

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

MARCH 2012

Temperature (°C / °F)			Anomaly	Rank in the past 131 years			
Mean maximum	14.6	58.3	+3.4	2 nd highest			
Mean minimum	2.5	36.5	-0.7	49 th highest			
Daily mean	8.5	47.3	+1.3	8 th highest			
Highest maximum	21.3	70.3	on 28 th	Lowest maximum	8.9	48.0	on 4 th
Highest minimum	8.6	47.5	on 10 th	Lowest minimum	-2.8	27.0	on 19 th
Mean grass minimum	-1.9	28.6	-1.8	Lowest grass minimum	-8.2	17.2	on 19 th
Mean earth @30 cm	8.1	46.6	+1.0	Earth @100 cm	8.3	46.9	
Frost duration (hrs)	11.3			Rain duration (hrs)	14.6		
Rainfall total (mm / in)	16.8	0.66	37 %	22 nd lowest			
Highest daily fall	10.2	0.40	on 4 th				
Number of: Dry days (<0.2mm)	25	Wet days (>0.9mm)	3	days ≥5mm	1		
Sunshine total (hrs)	184.8	Daily mean	5.96	166 %	Sunniest day	12.1	27 th
N° days with: Air frost	4	Ground frost	24	Snow falling	1	Snow lying	0
Thunder	0	Hail ≥5mm	0	Small hail/ice	0	Fog @09	5
						Nil sun	3
Pressure MSL : Mean @09 GMT, mbar	1028.4	+12.5	Highest	1038.5	on 11 th	Lowest	1010.2 on 17 th
Relative humidity : Mean (%)	76.3	Lowest	20	on 28 th	Water vapour (g/kg), mean at 09 and 15 GMT	5.4,	5.1
Overall mean wind speed (mph)	5.3	Windiest day	12.7	on 5 th	Max gust	37	on 7 th
Wind direction (days)	N 3	NE 7	E 2	SE 0	S 1	SW 6	W 6
						NW	6
Least windy day (mph)	2.3	on 28 th	Calm; less than 0.5 mph (minutes)		1287		

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

Notes:

Very Mild, Very Sunny, Dry

This month's weather was dominated by persistent high pressure, leading to a very mild, sunny and dry second half. **Temperature:** The mean maximum has only been exceeded once in March in the past 131 years, and as long ago as 1938. The closest in recent years was 13.6° in 2003, 1.0° lower than this month's. However, the clear skies that raised temperatures by day also led to below normal night time values, so that the mean minimum ranks only 49th highest, and was equaled in 2009 and exceeded in 2008. The resulting overall mean ranks 8th highest, and is highest since 1997. The mean diurnal range of 12.1° is 3rd highest in 131 years, and includes a new record high value for March of 21.8° on the 28th. The highest max is 4.6° above the median and is equal highest with 1990 since 1968. The lowest max is 4.4° above the median, but is highest only since 2003. The highest min is 0.3° below the median, and the lowest min is 1.3° above its median. The lowest grass min is highest since 1997, but the number of ground frosts is most since before 1980. Conversely the number of air frosts is 3 fewer than average and fewest since 1998. Air frost duration is 26.6 hours below average and lowest since 1997. Earth temperatures at 30cm and 1m depth are around 1° above average. **Rainfall:** While the total is slightly above that of last March, it is still 63% below average. The deficit over the past 12 months is 120 mm, and over the past 24 months is 280 mm. 78% of this month's total fell on the 3rd/4th. A dry spell of 9 days ended on the 2nd and a second of 8 days on the 15th, while a third was unbroken on the 31st after 14 days. The duration of rain is 36% of average. The highest rainfall rate was 30 mm/hr on the 4th. Snow together with rain fell on the 4th but did not lay. **Sunshine:** This is one of the sunniest Marches since before 1908, though the total was exceeded as recently as 2003. The 10 day period to the 30th was outstanding, with no day having less than 60% of the maximum, and a total of 68.2 hours for the period 24th to the 29th is an average of 11.4 hours per day. Overall there were 8 days with <3 hours, 16 with =>6 hours, 8 with =>9 hours and 3 with =>12 hours. **Pressure:** Both the mean pressure and absolute lowest are highest for March since before 1976. **Humidity:** The value of 20% on the 28th is lowest for March since before 1998. **Wind:** The mean speed of 5.3 mph is lowest since before 1988, and is 2.3 mph below average. **Weather:** The number of days with Fog at 09 GMT is most since 1969. **Commentary: From the 1st to the 18th:** Temperatures by both day and night fluctuated around normal, with extreme anomalies for max between +5.4° on the 3rd and -1.8° on the 16th, and for min between +5.2° on the 10th and -4.6° on the 15th. All of the month's rain was in this period, and all but 1 mm fell on just 3 days. Sunshine was generally near or a little above normal, and the accumulation up to the 18th was only 3 hours above normal. Light W'yly wind on the 1st became moderate S'yly on the 3rd then fresh W'yly on the 4th, becoming light and variable from the 10th to the 15th, increasing moderate SW'yly on the 16th, veering NW'yly on the 18th. **From the 19th to the 31st:** Temperatures by day were generally above or well above normal, with anomalies for max over +9° on the 23rd, 24th and 28th, but night-time anomalies were mostly below normal, between +2.6° on the 21st and -5.9° on the 19th. There was no rainfall, and sunshine was generally well above normal. Light, occasionally moderate winds were W'yly until the 20th, then mainly NE'yly, briefly S'yly on the 23rd, and NW'yly after the 28th.

