

WOKINGHAM METEOROLOGICAL DATA

Wokingham Climatological Station, Emmbrook, Berkshire.

Lat/Long 51°25'N 00°51'W NGR (SU)800699 Altitude 44m ASL.

Monthly Means and Totals

JULY 2004

Temperature (°C / °F)			Anomaly	Rank in the past 123 years			
Mean maximum	22.3	72.1	-0.2	45 th highest			
Mean minimum	11.8	53.2	-0.5	55 th highest			
Daily mean	17.0	62.6	-0.4	51 st highest			
Highest maximum	28.9	84.0	on 29 th	Lowest maximum	17.5	63.5	on 11 th
Highest minimum	16.7	62.1	on 16 th	Lowest minimum	7.2	45.0	on 6 th
Mean grass minimum	9.0	48.2		Lowest grass minimum	3.4	38.1	on 6 th &13 th
Mean earth @30 cm	17.6	63.7	-0.8	Earth @100 cm	16.1	61.0	-0.1
Frost duration (hrs)	0.0			Rain duration (hrs)	17.1		
Rainfall total (mm / in)	28.8	1.13	69 %	32 nd lowest			
Highest daily fall	15.5	0.61	on 7 th				
Number of: Dry days (<0.2mm)	18	Wet days (>0.9mm)	5	days ≥5mm	1		
Sunshine total (hrs)	167.4	Daily mean	5.40	Sunniest day	14.1	on 23 rd	
N° days with: Air frost	0	Ground frost	0	Snow falling	0	Snow lying	0
Thunder	1	Hail ≥5mm	0	Small hail/ice	0	Fog @09	0
Air pressure MSL : Mean @09 GMT (mbar/in)	1016.4		-1.0	30.01			
Absolute highest	1027.1			30.33		on 24 th	
Absolute lowest	1004.2			29.65		on 8 th	

Anomaly = departure from 1971 to 2000 average.

Notes: **Dry.**

Dull.

