



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

NOVIEMBRE 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 ²)		ET. (mm)
	Máxima	Media	Mínima	Máxima	Media	Media	Máxima	Media	Mínima	Suma	Máxima	Media	Suma
1	25.3	19.3	14.4	5.4	1.6	816.0	87.0	77.6	55.0	0.0	1252.0	370.6	3.2
2	25.9	20.6	16.8	3.6	1.4	814.7	92.0	79.0	54.0	1.6	1160.0	407.7	3.6
3	22.8	19.6	17.7	4.5	0.9	815.1	96.0	86.7	78.0	0.0	715.0	256.2	2.0
4	25.4	19.8	15.9	4.0	1.3	815.4	96.0	81.1	63.0	39.2	1151.0	391.4	3.3
5	25.5	19.6	15.9	4.9	1.6	814.8	98.0	83.0	65.0	1.0	1201.0	436.5	3.5
6	23.4	19.1	16.3	4.0	1.3	815.4	98.0	86.5	70.0	17.6	1204.0	337.9	2.8
7	24.0	18.9	16.5	3.6	1.2	815.5	96.0	86.2	72.0	26.6	1044.0	229.7	2.0
8	19.0	17.5	16.1	2.7	0.3	816.8	98.0	94.9	88.0	26.0	359.0	146.7	1.0
9	23.8	18.8	16.0	2.7	0.6	816.9	98.0	89.0	64.0	1.6	995.0	346.0	2.5
10	22.3	18.4	16.6	3.1	0.7	816.0	99.0	92.9	78.0	19.2	663.0	209.4	1.6
11	19.6	17.5	16.3	2.2	0.4	817.0	98.0	94.3	84.0	9.8	327.0	124.6	0.9
12	18.1	16.5	15.6	1.8	0.3	818.5	99.0	97.1	90.0	30.6	251.0	88.5	0.6
13	20.4	17.5	15.0	2.7	0.7	818.1	98.0	91.2	71.0	0.8	816.0	230.0	1.8
14	25.0	19.2	15.3	3.1	1.1	816.1	92.0	83.5	67.0	0.0	1137.0	345.0	2.7
15	23.5	18.6	16.2	4.5	1.4	815.2	97.0	86.2	69.0	4.8	1213.0	208.6	1.8
16	21.7	17.8	15.1	3.1	0.8	816.2	98.0	91.3	80.0	1.2	1085.0	284.4	2.1
17	22.1	17.8	15.1	3.6	0.9	816.3	99.0	91.6	77.0	29.6	1069.0	252.3	1.9
18	22.1	17.5	15.7	3.6	0.9	817.3	98.0	92.9	79.0	22.2	1179.0	326.2	2.2
19	24.2	18.6	14.7	3.1	0.9	817.5	98.0	86.0	57.0	22.4	1129.0	450.8	3.5
20	21.2	17.5	15.7	3.1	0.4	817.1	99.0	94.0	83.0	41.8	884.0	202.0	1.4
21	23.5	18.3	14.9	3.6	0.9	817.3	98.0	89.3	70.0	8.8	1172.0	427.8	3.2
22	21.7	17.6	15.7	3.6	1.0	817.6	99.0	92.7	80.0	37.0	1176.0	283.0	1.9
23	24.8	18.7	14.9	4.0	1.5	817.9	92.0	85.6	63.0	0.0	1252.0	312.5	2.6
24	19.7	17.2	15.8	3.6	0.7	818.6	99.0	95.0	89.0	26.6	540.0	148.7	1.1
25	22.6	18.3	14.7	3.6	1.4	817.4	92.0	86.3	70.0	0.0	1255.0	263.3	2.1
26	22.7	18.5	15.8	4.5	1.8	815.9	91.0	83.9	68.0	0.0	888.0	256.2	2.3
27	23.8	18.2	15.9	4.0	1.8	814.8	92.0	85.3	73.0	0.6	1058.0	320.4	2.7
28	21.9	18.0	15.3	3.1	1.2	815.4	97.0	88.4	79.0	25.2	926.0	275.6	2.0
29	20.4	17.2	16.1	3.6	0.4	817.3	99.0	93.9	85.0	5.8	1051.0	181.2	1.2
30	22.4	18.1	16.1	2.7	0.6	816.7	98.0	92.6	80.0	33.4	1230.0	286.3	2.0
31													
Mensual	25.9	18.3	14.4	5.4	1.0	816.5	99.0	88.6	54.0	433.4	1255.0	280.0	65.3

