

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

MAY 2014

Temperature (°C / °F)			Anomaly	Rank in the past 133 years			
Mean maximum	17.6	63.7	+0.1	53 rd highest			
Mean minimum	8.2	46.8	+0.7	12 th highest			
Daily mean	12.9	55.2	+0.4	33 rd highest			
Highest maximum	25.7	78.3	on 19 th	Lowest maximum	13.2	55.8	on 2 nd
Highest minimum	13.3	55.9	on 20 th	Lowest minimum	-1.1	30.0	on 3 rd
Mean grass minimum	6.0	42.8	+1.7	Lowest grass minimum	-4.3	24.3	on 3 rd
Mean earth @30 cm	14.7	58.5	+1.2	Earth @100 cm	13.0	55.4	
Frost duration (hrs)	2.0			Rain duration (hrs)	54.2		
Rainfall total (mm / in)	64.0	2.52	127 %	35 th highest			
Highest daily fall	11.1	0.44	on 23 rd				
Number of: Dry days (<0.2mm)	13	Wet days (>0.9mm)	14	days ≥5mm	4		
Sunshine total (hrs)	173.2	Daily mean	5.59	91 %	Sunniest day	14.4	on 18 th
N ^o days with: Air frost	1	Ground frost	3	Snow falling	0	Snow lying	0
Thunder	1	Hail ≥5mm	0	Small hail/ice	1	Fog @09	0
Pressure MSL : Mean @09 GMT, mbar	1015.1	-0.8	Highest	1036.7	on 15 th	Lowest	998.7
Relative humidity : Mean (%)	75.2	Lowest	29	on 19 th	Water vapour (g/kg), mean at 09 and 15 GMT		
Overall mean wind speed (mph)	6.3	Windiest day	13.6	on 10 th	Max gust	46	on 10 th
Wind direction (days)	N 5	NE 3	E 1	SE 2	S 6	SW 7	W 3
Least windy day (mph)	2.3	on 31 st	Calm; less than 0.5 mph (minutes)				1175

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

Notes:

Mild and Wet with Below Average Sunshine

The month divides into 3 parts weatherwise; 1) Up to the 13th: Temperatures near normal by day, though with cold nights from the 3rd to the 5th, and sunshine and rainfall not far from normal. 2) 14th to 19th: Warm, sunny and dry. 3) The rest of the month: Wet, cool and dull.

Temperature: This May's mean is 0.4° above the current 30 year average, and in this millennium 9 Mays have been warmer and 5 colder. The mean maximum is only 0.1° above average, although it is 0.4° above the long-term median. The mean min, however, is 0.7° above average and ranks in the top 10% of values since 1882. The highest max is 0.3° above the median and the lowest max is 1.2° above its median. The highest min is 0.8° above the median but the lowest min is 1.6° below the median, with only 2010 having a lower value since 1997. Fortunately for gardeners, that was an isolated frosty night, and there were only 7 other nights this month with a minimum below normal. The mean grass min is highest since 2008, and is only 0.4° below the record set in 1998, and the number of ground frosts is 3 fewer than average. The mean earth temperature at 30 cm depth is 2nd highest after 1989 in the past 35 years. The mean at 1 m depth is highest only since 2011. **Rainfall:** This has been quite a wet May, with the total highest since 2008, and there were 5 more wet days than average. Rainfall duration is also 15.6 hours above average, and highest since 2007. Despite this, there was a 6 day dry spell ending on the 19th, and only 0.4 mm of rain fell in the 8 days to the 20th. Rainfall on some days was showery in nature, with some brief heavy falls, especially on the 1st, 10th, 12th and 22nd, with the month's highest rainfall rate of 55 mm/hr during a thunderstorm on the 22nd, and small hail fell on the 12th. **Sunshine:** This month's total is lowest since 2007, yet there was a notable sunny period from the 14th to the 19th giving a total of 71.4 hours, an average of 11.9 hours per day. Had daily sunshine been average after the 19th we would have ended the month with a surplus of over 20 hours, but in the event the final 6 days managed only 3.3 hours, including 4 days with nil sun, turning the surplus into a deficit of nearly 20 hours. Overall there were 14 days with <3 hours, 14 with =>6 hours, 9 with =>9 hours and 6 with =>12 hours.

