

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

JUNE 2015

Temperature (°C / °F)			Anomaly	Rank in the past 134 years				
Mean maximum	21.3	70.3	+0.8	34 th highest				
Mean minimum	9.7	49.5	-0.8	55 th lowest				
Daily mean	15.5	59.9	0.0	40 th highest				
Highest maximum	30.8	87.4	on 30 th	Lowest maximum	15.3	59.5	on 1 st	
Highest minimum	14.5	58.1	on 28 th	Lowest minimum	4.2	39.6	on 4 th	
Mean grass minimum	6.6	43.9	-1.0	Lowest grass minimum	-0.3	31.5	on 4 th	
Mean earth @30 cm	16.7	62.1	-0.1	Earth @100 cm	14.6	58.3		
Frost duration (hrs)	0.0			Rain duration (hrs)	22.1			
Rainfall total (mm / in)	27.2	1.07	55 %	37 th lowest				
Highest daily fall	13.5	0.53	on 20 th					
Number of: Dry days (<0.2mm)	22	Wet days (>0.9mm)	6	days ≥5mm	1			
Sunshine total (hrs)	183.6	Daily mean	6.12	95 %	Sunniest day	15.0	on 30 th	
N ^o days with: Air frost	0	Ground frost	1	Snow falling	0	Snow lying	0	
Thunder	2	Hail ≥5mm	0	Small hail/ice	0	Fog @09	0	
				Nil sun	0			
Pressure MSL : Mean @09 GMT, mbar	1020.3	+3.2	Highest	1034.7	on 9 th	Lowest	1000.6	on 2 nd
Relative humidity : Mean (%)	66.9	Lowest	21	on 30 th	Water vapour (g/kg), mean at 09 and 15 GMT		7.4,	7.1
Overall mean wind speed (mph)	7.0	Windiest day	15.0	on 2 nd	Max gust	41	on 2 nd	
Wind direction (days)	N 4	NE 4	E 0	SE 2	S 0	SW 12	W 5	NW 3
Least windy day (mph)	3.8	on 12 th	Calm; less than 0.5 mph (minutes)			227		

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

Notes: Dry with Average Mean Temperature and Below Average Sunshine

Temperature: Although the daily mean temperature this June exactly equals the current climatological average, the mean maximum is 0.8° above average while the mean minimum is 0.8° below average. The resulting mean daily temperature range is 7th highest for this month in the past 40 years. The month's highest maximum is 3.8° above the median and is highest for June since 2006. The lowest max is 0.5° above the median while the highest min is 0.3° below the median and the lowest min 0.5° below its median. The mean grass min is lowest since 2010. There was a slight ground frost on one day, and 15 out of the past 36 Junes have had at least one. The month got off on a cool note, with an anomaly of -4.3° for the max on the 1st. The 9th was another cool day, anomaly also -4.3°, and there were several cool nights with anomalies near -5°, namely the 4th, and 7th to 10th. Most of the rest of the month saw temperatures near normal, apart from a warm day on the 11th, anomaly +5.8°, and a hot day on the 30th, anomaly +9.1°, and the first June maximum over 30° since 2006.

Rainfall: This has been a dry June overall, with only about half the average rainfall. There were 3 dry spells, the first of 6 days ending on the 10th, the second of 7 days ending on the 19th and the third of 5 days ending on the 27th. The 20th was this June's wettest day, producing nearly 50% of the month's total. The only other days with significant amounts were the 1st and 12th, both with under 4mm of rain. So far this millennium 5 Junes have been drier than this one, and one the same. It is worth noting that June 2012 with 124.2 mm is the third wettest in 134 years, the wettest on record being 155.1 mm in 1971, and the driest, 0.3 mm in 1925. Rainfall duration is 73% of normal. Thunder occurred on the 20th and 30th, and was accompanied by violent rain on the former date, giving the month's highest rainfall rate of 85 mm/hr. **Sunshine:** The total this June is a little below normal but only one of the last 5 Junes has been sunnier, that of 2014. The first 2 days of the month were dull, averaging just 15% of the maximum. Some sunny days, especially the 4th, 7th and 11th, all having over 80 % of the maximum, lifted the accumulation to 15 hours in surplus by the 11th. Several dull days from the 12th to the 24th resulted in a deficit of nearly 20 hours by then, but this was reduced substantially by sunny days on the 29th and 30th, the last having over 90 % of the maximum. Overall there were 9 days with <3 hours, 14 with =>6 hours, 8 with =>9 hours, 4 with =>12 hours and 1 with =>15 hours. **Wind:** The mean speed is 0.7 mph above average and is the 2nd highest for June since 1998 after 2012. The highest gust is 5 mph above average.

