

## 1. IN BRIEF

Weather in January was influenced by series of low pressure systems, resulting in most of the rainfall recording stations observing *average to well above average* rainfall. Lakeba recorded twice its normal monthly rainfall. On the other hand, Seaqaqa, Labasa Airport, and Matei, were the only exceptions, with *below average* rainfall.

Overall, out of the 25 rainfall monitoring stations that reported in, in time for the compilation of bulletin, Lakeba was the lone station with *well above average* rainfall, 6 *above average*, 15 *average*, and 3 stations with *below average* rainfall (Table 2, Figures 1-5).

The highest monthly rainfall of 663.2mm was observed at Lakeba, followed by Laucala Bay (Suva) with 621.0mm, Lomaivuna with 618.0mm, Nadarivatu with 571.5mm, Monsavu with 547.8mm, Navua with 530.5mm, Penang Mill with 483.6mm, Rarawai Mill (Ba) with 480.7mm, Vunisea with 480.0mm, and Dobuilevu with 431.5mm (Table 2).

The presence of a series of active troughs resulted in flooding of low lying areas, in most parts of the country, from the 14<sup>th</sup> to the 18<sup>th</sup>, impacting the Central Division on the 14<sup>th</sup> and 15<sup>th</sup>. Lakeba and Laucala Bay (Suva) recorded their highest 24-hour rainfall during this period. On the 25<sup>th</sup>, Tropical Disturbance TD04F led to significant heavy falls, with Rarawai Mill (Ba) recording a significant 24-hour rainfall of 160.1mm on the 24<sup>th</sup>.

On temperatures, the month's warmest day-time temperature of 37.5°C was observed at Yaqara on the 12<sup>th</sup>, followed by 36.0°C at RKS Lodonu on the 26<sup>th</sup>, Viwa with 35.7°C on the 8<sup>th</sup>, and Rarawai Mill (Ba) with 35.6°C on the 11<sup>th</sup>. Lautoka Mill and Nausori Airport recorded their highest daily maximum temperatures of 33.1°C and 32.2°C since observations began in 1905 and 1956, respectively (Table 1).

The month's coolest night-time temperature of 14.5°C was recorded at Nadarivatu on the 28<sup>th</sup>, followed by 17.1°C at Monasavu on the 30<sup>th</sup>, 18.2°C at Nacocolevu on the 13<sup>th</sup>, 19.5°C at Ono-i-Lau on the 8<sup>th</sup>, and 20.1°C at Lomaivuna on the 27<sup>th</sup>.

Southeasterly winds were dominant at Nadi Airport and Savusavu Airfield, while easterly winds were dominant at Nausori Airport and Matei Airfield (Figure 7).

Warmer than normal sea surface temperature anomalies were observed across most parts of the country (Figure 8). *Above normal* sea level anomalies persisted across most of the Fiji Waters during January 2024 (Figure 10).

Flash flooding in low-lying areas and a landslide was reported due to heavy rainfall (Figure 12a-12t).

## 2. WEATHER PATTERNS

The weather in January was characterized by a series of low-pressure systems, with moist easterly and northerly winds.

On the 5<sup>th</sup>, a trough of low-pressure developed over the eastern parts of Fiji, impacting various regions until the 10<sup>th</sup>. Another series of active troughs affected the group from the 14<sup>th</sup> to the 18<sup>th</sup>, bringing occasional heavy rain, thunderstorms, and isolated flash flooding, particularly in eastern Viti Levu. Lakeba recorded the highest 24-hour rainfall of 190mm on the 14<sup>th</sup>.

The moist northerly winds continued from the 23<sup>rd</sup> to the 26<sup>th</sup>, dissipating to the east with an embedded low, identified as Tropical Disturbance TD04F by midday on the 25<sup>th</sup>. Significant heavy rainfall was recorded on the 24<sup>th</sup> and 25<sup>th</sup>, with Rarawai reporting the second-highest rain-

fall of 160mm on the 25<sup>th</sup>. Southerly winds prevailed, turning southeast until the 29<sup>th</sup>, bringing fine weather to most places.

A trough of low pressure affected the northern and eastern parts of the country on the 30<sup>th</sup> and 31<sup>st</sup>, bringing occasional heavy rain and thunderstorms. Isolated showers occurred elsewhere.

Rotuma experienced series of low-pressure troughs and moist east to northerly winds, with showers experienced on most days of the month.

### 3. RAINFALL

Rainfall recorded at the various rainfall recording stations across the country were heavily swayed towards *average* to *above average*. This was due to the presence of series of low pressure systems, resulting in few episodes of flooding of low lying areas.

Overall, out of the 25 rainfall monitoring stations that reported in, in time for the compilation of bulletin, 1 recorded *well above average* rainfall, 6 *above average*, 15 *average*, and 3 stations with *below average* rainfall (Table 2, Figures 1-5).

Lakeba recorded *well above average* rainfall, experiencing twice its normal monthly rainfall. On the other hand, the only exceptions were Seaqaqa, Labasa Airport, and Matei, which recorded *below average* rainfall.

The highest monthly rainfall of 663.2mm was observed at Lakeba, followed by Laucala Bay (Suva) with 621.0mm, Lomaivuna with 618.0mm, Nadarivatu with 571.5mm, Monsavu with 547.8mm, Navua with 530.5mm, Penang Mill with 483.6mm, Rarawai Mill (Ba) with 480.7mm, Vunisea with 480.0mm, and Dobuilevu with 431.5mm. On the other hand, Seaqaqa recorded the month’s lowest total monthly rainfall of 185.7mm, followed by Levuka with 193.5mm and Vaturekuka (Labasa) with 207.5mm. (Table 2).

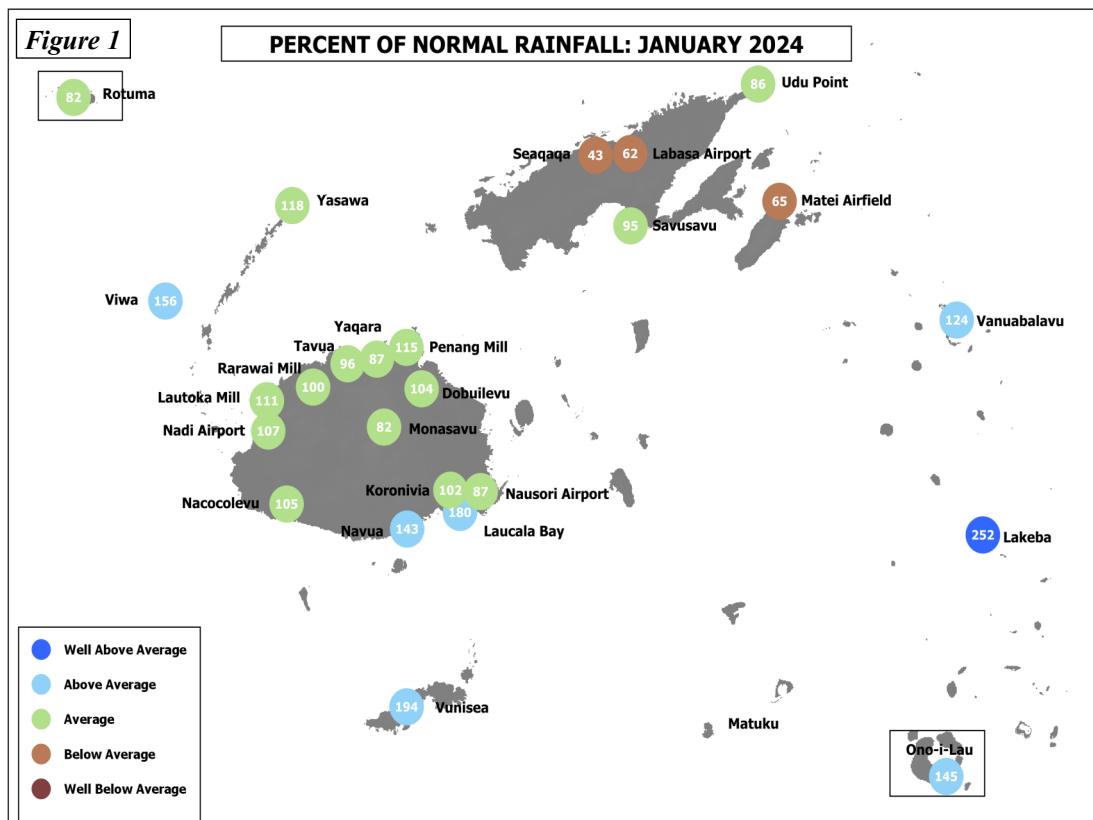
A series of active troughs affected the Fiji Group from the 14<sup>th</sup> to the 18<sup>th</sup>, resulting in flash flooding of low-

lying areas, especially in parts of the Central Division on the 14<sup>th</sup> and 15<sup>th</sup>. Lakeba and Laucala Bay (Suva) recorded their highest 24-hour rainfall of 119.8mm and 118.7mm on the 14<sup>th</sup> and 15<sup>th</sup>, respectively.

