

WOKINGHAM

METEOROLOGICAL

DATA

Wokingham Climatological Station, Emmbrook, Berkshire.

Lat/Long 51°25'N 00°51'W NGR (SU)798701 Altitude 46m ASL.

Monthly Means and Totals

APRIL 2012

Temperature (°C / °F)			Anomaly	Rank in the past 131 years			
Mean maximum	12.8	55.0	-1.2	48 th lowest			
Mean minimum	3.4	38.1	-1.0	51 st lowest			
Daily mean	8.1	46.6	-1.1	43 rd lowest			
Highest maximum	19.0	66.2	on 30 th	Lowest maximum	9.1	48.4	on 23 rd
Highest minimum	8.6	47.5	on 27 th	Lowest minimum	-4.1	24.6	on 6 th
Mean grass minimum	-0.1	31.8	-0.8	Lowest grass minimum	-9.8	14.4	on 16 th
Mean earth @30 cm	9.6	49.3	-0.3	Earth @100 cm	9.6	49.3	
Frost duration (hrs)	22.7			Rain duration (hrs)	91.3		
Rainfall total (mm / in)	119.5	4.70	246 %	2 nd highest			
Highest daily fall	19.4	0.76	on 28 th				
Number of: Dry days (<0.2mm)	9	Wet days (>0.9mm)	18	days ≥5mm	10		
Sunshine total (hrs)	130.8	Daily mean	4.36	81 %	Sunniest day	12.1	on 1 st
N ^o days with: Air frost	7	Ground frost	15	Snow falling	0	Snow lying	0
Thunder	3	Hail ≥5mm	1	Small hail/ice	5	Fog @09	0
Pressure MSL : Mean @09 GMT, mbar	1004.2	-10.8	Highest	1027.6	on 16 th	Lowest	975.5
Relative humidity : Mean (%)	76.3	Lowest	29	on 16 th	Water vapour (g/kg), mean at 09 and 15 GMT	5.4,	5.1
Overall mean wind speed (mph)	7.4	Windiest day	12.9	on 26 th	Max gust	39	on 26 th
Wind direction (days)	N 3	NE 6	E 1	SE 1	S 2	SW 9	W 5
Least windy day (mph)	2.4	on 11 th	Calm; less than 0.5 mph (minutes)		690		

Anomaly = departure from 1981 to 2010 average (degrees C, percent and mbar).

Notes: **Very Wet.** **Dull.** **Temperatures Well Below Normal.**

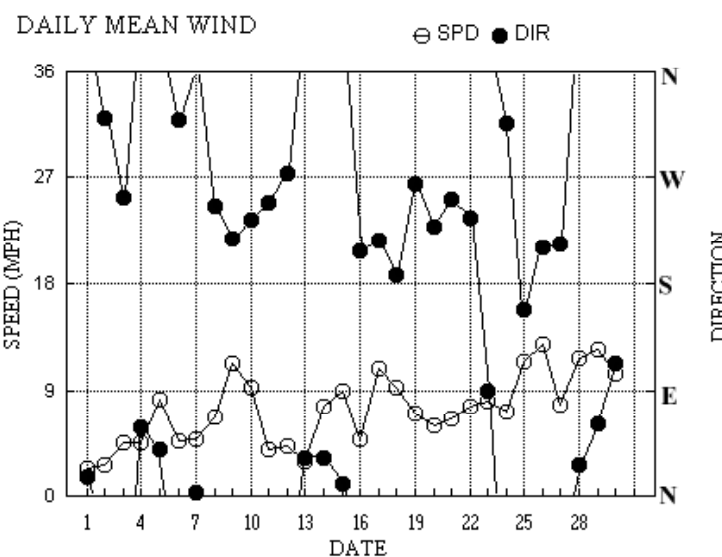
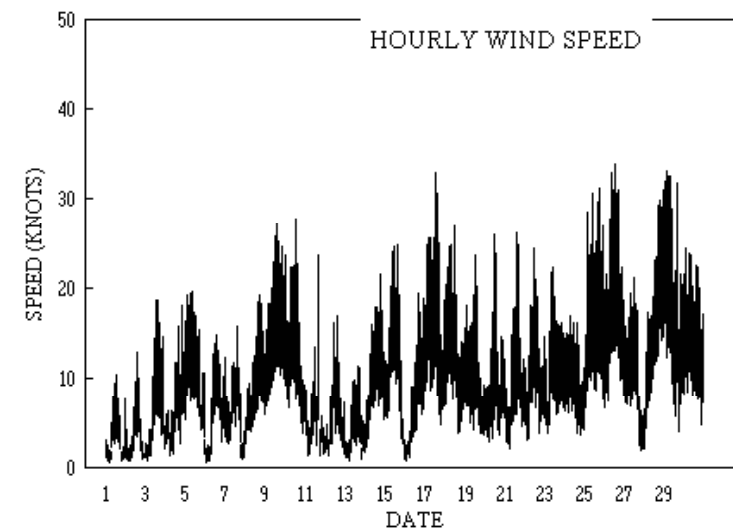
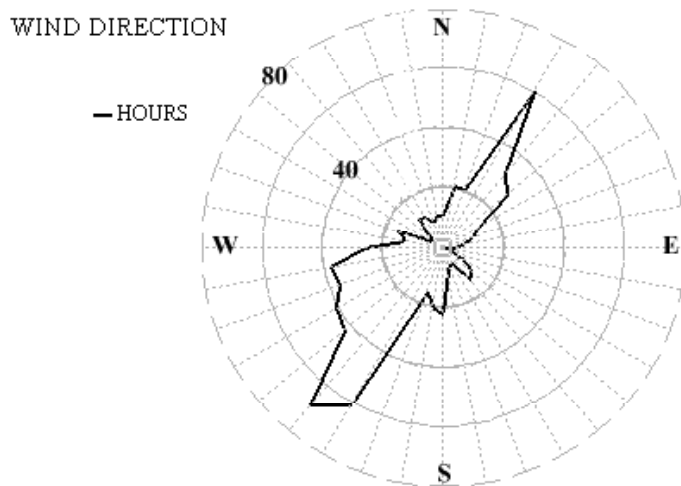
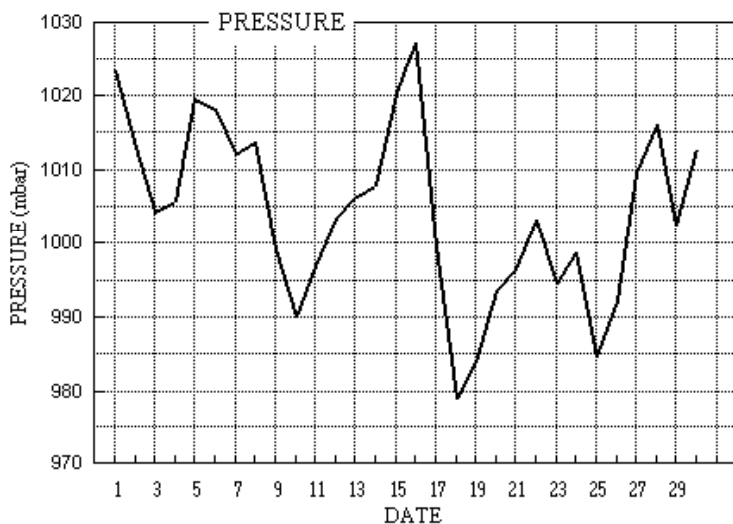
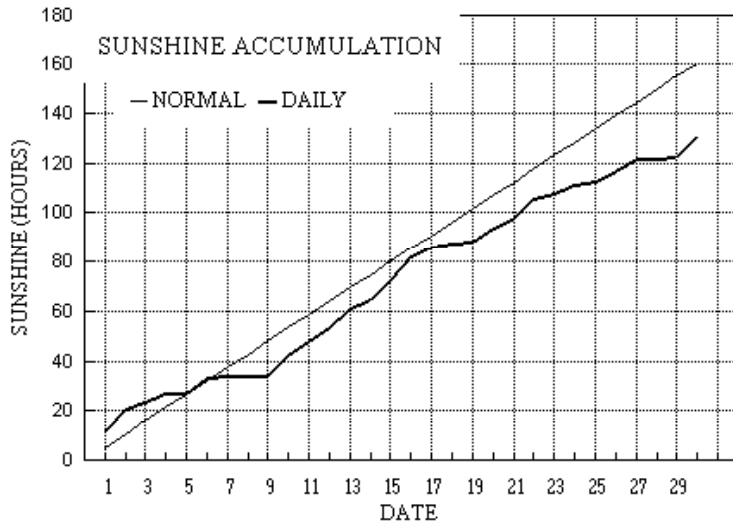
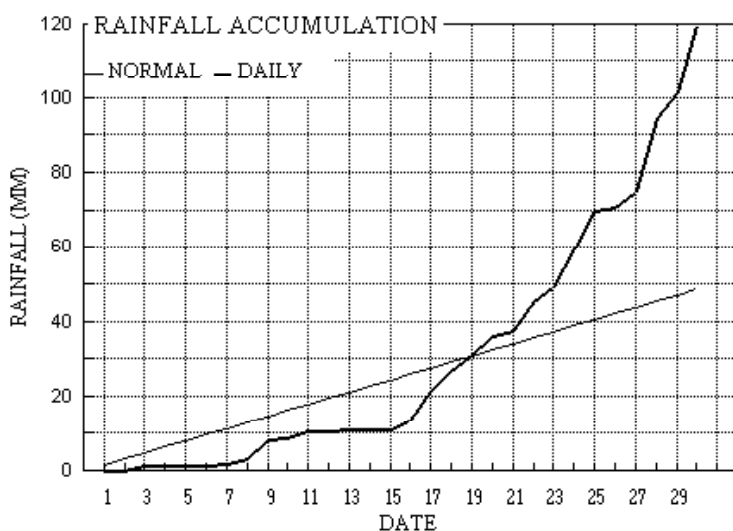
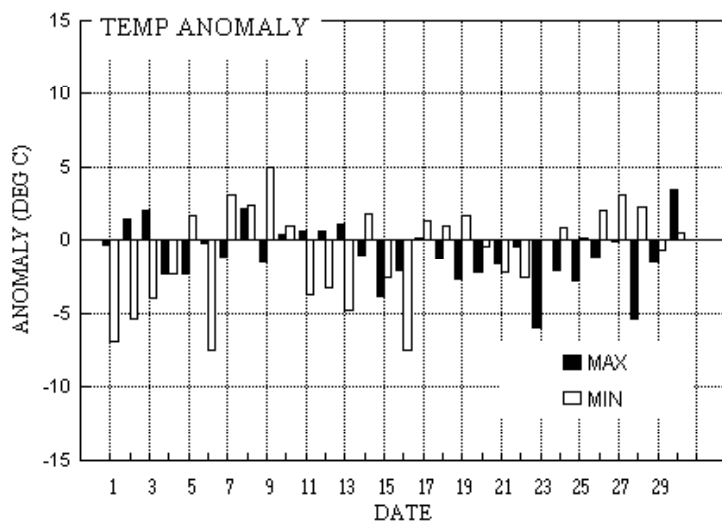
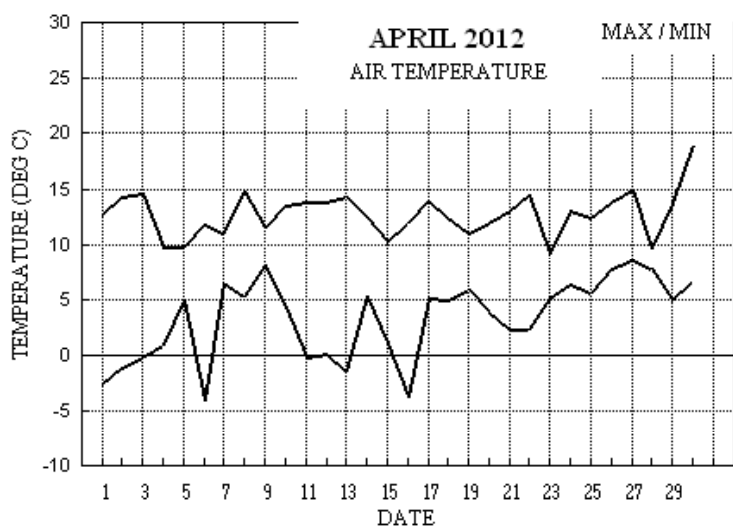
After the near record high temperatures and low rainfall of April 2011 it is perhaps only just that April 2012 has been rather cool and very wet. **Temperature:** The mean min is equal lowest since 1990, and the mean max is lowest since 2000, with the resulting mean temperature lowest since 1989. The mean max is also an exceptional 1.8° below that of March this year. The highest max is 1.7° below the median, and notably is 0.5° below the mean max for April 2011. The lowest max is 1.3° above the median, indicating that the total range of maxima was 3.0° below average. The highest min is 1.3° below the median, and the lowest min is 2.2° below its median, and is lowest since 1996. The lowest grass min is equal lowest with 1996 since 1984. Earth temperature at 1m depth is close to normal. The number of days with