

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 2016

Temperature (°C)		Anomaly	Rank in the past 135 years				
Mean maximum	18.8	+1.3	18 th highest				
Mean minimum	8.0	+0.5	20 th highest				
Daily mean	13.4	+0.9	15 th highest				
Highest maximum	26.8	on 8 th	Lowest maximum	12.2	on 31 st		
Highest minimum	14.3	on 11 th	Lowest minimum	-0.3	on 1 st		
Mean grass minimum	4.8	+0.5	Lowest grass minimum	-5.3	on 1 st		
Mean earth @30 cm	14.4	+0.9	Earth @100 cm	12.2			
Frost duration (hrs)	1.3		Rain duration (hrs)	33.3			
Rainfall total (mm / in)	57.8	115 %	43 rd highest				
Highest daily fall	20.3	on 10 th					
Number of: Dry days (<0.2mm)	21	Wet days (>0.9mm)	6	days ≥5mm	3		
Sunshine total (hrs)	187.7	Daily mean	6.05	99 %	Sunniest day	14.5 on 4 th	
N° days with: Air frost	1	Ground frost	6	Snow falling	0	Snow lying	0
Thunder	0	Hail ≥5mm	0	Small hail/ice	1	Fog @09	0
						Nil sun	5
Pressure MSL : Mean @09 GMT, mbar	1014.9	Highest	1028.9	on 1 st	Lowest	1000.8	on 12 th
Relative humidity : Mean (%)	75.1	Lowest	21	on 5 th	Water vapour (g/kg), mean at 09 and 15 GMT	7.1,	6.7
Overall mean wind speed (mph)	6.2	Windiest day	10.1	on 13 th	Max gust	31	on 2 nd
Wind direction (days)	N 7	NE 6	E 4	SE 1	S 2	SW 6	W 3
							NW 2
Least windy day (mph)	3.1	on 26 th	Calm; less than 0.5 mph (minutes)				540

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

Notes: **Temperature and Rainfall Above Average, Sunshine Near Normal.**

Temperature: The daily mean and mean maximum are highest since 2008, and are well above the current climatological average. The mean minimum however is only highest since 2014. In the longer-term, this month's values are well into the mild category, and the daily mean is only 0.2° short of being in the very mild, or top 10% of values since 1882. The highest max is 1.4° above the median, and the lowest max is 1.2° above its median. The highest min is 1.8° above the median and ranks 10th highest in 104 years. The lowest min is the odd-one-out, being 0.8° below its median. There was one air frost this month, on the 1st, and 19 of the past 61 Mays have had at least one. There were 6 ground frosts, about the average for the past 37 years. The month began with near normal daily temperatures, although a cold night on the 1st gave an anomaly of -7° for the min. An 8 day warm spell commenced on the 5th, with anomalies for daily max above +7° from the 6th to the 9th and on the 12th, and reaching +10° on the 8th. Anomalies for daily min of +7° also occurred on the 10th and 11th. From the 13th on temperatures fluctuated about normal, with anomalies for daily max between -5° on the 25th and +4° on the 27th, though it was down to -7° on the 31st, and for daily min between +5° on the 20th and -5° on the 15th. Mean earth temperature at 30 cm depth is above average, but is close to average at 1 m depth. **Rainfall:** The total this May is 15% above average, though not quite enough to put it in the wet category. In this millennium, 6 Mays have been wetter, the last in 2014. The majority of this month's rain fell on just 3 days, the 10th, 18th and 31st, the remainder, 22%, fell over 9 other days. There were 21 dry days, 3 more than average, and 2 dry spells, 6 days ending on the 8th and 5 days ending on the 16th. The highest daily fall of 20.3 mm on the 10th is highest for May since 2007. Ice pellets fell on the 9th, but otherwise there was no hail or thunder. **Sunshine:** Overall sunshine was close to normal. The distribution throughout the month was rather variable, with sunny and dull periods of several days length. It was quite sunny up to the 8th, leading to an accumulated surplus of 33 hours, but the following 3 dull days reduced this to 12 hours on the 11th. Sunny again to the 16th, the surplus increasing to 23 hours, then dull to the 22nd leading to a slight deficit. Further sunny days produced a small surplus by the 29th, but the last 2 days were sunless. There were 3 more sunless days than average. Overall there were 11 days with <3 hours, 16 with =>6 hours, 10 with =>9 hours and 5 with =>12 hours. **Wind:** The mean speed is 0.4 mph below average, and lowest for May since 2010. The highest gust is lowest since 2004. Daily mean winds were moderate or fresh until the 4th, then light or moderate. Directions were SW'ly at first, backing E'ly on the 5th then N'ly on the 12th, becoming W'ly on the 15th and SW'ly on the 17th, veering W'ly on the 27th and becoming NE'ly on the 24th and N'ly on the 29th.