On the 25<sup>th</sup>, the presence of Tropical Disturbance TD04F, resulted in significant heavy falls on the 24<sup>th</sup> and 25<sup>th</sup>, with Rarawai Mill (Ba) recording its significant 24-hour rainfall of 160.1mm on the 24<sup>th</sup>.

Monasavu and Koronivia recorded the highest number of rain days (rainfall  $\geq 0.1$ mm) with 30 days, followed by Nasinu and Savusavu both with 27 days, Nausori, Navua and Viwa all with 25 days, Laucala Bay (Suva), Lomaivuna, Udu Point and Labasa Airfield all with 24 days, and Nadarivatu, Lautoka Mill and Korolevu all with 23 days. Consequently, Yaqara recorded the least number of rain days with 12 days, followed by Sigatoka with 15 days, Vanuabalavu with 16 days, Wainikoro with 17 days, Levuka with 18 days, and Vaturekuka (Labasa), Yasawa-i-Rara, Rotuma, RKS Lodoni, Rarawai Mill (Ba), and Lakeba all with 19 days.

There were no new rainfall records recorded 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  $\geq 0.1$ 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 *above normal* day-time air temperatures were observed at most parts of the country during the month. Out of the 21 climate stations that reported in time for the analysis of data, 18 recorded anomalies  $\geq +0.5^{\circ}\text{C}$ , 2 within  $\pm 0.5^{\circ}\text{C}$ , and 1 with anomaly  $\leq -0.5^{\circ}\text{C}$ .

The warmest days on average were recorded at RKS Lodoni with  $34.4^{\circ}\text{C}$ , followed by Yaqara with  $33.5^{\circ}\text{C}$ , Viwa with  $33.2^{\circ}\text{C}$ , Lautoka Mill and Seaqaqa both with  $33.1^{\circ}\text{C}$ , Rarawai Mill (Ba) with  $32.9^{\circ}\text{C}$ , Wainikoro with  $32.6^{\circ}\text{C}$ , Saqani with  $32.5^{\circ}\text{C}$ , Nacocolevu with  $32.4^{\circ}\text{C}$ , and Penanag Mill and Navua both with  $32.3^{\circ}\text{C}$ . Consequently, Nadarivatu recorded the coolest days on average with  $26.5^{\circ}\text{C}$ , followed by Monasavu with  $27.2^{\circ}\text{C}$ , Labasa Airfield with  $30.6^{\circ}\text{C}$ , Vanuabalavu with  $30.9^{\circ}\text{C}$ , Ono-i-Lau with  $31.1^{\circ}\text{C}$ , and Koronivia, Udu Point and Matei all with  $31.2^{\circ}\text{C}$ .

The month’s highest day-time temperature of  $37.5^{\circ}\text{C}$  was observed at Yaqara on the 12<sup>th</sup>, followed by RKS Lodoni with  $36.0^{\circ}\text{C}$  on the 26<sup>th</sup>, Viwa with  $35.7^{\circ}\text{C}$  on the 8<sup>th</sup>, Rarawai Mill (Ba) with  $35.6^{\circ}\text{C}$  on the 11<sup>th</sup>, Nacocolevu and Lomaivuna both with  $35.4^{\circ}\text{C}$  on the 11<sup>th</sup> and 22<sup>nd</sup>, respectively, and Sigatoka with  $35.1^{\circ}\text{C}$  on the 19<sup>th</sup>. On the other hand, the coolest day-time temperature of  $23.7^{\circ}\text{C}$  was at Nadarivatu on the 21<sup>st</sup>, followed by Monasavu with  $24.3^{\circ}\text{C}$  on the 26<sup>th</sup>, Koronivia with  $25.0^{\circ}\text{C}$  on the 20<sup>th</sup>, and Vunisea with  $27.2^{\circ}\text{C}$  on the 16<sup>th</sup>.

Lautoka Mill and Nausori Airport recorded their highest monthly average maximum temperatures of  $33.1^{\circ}\text{C}$  and  $32.2^{\circ}\text{C}$  since observations began in 1905 and 1956, respectively (Table 1).

**B. Minimum Night-time Air Temperatures**

Generally *above average* night-time temperatures were recorded over most parts of the country during the month. Of the 21 stations, 13 recorded anomalies  $\geq +0.5^{\circ}\text{C}$ , 4 within  $\pm 0.5^{\circ}\text{C}$ , and 4 with anomaly  $\leq -0.5^{\circ}\text{C}$ .

The coolest days on average was at Nadarivatu with  $18.9^{\circ}\text{C}$ , followed by Monasavu with  $20.3^{\circ}\text{C}$ , Lomaivuna with  $22.4^{\circ}\text{C}$ , Korolevu with  $22.6^{\circ}\text{C}$ , Vanuabalavu with  $23.0^{\circ}\text{C}$ , Ono-i-Lau and Vaturekuka (Labasa) both with  $23.2^{\circ}\text{C}$ , Matei with  $23.3^{\circ}\text{C}$ , Nacocolevu and Sigatoka both with  $23.5^{\circ}\text{C}$ , and Navua, Udu Point and Wainikoro all with  $23.6^{\circ}\text{C}$ . Consequently, on average, the warmest night-time temperatures were observed at Viwa with  $25.9^{\circ}\text{C}$ , followed by Laucala Bay (Suva) with  $25.1^{\circ}\text{C}$ , Saqani with  $25.0^{\circ}\text{C}$ , Yaqara and Rotuma both with  $24.9^{\circ}\text{C}$ , Momi with  $24.8^{\circ}\text{C}$ , and  $24.6^{\circ}\text{C}$  at Koronivia, Seaqaqa and Vunisea respectively.

The coolest daily night-time temperatures were recorded mostly during the second and last week of the month. The lowest night-time temperature of  $14.5^{\circ}\text{C}$  was recorded at Nadarivatu on the 28<sup>th</sup>, followed by Monasavu with  $17.1^{\circ}\text{C}$  on the 30<sup>th</sup>, Nacocolevu with  $18.2^{\circ}\text{C}$  on the 13<sup>th</sup>, Ono-i-Lau with  $19.5^{\circ}\text{C}$  on the 8<sup>th</sup>, Lomaivuna with  $20.1^{\circ}\text{C}$  on the 27<sup>th</sup>, Rarawai Mill (Ba) with  $20.3^{\circ}\text{C}$  on the 28<sup>th</sup>, Vanuabalavu and Korolevu both with  $20.4^{\circ}\text{C}$ , on the 9<sup>th</sup> and 28<sup>th</sup>, respectively, and Vunisea with  $20.5^{\circ}\text{C}$  on the 29<sup>th</sup>. On the other hand, the warmest night-time temperature of  $31.4^{\circ}\text{C}$  was recorded at Koronivia on the 4<sup>th</sup>, followed by RKS with  $28.0^{\circ}\text{C}$  on the 10<sup>th</sup>, Keiyasi with  $27.3^{\circ}\text{C}$  on the 24<sup>th</sup>, and Viwa and Vunisea both with  $27.1^{\circ}\text{C}$  on the 22<sup>nd</sup>.