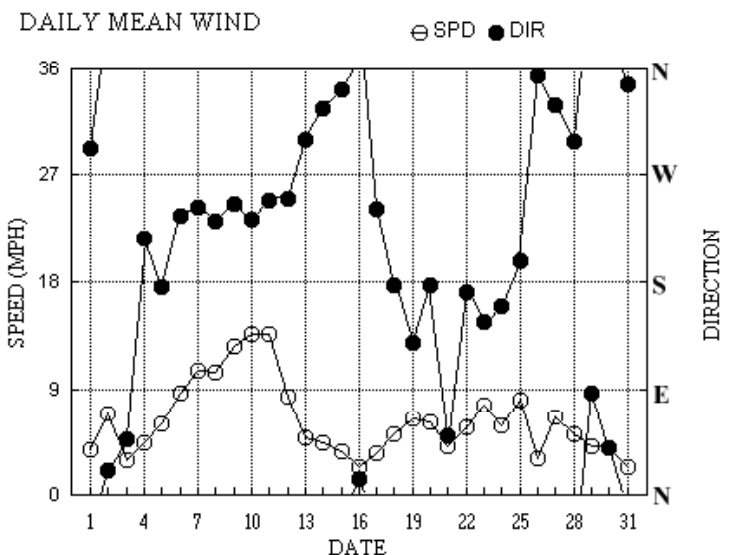
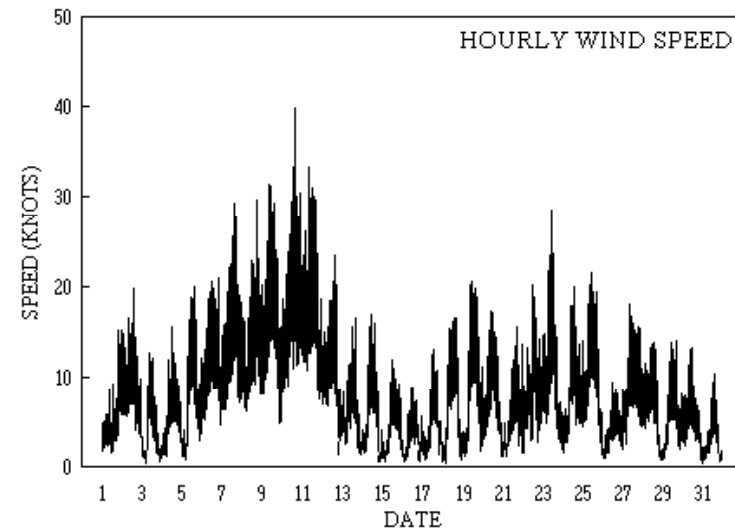
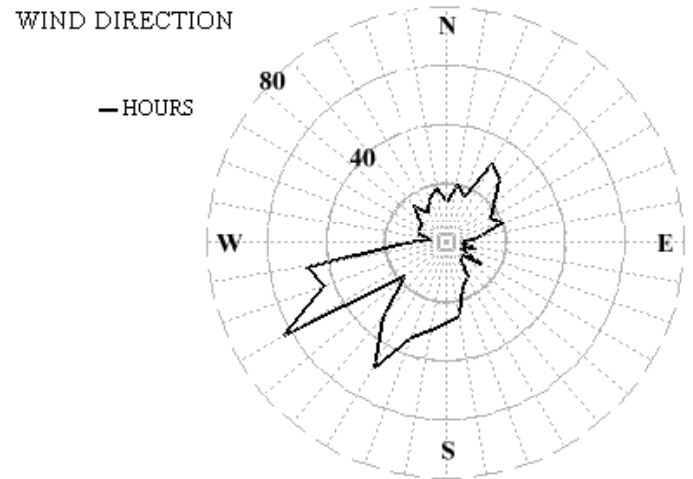
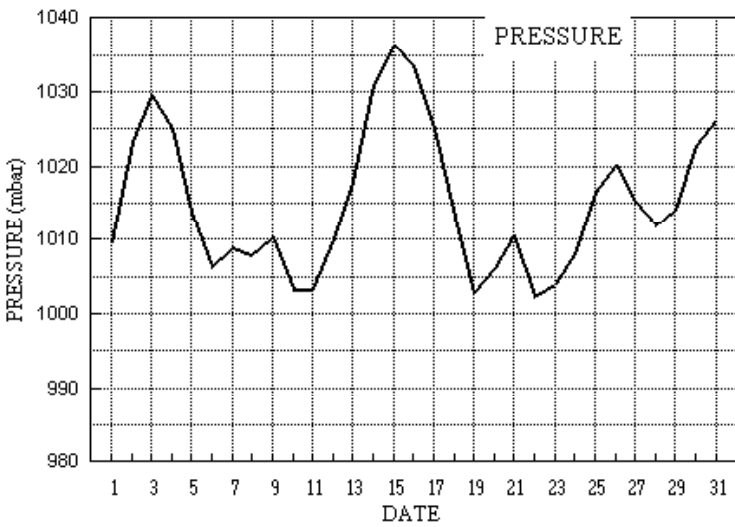
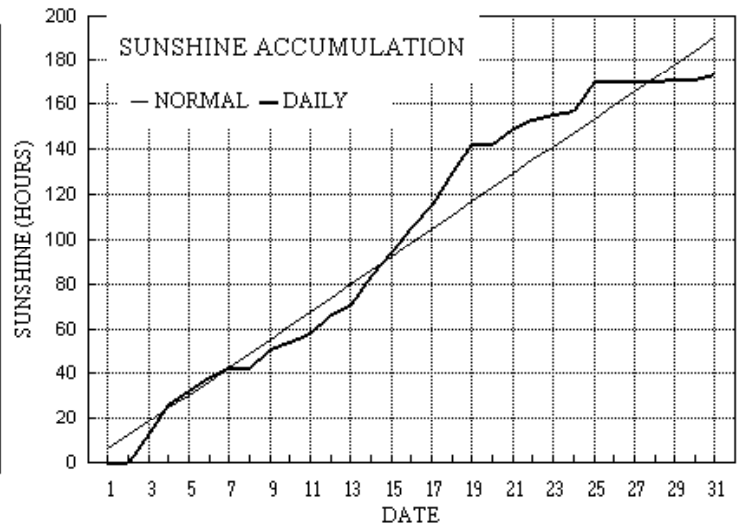
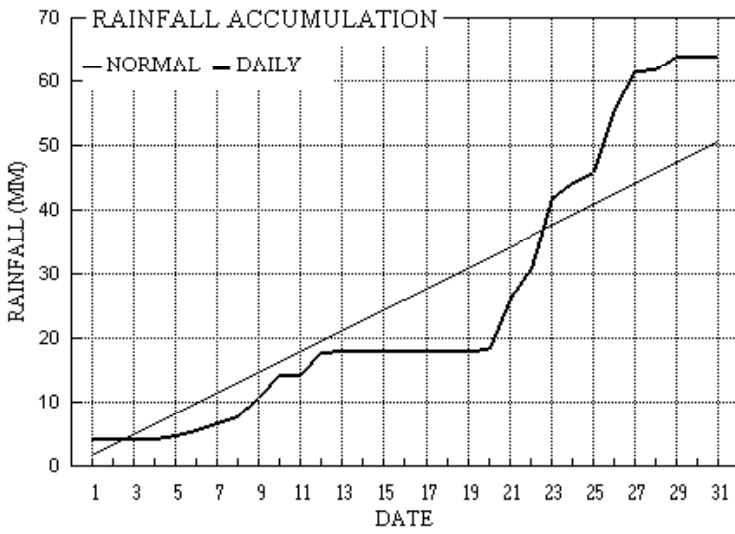
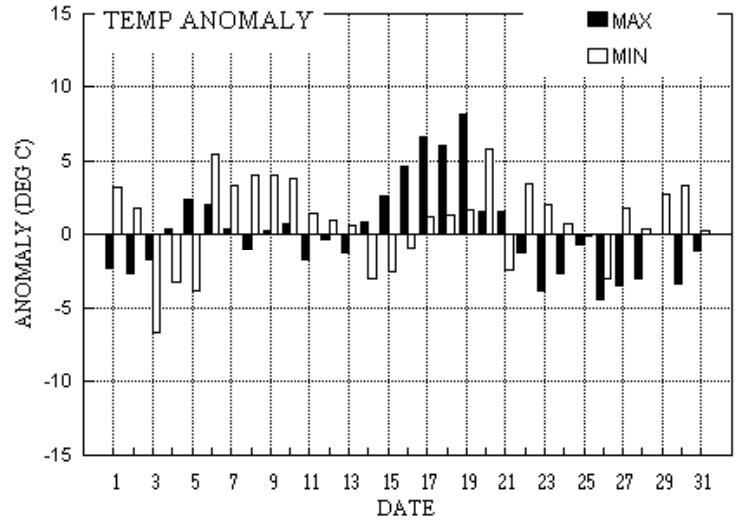
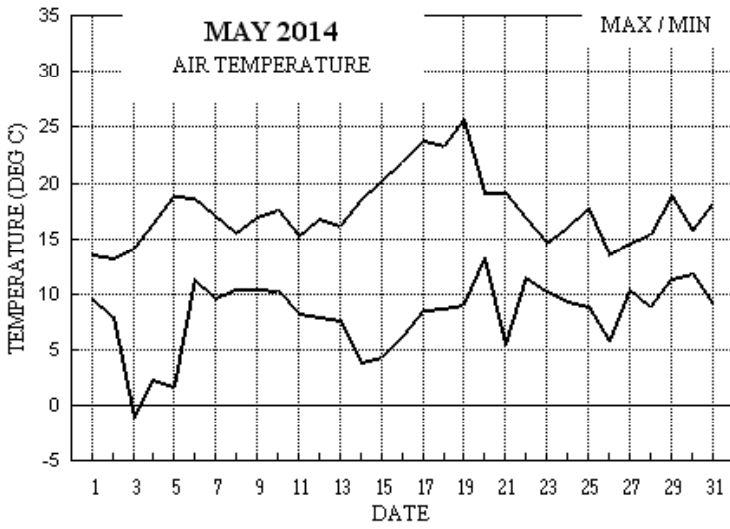
Wind: The mean wind speed this month is 0.3 mph below average, but the month's highest gust of 46 mph on the 10th is second highest after 1996 for May in the past 27 years. The period 7th to the 11th saw fresh or strong winds every day, but speeds were light or moderate for the rest of the month. **Pressure:** The month's highest pressure is 6.8 mbar above average and 3rd highest for May in the past 39 years.