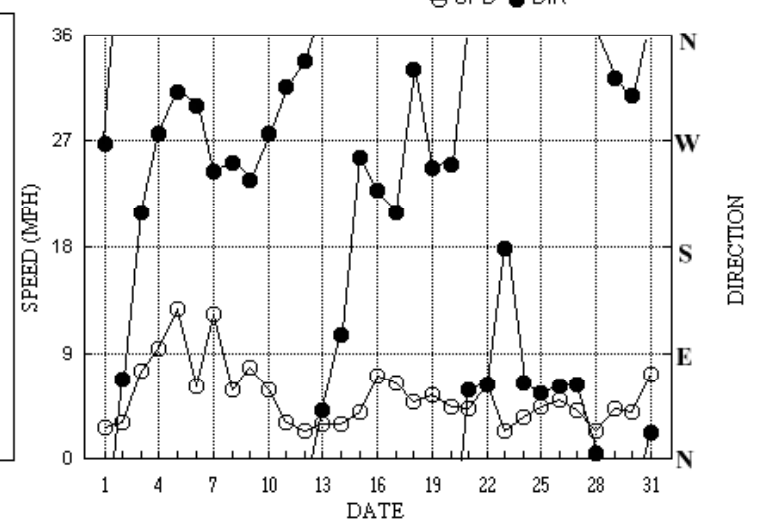
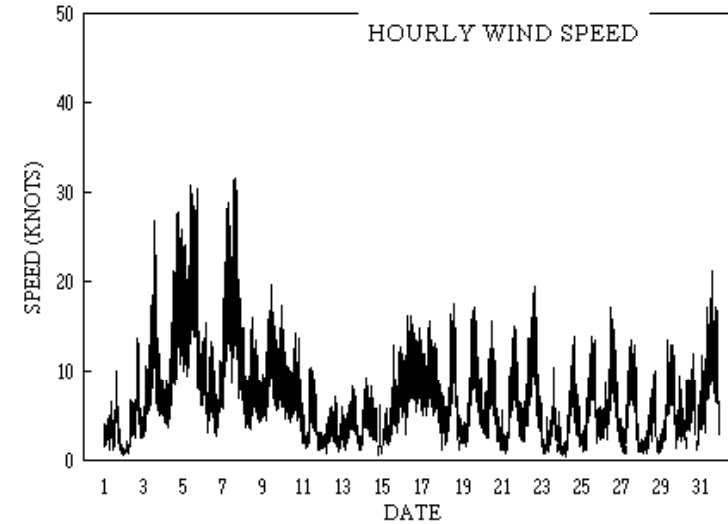
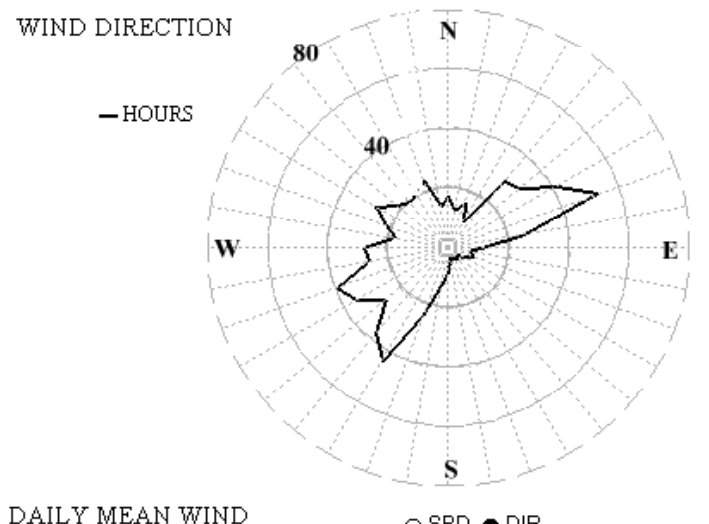
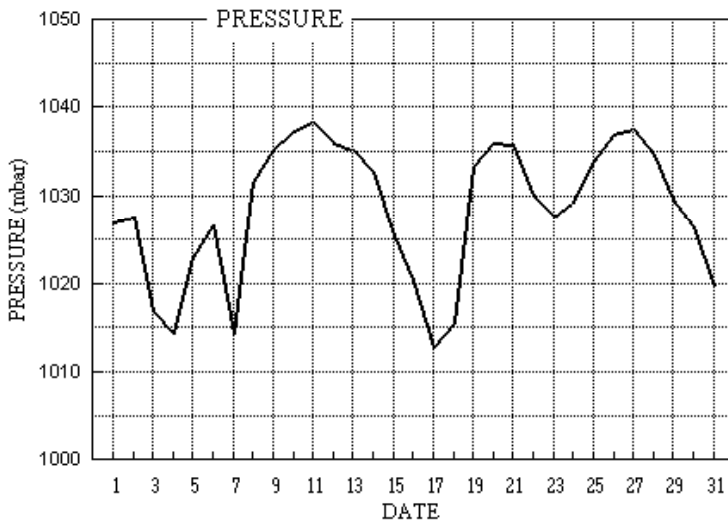
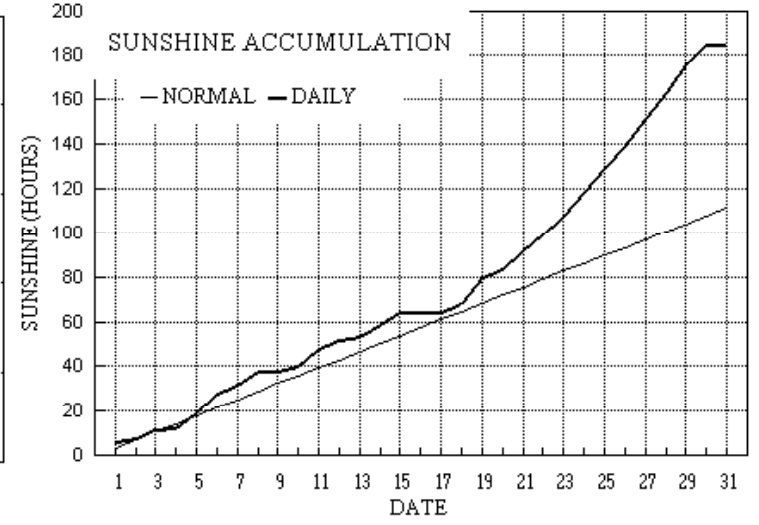