There were no new night-time temperature records established during the month.

**TABLE 1. CLIMATE RECORDS ESTABLISHED IN JANUARY 2024**

<u>Element</u>	<u>Station</u>	<u>Observed (record)</u>	<u>On</u>	<u>Rank</u>	<u>Previous (record)</u>	<u>Year</u>	<u>Records Began</u>
Average Maximum Temperature	Lautoka Mill	$33.1^{\circ}\text{C}$	-	New High	$32.6^{\circ}\text{C}$	2020	1905
Average Maximum Temperature	Nausori Airport	$32.2^{\circ}\text{C}$	-	New High	$31.9^{\circ}\text{C}$	2000	1956

*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 JANUARY 2024**

	RAINFALL				AIR TEMPERATURES								SUNSHINE			
	TOTAL	RAIN		MAX. FALL	AVERAGE DAILY				EXTREME				TOTAL	*		
	MM	%	+ DAYS	MM ON	MAX. C	# C	MIN. C	# C	MAX. C	ON C	MIN. C	ON C	HRS	%		
NADI AIRPORT	389.9	107	21	71	24	32.2	0.8	23.9	0.6	34.3	13	21.8	29	186	90	
LAUCALA BAY	621.0	180	24	136	20	31.8	0.6	25.1	0.5	33.7	19	23.4	25	117	63	
NACOCOLEVU RESEARCH	283.0	105	20	107	24	32.4	0.8	23.5	0.9	35.4	11	18.2	13	142	125	
ROTUMA ISLAND	289.6	82	19	50	15	32.1	0.9	24.9	-0.1	33.4	7	23.2	27	272	175	
VIWA ISLAND	410.5	156	25	104	24	33.2	1.3	25.9	0.8	35.7	8	24.9	15			
YASAWA-I-RARA (AWS)	287.0	118	19	65	24	31.5	0.0	24.1	-0.4	34.3	4	21.9	10			
UDU POINT WEATHER	346.3	86	24	65	25	31.2	0.4	23.6	-1.1	33.0	22	21.6	2			
NABOUWALU	MISSING OBSERVATIONS															
LABASA AIRFIELD	252.5	62	24	53	30	30.6	-1.2	23.7	1.2	30.6	16	20.9	4			
SAVUSAVU AIRFIELD	265.7	95	27	68	17	31.4	0.8	24.3	0.5	33.5	7	22.2	26			
KORONIVIA RESEARCH	368.9	102	30	54	22	31.2	0.5	24.6	1.5	34.4	22	21.9	29			
NAUSORI AIRPORT	308.2	87	25	57	15	32.2	1.6	23.9	0.6	34.5	22	21.6	29			
NAVUA (AWS)	530.5	143	25	113	14	32.3	2.1	23.6	0.7	34.3	19	20.8	29			
MONASAVU HYDRO DAM	547.8	82	30	92	24	27.2	1.5	20.3	1.1	30.1	23	17.1	30			
FSC LAUTOKA MILL	424.8	111	23	77	20	33.1	1.7	24.1	0.4	34.8	2	21.9	29			
FSC RARAWAI MILL	480.7	100	19	160	24	32.9	0.8	23.7	1.1	35.6	11	20.3	28			
FSC PENANG MILL	483.6	115	22	138	25	32.3	1.1	24.4	0.6	33.7	7	21.7	27			
MATEI AIRFIELD	222.2	65	22	38	11	31.2	0.9	23.3	-1.0	33.1	24	21.4	26			
VANUABALAVU	320.6	124	16	113	7	30.9	0.7	23.0	-1.4	32.5	22	20.4	9			
LAKEBA	663.2	252	19	127	7	31.4	0.9	24.1	0.0	33.0	30	20.9	28			
VUNISEA (AWS)	480.0	194	20	127	1	31.8	1.6	24.6	0.6	34.4	19	20.5	29			
MATUKU	MISSING OBSERVATIONS															
ONO-I-LAU	253.2	145	20	70	25	31.1	1.1	23.2	-0.9	34.7	21	19.5	8			
YAQARA AWS	282.0	87	12	87	24	33.5		24.9		37.5	12	22.8	4			
LEVUKA AWS	193.5		18	54	17	U/S		U/S		U/S		U/S				
KEIYASI AWS	322.0		21	50	5	U/S		U/S		U/S		U/S				
LOMATIVUNA AWS	618.0		24	140	14	31.8		22.4		35.4	22	20.1	27			
NADARIVATU AWS	571.5		23	118	24	26.5		18.9		29.1	12	14.5	28			
RKS LODONI AWS	334.0		19	71	15	34.4		26.1		36.0	26	23.2	28			
MOMI AWS	248.0		20	50	24	31.7		24.8		34.2	25	22.4	29			
SIGATOKA AWS	275.0		15	84	24	32.0		23.5		35.1	19	20.8	29			
VATUREKUKA AWS	207.5		19	49	19	31.8		23.2		33.0	30	21.3	4			
KOROLEVU AWS	406.0		23	116	24	31.9		22.6		33.9	25	20.4	28			
WAINIKORO AWS	227.5		17	55	20	32.6		23.6		33.9	23	21.7	28			
SAQANI AWS	248.5		20	65	19	32.5		25.0		34.4	22	21.9	26			
SEAQAQA AWS	185.7	43	21	44	19	33.1		24.6		35.0	12	21.5	4			
DOBUILEVU TB3	431.5	104	22	143	31											
NASINU TB3	414.5		27	90	22											
TAVUA TB3	414.5	96	20	102	24											
	TEMPERATURE( C)HUMIDITY WIND															
		DRY WET		RH% VP												
	MEAN	(AVERAGE AT 9AM)													KT	
NADI AIRPORT	28.0	28.6	25.4	77	29.3										6.5	
LAUCALA BAY	28.4	28.8	26.4	82	29.6											
NACOCOLEVU RESEARC	27.9	29.6	26.6	79	31.0											
ROTUMA ISLAND	28.5	30.2	27.4	78	32.1											
VIWA ISLAND	29.6	30.3	27.5	81	32.3											
YASAWA-I-RARA	27.8															
UDU POINT WEATHER	27.4	28.7	26.4	84	29.4											
NABOUWALU	MISSING OBSERVATIONS															
LABASA AIRFIELD	27.2	29.3	26.2	78	30.5										8.6	
SAVUSAVU AIRFIELD	27.8	29.1	26.3	80	30.1										5.8	
KORONIVIA RESEARCH	27.9	28.8	26.7	85	29.6											
NAUSORI AIRPORT	28.1	28.6	26.2	82	29.3										4.1	
NAVUA (AWS)	28.0															
MONASAVU HYDRO DAM	23.8	23.8	23.2	95	22.0											
FSC LAUTOKA MILL	28.6	27.0	26.0	93	26.7											
FSC RARAWAI MILL	28.3	29.1	25.8	78	30.1											
FSC PENANG MILL	28.4	29.1	26.1	79	30.1											
MATEI AIRFIELD	27.2	29.0	26.5	81	30.0										7.2	
VANUABALAVU	27.0	28.4	25.9	83	28.9											
LAKEBA	27.7	29.2	26.4	80	30.3											
VUNISEA	28.2															
MATUKU	MISSING OBSERVATIONS															
ONO-I-LAU	27.1	28.7	26.0	81	29.4											

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 (January 2023 - January 2024)

