



# UNIVERSIDAD NACIONAL DE COLOMBIA SEDE MANIZALES

OBSERVATORIOS AMBIENTALES PARA EL DESARROLLO URBANO SOTENIBLE EN MANIZALES

RED DE ESTACIONES HIDROMETEOROLÓGICAS PARA PREVENCIÓN DE DESASTRES DE MANIZALES



## ESTACIÓN METEOROLÓGICA CHEC URIBE

CÓDIGO: EMM-14

JUNIO DE 2011

### RESUMEN DIARIO Y MENSUAL DE VARIABLES METEOROLÓGICAS

Variables Día	Temperatura del Aire (°C)			V.V. (m/s)		P.B. (HPa)	Humedad Relativa (%)			LI. (mm)	Radiación Solar (W/m <sup>2</sup> )		ET. (mm)
	Máxima	Media	Mínima	Máxima	Media	Media	Máxima	Media	Mínima	Suma	Máxima	Media	Suma
1	20.9	18.4	17.4	2.7	0.5	817.0	98.0	94.6	82.0	28.0	585.0	166.4	1.2
2	18.9	17.7	16.1	4.0	0.6	818.8	98.0	95.5	89.0	40.4	411.0	155.9	1.1
3	21.2	18.1	15.9	3.1	0.5	819.0	98.0	93.7	84.0	4.6	552.0	227.6	1.6
4	21.7	18.1	16.2	3.1	0.7	819.0	98.0	92.6	84.0	22.2	826.0	230.7	1.7
5	24.6	19.6	16.2	3.6	0.9	818.4	96.0	84.9	64.0	0.0	1164.0	379.2	3.2
6	24.8	19.7	16.9	3.1	0.4	817.5	98.0	87.8	66.0	0.0	1144.0	288.7	2.3
7	22.9	18.9	17.0	3.1	0.6	817.9	99.0	92.0	75.0	2.6	793.0	246.0	1.9
8	25.0	20.2	15.9	3.1	1.1	817.6	90.0	81.8	63.0	0.0	1267.0	463.4	3.8
9	26.0	21.0	17.1	3.6	1.2	816.2	90.0	79.6	60.0	0.0	1220.0	435.4	3.9
10	26.6	21.4	17.6	3.6	0.9	814.8	90.0	78.8	58.0	0.0	1204.0	433.2	3.7
11	27.1	21.4	17.8	3.6	1.0	813.3	93.0	77.1	50.0	0.0	921.0	443.8	3.8
12	27.4	21.7	17.8	3.6	1.3	812.5	86.0	75.7	50.0	0.4	1118.0	524.4	4.4
13	27.2	21.9	17.9	3.6	1.1	812.9	92.0	77.8	55.0	1.0	1178.0	555.3	4.6
14	22.8	19.9	17.1	3.6	1.0	814.1	93.0	85.2	68.0	0.6	752.0	195.2	1.8
15	24.3	19.9	16.2	4.0	1.3	815.3	88.0	79.0	59.0	0.0	1153.0	389.5	3.3
16	23.4	19.2	16.8	3.1	0.9	816.0	95.0	84.8	74.0	0.0	1125.0	222.1	1.9
17	23.6	19.4	17.2	2.7	0.6	816.7	93.0	86.6	72.0	0.0	875.0	219.7	1.8
18	23.7	19.6	16.7	3.1	0.6	817.7	92.0	85.0	70.0	0.0	1016.0	320.2	2.5
19	21.9	19.1	16.7	2.7	0.6	817.0	94.0	87.9	74.0	1.4	721.0	207.8	1.7
20	23.1	18.6	16.1	4.0	1.4	816.9	95.0	85.5	73.0	2.2	1199.0	298.4	2.6
21	25.6	19.9	14.9	4.5	1.5	816.2	89.0	78.2	54.0	0.0	1165.0	522.4	4.3
22	25.3	20.1	16.8	3.6	1.2	815.7	96.0	81.8	65.0	31.6	1257.0	386.0	3.3
23	22.3	18.8	17.5	2.2	0.4	816.2	97.0	92.6	82.0	4.4	1223.0	231.6	1.7
24	22.7	19.1	16.7	3.1	0.4	815.8	98.0	89.6	74.0	9.6	889.0	236.9	1.9
25	19.5	17.7	16.2	2.7	0.4	817.4	98.0	93.0	81.0	31.8	541.0	170.8	1.3
26	22.9	19.0	15.9	2.2	0.5	817.1	99.0	89.2	74.0	0.2	1222.0	429.6	3.4
27	23.8	19.1	16.3	3.6	0.7	816.6	98.0	87.6	64.0	4.6	865.0	261.4	2.1
28	25.4	19.9	15.3	4.0	1.7	816.0	85.0	76.7	61.0	0.0	1192.0	518.9	4.3
29	23.2	19.2	15.9	4.5	1.4	815.4	90.0	81.7	70.0	0.0	1245.0	311.2	2.6
30	23.4	18.3	16.1	3.6	1.3	816.0	95.0	85.7	69.0	1.4	1116.0	212.4	1.9
<b>Mensual</b>	<b>27.4</b>	<b>19.5</b>	<b>14.9</b>	<b>4.5</b>	<b>0.9</b>	<b>816.4</b>	<b>99.0</b>	<b>85.4</b>	<b>50.0</b>	<b>187.0</b>	<b>1267.0</b>	<b>322.8</b>	<b>79.3</b>

Convenciones: V.V.: Velocidad del Viento P.B.: Presión Barométrica LI.: Lluvia diaria ET.: Evapotranspiración. Nota: Datos resaltados en rojo están incompletos.