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 31 st			
-0.1°	+1.2°	86%	90%	+2.7°	+0.6°	25%	144%	-2.0°	+0.9°	258%	46%

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

Wokingham climatological graphs for May 2014



Month: MAY 2014

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	Rain HH hrs	
1	13.5	9.6	4.4	7.3	13.0	11.4	0.0	0.0	1009.7	0 0 0 0	0 0 0 0	0 0 0 0	292	0.7	3.3	7 15 2057	13 8 23 5.3	
2	13.2	7.9	0.0	8.1	13.0	11.5	0.1	0.0	1023.2	0 0 0 0	0 0 0 0	0 0 0 0	21	5.9	6.0	27 20 1519	28 9 15 0.0	
3	14.2	-1.1	0.0	-4.3	12.4	11.6	13.5	2.0	1029.6	1 1 0 0	0 0 0 0	0 0 0 0	47	2.0	2.5	66 13 0852	47 6 08 0.0	
4	16.3	2.3	0.0	-0.9	12.8	11.7	12.6	0.0	1025.0	0 1 0 0	0 0 0 0	0 0 0 0	217	3.7	3.9	238 16 1248	216 6 13 0.0	
5	18.8	1.7	0.5	-1.8	13.2	11.7	6.1	0.0	1013.9	0 1 0 0	0 0 0 0	0 0 0 0	175	4.5	5.2	145 20 1450	199 10 12 1.4	
6	18.7	11.4	0.7	10.6	13.5	11.8	6.2	0.0	1006.4	0 0 0 0	0 0 0 0	0 0 0 0	235	7.4	7.6	237 21 2018	233 10 12 0.8	
7	17.2	9.7	1.1	6.9	14.2	11.9	4.1	0.0	1008.9	0 0 0 0	0 0 0 0	0 0 0 0	243	9.0	9.2	254 29 1526	250 14 15 1.0	
8	15.6	10.5	1.2	9.9	14.2	12.1	0.5	0.0	1007.9	0 0 0 0	0 0 0 0	0 0 0 0	231	8.7	9.1	263 30 1737	252 14 17 1.7	
9	17.0	10.5	3.0	8.5	13.9	12.2	7.9	0.0	1010.2	0 0 0 0	0 0 0 0	0 0 0 0	246	10.7	10.9	255 32 0943	256 16 11 2.8	
10	17.6	10.3	3.5	9.7	14.3	12.4	3.5	0.0	1003.2	0 0 0 0	0 0 0 0	0 0 0 0	232	11.4	11.8	261 40 1622	244 16 15 1.3	
11	15.3	8.3	tr	6.9	14.3	12.5	3.7	0.0	1003.3	0 0 0 0	0 0 0 0	0 0 0 0	249	11.7	11.8	254 34 0835	259 14 15 0.0	
12	16.9	7.9	3.5	5.7	13.9	12.6	8.3	0.0	1010.1	0 0 0 0	0 0 1 0	0 0 1 0	250	7.0	7.3	264 24 1448	249 12 13 0.3	
13	16.2	7.7	0.2	5.8	14.2	12.6	4.2	0.0	1017.8	0 0 0 0	0 0 0 0	0 0 0 0	300	3.2	4.2	303 17 1708	312 7 11 0.4	
14	18.6	3.9	0.0	0.9	14.2	12.7	13.1	0.0	1031.0	0 0 0 0	0 0 0 0	0 0 0 0	327	2.8	3.8	312 17 1052	341 8 10 0.0	
15	20.3	4.4	0.0	1.7	14.4	12.8	10.5	0.0	1036.2	0 0 0 0	0 0 0 0	0 0 0 0	343	1.0	3.2	341 12 1241	349 5 12 0.0	
16	22.0	6.2	0.0	3.5	15.1	12.9	11.2	0.0	1033.4	0 0 0 0	0 0 0 0	0 0 0 0	13	0.8	2.1	21 9 1218	17 4 13 0.0	
17	23.8	8.6	0.0	6.0	15.8	13.0	10.1	0.0	1025.1	0 0 0 0	0 0 0 0	0 0 0 0	242	2.5	3.0	271 13 1432	257 6 16 0.0	
18	23.3	8.7	0.0	5.5	16.3	13.3	14.4	0.0	1013.2	0 0 0 0	0 0 0 0	0 0 0 0	177	3.9	4.4	225 17 1449	162 9 17 0.0	
19	25.7	9.0	tr	5.8	16.6	13.5	12.1	0.0	1002.9	0 0 0 0	0 0 0 0	0 0 0 0	129	4.8	5.6	155 21 1107	154 11 11 0.0	
20	19.2	13.3	0.2	9.3	17.0	13.8	0.4	0.0	1006.1	0 0 0 0	0 0 0 0	0 0 0 0	177	4.9	5.4	191 18 1140	172 9 11 0.2	
21	19.2	5.4	7.8	0.9	16.2	14.0	6.9	0.0	1010.6	0 0 0 0	0 0 0 0	0 0 0 0	50	2.9	3.6	31 16 1746	51 6 17 1.8	
22	16.8	11.5	4.7	9.7	16.4	14.1	4.1	0.0	1002.3	0 0 0 0	1 0 0 0	0 0 0 0	171	3.5	4.9	167 20 1337	194 9 15 2.5	
23	14.7	10.3	11.1	8.5	16.1	14.2	2.1	0.0	1003.9	0 0 0 0	0 0 0 0	0 0 0 0	146	6.2	6.6	149 29 1005	163 11 10 5.7	
24	16.1	9.4	2.4	6.2	15.3	14.3	1.7	0.0	1008.0	0 0 0 0	0 0 0 0	0 0 0 0	159	4.1	5.1	157 20 1358	177 8 10 2.1	
25	17.8	8.8	1.6	6.5	15.2	14.3	12.6	0.0	1016.4	0 0 0 0	0 0 0 0	0 0 0 0	198	6.8	7.0	183 22 1040	202 11 11 2.7	
26	13.6	5.7	9.8	1.9	15.4	14.2	0.0	0.0	1020.1	0 0 0 0	0 0 0 0	0 0 0 0	354	2.2	2.6	16 10 1123	352 4 18 13.1	
27	14.6	10.4	5.9	9.3	14.9	14.2	0.0	0.0	1015.3	0 0 0 0	0 0 0 0	0 0 0 0	329	5.4	5.7	353 18 0948	5 8 09 9.4	
28	15.4	8.9	0.1	9.0	14.6	14.2	0.0	0.0	1012.0	0 0 0 0	0 0 0 0	0 0 0 0	298	4.1	4.4	305 14 1402	281 7 10 0.2	
29	18.8	11.3	2.3	11.2	14.5	14.1	1.0	0.0	1014.1	0 0 0 0	0 0 0 0	0 0 0 0	87	2.8	3.6	134 14 1636	149 6 13 1.5	
30	15.8	11.9	tr	12.1	15.3	14.0	0.0	0.0	1022.8	0 0 0 0	0 0 0 0	0 0 0 0	40	3.3	3.4	65 13 1208	58 5 12 0.0	
31	18.2	9.0	tr	6.0	15.3	14.1	2.3	0.0	1026.1	0 0 0 0	0 0 0 0	0 0 0 0	347	1.4	2.0	274 11 1407	319 4 14 0.0	
Total			64.0				173.2	2.0						232	2.3	5.5		54.2
Mean	17.6	8.2		6.0	14.7	13.0	5.59	0.1	1015.1									
Anom	+0.1	+0.7	127%	+1.7	+1.2	+1.2	91%			-0.8								
Daily mean		12.9																
Anom		+0.4																