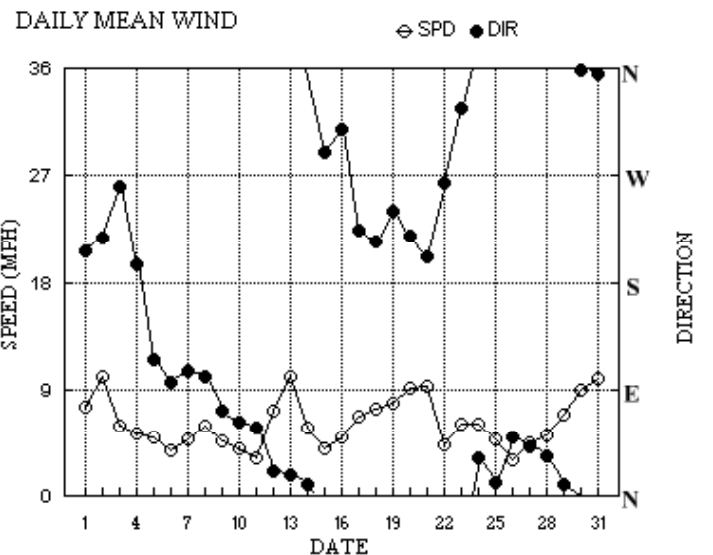
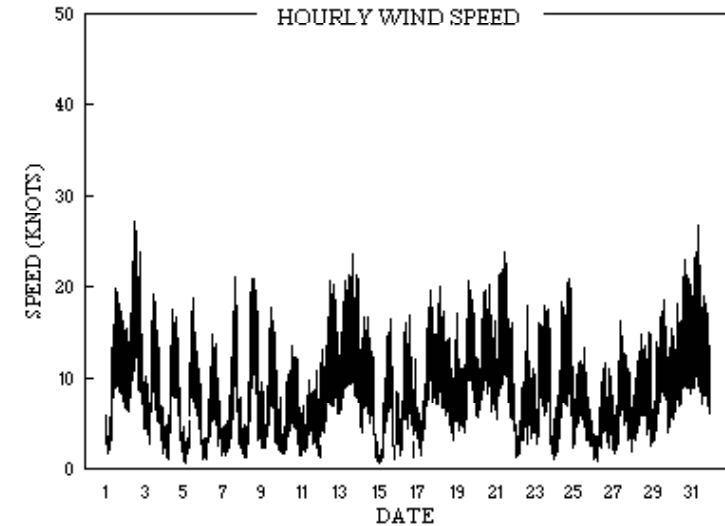
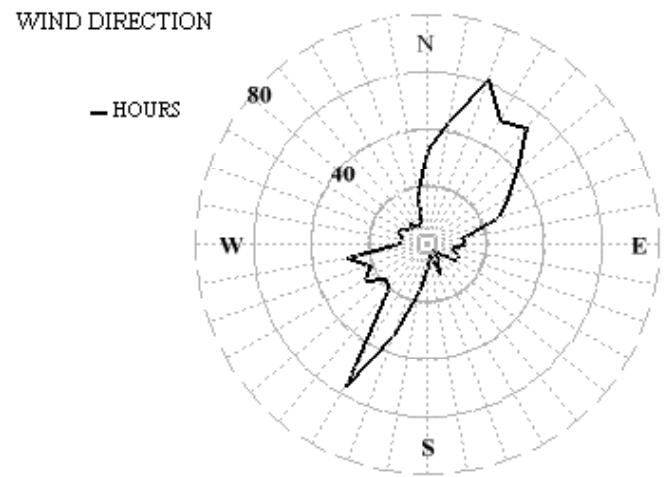
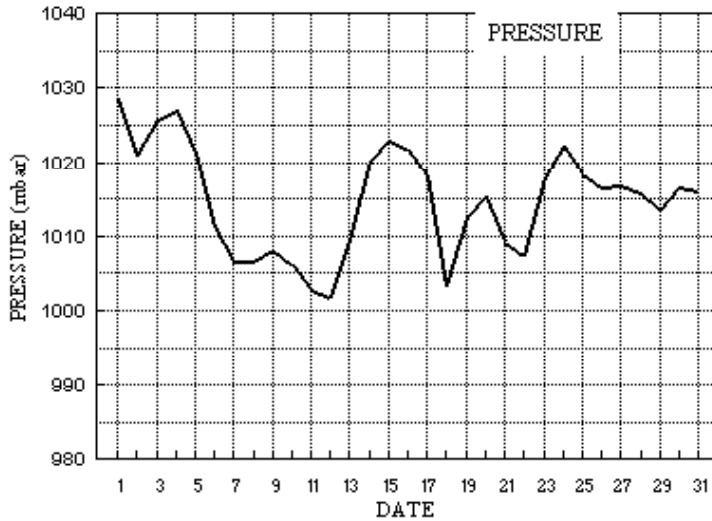
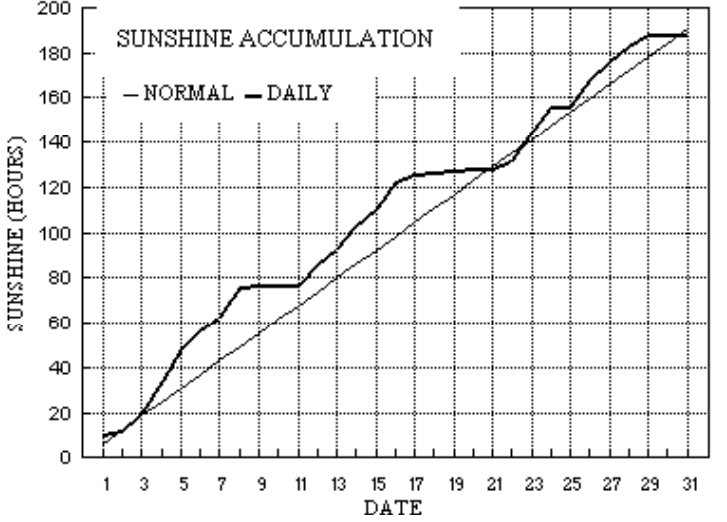
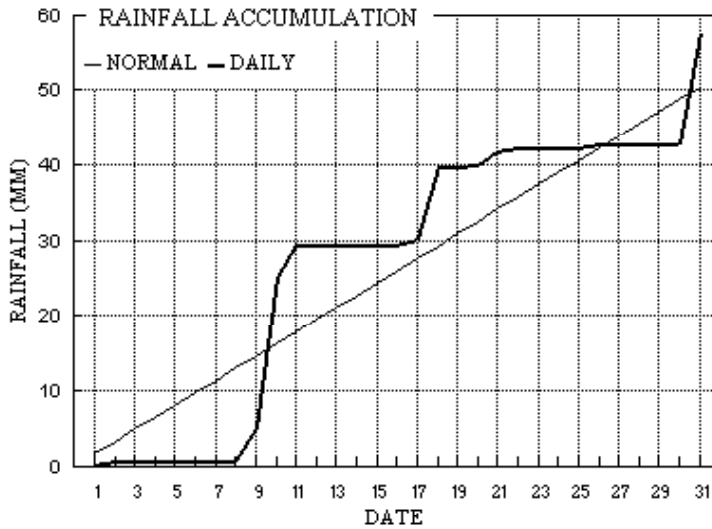
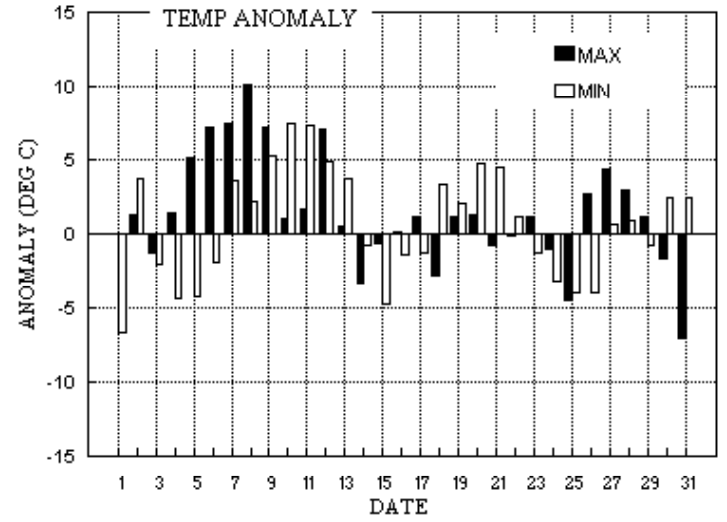
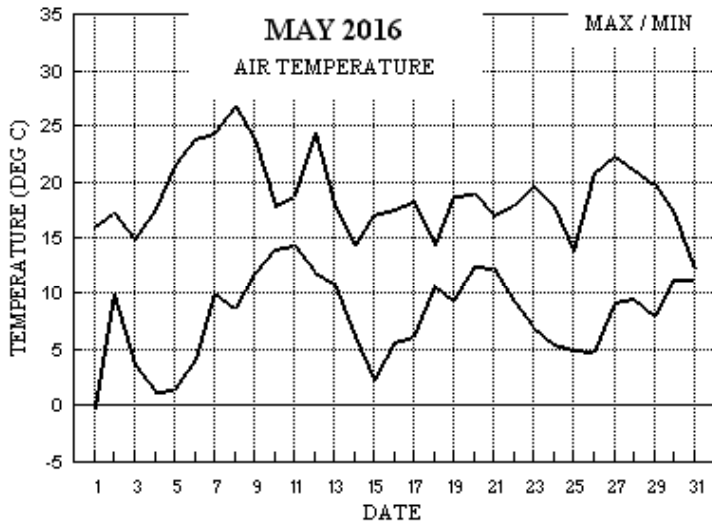
Table 1. Mean anomalies (max, min, rain, sun) for specified periods.

