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 2022**

Temperature (°C)		Anomaly	Rank in the past **141** years		
Mean maximum	22.4	+1.4	11th highest		
Mean minimum	10.2	-0.5	51st highest		
Daily mean	16.3	+0.5	17th highest		
Highest maximum	31.2	on 17th	Lowest maximum	15.2	on 5th
Highest minimum	15.3	on 18th	Lowest minimum	4.9	on 2nd
Mean grass minimum	7.3	-0.5	Lowest grass minimum	1.4	on 2nd
Mean earth @30 cm	17.2	+0.2	Earth @100 cm	15.7	+0.8
Frost duration (hrs)	0.0		Rain duration (hrs)	28.1	
Rainfall total (mm)	28.5	56 %	40th lowest		
Highest daily fall	7.6	on 5th	Highest rate mm/hr	97	on 25th

Number of: Dry days (<0.2mm) 15 Wet days (>0.9mm) 7 days ≥5mm 2

Sunshine total (hrs) 238.2 Daily mean 7.94 122 % Sunniest day 15.5 on 21st

Nº days with: Air frost 0 Ground frost 0 Snow falling 0 Snow lying 0

Thunder 2 Hail ≥5mm 0 Small hail/ice 0 Fog @09 0 Nil sun 1

Pressure MSL : Mean @09 GMT, mbar 1015.9 -0.9 Highest 1026.3 on 13th Lowest 1002.8 on 24th

Relative humidity : Mean (%) 71.1 Lowest 25 on 21st Water vapour (g/kg), mean at 09 and 15 GMT 7.9, 7.6

Overall mean wind speed (mph) 6.2 Windiest day 9.7 on 8th Max gust 35 on 8th

Wind direction (days) N 3 NE 5 E 1 SE 0 S 8 SW 10 W 2 NW 1

Least windy day (mph) 3.1 on 21st Calm; less than 0.5 mph (minutes) 532

Anomaly = departure from 1991 to 2020 average (degrees C, percent and mbar).

Notes: **Warm, Sunny and Quite Dry.**

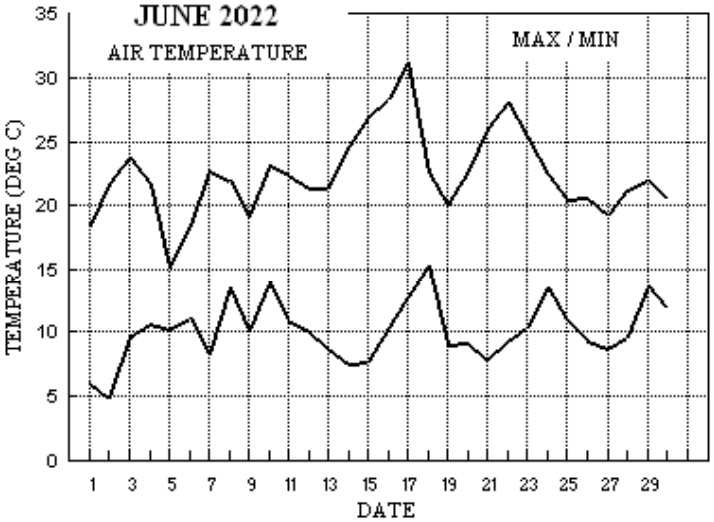
Temperature: June this year has been warm, especially by day, with the mean maximum ranking 11th highest since before 1882. However, in recent years, June in both 2017 and 2018 was warmer. Overnight temperatures tell a different story, with the mean minimum lowest since 2015 and 0.5° below the current 30 year average. The resulting daily mean temperature range, 12.3°, is highest since 2010, and before that, 1996. The highest max, 31.2°, is 4.1° above the median, although even hotter days were recorded in June 2017, 2019 and 2020. The lowest max is 0.4° above its median. The highest min is 0.3° above the median while the lowest min is 0.2° above its median. The mean grass min is 0.5° below average and lowest since 2015, but the lowest daily value is highest since 2018. While ground frost can occur in June, 2015 was the last one to have any. The chance of catching one in any June is 35%, and in the past 43 years 23 June nights have had one. Earth temperature is slightly above average at 30 cm depth, but is 0.8° above at 1 m depth. Anomalies for daily max were above +5° on the 15th to 17th and 21st to 23rd, and exceeded -4° on just the 5th, with extreme values of +10.5° on the 17th and -4.1° on the 5th. Anomalies for daily min were above +4° on the 10th and 18th, and exceeded -4° on just the 2nd, with extreme values of +4.6° on the 18th and -4.5° on the 2nd. **Rainfall:** June this year has been a dry month overall, with only just over half the average rainfall. However, there were 4 more rain days than average, but with an absence of any significant fall in most cases. Rainfall duration was 89% of average compared with 56% for rainfall amount. After 2 very wet Junes in 2021 and 2019, this June is driest since 2018. Most of the month's rain fell before the 6th and after the 24th, with an 8 day dry spell ending on the 17th, but there was a total of only 3.3 mm between the 6th and 23rd. The highest daily fall of 7.6 mm is 6 mm below the median, and in the past 119 years, 17 Junes have had a daily fall higher than the total for this month. There was no hail this June, but thunder was heard on the 25th and 30th. Rainfall rate reached the violent category on the 25th. Rainfall accumulation compared with average showed a surplus of 6 mm on the 5th which became a deficit of 23 mm by the 24th, and was still at that level on the 30th. Estimated soil moisture deficit indicated severe stress for unirregated shallow rooted plants from the 19th onward. **Sunshine:** This has been a sunny June overall, the total being 22% above average. It is sunniest since 2018, and the 4th sunniest June this millennium. The first third of the month was poor, no day up to the 9th having more than 47% of the maximum. Things improved from the 10th, and the 14th to 17th and 20th to 22nd were outstanding, having 86% and 90% of the maximum respectively. Sunshine accumulation compared with normal showed a deficit of 15 hours by the 9th, becoming a surplus of 6 hours on the 14th, increasing to 47 hours by the 22nd, ending the month 43 hours up. Overall there were 4 days with <3 hours, 18 with =>6 hours, 8 with =>12 hours and 3 with =>15 hours. **Wind:** The mean speed of 6.2 mph is close to normal. The mean speed on the month's windiest day is 2.0 mph below average, but is higher than in the same month last year. The month's highest gust is close to average.