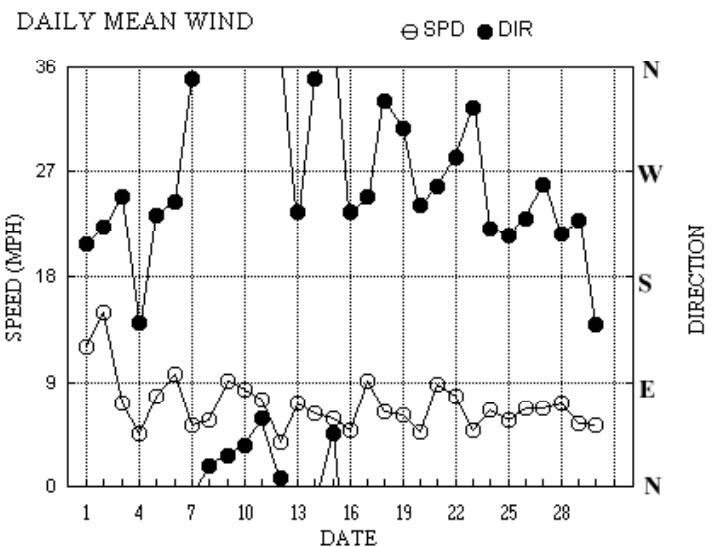
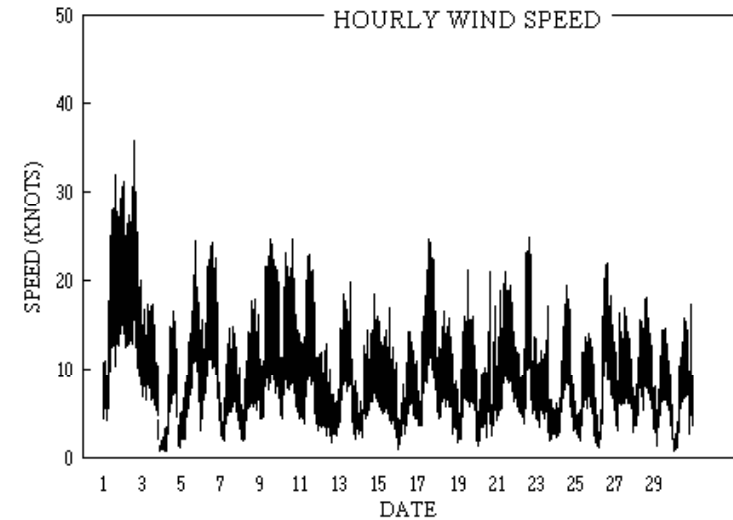
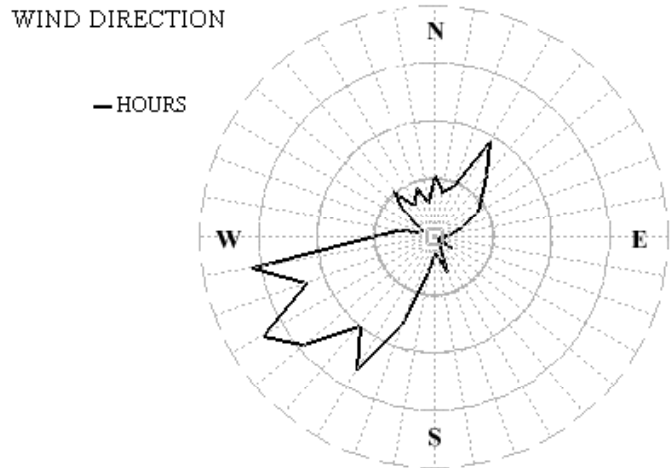
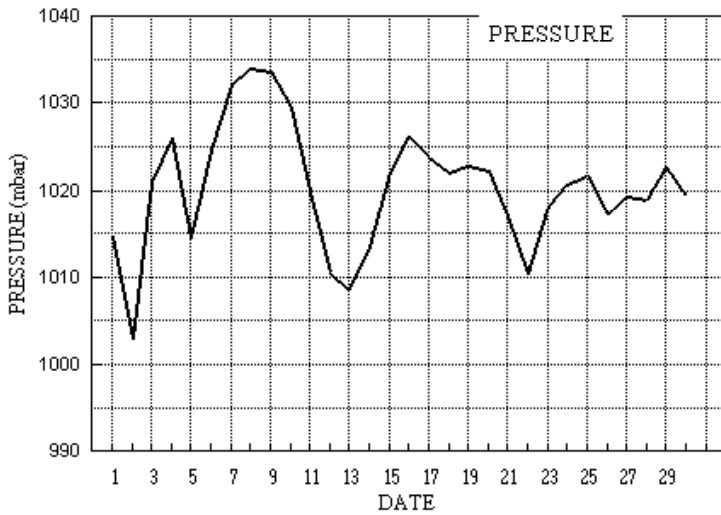
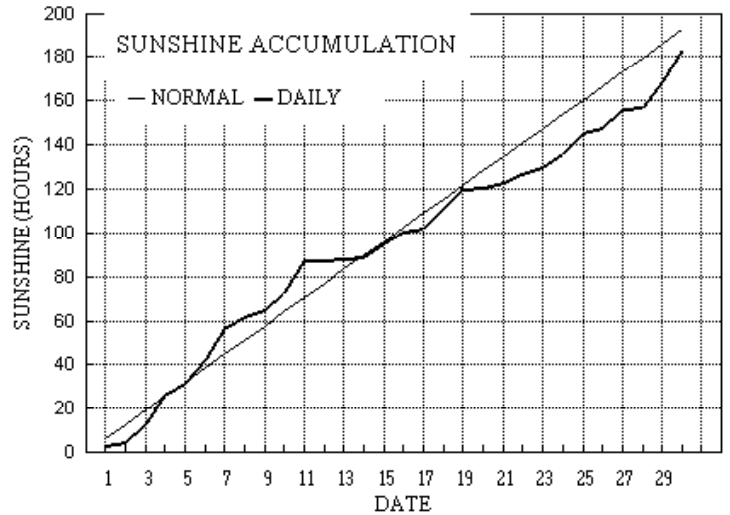
