22.7	7.2	
NACOCOLEVU RESEARCH	22.3	23.3	20.5	78	21.4		
ROTUMA ISLAND	27.4	27.3	24.9	82	27.1		
VIWA (AWS)	24.2						
UDU POINT WEATHER	24.8	25.0	21.8	76	23.7		
SAVUSAVU AIRFIELD	STATION CLOSED						
LABASA AIRFIELD	23.4	24.4	20.7	72	22.9		
NABOUWALU	STATION CLOSED						
KORONIVIA RESEARCH	22.8	23.6	20.6	77	21.8		
NAUSORI AIRPORT	22.7	23.3	20.5	77	21.4	6.0	
NAVUA (AWS)	23.0						
MONASAVU HYDRO DAM	17.8	17.6	16.1	86	15.0		
FSC LAUTOKA MILL	24.3	25.9	20.7	64	25.0		
FSC RARAWAI MILL	23.2	24.7	20.4	68	23.3		
FSC PENANG MILL	23.7	23.9	20.6	74	22.2		
MATEI AIRFIELD	STATION CLOSED						
VANUABALAVU	23.9	24.7	22.0	79	23.3		
LAKEBA (AWS)	25.3						
YASAWA-I-RARA	25.5	26.4	22.7	72	24.7	15.2	
VUNISEA	U/S	23.4	20.1	74	21.5		
MATUKU (AWS)	MISSING OBSERVATIONS						
ONO-I-LAU	22.9	23.1	19.5	72	21.1		

MEAN TEMPERATURE IS (MAX+MIN)/2; WIND IS MEAN SPEED AT 06,12,18,24 HOURS.
 \$:SOLAR RADIATION CALCULATED FROM SUNSHINE DURATION. # :DEPARTURE FROM LONG-TERM AVERAGES (1981-2010). + :NUMBER OF DAYS WITH 0.1 MM OR MORE RAIN. * :PERCENT OF LONG-TERM AVERAGES.
 BLUE FONT: MISSING RECORDS OF LESS THAN OR EQUAL(≤) TO 5 DAYS. U/S: UNSERVICEABLE

Figure 2

Nadi Airport (Western Division) - Temperature & Rainfall Records for the last 13 Months (August 2020 - August 2021)