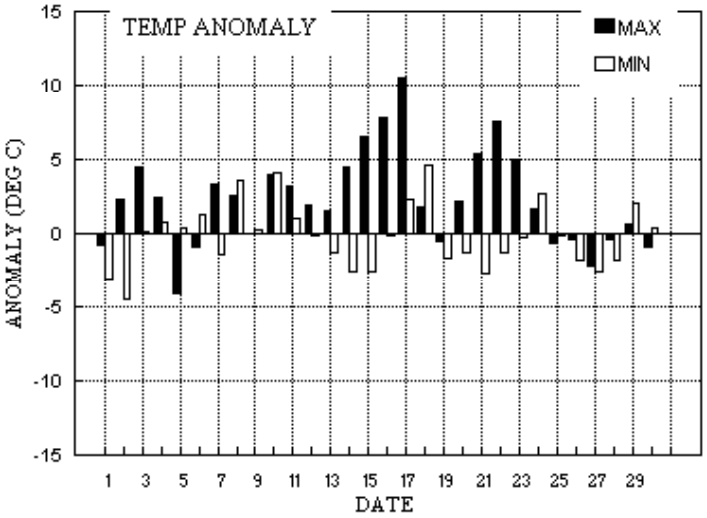
Table 1. Mean anomalies (max, min, rain, sun) for specified periods.

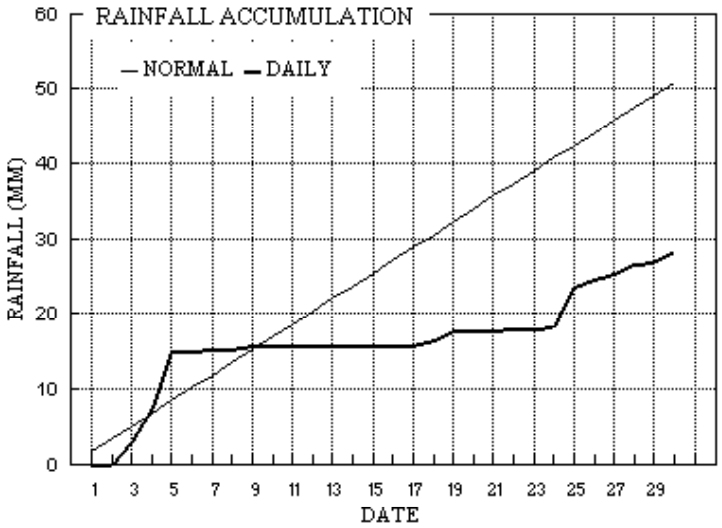
From the 1st to the 10th				From the 11th to the 20th				From the 21st to the 30th			
+1.3°	+0.1°	93%	82%	+3.9°	-0.2°	12%	162%	+1.6°	-0.5°	63%	122%

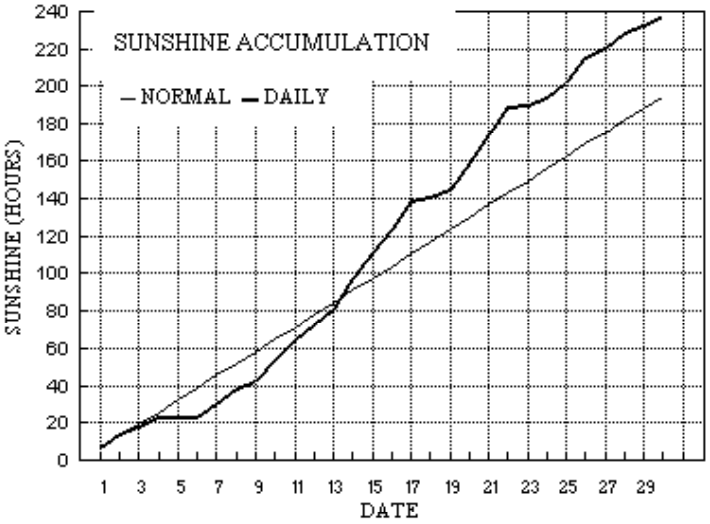
B J Burton FRMetS. Hon. Met. Officer to Wokingham Town Council.

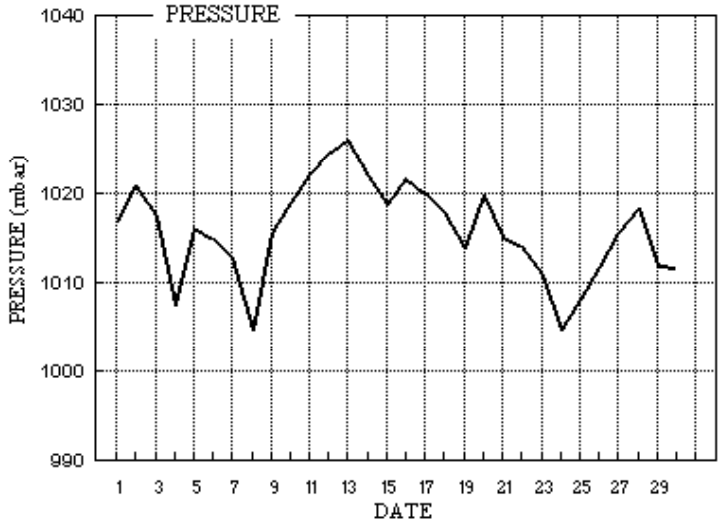
Wokingham climatological graphs for JUNE 2022