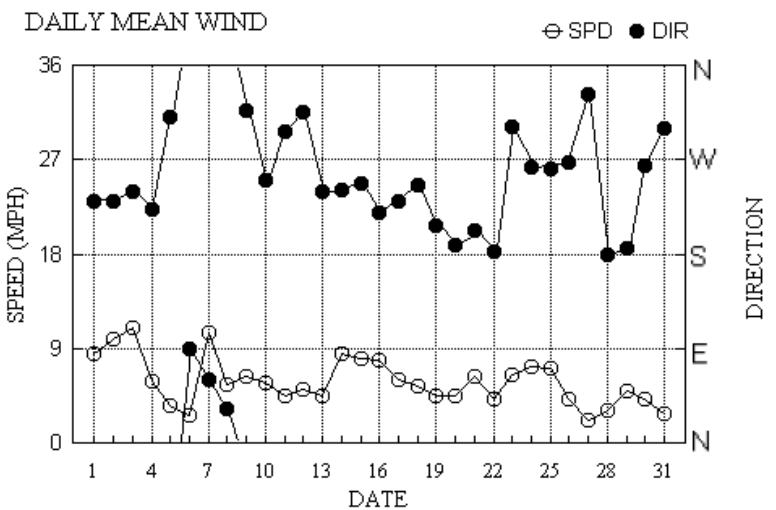
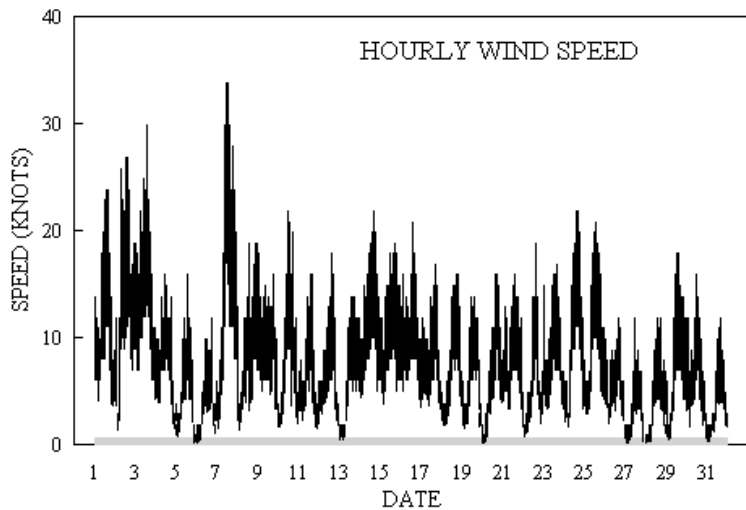
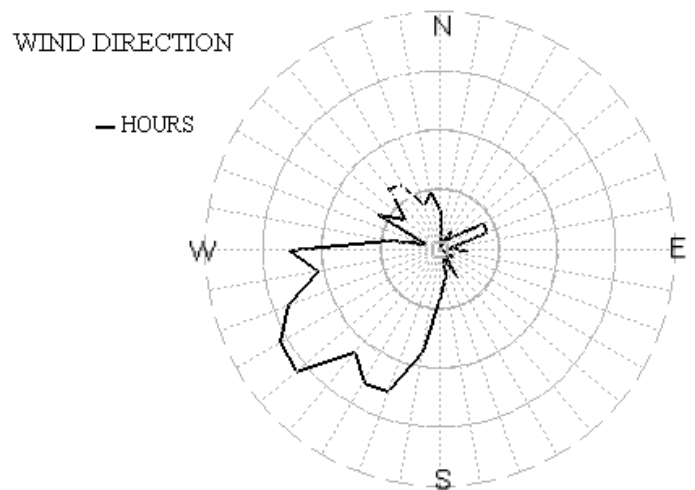
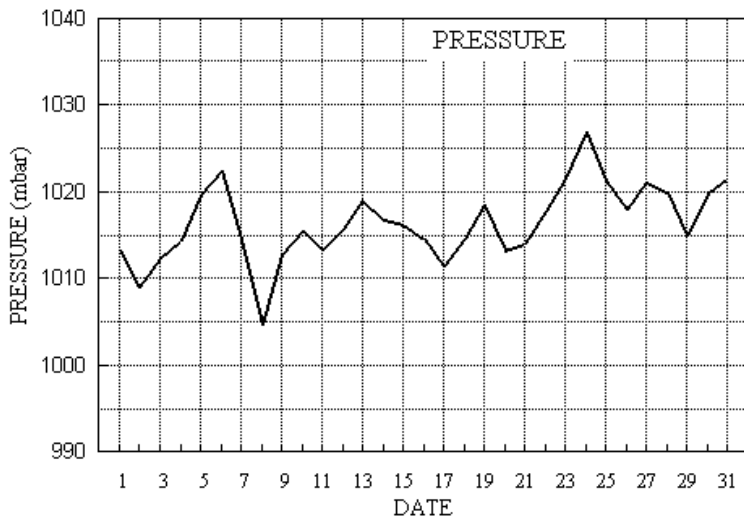