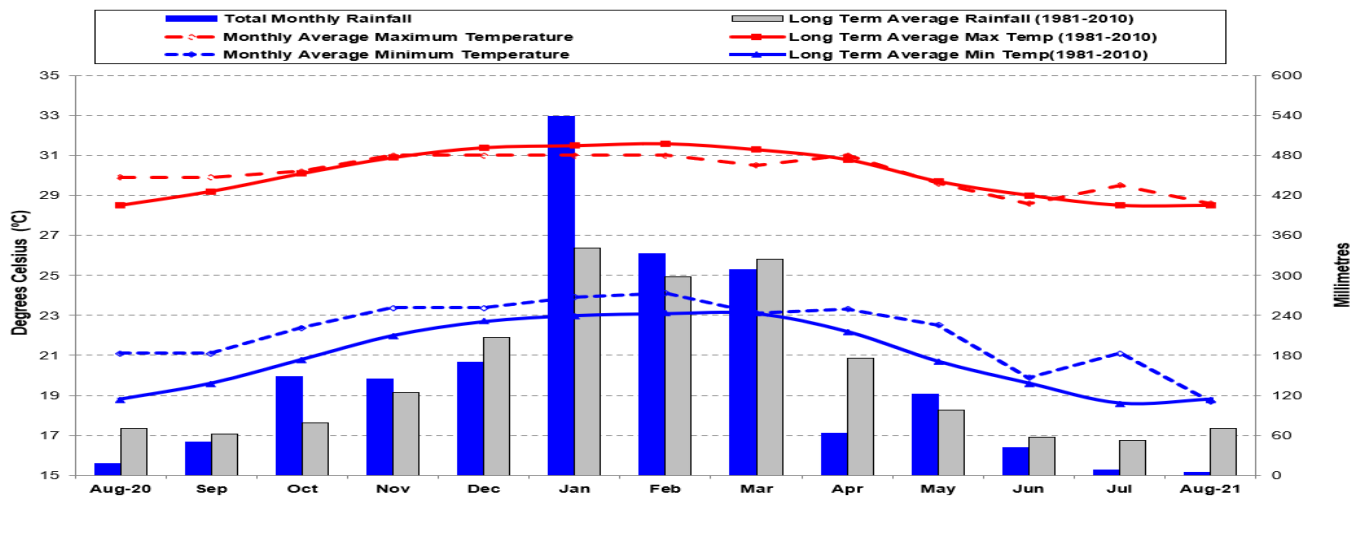


Figure 3

Laucala Bay - (Suva) (Central Division) - Temperature & Rainfall Records for the last 13 Months (August 2020 - August 2021)

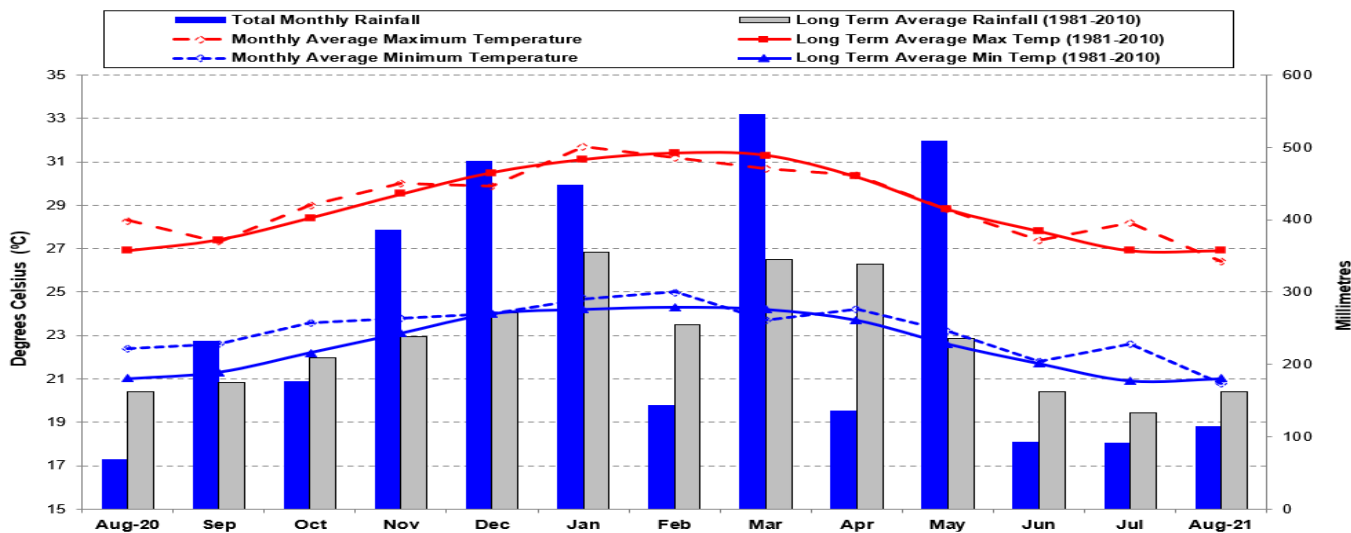


Figure 4

Udu Point (Eastern Division) - Temperature & Rainfall Records for the last 13 Months (August 2020 - August 2021)