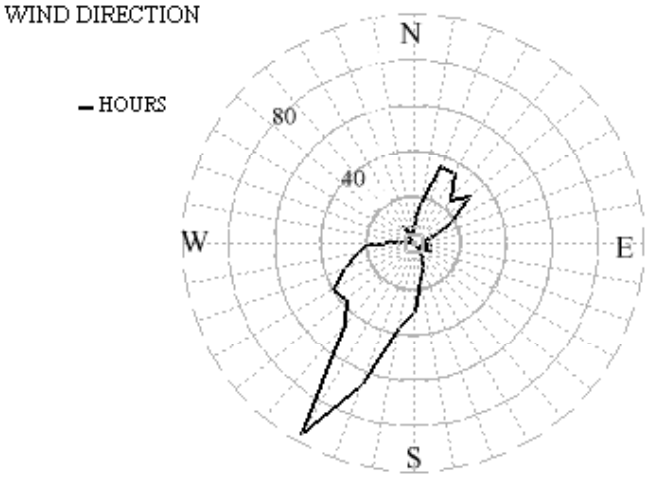


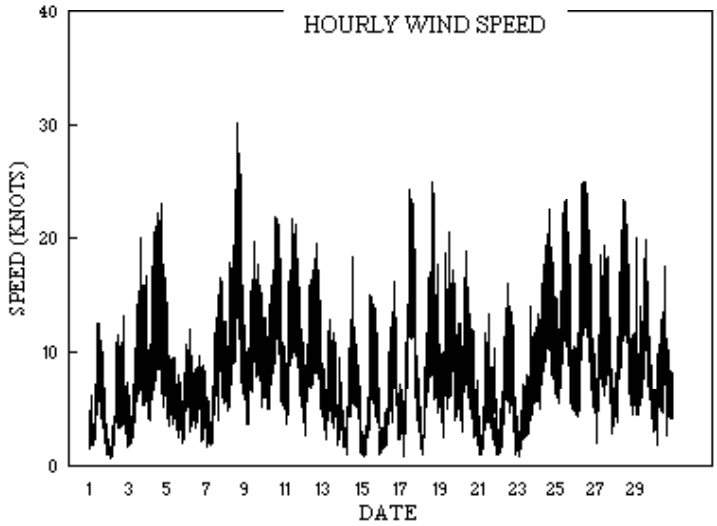


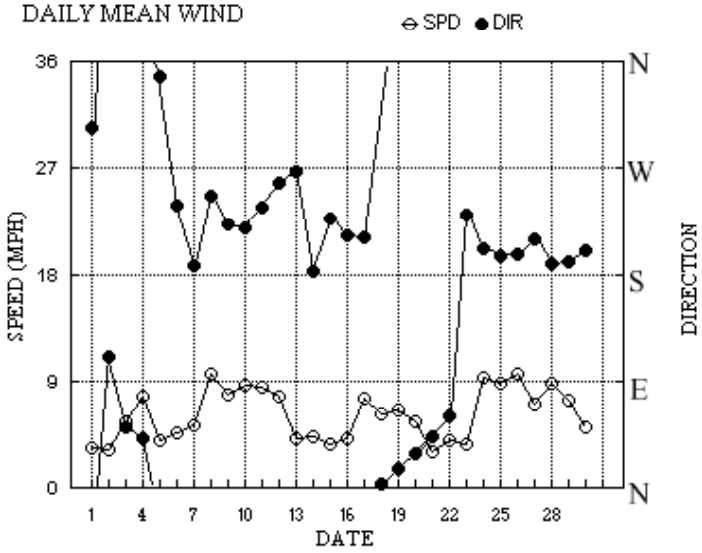












Daily meteorological data. Emmbrook, WOKINGHAM, Berkshire.