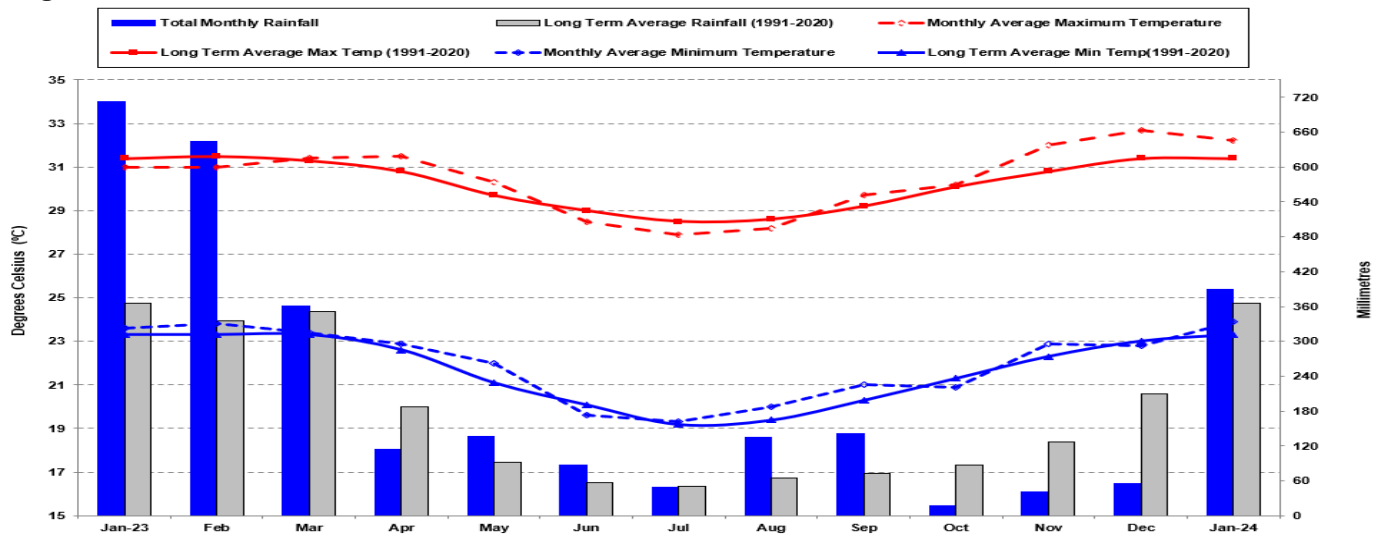


Figure 3

Laucalala Bay - (Suva) (Central Division) - Temperature & Rainfall Records for the last 13 Months (January 2023 - January 2024)

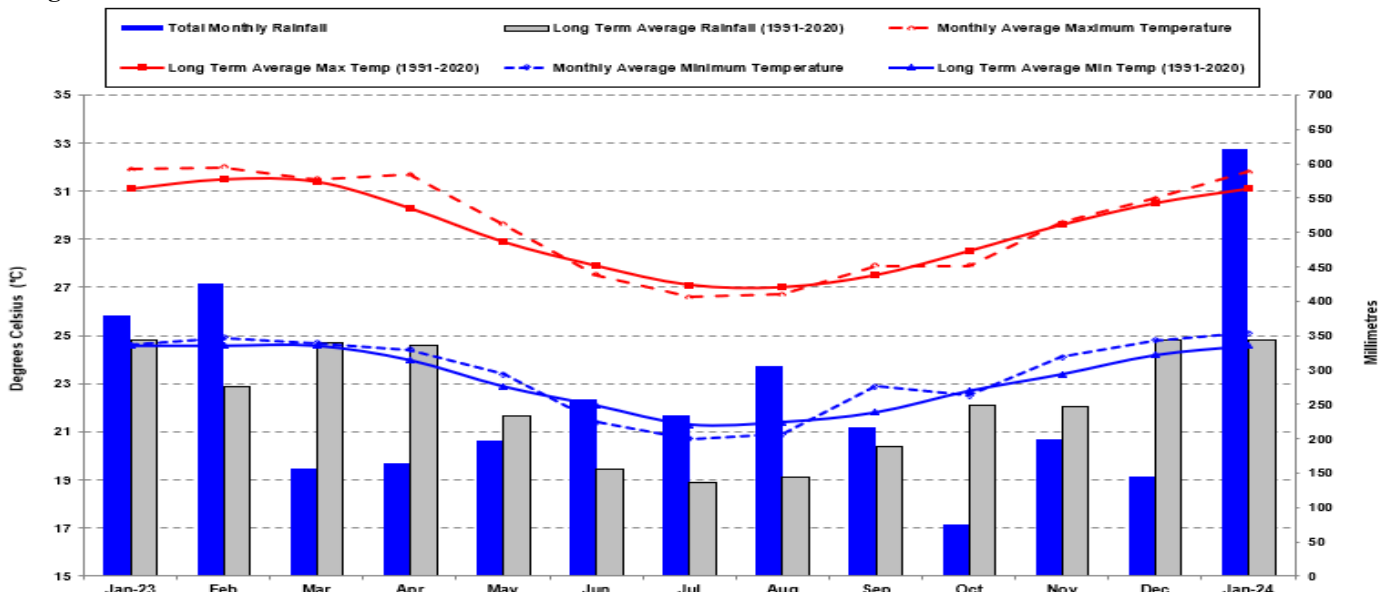


Figure 4

Udu Point (Eastern Division) - Temperature & Rainfall Records for the last 13 Months (January 2023 - January 2024)