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

NOVIEMBRE 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	6%	5%	3%	0%	1%	2%	10%	7%	2%	0%	1%	10%	10%	6%	27%	10%
2	8%	7%	1%	1%	1%	4%	6%	6%	1%	1%	1%	6%	13%	17%	13%	17%
3	3%	8%	1%	0%	1%	3%	10%	4%	8%	0%	1%	6%	11%	11%	20%	13%
4	7%	6%	3%	3%	1%	3%	7%	7%	4%	3%	1%	3%	8%	13%	22%	8%
5	6%	6%	1%	0%	2%	5%	15%	4%	0%	0%	2%	5%	8%	19%	17%	10%
6	8%	6%	2%	1%	3%	6%	12%	6%	1%	3%	1%	3%	13%	13%	12%	10%
7	4%	2%	1%	1%	1%	6%	15%	15%	1%	0%	2%	4%	6%	15%	16%	9%
8	1%	2%	0%	4%	1%	8%	16%	19%	1%	1%	0%	4%	3%	8%	22%	11%
9	7%	5%	2%	1%	0%	7%	6%	4%	0%	1%	1%	4%	8%	19%	22%	14%
10	11%	6%	0%	1%	1%	7%	8%	4%	0%	0%	0%	2%	3%	16%	26%	15%
11	6%	1%	2%	1%	3%	10%	6%	3%	1%	1%	1%	1%	8%	10%	27%	19%
12	13%	14%	4%	1%	3%	3%	4%	1%	1%	3%	0%	2%	3%	4%	15%	29%
13	3%	2%	1%	0%	2%	6%	10%	3%	1%	0%	0%	3%	8%	13%	30%	17%
14	5%	6%	1%	1%	0%	1%	10%	9%	0%	0%	1%	3%	8%	10%	32%	13%
15	4%	3%	2%	0%	3%	10%	25%	8%	0%	1%	1%	3%	5%	8%	17%	9%
16	6%	6%	1%	1%	1%	9%	14%	13%	2%	0%	1%	3%	5%	7%	20%	12%
17	6%	3%	2%	1%	1%	3%	16%	13%	2%	1%	1%	3%	11%	13%	15%	8%
18	1%	5%	1%	1%	1%	4%	15%	9%	2%	2%	0%	4%	6%	12%	24%	14%
19	6%	6%	2%	1%	0%	0%	10%	4%	1%	0%	1%	3%	14%	12%	24%	15%
20	6%	1%	0%	2%	1%	10%	9%	19%	0%	0%	1%	0%	6%	10%	29%	7%
21	5%	3%	1%	1%	0%	2%	6%	10%	0%	1%	1%	3%	13%	21%	23%	11%
22	10%	6%	3%	0%	4%	5%	10%	3%	1%	0%	3%	1%	6%	16%	20%	13%
23	7%	1%	2%	0%	1%	8%	13%	6%	2%	0%	0%	8%	12%	10%	20%	10%
24	5%	6%	1%	1%	0%	14%	1%	0%	0%	0%	0%	1%	3%	17%	26%	24%
25	3%	3%	1%	0%	2%	3%	7%	3%	1%	1%	1%	1%	8%	13%	40%	14%
26	6%	2%	0%	0%	3%	12%	25%	16%	2%	1%	1%	0%	3%	14%	10%	5%
27	5%	1%	1%	1%	3%	10%	23%	12%	0%	1%	1%	1%	6%	9%	15%	8%
28	10%	3%	1%	3%	2%	2%	13%	8%	1%	0%	0%	3%	6%	12%	26%	12%
29	3%	6%	3%	10%	3%	1%	12%	1%	0%	4%	2%	8%	3%	10%	13%	18%
30	8%	5%	2%	1%	1%	14%	2%	5%	1%	0%	1%	4%	10%	10%	26%	10%
31																
Mensual	6%	5%	2%	1%	2%	6%	11%	7%	1%	1%	1%	3%	7%	12%	22%	13%

DIRECCIÓN DEL VIENTO EN EL MES ORDENADA DE MAYOR A MENOR PREDOMINANCIA																
R. V.	NO	NNO	ONO	SE	SSE	O	ESE	N	NNE	OSO	NE	E	ENE	S	SO	SSO
F. R.	22%	13%	12%	11%	7%	7%	6%	6%	5%	3%	2%	2%	1%	1%	1%	1%