Month: JUNE 2022

Date	Max	Min	Rain	Grass	30cm	100cm	Sun	Frost	pp09	Af	Sf	Th	Ic	Vec mean			Max gust			High hr			Rain
	C	C	mm	Min	C	C	hrs	hrs	mbar	Gf	Sl	Ha	Fg	ddd	ff	sp	ddd	gg	HHhh	ddd	ff	HH	hrs
1	18.4	6.1	tr	3.0	14.9	14.4	7.1	0.0	1016.9	0 0 0 0		0 0 0 0		303	1.3	3.0	279	13	1122	322	6	11	0.1
2	21.6	4.9	0.0	1.4	15.0	14.4	7.3	0.0	1021.0	0 0 0 0		0 0 0 0		111	2.1	2.8	74	13	1746	101	5	18	0.0
3	23.7	9.7	2.9	5.8	15.4	14.4	4.6	0.0	1017.6	0 0 0 0		0 0 0 0		51	4.6	4.9	70	20	1548	88	7	15	3.2
4	21.6	10.6	4.5	10.8	16.2	14.5	4.1	0.0	1007.6	0 0 0 0		0 0 0 0		43	6.6	6.7	70	23	1642	44	9	11	4.2
5	15.2	10.2	7.6	10.5	16.6	14.6	0.0	0.0	1016.3	0 0 0 0		0 0 0 0		346	1.6	3.6	22	11	0113	16	5	09	8.6
6	18.4	11.1	tr	11.9	16.2	14.7	0.1	0.0	1015.0	0 0 0 0		0 0 0 0		239	3.4	4.0	221	12	0348	227	6	03	0.6
7	22.7	8.3	0.4	4.7	15.9	14.8	7.7	0.0	1012.8	0 0 0 0		0 0 0 0		188	4.3	4.6	209	17	1846	209	9	17	0.9
8	21.9	13.5	tr	12.7	16.5	14.8	7.7	0.0	1004.8	0 0 0 0		0 0 0 0		246	7.6	8.4	261	30	1429	258	13	14	0.0
9	19.2	10.1	0.4	5.6	16.7	14.9	4.5	0.0	1015.5	0 0 0 0		0 0 0 0		223	6.5	6.8	259	20	1156	238	10	12	1.3
10	23.1	13.9	0.0	12.3	16.7	15.1	10.3	0.0	1019.0	0 0 0 0		0 0 0 0		219	7.4	7.6	203	22	1457	203	11	15	0.0
11	22.4	10.9	0.0	6.7	17.0	15.2	11.3	0.0	1022.1	0 0 0 0		0 0 0 0		236	7.2	7.5	221	22	0938	240	11	15	0.0
12	21.3	10.0	0.0	6.1	17.0	15.3	8.3	0.0	1024.6	0 0 0 0		0 0 0 0		257	6.6	6.7	239	20	1732	261	9	14	0.0
13	21.3	8.7	0.0	5.2	16.8	15.4	8.4	0.0	1026.1	0 0 0 0		0 0 0 0		267	2.4	3.7	287	13	0828	325	5	08	0.0
14	24.7	7.5	0.0	4.6	16.8	15.5	15.4	0.0	1021.9	0 0 0 0		0 0 0 0		182	3.5	3.8	150	19	1337	206	6	14	0.0
15	26.9	7.7	0.0	3.4	17.3	15.5	14.5	0.0	1018.7	0 0 0 0		0 0 0 0		227	2.1	3.3	187	15	1141	241	6	18	0.0
16	28.4	10.3	0.0	6.4	18.0	15.6	12.7	0.0	1021.8	0 0 0 0		0 0 0 0		212	3.3	3.7	212	16	1757	215	8	17	0.0
17	31.2	12.7	0.0	9.1	18.5	15.8	14.5	0.0	1020.0	0 0 0 0		0 0 0 0		211	6.3	6.6	209	24	1045	208	12	11	0.0
18	22.6	15.3	0.9	11.9	19.0	16.0	2.3	0.0	1018.0	0 0 0 0		0 0 0 0		4	4.7	5.4	331	25	1657	18	9	15	2.1
19	20.1	9.0	1.1	8.3	18.1	16.2	3.6	0.0	1013.9	0 0 0 0		0 0 0 0		16	5.7	5.7	22	21	1145	16	9	08	0.7
20	22.7	9.2	0.0	6.2	17.7	16.3	14.4	0.0	1019.8	0 0 0 0		0 0 0 0		29	4.7	4.9	28	19	1027	18	8	08	0.0
21	25.9	7.9	0.0	3.5	18.1	16.3	15.5	0.0	1015.2	0 0 0 0		0 0 0 0		44	1.7	2.7	349	13	1258	152	5	20	0.0
22	28.0	9.3	0.3	5.1	18.5	16.4	15.2	0.0	1014.0	0 0 0 0		0 0 0 0		61	3.2	3.6	71	16	1310	60	6	10	0.3
23	25.4	10.4	tr	5.5	19.0	16.5	1.1	0.0	1010.9	0 0 0 0		0 0 0 0		230	0.4	3.3	214	14	1730	231	7	17	0.0
24	22.4	13.5	0.2	11.4	18.9	16.7	3.6	0.0	1004.8	0 0 0 0		0 0 0 0		202	7.9	8.0	184	23	1704	208	11	14	0.5
25	20.4	11.0	5.4	8.7	18.4	16.8	8.5	0.0	1008.1	0 0 0 0		1 0 0 0		195	7.6	7.7	178	23	1411	191	12	14	1.2
26	20.7	9.4	0.9	6.5	17.8	16.8	13.2	0.0	1011.7	0 0 0 0		0 0 0 0		196	8.2	8.4	183	25	1311	200	13	13	0.4
27	19.3	8.8	0.9	4.2	17.7	16.8	4.8	0.0	1015.5	0 0 0 0		0 0 0 0		210	5.6	6.1	273	19	1158	208	9	08	0.8
28	21.2	9.7	1.1	6.2	17.4	16.7	8.3	0.0	1018.3	0 0 0 0		0 0 0 0		189	7.3	7.6	196	23	1229	199	12	14	0.9
29	22.0	13.7	0.2	13.0	17.5	16.6	3.3	0.0	1012.0	0 0 0 0		0 0 0 0		190	6.1	6.4	150	20	0304	213	11	15	0.9
30	20.4	11.9	1.7	9.5	17.8	16.6	5.9	0.0	1011.8	0 0 0 0		1 0 0 0		200	3.9	4.5	201	18	1459	207	9	14	1.4
Total			28.5				238.2	0.0															28.1
Mean	22.4	10.2		7.3	17.2	15.7	7.94	0.0	1015.9					214	2.3	5.4							
Anom	+1.4	-0.5	56%	-0.5	+0.2	+0.8	122%		-0.9														

Daily mean 16.3 Pressure, abs highest = 1026.3 on 13

Anom +0.5 Pressure, abs lowest = 1002.8 on 24

Number of days with:

Air frost = 0 Ground frost = 0 Nil sun = 1

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.

Maximum daily rain rate in mm/hr

All temperatures in degrees Celsius.

Anomaly - Departure from the 1991 to 2020 climatological average

Weather observations. Emmbrook, Wokingham, Berkshire.