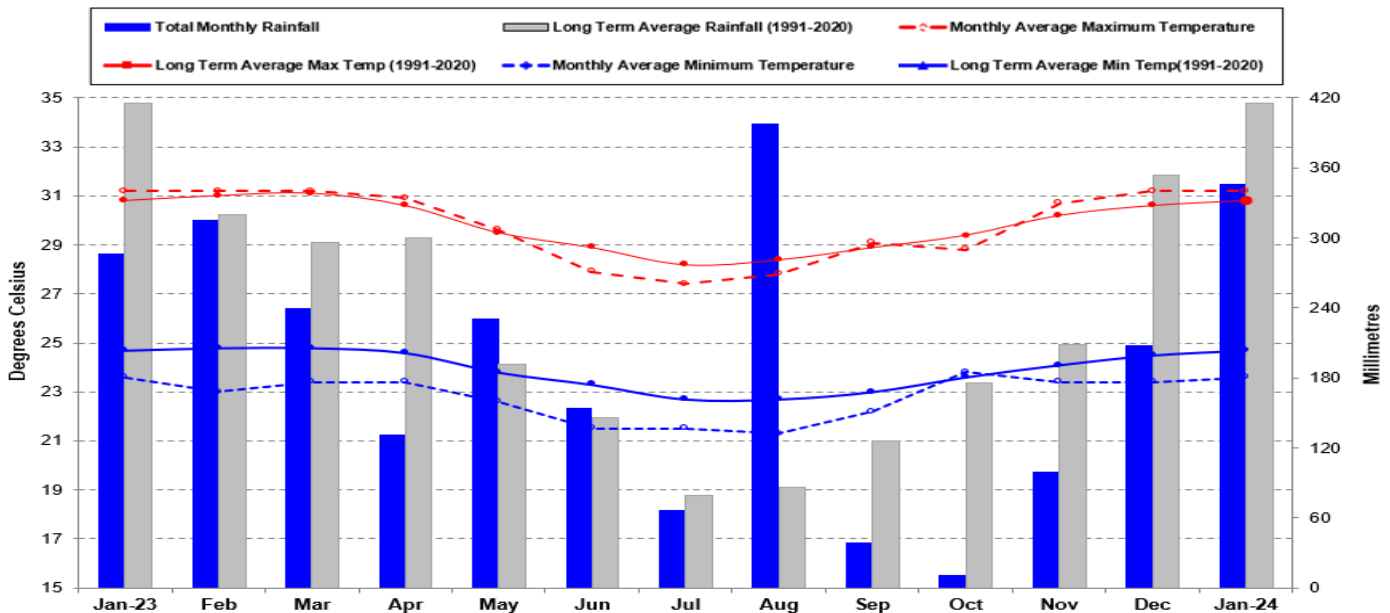
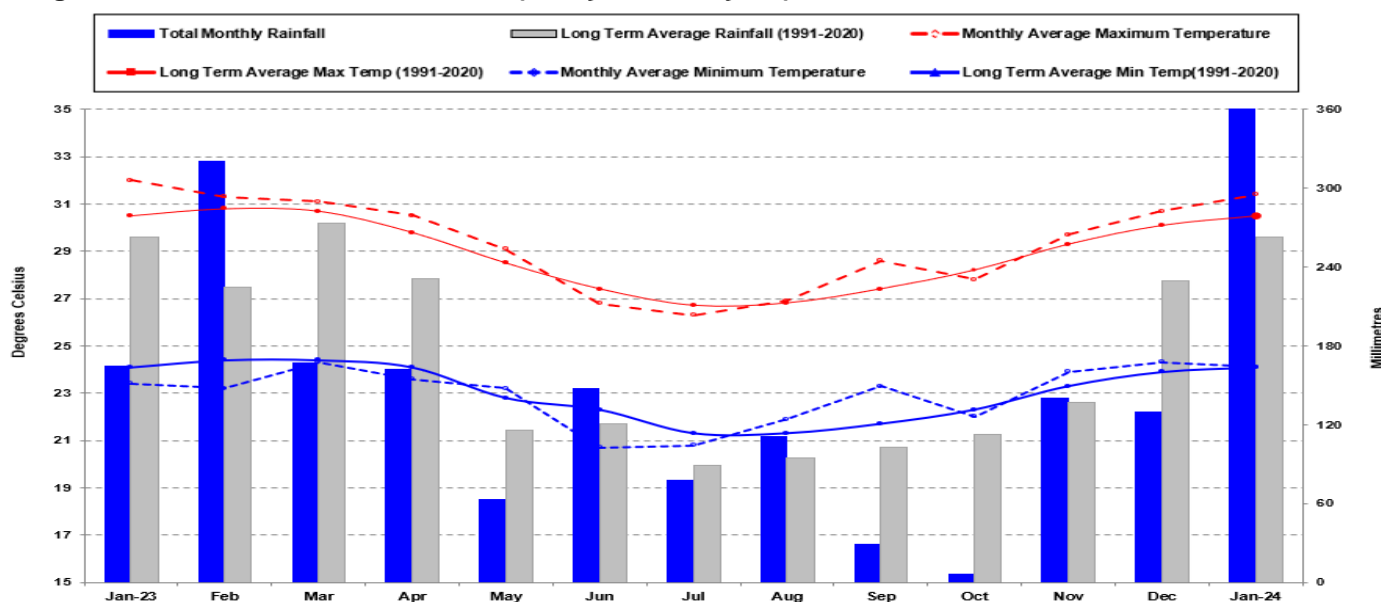


Figure 5

Lakeba (Eastern Division) - Temperature & Rainfall Records for the last 13 Months (January 2023 - January 2024)



## 5. DAILY RAISED PAN EVAPORATION

Figure 6

Daily Evaporation for January 2024

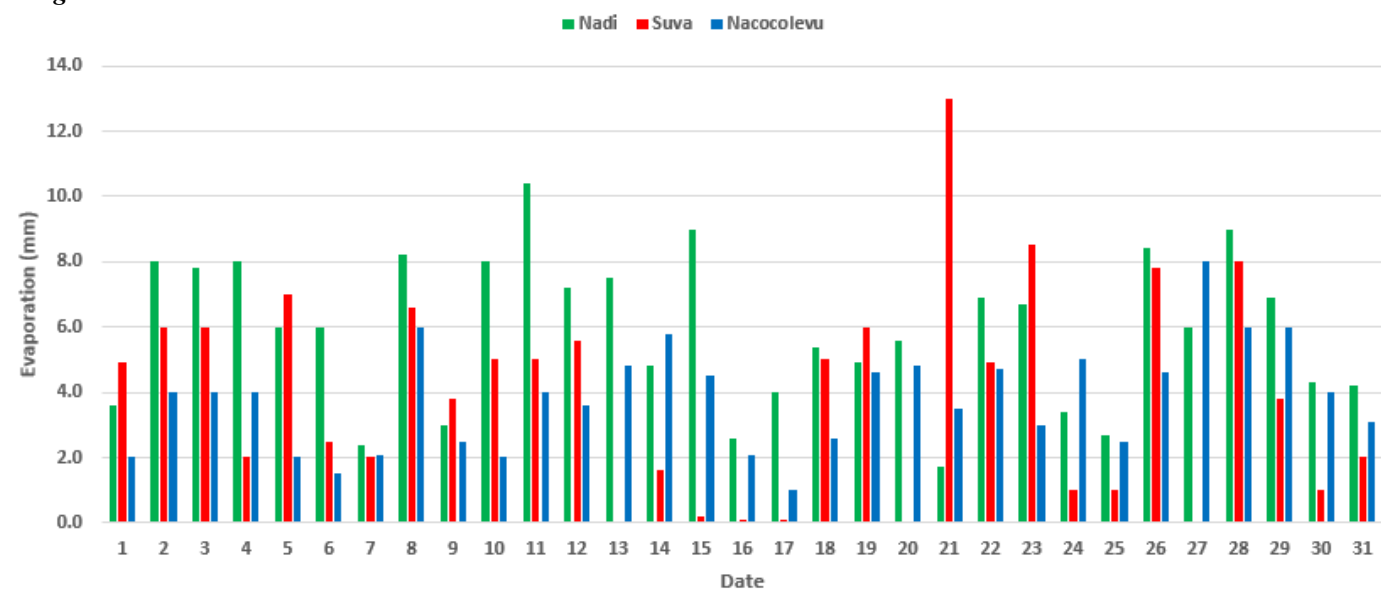


Figure 6: The total monthly raised pan evaporation at Nadi Airport, Laucala Bay (Suva) and Nacocolevu (Sigatoka) were 182.6mm, 120.4mm and 118.3mm, respectively. Nadi’s highest daily evaporation was 10.4mm on the 11<sup>th</sup>, with Suva’s highest daily evaporation of 13.0mm on 21<sup>st</sup>, and Nacocolevu (Sigatoka) recorded its highest of 8.0mm on 27<sup>th</sup>.

## 6. SOLAR RADIATION

The Nadi solar radiation instrument was unserviceable during the month of January 2024.