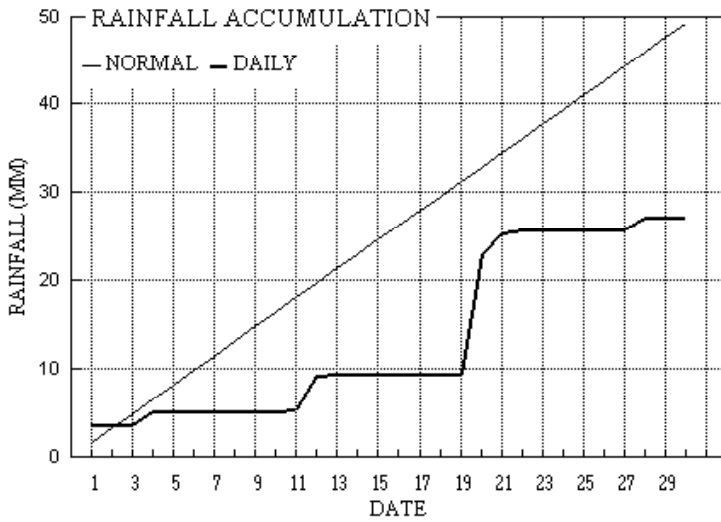
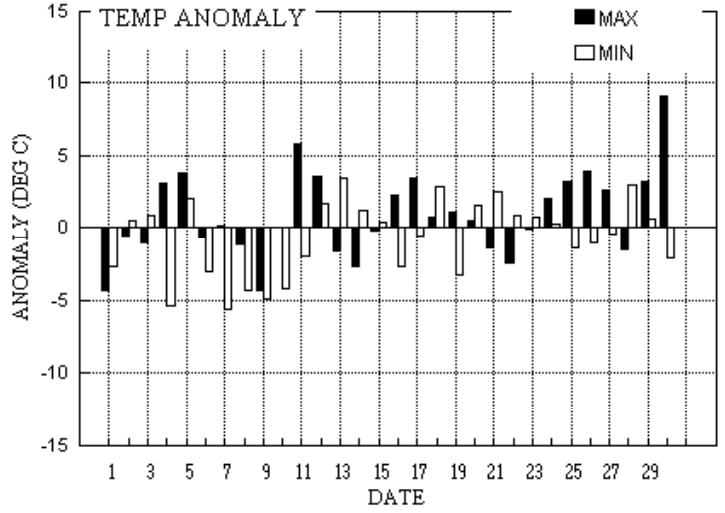
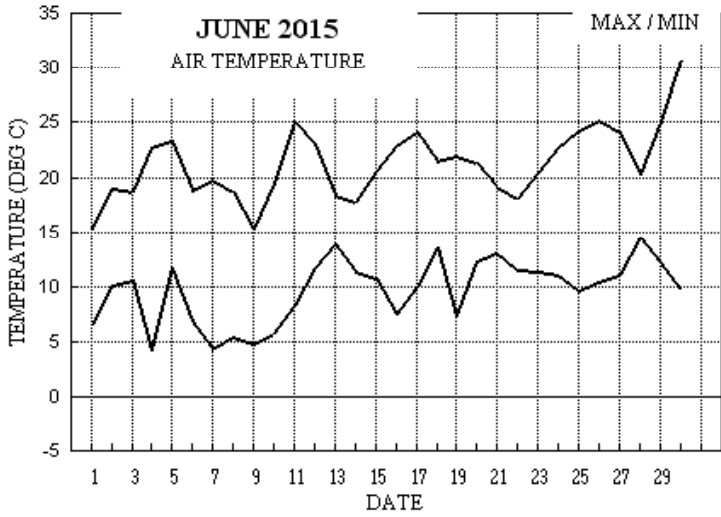
Pressure: The mean pressure is highest since 2006 and before that 1996.