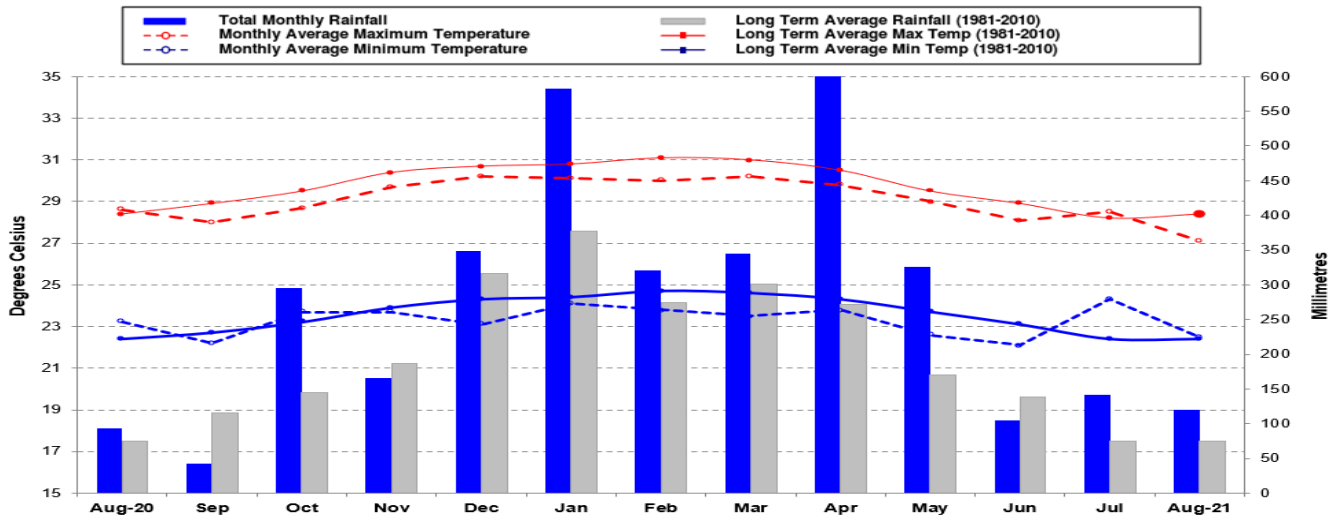
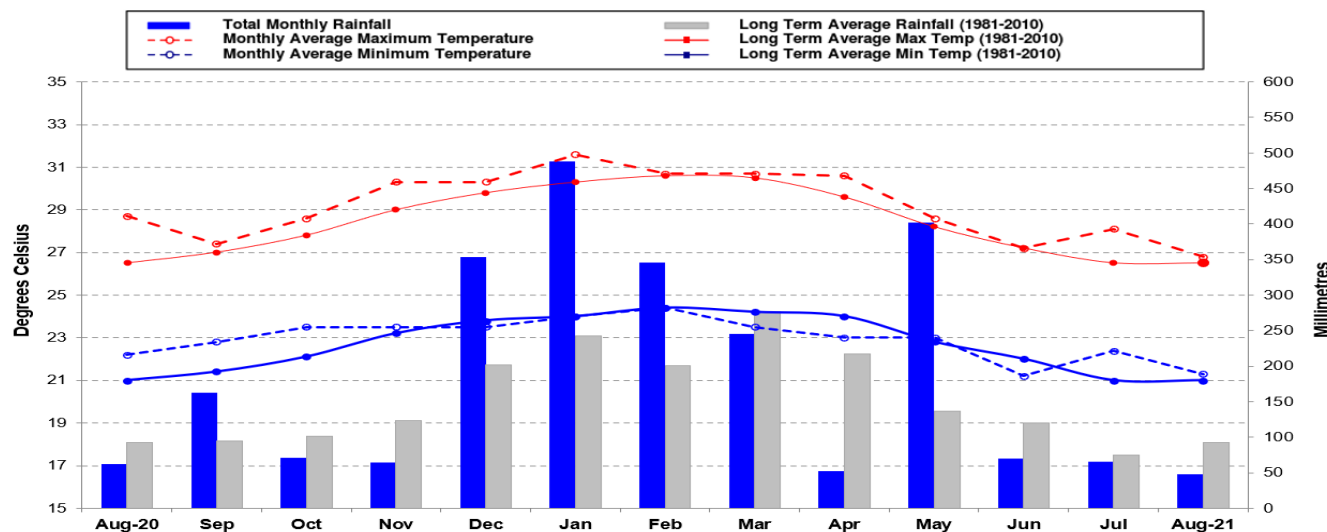