7. WIND SUMMARY

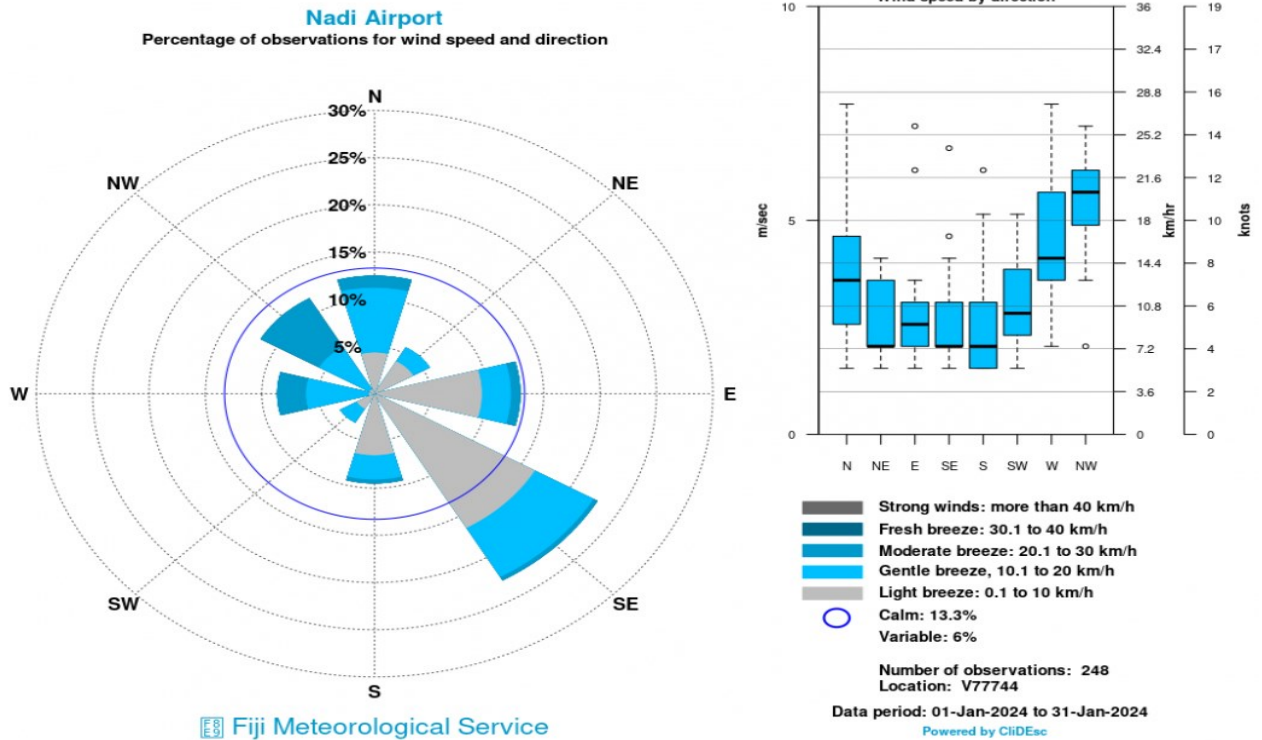


Figure 7a: Looking at Nadi’s 3 hourly observations, southeasterly winds were most dominant during the month, followed by easterly and then northerly winds. Wind strength ranged from light to moderate winds, while 13.3% observations accounted for calm winds.

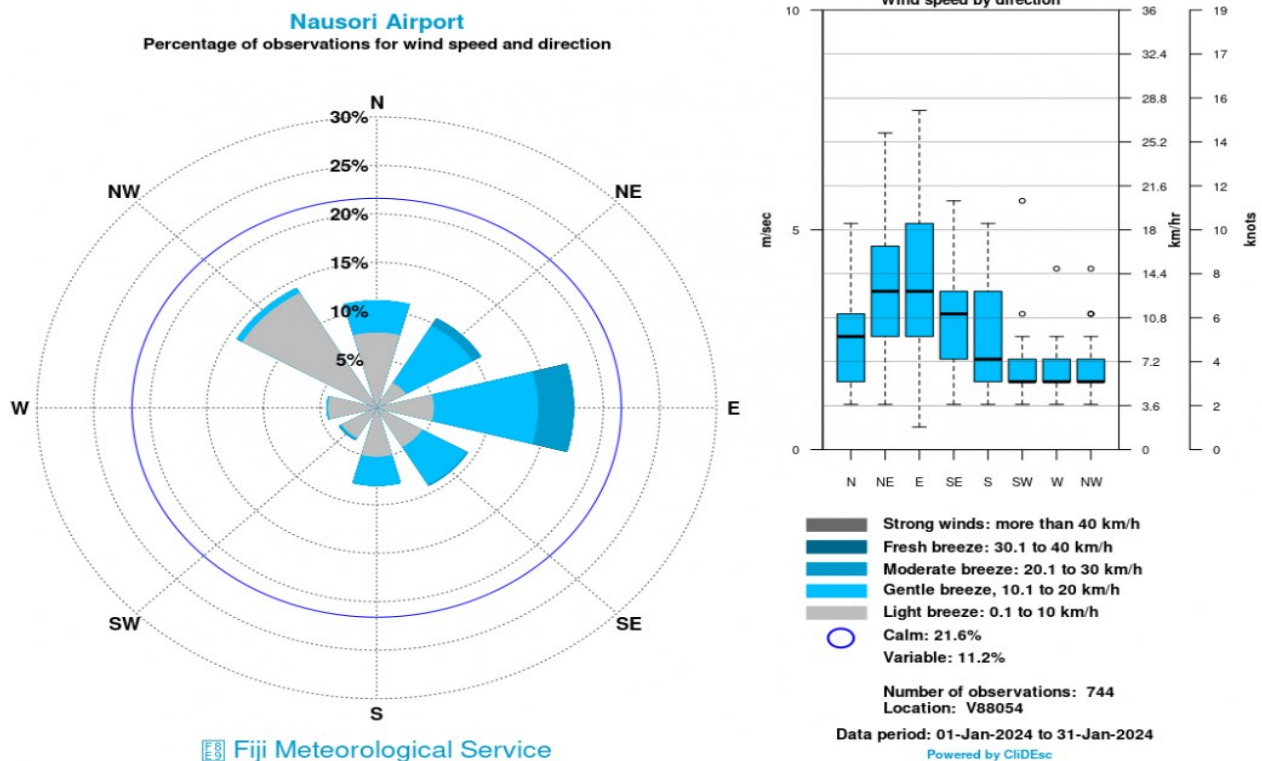
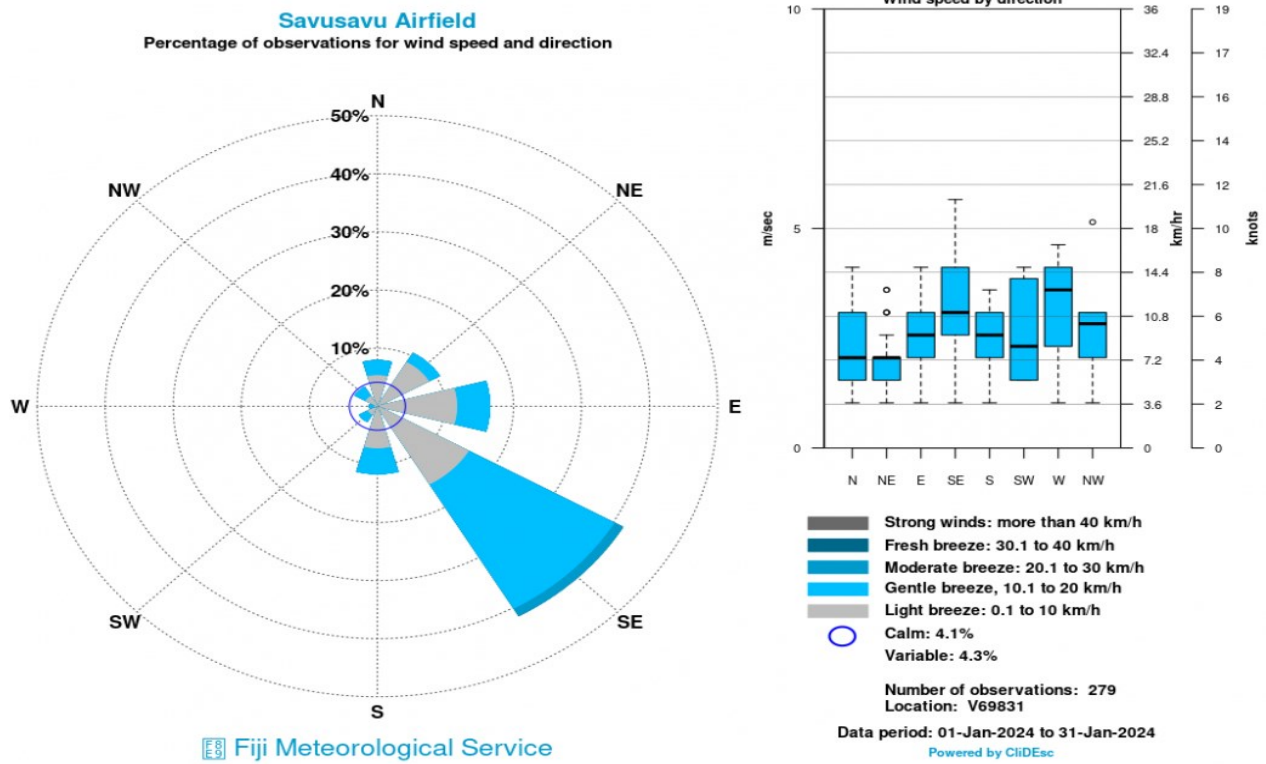
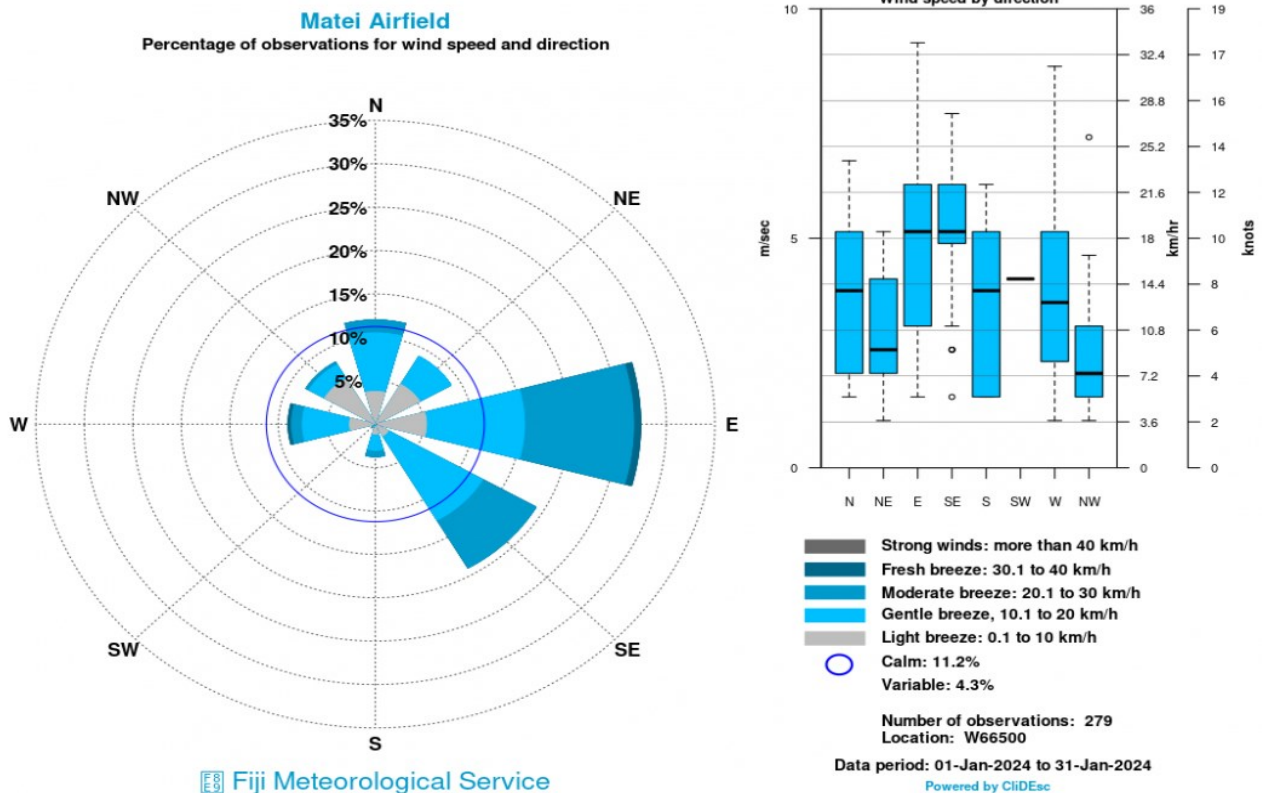