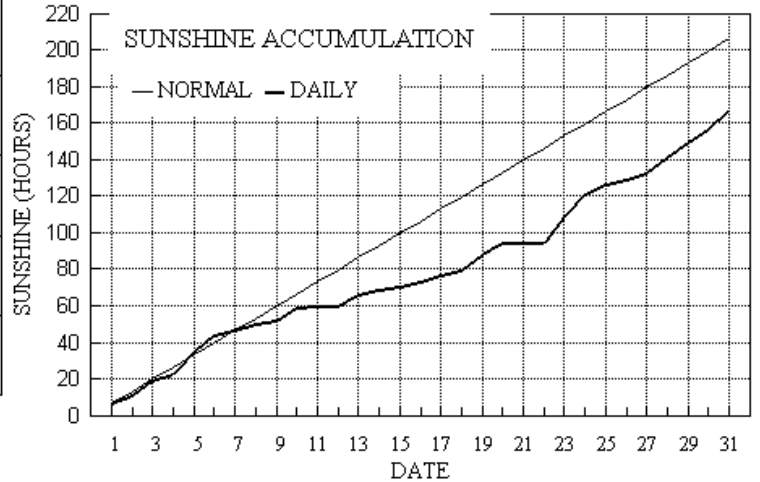
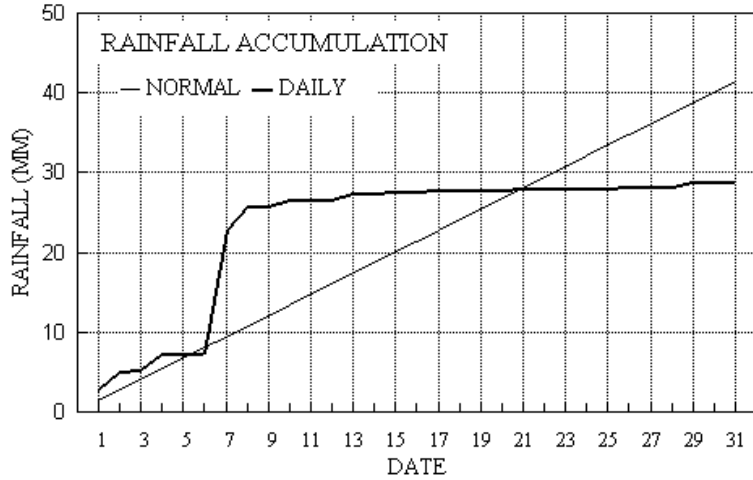
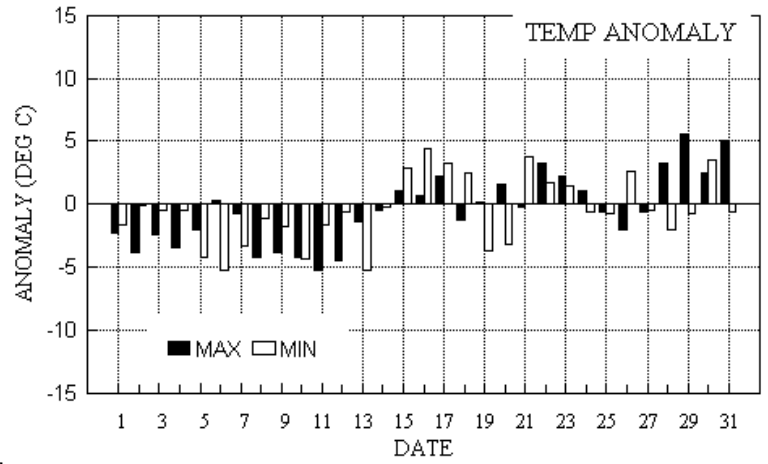
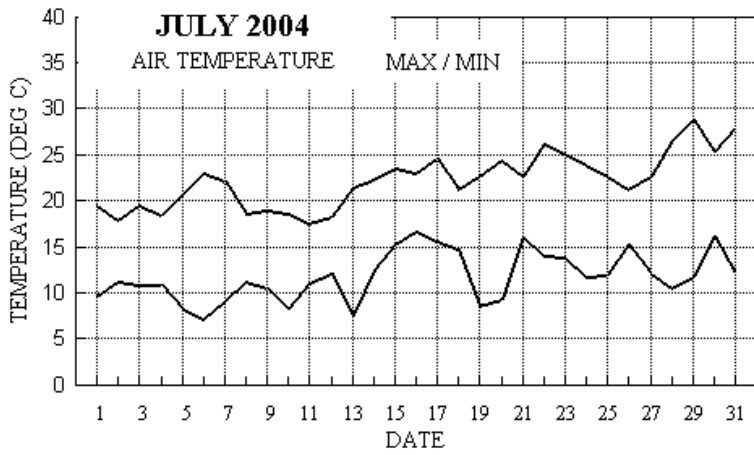
Temperature Near Normal.