From the 1 st to the 10 th				From the 11 th to the 20 th				From the 21 st to the 31 st			
+3.9°	+0.3°	153%	125%	+0.6°	+1.8°	98%	85%	-0.3°	-0.1°	104%	88%

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

Correction to April 2016 issue : Lowest maximum 9.6° on the 16th.

Wokingham climatological graphs for May 2016



Month: MAY 2016

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	16.0	-0.3	0.1	-5.3	10.3	10.1	10.0	1.3	1028.6	1	1	0	0	0	0	0	0	12	0.1									
2	17.2	9.9	0.7	9.1	11.1	10.1	1.9	0.0	1020.9	0	0	0	0	0	0	0	0	12	0.7									
3	14.8	3.6	0.0	-2.0	11.2	10.2	7.7	0.0	1025.9	0	1	0	0	0	0	0	0	10	0.0									
4	17.5	1.2	0.0	-3.3	11.2	10.3	14.5	0.0	1027.1	0	1	0	0	0	0	0	0	11	0.0									
5	21.5	1.4	0.0	-2.8	11.5	10.4	13.8	0.0	1021.1	0	1	0	0	0	0	0	0	11	0.0									
6	23.8	4.1	0.0	-1.3	12.0	10.5	8.6	0.0	1011.2	0	1	0	0	0	0	0	0	15	0.0									
7	24.3	10.0	0.0	6.3	12.7	10.6	5.9	0.0	1006.6	0	0	0	0	0	0	0	0	16	0.0									
8	26.8	8.8	tr	4.3	13.4	10.8	13.3	0.0	1006.7	0	0	0	0	0	0	0	0	15	0.0									
9	23.9	11.8	4.1	6.7	14.0	11.0	0.9	0.0	1008.1	0	0	0	0	0	1	0	0	14	7.1									
10	17.9	14.0	20.3	13.1	14.3	11.3	0.0	0.0	1006.0	0	0	0	0	0	0	0	0	14	10.2									
11	18.7	14.3	4.3	13.0	14.7	11.5	0.1	0.0	1002.8	0	0	0	0	0	0	0	0	18	0.0									
12	24.3	11.9	0.0	11.0	15.1	11.7	9.6	0.0	1001.9	0	0	0	0	0	0	0	0	20	9	20	1.5							
13	18.0	10.9	0.0	8.1	15.8	12.0	6.9	0.0	1009.5	0	0	0	0	0	0	0	0	19	11	15	0.0							
14	14.4	6.2	0.0	3.9	15.7	12.3	10.1	0.0	1020.1	0	0	0	0	0	0	0	0	12	8	07	0.0							
15	17.0	2.2	tr	-2.1	15.2	12.5	7.2	0.0	1022.9	0	1	0	0	0	0	0	0	311	8	14	0.0							
16	17.5	5.7	0.0	1.3	15.1	12.6	11.9	0.0	1021.8	0	0	0	0	0	0	0	0	305	7	13	0.0							
17	18.3	6.1	0.7	1.6	15.1	12.7	3.7	0.0	1018.2	0	0	0	0	0	0	0	0	225	10	16	0.9							
18	14.4	10.7	9.7	9.4	15.1	12.8	0.7	0.0	1003.2	0	0	0	0	0	0	0	0	212	20	0345	205	9	03	3.3				
19	18.7	9.4	tr	8.0	14.7	12.9	0.8	0.0	1012.6	0	0	0	0	0	0	0	0	242	21	1515	236	11	15	0.0				
20	19.0	12.4	0.1	11.0	15.1	12.9	1.0	0.0	1015.4	0	0	0	0	0	0	0	0	219	7.6	8.0	212	20	1646	232	11	11	0.6	
21	17.0	12.3	1.8	11.4	15.5	13.0	0.0	0.0	1009.3	0	0	0	0	0	0	0	0	202	7.9	8.1	201	24	1155	199	12	12	2.6	
22	17.9	9.3	0.6	7.5	15.2	13.1	3.2	0.0	1007.3	0	0	0	0	0	0	0	0	264	3.4	3.8	273	18	1508	290	7	15	0.1	
23	19.6	7.1	0.0	2.7	15.4	13.2	13.0	0.0	1017.8	0	0	0	0	0	0	0	0	326	4.6	5.3	340	18	1328	320	8	07	0.0	
24	17.7	5.5	0.0	0.5	15.6	13.3	10.9	0.0	1022.1	0	0	0	0	0	0	0	0	33	5.3	5.3	23	21	1933	21	10	18	0.0	
25	13.9	5.0	tr	0.2	15.6	13.4	0.0	0.0	1018.4	0	0	0	0	0	0	0	0	12	4.2	4.3	334	13	1232	1	6	12	0.0	
26	20.7	4.8	0.5	0.3	15.0	13.5	12.3	0.0	1016.5	0	0	0	0	0	0	0	0	50	0.4	2.7	212	12	1408	228	5	14	1.1	
27	22.3	9.3	0.0	5.0	15.8	13.5	8.5	0.0	1016.9	0	0	0	0	0	0	0	0	43	3.8	3.9	26	16	1055	41	7	12	0.0	
28	21.2	9.5	0.0	8.0	16.6	13.6	6.8	0.0	1015.9	0	0	0	0	0	0	0	0	35	4.5	4.6	26	15	2140	31	6	14	0.0	
29	19.8	8.0	0.0	4.7	16.8	13.7	4.4	0.0	1013.4	0	0	0	0	0	0	0	0	10	5.9	6.0	16	19	1539	12	9	15	0.0	
30	17.3	11.2	0.0	7.8	16.6	13.9	0.0	0.0	1016.6	0	0	0	0	0	0	0	0	357	7.8	7.9	338	23	1653	354	10	15	0.0	
31	12.2	11.3	14.9	10.4	15.9	14.0	0.0	0.0	1016.1	0	0	0	0	0	0	0	0	354	8.6	8.6	348	27	0938	347	11	06	5.1	
Total			57.8				187.7	1.3																				33.3
Mean	18.8	8.0		4.8	14.4	12.2	6.05	0.0	1014.9									339	0.7	5.4								
Anom	+1.3	+0.5	115%	+0.5	+0.9	+0.4	99%		-1.0																			
Daily mean		13.4																										
Anom		+0.9																										