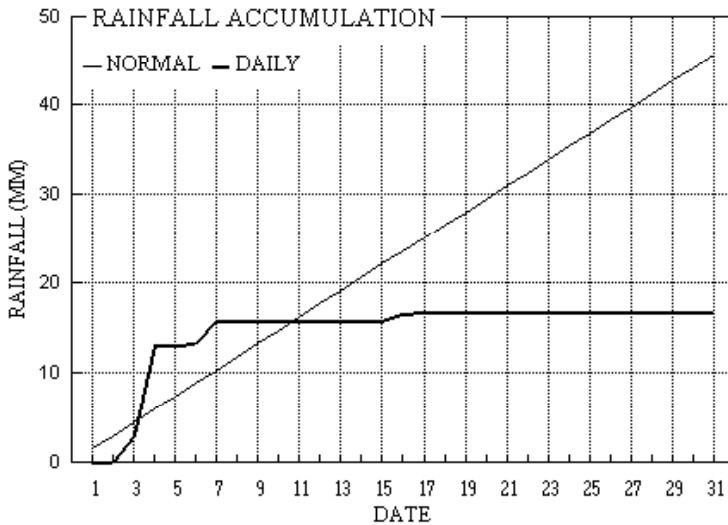
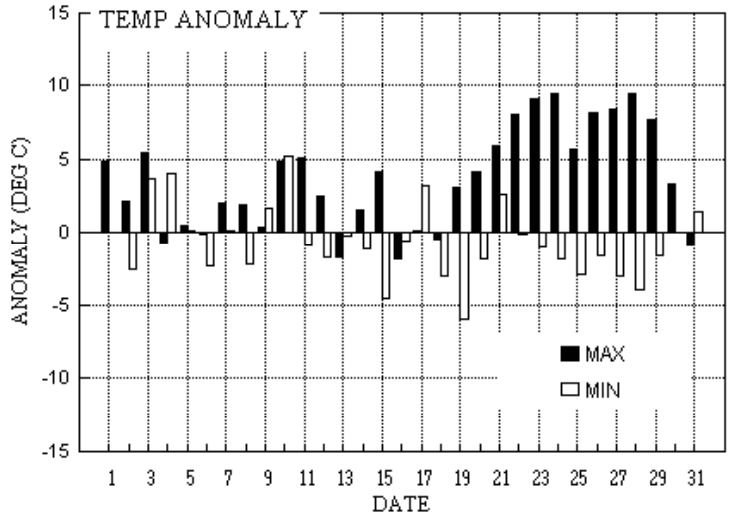
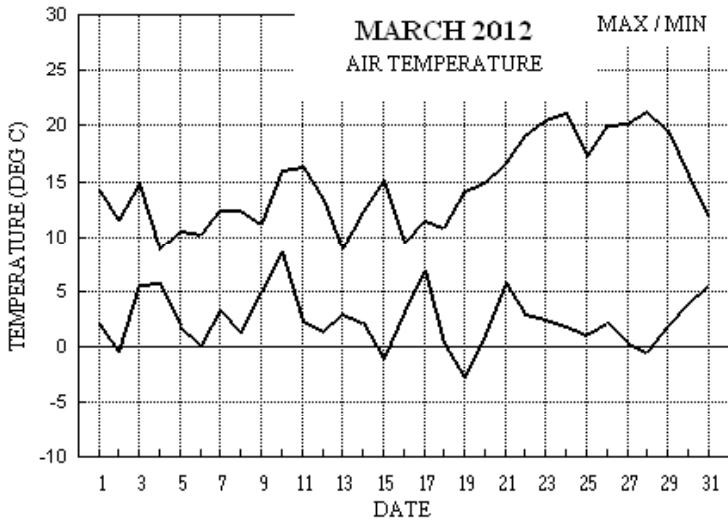
Table 1. Mean anomalies (max, min, rain, sun) for specified periods.

