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Summary of Climatological Observations for D96696 - WHAKATU EWS

Period	M/M	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Y/M	Year
Total Rainfall (mm)															
Max 1997-2004	16	163.4	129.6	69.8	139.8	99.8	112.0	183.4	153.4	57.8	141.2	120.8	143.0	3	819.8
Mean		57.1	52.3	36.1	69.5	54.8	59.5	103.0	57.1	32.6	43.2	54.3	48.1		676.6
Min		9.0	0.0	8.8	26.8	13.4	16.8	33.4	16.4	5.2	12.6	15.4	11.6		425.6
Rain Days - Number of days with 0.1mm or more (day)															
Max 1997-2004	16	12.0	14.0	12.0	15.0	15.0	11.0	18.0	17.0	13.0	16.0	17.0	11.0	3	129.0
Mean		7.9	6.9	8.0	9.7	11.3	9.3	13.6	11.1	8.3	8.8	10.0	7.3		112.6
Min		3.0	0.0	3.0	6.0	9.0	7.0	9.0	9.0	6.0	7.0	5.0	4.0		102.0
Wet days - Number of days with 1mm or more of rain (day)															
Max 1997-2004	16	8.0	10.0	10.0	11.0	10.0	9.0	14.0	15.0	5.0	13.0	11.0	10.0	3	86.0
Mean		4.6	5.3	5.0	6.4	7.0	6.3	9.9	7.1	4.2	6.2	6.8	5.0		74.2
Min		1.0	0.0	2.0	3.0	6.0	5.0	6.0	4.0	2.0	3.0	2.0	3.0		59.0
Maximum 1-day rainfall - 9am to 9am local time (mm)															
Max 1997-2004	16	82.8	84.6	22.8	61.8	39.8	88.0	65.0	44.2	50.6	55.6	67.6	64.0	3	88.0
Mean		26.7	26.4	14.0	30.7	20.1	30.6	32.8	19.6	18.4	18.2	24.6	20.7		70.4
Min		3.6	0.0	7.2	17.0	4.0	6.8	16.2	4.6	2.0	5.8	10.2	5.4		50.6
Extreme Maximum Air Temperature (Celsius)															
Max 1997-2004	18	33.8	33.3	31.9	27.2	25.3	21.6	21.8	22.0	26.5	28.5	30.5	32.2	3	33.3
Mean		31.0	30.3	28.7	25.2	24.1	20.6	18.4	18.5	23.8	26.0	26.6	29.7		31.9
Min		28.5	27.5	26.3	23.7	22.4	19.0	15.1	15.2	20.4	25.0	24.6	27.1		29.9
Mean Daily Maximum Air Temperature (Celsius)															
Max 1997-2004	14	25.3	26.2	24.8	21.4	18.6	17.1	15.9	15.4	18.3	21.6	22.6	23.9	3	20.2
Mean		23.5	23.6	22.5	19.6	17.6	15.5	13.8	14.2	16.9	19.4	19.8	22.7		19.3
Min		22.5	21.2	20.4	17.3	16.1	14.4	11.3	12.2	14.7	17.9	17.6	21.0		18.7
Lowest Maximum Air Temperature (Celsius)															
Max 1997-2004	20	18.6	19.5	19.4	16.9	14.6	12.2	11.8	10.8	13.1	15.1	14.9	18.9	5	10.2
Mean		16.9	17.5	16.8	14.8	12.1	10.7	9.5	9.1	11.4	12.5	13.1	16.6		9.3
Min		12.5	15.0	13.6	12.6	10.9	8.8	6.4	6.0	9.5	9.0	11.4	14.2		8.2
Highest Daily Mean Temperature (Celsius)															
Max 1997-2004	24	26.5	25.0	23.5	21.3	20.8	16.8	18.0	14.7	19.2	23.4	23.2	26.2	5	26.5