Observations at 0900 GMT for JUNE 2022

Date	VV	N	dd	ff	gg	TT	TdTd	RH	r	PPP	a	ppp	ww	W1	W2	Nh	Cl	h	Cr	Cm	Ch	NChshs	NChshs	NChshs	Date	Remarks
1	86	6	24	04	08	12.7	8.0	73	6.6	1016.9	1	009	03	2	2	6	8	5	3	0		83820	83630		1	4Sc45 2Ac58 Cu med
2	80	5	14	03	11	17.2	9.4	60	7.2	1021.0	4	000	03	1	1	1	2	5	0	1		81825	85078		2	COTRA Cu med Halo 22 part
3	72	4	01	05	10	17.0	11.5	70	8.4	1017.6	8	003	01	1	1	4	0	9	7	0		82358	83364		3	
4	67	8	05	10	21	12.9	10.1	83	7.7	1007.6	0	003	61	6	6	7	8	4	7	/		81815	83635	86650	4	/Ac58 8As60 Cu fra
5	59	8	02	05	09	11.6	11.0	96	8.1	1016.3	8	003	20	5	2	8	6	2	/	/		83705	88706		5	
6	80	8	29	03	08	12.6	11.2	91	8.2	1015.0	1	006	01	6	5	8	5	3	/	/		86709	88620		6	Absent vv&cld est
7	82	4	09	03	06	17.6	10.7	64	8.0	1012.8	8	001	03	0	0	4	8	5	0	0		82822	83632		7	Cu med
8	65	7	25	07	17	16.8	11.3	70	8.4	1004.8	1	007	16	1	1	7	8	5	/	/		84822	86640		8	jpNW vv40k ex p
9	82	3	22	06	12	18.1	9.5	57	7.3	1015.5	1	005	03	0	0	1	8	5	5	1		81825			9	1Sc56 2Ac64 1Ci70 Cu med
10	70	3	22	08	15	18.9	11.0	60	8.1	1019.0	0	005	02	0	0	3	2	5	0	0		83828			10	Cu med
11	72	4	23	11	17	18.3	11.4	64	8.3	1022.1	0	002	03	0	0	1	2	5	0	0		84828			11	Cu med
12	80	3	26	07	15	17.9	9.8	59	7.4	1024.6	1	003	03	0	0	3	2	6	0	1		83830			12	1Ci75 Cu med
13	84	2	33	04	13	16.8	7.2	53	6.2	1026.1	1	006	03	0	0	2	8	6	0	1		82830			13	1Sc45 1Ci80 COTRA Cu med
14	84	1	12	03	10	18.9	7.4	47	6.3	1021.9	8	010	01	0	0	1	1	6	0	2		81835			14	1Ci75 Cu hum Ci flo
15	81	5	09	02	06	20.5	10.9	54	8.0	1018.7	8	001	02	1	1	0	0	9	0	1		85080			15	COTRA
16	72	5	05	02	05	22.4	10.5	47	7.8	1021.8	7	007	03	1	1	0	0	9	0	5		82278	84081		16	COTRA
17	86	6	19	07	13	24.4	11.7	45	8.5	1020.0	6	019	02	2	2	0	0	9	0	8		82272	86078		17	COTRA U/a cont
18	65	3	04	04	11	22.3	15.9	67	11.1	1018.0	6	008	01	1	1	1	5	5	3	0		81625	83365		18	Sky turbid
19	84	6	01	09	19	14.2	7.0	62	6.2	1013.9	5	017	01	2	2	1	1	5	7	1		81820	83368	85075	19	COTRA Cu hum
20	82	3	02	08	15	16.2	9.2	63	7.1	1019.8	1	005	02	0	0	3	4	6	0	0		83630			20	Sc cugen
21	75	7	07	03	09	18.9	9.4	54	7.3	1015.2	7	015	03	1	1	1	1	5	0	2		81825	87077		21	COTRA Cu hum
22	88	0	03	03	09	22.2	9.0	43	7.1	1014.0	8	004	02	0	0	0	0	9	0	0					22	
23	80	8	06	03	07	16.5	14.3	87	10.1	1010.9	8	006	21	6	2	4	5	7	7	/		81656	86358	88462	23	
24	82	6	21	09	17	18.6	12.8	69	9.2	1004.8	8	006	03	2	2	6	8	4	/	/		83818	85625		24	Cu med
25	80	6	20	09	22	16.2	8.7	61	7.0	1008.1	2	008	03	1	1	2	2	5	0	1		82828	85080		25	1Ci75 Cu med
26	70	2	20	09	25	16.9	10.3	65	7.8	1011.7	1	006	25	8	1	2	8	6	0	1		81835			26	1Sc50 1Ci75 Cu con jpNE vv40k ex p
27	60	7	21	08	19	14.2	11.9	86	8.6	1015.5	3	006	62	6	1	6	8	3	7	/		82808	85650	87360	27	Cu fra
28	82	7	19	09	19	16.1	9.5	65	7.3	1018.3	7	008	03	1	1	6	8	5	0	1		83828	84645		28	4Ci80 Cu med
29	72	5	23	06	13	17.1	12.2	73	8.8	1012.0	2	001	03	1	1	2	8	4	7	2		82815	83368		29	1Sc50 1Ac65 /Ci70 Cu med
30	70	7	18	07	11	16.1	9.8	66	7.5	1011.8	0	001	80	8	2	4	8	5	3	6		83825	84270		30	2Sc50 1Ac60 Cu con vv60k ex p

Mean vis = 32.1 km
Mean cloud = 5.0 62%
Mean wind speed = 5.9 kn
Mean gust = 13 kn
Mean TT = 17.3 °C
Mean TdTd = 10.4 °C
Mean RH = 65.1 %
Mean r = 7.9 g/kg
Mean PPP = 1015.9 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 JUNE 2022