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)

DÍA	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSO	SO	OSO	O	ONO	NO	NNO
1	2%	5%	0%	0%	6%	12%	51%	25%	0%	0%	0%	0%	0%	0%	0%	0%
2	1%	0%	1%	1%	4%	15%	45%	28%	0%	0%	1%	0%	0%	1%	0%	4%
3	2%	1%	1%	1%	13%	30%	33%	10%	0%	0%	0%	1%	3%	4%	1%	1%
4	0%	1%	0%	1%	3%	22%	42%	20%	1%	1%	0%	0%	0%	2%	2%	4%
5	1%	0%	0%	1%	4%	15%	49%	22%	1%	0%	0%	0%	1%	1%	4%	1%
6	0%	0%	0%	0%	2%	15%	47%	26%	1%	0%	0%	0%	0%	0%	1%	7%
7	0%	0%	0%	0%	6%	11%	52%	31%	0%	0%	0%	0%	0%	0%	0%	0%
8	13%	2%	8%	1%	3%	6%	25%	11%	0%	0%	1%	1%	1%	10%	12%	6%
9	8%	0%	0%	0%	3%	4%	19%	39%	1%	10%	1%	0%	0%	4%	3%	8%
10	3%	1%	1%	0%	6%	15%	29%	9%	0%	0%	0%	0%	0%	1%	15%	21%
11	0%	1%	0%	1%	1%	5%	27%	40%	0%	1%	3%	0%	2%	9%	3%	7%
12	0%	1%	0%	1%	15%	6%	15%	35%	1%	1%	1%	0%	1%	1%	2%	19%
13	0%	0%	0%	0%	1%	8%	26%	53%	1%	6%	0%	1%	0%	0%	3%	0%
14	0%	0%	0%	1%	1%	26%	47%	18%	0%	0%	0%	0%	3%	0%	0%	4%
15	0%	1%	1%	4%	4%	19%	39%	24%	0%	0%	0%	1%	1%	1%	1%	5%
16	1%	2%	0%	4%	3%	12%	34%	3%	15%	0%	0%	0%	0%	3%	11%	12%
17	7%	2%	1%	1%	6%	13%	38%	13%	1%	1%	0%	4%	1%	1%	8%	3%
18	1%	0%	0%	7%	1%	28%	45%	15%	1%	1%	0%	0%	1%	0%	0%	0%
19	0%	0%	0%	0%	3%	8%	53%	13%	1%	0%	0%	1%	1%	2%	15%	2%
20	4%	6%	1%	0%	10%	2%	18%	16%	1%	1%	1%	0%	4%	6%	22%	10%
21	1%	3%	0%	6%	3%	20%	42%	25%	0%	0%	0%	0%	0%	0%	0%	1%
22	3%	3%	1%	1%	5%	8%	35%	22%	2%	0%	0%	0%	0%	2%	18%	1%
23	0%	0%	0%	0%	0%	17%	57%	26%	0%	0%	0%	0%	0%	0%	0%	0%
24	6%	1%	2%	1%	3%	8%	28%	22%	0%	1%	3%	0%	1%	10%	10%	4%
25	0%	0%	0%	0%	1%	10%	49%	33%	0%	0%	0%	0%	0%	0%	8%	0%
26	0%	0%	0%	0%	1%	11%	41%	46%	1%	0%	0%	0%	0%	0%	0%	0%
27	0%	0%	0%	0%	0%	22%	50%	28%	0%	0%	0%	0%	0%	0%	0%	0%
28	1%	1%	0%	0%	3%	12%	50%	29%	1%	1%	1%	0%	0%	0%	0%	1%
29	0%	0%	0%	0%	10%	22%	51%	16%	0%	0%	0%	0%	0%	0%	0%	0%
30	8%	2%	0%	0%	3%	49%	20%	8%	2%	3%	1%	0%	0%	1%	2%	1%
31																
Mensual	2%	1%	0%	1%	4%	15%	39%	24%	1%	1%	0%	0%	1%	2%	5%	4%

DIRECCIÓN DEL VIENTO EN EL MES ORDENADA DE MAYOR A MENOR PREDOMINANCIA																
R. V.	SE	SSE	ESE	NO	E	NNO	N	ONO	S	NNE	ENE	SSO	O	NE	SO	OSO
F. R.	39%	24%	15%	5%	4%	4%	2%	2%	1%	1%	1%	1%	1%	0%	0%	0%

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