Temperature. The mean this July is 0.4° below the current 30 year climatological average, but is also 0.4° above the 123 year median, attesting to the warmer Julys of recent decades. Similarly, the mean maximum is 0.2° below the climatological average, but is 0.9° above the median, while the corresponding figures for the mean minimum are -0.5° and +0.2°. The highest maximum lies 0.5° above the median, and the lowest minimum 0.3° above the median, while the lowest maximum is 0.8° above, and the highest minimum 0.5° above their respective medians. The mean daily temperature range of 10.5° is 0.3° above average, but the lowest daily value, 6.0°, is highest in 29 years. The mean grass minimum is lowest since 1990, but the lowest value, 3.4°, is lowest only since 2000. The mean earth temperature at 30 cm is lowest since 1988, and at 1 metre depth is lowest since 1998. **Rainfall.** Quite a dry month overall, with the total 31 % below average, and lowest since 1998. 90 % of the rain fell before the 9th, with a total of just 2.9 mm in the last 23 days, yet surprisingly there were no periods of 5 or more days satisfying the dry spell criterion. The highest daily fall of 15.5 mm is close to normal. Thunder was heard on just one day, the 6th. **Sunshine.** Close to normal before the 6th and after the 21st, otherwise generally dull, giving a total for this July 26 hours below the median (may be partly due to change to electronic measurement), and lowest since 1998. There were 8 days with <3 hours, 12 with =>6 hours, 6 with =>9 hours and 3 with =>12 hours. **Wind.** The mean wind speed this month was 5.9 mph, just a little below average, but highest since 1999. The windiest day was the 3rd, mean speed 10.9 mph, but the month's highest gust of 39 mph was on the 7th. The 27th was the least windy day, 2.1 mph, and there were 27 hours with a mean speed of 0.5 mph or less. Daily mean direction/number of days: N,0 NE,2 E,1 SE,0 S,5 SW,10 W,6 NW,7. **Humidity.** The overall mean relative humidity this July was 74.1 %, and the lowest value of 31 % occurred on the 31st. The mean amount of water vapour per kilogram of air was 9.0 g at 0900 GMT and 8.7 g at 1500 GMT. **Commentary.** From the 1st to the 10th: Temperatures were generally below normal, with anomalies in daily maxima of -4° from the 8th to the 10th, and in minima -4° on the 5th and 10th, and -5° on the 6th, the month's coldest night. The 10 day mean anomalies were -2.7° and -2.3° for max and min resp. Only 3 dry days in this period, with the month's wettest day on the 7th, helping the 10 day total to 26.6 mm, 200 % of normal. Rather variable sunshine, but only 2 days with <3 hours, and a 10 day mean 89 % of normal. Fresh SW'ly winds became light NW'ly on 5th, veering E'ly on 6th, increasing to strong NE'ly on 7th then decreasing moderate, then backing W'ly by 10th. From the 11th to the 20th: Temperatures started well below normal but recovered to near normal from the 13th on. There was an anomaly of -5.3° for the maximum on the 11th, the month's coolest day, but becoming +2.2° on the 17th. For minima the anomaly varied from -5° on the 13th to +4° on the 16th, the month's mildest night, with 10 day mean anomalies of -0.7° and -0.2° for max and min resp. 7 of the 10 days were dry, and the total of 1.2 mm is only 9 % of normal. Predominantly cloudy, 6 days having 3 hours or less sunshine, and the 10 day mean of only 53 % of normal. Mostly moderate winds were NW'ly on 11th, gradually backing to S'ly by the 20th. From the 21st to the 31st: This was the hottest part of the month although maxima were close to normal until the 27th, just the last 4 days showing any real heat, with anomalies of +5.1° on the 31st and +5.6° on the 29th, the month's hottest day. Minima were generally near normal, and the 10 day mean anomalies were +1.8° and +0.7° for max/min resp. 8 dry days out of 11, and a meagre total of 1.0 mm, 7 % of normal. Sunny on the 23rd, 24th and 31st, the 23rd being the month's sunniest day, helping the 11 day mean to 99 % of normal. Moderate S'ly winds on 21st veered W'ly on 23rd, became light on 26th, temporarily becoming moderate S'ly on 29th.