Number of days with:

Air frost = 1 Ground frost = 6 Nil sun = 5
Snow falling = 0 Snow lying = 0 Thunder = 0
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 2016

Date	VV	N	dd	ff	gg	TT	TdTd	RH	r	PPP	a	ppp	ww	W1	W2	Nh	Cl	h	Cr	Cf	NChs	hNChs	NChshs	Date	Remarks
1	86	6	20	08	13	11.6	0.7	47	4.0	1028.6	4	000	03	1	1	1	1	6	0	1	81835	83070	85075	1	COTRA Cu hum Halo 22° part+u/a cont
2	70	7	20	10	20	13.2	10.2	82	7.7	1020.9	7	008	01	6	2	7	5	4	/	/	85710	87656		2	/Ci75 COTRA
3	83	6	27	08	16	11.5	2.7	55	4.6	1025.9	1	008	03	1	1	1	1	6	0	1	81830	86075		3	COTRA Cu hum
4	82	1	20	08	14	14.1	4.0	50	5.0	1027.1	6	007	03	0	0	1	1	6	0	1	81838			4	1Ci80 COTRA Cu hum
5	72	6	16	07	12	15.9	3.6	44	4.9	1021.1	8	009	02	1	1	0	0	9	0	1	86080			5	COTRA
6	62	7	05	03	08	15.6	7.8	60	6.5	1011.2	7	016	01	2	2	0	0	9	0	8	84270	87075		6	COTRA U/a cont
7	57	5	32	03	05	19.2	12.4	65	8.9	1006.6	8	001	05	2	2	4	0	9	8	1	82858			7	2Ac62 2Ci75 COTRA
8	72	7	06	04	10	21.6	11.5	52	8.4	1006.7	8	004	03	1	1	1	0	9	4	1	81365	87075		8	COTRA
9	70	8	09	06	12	19.5	11.6	60	8.4	1008.1	2	005	21	6	2	1	5	7	7	8	81650	83358	87362	9	/Cs70
10	35	8	03	04	11	15.4	14.9	97	10.5	1006.0	7	001	58	6	5	8	7	2	/	/	87705	88707		10	
11	30	7	08	04	08	15.9	15.4	97	10.8	1002.8	8	001	50	6	5	7	5	2	/	/	82703	86705	87615	11	
12	59	6	02	07	14	16.6	12.2	75	8.8	1001.9	5	002	05	2	2	1	6	4	0	1	81715	86075		12	COTRA
13	60	7	02	09	20	13.1	9.4	78	7.3	1009.5	2	015	05	2	2	7	5	4	3	/	87613			13	/Ac60
14	80	5	35	08	15	8.3	0.2	57	3.9	1020.1	2	012	02	1	1	5	5	6	0	0	85635			14	
15	70	5	29	05	09	12.3	5.0	61	5.4	1022.9	0	001	02	1	1	3	8	6	0	1	81635	83845		15	3Ci78 COTRA Cu med
16	75	5	34	06	15	13.2	7.4	68	6.4	1021.8	0	002	03	1	1	1	1	5	0	1	81822	85080		16	COTRA Cu hum Parhelion
17	62	5	26	03	09	13.2	10.1	81	7.6	1018.2	7	002	03	1	1	5	8	4	0	0	84818			17	2Sc50 Cu hum Absent vv&cld est
18	59	8	16	08	14	11.9	10.4	91	7.8	1003.2	7	019	61	6	2	7	5	4	2	/	83712	85618	88540	18	
19	65	7	25	04	09	13.2	9.5	78	7.3	1012.6	2	018	01	2	2	7	5	4	/	/	87617			19	
20	75	8	24	10	18	14.4	9.6	73	7.4	1015.4	2	016	02	2	2	6	8	5	/	7	84825	83635	88270	20	Cu hum
21	50	8	21	09	20	13.5	11.8	90	8.6	1009.3	7	002	58	6	5	8	5	4	/	/	82710	87612	88620	21	
22	70	7	32	04	09	12.8	10.2	84	7.7	1007.3	0	010	03	2	2	3	2	4	7	2	83810	85366		22	3Ci70 Cu med
23	82	2	33	06	16	14.6	7.6	63	6.5	1017.8	1	013	03	0	0	2	1	5	0	2	82825			23	1Ci70 Cu hum
24	88	1	05	06	18	15.0	5.3	52	5.5	1022.1	8	006	02	0	0	1	1	6	0	1	81835			24	1Ci75 Cu hum
25	75	8	36	05	12	10.4	6.3	76	5.9	1018.4	8	002	02	2	2	8	8	4	/	/	84818	88628		25	Cu hum
26	75	4	34	02	07	13.9	7.5	65	6.4	1016.5	0	002	03	0	0	4	1	5	0	1	84825			26	1Ci75 Cu hum
27	72	2	03	04	12	15.8	10.0	68	7.6	1016.9	0	000	01	6	1	1	0	9	7	1	81358			27	1Ci78 COTRA
28	58	7	05	05	11	14.2	10.5	79	7.9	1015.9	8	003	05	2	2	5	5	6	7	/	85645	87358		28	
29	58	8	35	06	13	11.1	8.7	85	7.0	1013.4	2	004	05	2	2	8	6	3	/	/	88709			29	
30	61	8	36	08	18	12.7	10.1	84	7.6	1016.6	3	007	02	2	2	8	6	4	/	/	88712			30	
31	65	8	36	11	23	11.9	8.9	82	7.0	1016.1	1	007	02	2	2	8	6	4	/	/	88712			31	Absent vv&cld est