From the 1 st to the 10 th				From the 11 th to the 20 th				From the 21 st to the			
+2.1°	+0.8°	109%	114%	+1.7°	-1.7°	7%	120%	+6.7°	-1.1°	0%	256%

B J Burton FRMetS.

Hon. Met. Officer to Wokingham Town Council.

Wokingham climatological graphs for March 2012



Month: MARCH 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	14.1	2.0	tr	-2.4	7.8	7.7	6.1	0.0	1027.0	0 1 0 0	0 0 0 1	0 0 0 1	268	1.1 2.3	302 10 1522	314 5 15	0.0
2	11.5	-0.5	tr	-3.7	7.5	7.8	1.6	0.3	1027.5	1 1 0 0	0 0 0 1	0 0 0 1	68	2.1 2.7	81 14 1754	80 7 17	0.0
3	14.8	5.6	3.0	5.6	7.6	7.9	4.2	0.0	1016.9	0 0 0 0	0 0 0 0	0 0 0 0	209	5.9 6.5	241 27 1326	233 12 13	4.6
4	8.9	5.7	10.2	1.7	7.7	8.0	0.5	0.0	1014.3	0 0 1 0	0 0 0 0	0 0 0 0	276	4.4 8.2	304 28 1906	304 14 19	6.4
5	10.5	1.8	0.0	1.0	7.2	8.0	7.4	0.0	1022.9	0 0 0 0	0 0 0 0	0 0 0 0	312	10.5 11.0	314 31 0915	318 15 10	0.0
6	10.3	0.1	0.2	-5.5	6.7	8.0	8.5	0.0	1026.7	0 1 0 0	0 0 0 0	0 0 0 0	300	2.5 5.3	342 16 0313	330 8 01	0.2
7	12.5	3.2	2.5	-2.7	6.7	8.0	3.4	0.0	1014.4	0 1 0 0	0 0 0 0	0 0 0 0	245	8.4 10.7	308 32 1404	294 14 15	2.2
8	12.4	1.2	0.0	-4.5	6.7	7.9	6.3	0.0	1031.5	0 1 0 0	0 0 0 0	0 0 0 0	251	4.8 5.1	303 16 1115	264 9 00	0.0
9	11.2	4.9	0.0	1.0	6.9	7.9	0.1	0.0	1035.1	0 0 0 0	0 0 0 0	0 0 0 0	237	6.6 6.7	224 20 1024	238 10 11	0.0
10	16.0	8.6	0.0	7.7	7.5	7.9	2.6	0.0	1037.3	0 0 0 0	0 0 0 0	0 0 0 0	277	4.7 5.1	266 15 0036	258 7 00	0.0
11	16.3	2.3	0.0	-2.0	7.9	7.9	7.3	0.0	1038.4	0 1 0 0	0 0 0 0	0 0 0 0	316	2.0 2.7	325 11 1051	341 6 09	0.0
12	13.4	1.4	tr	-3.1	7.9	8.0	4.1	0.0	1035.9	0 1 0 0	0 0 0 1	0 0 0 1	338	1.0 2.0	263 7 1633	278 4 16	0.0
13	8.9	2.9	tr	-2.3	8.0	8.1	1.7	0.0	1035.2	0 1 0 0	0 0 0 0	0 0 0 0	41	2.2 2.6	35 9 1217	17 4 16	0.0
14	12.3	2.2	tr	-2.8	7.9	8.2	5.1	0.0	1032.6	0 1 0 0	0 0 0 0	0 0 0 0	106	1.7 2.5	71 9 0425	105 4 02	0.0
15	15.1	-1.1	0.0	-6.1	7.7	8.3	5.1	3.1	1025.5	1 1 0 0	0 0 0 1	0 0 0 1	256	1.6 3.4	206 13 1407	255 7 23	0.0
16	9.4	3.1	0.6	5.4	8.2	8.3	0.0	0.0	1020.3	0 0 0 0	0 0 0 0	0 0 0 0	229	6.0 6.1	208 16 0739	207 8 20	0.7
17	11.5	6.8	0.3	3.1	8.2	8.3	0.0	0.0	1012.7	0 0 0 0	0 0 0 0	0 0 0 0	209	5.2 5.6	202 16 0957	194 8 09	0.5
18	10.9	0.3	tr	-5.4	8.2	8.4	4.4	0.0	1015.4	0 1 0 0	0 0 0 0	0 0 0 0	330	2.2 4.2	24 18 1542	16 9 15	0.0
19	14.1	-2.8	0.0	-8.2	7.9	8.5	11.2	6.6	1033.2	1 1 0 0	0 0 0 0	0 0 0 0	247	4.4 4.7	274 17 1611	262 8 16	0.0
20	14.9	1.1	0.0	-4.5	7.8	8.5	4.4	0.0	1035.9	0 1 0 0	0 0 0 0	0 0 0 0	250	3.4 3.9	264 16 1331	268 7 13	0.0
21	16.7	5.7	0.0	-0.4	8.2	8.4	8.0	0.0	1035.8	0 1 0 0	0 0 0 0	0 0 0 0	58	3.4 3.7	72 15 1523	71 7 16	0.0
22	19.1	3.0	0.0	-2.7	8.5	8.4	7.4	0.0	1029.9	0 1 0 0	0 0 0 0	0 0 0 0	63	5.4 5.5	69 20 1724	66 9 14	0.0
23	20.5	2.4	0.0	-1.7	8.6	8.5	8.1	0.0	1027.5	0 1 0 0	0 0 0 1	0 0 0 1	178	0.2 2.0	278 11 1535	221 5 16	0.0
24	21.1	1.8	0.0	-2.5	8.9	8.6	11.2	0.0	1029.1	0 1 0 0	0 0 0 0	0 0 0 0	64	2.7 3.0	62 14 1503	54 6 13	0.0
25	17.3	1.1	0.0	-4.0	9.1	8.7	10.5	0.0	1033.8	0 1 0 0	0 0 0 0	0 0 0 0	56	3.7 3.8	67 14 1354	70 8 13	0.0
26	20.0	2.1	0.0	-3.9	9.0	8.8	10.4	0.0	1036.9	0 1 0 0	0 0 0 0	0 0 0 0	61	4.2 4.4	62 17 1224	61 8 14	0.0
27	20.2	0.3	0.0	-5.4	9.0	8.9	12.1	0.0	1037.5	0 1 0 0	0 0 0 0	0 0 0 0	63	3.1 3.5	58 14 1306	59 7 12	0.0
28	21.3	-0.5	0.0	-5.2	9.0	9.0	12.0	1.3	1034.7	1 1 0 0	0 0 0 0	0 0 0 0	4	1.0 2.0	359 10 1710	9 5 16	0.0
29	19.6	1.8	0.0	-3.8	9.2	9.0	12.0	0.0	1029.5	0 1 0 0	0 0 0 0	0 0 0 0	324	2.5 3.7	319 14 0846	355 7 14	0.0
30	15.5	3.9	0.0	-2.0	9.3	9.1	9.1	0.0	1026.4	0 1 0 0	0 0 0 0	0 0 0 0	309	3.1 3.4	316 12 1533	297 6 16	0.0
31	11.8	5.6	0.0	-1.0	9.5	9.2	0.0	0.0	1019.5	0 1 0 0	0 0 0 0	0 0 0 0	22	5.4 6.3	33 21 1500	34 9 13	0.0
Total			16.8				184.8	11.3									14.6
Mean	14.6	2.5		-1.9	8.1	8.3	5.96	0.4	1028.4					286	1.2 4.6		
Anom	+3.4	-0.7	37%	-1.8	+1.0	+0.8	166%		+12.5								
Daily mean		8.5															
Anom		+1.3															