air frost is 3 above average, and the duration is 7.4 hours above average. **Rainfall:** This April has been very wet indeed, and the 2nd wettest after 2000 in the past 131 years. In that period only 2 other Aprils have had over 100 mm. Although the month started dry, with a 16 day dry spell ending on the 2nd, and an accumulation deficit of 14 mm by the 15th, this had turned into a surplus of 71 mm by the 30th. The equivalent of an average April's total fell in the final 4 days alone. The highest 24 hour total is most since 2000. The number of dry days is lowest since 2000, and the number of days with =>5 mm is equal highest with 2000 and 1983 since before 1976. The rainfall duration is 49.5 hours above average, and highest since 2000. **Sunshine:** Sunshine this April was rather disappointing, and well below average. However, there have been 5 Aprils with less in the past 14 years. Although the 1st was sunny, a series of low daily totals led to a deficit of 14 hours by the 9th, and although this reduced to 3 hours by the 16th, it then increased again reaching 30 hours by the 30th. Overall there were 10 days with <3 hours, 9 with =>6 hours, 2 with =>9 hours and 1 =>12 hours. **Wind:** The mean wind speed is 0.4 mph above average and highest since 2001. **Pressure:** The mean pressure and the absolute highest are both lowest since 1998. **Commentary: From the 1st to the 16th:** Temperatures by day were generally near normal, with anomalies ranging from -3.8° on the 15th to +2.1° on the 3rd and 8th. For minima there were much greater fluctuations, with a scattering of cold frosty nights giving anomalies down to -7.5° on the 6th and 16th, with an anomaly of +5.0° on the 9th at the other extreme. This period was relatively dry including 9 dry days and a total of 13.3 mm. There were a scattering of sunny days, the best on the 1st with 93 % of the max, but the 7 days to the 9th were dull including 4 days with <2% of the max. Winds were mostly light or moderate from between W and N, but were fresh SW'ly on the 9th, and fresh N'ly on the 15th. **From the 17th to the 30th:** Temperatures were mainly below normal by day and near normal at night, with anomalies for daily max between +3.5° on the 30th and -6.0° on the 23rd, and for daily min between +3.1° on the 27th and -2.6° on the 22nd. This period was wet, almost relentlessly so, with no dry days and a total rainfall of 106.2 mm, including 70.4 mm in the last 7 days. Sunshine was generally poor with only 2 days having >50 % of the max and 5 having <10 %. Winds were mainly moderate or fresh, SW'ly to the 22nd then backing through E to NW'ly on the 24th and S'ly on the 25th, increasing strong on the 26th veering NE'ly by the 29th and decreasing fresh E'ly on the 30th.