Mean		24.2	23.7	22.4	19.9	18.5	14.9	14.0	13.5	17.6	19.9	20.7	24.0		25.1
Min		22.9	22.5	21.1	18.2	15.1	12.6	11.1	11.6	15.3	16.9	17.8	21.8		23.9
Mean Air Temperature (Celsius)															
Max 1997-2004	17	19.1	20.4	18.9	15.9	12.8	10.8	11.0	9.6	12.5	15.9	16.3	18.5	3	14.4
Mean		17.9	18.0	16.8	14.4	11.7	9.6	8.6	8.8	11.0	13.6	14.8	17.4		13.7
Min		16.9	16.1	14.1	12.7	10.8	7.8	6.3	7.2	8.4	12.5	12.6	15.8		13.3
Lowest Daily Mean Temperature (Celsius)															
Max 1997-2004	24	14.7	13.9	15.0	11.7	8.4	6.6	6.4	5.9	8.8	10.4	11.3	14.2	5	5.7

Mean		12.7	12.5	12.4	10.0	7.0	5.4	5.2	4.9	6.5	8.6	10.2	12.3		4.9	
Min		11.5	10.7	10.1	8.1	4.9	4.6	2.3	3.9	4.0	6.8	8.5	11.5		4.2	
Highest Minimum Air Temperature (Celsius)																
Max	1997-2004	22	21.1	22.1	18.6	18.1	18.1	13.4	14.8	12.2	14.8	18.2	17.7	20.1	3	22.1
Mean		20.0	19.2	18.4	16.4	14.2	11.3	11.2	10.7	13.2	15.0	16.1	18.7		20.3	
Min		19.2	17.3	17.8	14.7	11.2	8.5	8.0	9.7	11.1	11.1	12.7	17.8		19.3	
Mean Daily Minimum Air Temperature (Celsius)																
Max	1997-2004	17	14.4	14.5	13.2	10.5	7.0	5.1	6.1	4.0	6.7	10.3	11.5	14.1	3	8.7
Mean		12.3	12.5	11.0	8.8	5.9	3.4	3.4	3.3	5.1	7.8	9.7	12.1		8.1	
Min		11.2	11.0	7.9	6.5	4.4	0.9	0.9	2.2	2.1	5.9	7.6	10.5		7.8	
Extreme Minimum Air Temperature (Celsius)																
Max	1997-2004	22	8.1	6.6	7.9	4.3	0.4	-1.3	-0.8	-1.1	-0.3	3.6	5.6	7.5	3	-2.8
Mean		5.2	5.0	4.6	1.5	-1.1	-2.5	-2.8	-2.4	-1.6	0.9	2.6	4.9		-3.3	
Min		2.1	2.9	1.5	-0.1	-2.1	-4.1	-5.9	-3.1	-3.8	-2.3	-0.8	1.9		-4.1	
Mean Daily Grass Minimum Temperature (Celsius)																
Max	1997-2004	15	13.2	12.8	11.5	7.9	5.3	2.2	4.0	1.6	4.3	7.1	9.8	12.5	3	6.4
Mean		10.5	10.7	8.9	6.0	3.4	0.6	1.0	0.7	2.1	4.8	7.0	9.9		5.6	
Min		8.8	8.8	6.0	2.8	1.8	-1.6	-1.8	-0.5	0.2	1.4	4.2	8.4		4.5	
Extreme Grass Minimum Temperature (Celsius)																
Max	1997-2004	16	5.6	5.2	5.8	2.0	-1.5	-4.0	-4.0	-3.9	-3.6	0.6	2.7	5.6	3	-6.7
Mean		2.4	2.0	1.3	-1.6	-3.8	-6.3	-6.4	-6.2	-5.4	-2.4	-0.8	1.7		-7.4	
Min		-0.9	-1.2	-1.7	-3.8	-5.2	-8.2	-9.0	-7.7	-7.3	-7.0	-3.5	-1.2		-8.2	
Mean 10cm Earth Temperature (Celsius)																
Max	1997-2004	14	21.5	21.4	19.1	15.8	11.7	9.1	9.0	8.7	12.0	15.1	17.9	20.8	3	14.2
Mean		20.4	19.7	17.8	14.1	10.5	7.5	7.1	7.7	11.0	13.7	16.3	19.8		13.9	