Number of days with:

Air frost = 4 Ground frost = 24 Nil sun = 3
Snow falling = 1 Snow lying = 0 Thunder = 0
Hail=>5mm = 0 Hail<5mm or ice = 0 Fog at 09GMT = 5

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 March 2012

Date	VV	N	dd	ff	gg	TT	TdTd	RH	r	PPP	a	ppp	ww	W1	W2	Nh	Cl	h	Cr	Cf	NCh	shs	NCh	shs	NCh	shs	Date	Remarks
1	01	9	24	03	07	4.3	4.2	99	5.1	1027.0	1	017	45	4	4	9	/	/	/	/	/	/	/	/	/	1	vv100m	
2	00	9	06	02	07	5.7	5.7	100	5.7	1027.5	0	000	45	4	2	9	/	/	/	/	/	/	/	/	/	2	vv 90m	
3	40	8	19	06	13	9.4	7.3	87	6.3	1016.9	6	002	50	5	2	8	5	4	/	/	82710	86713	88640		3			
4	58	8	18	05	12	7.9	7.1	95	6.2	1014.3	6	025	63	6	6	6	5	2	2	/	82705	86612	88530		4			
5	82	3	30	11	26	5.4	0.7	72	3.9	1022.9	2	006	03	0	0	3	8	5	0	1	81820	83628			5	1Ci70 Cu fra		
6	62	4	33	03	12	3.2	-0.1	79	3.7	1026.7	2	015	03	1	1	3	5	6	0	1	81630	83640			6	2Ci75 Hoar slt		
7	40	8	21	12	26	7.9	6.3	90	5.9	1014.4	7	033	50	5	2	8	5	3	/	/	82707	86710	88615		7			
8	65	7	24	03	10	4.9	1.3	77	4.1	1031.5	2	024	01	2	2	1	0	9	4	8	81363	87280			8	COTRA		
9	78	8	23	08	17	8.8	4.0	72	4.9	1035.1	2	008	02	2	2	8	5	5	/	/	81625	88630			9			
10	58	8	26	05	11	9.3	8.1	92	6.5	1037.3	3	015	05	2	2	8	6	2	/	/	87705	88707			10			
11	67	7	31	03	06	9.3	8.3	93	6.6	1038.4	0	004	01	1	1	7	5	4	/	/	81615	87618			11			
12	02	9	32	03	06	5.4	5.4	100	5.6	1035.9	1	006	43	4	4	9	/	/	/	/	/	/	/	/	/	12		
13	11	8	03	03	06	6.8	6.4	97	5.8	1035.2	2	004	51	5	4	8	6	1	/	/	88702				13	vv800 @0805		
14	35	8	12	04	07	4.8	3.3	90	4.7	1032.6	0	002	05	2	2	8	6	3	/	/	88706				14			
15	01	9	05	01	04	3.1	3.1	100	4.7	1025.5	7	003	43	4	4	9	/	/	/	/	/	/	/	/	/	15	vv120	
16	59	8	23	07	15	8.1	3.9	75	5.0	1020.3	0	001	05	2	2	8	5	4	/	/	86618	88622			16			
17	35	8	18	06	11	9.2	8.0	92	6.6	1012.7	7	006	60	6	2	7	5	3	2	/	82708	83640	86650		17	8As58		
18	13	8	25	03	08	3.7	3.2	96	4.8	1015.4	2	024	28	4	1	8	6	0	/	/	83701	88702			18			
19	81	0	24	04	07	6.1	2.5	78	4.5	1033.2	2	020	02	0	0	0	0	9	0	0					19			
20	75	5	22	05	09	9.0	5.9	81	5.5	1035.9	2	008	01	2	2	5	5	6	4	0	85630				20	1Ac62		
21	82	7	07	03	08	9.6	4.6	71	5.1	1035.8	2	008	02	2	2	7	5	6	/	/	85642	87645			21			
22	38	5	06	07	13	9.9	6.2	78	5.8	1029.9	7	003	05	1	1	4	0	9	7	1	82361	83363			22	3Ci80 COTRA		
23	01	9	29	01	03	6.7	6.7	100	6.7	1027.5	2	010	43	4	0	9	/	/	/	/	/	/	/	/	/	23	vv150m	
24	22	3	03	03	05	10.1	8.2	88	6.6	1029.1	2	010	05	0	0	0	0	9	0	1	83080				24	COTRA		
25	62	5	06	05	08	9.5	6.1	79	5.8	1033.8	2	013	02	1	1	0	0	9	0	1	81075	85080			25	COTRA		
26	56	1	04	04	05	8.1	6.1	87	5.7	1036.9	0	006	05	4	1	0	0	9	0	1	81075				26			
27	70	0	05	04	07	10.7	3.8	62	4.9	1037.5	2	004	02	0	0	0	0	9	0	0					27			
28	70	1	05	02	03	12.2	1.9	49	4.1	1034.7	7	004	02	0	0	0	0	9	0	1	81080				28	COTRA El hz lyr NW vv30k ex NW		
29	60	6	34	07	14	12.1	3.5	56	4.8	1029.5	0	000	05	1	1	0	0	9	0	1	81170	86075			29	COTRA		
30	40	7	34	04	09	8.8	5.8	81	5.7	1026.4	2	006	05	1	1	7	6	3	/	/	82709	87712			30			
31	65	8	04	08	17	9.5	5.1	74	5.4	1019.5	2	013	02	2	2	8	8	4	/	/	81818	85630	88635		31	Cu hum		

Mean vis = 11.2 km

Mean cloud = 6.1 76%

Mean wind speed = 4.7 kn

Mean gust = 10 kn

Mean TT = 7.7 °C

Mean TdTd = 4.9 °C

Mean RH = 83.5 %

Mean r = 5.4 g/kg

Mean PPP = 1028.4 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.