Table 1. Mean anomalies (max, min, rain, sun) for specified periods.

From the 1 st to the 10 th				From the 11 th to the 20 th				From the 21 st to the 30 th			
-0.2°	-1.3°	56%	80%	-1.0°	-1.7°	167%	95%	-1.7°	+0.4°	519%	69%

B J Burton FRMetS. Hon. Met. Officer to Wokingham Town Council.

Wokingham climatological graphs for April 2012



Month: APRIL 2012

Date	Max C	Min C	Rain mm	Grass Min	30cm C	100cm C	Sun hrs	Frost hrs	pp09 mbar	Af Gf	Sf Sl	Th Ha	Ic Fg	Vec mean ddd ff sp	Max gust ddd gg HHhh	High hr ddd ff HH	Rain hrs	
1	12.8	-2.5	0.0	-7.8	9.2	9.2	12.1	5.6	1023.3	1 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	16 1.2 2.1	316 11 1446	34 3	15 0.0	
2	14.3	-1.1	0.0	-6.1	8.9	9.3	8.6	1.5	1012.9	1 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	320 1.3 2.3	343 13 1425	317 5	16 0.0	
3	14.6	-0.2	1.2	-6.0	8.9	9.3	3.3	0.1	1004.2	1 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	253 3.6 3.9	249 19 1459	259 7	18 1.2	
4	9.8	0.9	tr	-5.6	9.0	9.3	3.0	0.0	1005.6	0 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	59 2.3 4.0	53 18 2044	58 9	21 0.1	
5	9.8	5.0	0.0	0.9	9.0	9.3	0.0	0.0	1019.4	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	39 7.0 7.1	36 20 0828	32 10	03 0.0	
6	11.9	-4.1	tr	-9.0	8.7	9.3	6.7	6.4	1018.1	1 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	319 3.6 4.0	301 15 1319	331 7	13 0.0	
7	11.1	6.5	0.7	6.3	8.8	9.2	0.3	0.0	1012.0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	3 2.9 4.1	33 16 1437	28 9	14 2.3	
8	14.7	5.3	1.4	-0.8	9.1	9.2	0.2	0.0	1013.7	0 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	246 5.6 5.9	254 20 1809	260 9	16 5.2	
9	11.5	8.1	5.2	7.0	9.5	9.3	0.0	0.0	999.2	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	218 9.6 9.7	201 27 1523	210 12	15 8.5	
10	13.6	4.4	0.1	0.7	9.5	9.3	8.6	0.0	990.1	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	234 8.0 8.0	263 28 1305	236 11	08 0.2	
11	13.9	-0.1	1.9	-4.7	9.4	9.4	5.7	0.1	996.9	1 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	248 2.2 3.4	327 24 1658	347 6	17 0.7	
12	13.8	0.2	0.1	-4.7	9.4	9.5	5.3	0.0	1003.3	0 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	273 2.6 3.7	324 17 1459	333 9	15 0.0	
13	14.3	-1.4	0.6	-6.7	9.4	9.5	7.6	2.5	1006.1	1 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	32 0.9 2.6	217 12 1742	218 5	18 0.4	
14	12.5	5.3	0.0	1.3	9.6	9.5	3.4	0.0	1007.8	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	32 6.4 6.6	30 22 1816	27 10	16 0.0	
15	10.2	1.1	tr	-1.7	9.8	9.6	7.9	0.0	1020.2	0 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	11 7.7 7.7	357 25 1559	12 12	10 0.0	
16	12.0	-3.7	2.1	-9.8	9.2	9.6	9.2	6.5	1027.2	1 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	207 3.0 4.2	212 20 1746	210 9	18 2.5	
17	14.0	5.1	7.9	2.0	9.4	9.6	4.8	0.0	999.5	0 0 0 0	0 0 0 0	1 0 1 0	0 0 0 0	216 7.9 9.4	257 33 1431	258 13	12 3.6	
18	12.4	5.0	5.8	-0.1	9.6	9.6	0.8	0.0	979.0	0 1 0 0	0 0 0 0	0 0 1 0	0 0 0 0	188 6.6 8.0	200 27 1333	164 12	06 3.7	
19	11.0	5.9	3.8	5.5	9.8	9.7	1.3	0.0	983.9	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	265 5.9 6.0	336 24 1333	268 9	15 2.0	
20	12.0	3.9	5.1	-0.9	9.8	9.7	5.4	0.0	993.5	0 1 0 0	0 1 0 0	0 1 0 0	0 0 0 0	229 4.9 5.2	209 26 1333	215 9	13 1.6	
21	13.0	2.3	1.6	-1.1	9.8	9.7	4.0	0.0	996.2	0 1 0 0	0 0 1 0	0 0 1 0	0 0 0 0	251 5.1 5.7	284 26 1522	266 10	15 0.9	
22	14.5	2.3	7.7	-1.3	9.8	9.8	8.0	0.0	1003.2	0 1 0 0	1 0 1 0	1 0 1 0	0 0 0 0	235 6.4 6.5	266 25 1335	243 11	12 1.7	
23	9.1	5.2	3.9	1.8	10.0	9.8	1.7	0.0	994.4	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	90 3.3 7.0	108 23 1009	112 9	10 11.7	
24	13.0	6.3	10.1	6.0	9.9	9.8	3.9	0.0	998.6	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	316 3.9 6.2	343 17 0822	322 9	08 5.8	
25	12.4	5.6	10.8	3.1	10.2	9.9	1.0	0.0	984.7	0 0 0 0	0 0 0 0	1 0 1 0	0 0 0 0	158 8.8 9.9	195 31 1812	184 13	17 5.1	
26	13.9	7.8	0.7	6.1	10.1	9.9	4.0	0.0	992.0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	210 11.1 11.2	221 34 1412	207 15	10 0.8	
27	14.9	8.6	4.3	6.2	10.4	10.0	5.0	0.0	1009.4	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	213 5.7 6.8	203 21 1254	203 10	13 6.2	
28	9.6	7.8	19.4	5.2	10.8	10.1	0.0	0.0	1015.9	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	27 10.2 10.2	29 31 2338	26 16	20 17.0	
29	13.7	4.9	6.9	5.0	10.4	10.2	0.9	0.0	1002.3	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	62 7.5 10.8	26 33 0329	29 17	01 4.2	
30	19.0	6.7	18.2	6.5	10.2	10.2	8.1	0.0	1012.6	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	113 7.5 9.1	144 25 0225	144 12	07 5.9	
Total			119.5				130.8	22.7										91.3
Mean	12.8	3.4		-0.1	9.6	9.6	4.36	0.8	1004.2					232 1.2 6.4				
Anom	-1.2	-1.0	246%	-0.8	-0.3	+0.4	81%											-10.8
Daily mean		8.1																
Anom		-1.1																

Total

Mean

Anom

Daily mean

Anom

Number of days with:

Air frost = 7

Ground frost = 15

Nil sun = 3

Snow falling = 0

Snow lying = 0

Thunder = 3

Hail=>5mm = 1

Hail<5mm or ice = 5

Fog at 09GMT = 0

Abbreviations.

Max/min = highest and lowest air temperature at 1.2m in 24 hour period ending at 09 GMT

Rain = total rainfall and melted snowfall in 24 hour period ending at 09 GMT, millimetres. (Tr = trace, <.05mm).

Grass min = Lowest overnight temperature at grass tip level.

Sun = hours of bright sunshine, measured electronically. Frost = Number of hours with air temp below 0 deg C.

pp09 = Air pressure corrected to mean sea level at 0900 GMT, millibars.

Af = Air frost. Gf = Ground frost. Sf = Snow falling. Sl = Snow lying at 09 GMT.

Th = Thunder. Ha = Hail =>5mm. Ic = Hail <5mm or ice. Fg = Fog at 09 GMT.

Vec mean = 24 hour mean wind vector, ddd = direction in degrees from true north, ff = speed in knots.

Sp = 24 hour mean wind speed in knots.

Max gust = Highest gust in 24 hours, gg = speed in knots, HHhh = Time, hours and minutes, GMT.

High hr = Highest hourly mean wind, HH = hour commencing. Rain Hrs = Duration of rain, 24 hours to 09 GMT. Excludes snow/hail.

30cm and 100 cm are earth temperatures at those depths, read at 09 GMT.

Anom = Departure from 1981-2010 climatological average.

All temperatures in degrees Celsius.

Weather observations. Emmbrook, Wokingham, Berkshire.

Observations at 0900 GMT for APRIL 2012

Date	VV	N	dd	ff	gg	TT	Td	Td	RH	r	PPP	a	ppp	ww	W1	W2	Nh	Cl	h	Cr	Ch	shs	NChs	NChs	Date	Remarks
1	80	1	03	04	07	6.5	1.2	69	4.1	1023.3	0	000	03	0	0	1	1	5	0	1	81820				1	1Ci80 COTRA Cu hum
2	60	0	02	01	04	9.0	3.9	70	4.9	1012.9	8	011	05	0	0	0	0	9	0	0	81820				2	
3	65	1	24	03	07	10.0	5.1	71	5.5	1004.2	8	003	03	1	1	1	1	5	7	0	81820				3	1Ac57 Cu hum
4	59	4	17	01	06	5.6	2.2	79	4.5	1005.6	3	025	05	1	1	4	2	4	3	0	84813				4	1Ac58 Cu med
5	58	8	04	09	20	6.7	4.1	83	5.0	1019.4	2	016	05	2	2	8	5	4	/	/	86712	88618			5	
6	65	1	36	04	08	6.6	-0.5	61	3.7	1018.1	7	007	02	0	0	0	0	9	0	1	81075				6	COTRA
7	62	7	03	05	11	10.3	6.1	75	5.8	1012.0	2	015	01	6	2	7	8	4	/	/	86815	83625			7	/Sc56 Cu fra/hum
8	62	7	24	04	08	10.3	9.2	93	7.3	1013.7	8	003	01	6	5	7	5	3	/	/	81708	83712	87630		8	3Sc25
9	63	8	22	09	20	9.2	7.4	89	6.5	999.2	6	027	61	6	6	7	5	4	2	/	81712	84615	85625		9	8Ns50
10	78	5	23	10	23	9.9	3.8	66	5.1	990.1	1	009	03	1	1	1	1	5	0	1	81825	84075			10	1Cc72 COTRA Cu hum
11	86	2	26	03	06	8.1	3.7	74	5.0	996.9	2	012	14	1	1	2	8	5	0	1	81820				11	1Cu30 2Sc45 1Ci72 Cu hum/med jp E
12	82	6	26	03	07	8.7	5.4	80	5.7	1003.3	2	007	03	2	2	2	8	4	3	1	81818	85357			12	1Cu30 1Sc40 /Ci75
13	62	1	04	03	07	8.5	3.9	72	5.1	1006.1	0	003	03	0	0	1	1	4	0	0	81815				13	Absent 13th-14th vv&cld est
14	62	7	04	07	16	8.1	3.9	75	5.1	1007.8	2	016	01	5	2	7	8	4	/	/	85815	87635			14	
15	84	1	01	11	19	7.7	-0.4	57	3.6	1020.2	2	017	03	0	0	1	1	6	0	0	81830				15	Cu hum
16	86	1	10	03	07	7.5	-2.6	49	3.1	1027.2	8	002	02	0	0	1	5	7	4	1	81656				16	1Ac65 1Ci75 El hz lyr
17	75	7	24	08	20	9.1	7.8	91	6.6	999.5	6	033	20	6	5	7	8	3	/	/	81708	86712			17	2Cu15 4Sc56 Cu med vv40k NW
18	58	8	16	09	25	7.4	6.0	91	6.0	979.0	7	031	63	6	6	7	5	4	2	/	82710	87612	88520		18	
19	60	8	27	05	11	7.9	5.9	87	6.0	983.9	2	018	05	6	2	8	5	3	/	/	83708	87712	88630		19	
20	65	2	22	05	11	10.2	5.7	73	5.7	993.5	2	006	03	0	0	1	2	4	7	1	81818				20	1Ac58 1Ac68 1Ci75 Cu med
21	84	2	27	05	10	8.9	3.3	68	4.9	996.2	2	008	03	8	1	1	8	5	0	1	81822				21	1Sc30 2Ci75 COTRA Cu med
22	72	3	26	07	18	10.1	5.1	71	5.5	1003.2	2	007	03	0	0	2	1	5	3	1	82820				22	1Ac58 2Ci75 COTRA Cu hum
23	65	8	12	08	22	9.1	4.3	72	5.2	994.4	7	032	60	6	2	6	8	5	2	7	84820	83656	88270		23	4As60 Cu med
24	61	7	32	07	17	7.5	3.9	78	5.1	998.6	2	018	01	5	2	7	8	4	/	/	81815	83640	87650		24	Cu fra
25	62	8	14	09	25	8.0	6.7	92	6.3	984.7	7	044	63	6	6	7	7	3	2	/	82708	87712	88530		25	
26	60	6	21	14	28	11.1	6.1	71	6.0	992.0	2	029	80	8	2	6	9	4	6	/	82915	83820			26	2Sc50 1Ac65 Cu fra/med
27	60	7	20	08	20	10.9	6.9	76	6.2	1009.4	2	020	25	8	2	6	9	4	/	3	82915	81820	83650		27	/Ac62 2Ci70 jp all quads vv30k ex p
28	57	8	02	09	17	8.4	7.7	95	6.5	1015.9	1	015	63	6	6	7	7	2	2	/	82705	87707	88520		28	
29	62	8	04	12	32	6.9	6.1	95	5.9	1002.3	6	029	63	6	6	8	7	3	/	/	86708	88710			29	
30	81	6	15	10	22	13.0	4.6	57	5.3	1012.6	1	029	03	1	1	1	2	6	3	1	81832	85078			30	1Ac60 COTRA Cu med