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CÓDIGO: EMM-14

JUNIO DE 2011

### JORNADA DIURNA - DIRECCIÓN DEL VIENTO SEGÚN LA ROSA DE LOS VIENTOS (Frecuencia relativa)

Día	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSO	SO	OSO	O	ONO	NO	NNO
1	8%	10%	1%	1%	6%	5%	20%	14%	1%	1%	2%	0%	3%	16%	8%	3%
2	6%	3%	1%	1%	1%	6%	5%	5%	1%	0%	0%	1%	6%	28%	21%	16%
3	5%	1%	1%	0%	0%	7%	4%	3%	0%	0%	0%	2%	2%	15%	47%	14%
4	3%	4%	1%	1%	1%	4%	29%	1%	0%	0%	1%	0%	9%	15%	17%	13%
5	11%	3%	1%	1%	2%	1%	9%	8%	0%	0%	1%	3%	10%	16%	21%	13%
6	6%	3%	5%	1%	10%	1%	1%	2%	1%	0%	3%	1%	12%	20%	23%	10%
7	11%	5%	1%	1%	1%	0%	1%	1%	0%	1%	1%	2%	9%	13%	31%	24%
8	9%	3%	1%	0%	1%	4%	10%	6%	0%	0%	1%	0%	9%	19%	26%	10%
9	10%	7%	3%	1%	3%	0%	6%	2%	1%	1%	1%	1%	8%	11%	28%	15%
10	12%	3%	3%	3%	1%	3%	10%	3%	0%	2%	1%	6%	6%	14%	22%	12%
11	10%	8%	3%	1%	1%	4%	9%	3%	1%	0%	0%	2%	8%	9%	25%	15%
12	4%	6%	3%	1%	5%	6%	6%	3%	1%	1%	1%	3%	10%	20%	19%	12%
13	6%	6%	1%	3%	2%	3%	7%	6%	0%	0%	1%	1%	10%	16%	25%	12%
14	10%	5%	4%	1%	4%	3%	3%	3%	1%	1%	0%	0%	5%	15%	27%	17%
15	8%	6%	4%	1%	1%	0%	8%	5%	0%	0%	1%	1%	10%	16%	29%	12%
16	7%	5%	2%	1%	1%	2%	9%	7%	0%	0%	1%	1%	5%	19%	30%	10%
17	9%	4%	1%	4%	5%	3%	3%	3%	1%	0%	3%	3%	3%	10%	32%	14%
18	11%	9%	1%	1%	0%	6%	4%	4%	0%	0%	1%	3%	4%	16%	24%	15%
19	4%	5%	1%	0%	1%	10%	15%	9%	6%	1%	1%	0%	8%	14%	16%	8%
20	8%	3%	3%	1%	1%	9%	15%	6%	2%	0%	0%	4%	6%	14%	18%	10%
21	8%	10%	2%	1%	0%	1%	7%	6%	1%	1%	4%	2%	11%	15%	18%	15%
22	9%	6%	2%	1%	1%	4%	7%	5%	1%	1%	1%	3%	6%	13%	19%	22%
23	3%	11%	1%	1%	0%	0%	0%	10%	1%	0%	0%	0%	6%	14%	37%	17%
24	4%	1%	1%	0%	5%	8%	13%	3%	0%	1%	1%	1%	16%	15%	27%	5%
25	2%	2%	1%	0%	17%	10%	10%	3%	3%	0%	1%	1%	2%	11%	30%	6%
26	5%	4%	1%	2%	0%	1%	5%	1%	0%	0%	2%	1%	13%	15%	37%	15%
27	5%	19%	3%	1%	1%	1%	1%	0%	0%	0%	1%	1%	9%	19%	26%	14%
28	9%	6%	1%	1%	0%	3%	8%	6%	1%	0%	1%	4%	10%	12%	26%	13%
29	1%	5%	1%	0%	2%	6%	12%	4%	3%	2%	3%	3%	8%	16%	17%	17%
30	6%	2%	1%	1%	1%	14%	22%	6%	0%	0%	1%	1%	13%	7%	17%	9%
Mensual	7%	6%	2%	1%	2%	4%	9%	5%	1%	0%	1%	2%	8%	15%	25%	13%

DIRECCIÓN DEL VIENTO EN EL MES ORDENADA DE MAYOR A MENOR PREDOMINANCIA																
R. V.	NO	ONO	NNO	SE	O	N	NNE	SSE	ESE	E	NE	OSO	SO	ENE	S	SSO
F. R.	25%	15%	13%	9%	8%	7%	6%	5%	4%	2%	2%	2%	1%	1%	1%	0%

Convenciones: R. V.: Rosa de los Vientos F. R.: Frecuencia Relativa. Nota: Datos resaltados en rojo están incompletos.