Weather observations. Emmbrook, Wokingham, Berkshire.

Observations at 1500 GMT for March 2012

Date	VV	N	dd	ff	gg	TT	TdTd	RH	r	PPP	a	pppww	W1W2	NhCl	hCrCl	NChshs	NChshs	NChshs	Date	Remarks					
1	58	3	36	02	06	13.6	6.1	60	5.8	1026.3	6	009	05	1	1	0	0	9	0	1	83078	1	COTRA		
2	25	5	03	02	06	10.2	8.7	90	6.9	1024.1	7	024	05	2	2	1	0	9	3	2	81367	85070	2	Ci flo	
3	70	5	24	11	21	12.9	2.7	50	4.5	1017.9	2	004	15	1	1	5	2	6	6	0	85845		3	1Ac58 Cu con W jpW vv40k ex W	
4	57	8	31	09	18	3.2	2.0	92	4.4	1015.0	1	018	61	7	6	7	7	3	2	/	82709	87712	88515	4	
5	82	4	33	13	28	9.3	-2.4	44	3.2	1022.3	5	004	02	1	1	3	1	6	0	2	83845			5	2Ci75
6	83	5	25	02	08	9.7	-0.8	48	3.4	1025.6	7	009	02	1	1	1	4	6	0	1	81838	85075		6	1Sc40 COTRA Cu hum
7	81	2	28	12	32	10.9	3.1	59	4.7	1013.5	3	026	25	8	1	2	8	6	6	0	81830			7	1Sc56 1Ac60 Cu med jpN
8	75	6	26	06	12	11.3	0.7	48	4.0	1032.6	1	002	03	1	1	6	8	6	0	0	82844	86650		8	Cu hum
9	72	8	24	07	15	10.5	6.2	75	5.7	1034.2	6	007	02	2	2	8	5	5	/	/	87620	88625		9	
10	70	2	27	04	13	15.3	8.7	65	6.8	1036.3	7	018	02	1	1	2	1	5	0	1	82825			10	1Ci75 COTRA Cu hum
11	72	5	31	02	10	15.8	6.9	55	6.1	1036.1	6	017	02	1	1	0	0	9	0	1	85080			11	COTRA
12	58	3	01	02	05	11.9	9.4	85	7.1	1034.5	7	015	05	1	1	0	0	9	0	1	83080			12	COTRA
13	57	8	07	04	09	8.4	5.9	84	5.6	1034.4	8	012	05	2	2	8	6	4	/	/	86710	88713		13	
14	58	7	04	02	06	10.9	4.3	64	5.0	1030.1	8	021	05	2	2	0	0	9	0	1	87080			14	COTRA
15	40	2	28	04	12	13.8	11.2	84	8.2	1022.3	6	023	05	1	1	1	1	4	0	1	81812			15	2Ci78 COTRA Cu fra Sky turbid
16	65	8	24	06	13	9.0	4.5	73	5.2	1017.3	6	020	02	2	2	8	5	5	/	/	86620	88625		16	
17	82	8	25	06	13	11.2	5.6	68	5.6	1011.3	6	014	02	6	2	3	8	5	7	/	82822	83360	88462	17	1Sc40 Cu med
18	82	7	36	08	15	8.4	2.8	68	4.6	1019.1	3	020	15	8	2	7	8	5	/	/	82820	86650		18	Absent vv&cld est
19	84	2	25	09	17	13.5	-0.6	38	3.6	1032.8	8	007	01	1	1	2	4	7	0	0	81850			19	2Sc50 Cu hum
20	81	6	29	07	13	14.3	4.0	50	4.9	1034.1	7	012	02	2	2	6	8	6	3	/	81840	86642		20	/Ac62
21	62	1	06	06	14	16.2	2.8	41	4.7	1032.3	6	025	02	0	0	1	1	6	0	0	81848			21	Cu hum
22	59	3	07	08	18	18.6	2.3	34	4.5	1026.8	7	018	05	1	1	3	0	9	8	1	83365			22	1Ci80 Ac cas vir
23	61	6	27	05	10	18.9	6.5	44	5.9	1025.7	7	014	02	2	2	1	2	7	3	1	81850	86075		23	1Ac68 COTRA Cu med Parhelion+U/a cont
24	61	2	06	06	13	20.4	4.6	35	5.2	1027.5	7	011	02	0	0	0	0	9	0	1	82080			24	COTRA
25	77	7	08	06	13	17.1	3.1	39	4.5	1033.2	8	005	02	2	2	0	0	9	0	1	87078			25	COTRA
26	81	0	07	08	16	19.4	1.8	31	4.4	1035.2	7	011	02	0	0	0	0	9	0	0				26	
27	80	0	05	06	12	19.7	1.0	29	4.0	1035.1	7	016	02	0	0	0	0	9	0	0				27	Absent vv&cld est
28	72	0	07	01	08	20.9	1.2	27	4.1	1030.5	8	022	02	0	0	0	0	9	0	0				28	
29	64	5	33	07	12	19.2	4.4	38	5.1	1026.7	8	018	02	1	1	0	0	9	0	1	81072	85078		29	COTRA
30	50	2	28	05	10	15.0	7.6	61	6.3	1023.3	7	021	05	1	1	0	0	9	0	1	82080			30	COTRA
31	70	7	03	13	21	11.3	3.6	59	4.8	1020.1	8	001	02	2	2	7	8	6	/	/	83830	87645		31	Cu hum