Mean vis = 20.9 km

Mean cloud = 4.9 62%

Mean wind speed = 6.5 kn

Mean gust = 15 kn

Mean TT = 8.7 °C

Mean Td = 4.6 °C

Mean RH = 76.0 %

Mean r = 5.4 g/kg

Mean PPP = 1004.2 mbar

See appendix 2 below for full code details

VV = Visibility code (Code FM12-4377)

N = Total cloud amount, oktas

dd = Direction from which wind is blowing, tens of degrees true

ff = 10 minute mean wind speed, knots

gg = Highest gust in past hour, knots

TT = Air temperature at 1.2 m, deg Celsius

Td = Dew point temperature at 1.2 m, deg Celsius

RH = Relative humidity at 1.2 m

r = Humidity mixing ratio at 1.2 m, g/kg

PPP = Air pressure reduced to sea level, mbar

a = Characteristic of pressure tendency (Code FM12-0200)

ppp = 3 hr pressure tendency, tenths of mbar

ww = Present weather code (Code FM12-4677)

W1, W2 = Past weather code (Code FM12-4561)- covers past 3 hours.

Nh = Amount of low cloud present, oktas

Cl = Type of low cloud (Code Fm12-0513)

h = Height of low cloud (Code FM12-1600)

Cm = Type of medium cloud (Code FM12-0515)

Ch = Type of high cloud (Code FM12-0509)

8 groups. 8 = indicator for cloud detail

N = Amount of cloud, oktas

C = Type of cloud (FM12-0500)

hshs = Height of cloud (FM12-1677)

Remarks : COTRA = persistent condensation

trails present.

Weather observations. Emmbrook, Wokingham, Berkshire.

Observations at 1500 GMT for APRIL 2012

Date	VV	N	dd	ff	gg	TT	Td	Td	RH	r	PPP	a	ppp	ww	W1	W2	Nh	Cl	h	Cr	Ch	shs	NCh	shs	NCh	shs	Date	Remarks
1	82	2	03	03	11	12.1	-1.3	39	3.2	1018.8	8	025	02	0	0	0	0	9	0	1							1	COTRA
2	73	3	35	05	13	13.3	0.9	43	5.1	1008.4	8	024	02	1	1	2	4	7	0	1							2	1Sc50 2Ci75
3	70	7	25	09	19	12.7	3.1	52	4.6	1001.1	7	015	80	8	2	4	8	6	7	/							3	2Sc56 Cu med
4	75	7	07	06	10	8.9	0.7	56	4.1	1008.9	2	015	25	8	2	4	8	6	7	/							4	Cu con S jp all quads vv40k ex p
5	65	7	05	07	14	8.9	1.8	61	4.2	1019.6	8	006	01	2	2	7	5	6	/								5	
6	75	8	33	07	14	10.8	1.5	53	4.2	1013.7	7	020	03	1	1	8	8	6	/								6	Cu hum
7	80	8	03	09	16	9.6	3.4	65	4.9	1013.3	3	007	25	8	2	8	8	5	/								7	Cu hum
8	81	7	23	08	15	13.6	8.4	71	6.9	1010.9	6	021	25	8	2	7	8	5	/								8	/Ci75 Cu med
9	65	8	21	13	23	10.6	8.5	87	7.0	992.6	7	035	61	6	6	7	5	4	2	/							9	
10	80	6	25	07	18	11.1	3.4	59	4.9	990.6	2	003	25	8	1	3	9	5	6	3							10	1Cu35 1Ac60 jp E&W vv 70k ex p
11	82	6	36	05	08	11.5	1.6	50	4.2	997.5	0	004	25	8	1	4	9	6	6	1							11	1Ac58 COTRA vv60k ex SE
12	80	5	30	08	17	13.3	0.4	41	4.0	1002.6	5	006	15	1	1	2	9	6	6	3							12	2Ci70 Absent 12th-14th vv&cld est
13	80	6	17	04	09	12.4	-0.6	41	3.7	1004.1	8	011	03	1	1	2	2	7	6	1							13	2Ac58
14	80	6	03	10	17	11.8	-1.1	41	3.8	1008.3	1	004	15	2	2	2	2	7	7	1							14	/Ci75
15	82	5	01	11	19	9.4	-2.4	43	3.1	1021.9	2	011	15	2	2	3	8	6	6	0							15	2Ac58 jpN
16	82	5	20	08	14	10.6	-5.9	31	2.5	1023.7	7	023	02	2	2	3	4	7	0	1							16	cCi75 COTRA Cu hum
17	70	7	23	09	33	10.1	3.6	64	5.0	997.6	7	015	25	8	1	2	9	5	6	3							17	1Sc50 2Ac63 jpE&W vv40k ex p
18	60	7	16	07	19	11.0	7.2	77	6.5	975.8	7	013	25	8	2	7	9	4	/								18	/Ci70 jp all quads
19	60	6	26	06	15	8.5	6.6	88	6.2	986.3	2	010	25	8	2	4	9	4	6	3							19	2Sc50 1Ac62 jp all quads Line cb SE-W
20	70	6	21	06	16	9.7	4.5	70	5.3	993.2	7	003	80	8	2	3	9	5	6	3							20	1Cu30 1Sc56 1Ac65 vv40k ex p
21	70	6	27	08	18	10.3	2.2	57	4.6	998.2	3	011	80	8	2	5	9	6	6	3							21	2Sc56 1Ac58 jp W,NW,SE vv60k ex p
22	62	7	23	06	21	8.8	6.7	87	6.2	1002.8	0	002	80	9	2	4	9	4	2	/							22	1Cu25 2Sc50 /Ac60 vv 50k NW
23	64	8	08	07	16	7.8	6.0	89	6.0	990.3	7	017	61	6	6	7	8	4	2	/							23	3Sc30 Cu hum
24	78	3	33	04	13	12.3	0.9	46	4.1	999.0	0	000	02	1	1	3	8	6	3	3							24	1Ac58 1Ci70 Cu med Cb top WNW
25	60	7	15	08	18	11.7	9.4	86	7.6	982.2	8	009	25	9	8	7	8	4	7	/							25	4Sc45 /Ac60 Cu med jp all quads
26	80	6	22	15	36	12.7	6.0	64	5.8	997.4	2	027	25	8	1	6	8	6	/								26	1Ci70 Cu med jp SE,S&NW
27	62	7	21	09	19	14.2	5.6	56	5.6	1011.7	2	008	15	8	1	4	8	6	6	/							27	2Sc50 Cu con jpSW&NW vv50k ex p
28	65	8	03	11	22	8.6	7.3	92	6.3	1015.8	6	010	61	6	6	7	8	4	2	/							28	8Ns35
29	56	7	13	08	20	11.8	10.6	92	7.9	1000.9	3	002	81	8	6	7	8	4	/								29	Cu con pR comm 1457
30	84	5	12	08	19	17.8	3.7	39	5.0	1013.0	8	001	02	1	1	3	2	7	4	1							30	1Ac60 2Ci75 COTRA Cu con