Number of days with:

Air frost = 1 Ground frost = 3 Nil sun = 5
Snow falling = 0 Snow lying = 0 Thunder = 1
Hail=>5mm = 0 Hail<5mm or ice = 1 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 MAY 2014

Date	VV	N	dd	ff	gg	TT	Td	Td	RH	r	PPP	a	ppp	ww	W1	W2	Nh	Cl	h	Cr	Ci	NCh	shs	NCh	shs	NCh	shs	Date	Remarks
1	25	8	21	03	05	11.2	10.5	95	7.9	1009.7	3	001	58	6	5	8	5	1	/	/	83702	87704	88610					1	
2	70	8	02	07	14	9.3	6.9	85	6.1	1023.2	2	021	02	2	2	7	5	4	/	/	81715	86618	88625					2	
3	82	3	06	06	13	9.9	1.5	56	4.1	1029.6	8	004	03	0	0	1	8	6	0	1	81832	83080					3	1Sc40 COTRA Cu hum	
4	75	7	23	05	12	11.9	4.6	61	5.2	1025.0	7	004	02	2	2	1	0	9	3	1	81366	87073					4	COTRA	
5	65	6	16	09	16	14.7	6.1	56	5.8	1013.9	7	026	03	1	1	3	0	9	8	1	81362	83368	86078					5	COTRA Ac cas
6	80	2	25	09	19	14.7	7.4	62	6.4	1006.4	1	011	03	6	1	2	2	5	0	0	82825						6	Cu med	
7	65	7	24	08	18	12.7	5.9	63	5.8	1008.9	2	009	15	8	2	3	8	5	0	1	82825	86075					7	2Sc40 Cu med jpNW Halo 22° part	
8	58	8	20	08	17	12.1	10.6	91	8.0	1007.9	8	025	62	6	2	7	7	3	2	/	83708	87712	88525					8	
9	68	6	24	13	29	14.8	7.8	63	6.6	1010.2	2	003	25	8	2	6	8	5	0	0	83825	84640					9	Cu med jp all quads	
10	65	5	23	14	24	16.1	10.9	71	8.2	1003.2	7	016	25	8	6	4	8	5	0	1	84820						10	1Sc45 2Ci75 Cu con jp NW-N vv40k ex p	
11	86	8	26	10	34	10.6	5.4	70	5.6	1003.3	2	017	02	6	2	8	8	5	/	/	87822	88630					11	Cu hum	
12	88	2	27	09	19	12.8	4.4	56	5.2	1010.1	1	002	03	1	1	2	2	6	7	1	82830						12	1Ac60 1Ci75 Cu med	
13	65	6	34	06	12	12.2	7.3	72	6.3	1017.8	2	018	15	2	2	6	8	5	/	/	85820						13	2Sc56 /Ci75 Cu con jpS vv50k ex p	
14	88	3	32	06	12	14.3	5.2	54	5.4	1031.0	2	012	03	0	0	1	1	6	0	1	81832	83078					14	COTRA Cu hum	
15	86	3	31	02	05	15.8	8.1	60	6.6	1036.2	8	001	03	0	0	1	1	6	0	1	81830	83080					15	COTRA Cu hum	
16	63	4	27	02	05	17.0	8.7	58	6.8	1033.4	7	013	02	0	0	0	0	9	0	1	84080						16	COTRA	
17	82	5	36	02	05	18.8	9.5	55	7.3	1025.1	8	011	02	1	1	1	5	7	0	1	81650	85080					17	COTRA	
18	65	1	16	08	16	19.7	9.8	53	7.5	1013.2	8	021	03	0	0	1	1	6	0	0	81835						18	Cu hum	
19	67	3	12	07	13	21.7	10.1	47	7.7	1002.9	8	010	02	0	0	0	0	9	0	1	83078						19	COTRA	
20	82	7	17	06	16	16.4	11.5	72	8.4	1006.1	2	013	03	2	2	2	8	5	7	/	82820	87465					20	1Sc56 1Ac62 Cu med	
21	75	6	07	04	06	13.9	9.1	73	7.2	1010.6	8	008	03	1	1	1	6	3	0	8	81708	83270	86075					21	
22	82	7	20	05	11	15.5	10.7	73	8.0	1002.3	2	006	15	2	2	3	8	5	7	2	83820	85362	87070					22	1Sc40 2Ac59 Cu med jpSW
23	70	7	15	08	17	13.5	7.9	69	6.7	1003.9	2	013	21	6	2	7	8	5	/	/	81825	87640					23	Cu med jpSW	
24	61	8	16	05	09	12.2	11.4	95	8.4	1008.0	1	003	61	6	6	6	8	3	2	/	84706	83656	88560					24	1Cu010 Cu med
25	82	2	19	10	19	15.9	6.4	53	5.9	1016.4	1	006	03	0	0	2	2	6	0	1	82832						25	1Ci78 COTRA Cu med	
26	57	8	04	02	04	10.4	9.3	93	7.2	1020.1	5	002	61	6	6	6	5	7	2	/	81645	86650	88556					26	
27	61	8	36	07	13	13.5	11.1	85	8.2	1015.3	2	002	02	6	2	8	5	4	/	/	81712	87615	88645					27	
28	57	8	29	05	11	11.3	10.3	93	7.8	1012.0	7	002	20	5	2	8	5	2	/	/	83705	86708	88615					28	
29	62	8	07	06	12	15.4	12.7	84	9.1	1014.1	2	009	03	2	2	8	8	4	/	/	85815	83630	88650					29	Cu med
30	75	8	05	05	12	13.7	10.8	82	7.9	1022.8	2	011	02	5	2	8	8	4	/	/	83815	88625					30	Cu hum	
31	72	7	04	01	03	12.7	8.7	76	6.9	1026.1	1	004	02	2	2	7	8	5	/	/	81820	87640					31	Cu med	