Mean vis = 21.0 km
 Mean cloud = 4.4 55%
 Mean wind speed = 6.1 kn
 Mean gust = 14 kn
 Mean TT = 13.6 °C
 Mean TdTd = 4.1 °C
 Mean RH = 56.1 %
 Mean r = 5.1 g/kg
 Mean PPP = 1027.0 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-Mar	02-Mar	03-Mar	04-Mar	05-Mar	06-Mar	07-Mar	08-Mar	09-Mar	10-Mar	11-Mar	12-Mar	13-Mar	14-Mar	15-Mar	16-Mar
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6	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
	7	0.00	0.00	0.00	0.00	0.46	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8	0.00	0.00	0.00	0.00	0.67	0.81	0.00	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	0.00	0.00	0.00	0.00	0.47	0.43	0.00	1.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00
	10	0.00	0.00	0.09	0.00	0.53	0.64	0.00	1.00	0.03	0.00	0.17	0.00	0.00	0.00	0.00	0.00
	11	0.60	0.00	0.40	0.00	0.87	0.98	0.04	0.82	0.00	0.02	0.93	0.00	0.00	0.00	0.01	0.00
	12	1.00	0.00	0.75	0.00	0.75	0.61	0.32	0.65	0.00	0.04	0.98	0.00	0.00	0.27	0.91	0.00
	13	1.00	0.00	0.99	0.00	0.61	0.76	0.23	0.36	0.00	0.69	1.00	0.32	0.00	0.97	1.00	0.00
	14	1.00	0.27	0.52	0.00	0.72	1.00	0.49	0.26	0.00	0.45	1.00	1.00	0.00	1.00	1.00	0.00
	15	1.00	0.60	0.25	0.00	0.72	1.00	0.71	0.52	0.00	0.68	1.00	1.00	0.19	1.00	1.00	0.00
	16	1.00	0.76	0.56	0.02	0.99	1.00	0.89	0.78	0.00	0.59	1.00	1.00	1.00	1.00	1.00	0.00
	17	0.50	0.00	0.62	0.46	0.61	0.53	0.74	0.25	0.00	0.13	0.73	0.79	0.54	0.84	0.16	0.00
	18	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
	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		6.09	1.62	4.19	0.48	7.40	8.51	3.41	6.30	0.04	2.58	7.30	4.11	1.73	5.07	5.07	0.00

Hour	17-Mar	18-Mar	19-Mar	20-Mar	21-Mar	22-Mar	23-Mar	24-Mar	25-Mar	26-Mar	27-Mar	28-Mar	29-Mar	30-Mar	31-Mar	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	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	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
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.37	0.41	0.00	0.00	0.36	0.00	0.16	0.52	0.00	0.87	0.84	0.83	0.72	0.00	0.16
7	0.00	0.96	1.00	0.00	0.00	0.78	0.00	1.00	1.00	0.09	1.00	1.00	1.00	1.00	0.00	0.32
8	0.00	0.01	1.00	0.08	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.47	0.00
9	0.00	0.02	1.00	1.00	0.44	0.10	0.17	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.36
10	0.00	0.82	1.00	0.71	0.98	0.42	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.30	0.00	0.44
11	0.00	0.55	0.95	0.07	0.96	0.17	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.50
12	0.00	0.66	0.93	0.23	0.71	0.43	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.56
13	0.00	0.31	0.83	0.36	0.91	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.62
14	0.00	0.12	0.83	0.45	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.65
15	0.00	0.06	0.98	0.24	1.00	1.00	1.00	1.00	0.93	1.00	1.00	1.00	1.00	1.00	0.00	0.67
16	0.00	0.33	1.00	0.40	1.00	0.99	1.00	1.00	0.04	1.00	1.00	1.00	1.00	1.00	0.00	0.72
17	0.00	0.20	1.00	0.89	1.00	0.14	0.84	1.00	0.60	1.00	1.00	1.00	1.00	0.63	0.00	0.55
18	0.00	0.00	0.27	0.01	0.04	0.00	0.10	0.08	0.38	0.29	0.28	0.21	0.18	0.00	0.00	0.06
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	0.00	4.41	11.20	4.44	8.04	7.40	8.08	11.22	10.46	10.36	12.13	12.02	11.98	9.11	0.00	184.77