Mean vis = 24.2 km
 Mean cloud = 6.2 78%
 Mean wind speed = 7.7 kn
 Mean gust = 17 kn
 Mean TT = 11.2 °C
 Mean TdTd = 3.4 °C
 Mean RH = 61.3 %
 Mean r = 5.1 g/kg
 Mean PPP = 1003.3 mbar

See appendix 2 below for full code details

- VV = Visibility code (Code FM12-4377)
- N = Total cloud amount, oktas
- dd = Direction from which wind is blowing, tens of degrees true
- ff = 10 minute mean wind speed, knots
- gg = Highest gust in past hour, knots
- TT = Air temperature at 1.2 m, deg Celsius
- TdTd = Dew point temperature at 1.2 m, deg Celsius
- RH = Relative humidity at 1.2 m
- r = Humidity mixing ratio at 1.2 m, g/kg
- PPP = Air pressure reduced to sea level, mbar
- a = Characteristic of pressure tendency (Code FM12-0200)
- ppp = 3 hr pressure tendency, tenths of mbar
- ww = Present weather code (Code FM12-4677)
- W1, W2 = Past weather code (Code FM12-4561)- covers past 3 hours.
- Nh = Amount of low cloud present, oktas
- Cl = Type of low cloud (Code Fm12-0513)
- h = Height of low cloud (Code FM12-1600)
- Cm = Type of medium cloud (Code FM12-0515)
- Ch = Type of high cloud (Code FM12-0509)
- 8 groups. 8 = indicator for cloud detail
- N = Amount of cloud, oktas
- C = Type of cloud (FM12-0500)
- hshs= Height of cloud (FM12-1677)
- Remarks : COTRA = persistent condensation trails present.

Wokingham	Hour	01-Apr	02-Apr	03-Apr	04-Apr	05-Apr	06-Apr	07-Apr	08-Apr	09-Apr	10-Apr	11-Apr	12-Apr	13-Apr	14-Apr	15-Apr	16-Apr
Sunshine	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hourly analysis	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.06	0.00	0.30	0.00	0.00	0.00	0.40	0.11	0.00	0.48	0.00	0.31	0.67
	6	0.81	0.56	0.00	0.46	0.00	1.00	0.00	0.00	0.00	1.00	0.77	0.00	1.00	0.00	1.00	1.00
	7	1.00	1.00	0.86	0.97	0.00	1.00	0.00	0.00	0.00	1.00	0.01	0.77	1.00	0.00	1.00	1.00
	8	1.00	1.00	1.00	0.77	0.00	1.00	0.00	0.00	0.00	1.00	0.58	0.57	1.00	0.01	0.99	1.00
	9	0.99	1.00	0.97	0.63	0.00	1.00	0.00	0.00	0.00	0.74	1.00	0.00	1.00	0.39	0.94	1.00
	10	1.00	0.97	0.15	0.10	0.00	1.00	0.00	0.00	0.00	0.69	0.36	0.40	0.82	0.83	0.62	0.78
	11	1.00	0.62	0.29	0.05	0.00	0.98	0.00	0.00	0.00	0.83	0.36	0.17	0.82	0.77	0.58	0.49
	12	1.00	0.46	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.57	0.95	0.61	0.45	0.34	0.37	0.58
	13	1.00	0.61	0.01	0.00	0.00	0.07	0.00	0.00	0.00	0.33	0.33	0.64	0.02	0.00	0.23	0.42
	14	1.00	0.46	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.09	0.61	0.12	0.90	0.29	0.29	0.55
	15	1.00	0.45	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.31	0.58	0.10	0.58	0.24	0.20
	16	1.00	0.89	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.50	0.00	0.67	0.00	0.00	0.32	0.70
	17	1.00	0.45	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.74	0.00	0.53	0.00	0.19	0.47	0.46
	18	0.33	0.10	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.61	0.25	0.25	0.00	0.02	0.57	0.37
	19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot		12.12	8.56	3.32	3.04	0.00	6.73	0.29	0.22	0.00	8.64	5.66	5.28	7.61	3.41	7.94	9.21

Hour	17-Apr	18-Apr	19-Apr	20-Apr	21-Apr	22-Apr	23-Apr	24-Apr	25-Apr	26-Apr	27-Apr	28-Apr	29-Apr	30-Apr	Mean
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.60	0.27	0.75	0.16	0.00	0.00	0.00	0.63	0.00	0.00	0.69	0.18
6	0.00	0.00	0.00	1.00	0.00	1.00	0.75	0.00	0.00	0.14	0.20	0.00	0.00	0.99	0.39
7	0.00	0.00	0.00	1.00	0.46	1.00	0.76	0.00	0.00	0.42	0.99	0.00	0.00	0.98	0.51
8	0.00	0.00	0.00	0.95	1.00	0.92	0.00	0.00	0.00	0.14	0.23	0.00	0.00	0.72	0.46
9	0.57	0.00	0.00	0.54	0.66	0.96	0.00	0.40	0.00	0.38	0.06	0.00	0.00	0.83	0.47
10	0.74	0.01	0.01	0.01	0.43	0.88	0.00	0.45	0.00	0.31	0.00	0.00	0.00	0.47	0.37
11	0.60	0.16	0.16	0.05	0.19	0.82	0.00	0.08	0.22	0.14	0.10	0.00	0.00	0.43	0.33
12	0.73	0.30	0.14	0.19	0.04	0.59	0.00	0.10	0.39	0.09	0.68	0.00	0.00	0.70	0.32
13	0.42	0.24	0.00	0.24	0.35	0.01	0.00	0.03	0.12	0.73	0.70	0.00	0.11	0.43	0.23
14	0.08	0.03	0.02	0.41	0.08	0.00	0.00	0.63	0.07	0.35	0.21	0.00	0.00	0.28	0.22
15	0.15	0.09	0.39	0.09	0.07	0.14	0.00	0.63	0.02	0.47	0.10	0.00	0.27	0.15	0.21
16	0.70	0.00	0.17	0.36	0.41	0.94	0.00	0.09	0.00	0.29	0.49	0.00	0.14	0.68	0.29
17	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.59	0.09	0.39	0.63	0.00	0.35	0.29	0.23
18	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.85	0.10	0.10	0.00	0.00	0.00	0.45	0.16
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot	4.78	0.82	1.34	5.44	3.95	8.01	1.67	3.85	1.01	3.97	5.03	0.00	0.88	8.08	130.87