Min		19.4	17.6	16.6	13.3	9.5	5.2	5.4	6.7	9.4	11.7	14.8	18.6		13.4	
Mean 20cm Earth Temperature (Celsius)																
Max	1997-2004	14	22.3	22.5	20.0	16.7	12.3	9.9	9.8	9.3	11.3	15.5	17.9	20.2	3	15.2
Mean		20.8	20.6	18.5	14.7	11.5	8.7	8.1	8.4	10.7	14.0	16.4	19.6		14.5	
Min		19.9	18.9	16.7	13.0	11.0	6.5	6.4	7.5	9.0	12.4	14.7	19.0		13.9	
Mean 50cm Earth Temperature (Celsius)																
Max	1997-2004	14	22.4	22.5	20.8	18.1	14.2	12.1	11.3	10.9	12.4	15.4	18.2	20.1	3	16.2
Mean		21.1	21.4	19.8	16.9	14.0	11.2	10.0	10.2	11.9	14.6	16.9	19.5		15.8	
Min		20.4	20.0	18.3	15.2	13.6	9.7	8.9	9.5	10.4	13.6	15.9	19.2		15.3	
Mean 100cm Earth Temperature (Celsius)																
Max	1997-2004	14	20.4	20.6	20.1	18.4	15.8	13.8	12.1	12.0	12.3	14.4	16.5	17.8	3	16.0
Mean		19.2	19.9	19.3	17.5	15.3	13.0	11.5	11.2	11.9	13.7	15.5	17.4		15.6	
Min		18.7	19.2	18.1	16.2	14.9	12.3	10.8	10.6	10.7	13.1	14.6	17.0		15.2	
Days of occurrence: Ground Frost (day)																
Max	1997-2004	17	0.0	1.0	1.0	8.0	12.0	17.0	21.0	16.0	15.0	11.0	2.0	1.0	4	61.0
Mean		0.0	0.1	0.2	2.4	6.4	13.0	13.3	12.9	10.4	3.5	0.7	0.1		57.8	
Min		0.0	0.0	0.0	0.0	1.0	9.0	6.0	10.0	6.0	0.0	0.0	0.0		55.0	

Days of occurrence: Screen Frost (day)																
Max	1997-2004	22	0.0	0.0	0.0	1.0	4.0	17.0	11.0	11.0	13.0	1.0	1.0	0.0	3	35.0
Mean			0.0	0.0	0.0	0.2	2.5	9.5	5.3	6.6	4.5	0.3	0.2	0.0		27.2
Min			0.0	0.0	0.0	0.0	0.0	3.0	1.0	4.0	1.0	0.0	0.0	0.0		20.0
Mean of 9am Relative Humidity (percent)																
Max	1997-2004	18	83.8	83.0	87.2	88.8	89.6	91.0	90.3	90.1	77.1	79.1	73.2	75.1	3	80.3
Mean			74.9	79.3	80.4	84.3	86.1	87.9	88.1	83.2	73.1	68.8	68.9	69.9		78.6
Min			67.9	75.2	71.7	80.2	81.3	83.6	86.2	77.2	66.5	58.7	61.1	63.0		76.9
Mean Vapour Pressure (hPa)																
Max	1997-2004	18	17.3	18.3	17.1	14.7	11.9	10.0	11.2	9.7	10.9	13.2	13.1	15.9	3	12.8
Mean			15.9	16.1	14.9	13.2	11.2	9.1	9.1	9.1	10.0	11.0	11.8	14.5		12.3
Min			14.2	14.6	12.3	11.9	10.7	8.0	7.6	7.7	8.1	10.1	10.4	13.4		12.0
Mean Daily Global Radiation (MJ/sq m)																
Max	1997-2004	15	25.7	22.8	17.9	12.0	8.0	6.6	7.2	10.1	15.4	21.3	24.0	25.5	3	15.6
Mean			23.4	20.1	15.9	10.7	7.5	6.0	6.4	9.4	14.1	19.5	21.2	23.4		14.7
Min			21.5	16.7	14.5	9.9	6.6	5.3	5.6	8.5	13.2	17.6	19.0	21.0		13.8
Highest Daily Wind Run (km)																