Figure 7b: For Nausori Airport’s hourly wind observations, easterly winds were dominant followed by northwesterly and then northerly winds. Wind strength ranged from light to gentle breeze, while 21.6% of observations accounted for calm winds.



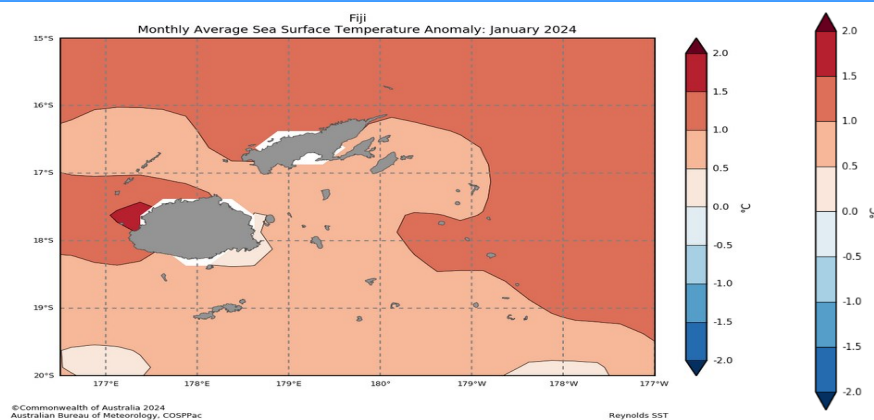
**Figure 7c:** For Savusavu Airfield’s hourly observations (0800hrs to 1600hrs), southeasterly winds were most dominant during the month, followed by easterly and then southerly winds. Wind strength ranged from light to gentle breeze, with calm winds observed during 4.1% of the time.



**Figure 7d:** For Matei Airfield’s hourly wind observations (0800hrs to 1600hrs), easterly winds were dominant followed by southeasterly and then northerly winds. Wind strength ranged from light to moderate breeze, with calm winds observed during 11.2% of the time.



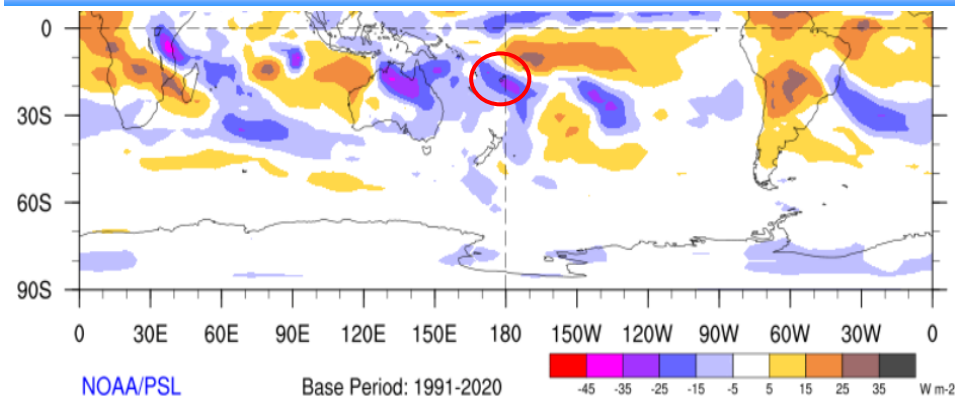
### 8. SEA SURFACE TEMPERATURE (SST)



**Figure 8:** Warmer than normal sea surface temperature anomalies were observed across most of the Fiji Waters, with anomalies 1.0-1.5°C, west of Viti Levu, as well as in north of Vanua Levu and in the central Lau Group, with anomalies of 0.0 to 0.5°C recorded for the rest of the Waters.