April 2012	T mn	Tx	Time	Tn	Time	RHmn	RH x	Time	RH n	Time	Tdmn	r mn	r x	Time	r n	Time	p mn	p x	Time	p n	Time	R tot
1	5.17	12.9	1448	-1.9	528	68.1	96.0	650	32.4	1658	-1.10	3.48	4.4	901	2.8	1714	1020.55	1024.1	56	1016.2	2356	0.0
2	6.70	14.1	1414	-0.9	553	68.5	93.5	607	36.2	1605	0.59	3.98	5.3	1119	3.3	553	1010.75	1016.3	7	1006.6	1748	0.0
3	7.36	14.6	1125	-0.2	434	75.1	95.4	453	46.3	1507	2.86	4.74	6.4	1120	3.5	434	1003.07	1006.8	27	1000.2	1612	1.1
4	6.03	9.7	1535	0.7	407	75.3	94.6	538	50.4	1350	1.72	4.32	5.2	912	3.6	1350	1007.75	1016.1	2358	1001.7	1	0.2
5	6.65	9.7	1519	0.9	2358	75.0	90.6	408	56.9	1716	2.39	4.51	5.2	400	3.2	2348	1019.01	1020.8	2236	1016.0	2	0.0
6	5.80	12.0	1320	-3.5	540	68.7	95.0	652	40.5	956	0.01	3.84	5.0	2359	2.7	506	1015.77	1020.6	1	1011.1	2359	0.0
7	8.39	11.2	1034	5.3	1921	78.1	93.5	619	61.6	1317	4.72	5.33	6.6	805	4.4	1903	1012.84	1016.1	2303	1010.0	409	0.0
8	9.96	14.9	1607	6.4	136	79.6	95.5	748	59.1	1652	6.47	6.02	7.4	924	4.9	26	1011.93	1015.7	37	1007.1	2357	0.8
9	9.57	11.5	1314	8.1	258	88.7	93.4	2040	80.9	0	7.79	6.69	7.4	1314	5.7	0	995.79	1007.2	0	986.0	2153	6.5
10	8.19	13.6	1238	4.2	2355	68.9	89.0	0	40.3	1238	2.56	4.67	6.6	0	3.9	1234	990.60	994.6	2358	986.6	3	0.2
11	6.53	13.8	1252	0.0	517	76.8	96.4	2356	39.1	1225	2.20	4.53	5.7	1843	3.5	1224	997.61	1002.1	2348	994.4	1	1.8
12	7.17	13.8	1346	0.3	330	74.9	97.9	452	39.4	1456	2.49	4.60	6.0	814	3.8	330	1003.28	1005.4	2254	1001.9	109	0.1
13	6.91	14.1	1238	-1.0	500	73.3	97.1	622	35.9	1448	1.81	4.39	5.5	904	3.3	1446	1005.11	1006.3	756	1003.7	1500	0.6
14	7.80	12.5	1419	3.6	2356	70.0	93.2	356	37.1	1410	2.11	4.48	5.5	404	3.2	1410	1008.56	1014.7	2356	1005.1	258	0.1
15	5.26	10.4	1451	0.1	2359	65.7	89.7	2343	33.1	1206	-1.20	3.47	4.2	1635	2.3	1034	1021.04	1027.0	2341	1014.6	0	0.0
16	5.12	11.9	1345	-3.0	513	60.6	96.4	628	29.2	1351	-3.06	3.01	4.1	748	2.3	1439	1024.29	1027.6	743	1016.1	2359	0.0
17	7.88	14.0	1312	4.7	1748	72.6	92.7	836	39.3	1314	2.95	4.81	7.2	910	3.2	37	1000.19	1016.2	0	991.2	2356	5.0
18	8.04	12.5	1322	5.8	0	85.5	93.3	2040	63.7	1328	5.73	5.90	7.0	1212	4.9	0	980.11	991.3	0	975.5	1507	10.5
19	7.60	11.1	1318	5.6	2303	85.2	93.3	216	63.8	1332	5.24	5.66	7.0	1225	5.0	1335	985.29	991.2	2344	980.0	1	4.0
20	7.50	12.1	1308	3.9	547	80.9	94.4	602	60.7	1319	4.36	5.28	6.6	1249	4.5	2234	993.45	995.3	2358	991.1	1	5.2
21	7.11	13.1	1400	2.3	507	75.1	91.7	529	41.8	1330	2.73	4.69	6.0	1619	3.9	1330	997.82	1002.6	2359	994.8	353	1.9
22	7.74	14.5	1159	2.0	515	80.9	93.9	524	40.6	1244	4.43	5.28	6.4	1558	4.0	1244	1002.73	1003.7	1335	1002.0	1257	7.6
23	7.17	9.9	832	5.2	512	87.9	93.7	2017	70.3	835	5.28	5.63	6.2	1355	4.9	512	994.30	1002.3	0	989.9	1626	3.9
24	8.74	13.2	1515	6.2	2220	72.7	93.3	10	39.7	1544	3.71	5.04	5.8	0	3.7	1544	997.79	999.5	1952	993.6	0	0.3
25	9.00	12.4	1512	5.6	642	85.0	92.9	936	68.3	1808	6.56	6.22	7.8	1508	5.2	605	985.79	997.0	0	980.9	1723	18.5
26	10.67	14.1	1356	8.1	448	76.2	91.4	218	57.8	1533	6.52	6.13	7.0	1321	5.2	1745	994.33	1004.0	2356	983.4	217	1.5
27	10.70	14.9	1349	7.8	2348	77.4	93.9	2353	54.5	1744	6.76	6.13	7.9	1108	5.3	1744	1010.32	1015.6	2244	1003.9	2	2.4
28	7.74	9.5	1023	4.9	2246	93.0	95.9	917	87.9	1756	6.69	6.09	7.0	1023	5.0	2144	1014.82	1016.8	1000	1010.3	2355	8.5
29	8.32	13.6	1536	5.0	16	87.7	97.3	1328	62.4	1731	6.29	6.02	8.9	1356	5.1	16	1003.92	1010.6	1	999.9	1112	15.9
30	13.23	19.2	1336	8.5	440	62.9	88.9	2351	33.5	1419	5.94	5.83	7.7	2359	4.4	1353	1011.68	1014.7	2140	1006.1	15	0.0

Total																						96.6
Mean	7.80	12.83		3.16		76.3	93.79		50.08		3.52	5.03	6.31		4.02		1004.02	1009.41		999.33		
Max	13.23	19.24		8.53		93.0	97.90		87.90		7.79	6.69	8.90		5.65		1024.29	1027.65		1016.25		
Min	5.12	9.51		-3.52		60.6	88.90		29.20		-3.06	3.01	4.14		2.30		980.11	991.21		975.51		

Wokingham Automatic Weather Station
 AWS samples taken every 0.5 seconds
 x and n refer to maximum and minimum respectively

Readings taken at Wokingham Climatological Station, Emmbrook, Berkshire
Lat 51.425 N, Long 0.853 W, NGR (SU) 798701
Altitude 45 m ASL.

Tmn = 00 to 24 GMT mean air temperature at 1.2 m, deg C
 RHmn = 00-24 GMT mean relative humidity at 1.2 m, percent
 TDmn = 00-24 GMT mean dew point at 1.2 m, deg C
 rmn = 00-24 GMT mean humidity mixing ratio, g/kg
 pmn = 00-24 GMT mean air pressure reduced to mean sea level, mbar
 Rtot = 00-24 GMT rainfall total from AWS tipping bucket raingauge, mm
 Time = hours and minutes in GMT of extreme values

Appendix 1.

Explanation and definition of some of the terms used in the Wokingham Weather Reports.

Average: Generally refers to the 30 year climatological average, currently 1981 to 2010. This will be next updated in 2010. For some parameters, notably wind, the climatological average is not available, and if the word average is used in the context of wind, it refers to the average for the period for which data is held, namely 1988 to present.

For sunshine, there was a change in instrument used to detect sunshine amount in July 1999, and the data produced by the new instrument is not strictly comparable with that obtained prior to July 1999, making the climatological average based on the old instrument of little use. In general, the new instrument produces higher values in the winter half year, and lower ones in the summer half, than the old type of instrument, due to a combination of faster reaction and higher sensitivity than the old type. Thus the average used in this case is for a theoretical equivalent average for the 1981 to 2010 climatological period for this new instrument, based on comparisons with Met Office published tables of departure from the climatological average sunshine in the months since 2000 for their area 'Southern England'. Users of the Wokingham Monthly Weather reports should be aware of this, and regard the anomalies for sunshine published therein as a guide only, until such time has elapsed since the introduction of the new instrument that a genuine average becomes available.

Mean: The mean of the data under discussion, often the monthly mean of daily data. The mean is obtained by summation of the individual values and dividing by the number of values. The term 'daily mean' in respect of temperature is defined as "half (max+min)". A true daily 24 hour (00 to 24 GMT) mean temperature is available from the AWS, and is currently published on page 7 of the Wokingham Monthly Weather Report on the Wokingham Weather Web Site, page1. <http://www.woksat.info/wwp1.html>

Anomaly : When a value is given for anomaly, this will have the following meanings:

a): The departure of a mean from the current climatological average.

b): The departure of a value from the a long-term average for a particular day.

When the word anomaly is used in respect to temperature, any values given are in degrees C. In respect to rainfall, percent. In respect of sunshine, percent. In respect to wind, mph. In respect to pressure, millibars/hpa.

Categories : Reference may be made in the reports to 'categories'. Each category has a strict statistical range, as outlined below.

Temperature: The terms mild/cold are used in the winter half year, and warm/cool in the summer half.

The term normal is defined as being when the individual mean (monthly, seasonal or annual) value is within 20% of the median of all ranked values for that month/season/year.

Mild/warm: The value lies between 10% and 30% below the highest value in the ranked series.

Very mild/very warm: The value lies within 10% of the highest value in the ranked series.

Cold/cool: The value lies between 10% and 30% above the lowest value in the ranked series.

Very cold/very cool. The value lies within 10% of the lowest value in the ranked series.

Sunshine: The terms for sunshine are very sunny, sunny, normal, dull and very dull.

The definition for sunshine follow the same rules as for temperature.

Rainfall: The terms for rainfall are very dry, dry, normal, wet and very wet.

The term normal follows the same rule as for temperature and sunshine.

The term wet is used for values lying between 10% and 30% below the highest value in the ranked series.

the term very wet is used for values lying within 10% of the highest value in the ranked series.

The term dry is used for values lying between 10% and 30% of the lowest value in the ranked series.

The term very dry is used for values lying within 10% of the lowest value in the ranked series.

Long-term : Mention may be made in the reports to the 'long-term' . The long-term record comprises a temperature/rainfall/sunshine data series compiled from the records of various station in the Wokingham area in the years prior to the establishment of a weather station at Emmbrook in 1976.

In the case of monthly max, min and mean temperature and of rainfall total the 'long-term' goes from the present back to 1882. For extremes of temperature, highest max and lowest min are back to 1904, and for lowest max and highest min, to 1913.

Rank : The word rank refers to the position of a value for a particular month/season/year in the ranked values of the entire series. The central value in the ranked series is known as the median. This value may be different from the 'average' if the population of values is skewed. Also, as the median considers all values in the series, and the average refers to a 30 year climatological period, during periods of climatic change, the median will also be expected to differ from the average.

Month: Calendar month.

Season: Spring, March to May.

Summer, June to August

Autumn, September to November

Winter, December to February.

The year number given when discussing 'winter' is usually the year in which the majority of the period lies, i.e. January/February

Annual or Year : The calendar year, 1st January to 31st December.