Mean vis = 21.2 km

Mean cloud = 6.0 75%

Mean wind speed = 6.2 kn

Mean gust = 13 kn

Mean TT = 14.1 °C

Mean TdTd = 8.6 °C

Mean RH = 70.9 %

Mean r = 7.1 g/kg

Mean PPP = 1014.9 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 2016

Date	VV	N	dd	ff	gg	TT	TdTd	RH	r	PPP	a	pppww	W1W2	NhCl	hCrCl	NChshs	NChshs	NChshs	Date	Remarks								
1	84	7	21	09	17	15.2	4.3	48	5.1	1026.3	6	608	03	1	1	1	8	6	7	2	81845	83463	86072	1	1Sc56 4Ac65 COTRA Cu hum Sc len			
2	67	8	21	12	25	13.7	9.9	78	7.6	1017.5	7	016	60	6	2	7	5	5	2	/	83622	85656	88458	2				
3	84	7	30	07	15	13.1	1.7	46	4.3	1026.3	2	002	03	2	2	7	8	7	/	1	82850	87656		3	/Ci80 COTRA Cu hum			
4	84	7	20	08	17	17.1	1.6	35	4.2	1024.6	8	018	02	2	2	0	0	9	0	1				87080	4	COTRA		
5	82	7	12	05	15	21.2	-0.7	23	3.6	1017.0	7	022	02	1	1	0	0	9	0	8				87277	5	COTRA U/a cont		
6	82	7	17	08	12	22.7	3.8	29	4.9	1007.5	7	014	02	2	2	0	0	9	0	2				83070	87075	6	COTRA Halo 22° part	
7	75	8	12	07	21	23.2	9.9	43	7.6	1004.6	7	007	02	2	2	1	2	7	7	/				81850	84358	88272	7	3Ac63 Cu con Halo 22° part
8	84	5	16	12	21	26.3	4.7	25	5.3	1005.4	6	002	02	2	2	1	2	7	0	1				81856	85075	8	Cu med	
9	75	7	08	08	16	20.8	10.7	52	8.0	1006.8	5	008	15	2	2	6	8	7	7	/				82850	85656	87362	9	Cu hum jpW
10	65	8	09	05	14	17.5	15.6	89	11.0	1004.6	6	009	21	6	2	8	8	4	/	/				85810	86620	88650	10	jpS&NW
11	80	7	04	03	05	18.1	15.5	84	10.9	1001.9	8	007	25	8	2	4	8	4	7	/				82815	83645	87365	11	2Ac58 Cu con
12	80	6	06	07	16	23.8	11.5	46	8.4	1001.2	7	002	02	2	2	2	2	6	0	1				82845	86075	12	COTRA Cu med	
13	68	3	02	08	21	16.4	9.6	64	7.4	1011.2	2	010	02	0	0	1	1	5	3	1				81828	83075	13	1Ac60 COTRA	
14	80	4	36	04	13	13.6	1.6	44	4.3	1020.6	0	000	02	1	1	4	4	6	0	0				81845	84645	14	Cu hum	
15	82	5	32	07	17	15.3	2.3	41	4.5	1021.4	7	007	03	1	1	5	8	7	0	0				82850	84656	15	Cu hum	
16	80	3	31	06	13	15.8	4.2	46	5.1	1020.2	7	011	02	0	0	3	1	6	0	1				83845		16	1Ci80 Cu hum Absent vv&cld est	
17	84	7	24	10	18	16.7	8.4	58	6.8	1014.7	7	015	02	2	2	7	8	6	/	/				83838	87650	17	Cu med	
18	60	7	26	06	15	12.1	8.7	80	7.0	1002.4	5	000	80	8	2	7	8	5	/	/				81825	85650	87656	18	2Sc40 Cu med
19	86	8	23	11	19	18.0	8.3	53	6.8	1012.5	5	002	02	2	2	1	6	7	7				82840	83364	86367	19	8Cs70 Cu hum	
20	84	7	23	07	16	17.7	8.4	54	6.8	1014.5	8	008	03	2	2	1	8	6	7	/				81835	83359	87361	20	1Sc56 Cu med
21	40	8	19	09	22	14.2	12.9	91	9.2	1007.9	5	004	63	6	2	7	5	4	2	/				83710	87613	88530	21	
22	62	8	27	10	17	15.3	9.0	66	7.1	1008.3	3	010	15	2	2	6	8	6	7	/				83825	84656	88468	22	3Ac60 Cu med jpNW
23	86	3	33	06	18	18.8	4.1	38	5.1	1018.4	0	000	02	0	0	2	2	7	6	0				82850		23	1Ac57 Cu con El hz lyr	
24	88	6	02	10	20	16.9	6.2	49	5.9	1019.9	7	010	01	2	2	6	8	6	0	0				83842	88656	24	Cu med	
25	75	8	02	05	11	11.2	7.3	77	6.3	1016.9	6	003	02	2	2	8	8	5	/	/				83822	86625	88630	25	Cu hum
26	80	3	07	03	12	20.2	7.7	44	6.5	1014.8	7	010	02	0	0	3	2	6	0	1				83845		26	1Ci75 Cu med	
27	78	7	06	04	13	20.1	9.6	51	7.4	1015.8	7	005	03	1	1	7	8	6	/	/				83845	86650	27	Cu hum	
28	61	3	03	06	13	20.7	10.6	52	7.9	1013.5	7	013	03	1	1	3	8	6	0	0				81835	83650	28	Cu med Sky turbid	
29	65	2	01	09	16	18.2	11.0	63	8.1	1013.1	7	004	02	1	1	1	1	5	0	1				81828		29	2Ci78 Cu hum	
30	82	7	01	09	20	16.4	11.1	71	8.2	1016.1	8	008	02	2	2	7	8	5	/	/				85825	87635	30	Absent 30&31May vv&cld est	
31	60	8	36	06	18	11.3	10.4	94	7.8	1018.0	2	008	61	6	6	8	5	3	/	/				86707	88615	31		