B J Burton. FRMetS.

Hon. Met. Officer to Wokingham Town Council.

Wokingham Climatological Data



Daily meteorological data.

Emmbrook, WOKINGHAM, Berkshire.

Month: JULY 2004

Date	Max C	Min C	Rain mm	Grass Min	30cm C	100cm C	Sun hrs	Frost hrs	pp09 mbar	Af Gf	Sf Sl	Th Ha	Ic Fg	Vec mean ddd ff sp	Max gust ddd gg HHhh	High hr ddd ff HH	Rain hrs	
1	19.6	9.6	2.7	5.9	17.0	15.6	6.7	0.0	1013.2	0 0 0 0	0 0 0 0	0 0 0 0	231	7.1 7.4	230 24 1559	240 13 13	2.9	
2	18.0	11.2	2.4	6.8	17.0	15.6	4.9	0.0	1009.0	0 0 0 0	0 0 0 0	0 0 0 0	231	8.3 8.6	220 27 1355	230 14 16	1.2	
3	19.5	10.8	0.2	8.1	16.9	15.6	7.4	0.0	1012.3	0 0 0 0	0 0 0 0	0 0 0 0	239	9.4 9.5	240 30 1355	240 14 13	0.2	
4	18.5	10.8	2.0	6.8	16.8	15.7	4.1	0.0	1014.4	0 0 0 0	0 0 0 0	0 0 0 0	222	4.9 5.2	240 16 1042	210 8 13	1.0	
5	20.8	8.2	0.0	3.8	16.7	15.7	12.1	0.0	1019.5	0 0 0 0	0 0 0 0	0 0 0 0	311	2.7 3.0	290 16 1252	310 7 12	0.0	
6	23.1	7.2	tr	3.4	17.0	15.8	9.2	0.0	1022.4	0 0 0 0	1 0 0 0	0 0 0 0	90	1.9 2.3	120 12 1744	130 5 17	0.0	
7	22.1	9.1	15.5	4.7	17.3	15.8	2.4	0.0	1014.5	0 0 0 0	0 0 0 0	0 0 0 0	60	9.0 9.1	70 34 1256	70 17 10	5.7	
8	18.6	11.3	3.1	8.2	16.8	15.8	3.2	0.0	1004.6	0 0 0 0	0 0 0 0	0 0 0 0	32	4.0 4.9	350 19 2352	360 9 21	1.5	
9	19.0	10.6	tr	9.8	16.8	15.9	2.1	0.0	1012.7	0 0 0 0	0 0 0 0	0 0 0 0	317	5.1 5.5	360 18 0009	350 8 00	0.0	
10	18.6	8.3	0.7	4.9	16.6	15.9	6.9	0.0	1015.5	0 0 0 0	0 0 0 0	0 0 0 0	250	4.6 5.0	260 22 1243	250 10 12	0.9	
11	17.5	11.0	tr	10.1	16.7	15.8	0.7	0.0	1013.3	0 0 0 0	0 0 0 0	0 0 0 0	297	3.1 3.9	340 16 1539	310 7 14	0.0	
12	18.3	12.1	0.0	7.3	16.6	15.8	0.3	0.0	1015.7	0 0 0 0	0 0 0 0	0 0 0 0	315	4.3 4.5	330 18 1528	320 8 15	0.0	
13	21.4	7.5	0.8	3.4	16.5	15.8	5.8	0.0	1019.0	0 0 0 0	0 0 0 0	0 0 0 0	240	3.5 3.9	230 14 1327	210 7 18	1.5	
14	22.3	12.4	tr	10.5	16.8	15.8	2.8	0.0	1016.8	0 0 0 0	0 0 0 0	0 0 0 0	242	7.1 7.4	270 22 1528	260 11 16	0.0	
15	23.6	15.2	0.2	16.0	17.0	15.8	1.7	0.0	1016.2	0 0 0 0	0 0 0 0	0 0 0 0	248	6.8 6.9	260 19 1737	270 9 17	0.2	
16	23.1	16.7	tr	16.3	17.5	15.8	3.2	0.0	1014.6	0 0 0 0	0 0 0 0	0 0 0 0	219	6.7 6.8	220 21 1418	230 10 14	0.0	
17	24.7	15.6	0.2	14.1	17.8	15.9	3.0	0.0	1011.3	0 0 0 0	0 0 0 0	0 0 0 0	230	4.6 5.3	280 17 1653	280 8 16	0.9	
18	21.2	14.8	tr	12.0	18.0	16.0	3.0	0.0	1014.6	0 0 0 0	0 0 0 0	0 0 0 0	246	4.6 4.7	270 16 1749	260 8 17	0.0	