The climatological day : runs from 09 to 09 GMT. The max temperature and rainfall read at 0900 are attributed to the previous day, as is the duration of measurable rain calculated up to 0900 GMT. The min temperature and grass min read at 0900 are attributed to the day of reading . Pressure is read at 0900 GMT, and the monthly mean pressure is the mean of the 0900 readings. Sunshine data, wind data, rainfall rates and 24 hour data from the AWS use the normal 00 to 24 GMT day.

Frost: An air frost day is recorded when the minimum temperature read at 0900 GMT on that day is -0.1°C or below. A ground frost day is recorded when the grass minimum temperature read at 0900 GMT on that day is -0.1°C or lower.

Duration of air frost is defined as the number of minutes that the AWS one minute average temperature is below 0.0°C , and the day runs from midnight to midnight.

Snow : A day with snow falling is triggered if snow falls at any time in the 24 hours from midnight on that day. A day with snow lying is entered if there is at least 50 % cover of snow at the 0900 GMT observation.

Hail : A day of hail is recorded if hailstones of 5 mm diameter or more are observed or recorded on the hail pad on a 24 hour period starting at midnight.

A day of small hail is recorded if hailstones less than 5 mm diameter are observed or recorded in a 24 hour period starting at midnight. Note, various types of other ice meteors such as ice pellets, snow grains, and some types of snow pellets are included in this category.

Fog: A day of fog is recorded if the horizontal visibility at 0900 GMT is below 1000 m.

Thunder: A day of thunder is recorded if thunder is heard in the 24 hour period from midnight on that day.

Rainfall : Rainfall is given in mm and tenths. "tr" (trace) is entered when: a) precipitation has occurred but there is no water in the gauge. b) There is water in the gauge but it is less than 0.05 mm.

Dry Spell : A dry spell, for the purposes of the Wokingham climatological data and reports, is defined as a period of 5 or more consecutive dry days. A dry day is defined as one where the 24 hour precipitation measured at 09 GMT is not greater than 0.1 mm.

Wind: The following abbreviations may be used to denote wind directions :

Degrees are from true north

N = North = 360° and 22.5° either side.

NE = NorthEast = 045° and 22.5° either side.

E = East = 090° and 22.5° either side.

SE = SouthEast = 135° and 22.5° either side.

S = South = 180° and 22.5° either side.

SW = SouthWest = 225° and 22.5° either side.

W = West = 270° and 22.5° either side.

NW = NorthWest = 315° and 22.5° either side.

Wind – terms for speed used in monthly reports: When the following terms are used in the monthly reports, they will be based on the following unofficial criteria, (the day runs from 00 to 24 GMT) :

Term	Daily mean speed, knots		Highest hourly mean speed, knots		24 hour maximum gust, knots
Very light	3 or less	and	4 or less	and	8 or less
Light	3 to 6	or	4 to 8	or	8 to 16
Moderate	6 to 9	or	8 to 12	or	16 to 24
Fresh	9 to 12	or	12 to 16	or	24 to 32
Strong	12 to 15	or	16 to 20	or	32 to 40
Very strong	15 to 18	or	20 to 24	or	40 to 48
Near gale	18 to 21	or	24 to 28	or	48 to 56
Gale	21 to 24	or	28 to 32	or	56 to 64
Severe gale	24 to 27	or	32 to 36	or	64 to 72

B.J.Burton. 3 August 2009
 Updated 8 Sept 2009,
 4 Nov 2011

Appendix 2.

Explanation and decode for code figures used in the Wokingham 0900 and 1500 GMT observations

VV : Visibility.

Code figures 00 to 50 are in km and tenths e.g. 01 = 0.1 km = 100 m, 33 = 3.3 km, 50 = 5.0 km

Code figures 60 to 80. Subtract 50 to obtain visibility in km. e.g. 56 = 6 km, 65 = 15 km, 77 = 27 km.

Code figures 81 to 89. Subtract 50 and add 5 for every one above 80. e.g. 83 = 45 km, 86 = 60 km.

Code figure 89 = visibility above 70 km.

N : Total cloud amount in okta (eighths of sky covered). 9 = sky obscured (e.g. by fog or snow)

dd : Wind direction in tens of degrees from true north. Wind is measured at a height of 10 m, and the direction is the mean over a period of 10 minutes ending at the observation time.

ff : Wind speed in knots, measured at 10 m, and is the mean over a period of 10 minutes ending at observation time.

gg : Wind gust in knots at 10 m. The highest gust in the 60 minutes up to observation time.

TT : Air temperature at 1.2m, degrees C and tenths.

TdTd : Dew point temperature at 1.2m, degrees C and tenths.

RH : Relative humidity at 1.2m, %.

r : Humidity mixing ratio (amount of water vapour per kg of air), grams and tenths.

PPP : Air pressure reduced to MSL, millibars and tenths.

a : Characteristic of pressure tendency during the past 3 hours.

Code figures 0 to 3, pressure higher than 3 hours ago, 5 to 8, pressure lower than 3 hours ago

Code figure 0 = Increasing then decreasing, pressure the same as or higher than 3 hours ago

1 = Increasing then steady or increasing more slowly

2 = Increasing steadily or unsteadily

3 = Decreasing or steady then increasing, or increasing then increasing more rapidly

4 = Steady, pressure the same as 3 hours ago

5 = Decreasing then increasing, pressure lower than 3 hours ago

6 = Decreasing then steady or decreasing more slowly

7 = Decreasing steadily or unsteadily

8 = Steady or increasing then decreasing, or decreasing then decreasing more rapidly

ppp : 3 hour pressure tendency in tenths of a millibar

ww : Present weather code figures, 00 to 99.

Present weather decode:

00 = Cloud development not observed or not observable

01 = Clouds generally dissolving or becoming less developed

02 = State of sky on the whole unchanged

03 = Clouds generally increasing or becoming more developed

04 = Visibility reduced by smoke, e.g. veldt or forest fires, industrial smoke or volcanic ashes.

05 = Haze, visibility reduced by extremely small dry particles (RH less than appx. 95 %)

06 = Widespread dust in suspension, not raised by the wind near the station at the time of the observation

07 = Dust or sand raised by the wind at or near the station at the time of the observation, but no well-developed dust whirls or sand whirls, and no duststorm or sandstorm seen: In marine environments, blowing spray at the station.

08 = Well-developed dust or sand whirls seen at or near the station during the preceding hour or at the time of the observation, but no duststorm or sandstorm.

09 = Duststorm or sandstorm within sight at the time of the observation, or at the station during the preceding hour

10 = Mist
11 = Patches of shallow fog not deeper than 2 metres on land
12 = More or less continuous shallow fog not deeper than 2 metres on land
13 = Lightning visible, no thunder heard
14 = Precipitation within sight, not reaching the ground
15 = Precipitation within sight, reaching the ground more than 5 km from the station
16 = Precipitation within sight, reaching the ground, near to but not at the station
17 = Thunderstorm, but no precipitation at the time of the observation
18 = Squalls at or within sight of the station at the time of the observation or during the preceding hour
19 = Funnel cloud(s) at or within sight of the station at the time of the observation or during the preceding hour

20 = Drizzle (not freezing) at the station during the preceding hour but not at the time of the observation
21 = Rain (not freezing) at the station during the preceding hour but not at the time of the observation
22 = Snow at the station during the preceding hour but not at the time of the observation
23 = Rain and snow or ice pellets at the station during the preceding hour but not at the time of the observation
24 = Freezing drizzle or freezing rain at the station during the preceding hour but not at the time of the observation
25 = Shower(s) of rain at the station during the preceding hour but not at the time of the observation
26 = Shower(s) of snow or rain and snow at the station during the preceding hour but not at the time of the observation
27 = Shower(s) of hail or rain and hail at the station during the preceding hour but not at the time of the observation
28 = Fog or ice fog at the station during the preceding hour but not at the time of the observation
29 = Thunderstorm, with or without precipitation at the station during the preceding hour but not at the time of the observation

30 = Slight or moderate duststorm or sandstorm has decreased during the preceding hour
31 = Slight or moderate duststorm or sandstorm with no appreciable change during the past hour
32 = Slight or moderate duststorm or sandstorm has begun or increased during the past hour
33 = Severe duststorm or sandstorm has decreased during the preceding hour
34 = Severe duststorm or sandstorm with no appreciable change during the past hour
35 = Severe duststorm or sandstorm has begun or increased during the past hour
36 = Slight or moderate drifting snow generally below eye level
37 = Heavy drifting snow generally below eye level
38 = Slight or moderate blowing snow generally above eye level
39 = Heavy blowing snow generally above eye level

40 = Fog or ice fog at a distance at the time of the observation, but not at the station during the preceding hour, the fog extending to a level above that of the observer.
41 = Fog or ice fog in patches
42 = Fog or ice fog, sky visible has become thinner during the past hour
43 = Fog or ice fog, sky invisible has become thinner during the past hour
44 = Fog or ice fog, sky visible no appreciable change during the past hour
45 = Fog or ice fog, sky invisible no appreciable change during the past hour
46 = Fog or ice fog, sky visible has begun or become thicker during the past hour
47 = Fog or ice fog, sky invisible has begun or become thicker during the past hour
48 = Fog, depositing rime, sky visible
49 = Fog depositing rime, sky invisible