Max	1997-2004	22	628.0	794.0	622.0	485.0	654.0	1051.0	752.0	940.0	709.0	810.0	666.0	639.0	7	748.0
Mean			533.0	507.0	511.5	417.1	541.5	587.9	594.1	613.7	571.3	656.3	602.2	565.5		748.0
Min			429.0	404.0	446.0	338.0	422.0	390.0	508.0	441.0	493.0	428.0	483.0	483.0		748.0
Mean Daily Wind Run (km)																
Max	1997-2004	22	307.5	347.4	276.3	233.4	271.5	278.9	281.1	366.1	311.4	400.8	373.7	315.3	7	249.4
Mean			256.7	267.0	241.0	213.8	247.0	240.7	257.7	284.7	282.2	317.3	320.3	291.8		249.4
Min			211.9	214.0	218.2	178.2	233.9	204.2	222.2	254.5	248.3	244.5	277.6	275.3		249.4
Mean Wind Speed (m/sec)																
Max	1997-2004	14	3.5	4.0	3.2	2.7	3.1	3.2	3.3	4.2	3.8	4.7	4.3	3.7	3	3.3
Mean			3.0	3.1	2.8	2.5	2.8	2.8	3.0	3.3	3.3	3.7	3.6	3.3		3.1
Min			2.4	2.5	2.5	2.1	2.4	2.4	2.6	3.0	2.9	2.8	3.2	3.1		2.9
Days of Wind Gust >= 24 knots (day)																
Max	1997-2004	21	12.0	17.0	10.0	6.0	14.0	14.0	10.0	19.0	15.0	22.0	20.0	14.0	6	107.0
Mean			7.0	7.6	5.8	4.1	10.0	8.6	9.0	9.6	11.3	13.7	13.2	10.3		99.5
Min			2.0	3.0	2.0	2.0	7.0	4.0	4.0	5.0	6.0	8.0	6.0	7.0		92.0
Days of Wind Gusts >= 33 knots (day)																
Max	1997-2004	21	4.0	7.0	3.0	2.0	5.0	6.0	2.0	6.0	4.0	10.0	7.0	5.0	6	29.0
Mean			1.9	1.7	1.5	0.9	3.2	2.9	1.6	2.6	2.0	5.2	3.4	2.5		25.0
Min			0.0	0.0	0.0	0.0	2.0	0.0	1.0	1.0	0.0	1.0	2.0	0.0		21.0
Days of wind Gusts >= 51 knots (day)																
Max	1997-2004	21	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	6	1.0
Mean			0.1	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.3	0.0	0.0	0.2		1.0
Min			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		1.0
Wind-Gust - Highest Speed (m/sec)																
Max	1997-2004	21	26.3	30.9	23.7	19.6	26.8	25.2	22.1	22.6	26.8	25.2	22.1	27.8	6	26.8

Mean		19.3	20.2	19.3	16.5	22.1	19.9	19.9	19.7	20.8	21.7	20.0	21.5		26.6	
Min		14.4	14.9	15.4	14.4	18.0	16.5	18.0	17.5	16.0	18.0	17.5	16.5		26.3	
Maximum	10-minute Rainfall (mm)															
Max	2001-2004	8	7.2	8.3	8.9	5.1	4.7	4.7	4.0	3.1	4.5	9.0	8.5	16.2	3	8.9
Mean			3.9	5.7	5.2	2.8	2.3	3.5	2.1	1.9	2.4	4.0	3.4	9.9		8.9
Min			0.6	1.3	1.8	0.5	0.1	2.5	0.3	0.5	0.8	0.8	0.5	3.5		8.9
Maximum	20-minute Rainfall (mm)															
Max	2001-2004	8	9.5	12.0	12.4	7.2	6.5	8.2	4.2	3.7	8.6	14.3	11.3	17.1	3	12.4
Mean			5.3	8.1	7.1	3.8	3.0	5.5	2.7	2.3	4.2	5.9	4.5	10.6		12.4