Date	VV	N	dd	ff	gg	TT	TdTd	RH	r	PPP	a	ppp	ww	W1	W2	Nh	Cl	h	Cr	Cm	Ch	NChshs	NChshs	NChshs	Date	Remarks
1	89	5	32	06	11	16.6	7.8	56	6.5	1017.9	1	007	01	8	2	5	8	6	0	0		82835	84657		1	Cu med
2	84	5	09	04	07	20.7	8.0	44	6.6	1019.0	7	009	02	2	2	2	2	7	6	1		82850	84357		2	1Ac66 1Ci80 COTRA Cu med
3	80	7	07	07	17	21.1	9.7	48	7.4	1016.6	7	003	03	2	2	1	5	7	8	/		81650	83357	86363	3	Ac cas
4	80	3	04	09	20	20.8	12.0	57	8.6	1019.2	7	013	03	1	1	1	9	7	8	0		81956			4	1Sc56 1Ac59 Ac cas Cb E
5	65	8	25	02	06	15.0	11.6	80	8.4	1015.9	6	003	02	5	2	8	5	4	/	/		87613	88616		5	
6	62	8	20	05	09	15.7	12.6	82	9.0	1015.3	8	005	25	8	2	8	8	4	/	/		81815	88650		6	2Sc30 Cu med jpS vv30k ex S
7	88	6	20	04	11	22.2	13.5	58	9.6	1010.3	7	012	14	2	2	4	8	6	6	1		83833	85359		7	2Sc50 Cu med jp SW & N
8	83	2	26	14	30	21.3	8.6	44	7.0	1005.6	2	004	15	1	1	2	2	6	6	0		82848			8	1Ac58 jp dist N
9	80	8	19	08	15	18.3	11.4	64	8.3	1016.8	1	004	21	6	2	8	8	6	/	/		85830	85635	88650	9	Cu hum
10	78	3	21	12	22	21.8	12.4	55	8.9	1018.1	5	004	02	0	0	3	1	6	0	0		83845			10	
11	80	6	24	08	20	20.2	10.6	54	7.9	1021.5	6	003	03	1	1	4	8	6	6	0		84842	83358		11	1Sc50 Cu med
12	80	3	28	10	18	19.2	7.3	46	6.3	1022.6	7	014	01	1	1	3	4	6	0	0		83848			12	1Sc50 Cu hum
13	83	4	31	02	08	18.9	8.6	51	6.8	1024.7	8	010	01	1	1	4	4	6	0	1		81845	84648		13	2Ci75 COTRA Cu hum
14	88	1	19	05	12	24.2	8.6	37	6.9	1018.4	7	017	02	0	0	1	1	7	0	1		81856			14	1Ci75 Cu hum
15	84	7	24	05	13	26.4	10.9	38	8.1	1017.8	7	003	03	1	1	1	1	7	8	1		81856	86367		15	/Ci72 Ac cas
16	84	5	22	06	12	28.1	7.4	27	6.3	1021.2	6	011	03	2	2	1	0	9	8	1		82367	85077		16	1Cc73 COTRA Ac cas
17	80	1	21	12	24	30.9	14.9	38	10.5	1017.5	6	008	02	0	0	0	0	9	0	1		81080			17	Sky turbid
18	80	8	01	07	19	14.9	12.2	84	8.8	1017.8	2	010	21	6	2	8	5	4	/	/		88612			18	
19	88	7	01	05	15	17.9	7.9	52	6.6	1014.3	7	007	15	2	2	1	5	6	8	/		81638	86362		19	/As65 jpW
20	83	2	02	04	12	22.3	9.8	45	7.5	1018.8	6	007	03	0	0	1	5	6	0	4		81645			20	2Ci80 COTRA
21	82	6	04	04	11	24.5	5.8	30	5.7	1012.7	7	015	02	2	2	0	0	9	0	1		82075	86080		21	COTRA
22	84	1	06	05	14	27.7	11.3	36	8.3	1011.8	6	015	02	0	0	1	1	7	0	1		81856			22	1Ci80 COTRA Cu hum
23	75	6	35	04	08	24.1	11.4	45	8.4	1007.6	7	018	03	2	2	2	8	6	7	/		82840	83357	85360	23	1Sc50 Cu med
24	80	8	21	06	12	19.2	12.7	66	9.2	1003.5	5	005	15	2	2	8	8	5	/	/		83826	88645		24	Cu med jpSE
25	82	6	19	11	23	18.7	7.8	49	6.6	1007.7	7	001	15	2	2	4	2	6	6	1		84838	83357		25	1Ci75 Cu med jpSW&N
26	84	7	21	12	24	20.4	7.4	43	6.4	1012.4	2	006	01	1	1	2	2	6	0	1		82848	87080		26	COTRA Cu med
27	88	7	22	06	18	17.4	9.6	60	7.4	1017.0	2	007	15	8	2	6	8	6	7	/		82830	85650	87357	27	Cu med jpW
28	83	6	19	13	23	20.4	7.1	42	6.2	1016.0	6	010	01	2	2	1	4	6	0	2		81848	85075		28	1Sc50 COTRA Cu hum Halo 22° part
29	83	7	21	10	20	20.1	10.2	53	7.7	1011.2	6	003	03	2	2	1	8	6	3	8		81835	87270		29	1Sc56 1Ac68 Cu med/ Halo 22°
30	62	7	22	10	18	18.3	9.4	56	7.3	1011.4	5	003	15	8	2	3	9	5	6	3		81925	85358		30	2Cu35 1Sc50 /Ac65 /Ci70 Cb cap pra jpNW&N vv50k ex p

Mean vis = 41.4 km
Mean cloud = 5.3 67%
Mean wind speed = 7.2 kn
Mean gust = 16 kn
Mean TT = 20.9 °C
Mean TdTd = 10.0 °C
Mean RH = 51.3 %
Mean r = 7.6 g/kg
Mean PPP = 1015.4 mbar