Mean vis = 26.1 km

Mean cloud = 5.8 72%

Mean wind speed = 6.4 kn

Mean gust = 14 kn

Mean TT = 14.0 °C

Mean TdTd = 8.4 °C

Mean RH = 70.2 %

Mean r = 6.9 g/kg

Mean PPP = 1015.1 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 MAY 2014

Date	VV	N	dd	ff	gg	TT	Td	RH	r	PPP	a	ppp	ww	W1	W2	Nh	Cl	h	Cr	Ci	NCh	shs	NCh	shs	NCh	shs	Date	Remarks
1	35	8	28	05	10	11.8	10.0	88	7.6	1009.6	3	003	81	8	6	8	8	3	/	/	82707	85815	88650			1	3Sc35 Cu med	
2	80	7	03	07	15	11.6	5.2	65	5.4	1025.6	3	309	02	2	2	7	8	5	/	/	81825	87650			2	2Sc35 Cu med		
3	83	6	10	04	08	13.3	0.8	42	3.9	1027.2	7	016	02	1	1	1	1	7	0	1	81850	86080			3	COTRA Cu hum		
4	81	7	25	05	12	15.5	3.7	45	4.9	1021.3	6	017	02	2	2	1	4	7	0	8	81650	84274	87078		4	COTRA U/a cont		
5	75	7	17	08	20	17.5	2.6	37	4.6	1009.6	7	022	03	2	2	5	0	9	7	2	81364	85367	86072		5	COTRA		
6	86	5	25	09	19	17.1	5.3	46	5.5	1005.1	8	014	03	1	1	2	2	6	5	0	82848	83361			6	1Ac58 Cu med		
7	84	6	24	12	22	15.9	6.3	53	6.0	1009.5	5	001	02	8	2	5	8	6	0	1	83840	83656			7	3Ci75 Absent, vv&cld est		
8	30	8	23	08	23	14.8	13.4	91	9.6	1004.5	8	013	51	6	5	8	5	2	/	/	82705	87707	88615		8			
9	80	5	26	12	29	16.3	4.1	44	5.1	1012.4	2	010	01	8	1	3	8	6	0	1	83848				9	1Sc56 2Ci78 COTRA Cu med		
10	65	5	25	13	34	14.2	9.5	73	7.5	1000.8	6	004	25	8	1	4	9	5	0	1	83925	81830			10	2Ci75 jp NE&SW vv50k ex p		
11	84	4	25	14	30	14.8	2.7	44	4.6	1005.2	1	006	01	1	1	4	8	6	0	1	83840				11	2Sc45 1Ci75 Cu hum		
12	75	5	27	11	24	12.5	5.3	61	5.5	1010.7	3	008	80	8	1	2	9	6	6	3	81940	84360			12	2Cu45 1Ci68 vv60k ex p		
13	84	5	01	06	13	15.1	5.6	53	5.6	1021.1	1	014	25	8	2	4	9	6	6	3	81930	83835			13	2Ac57 1Ci70 Cu con jp NW&NE		
14	86	2	32	07	16	17.5	3.9	40	4.9	1032.3	2	006	02	0	0	2	8	7	0	1	82850				14	1Sc56 1Ci78 Cu med		
15	84	6	31	05	11	19.7	7.9	46	6.5	1034.9	8	010	02	2	2	3	8	6	0	1	83845	85078			15	1Sc56 COTRA Cu med		
16	70	6	03	03	07	20.5	8.8	47	6.9	1029.7	7	022	02	1	1	6	8	7	/	/	81848	86650			16	Cu med		
17	80	7	27	06	13	21.7	10.8	50	8.0	1021.2	7	019	02	2	2	7	8	6	/	/	81845	87650			17	Absent vv&cld est		
18	75	1	21	09	17	22.9	8.7	40	7.0	1008.9	7	020	02	0	0	1	1	7	0	0	81850				18	Cu hum		
19	81	6	16	11	20	25.4	7.4	32	6.4	1001.6	5	003	02	1	1	2	2	7	0	1	82850	86080			19	COTRA Cu con		
20	82	7	19	07	15	18.1	10.4	61	7.9	1007.5	1	004	03	2	2	3	8	6	7	/	83830	83358	87362		20	1Sc56 Cu med		
21	82	8	07	06	12	18.9	9.9	56	7.6	1006.9	7	017	02	2	2	3	2	6	0	7	83840	88270			21	Cu med Halo 22°+U/a cont		
22	84	4	19	09	18	15.8	11.0	73	8.2	1001.1	5	003	01	9	8	3	2	5	3	3	83820				22	1Ac63 2Ci72 Cu med COTRA		
23	70	8	13	08	16	11.7	9.4	86	7.4	1006.0	1	012	21	6	2	8	5	4	/	/	81710	86635	88650		23	jpNE, S&W		
24	84	6	15	08	16	13.5	6.4	62	6.0	1009.2	2	004	25	8	2	1	2	4	6	3	81715	86068			24	1Cu25 2Ac58 1Ac62 Cu con jpN&SW		
25	82	2	20	08	18	16.2	5.4	49	5.6	1017.5	1	005	02	0	0	2	2	6	0	1	82845				25	1Ci78 COTRA Cu med		
26	58	8	35	05	08	11.4	10.2	92	7.7	1018.4	7	009	63	6	6	2	5	2	2	/	81705	82640	88550		26			
27	59	8	32	07	15	11.6	10.4	92	7.8	1015.0	7	007	58	6	5	8	5	3	/	/	83708	85712	88620		27			
28	60	8	32	06	14	13.5	11.4	87	8.4	1011.3	7	005	25	8	5	8	8	4	/	/	84812	86625	88635		28	Cu med jpNW vv20k ex p		
29	80	7	15	06	12	17.8	11.0	64	8.1	1015.8	2	012	15	2	2	7	8	5	/	/	82828	87656			29	2Sc45 Cu med jpNE		
30	65	8	07	04	08	15.2	10.3	73	7.7	1024.2	1	007	02	8	2	8	8	5	/	/	82825	88640			30	Cu med		
31	70	7	34	02	11	17.0	9.5	61	7.3	1024.6	7	006	25	8	2	7	8	6	/	/	81835	83645	87650		31	Cu med		

Mean vis = 31.4 km

Mean cloud = 6.0 75%

Mean wind speed = 7.5 kn

Mean gust = 16 kn

Mean TT = 16.1 °C

Mean Td = 7.7 °C

Mean RH = 59.8 %

Mean r = 6.6 g/kg

Mean PPP = 1014.5 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.