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

From the 1 st to the 10 th				From the 11 th to the 20 th				From the 21 st to the 30 th			
-0.5°	-2.6°	30%	114%	+1.3°	+0.3°	110%	75%	+1.9°	+0.3°	24%	98%

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

Wokingham climatological graphs for June 2015



Month: JUNE 2015

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	15.3	6.6	3.7	2.1	14.6	13.6	3.3	0.0	1014.7	0	0	0	0	207	10.3	10.5	233	32	1545	201	15	23	8.4	
2	19.0	10.2	tr	9.4	14.5	13.6	1.7	0.0	1002.9	0	0	0	0	223	12.8	13.0	212	36	1418	226	16	14	0.0	
3	18.7	10.6	0.0	7.8	14.7	13.6	8.0	0.0	1021.0	0	0	0	0	249	5.8	6.2	260	18	0737	267	9	08	0.0	
4	22.8	4.2	1.5	-0.3	15.0	13.6	13.6	0.0	1026.0	0	1	0	0	141	3.0	4.0	167	17	1358	163	9	16	0.9	
5	23.3	11.7	tr	7.8	15.7	13.6	5.2	0.0	1014.5	0	0	0	0	233	5.2	6.7	262	25	1741	242	12	16	0.0	
6	18.8	6.9	0.0	0.4	15.9	13.7	10.9	0.0	1024.7	0	0	0	0	244	8.2	8.4	255	25	1349	243	12	12	0.0	
7	19.8	4.4	0.0	0.0	15.6	13.9	13.6	0.0	1032.1	0	0	0	0	349	3.4	4.5	11	15	1516	359	7	18	0.0	
8	18.7	5.5	tr	0.6	15.8	14.0	5.4	0.0	1033.9	0	0	0	0	17	4.7	5.0	49	18	1848	17	7	14	0.0	
9	15.3	4.9	0.0	1.0	15.6	14.0	3.2	0.0	1033.6	0	0	0	0	26	7.8	7.8	23	25	1337	27	10	15	0.0	
10	19.4	5.8	0.0	2.0	15.2	14.1	7.9	0.0	1029.5	0	0	0	0	35	7.1	7.2	20	25	1646	28	10	06	0.0	
11	25.0	8.2	0.3	5.3	15.5	14.1	14.8	0.0	1019.9	0	0	0	0	59	6.4	6.5	65	23	1229	68	10	10	0.2	
12	23.0	11.7	3.8	10.9	16.5	14.1	0.3	0.0	1010.6	0	0	0	0	8	1.9	3.3	23	13	0929	10	5	09	2.0	
13	18.4	13.8	0.1	13.9	16.8	14.2	0.1	0.0	1008.7	0	0	0	0	236	5.7	6.2	252	20	1413	244	9	14	0.4	
14	17.7	11.4	tr	10.1	16.6	14.4	0.7	0.0	1013.5	0	0	0	0	350	3.7	5.5	20	19	1857	22	8	18	0.0	
15	20.5	10.7	0.0	10.8	16.6	14.5	6.5	0.0	1022.1	0	0	0	0	46	4.5	5.0	314	17	1305	22	7	00	0.0	
16	22.9	7.5	0.0	3.9	17.0	14.6	5.7	0.0	1026.2	0	0	0	0	236	3.6	4.2	261	15	1313	248	6	14	0.0	
17	24.1	10.0	tr	6.2	17.3	14.7	1.7	0.0	1023.9	0	0	0	0	249	7.7	7.9	250	25	1431	258	12	15	0.0	
18	21.5	13.5	0.0	12.4	17.6	14.8	9.3	0.0	1022.0	0	0	0	0	331	4.9	5.6	324	17	0850	0	8	06	0.0	
19	22.0	7.3	0.1	2.0	17.7	14.9	8.3	0.0	1022.8	0	0	0	0	308	4.5	5.3	343	21	1417	308	8	09	0.3	
20	21.3	12.3	13.5	9.1	17.8	15.1	0.5	0.0	1022.2	0	0	0	1	241	3.5	4.1	254	21	1614	253	8	22	1.9	
21	19.1	13.1	2.4	9.8	17.6	15.2	2.4	0.0	1017.0	0	0	0	0	257	7.5	7.6	278	21	1009	258	10	17	6.0	
22	18.0	11.5	0.5	11.2	17.5	15.3	3.8	0.0	1010.4	0	0	0	0	282	5.4	6.7	316	25	1658	311	11	16	1.0	
23	20.4	11.3	0.0	8.4	17.2	15.4	3.3	0.0	1018.2	0	0	0	0	325	2.8	4.2	262	17	1449	331	6	07	0.0	
24	22.8	11.1	0.0	7.2	17.3	15.4	6.1	0.0	1020.7	0	0	0	0	221	5.5	5.7	184	20	1424	236	9	15	0.0	
25	24.3	9.7	0.0	6.0	17.7	15.4	9.0	0.0	1021.7	0	0	0	0	215	4.8	4.9	244	14	1646	218	8	17	0.0	
26	25.3	10.4	tr	6.9	18.0	15.5	2.2	0.0	1017.2	0	0	0	0	230	5.6	5.9	241	22	1502	238	11	13	0.0	
27	24.1	11.0	tr	7.6	18.2	15.6	8.9	0.0	1019.4	0	0	0	0	259	5.5	5.9	247	17	1326	267	8	13	0.0	
28	20.2	14.5	1.2	10.7	18.4	15.7	0.7	0.0	1019.0	0	0	0	0	217	6.1	6.3	219	18	1514	210	9	08	0.9	
29	25.1	12.1	0.0	9.3	18.0	15.8	11.5	0.0	1022.7	0	0	0	0	228	4.5	4.7	248	15	1425	242	7	11	0.0	
30	30.8	9.7	0.1	5.8	18.5	15.9	15.0	0.0	1019.3	0	0	0	1	139	3.9	4.5	67	18	2212	149	8	14	0.1	
Total			27.2				183.6	0.0																22.1
Mean	21.3	9.7		6.6	16.7	14.6	6.12	0.0	1020.3					253	2.4	6.1								
Anom	+0.8	-0.8	55%	-1.0	-0.1	+0.0	95%																	+3.2
Daily mean		15.5																						
Anom		-0.0																						

Pressure, abs highest = 1034.7 on 9
 Pressure, abs lowest = 1000.6 on 2

Number of days with:
 Air frost = 0 Ground frost = 1 Nil sun = 0
 Snow falling = 0 Snow lying = 0 Thunder = 2
 Hail=>5mm = 0 Hail<5mm or ice = 0 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 JUNE 2015