Figure 5

Lakeba (Eastern Division) - Temperature & Rainfall Records for the last 13 Months (August 2020 - August 2021)



5. DAILY RAISED PAN EVAPORATION

Figure 6

Daily Evaporation for August 2021

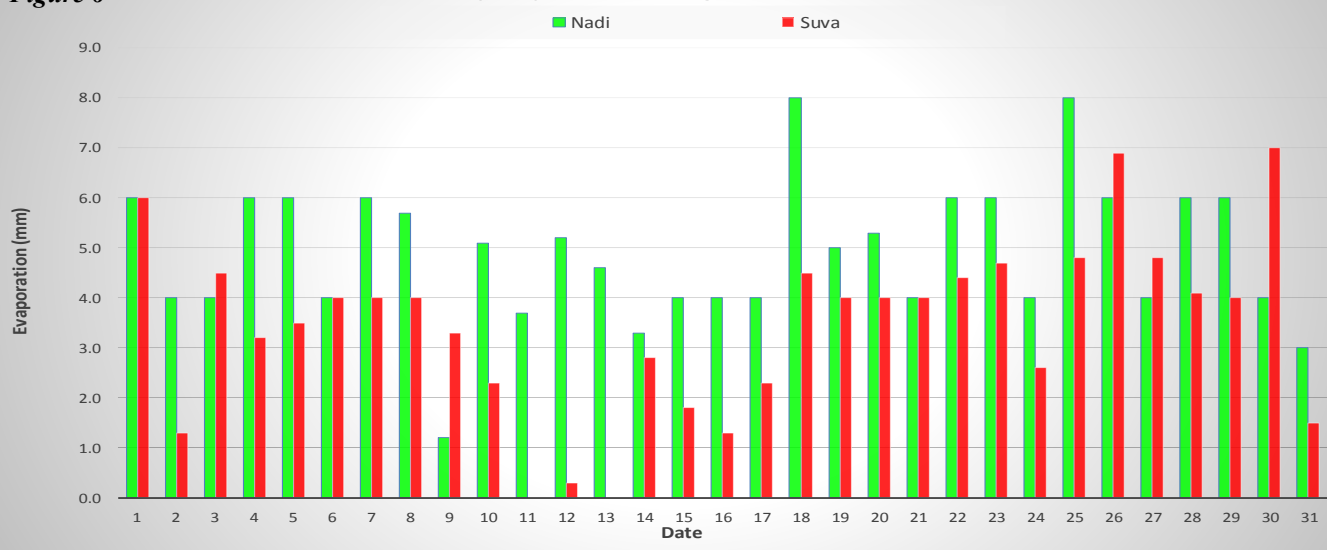


Figure 6: The total monthly evaporation at Nadi Airport and Laucala Bay (Suva) were 152.1mm and 105.9mm, respectively. Nadi’s highest daily evaporation was 8.0mm on the 18th and 25th, with Suva’s highest daily evaporation of 7.0mm on the 30th. Note: Nacocolevu contains lots of missing observations due to COVID-19 restrictions.

6. SOLAR RADIATION

The Nadi solar radiation instrument became unserviceable during the month of August 2021.