March 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	6.42	13.9	1457	2.1	2348	87.5	98.5	1110	57.2	1619	4.29	5.13	7.5	1237	4.1	2347	1026.54	1028.7	2331	1024.5	307	0.1
2	5.54	11.1	1602	-0.3	607	93.1	98.3	1055	80.2	1627	4.49	5.25	7.1	1448	3.6	607	1025.28	1028.5	0	1019.9	2357	0.0
3	9.25	14.7	1313	5.7	2256	79.2	96.1	259	37.8	1339	5.44	5.60	7.3	1107	3.7	1348	1018.61	1021.3	2251	1016.8	846	0.4
4	5.61	8.9	1037	1.7	1345	86.2	94.8	903	67.9	2140	3.42	4.92	6.6	1033	3.3	2142	1016.94	1021.3	2349	1012.2	1124	11.9
5	5.74	10.6	1431	2.8	2356	63.9	80.8	2339	41.5	1602	-0.82	3.54	4.1	1056	3.0	1604	1022.88	1025.2	2359	1021.0	9	0.0
6	4.96	10.0	1248	0.0	525	68.9	87.3	629	40.0	1656	-0.62	3.59	4.5	2359	2.7	1656	1025.54	1027.2	1013	1023.5	2359	0.0
7	7.77	12.2	1223	3.4	2351	72.9	94.5	1124	45.9	1610	2.97	4.80	7.5	1156	3.1	1750	1017.61	1024.7	2351	1010.9	1152	2.6
8	6.92	12.6	1434	1.0	302	67.2	84.3	639	42.1	1238	0.97	4.01	4.7	1145	3.3	302	1031.33	1035.2	2321	1024.6	0	0.0
9	9.38	11.2	1707	5.9	25	74.9	84.3	2359	66.6	1056	5.16	5.38	6.3	2359	4.4	25	1034.87	1035.9	2215	1034.1	1447	0.0
10	11.16	16.1	1535	8.1	2355	81.0	93.2	806	61.8	1538	7.90	6.46	7.3	1336	5.7	2355	1036.89	1038.4	1024	1035.3	417	0.0
11	8.99	16.2	1541	2.5	525	81.2	97.0	746	52.8	1549	5.61	5.55	7.0	950	4.2	525	1037.03	1038.5	123	1035.4	1609	0.0
12	6.31	13.3	1551	1.7	427	92.5	98.5	1031	70.3	1601	5.13	5.40	7.5	1444	4.0	428	1035.17	1036.2	1004	1033.9	1559	0.0
13	6.56	8.8	1603	2.5	2219	93.2	97.5	839	81.8	1606	5.53	5.51	6.0	251	4.2	2218	1034.56	1035.6	1009	1033.5	1916	0.0
14	6.03	12.3	1559	0.6	2358	84.8	96.3	42	58.1	1600	3.51	4.80	5.5	1521	3.7	2359	1031.06	1033.6	0	1028.5	2351	0.0
15	6.39	14.2	1538	-0.9	350	90.4	98.8	1025	73.3	1654	4.84	5.47	8.4	1434	3.4	213	1024.42	1028.6	10	1021.6	1700	0.1
16	8.46	9.2	1350	7.7	736	75.5	83.7	2356	70.7	1331	4.39	5.16	5.8	2347	4.7	750	1018.72	1022.6	7	1015.0	2358	0.0
17	8.85	11.5	1440	5.1	2359	83.1	92.2	901	64.2	1518	6.09	5.86	6.9	1018	4.9	2359	1012.56	1015.2	3	1010.2	1706	0.9
18	4.85	10.9	1259	0.1	2328	84.8	97.2	703	58.1	1301	2.34	4.48	6.0	1029	3.5	2328	1018.18	1028.0	2357	1011.5	16	0.1
19	5.99	14.2	1437	-2.4	609	69.0	97.3	636	33.4	1447	-0.16	3.69	4.8	1058	3.0	609	1032.57	1035.5	2224	1027.9	6	0.1
20	8.44	15.1	1446	1.3	251	73.9	93.2	353	46.8	1447	3.71	4.86	6.1	955	3.7	246	1034.98	1036.0	815	1033.6	1720	0.0
21	10.14	16.6	1429	4.2	2355	67.9	86.7	2359	37.8	1539	4.11	4.99	6.4	1134	4.2	1539	1033.84	1036.0	912	1031.2	1707	0.0
22	10.16	19.0	1402	3.0	509	68.5	94.0	648	31.8	1409	3.71	4.89	6.2	1024	3.8	1759	1028.68	1032.2	4	1026.1	1623	0.0
23	9.94	20.2	1431	2.6	435	77.9	98.5	945	35.6	1423	5.49	5.58	8.4	1156	4.3	435	1026.58	1027.7	923	1025.2	1634	0.0
24	10.62	20.9	1340	2.1	551	71.1	96.6	737	30.5	1403	4.60	5.23	7.7	1123	4.1	551	1028.50	1031.3	2323	1027.0	1635	0.0
25	8.72	17.3	1500	1.3	457	72.6	96.9	629	33.9	1235	3.24	4.70	5.9	853	3.9	1235	1033.45	1035.9	2355	1031.2	1	0.0
26	9.77	19.8	1339	2.3	451	68.8	96.5	717	24.7	1543	3.00	4.63	6.9	1124	3.2	1543	1036.08	1037.3	945	1034.8	1629	0.0
27	9.65	20.2	1444	0.6	606	63.4	96.3	640	22.8	1538	1.58	4.17	6.0	1144	3.1	1538	1036.09	1037.6	818	1034.2	1641	0.0
28	10.43	21.4	1522	0.0	601	59.7	93.6	612	20.0	1600	1.06	4.04	5.3	1317	2.9	1107	1032.50	1035.3	1	1029.7	1636	0.0
29	11.15	19.7	1427	2.3	500	63.7	93.0	503	33.2	1428	3.65	4.87	6.0	1145	4.0	618	1028.06	1030.1	49	1025.8	1757	0.0
30	9.55	15.4	1422	3.8	544	77.4	94.3	639	58.6	1424	5.63	5.61	6.8	1135	4.5	543	1024.17	1026.9	8	1020.1	2359	0.0
31	8.13	11.9	1313	1.6	2349	71.7	85.5	206	56.4	1504	3.21	4.79	6.0	819	3.3	2235	1020.42	1024.0	2319	1018.0	517	0.0
Total																						16.2
Mean	8.12	14.49		2.34		76.3	93.41		49.53		3.66	4.93	6.40		3.79		1027.87	1030.66		1025.07		
Max	11.16	21.36		8.07		93.2	98.80		81.80		7.90	6.46	8.40		5.66		1037.03	1038.50		1035.42		
Min	4.85	8.84		-2.37		59.7	80.80		19.96		-0.82	3.54	4.11		2.70		1012.56	1015.24		1010.20		

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.