Date	VV	N	dd	ff	gg	TT	TdTd	RH	r	PPP	a	ppp	ww	W1	W2	Nh	Cl	h	Cr	Cl	NChshs	NChshs	NChshs	Date	Remarks	
1	86	5	23	10	19	13.6	5.4	58	5.5	1014.7	8	004	03	1	1	3	2	6	7	0	83830	83364	1	1Ac62 Cu med		
2	75	8	22	13	28	14.5	12.9	90	9.3	1002.9	2	015	20	6	5	8	5	3	/	/	85709	87712	88620	2		
3	80	5	28	09	17	14.5	6.3	58	5.9	1021.0	2	029	03	1	1	6	8	6	0	0	83830	83635	3	3		
4	82	3	12	06	11	18.1	6.4	46	5.8	1026.0	8	008	03	0	0	3	0	9	8	1	81369	83372	4	1Ci80 COTRA Ac cas U/a cont+parhelion		
5	61	7	19	71	12	17.6	15.9	90	11.3	1014.5	5	004	21	6	2	6	7	3	8	/	81709	86712	86360	5	Ac cas	
6	80	4	23	13	22	15.2	5.6	53	5.6	1024.7	1	008	03	0	0	4	1	6	0	0	84835	6	6	Cu hum		
7	80	1	01	06	11	15.0	6.9	58	6.0	1032.1	2	004	03	0	0	1	1	6	0	0	81833	7	7	Cu hum		
8	82	3	35	05	11	14.2	6.1	58	5.7	1033.9	8	003	02	0	0	3	8	7	0	0	81850	8	8	2Sc56		
9	84	3	03	10	22	12.9	3.8	54	5.0	1033.6	8	004	03	1	1	3	8	6	0	0	83833	9	9	1Sc50 Cu med		
10	80	6	05	08	22	14.7	6.5	58	5.9	1029.5	8	006	02	2	2	6	8	6	0	0	83830	84635	10	10	Cu hum	
11	70	2	06	07	20	18.9	11.2	61	8.3	1019.9	8	015	02	1	1	0	0	9	0	1	82080	11	11	COTRA		
12	60	8	36	03	06	14.7	11.8	82	8.6	1010.6	0	001	60	6	2	3	5	6	8	/	83645	88360	12	12	Absent vv&cld est	
13	65	8	24	08	18	14.6	13.2	92	9.5	1008.7	2	015	02	5	2	8	6	3	/	/	82707	86709	88712	13	13	
14	40	8	32	05	12	11.4	10.2	92	7.7	1013.5	2	018	51	6	5	8	7	3	/	/	83706	87708	88712	14	14	
15	84	7	07	06	13	14.4	6.9	61	6.2	1022.1	1	014	01	2	2	7	8	5	/	1	81825	87656	15	15	1Sc35 /Ci80 Cu hum	
16	70	5	21	03	06	15.7	11.1	74	8.1	1026.2	2	002	01	2	2	2	8	5	7	1	81820	85365	16	16	2Sc45 1Ac63 /Ci78 COTRA Cu hum	
17	75	7	23	07	15	17.2	13.0	76	9.2	1023.9	8	006	01	2	2	7	5	4	/	/	87613	17	17	17		
18	81	4	35	07	17	15.5	6.8	56	6.0	1022.0	0	004	01	1	1	3	5	5	0	1	83527	18	18	2Ci78 COTRA		
19	81	6	29	07	15	15.6	6.5	55	6.1	1022.8	1	002	03	1	1	5	1	6	3	1	85833	19	19	2Ac65 1Ci75 Cu hum		
20	61	8	20	04	09	15.2	11.2	77	8.2	1022.2	8	006	50	6	5	8	5	4	/	/	83712	88625	20	20		
21	82	7	29	09	20	14.7	8.4	66	6.8	1017.0	0	002	25	8	2	5	8	5	0	1	83825	83635	86075	21	21	COTRA Cu med
22	60	8	24	04	10	12.9	11.3	90	8.4	1010.4	8	011	61	6	5	7	8	3	2	/	82708	83810	85625	22	22	8Ns45 Cu med
23	82	6	31	06	11	14.7	8.1	65	6.6	1018.2	1	009	03	2	2	6	8	5	0	0	83822	84650	23	23	Cu med	
24	86	5	24	06	11	19.0	9.4	54	7.5	1020.7	0	000	01	2	2	1	8	6	3	1	81835	85075	24	24	1Sc35 1Ac65 COTRA Cu hum U/a cont	
25	84	7	22	04	09	19.4	11.7	61	8.5	1021.7	8	004	03	2	2	1	1	6	3	1	81830	84366	85080	25	25	COTRA Cu hum
26	80	7	18	04	06	18.8	11.8	64	8.6	1017.2	8	011	02	2	2	7	0	9	8	/	81361	83364	87468	26	26	Ac cas
27	78	3	26	06	15	17.6	10.4	63	7.8	1019.4	1	006	03	1	1	3	2	6	0	1	83830	27	27	1Ci75 Cu med		
28	80	7	20	08	16	17.7	11.0	65	8.1	1019.0	6	003	15	2	2	1	8	4	7	/	81818	86360	87363	28	28	1Sc40 Cu hum jpNW
29	77	7	23	05	10	18.9	10.7	59	7.9	1022.7	1	007	03	2	2	1	1	6	3	1	81830	87075	29	29	1Ac63 1Ci68 COTRA Cu hum U/a cont	
30	86	0	16	05	11	22.2	9.3	44	7.2	1019.3	8	013	02	0	0	0	0	9	0	0	30	30	30	30	30	

Mean vis = 31.5 km
 Mean cloud = 5.5 69%
 Mean wind speed = 8.8 kn
 Mean gust = 14 kn
 Mean TT = 16.0 °C
 Mean TdTd = 9.3 °C
 Mean RH = 66.0 %
 Mean r = 7.4 g/kg
 Mean PPP = 1020.3 mbar

See appendix 2 below for full code details

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

Weather observations. Emmbrook, Wokingham, Berkshire.