Wokingham Sunshine Hourly analysis 2014	Hour	01-May	02-May	03-May	04-May	05-May	06-May	07-May	08-May	09-May	10-May	11-May	12-May	13-May	14-May	15-May	16-May
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	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	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	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	0.00
4	0.00	0.00	0.22	0.07	0.09	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.00	0.43
5	0.00	0.00	1.00	0.86	1.00	0.04	0.70	0.00	0.73	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
6	0.00	0.00	1.00	1.00	1.00	0.17	0.41	0.00	0.20	0.00	0.00	0.00	0.00	0.25	1.00	0.76	1.00
7	0.00	0.06	1.00	1.00	1.00	0.75	0.03	0.00	0.42	0.00	0.00	0.00	0.57	0.03	1.00	1.00	1.00
8	0.00	0.00	1.00	1.00	1.00	0.88	0.39	0.00	0.27	0.49	0.00	0.00	0.91	0.38	1.00	1.00	1.00
9	0.00	0.00	1.00	1.00	0.56	0.46	0.00	0.00	0.58	0.52	0.00	0.64	0.57	1.00	0.88	1.00	1.00
10	0.00	0.00	1.00	0.91	0.67	0.40	0.50	0.00	0.38	0.43	0.00	0.80	0.13	0.97	0.54	1.00	1.00
11	0.00	0.00	1.00	1.00	0.42	0.39	0.05	0.00	0.63	0.45	0.00	0.92	0.57	0.65	0.09	1.00	1.00
12	0.00	0.02	1.00	0.85	0.18	0.79	0.50	0.00	0.57	0.11	0.07	0.78	0.43	0.43	0.41	0.90	0.90
13	0.00	0.03	1.00	0.94	0.12	0.50	0.48	0.00	0.86	0.20	0.07	0.78	0.17	0.68	0.71	0.16	0.16
14	0.00	0.00	1.00	1.00	0.09	0.84	0.25	0.00	0.36	0.18	0.61	0.48	0.13	0.85	0.96	0.07	0.07
15	0.00	0.00	1.00	0.80	0.00	0.13	0.12	0.00	0.76	0.49	0.45	0.81	0.37	0.79	0.89	0.47	0.47
16	0.00	0.00	1.00	0.83	0.00	0.51	0.30	0.02	0.71	0.44	0.41	0.74	0.40	0.72	0.94	0.27	0.27
17	0.00	0.00	1.00	1.00	0.00	0.31	0.07	0.14	1.00	0.15	1.00	0.65	0.15	0.88	0.81	1.00	1.00
18	0.00	0.00	0.26	0.29	0.00	0.00	0.00	0.29	0.40	0.01	1.00	0.24	0.35	0.99	0.96	0.93	0.93
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.06	0.00	0.25	0.52	0.57	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	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	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	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	0.00
Tot	0.00	0.11	13.48	12.56	6.13	6.17	4.07	0.53	7.88	3.45	3.66	8.33	4.19	13.09	10.52	11.23	

	Hour	17-May	18-May	19-May	20-May	21-May	22-May	23-May	24-May	25-May	26-May	27-May	28-May	29-May	30-May	31-May	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	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	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	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	0.00
4	0.09	0.25	0.17	0.00	0.36	0.15	0.00	0.00	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
5	1.00	1.00	1.00	0.14	1.00	0.66	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39
6	1.00	1.00	1.00	0.00	1.00	0.92	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41
7	1.00	1.00	1.00	0.19	1.00	0.65	0.00	0.00	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.44
8	1.00	1.00	1.00	0.00	0.81	0.06	0.03	0.00	0.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46
9	1.00	0.98	1.00	0.04	0.79	0.01	0.01	0.20	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.43
10	1.00	0.89	0.99	0.00	1.00	0.04	0.01	0.11	0.64	0.00	0.00	0.00	0.00	0.00	0.99	0.43	0.43
11	0.74	0.96	0.89	0.00	0.39	0.00	0.00	0.14	0.82	0.00	0.00	0.00	0.15	0.00	0.25	0.37	0.37
12	0.84	1.00	0.87	0.00	0.00	0.00	0.00	0.09	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.35
13	0.09	1.00	0.72	0.00	0.00	0.00	0.00	0.00	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30
14	0.31	1.00	0.82	0.00	0.00	0.38	0.00	0.00	0.45	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.32
15	0.01	1.00	0.99	0.01	0.00	0.59	0.01	0.11	0.54	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.34
16	0.15	1.00	0.89	0.00	0.26	0.59	0.16	0.00	0.92	0.00	0.00	0.00	0.50	0.00	0.01	0.38	0.38
17	0.37	1.00	0.52	0.00	0.27	0.10	0.41	0.31	0.78	0.00	0.00	0.00	0.19	0.00	0.03	0.39	0.39
18	1.00	1.00	0.23	0.00	0.00	0.00	0.92	0.51	1.00	0.00	0.00	0.00	0.00	0.00	0.06	0.34	0.34
19	0.54	0.37	0.00	0.00	0.04	0.00	0.55	0.25	0.92	0.00	0.00	0.00	0.00	0.00	0.28	0.14	0.14
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	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	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	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	0.00
Tot	10.14	14.45	12.09	0.38	6.92	4.13	2.11	1.71	12.56	0.00	0.00	0.00	1.00	0.00	2.28	173.16	