Mean vis = 32.7 km
 Mean cloud = 6.2 77%
 Mean wind speed = 7.3 kn
 Mean gust = 16 kn
 Mean TT = 17.5 °C
 Mean TdTd = 7.7 °C
 Mean RH = 55.9 %
 Mean r = 6.7 g/kg
 Mean PPP = 1013.7 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-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
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	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
analysis	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
2016	4	0.27	0.00	0.27	0.26	0.28	0.00	0.00	0.33	0.13	0.00	0.00	0.00	0.00	0.00	0.19	0.37
	5	1.00	0.00	1.00	1.00	1.00	0.24	0.01	1.00	0.69	0.00	0.00	0.00	0.00	0.66	0.02	1.00
	6	1.00	0.00	1.00	0.98	1.00	0.82	0.00	0.60	0.00	0.00	0.00	0.27	0.01	1.00	0.29	1.00
	7	1.00	0.00	1.00	1.00	1.00	0.62	0.71	0.58	0.00	0.00	0.00	0.83	0.07	0.80	0.26	1.00
	8	1.00	0.00	0.95	1.00	1.00	0.90	0.95	1.00	0.00	0.00	0.00	1.00	0.17	0.19	0.74	1.00
	9	0.70	0.01	1.00	1.00	1.00	1.00	0.69	1.00	0.00	0.00	0.00	1.00	0.61	0.55	0.65	1.00
	10	0.92	0.00	0.98	0.98	1.00	1.00	0.90	1.00	0.00	0.00	0.00	0.75	0.80	0.92	0.64	0.66
	11	1.00	0.05	0.43	1.00	1.00	1.00	0.53	1.00	0.00	0.00	0.00	0.65	0.98	0.89	0.90	0.43
	12	1.00	0.40	0.65	1.00	1.00	0.75	0.31	0.97	0.04	0.00	0.00	0.18	1.00	0.68	1.00	0.88
	13	0.97	0.05	0.08	1.00	1.00	0.47	0.00	1.00	0.00	0.00	0.00	0.72	0.90	0.51	0.76	0.97
	14	0.76	0.00	0.00	1.00	1.00	0.39	0.00	1.00	0.00	0.00	0.00	0.96	0.96	0.30	0.70	0.91
	15	0.34	0.00	0.00	1.00	1.00	0.23	0.00	1.00	0.00	0.00	0.00	0.92	0.98	0.66	0.38	0.46
	16	0.01	0.00	0.05	1.00	1.00	0.79	0.60	0.92	0.00	0.00	0.00	0.81	0.44	0.66	0.26	0.38
	17	0.00	0.37	0.17	1.00	0.75	0.36	0.33	1.00	0.00	0.00	0.00	0.69	0.00	0.96	0.17	0.92
	18	0.00	0.97	0.10	1.00	0.73	0.05	0.78	0.89	0.00	0.00	0.02	0.79	0.00	0.92	0.22	0.85
	19	0.00	0.00	0.00	0.31	0.00	0.00	0.08	0.06	0.00	0.00	0.04	0.06	0.00	0.34	0.00	0.08
	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		9.96	1.85	7.69	14.53	13.75	8.63	5.90	13.34	0.86	0.00	0.07	9.62	6.91	10.05	7.19	11.91

	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
	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	0.50	0.00	0.00	0.00	0.00	0.00	0.45	0.49	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.12
	5	1.00	0.00	0.43	0.00	0.00	0.47	1.00	1.00	0.00	0.80	0.00	0.00	0.03	0.00	0.00	0.40
	6	0.71	0.00	0.00	0.00	0.00	0.65	1.00	1.00	0.00	1.00	0.00	0.41	0.00	0.00	0.00	0.41
	7	0.01	0.00	0.00	0.01	0.00	0.74	1.00	1.00	0.00	1.00	0.10	0.48	0.00	0.00	0.00	0.43
	8	0.43	0.00	0.10	0.00	0.00	0.26	1.00	1.00	0.00	0.51	1.00	0.00	0.00	0.00	0.00	0.46
	9	0.82	0.00	0.03	0.00	0.00	0.10	0.98	1.00	0.00	0.45	1.00	0.00	0.00	0.00	0.00	0.47
	10	0.03	0.00	0.01	0.11	0.00	0.51	0.95	0.96	0.00	0.85	1.00	0.03	0.00	0.00	0.00	0.48
	11	0.11	0.00	0.09	0.13	0.00	0.51	0.69	0.66	0.00	0.72	1.00	0.74	0.08	0.00	0.00	0.47
	12	0.00	0.01	0.00	0.09	0.00	0.00	0.66	0.11	0.00	0.86	1.00	0.31	0.57	0.00	0.00	0.43
	13	0.09	0.00	0.00	0.04	0.00	0.00	0.66	0.12	0.00	0.95	0.93	0.57	0.94	0.00	0.00	0.41
	14	0.01	0.00	0.00	0.00	0.00	0.00	1.00	0.13	0.00	0.99	0.37	0.96	0.98	0.00	0.00	0.40
	15	0.00	0.00	0.05	0.00	0.00	0.00	0.75	0.39	0.00	0.47	0.57	0.83	0.98	0.00	0.00	0.36
	16	0.00	0.00	0.03	0.00	0.00	0.00	0.77	0.43	0.00	0.98	0.62	0.97	0.47	0.00	0.00	0.36
	17	0.02	0.00	0.00	0.37	0.00	0.00	1.00	0.90	0.00	1.00	0.54	0.66	0.32	0.00	0.00	0.37
	18	0.00	0.36	0.00	0.28	0.00	0.00	0.96	1.00	0.00	1.00	0.36	0.82	0.05	0.00	0.00	0.39
	19	0.00	0.30	0.00	0.00	0.00	0.00	0.15	0.73	0.00	0.36	0.00	0.00	0.00	0.00	0.00	0.08
	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		3.74	0.67	0.75	1.03	0.00	3.24	13.02	10.93	0.00	12.27	8.51	6.79	4.43	0.00	0.00	187.62