7. WIND SUMMARY

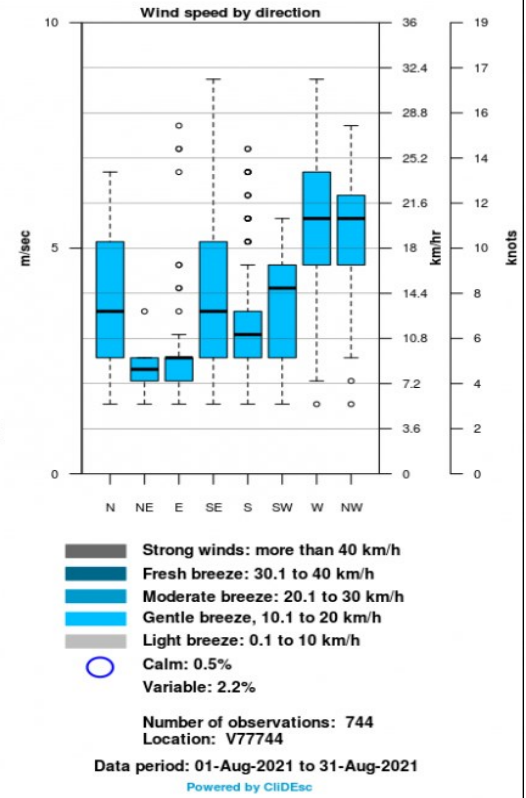
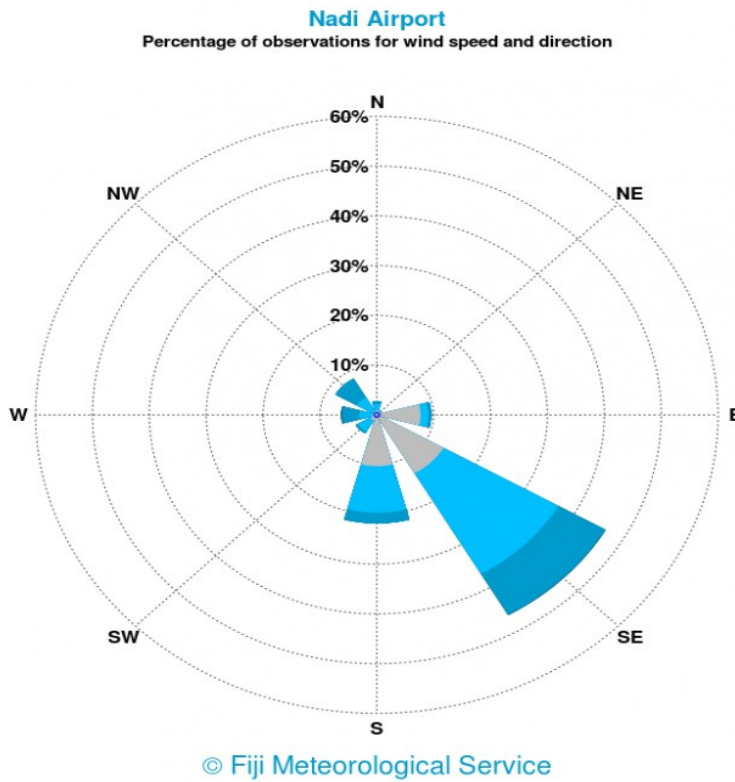


Figure 8a: Southeasterly winds were dominant at Nadi Airport during the month, followed by southerly and easterly winds. Wind strength ranged from light to moderate breeze during this period.