Observations at 1500 GMT for JUNE 2015

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	80	8	20	15	28	13.3	3.9	53	5.0	1012.1	7	015	15	2	2	4	8	6	2	/	82836	83650	88462	1			1	Cu hum jp W&NW	
2	82	6	23	16	32	17.7	11.7	68	8.5	1005.7	2	016	02	5	2	6	8	5	3	0	83822			2			2	1Sc35 1Ac68 Cu med	
3	86	4	27	07	15	17.0	3.8	41	4.9	1024.1	1	010	02	1	1	4	4	7	0	0	81850	84650		3			3	Cu hum	
4	84	1	16	06	16	22.5	6.0	34	5.6	1021.6	7	021	01	0	0	1	0	9	8	1	81362			4			4	1Ac69 1Ci78 Ac cas	
5	80	3	23	13	21	23.0	12.6	52	9.0	1014.3	8	002	01	1	1	2	2	6	8	0	82833			5			5	1Ac62 Cu med Ac cas	
6	86	3	25	11	21	17.8	3.6	39	5.0	1025.4	3	004	02	1	1	2	8	7	0	1	82850			6			6	1Sc56 2Ci80 COTRA Cu hum/medS	
7	86	4	32	06	14	19.4	3.7	35	4.9	1031.2	7	009	03	0	0	1	1	7	0	1	81856	84080		7			7	COTRA Cu hum	
8	84	7	02	08	16	17.3	4.4	42	5.2	1031.5	7	016	02	2	2	7	8	7	/	/	82850	87657		8			8	Cu med	
9	84	7	03	09	24	14.5	4.3	50	5.0	1031.9	7	010	02	2	2	7	8	6	/	/	83838	87650		9			9	Cu med	
10	80	3	05	09	21	18.3	5.5	43	5.5	1026.2	7	022	01	1	1	3	5	6	0	1	83642			10			10	1Ci80 COTRA	
11	80	3	06	10	21	24.7	9.5	38	7.4	1015.2	7	023	02	0	0	0	0	9	0	1	83080			11			11	Absent vv&cld est	
12	57	8	33	02	07	19.2	16.2	82	11.4	1007.3	7	017	62	6	2	2	5	6	7	/	82640	88361		12			12	2Ac57	
13	75	7	25	07	20	17.6	12.5	72	8.9	1010.2	0	001	01	2	2	7	8	5	/	/	82822	83635	87645	13			13	Cu med	
14	84	7	34	07	14	16.6	7.6	55	6.5	1013.8	2	005	02	2	2	7	8	6	/	/	82835	87645		14			14	Cu hum	
15	86	6	08	04	13	18.2	4.3	40	5.3	1022.1	7	002	02	1	1	3	4	7	0	1	82850	85075		15			15	2Sc56 COTRA Cu hum	
16	82	7	25	07	13	21.3	8.6	44	7.0	1024.4	7	007	02	2	2	7	8	6	/	/	83848	85656		16			16	Cu hum	
17	84	6	25	11	25	22.8	15.1	62	10.7	1021.7	7	015	02	2	2	6	1	5	3	1	86823	83080		17			17	/Ac65 COTRA Cu hum	
18	82	7	33	08	16	21.0	5.8	37	5.7	1020.2	6	008	02	2	2	1	1	7	0	8	81850	87278		18			18	COTRA Halo 22°+parhelion	
19	81	5	33	08	21	20.6	7.8	44	6.6	1020.9	7	011	02	1	1	1	1	6	0	8	81845	85075		19			19	2Cs72 Cu hum	
20	70	7	25	06	13	20.3	13.3	64	9.4	1019.3	7	018	25	8	2	6	8	5	7	/	82825	85640	87358	20			20	Cu med jpN vv50k ex N	
21	83	6	26	09	18	18.0	7.5	50	6.3	1015.8	7	004	02	2	2	6	8	6	3	1	83845	84650		21			21	1Ac68 2Ci75	
22	89	5	30	10	23	17.3	4.6	43	5.3	1009.2	5	001	02	8	2	4	2	7	6	2	84850			22			22	2Ac58 1Ci72 Cu med Exceptional vis	
23	83	5	03	05	17	18.8	8.0	50	6.8	1018.6	6	002	01	2	2	3	8	6	0	1	82845	83080		23			23	2Sc50 COTRA Cu hum	
24	86	7	23	09	20	22.3	9.5	44	7.4	1019.6	7	003	03	1	1	2	1	7	3	2	82850	87075		24			24	2Ac68 Cu hum halo 22° part	
25	80	5	24	06	13	23.5	10.9	45	8.1	1020.4	7	010	02	2	2	2	1	6	3	1	82842	83364		25			25	2Ci75 Cu hum	
26	83	7	24	12	20	22.8	13.1	54	9.2	1015.5	3	002	03	2	2	3	1	6	8	1	83832	84361	86364	26			26	/Ci75 Cu hum Ac cas	
27	81	7	28	08	16	22.8	10.0	44	7.5	1020.0	5	000	02	2	2	5	4	7	0	1	82850	84656	85075	27			27	Cu hum	
28	82	8	22	10	18	18.8	13.0	69	9.2	1018.7	7	006	03	6	2	8	5	5	/	/	87620	88625		28			28		
29	86	5	24	05	15	24.2	9.3	39	7.2	1021.5	7	009	01	2	2	1	1	7	4	1	81850	85080		29			29	1Ac64 1Ci72 COTRA Cu hum Irisation	
30	84	0	17	08	16	29.2	9.4	29	7.3	1016.1	7	020	02	0	0	0	0	9	0	0				30			30		

Mean vis = 43.4 km
 Mean cloud = 5.5 68%
 Mean wind speed = 8.4 kn
 Mean gust = 18 kn
 Mean TT = 20.0 °C
 Mean TdTd = 8.5 °C
 Mean RH = 48.7 %
 Mean r = 7.1 g/kg
 Mean PPP = 1019.2 mbar