MAY 2016	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	9.24	16.30	1456	-0.22	446	74.3	99.0	552	39.1	1232	4.22	5.13	7.4	2354	3.7	442	1027.18	1028.9	641	1024.3	2359	
2	11.94	17.45	1226	6.57	2358	82.3	97.6	333	55.9	1230	8.84	7.05	8.4	1600	4.9	1831	1020.45	1024.5	0	1017.1	1529	
3	9.92	15.14	1239	3.75	453	65.7	96.3	458	35.0	1256	3.11	4.69	5.7	0	3.5	1301	1025.72	1028.3	2348	1022.1	0	
4	10.63	17.82	1458	1.32	427	61.6	99.0	431	30.9	1646	2.32	4.44	6.0	1126	3.6	1701	1025.86	1028.2	0	1023.4	1749	
5	12.47	21.82	1458	1.46	415	56.5	99.1	439	21.4	1451	2.14	4.42	6.4	749	3.2	1643	1019.20	1023.6	4	1015.5	2358	
6	14.52	24.16	1411	4.17	426	61.8	97.1	433	26.7	1437	5.87	5.81	8.8	1416	4.4	1816	1010.10	1015.6	0	1007.1	1655	
7	16.82	24.59	1412	10.13	433	68.0	96.6	427	36.0	1355	10.18	7.77	10.9	1155	6.7	1853	1006.15	1007.5	0	1004.4	1518	
8	18.94	27.17	1352	8.89	411	58.4	98.7	423	21.7	1307	8.84	7.15	10.6	939	4.8	1306	1006.37	1007.4	801	1005.1	1634	
9	17.06	24.18	1402	11.87	429	77.2	99.0	2355	41.4	1404	12.58	9.18	12.0	1617	7.1	224	1007.57	1008.7	2113	1006.4	36	
10	15.84	18.23	1649	14.08	339	97.9	99.0	452	85.5	1651	15.52	11.01	12.4	1337	10.2	339	1005.59	1008.2	0	1004.1	1718	
11	15.95	19.04	1543	13.66	2358	97.7	99.0	746	78.8	1449	15.58	11.08	12.2	1004	9.9	2358	1002.86	1004.6	1	1001.8	1554	
12	17.12	24.61	1526	11.26	2359	77.2	99.0	126	34.8	1529	12.56	9.15	12.7	1158	6.5	1642	1002.34	1006.0	2354	1000.8	1610	
13	12.61	18.38	1407	8.53	2357	77.9	91.8	440	57.6	1447	8.75	7.07	10.2	1230	5.1	2153	1010.71	1017.0	2359	1005.8	7	
14	9.53	14.68	1439	4.60	2358	63.9	96.4	2357	37.5	1716	2.56	4.55	6.2	1220	3.6	1716	1020.19	1023.4	2359	1016.7	133	
15	10.89	17.33	1450	2.31	359	68.4	99.0	516	30.2	1232	4.40	5.18	7.1	2235	3.4	1226	1022.03	1023.5	19	1020.6	1654	
16	12.55	17.79	1742	5.84	416	67.5	97.1	445	40.6	1744	6.21	5.86	7.4	2048	4.8	1328	1020.67	1022.0	750	1019.0	1830	
17	12.52	18.61	1343	6.20	424	78.4	99.0	437	44.8	1308	8.55	6.90	8.3	922	5.5	1309	1015.82	1019.6	37	1009.9	2358	
18	11.89	14.69	1241	9.77	2354	87.0	97.7	2029	68.5	1413	9.77	7.57	9.2	1237	6.5	2347	1004.61	1010.0	0	1001.9	1236	
19	13.36	19.07	1436	9.48	117	77.0	95.6	2328	45.9	1543	9.14	7.22	9.0	1140	5.6	1543	1011.58	1013.5	2036	1006.6	1	
20	14.82	19.35	1334	12.41	2341	75.2	94.7	2	48.8	1335	10.22	7.73	9.0	46	6.4	1359	1014.01	1015.7	1016	1011.8	2359	
21	14.15	17.35	1231	11.49	2359	88.8	98.1	240	68.1	1232	12.28	8.90	10.1	1619	7.5	2359	1008.15	1012.0	1	1005.3	1945	
22	13.01	18.25	1401	9.37	409	81.3	99.0	535	47.5	1440	9.61	7.46	9.2	1055	5.8	1431	1008.09	1013.1	2344	1005.5	136	
23	13.29	19.91	1625	7.21	317	68.4	97.7	2348	32.3	1504	6.87	6.14	7.7	1042	4.3	1504	1018.11	1022.2	2356	1012.9	0	
24	11.71	18.10	1113	5.48	2345	71.9	99.0	417	41.0	1123	6.16	5.83	8.0	1308	4.6	943	1021.10	1022.9	433	1018.9	1827	
25	10.00	13.17	1258	5.15	12	80.8	96.6	14	68.5	1049	6.82	6.12	7.4	1257	5.2	23	1017.70	1020.2	4	1016.3	2348	
26	13.96	21.03	1446	4.95	408	69.5	99.0	431	40.2	1511	7.78	6.56	8.3	2204	5.3	358	1015.68	1017.0	630	1014.1	1753	
27	15.55	22.59	1519	9.37	200	73.3	96.5	204	39.7	1520	10.21	7.71	9.6	1007	6.2	1307	1016.32	1017.3	624	1014.8	1622	
28	15.16	21.50	1353	9.57	418	76.2	97.7	111	48.1	1423	10.67	7.96	10.6	1231	7.1	408	1014.79	1017.0	31	1012.2	1714	
29	13.39	20.14	1624	8.07	423	79.7	96.3	215	55.7	1516	9.77	7.52	9.8	1335	6.2	414	1013.65	1016.4	2358	1012.5	1600	
30	14.00	17.61	1559	11.43	358	78.5	91.0	202	65.5	1617	10.23	7.71	8.9	1521	6.4	2349	1016.12	1017.2	1031	1015.0	334	
31	11.80	13.20	11	11.31	1740	87.4	97.1	1359	67.4	16	9.70	7.46	8.3	2355	6.1	112	1017.35	1020.5	2203	1015.0	606	
Total																						
Mean	13.38	19.14		7.72		75.1	97.38		46.94		8.43	7.04	8.96		5.62		1014.39	1017.15		1011.83		
Max	18.94	27.17		14.08		97.9	99.10		85.50		15.58	11.08	12.67		10.16		1027.18	1028.86		1024.34		
Min	9.24	13.17		-0.22		56.5	91.00		21.41		2.14	4.42	5.72		3.25		1002.34	1004.57		1000.84		