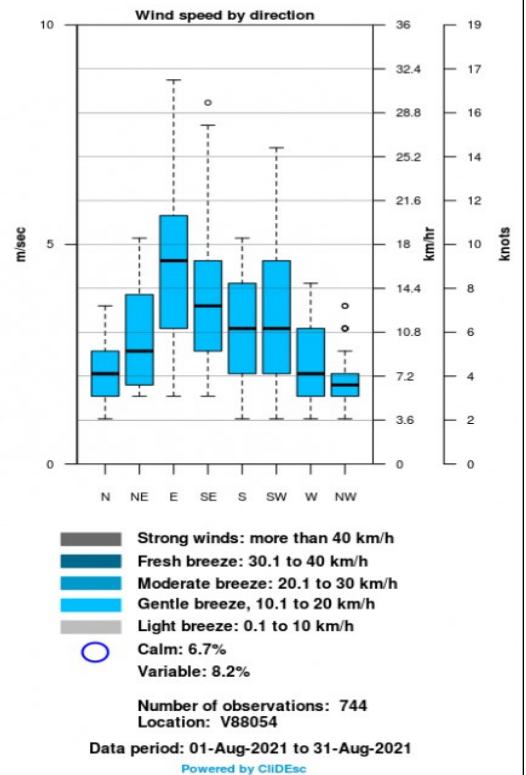
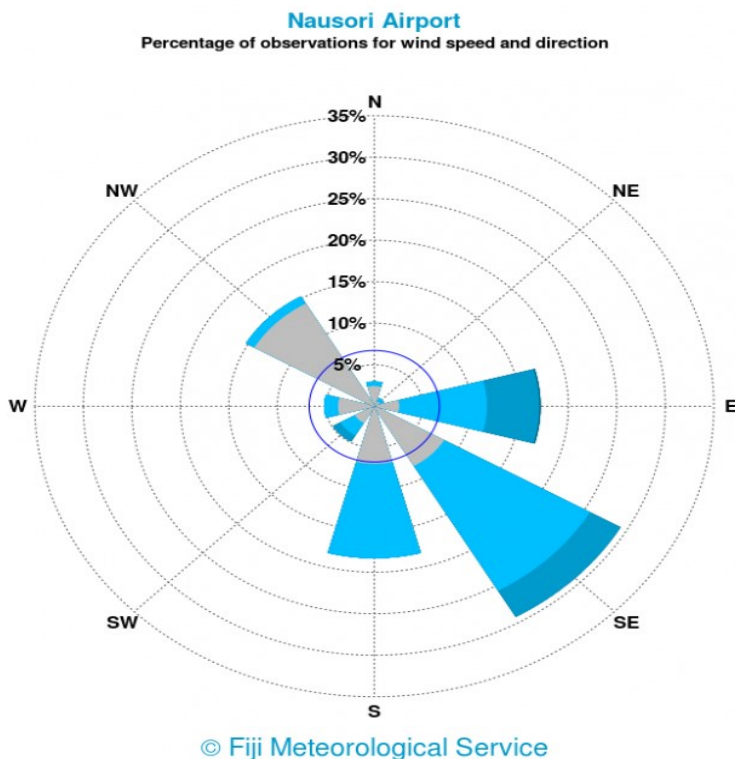


Figure 8b: Southeasterly winds were dominant at Nausori Airport, followed by southerly, northwesterly and then easterly winds. Wind strength ranged from light to moderate breeze during this period.

8. SEA SURFACE TEMPERATURE (SST)

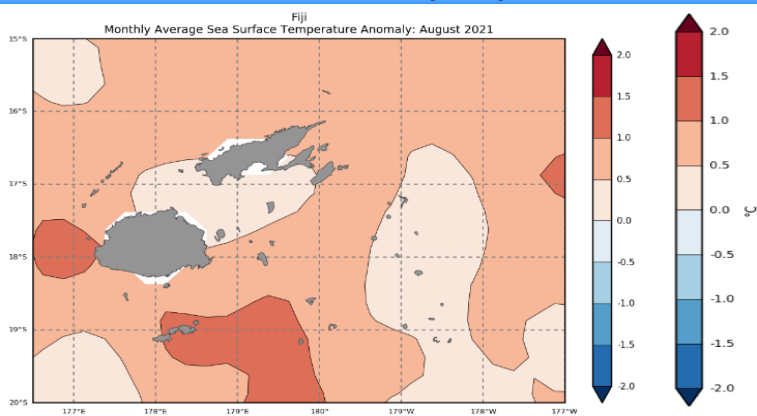


Figure 9: Warmer than normal sea surface temperature anomalies were observed across most of the Fiji Waters, with anomalies of more than 1.0°C observed west of Viti Levu, and around Kadavu Island and Matuku.