Min			1.0	2.1	2.4	0.6	0.1	4.2	0.5	0.5	1.3	0.8	0.6	4.1		12.4
Maximum	30-minute Rainfall (mm)															
Max	2001-2004	8	10.2	12.5	18.2	7.9	7.7	10.8	5.4	3.9	12.4	15.5	12.1	18.0	3	18.2
Mean			5.8	8.6	9.3	4.6	3.5	6.9	3.5	2.6	6.0	6.5	4.9	11.3		18.2
Min			1.3	3.0	3.0	0.6	0.1	4.9	0.7	0.5	1.8	0.8	0.6	4.5		18.2
Maximum	1-hour Rainfall (mm)															
Max	2001-2004	8	12.4	13.3	25.5	10.3	11.5	15.1	9.2	6.0	22.9	16.6	13.1	19.2	3	25.5
Mean			7.2	9.4	12.4	6.2	4.8	9.3	5.8	4.0	10.2	7.2	5.6	11.9		25.5
Min			2.0	3.9	4.0	0.8	0.1	5.6	1.2	0.5	2.6	0.9	0.7	4.5		25.5
Maximum	2-hour Rainfall (mm)															
Max	2001-2004	8	22.0	22.4	31.8	11.9	20.2	20.7	17.7	9.2	37.5	18.3	13.9	20.2	3	31.8
Mean			12.5	12.9	15.4	8.7	7.6	12.4	9.8	5.5	15.3	8.6	6.1	12.5		31.8
Min			2.9	5.2	5.3	1.3	0.2	7.1	1.5	0.6	3.4	1.0	0.7	4.8		31.8
Maximum	6-hour Rainfall (mm)															
Max	2001-2004	8	34.0	44.6	40.2	14.5	32.8	28.6	37.4	17.3	41.8	22.3	27.7	32.9	3	44.6
Mean			18.7	22.7	22.7	11.0	11.5	19.0	18.2	9.4	20.2	11.1	11.5	19.2		44.6
Min			3.4	11.0	9.5	3.3	0.5	10.8	2.9	1.3	4.9	1.1	0.8	5.5		44.6
Maximum	12-hour Rainfall (mm)															
Max	2001-2004	8	34.0	76.0	42.2	19.7	39.5	36.4	37.9	22.0	42.8	29.3	32.4	40.7	3	76.0
Mean			18.9	37.7	25.2	14.4	14.7	21.5	20.4	13.8	21.5	14.0	13.8	23.5		76.0
Min			3.7	16.6	10.5	3.9	0.7	11.2	5.1	2.3	4.9	1.3	0.8	6.3		76.0
Maximum	24-hour Rainfall (mm)															
Max	2001-2004	8	34.2	100.3	42.9	23.1	56.3	45.3	39.4	33.4	44.6	36.0	33.3	62.8	3	100.3
Mean			20.5	48.0	27.9	16.1	19.3	24.0	23.4	19.9	25.0	16.9	14.9	37.2		100.3
Min			6.7	20.3	11.7	3.9	1.2	11.3	7.6	3.2	5.0	2.6	1.2	11.6		100.3
Maximum	48-hour Rainfall (mm)															
Max	2001-2004	8	63.4	110.9	42.9	23.1	65.9	45.3	41.8	41.9	47.8	39.5	33.3	67.1	3	110.9
Mean			35.3	54.3	30.9	16.7	21.9	26.3	26.5	25.8	26.3	23.0	16.1	39.7		110.9
Min			7.1	25.4	13.9	4.5	1.9	14.4	9.0	4.0	5.0	5.2	1.5	12.3		110.9
Maximum	72-hour Rainfall (mm)															
Max	2001-2004	8	65.4	119.2	42.9	24.9	70.0	45.3	57.0	44.5	50.8	46.4	48.3	67.1	3	119.2
Mean			36.3	57.7	31.1	17.3	23.4	27.6	31.3	28.4	27.1	26.1	22.5	39.8		119.2
Min			7.1	25.8	13.9	4.5	2.4	17.1	10.8	5.2	5.0	7.8	1.5	12.5		119.2

M/M = Total number of months missing during the given period  
Y/M = Total number of years missing during the given period