See appendix 2 below for full code details

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

Wokingham
Sunshine
Hourly
analysis

2022

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
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.43	0.13	0.00	0.00	0.00	0.52	0.00	0.44	0.03	0.50	0.51	0.47	0.43	0.46	0.48
5	0.71	1.00	0.00	0.00	0.00	0.00	1.00	0.86	1.00	0.91	1.00	1.00	1.00	0.90	1.00	1.00
6	0.10	1.00	0.43	0.00	0.00	0.00	1.00	0.44	1.00	0.89	0.99	1.00	1.00	1.00	1.00	1.00
7	0.22	1.00	0.18	0.00	0.00	0.00	1.00	0.52	1.00	0.61	0.95	1.00	1.00	1.00	1.00	1.00
8	0.41	1.00	1.00	0.00	0.00	0.00	0.95	0.08	0.96	0.92	0.64	0.84	0.99	1.00	1.00	1.00
9	0.48	0.94	0.46	0.00	0.00	0.00	0.21	0.18	0.06	0.56	0.85	0.19	0.45	1.00	1.00	1.00
10	0.05	0.47	0.67	0.00	0.00	0.00	0.31	0.18	0.00	0.61	0.29	0.02	0.13	1.00	1.00	1.00
11	0.53	0.10	0.79	0.51	0.00	0.00	0.79	0.29	0.00	0.49	0.73	0.22	0.04	1.00	1.00	0.79
12	0.12	0.23	0.42	0.52	0.00	0.00	0.70	0.42	0.00	0.53	0.65	0.44	0.03	0.97	1.00	0.85
13	0.37	0.16	0.01	0.59	0.00	0.05	0.40	0.58	0.00	0.29	0.61	0.65	0.14	0.99	1.00	0.95
14	0.32	0.16	0.01	0.80	0.00	0.00	0.08	0.86	0.00	0.28	0.29	0.52	0.02	1.00	0.53	1.00
15	0.48	0.69	0.50	0.43	0.00	0.00	0.02	0.92	0.00	0.82	0.87	0.42	0.84	1.00	0.23	1.00
16	0.79	0.00	0.00	0.95	0.00	0.00	0.00	0.37	0.00	0.96	0.18	0.42	0.88	1.00	1.00	1.00
17	0.64	0.01	0.00	0.30	0.00	0.00	0.37	0.88	0.00	0.98	0.58	0.58	0.77	1.00	1.00	0.52
18	1.00	0.10	0.00	0.01	0.00	0.00	0.32	0.92	0.00	1.00	1.00	0.39	0.53	1.00	1.00	0.12
19	0.85	0.00	0.00	0.00	0.00	0.00	0.04	0.23	0.00	0.47	1.00	0.11	0.13	1.00	1.00	0.00
20	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.15	0.25	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	**7.10**	**7.29**	**4.61**	**4.14**	**0.00**	**0.05**	**7.70**	**7.74**	**4.47**	**10.34**	**11.31**	**8.30**	**8.43**	**15.43**	**14.46**	**12.71**

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	0.00	0.24	0.10	0.47	0.45	0.46	0.00	0.11	0.45	0.11	0.44	0.44	0.00	0.14	0.26
5	0.89	0.12	0.74	0.98	1.00	1.00	0.00	0.77	1.00	0.87	1.00	1.00	0.00	1.00	0.73
6	1.00	0.24	0.00	0.86	1.00	1.00	0.00	0.54	0.68	1.00	1.00	1.00	0.40	0.99	0.68
7	1.00	0.89	0.75	0.94	0.86	1.00	0.00	0.87	0.65	0.78	0.35	0.76	0.00	0.73	0.67
8	0.91	0.73	0.66	0.46	1.00	1.00	0.00	0.21	0.52	0.52	0.00	0.09	0.29	0.18	0.58
9	1.00	0.06	0.61	0.77	1.00	1.00	0.00	0.27	0.55	0.85	0.00	0.22	0.21	0.18	0.47
10	1.00	0.01	0.11	0.71	1.00	1.00	0.01	0.00	0.70	0.56	0.08	0.62	0.00	0.04	0.39
11	1.00	0.02	0.00	1.00	1.00	1.00	0.02	0.21	0.71	0.86	0.24	0.30	0.32	0.03	0.47
12	1.00	0.00	0.00	1.00	1.00	1.00	0.00	0.11	0.34	0.99	0.00	0.64	0.45	0.04	0.45
13	1.00	0.00	0.45	1.00	1.00	1.00	0.00	0.35	0.47	0.90	0.01	0.42	0.18	0.36	0.46
14	1.00	0.00	0.14	1.00	1.00	1.00	0.31	0.04	0.20	0.80	0.19	0.87	0.14	0.20	0.43
15	1.00	0.00	0.04	1.00	1.00	1.00	0.56	0.01	0.40	0.73	0.13	0.99	0.95	0.00	0.53
16	1.00	0.00	0.00	1.00	1.00	0.98	0.22	0.14	0.10	0.96	0.49	0.48	0.37	0.11	0.48
17	1.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00	0.22	1.00	0.39	0.20	0.00	0.71	0.47
18	1.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00	0.61	1.00	0.22	0.21	0.03	0.85	0.48
19	0.67	0.00	0.00	1.00	1.00	0.68	0.00	0.00	0.75	1.00	0.23	0.05	0.00	0.28	0.35
20	0.00	0.00	0.00	0.22	0.22	0.09	0.00	0.00	0.15	0.24	0.04	0.00	0.00	0.00	0.05
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	**14.48**	**2.30**	**3.61**	**14.42**	**15.53**	**15.21**	**1.12**	**3.63**	**8.48**	**13.19**	**4.81**	**8.31**	**3.33**	**5.86**	**238.35**