See appendix 2 below for full code details

VV = Visibility code (Code FM12-4377)
 N = Total cloud amount, oktas
 dd = Direction from which wind is blowing, tens of degrees true
 ff = 10 minute mean wind speed, knots
 gg = Highest gust in past hour, knots
 TT = Air temperature at 1.2 m, deg Celsius
 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 Sunshine Hourly analysis 2015	Hour	01-Jun	02-Jun	03-Jun	04-Jun	05-Jun	06-Jun	07-Jun	08-Jun	09-Jun	10-Jun	11-Jun	12-Jun	13-Jun	14-Jun	15-Jun	16-Jun
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	0.22	0.00	0.00	0.46	0.00	0.43	0.49	0.04	0.50	0.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
5	0.51	0.00	0.36	1.00	0.00	1.00	1.00	0.75	0.51	0.04	1.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.44	1.00	0.00	1.00	1.00	0.90	0.04	0.97	0.97	0.26	0.00	0.00	0.00	0.00	0.00
7	0.68	0.00	0.81	1.00	0.00	1.00	1.00	0.99	0.68	0.93	1.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.72	0.00	0.31	1.00	0.00	0.85	1.00	0.94	0.61	0.60	1.00	0.00	0.00	0.00	0.00	0.00	0.01
9	0.33	0.00	0.49	0.49	0.00	0.62	0.93	0.90	0.28	0.11	1.00	0.00	0.00	0.00	0.00	0.46	0.99
10	0.53	0.00	0.43	0.80	0.00	0.47	0.67	0.21	0.02	0.00	1.00	0.00	0.00	0.00	1.00	0.71	
11	0.25	0.00	0.42	0.62	0.05	0.49	0.71	0.28	0.00	0.00	1.00	0.00	0.00	0.39	1.00	0.32	
12	0.00	0.00	0.54	0.75	0.09	0.55	0.71	0.07	0.00	0.06	1.00	0.00	0.00	0.11	0.70	0.36	
13	0.00	0.17	0.22	1.00	0.29	0.54	0.81	0.28	0.00	0.17	1.00	0.00	0.00	0.02	0.33	0.12	
14	0.00	0.05	0.09	1.00	0.65	0.51	0.85	0.00	0.03	0.57	1.00	0.00	0.00	0.00	0.37	0.00	
15	0.00	0.23	0.63	1.00	0.83	0.69	0.78	0.01	0.10	0.83	1.00	0.00	0.00	0.00	0.52	0.23	
16	0.00	0.23	0.67	1.00	0.75	0.50	1.00	0.00	0.24	0.91	1.00	0.00	0.07	0.17	0.50	0.86	
17	0.00	0.36	0.73	1.00	0.93	0.68	1.00	0.01	0.11	1.00	1.00	0.00	0.07	0.00	0.15	1.00	
18	0.00	0.58	0.98	1.00	0.91	0.97	1.00	0.03	0.06	1.00	1.00	0.00	0.00	0.00	0.76	0.98	
19	0.00	0.05	0.85	0.49	0.67	0.58	0.62	0.00	0.00	0.76	0.45	0.00	0.00	0.00	0.74	0.12	
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	3.25	1.67	7.98	13.61	5.15	10.86	13.58	5.40	3.19	7.94	14.79	0.26	0.14	0.68	6.53	5.69	

Hour	17-Jun	18-Jun	19-Jun	20-Jun	21-Jun	22-Jun	23-Jun	24-Jun	25-Jun	26-Jun	27-Jun	28-Jun	29-Jun	30-Jun	Mean
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.05	0.00	0.41	0.00	0.00	0.00	0.00	0.00	0.46	0.00	0.06	0.00	0.46	0.48	0.15
5	0.05	0.33	1.00	0.00	0.00	0.00	0.13	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.39
6	0.14	0.61	0.95	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00	0.01	0.36	1.00	0.39
7	0.00	0.01	0.90	0.00	0.00	0.00	0.00	0.81	1.00	0.00	0.88	0.00	0.90	1.00	0.45
8	0.00	0.38	0.43	0.00	0.00	0.00	0.13	1.00	0.57	0.00	0.36	0.00	0.65	1.00	0.39
9	0.00	0.57	0.57	0.00	0.23	0.00	0.00	1.00	0.42	0.00	0.43	0.00	0.94	1.00	0.39
10	0.00	0.82	0.30	0.00	0.39	0.00	0.10	0.57	0.05	0.26	0.58	0.00	0.03	1.00	0.33
11	0.00	1.00	0.34	0.00	0.24	0.00	0.16	0.41	0.16	0.55	0.58	0.00	0.00	1.00	0.33
12	0.24	1.00	0.41	0.00	0.07	0.34	0.02	0.37	0.21	0.78	0.23	0.00	0.42	1.00	0.33
13	0.05	1.00	0.30	0.00	0.08	0.47	0.66	0.48	0.00	0.41	0.61	0.00	0.78	1.00	0.36
14	0.36	0.99	0.64	0.19	0.02	0.89	0.38	0.34	0.12	0.15	0.44	0.00	1.00	1.00	0.39
15	0.23	0.78	0.54	0.00	0.13	0.34	0.13	0.39	0.81	0.00	0.09	0.01	1.00	1.00	0.41
16	0.15	0.72	0.45	0.00	0.14	0.14	0.14	0.00	0.84	0.02	0.37	0.00	1.00	1.00	0.43
17	0.40	0.15	0.15	0.00	0.84	0.44	0.67	0.00	1.00	0.04	0.86	0.18	1.00	1.00	0.49
18	0.04	0.74	0.44	0.00	0.21	0.68	0.25	0.42	1.00	0.00	0.96	0.41	1.00	1.00	0.55
19	0.03	0.22	0.42	0.32	0.00	0.44	0.49	0.33	0.31	0.00	0.39	0.11	0.91	0.53	0.33
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot	1.74	9.32	8.25	0.51	2.35	3.75	3.25	6.14	8.95	2.22	8.85	0.72	11.46	15.01	183.25