MAY 2014	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	
1	11.16	13.6	1335	9.5	216	91.7	95.9	827	80.7	1325	9.84	7.55	8.6	1103	6.5	2	1010.76	1016.3	2356	1009.1	1203	
2	8.97	13.3	1314	3.1	2355	81.4	94.9	349	60.7	1317	5.85	5.72	7.2	13	4.0	2355	1023.93	1030.0	2311	1016.2	0	
3	7.36	14.3	1513	-0.7	436	68.1	96.6	547	34.9	1606	1.04	4.04	5.1	1142	3.3	1609	1028.35	1030.2	716	1026.3	1739	
4	9.81	16.4	1417	2.5	413	69.1	95.7	540	39.6	1427	3.75	4.92	5.8	1558	4.1	1144	1022.82	1026.6	13	1018.5	2359	
5	11.95	18.8	1331	1.9	430	64.0	96.4	636	33.1	1329	4.39	5.23	6.8	2359	4.1	431	1011.88	1018.7	1	1005.6	2358	
6	13.81	18.8	1446	9.9	2222	69.9	92.1	412	36.1	1416	7.90	6.70	8.5	615	4.7	1416	1005.84	1007.3	2025	1004.4	424	
7	12.63	17.3	1400	9.7	450	69.8	89.0	452	44.7	1401	7.06	6.27	7.2	317	5.3	1404	1009.29	1012.1	2334	1006.5	103	
8	12.67	15.7	1633	10.5	136	84.3	93.2	1045	72.0	344	10.07	7.77	10.1	1620	5.7	358	1008.11	1011.9	19	1004.3	1452	
9	13.33	17.1	1211	10.4	456	62.3	84.7	138	37.0	1353	5.85	5.79	7.3	134	4.3	1353	1011.50	1014.6	2019	1009.2	234	
10	12.47	17.7	1124	9.7	2358	76.6	94.0	715	46.6	1111	8.29	6.91	9.2	803	5.3	2359	1003.52	1011.9	8	1000.1	1618	
11	10.95	15.5	1447	8.2	539	66.5	86.0	546	41.7	1500	4.73	5.37	6.1	1141	4.2	1805	1004.28	1008.5	2357	1000.7	311	
12	11.37	17.1	1230	7.8	2339	69.5	93.5	2023	35.5	1204	5.44	5.61	6.7	2025	3.9	1208	1010.61	1014.3	2349	1008.3	120	
13	11.20	16.3	1531	6.5	2352	74.9	93.2	2359	44.9	1344	6.59	6.01	7.2	1106	4.7	1347	1019.90	1027.6	2358	1014.0	2	
14	11.92	18.8	1430	4.1	447	68.3	96.8	536	35.5	1537	5.31	5.44	6.6	649	4.3	1021	1031.31	1035.1	2350	1027.5	0	
15	13.51	20.5	1526	4.5	417	69.9	96.6	520	43.9	1527	7.52	6.33	8.1	1242	4.9	417	1035.50	1036.7	651	1034.3	1857	
16	14.68	22.2	1424	6.3	414	69.6	95.5	534	41.0	1554	8.44	6.76	8.9	1240	5.5	428	1031.57	1035.7	5	1027.6	2357	
17	16.39	23.9	1436	8.7	423	70.2	96.5	550	40.7	1435	10.23	7.67	9.4	1253	6.6	423	1022.97	1027.8	2	1018.2	2359	
18	16.42	23.4	1442	8.9	436	66.2	96.9	554	33.4	1439	9.00	7.16	9.5	653	5.5	1704	1011.48	1018.4	1	1006.2	2354	
19	18.63	25.8	1324	9.4	211	59.8	95.0	511	29.5	1558	9.31	7.38	9.7	658	5.8	1635	1003.01	1006.3	3	1001.2	1557	
20	15.17	19.3	1249	8.4	2351	75.1	94.4	2355	55.8	1249	10.65	8.01	9.0	1739	6.4	2337	1006.84	1011.1	2318	1001.5	326	
21	13.25	19.3	1327	5.5	458	74.5	97.3	611	41.8	1053	8.31	6.86	8.3	739	5.3	1053	1007.80	1011.8	643	999.6	2351	
22	13.53	16.9	1619	11.4	445	82.0	95.9	517	57.3	1702	10.39	7.91	9.3	1406	6.5	1703	1001.38	1002.4	901	998.7	219	
23	12.09	14.7	1717	10.0	2101	78.0	93.1	0	60.2	1022	8.31	6.86	8.3	1	5.9	1247	1004.84	1008.3	2127	1001.9	47	
24	11.79	16.0	1244	9.5	151	82.7	96.5	724	52.8	1245	8.76	7.05	8.9	911	5.5	1302	1009.32	1013.1	2354	1007.4	535	
25	12.92	17.9	1239	7.1	2357	66.8	93.0	350	37.9	1404	6.24	5.91	7.3	159	4.6	1404	1016.87	1020.1	2355	1012.9	1	
26	10.03	12.2	1608	5.9	126	93.8	96.1	655	90.6	2	9.09	7.16	8.1	1608	5.4	127	1018.90	1020.6	433	1016.7	2356	
27	11.49	14.7	941	9.2	2353	90.7	95.6	12	76.3	945	10.03	7.61	8.5	914	6.5	2353	1015.15	1016.8	5	1014.2	1937	
28	11.73	13.9	1344	8.9	50	92.8	96.6	2351	84.7	1349	10.60	7.96	8.8	1922	6.5	29	1012.09	1014.3	0	1011.1	1457	
29	14.83	18.9	1126	12.0	232	83.9	97.3	258	57.9	1743	11.93	8.64	10.0	759	7.4	1743	1015.18	1019.8	2358	1012.4	1	
30	13.22	15.9	1400	10.0	2232	84.2	96.2	410	69.6	1606	10.54	7.83	8.9	10	6.6	2205	1023.13	1025.9	2324	1019.6	8	
31	13.60	18.3	1243	9.1	259	75.8	95.3	334	44.9	1104	9.03	7.07	8.4	2352	4.9	1017	1025.08	1026.2	723	1023.9	2321	
Total																						
Mean	12.67	17.56		7.66		75.2	94.51		50.36		7.89	6.69	8.11		5.30		1014.94	1018.71		1011.55		
Max	18.63	25.82		11.99		93.8	97.30		90.60		11.93	8.64	10.12		7.40		1035.50	1036.67		1034.28		
Min	7.36	12.19		-0.74		59.8	84.70		29.45		1.04	4.04	5.06		3.28		1001.38	1002.39		998.74		

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
 Time = hours and minutes in GMT of extreme values

Temperature and humidity are from an aspirated Vaisala HMP45 unit
 Pressure is from a Setra CS100 sensor
 Data is logged on a Campbell Scientific CR10X measurement and control system

WOKINGHAM METEOROLOGICAL DATA

Wokingham Climatological Station, Emmbrook, Berkshire.

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

Seasonal Means and Totals

SPRING 2014

Temperature (°C)									Rank in the past 133 years
Mean maximum	15.6	(+1.3)	11 th highest						
Mean minimum	5.4	(+0.4)	13 th highest						
Daily mean	10.5	(+0.9)	7 th highest						
Rainfall total (mm)	171.3	(118%)	29 th highest						
Sunshine total (hours)	468.2	(101%)							
N° of:	Dry days	52 (0)	Wet days	34 (+6)					
Days with:	Air frost	10 (-1)	Ground frost	36 (+1)	Snow falling	0 (-4)	Snow lying	0 (0)	
Thunder	8 (+3)	Hail ≥5mm	0 (-2)	Small hail/ice	4 (-1)	Fog @09 GMT	3 (+2)	Nil sun	7 (-3)
Air pressure MSL : Mean @09 GMT (mbar)	1015.6 (0.0)								

Departure from 1981 to 2010 average shown in brackets.