JUNE 2022	T mn	Tx	Time	Tn	Time	RHmn	RH x	Time	RH n	Time	Tdmn	r mn	r x	Time	r n	Time	p mn	p x	Time	p n	Time	R tot
1	11.86	18.4	1634	6.1	440	76.3	98.5	36	45.7	1831	7.4	6.3	7.5	932	5.6	1836	1017.44	1020.5	2348	1015.4	42	0
2	13.63	21.6	1600	4.9	355	69.5	98.4	538	34.5	1558	7.3	6.3	8.1	815	5.2	1306	1019.79	1021.4	728	1018.1	1731	0
3	16.47	23.7	1227	9.7	349	66.9	94.3	407	38.0	1543	9.7	7.5	9.7	1044	6.4	1607	1017.74	1019.7	2359	1016.2	1542	0.7
4	14.65	21.6	1451	10.6	332	75.8	95.4	349	51.6	1523	10.1	7.6	9.3	1321	6.6	2209	1019.69	1021.2	1019	1018.0	2237	2.4
5	12.29	15.2	1456	10.2	233	92.9	97.7	2111	78.3	1504	11.2	8.2	9.1	1938	7.3	2	1016.23	1019.2	4	1014.5	2359	8.3
6	13.51	16.2	1656	11.1	501	89.2	97.3	411	75.7	1316	11.7	8.5	9.4	1530	7.9	629	1014.73	1015.8	1142	1013.5	342	2
7	15.54	22.7	1324	8.3	409	79.3	98.5	551	52.0	1332	11.7	8.6	10.4	1324	6.6	409	1011.30	1014.1	7	1006.9	2359	0.4
8	16.63	21.9	1343	12.2	2352	70.5	97.0	400	38.8	1427	10.7	8.1	10.0	432	5.9	1742	1006.28	1011.8	2359	1003.4	415	0.1
9	15.44	19.2	1138	10.1	406	77.9	96.6	2251	49.0	1147	11.3	8.3	10.2	2306	6.7	1148	1015.60	1017.6	2151	1011.5	3	0.5
10	17.57	23.1	1303	13.0	2351	70.3	95.4	0	44.9	1506	11.6	8.5	10.2	7	7.4	1130	1018.54	1020.5	2359	1017.2	128	0
11	16.51	22.4	1331	10.9	424	68.1	96.3	431	42.2	1332	10.1	7.6	8.8	906	6.4	1856	1021.91	1024.4	2328	1020.3	21	0
12	15.67	21.3	1433	10.0	314	66.1	93.5	302	40.9	1337	8.8	7.0	8.5	1150	6.1	1338	1023.79	1024.8	832	1022.3	1716	0
13	14.99	21.3	1610	8.7	425	65.6	94.4	441	39.7	1636	8.1	6.6	7.5	1311	5.7	1317	1024.71	1026.3	951	1023.0	1852	0
14	16.96	24.7	1422	7.5	424	61.2	97.1	457	32.0	1634	8.2	6.7	8.5	1228	5.6	1857	1020.53	1023.8	2	1017.6	1805	0
15	18.44	26.9	1411	7.7	402	62.8	97.6	503	31.9	1253	10.0	7.6	9.5	1237	6.3	1253	1018.59	1020.2	2307	1017.3	1700	0
16	20.17	28.4	1605	10.3	414	56.7	91.9	402	26.9	1506	10.2	7.7	9.4	1107	6.3	1506	1021.67	1022.7	610	1019.8	2	0
17	23.13	31.2	1401	12.7	453	55.5	87.0	451	32.2	1657	12.8	9.2	11.3	1436	7.3	814	1019.33	1022.0	25	1017.1	1701	0
18	15.89	22.6	850	9.0	2302	83.4	94.7	430	64.9	852	13.0	9.4	11.9	1000	6.2	2202	1017.92	1019.7	1700	1014.8	1855	0.9
19	13.89	20.1	1401	9.1	1	73.7	94.8	2046	46.1	1401	8.9	7.1	8.7	2046	5.8	941	1015.28	1016.9	2333	1013.5	814	1.1
20	15.91	22.7	1449	9.2	419	64.8	92.7	431	37.8	1625	8.7	6.9	8.2	1426	6.1	1309	1018.54	1020.0	1003	1016.4	9	0
21	17.45	25.9	1605	7.9	357	61.2	97.4	452	25.2	1613	8.4	6.8	8.3	1330	5.1	1614	1014.56	1018.1	10	1011.8	1740	0
22	19.51	28.0	1551	9.3	431	59.8	96.2	337	31.6	1342	10.3	7.8	9.4	1325	5.8	834	1013.14	1014.7	706	1010.8	1702	0
23	17.66	25.4	1522	10.4	412	75.4	96.7	415	43.5	1523	12.9	9.3	11.0	1154	7.4	352	1009.53	1012.8	14	1006.9	1610	0.2
24	17.04	22.4	1348	13.3	2359	75.4	91.8	402	53.9	1326	12.4	9.0	10.3	1344	7.7	1709	1004.50	1007.7	5	1002.8	1924	0.3
25	15.00	20.4	1230	10.7	2358	73.6	93.0	1739	41.7	1134	9.8	7.6	9.5	1838	6.0	1023	1007.70	1010.1	2355	1004.8	0	4.9
26	15.37	20.7	1426	9.4	302	66.2	93.5	304	39.8	1359	8.5	6.9	8.5	846	5.9	1356	1012.05	1014.6	2226	1009.8	223	0.3
27	14.17	19.3	1611	8.8	327	75.2	96.8	336	45.5	1735	9.5	7.4	9.6	1139	5.9	1927	1016.45	1019.9	2321	1014.0	142	1.8
28	15.73	21.2	1350	9.7	335	66.9	93.7	435	41.0	1521	9.1	7.1	8.0	1039	6.0	1517	1017.09	1020.1	155	1013.2	2358	0
29	16.70	22.0	1306	13.7	412	72.4	96.3	449	45.7	1307	11.4	8.4	10.0	850	7.3	1243	1011.76	1013.4	2	1010.4	1625	1.1
30	14.60	20.4	1351	11.2	2332	79.3	94.8	508	44.7	1404	10.9	8.1	9.6	1722	6.5	1406	1012.12	1014.5	2254	1010.7	55	1.8
Total																						26.8
Mean	16.08	22.36		9.85		71.1	95.31		43.86		10.15	7.73	9.34		6.37		1015.95	1018.27		1013.73		
Max	23.13	31.18		13.70		92.9	98.50		78.30		13.01	9.38	11.87		7.85		1024.71	1026.30		1023.00		
Min	11.86	15.18		4.94		55.5	87.00		25.20		7.34	6.33	7.53		5.09		1004.50	1007.67		1002.78		

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

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

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

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
R tot = Rainfall from TBR, uncorrected

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.

B J Burton. 3 August 2009. Updated 4 May 2014.

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 of 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.