JUNE 2015	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	10.80	15.4	1111	6.5	436	69.9	90.3	2327	45.6	939	5.23	5.54	7.4	2359	4.6	1412	1011.85	1015.8	736	1002.7	2358	
2	14.60	19.1	1546	10.8	0	78.3	93.8	222	45.1	1754	10.57	8.05	9.8	1320	5.3	2253	1005.23	1013.4	2359	1000.6	458	
3	13.67	18.8	1600	6.6	2353	60.5	90.1	2358	34.4	1533	5.53	5.60	6.7	550	4.4	1534	1021.57	1027.2	2359	1013.2	2	
4	14.62	23.0	1551	4.3	425	62.6	96.6	537	22.3	1746	6.07	5.82	8.2	1134	3.5	1746	1023.41	1027.2	16	1017.5	2356	
5	16.18	23.4	1454	8.7	2359	71.1	93.6	714	41.9	1856	10.61	8.13	11.9	901	4.4	1925	1015.80	1021.1	2359	1012.7	700	
6	12.79	19.0	1242	6.8	357	59.6	87.9	154	32.3	1229	4.39	5.14	6.5	712	4.0	1218	1025.13	1029.9	2322	1020.9	4	
7	13.08	19.9	1504	4.2	406	58.9	96.2	500	29.3	1658	4.15	5.03	6.7	802	3.8	1621	1031.67	1034.1	2359	1029.7	0	
8	12.20	18.8	1340	5.5	239	63.1	90.3	431	33.6	1336	4.94	5.29	6.6	1254	4.2	1336	1033.22	1034.6	2359	1031.1	1515	
9	10.86	15.4	1320	4.8	416	63.5	91.5	430	44.9	1538	3.85	4.90	5.8	822	4.1	2304	1032.81	1034.7	8	1030.8	1719	
10	13.01	19.5	1527	5.8	211	60.0	83.6	218	37.8	1649	5.10	5.38	7.1	1423	4.3	0	1027.90	1031.9	7	1024.5	1831	
11	16.97	25.1	1430	8.2	415	60.7	88.6	447	33.0	1318	8.52	6.89	9.5	1206	5.4	12	1017.93	1024.8	8	1013.1	2356	
12	16.92	23.2	1331	11.7	424	79.3	92.5	2359	56.5	1333	13.23	9.62	13.0	1555	7.0	16	1008.82	1013.3	1	1005.7	1837	
13	15.48	18.6	1625	13.5	2359	84.7	96.2	354	66.4	1643	12.82	9.22	10.3	102	8.2	2348	1009.20	1012.1	2331	1006.0	56	
14	13.76	17.8	1212	10.9	710	77.3	93.7	624	48.7	1642	9.57	7.42	8.9	603	5.9	1646	1013.88	1018.7	2359	1010.8	326	
15	14.39	20.6	1528	8.9	2359	63.1	87.5	254	32.8	1410	6.82	6.11	7.1	1009	4.5	1629	1021.92	1025.9	2359	1018.6	2	
16	15.95	23.1	1525	7.4	248	63.6	93.1	325	36.4	1601	8.39	6.77	8.8	1213	5.7	247	1025.24	1026.4	907	1023.5	1632	
17	17.19	24.1	1422	9.9	417	75.5	91.0	457	55.2	1424	12.68	9.10	11.9	1253	6.2	23	1022.88	1026.1	42	1020.1	1850	
18	16.61	21.6	1510	10.3	2356	60.5	88.8	102	35.8	1439	8.44	6.88	10.0	4	5.3	1140	1020.85	1022.3	725	1019.4	1641	
19	15.53	22.2	1603	7.2	346	61.1	93.0	348	38.1	1604	7.53	6.40	7.9	1453	5.6	22	1021.85	1023.0	2359	1020.1	1807	
20	15.70	21.4	1536	11.9	106	82.0	96.8	2026	60.3	1534	12.57	9.05	11.7	1427	6.7	233	1020.76	1023.0	34	1018.2	2341	
21	15.47	19.3	1307	11.9	2359	66.4	91.4	33	42.7	1313	8.78	7.04	8.9	0	5.6	1103	1016.17	1018.6	9	1014.0	2355	
22	13.57	18.1	1542	11.1	420	71.9	95.4	424	36.1	1535	8.00	6.74	9.1	1211	4.6	1535	1011.24	1014.2	0	1008.6	1311	
23	15.04	20.5	1723	11.1	434	65.4	92.0	2320	37.9	1741	8.23	6.74	8.0	2142	5.4	1741	1017.97	1020.1	2359	1014.0	2	
24	16.82	23.0	1420	10.5	31	62.6	93.2	32	36.9	1346	9.06	7.10	8.8	742	5.8	1137	1020.39	1021.7	2243	1019.3	1533	
25	17.53	24.4	1541	9.4	436	63.3	96.6	453	36.3	1847	9.73	7.43	9.6	1050	5.7	1850	1020.95	1022.4	635	1019.5	1831	
26	17.40	25.4	1242	10.2	339	68.6	89.8	354	38.5	1252	11.20	8.26	11.3	1344	6.8	326	1016.80	1019.9	37	1014.6	1318	
27	17.52	24.2	1403	10.8	454	63.6	93.3	455	32.0	1407	9.72	7.45	8.9	933	5.5	1352	1019.51	1021.2	2148	1016.8	7	
28	16.59	20.3	1741	12.5	2352	74.0	87.8	1149	61.5	1349	11.89	8.61	10.2	1641	6.9	2157	1019.39	1021.2	2344	1018.1	1641	
29	18.35	25.2	1536	11.7	424	61.8	91.2	427	34.0	1538	10.27	7.69	9.1	1243	6.4	1455	1021.64	1022.9	839	1020.6	1710	
30	21.05	29.5	1401	9.7	425	53.6	94.8	329	21.4	1147	9.51	7.39	10.4	2151	4.6	1136	1017.82	1021.8	2	1013.1	2333	
Total																						
Mean	15.32	21.33		9.07		66.9	92.02		40.25		8.58	7.03	9.00		5.35		1019.79	1022.98		1016.59		
Max	21.05	29.47		13.46		84.7	96.80		66.39		13.23	9.62	12.95		8.18		1033.22	1034.66		1031.12		
Min	10.80	15.40		4.21		53.6	83.60		21.36		3.85	4.90	5.77		3.48		1005.23	1012.08		1000.59		

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

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.