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

Note: Temperature calibration error, all temperatures are 0.2C high

**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 2016

Temperature (°C)				Rank in the past 135 years					
Mean maximum	14.3	(0.0)		40 th highest					
Mean minimum	4.5	(-0.5)		50 th highest					
Daily mean	9.4	(-0.2)		42 nd highest					
Rainfall total (mm)	185.8	(128 %)		18 th highest					
Sunshine total (hours)	471.2	(102 %)							
N° of:	Dry days	50 (-2)	Wet days	26 (-2)					
Days with:	Air frost	16 (+5)	Ground frost	41 (+6)	Snow falling	3 (-1)	Snow lying	0 (0)	
Thunder	2 (-3)	Hail ≥5mm	3 (+1)	Small hail/ice	9 (+4)	Fog @09 GMT	2 (+1)	Nil sun	12 (+3)
Air pressure MSL : Mean @09 GMT (mbar)	1014.2 (-1.4)								

Departure from 1981 to 2010 average shown in brackets.

Notes: **Wet with Temperature and Sunshine Near Average.**

Temperature: The mean temperature this spring is slightly below average, but is lowest only since 2013, and in this millennium only 2013 and 2010 have had colder springs. The mean maximum exactly equals the current climatological average, but the mean minimum is 0.5° below that average, but comparing with the longer-term, the mean maximum and mean minimum are 0.8° and 0.3° above the 135 year medians respectively. March and April were both cooler than average, but May was milder. March was the coolest month, mean 6.2°, (-1.0°), and May the mildest, 13.4°, (+0.9°). The season's highest max was 26.8° on the 8th May, 1.4° above the median. The lowest max was 7.2° on the 2nd March, 2.7° above its median. The highest min was 14.3° on the 11th May, 1.8° above the median and 10th highest in the past 104 years. The lowest min was -4.3° on the 8th March, exactly on the median. The mean grass min was 1.0°, (-0.5°), and the lowest was -10.0° on the 8th March, close to normal. The mean earth temperature at 30 cm depth was 10.5°, (+0.3°), and at 1 m depth 9.8° (+0.1°). There were 67.2 hours with an air frost, (+11.1), and 6 more days than average with a ground frost. **Rainfall:** This has been a wetter than average spring season with 28% more rain than normal. It is the wettest spring since 2008, and before that, 2001, and 13 years this millennium have had a drier spring. Each of the season's months had above average rainfall, with March the wettest with 66.7 mm, (146 %), and May the driest with 57.8 mm (115 %). Daily falls over 20 mm occurred in each of the months, the highest being 22.7 mm on the 15th April. Despite the overall wet nature of this spring, there was a good deal of dry weather too, and the number of dry days is just 2 fewer than average. Dry spells occurred in each month, the first and longest was 14 days ending on the 23rd March, then 5 days ending on the 21st April, 6 days to the 8th May and 5 days to the 16th May. There were no exceptional wet spells, but there were two 10 day periods with over 40 mm of rain, 44 mm to the 2nd April and 45 mm to the 16th April. The duration of measurable rain was 129.2 hours, 107 % of average. Soil moisture was adequate throughout, and the estimated soil moisture deficit stood at 53 mm on the 30th May. The highest rainfall rate was 51 mm/hr at 1429 GMT on the 15th April. Thunder was less frequent than normal, and was heard on the 27th March and 7th April only. Large hail was observed on the 2nd and 27th March and 7th April. Ice pellets and other ice meteors were recorded on the 5th, 6th, 28th and 29th March, 6th, 25th, 27th and 29th April, and the 9th May, nearly twice the average number of days. Snow fell together with rain on the 2nd, 4th and 5th March. **Sunshine:** This season's sunshine was slightly above average. Compared with recent years, spring 2016 falls in the middle, with equal number of years this millennium with more or with less sunshine. May was the sunniest month, daily mean 6.05 hours, and March the least sunny, daily mean 3.96 hours. The sunniest day was the 4th May with 14.5 hours. Overall there were 35 days with less than 3 hours, 40 with =>6 hours, 18 with =>9 hours and 6 with =>12 hours. **Wind:** The overall mean wind speed was 6.7 mph, 0.3 mph below average. The 28th March was the windiest day, mean 16.0 mph, and the season's highest gust of 54 mph was also on that day. The 12th March was the least windy day, mean 2.1 mph, and there was a total of 1651 minutes, 27.5 hours, of calm. Daily mean direction/number of days: N,11 NE,20 E,6 SE,2 S,10 SW,18 W,15 NW,10. Compared with average, SW winds were 5.9% less frequent, with W and NW combined 6.3% more frequent. N and NE combined were 3.2% more frequent while SE and S combined were 4.0% less frequent. **Humidity:** The overall mean relative humidity was 76.7% and the lowest value was 21% on the 5th May. The mean water vapour content per kg of air was 5.6g at 0900 GMT and 5.3g at 1500 GMT. **Pressure:** The extremes of pressure were 1035.5 mbar on the 13th March and 987.0 mbar on the 9th March, a span of 48.5 mbar compared with an average of 52.7 mbar.

March: Temperature below average, rainfall and sunshine above average. Mean minimum and mean grass minimum lower than in any of the winter months.

April: Cool and wet with average sunshine. 22.7 mm rain on the 15th, the 5th wettest April day since before 1904.

May: Temperature and rainfall above average, sunshine near normal. The highest min ranks 10th highest in 104 years.

Month	Mean Max	Anom	Mean Min	Anom	Rain mm	Anom	Sun hrs	Anom	Mean Wind mph	Max gust	Mean pressure	Anom
March	10.6°	-0.6°	1.8°	-1.4°	66.7	146%	122.8	110%	7.4	54	1014.9	-1.0
April	13.5°	-0.5°	3.6°	-0.8°	61.3	126%	160.7	100%	6.6	41	1012.8	-2.2
May	18.8°	+1.3°	8.0°	+0.5°	57.8	115%	187.7	99%	6.2	31	1014.9	-1.0

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 of 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.