Source: <http://oceanportal.spc.int/portal/app.html#climate>

9. CLOUD COVER

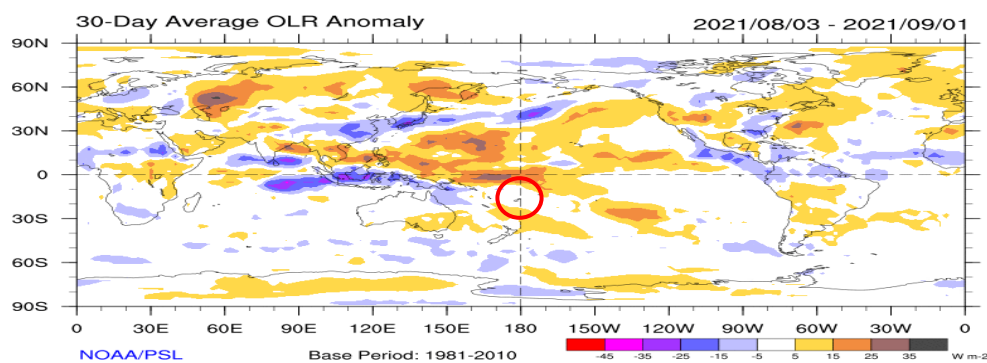


Figure 10: Near normal cloud cover was present over the Fiji Group during the month (Fiji in red circle).

Source: <http://www.esrl.noaa.gov/psd/map/clim/olr.shtml>

10. SEA LEVEL

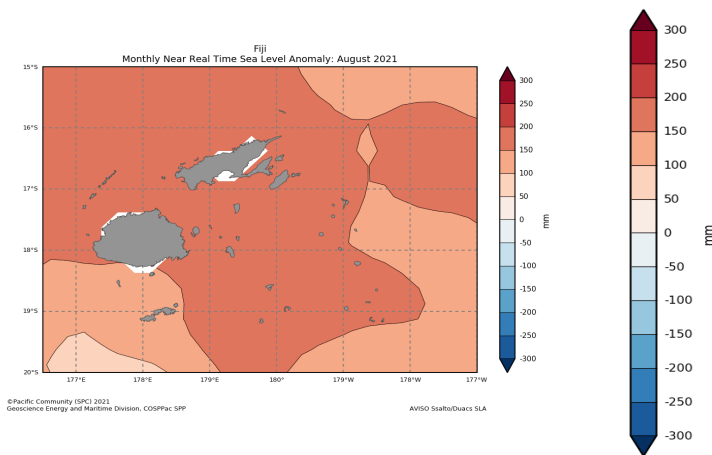


Figure 11: Above normal sea level anomalies were present across most of the Fiji Waters during the month (anomalies between 15cm and 20cm).

Source: <http://oceanportal.spc.int/portal/app.html#sealevel>

11. WIND ANOMALIES

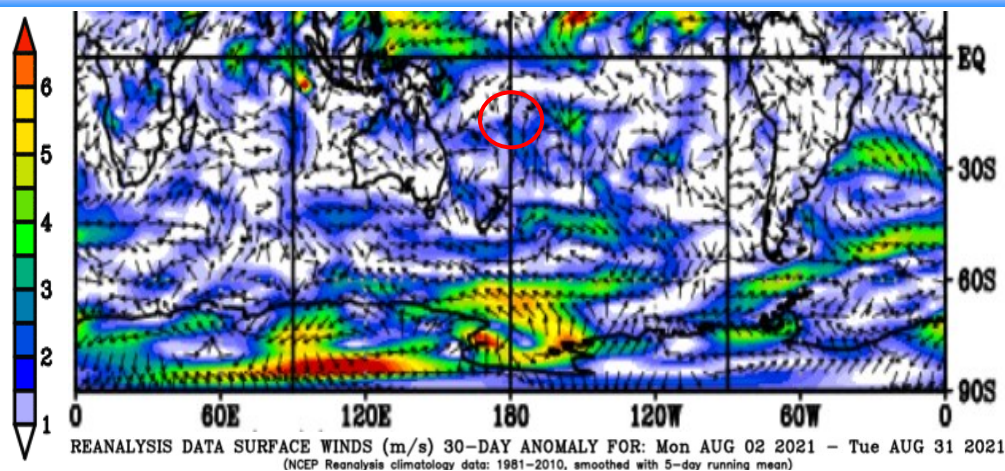


Figure 12: Variable wind anomalies were recorded over the Fiji Group during the month (base period: 1981-2010) (Fiji in red circle).

Source: https://www.esrl.noaa.gov/psd/map/images/rnl/sfcwnd_30b.rnl.html