50 = Drizzle, not freezing, intermittent slight at time of observation
51 = Drizzle, not freezing, continuous slight at time of observation
52 = Drizzle, not freezing, intermittent moderate at time of observation
53 = Drizzle, not freezing, continuous moderate at time of observation
54 = Drizzle, not freezing, intermittent heavy at time of observation
55 = Drizzle, not freezing, continuous heavy at time of observation
56 = Drizzle, freezing, slight
57 = Drizzle, freezing, moderate or heavy (dense)
58 = Drizzle and rain, slight
59 = Drizzle and rain, moderate or heavy

60 = Rain, not freezing, intermittent slight at time of observation
61 = Rain, not freezing, continuous slight at time of observation
62 = Rain, not freezing, intermittent moderate at time of observation
63 = Rain, not freezing, continuous moderate at time of observation
64 = Rain, not freezing, intermittent heavy at time of observation
65 = Rain, not freezing, continuous heavy at time of observation
66 = Rain, freezing, slight
67 = Rain, freezing, moderate or heavy
68 = Rain or drizzle and snow, slight
69 = Rain or drizzle and snow, moderate or heavy

70 = Intermittent fall of snowflakes slight at time of observation
71 = Continuous fall of snowflakes slight at time of observation
72 = Intermittent fall of snowflakes moderate at time of observation
73 = Continuous fall of snowflakes moderate at time of observation
74 = Intermittent fall of snowflakes heavy at time of observation
75 = Continuous fall of snowflakes heavy at time of observation
76 = Diamond dust (with or without fog)
77 = Snow grains (with or without fog)
78 = Isolated star-like snow crystals (with or without fog)
79 = Ice pellets

80 = Rain shower(s), slight
81 = Rain shower(s), moderate or heavy
82 = Rain shower(s), violent
83 = Shower(s) of rain and snow mixed, slight
84 = Shower(s) of rain and snow mixed, moderate or heavy
85 = Snow shower(s), slight
86 = Snow shower(s), moderate or heavy
87 = Shower(s) of snow pellets or small hail, with or without rain or rain and snow mixed, slight
88 = Shower(s) of snow pellets or small hail, with or without rain or rain and snow mixed, moderate or heavy
89 = Shower(s) of hail, with or without rain or rain and snow mixed, not associated with thunder, slight
90 = Shower(s) of hail, with or without rain or rain and snow mixed, not associated with thunder, moderate or heavy

91 = Slight rain at time of observation, thunderstorm during the past hour but not at time of observation
92 = Moderate or heavy rain at time of observation, thunderstorm during the past hour but not at time of observation
93 = Slight snow, or rain and snow mixed, or hail at time of observation, thunderstorm during the past hour but not at time of observation
94 = Moderate or heavy snow, or rain and snow mixed, or hail at time of observation, thunderstorm during the past hour but not at time of observation
95 = Thunderstorm, slight or moderate, without hail but with rain and or snow at time of observation
96 = Thunderstorm, slight or moderate, with hail at time of observation
97 = Thunderstorm, heavy, without hail but with rain and or snow at time of observation
98 = Thunderstorm combined with duststorm or sandstorm at time of observation
99 = Thunderstorm, heavy, with hail at time of observation

Hail includes large hail, small hail and snow pellets.

W1, W2 : Past weather (for 0900 and 1500 GMT observations, the period covered is 3 hours)

Code figures:

- 0 = Cloud covering half or less of the sky throughout the period
- 1 = Cloud covering more than half the sky during only part of the period
- 2 = Cloud covering more than half the sky throughout the period
- 3 = Sandstorm, duststorm or blowing snow
- 4 = Fog or ice fog or thick haze (visibility less than 1000 m)
- 5 = Drizzle
- 6 = Rain
- 7 = Snow or rain and snow mixed
- 8 = Shower(s)
- 9 = Thunderstorm(s) with or without precipitation

Nh : Amount of low cloud, or medium cloud if no low cloud present, okta

Cl : Type of low cloud

- 0 = No low cloud
- 1 = Cumulus with little vertical extent and seemingly flattened, or ragged Cumulus other than bad weather, or both
- 2 = Cumulus of moderate or strong vertical extent, either accompanied or not by other Cumulus or Stratocumulus all having their bases at the same level
- 3 = Cumulonimbus whose summits, at least partially, lack sharp outline, but are neither clearly fibrous (cirriform), nor in the form of an anvil; Cumulus, Stratocumulus or Stratus may also be present
- 4 = Stratocumulus formed by the spreading out of Cumulus; Cumulus may also be present
- 6 = Stratus in a more or less continuous sheet or layer, or ragged shreds, or both, but no Stratus fractus of bad weather
- 7 = Stratus fractus of bad weather or Cumulus fractus of bad weather or both (pannus), usually below Altostratus or Nimbostratus
- 8 = Cumulus and Stratocumulus other than that formed by the spreading out of Cumulus, the bases of the Cumulus and Stratocumulus are not at the same level.
- 9 = Cumulonimbus, the upper part of which is clearly fibrous (cirriform), often in the form of an anvil, either accompanied or not by any other type(s) of low cloud
- / = Types of low cloud invisible due to darkness, fog, blowing dust or sand or other similar phenomena.

'Bad weather' denotes the conditions which generally exist during precipitation and a short time before and after.

Cm : Type of medium cloud.

- 0 = No medium cloud.
- 1 = Altostratus, the greater part of which is semi-transparent; through this part the sun or moon may be weakly visible, as through ground glass
- 2 = Altostratus, the greater part of which is sufficiently dense to hide the sun or moon, or Nimbostratus
- 3 = Altocumulus, the greater part of which is semi-transparent; the various elements of the cloud change only slowly and are all at a single level
- 4 = Altocumulus in patches (often in the form of almonds or fishes), the greater part of which is semi-transparent ; the clouds occur at one or more levels and the elements are continually changing in appearance
- 5 = Altocumulus in bands semi-transparent, of Altocumulus in one or more fairly continuous layers (semi-transparent or opaque), progressively invading the sky; these Altocumulus clouds generally thicken as a whole
- 6 = Altocumulus resulting from the spreading out of Cumulus (or Cumulonimbus)
- 7 = Altocumulus in two or more layers, usually opaque in places, and not progressively invading the sky; or opaque layer of Altocumulus not progressively invading the sky; or Altocumulus together with Altostratus or Nimbostratus
- 8 = Altocumulus with sproutings in the form of small towers or battlements, or Altocumulus having the appearance of cumuliform tufts
- 9 = Altocumulus of a chaotic sky, generally at several levels
- / = Types of medium cloud invisible owing to darkness, fog, blowing dust or sand or other similar phenomena, or more often because of the presence of a continuous layer of lower clouds.

Ch : Type of high cloud

0 = No high cloud

1 = Cirrus in the form of filaments, strands or hooks, not progressively invading the sky.

2 = Dense cirrus, in patches or entangled sheaves, which usually do not increase and sometimes seem to be the remains of the upper part of a Cumulonimbus; or Cirrus with sproutings in the form of small turrets or battlements, or Cirrus having the appearance of cumuliform tufts

3 = Dense Cirrus, often in the form of an anvil, being the remains of the upper part of Cumulonimbus, or where the rest of the Cumulonimbus is below the horizon

4 = Cirrus in the form of hooks or filaments, or both, progressively invading the sky; they generally become denser as a whole

5 = Cirrus (often in bands converging towards one or two opposite points on the horizon) and Cirrostratus, or Cirrostratus alone; in either case they are progressively invading the sky, and generally growing denser as a whole, but the continuous veil does not reach 45 degrees above the horizon.

6 = Cirrus (often in bands converging towards one or two opposite points on the horizon) and Cirrostratus, or Cirrostratus alone; in either case they are progressively invading the sky, and generally growing denser as a whole; the continuous veil extends more than 45 degrees above the horizon, without the sky being totally covered

7 = Veil of Cirrostratus covering the celestial dome.

8 = Cirrostratus not progressively invading the sky and not completely covering the celestial dome

9 = Cirrocumulus alone, or accompanied by Cirrus or Cirrostratus, or both, but Cirrocumulus is predominant.

/ = Types of high cloud invisible owing to darkness, fog, blowing dust or sand or other similar phenomena, or more often because of the presence of a continuous layer of lower clouds.

8 Groups

N = Amount of cloud reported by C, okta.

C = Type of cloud

0 = Cirrus (Ci)

1 = Cirrocumulus (Cc)

2 = Cirrostratus (Cs)

3 = Altocumulus (Ac)

4 = Altostratus (As)

5 = Nimbostratus (Ns)

6 = Stratocumulus (Sc)

7 = Stratus (St)

8 = Cumulus (Cu)

9 = Cumulonimbus (Cb)

/ = Cloud type not visible owing to darkness, fog, duststorm, or other analogous phenomena.

hshs = Height of cloud above station level reported by type C

00 to 50 = Height in hundreds of feet

51 to 55 Not used

56 to 80 = Subtract 50 to obtain cloud height in thousands of feet

81 to 88 = Height of cloud between 35000 and 70000 ft in 5000 ft steps.