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

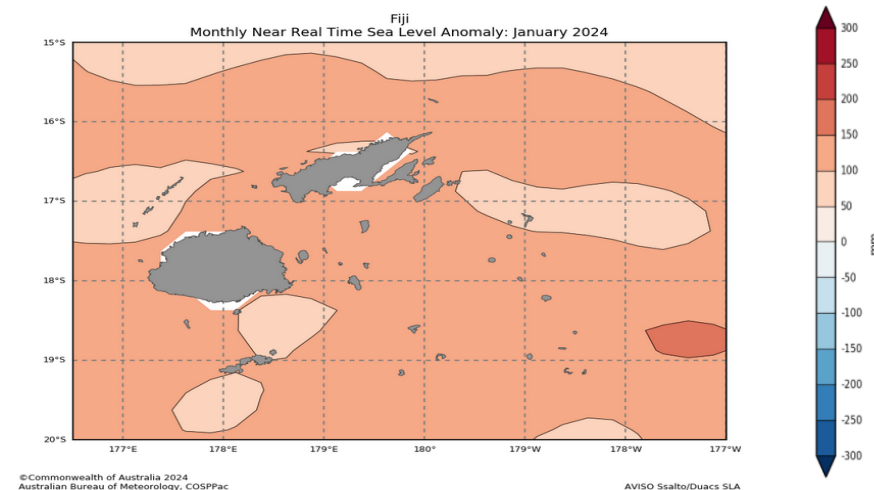
### 9. CLOUD COVER



**Figure 9:** Above normal cloud cover was present over the Fiji Group during January (Fiji in red circle).

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

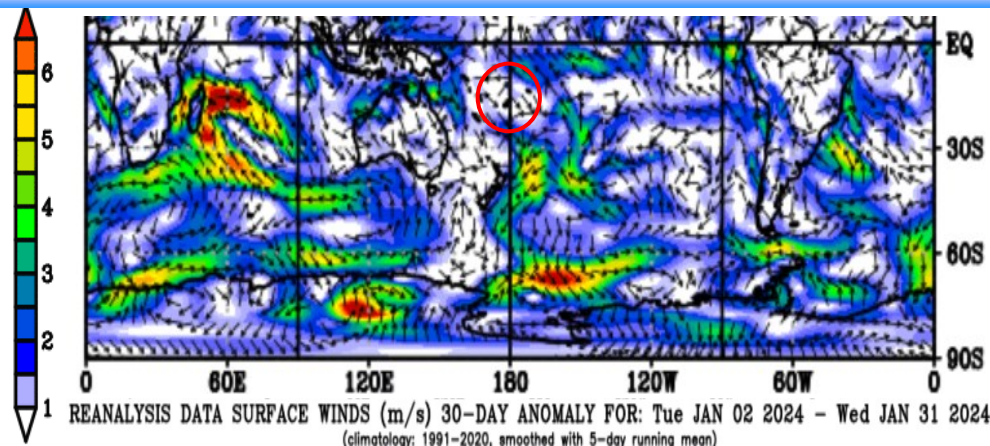
### 10. SEA LEVEL



**Figure 10:** Above normal sea level anomalies persisted across most of the Fiji Waters during January.

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

### 11. WIND ANOMALIES



**Figure 11:** North-westerly wind anomalies were observed over the Fiji Group during the month (base period: 1991-2020) (Fiji in red circle).

Source: [https://www.esrl.noaa.gov/psd/map/images/rnl/sfcwnd\\_30b.rnl.html](https://www.esrl.noaa.gov/psd/map/images/rnl/sfcwnd_30b.rnl.html)

**12. FLASH FLOODING: 15<sup>th</sup> -16<sup>th</sup>, 20<sup>th</sup> - 22<sup>nd</sup> and 25<sup>th</sup>**

Heavy rainfall led to flash floods in low-lying areas of the Central Division on the 15<sup>th</sup>, 16<sup>th</sup>, 20<sup>th</sup>, 21<sup>st</sup>, and 22<sup>nd</sup>, as well as in the Central and Western Divisions on the 25<sup>th</sup>. Laucala Bay (Suva) recorded its highest 24-hour significant rainfall of 118.7mm on the 15<sup>th</sup> and 136.2mm on the 20<sup>th</sup>. Rarawai Mill (Ba) recorded its 24-hour significant rainfall of 160.1mm on the 24<sup>th</sup>. Flash flooding resulted in road closures and inaccessibility in these areas, with a landslide reported at Kula Street in Samabula on the 20<sup>th</sup> as a consequence of continuous heavy rain.



Figure 12a: Waidradra Crossing at Vatulili Road on the 15<sup>th</sup>. Source: National Disaster Management Office.



Figure 12b: Vatuwaqa Bridge, Serea on the 15<sup>th</sup>. Source: National Disaster Management Office.



Figure 12c: Wainibuka crossing, Colata Cocoa Road on the 16<sup>th</sup>. Source: Fiji Roads Authority.



Figure 12d: Qauia, Lami on the 16<sup>th</sup>. Source: FBC News.



Figure 12e: Old Naqali Bridge on the 16<sup>th</sup>. Source: National Disaster Management Office.



Figure 12f: Lomai Bridge, Road going up to Namosi via Waidina on the 16<sup>th</sup>. Source: National Disaster Management Office.



Figure 12g: Marata Settlement in Wailoku on the 16<sup>th</sup>. Source: National Disaster Management Office.



Figure 12h: Vatuwaqa, Suva on the 20<sup>th</sup>. Source: National Disaster Management Office.



Figure 12i: Vatuwaqa, Suva on the 20<sup>th</sup>. Source: National Disaster Management Office.



Figure 12j: Landslide at Kula Street in Samabula on the 20<sup>th</sup>. Source: National Disaster Management Office.



Figure 12k: Waisa Bridge on the 21<sup>st</sup>. Source: National Disaster Management Office.



Figure 12l: Waidradra Crossing at Vatulili Road on the 21<sup>st</sup>. Source: National Disaster Management Office.



Figure 12m: Nabukelevu Road, Navua on the 22<sup>nd</sup>. Source: Fiji Roads Authority.



Figure 12n: Namaqumaqua Crossing, Navua on the 22<sup>nd</sup>. Source: Fiji Roads Authority.



Figure 12o: Qalela Road, Tavua on the 25<sup>th</sup>. Source: Fiji Roads Authority.



Figure 12p: Naseyani Road, Tavua on the 25<sup>th</sup>. Source: Fiji Roads Authority.



Figure 12q: Katudrau Crossing, Rakiraki on the 25<sup>th</sup>. Source: Fiji Roads Authority.



Figure 12r: Marinitawa Road, Ba on the 25<sup>th</sup>. Source: Fiji Roads Authority.



Figure 12s: Navulokani Road, Central Division on the 25<sup>th</sup>. Source: Fiji Roads Authority.



Figure 12t: Wainibuka crossing, Colata Cocoa Road on the 25<sup>th</sup>. Source: Fiji Roads Authority.

## EXPLANATORY NOTES

**Anomalies** - represents the departure/ difference of an element (rainfall, temperature, sea surface temperature, cloud cover, sea level and wind) from its long-period average value for a particular location.

**Trough** - an elongated area of low atmospheric pressure that is associated with a cyclone, or low. Sometimes referred to as a 'trough of low pressure'.

**Rain** - Liquid precipitation in the form of water droplets. Rain falls from dense, continuous clouds, called 'stratiform' clouds.

**Shower** - precipitation from individual clouds, often characterized by the sudden beginning or ending. Showers fall from 'lumpy looking', 'cauliflower' clouds, called 'cumuliform' clouds.

**Trade Winds** - the trade winds are the east to southeasterly winds (in the Southern Hemisphere) which affect tropical and subtropical regions.

**High pressure systems** or anticyclones are atmospheric circulations that rotate anti-clockwise in the Southern Hemisphere. Anticyclones are areas of higher pressure and are generally associated with lighter winds and fine and settled conditions.

**Low pressure systems** or mid-latitude cyclones are atmospheric circulations that rotate clockwise in the Southern Hemisphere (anti-clockwise in the Northern Hemisphere). Cyclones are areas of lower pressure and generally associated with stronger winds, unsettled conditions, cloudiness and rainfall.

**Sea Surface Temperature (SST)** - the temperature of the water's surface. It is usually measured using buoys, ship data, and satellites.