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## JORNADA NOCTURNA - DIRECCIÓN DEL VIENTO SEGÚN LA ROSA DE LOS VIENTOS (Frecuencia relativa)

DIA	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSO	SO	OSO	O	ONO	NO	NNO
1	5%	10%	1%	1%	1%	8%	29%	17%	2%	0%	1%	1%	0%	15%	8%	1%
2	13%	8%	2%	2%	5%	10%	30%	18%	1%	0%	1%	3%	1%	4%	0%	1%
3	0%	0%	0%	12%	4%	20%	49%	10%	1%	0%	0%	0%	0%	0%	5%	0%
4	0%	0%	6%	1%	12%	17%	40%	16%	2%	3%	0%	1%	0%	0%	1%	1%
5	9%	3%	0%	0%	4%	17%	34%	20%	0%	0%	0%	0%	1%	2%	3%	6%
6	12%	2%	4%	3%	2%	13%	19%	3%	1%	0%	4%	0%	10%	17%	8%	1%
7	5%	8%	1%	0%	1%	8%	34%	26%	0%	0%	0%	7%	0%	1%	2%	6%
8	13%	0%	0%	0%	1%	4%	43%	28%	2%	0%	0%	0%	0%	0%	1%	8%
9	11%	0%	0%	0%	0%	10%	49%	28%	0%	0%	0%	0%	0%	0%	2%	1%
10	15%	5%	1%	0%	5%	20%	34%	10%	0%	0%	0%	0%	1%	6%	0%	3%
11	17%	8%	3%	0%	2%	12%	28%	17%	1%	0%	0%	0%	0%	0%	3%	9%
12	6%	3%	1%	4%	2%	13%	40%	27%	1%	0%	0%	0%	1%	0%	0%	1%
13	8%	9%	1%	0%	11%	14%	34%	17%	0%	0%	0%	0%	0%	1%	3%	3%
14	4%	0%	0%	0%	2%	15%	45%	33%	0%	0%	0%	0%	0%	0%	0%	0%
15	1%	1%	0%	3%	6%	17%	45%	22%	0%	0%	0%	0%	0%	0%	0%	6%
16	0%	0%	1%	8%	3%	13%	33%	21%	1%	0%	0%	0%	0%	0%	0%	19%
17	0%	0%	0%	0%	6%	9%	42%	33%	10%	1%	0%	0%	0%	0%	0%	0%
18	7%	6%	3%	0%	8%	17%	31%	10%	15%	2%	0%	0%	0%	1%	1%	0%
19	2%	0%	0%	0%	10%	17%	36%	25%	1%	2%	0%	0%	4%	2%	0%	0%
20	0%	0%	0%	0%	5%	12%	59%	24%	1%	0%	0%	0%	0%	0%	0%	0%
21	1%	11%	0%	1%	2%	11%	42%	31%	1%	0%	0%	0%	0%	0%	0%	1%
22	3%	2%	1%	1%	2%	11%	38%	26%	1%	0%	1%	0%	1%	2%	6%	6%
23	0%	6%	0%	9%	1%	13%	51%	19%	0%	0%	0%	0%	0%	0%	0%	0%
24	3%	3%	5%	1%	7%	35%	13%	7%	0%	0%	1%	0%	1%	3%	20%	1%
25	2%	1%	5%	13%	4%	22%	38%	12%	0%	0%	0%	1%	1%	1%	1%	0%
26	3%	6%	0%	0%	1%	8%	37%	11%	0%	0%	0%	3%	0%	15%	1%	16%
27	4%	4%	1%	1%	1%	13%	37%	10%	0%	0%	1%	1%	6%	1%	17%	3%
28	0%	5%	0%	0%	1%	15%	56%	24%	0%	0%	0%	0%	0%	0%	0%	0%
29	0%	0%	0%	0%	1%	20%	54%	24%	0%	0%	0%	0%	0%	0%	0%	0%
30	1%	0%	0%	0%	0%	13%	49%	32%	0%	0%	0%	0%	1%	0%	4%	0%
Mensual	5%	3%	1%	2%	4%	14%	39%	20%	1%	0%	0%	1%	1%	2%	3%	3%

DIRECCIÓN DEL VIENTO EN EL MES ORDENADA DE MAYOR A MENOR PREDOMINANCIA																
R. V.	SE	SSE	ESE	N	E	NNE	NNO	NO	ONO	ENE	S	NE	O	OSO	SSO	SO
F. R.	39%	20%	14%	5%	4%	3%	3%	3%	2%	2%	1%	1%	1%	1%	0%	0%

Convenciones: R. V.: Rosa de los Vientos F. R.: Frecuencia Relativa. Nota: Datos resaltados en rojo están incompletos.