Notes: **Very Mild and Wet with Sunshine Near Average**

Temperature: This has been a very mild spring season, with the mean maximum, mean minimum and mean temperature all in the warmest 10% of ranked values since 1882. In more recent years, this is the 3rd mildest spring in this millennium, after 2007 and 2011, this latter holding the record for the mildest spring in 133 years. Compared to average, April had the highest positive anomaly, +1.4°, and May the lowest, +0.4°. The season's highest max was 25.7° on the 19th May, 0.3° above the median. The lowest max was 8.7° on the 3rd March, 4.2° above the median and 4th highest in 102 years. The highest min was 13.3° on the 20th May, 0.8° above the median, and the lowest min was -2.6° on the 24th March, 1.7° above its median and highest since 1994. The mean grass min was 2.3°, 0.7° above average and highest since 2002. The lowest grass min was -7.5° on the 24th March, highest since 1994. The mean earth temperature at 30 cm depth, 11.2°, is 1.0° above average, and at 1 m depth the mean was 10.4°, 0.7° above average. **Rainfall:** This has been a wet spring overall, although there were some dry periods in each of the months. March was driest with 28.8 mm, 63 % of average, and the only month this season with a deficit. April was the wettest with 78.5 mm, 162 % of average, while May's contribution was 64.0 mm, 127 % of average. Compared with the long-term median, there was a surplus of 33.5 mm this spring. The season's wettest day was the 21st April when 15.5 mm fell. The duration of measurable rain was 124.9 hours, only 2.8 hours, or 2 %, above average, compared with 18 % above for the rainfall, indicating higher rainfall rates than average. This is also evident in the statistics for wet days versus dry days, 6 above and 0 above average respectively. The highest one minute rate was 169 mm/hr at 1118 GMT on the 29th April, while a rate of 55 mm/hr on the 22nd May is the only other occasion with a rate exceeding 50 mm/hr this season. Thunder was more frequent than average, with storms on the 23rd and 27th March, the 20th, 21st, 25th, 27th and 29th April and the 22nd May. Small hail fell on the 21st and 26th March, and the 12th May, and snow pellets occurred on the 23rd March, but there was no 'proper' snow this spring. Notable wet spells were from the 20th April to the 1st May, when 73.1 mm fell, and the 21st to 27th May, when 43.3 mm fell. A dry spell of 14 days ended on the 17th March, one of 12 days on the 19th April and one of 6 days on the 19th May. **Sunshine:** The total this season is close to average with just 3 hours more sunshine than we should expect, based on the past 39 years. March was a particularly sunny month, with 13 hours more sun than April, and 138 % of average. April was the least sunny with only 88 % of average, and May was only marginally better with 91 %. The highest daily sunshine was 14.4 hours on the 18th May. There were 2 spells of consecutive sunny days, the 13th to 16th April, mean 13.1 hours per day, and 14th to 19th May, mean 11.9 hours per day. Daily sunshine distribution shows that there were 37 days with 0 to 3 hours, 16 with 3 to 6 hours, 22 with 6 to 9 hours, 7 with 9 to 12 hours and 10 with 12 to 15 hours. **Wind:** The overall mean wind speed was 6.3 mph, 0.7 mph below average. The windiest day was the 10th May, mean 13.6 mph, and the highest gust of 46 mph was also on that day. The windiest month was March, mean 6.7 mph, and the least windy, April, 5.9 mph. The least windy days were the 13th March and 31st May, both 2.3 mph, and there were 2371 minutes (39.5 hours) of calm. Daily mean direction/number of days: N,11 NE,11 E,8 SE,4 S,15 SW,23 W,13 NW,7. Compared with average NE winds were 7.5 % less frequent, while winds from E, S and W were each about 2.5 % more frequent. **Humidity:** The overall mean relative humidity was 76.5 %. The lowest value was 23 % on the 29th March. The mean water vapour content per kg of air was 6.2 g at 0900 GMT and 5.8 g at 1500 GMT.

March: Mild, especially by day, drier than normal and sunny. Mean diurnal temperature range 3rd highest, and mean min 2nd highest, in the past 39 years. Lowest max 8th highest in 102 years. Lowest grass min highest since 1997. First March since 1995 to have no days with nil sun.

April: Very mild, wet, sunshine below average. 9th warmest since 1882. Lowest max 2nd highest in past 102 years and highest min 7th highest in the same period. 2nd wettest April in the past 10 years, dry until the 19th then wet.

May: Mild and wet with below average sunshine. Lowest min 2nd lowest since 1997. Mean earth temperature at 30 cm depth 2nd highest in 35 years. Wind gust of 46 mph 2nd highest for May in 27 years. Month's highest pressure 3rd highest for May in 39 years.

Month	Mean Max	Anom	Mean Min	Anom	Rain mm	Anom	Sun hrs	Anom	Wind Mn mph	Max gust	Mean pressure	Anom
March	13.6°	+2.4°	2.6°	-0.6°	28.8	63%	154.0	138%	6.7	38	1016.5	+0.6
April	15.7°	+1.7°	5.5°	+1.1°	78.5	162%	141.0	88%	5.9	33	1015.1	+0.1
May	17.6°	+0.1°	8.2°	+0.7°	64.0	127%	173.2	91%	6.3	46	1015.1	-0.8

B J Burton FRMetS.

Hon. Met. Officer to Wokingham Town Council.

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 2020. 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 July 1999, in the type of instrument used to detect sunshine amount, 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, due to a combination of faster reaction and higher sensitivity than the old type. The average used in this case is based on a theoretical equivalent 1981 to 2010 average, drawn from comparison with the Met Office published tables of departure from 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 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 '(max + min) / 2'. A true daily 24 hour (00 to 24 GMT) mean temperature is available from the Automatic Weather Station (AWS), and is currently published on page 7 of the Wokingham Monthly Weather report, on the Wokingham Weather web site, page 1. <http://www.woksat.info/wwp1.html>

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

- a): The departure of a mean from the current climatological average.
- b): The departure of a value on a particular day from the average for that day, (this need not be a climatological average).

When the word anomaly is used in respect of temperature, any values given are in °C. In respect of rainfall or sunshine, percent. In respect of wind, mph. In respect of 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 cold/mild are used in the winter half year, and cool/warm in the summer half. The term 'normal' is used 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 of these terms follow the same rules as for temperature.

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

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

Wet: The value lies between 10 % and 30% of the highest value in the ranked series.

Very wet: The value lies within 10 % of the highest value in the ranked series.

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

Very dry: The value lies 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 records of various weather stations in the Wokingham area in the years prior to the establishment of the weather station at Emmbrook in 1976 together with data from this station.

In the case of monthly max, min and mean temperature and of rainfall total the series starts in 1882. For temperature extremes, the highest max and lowest min go back to 1904, and 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 series, and may be expressed relative to either the highest or lowest value in the series. The central value in the ranked series is known as the **median**. This value may be different from the average of the whole series if the population is skewed. It can also be different from the climatological average which only refers to a 30 year period.

Month: Calendar month.

Season: Spring, March to May.

Summer, June to August

Autumn, September to November

Winter, December to February.

When discussing 'winter', if a single year is given this refers to the year in which the January/February fall.

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

The climatological day: runs from 0900 to 0900 GMT. The max temperature and rainfall read at 0900 hours are attributed to the previous day (thrown back), as is the duration of measurable rain. The min temperature and grass min read at 0900 hours are attributed to the day of reading. Pressure read at 0900 GMT, and the monthly mean pressure is the mean of the 0900 GMT readings. Sunshine data, wind data, rainfall rate data and 24 hour data from the AWS use the normal 00-24 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% snow cover at the 0900 GMT observation.

Snow depth is the depth of undrifted snow. Snow that collects in the raingauge funnel is melted and the amount recorded as rainfall.

Hail: A day of hail is recorded if hailstones 5 mm or more in diameter are observed or recorded on the hail pad in 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. The term small hail also includes various other types of ice meteor such as ice pellets, snow grains and some types of snow pellets.

Fog: A day with 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. The appearance of lightning without thunder being heard does not qualify as a thunder day.

Trace of rainfall: A trace of rain, entered as 'tr' in the daily log, is recorded if rain is observed to fall but is of insufficient quantity to collect in the raingauge, or if the amount of rain in the gauge is less than 0.05 mm.

Dry spell: A dry spell is defined as a period of 5 or more consecutive dry days.

Dry day: A dry day is one with less than 0.2 mm of rainfall.

Rain day: A rain day is one with 0.2 mm or more of rainfall.

Wet day: A wet day is one having 1.0 mm or more of rainfall.

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.