19	22.7	8.6	0.0	4.6	17.9	16.1	9.3	0.0	1018.5	0 0 0 0	0 0 0 0	0 0 0 0	208	3.8 3.9	230 14 1528	220 7 15	0.0	
20	24.5	9.2	tr	5.2	18.0	16.1	5.6	0.0	1013.2	0 0 0 0	0 0 0 0	0 0 0 0	188	3.1 3.8	210 16 1548	210 9 16	0.0	
21	22.6	16.1	0.2	15.2	18.3	16.2	0.3	0.0	1014.0	0 0 0 0	0 0 0 0	0 0 0 0	202	5.4 5.5	200 16 1405	210 8 14	0.3	
22	26.2	14.1	tr	9.3	18.2	16.3	0.1	0.0	1017.8	0 0 0 0	0 0 0 0	0 0 0 0	183	2.8 3.6	190 19 1529	170 8 14	0.0	
23	25.1	13.8	0.0	11.2	18.6	16.5	14.1	0.0	1021.5	0 0 0 0	0 0 0 0	0 0 0 0	301	5.1 5.6	270 17 1654	330 8 11	0.0	
24	24.0	11.8	0.0	8.4	18.6	16.5	12.5	0.0	1026.9	0 0 0 0	0 0 0 0	0 0 0 0	263	6.1 6.3	270 22 1528	270 12 15	0.0	
25	22.7	11.9	tr	9.3	18.5	16.6	4.8	0.0	1021.2	0 0 0 0	0 0 0 0	0 0 0 0	262	5.8 6.2	250 21 1248	260 10 11	0.1	
26	21.2	15.2	0.2	14.7	18.3	16.6	3.1	0.0	1018.0	0 0 0 0	0 0 0 0	0 0 0 0	268	3.5 3.6	250 12 1555	270 6 15	0.1	
27	22.7	12.1	0.0	8.8	18.0	16.7	3.6	0.0	1021.0	0 0 0 0	0 0 0 0	0 0 0 0	333	1.5 1.8	300 12 1153	300 4 14	0.0	
28	26.5	10.6	0.0	7.4	18.1	16.7	8.9	0.0	1020.0	0 0 0 0	0 0 0 0	0 0 0 0	180	2.3 2.7	200 12 1705	200 7 17	0.0	
29	28.9	11.8	0.6	8.8	18.5	16.7	8.0	0.0	1015.0	0 0 0 0	0 0 0 0	0 0 0 0	186	3.5 4.3	180 18 1211	180 8 14	0.6	
30	25.3	16.2	0.0	13.8	18.9	16.8	6.8	0.0	1019.7	0 0 0 0	0 0 0 0	0 0 0 0	265	2.7 3.6	250 16 1257	270 7 12	0.0	
31	27.9	12.1	0.0	9.1	19.0	16.9	10.8	0.0	1021.5	0 0 0 0	0 0 0 0	0 0 0 0	300	1.6 2.5	210 12 1534	260 5 16	0.0	
Total			28.8				167.4	0.0										17.1
Mean	22.3	11.8		9.0	17.6	16.1	5.40	0.0	1016.4					246	3.0 5.1			
Anom	-0.2	-0.5	69%		-0.8	-0.1	81%											-1.0
Daily mean		17.0																
Anom		-0.4																

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 1971-2000 climatological average.
 All temperatures in degrees Celsius.

Weather observations. Emmbrook, Wokingham, Berkshire.

Observations at 0900 GMT for JULY 2004

Date	VV	N	dd	ff	gg	TT	Td	Td	RH	r	PPP	a	pppww	W1	W2	Nh	Cl	hCr	Cl	NCh	shs	NCh	shs	NCh	shs	Date	Remarks
1	81	4	26	08	18	16.6	9.1	61	7.2	1013.2	2	006	03	1	1	4	8	5	0	1	83825				1	1Sc56 1Ci75	
2	82	3	26	11	23	16.5	9.9	65	7.6	1009.0	2	018	03	1	1	3	8	5	0	1	82825				2	1Sc40 1Ci78 COTRA	
3	82	7	24	11	20	15.1	10.4	73	7.9	1012.3	2	010	03	1	1	7	8	5	/	/	84825	85645			3	Cu med	
4	84	7	24	07	12	15.4	10.9	75	8.1	1014.4	0	004	03	2	2	1	8	4	7	/	81818	83358	87360		4	1Sc40 Cu med	
5	86	2	34	04	08	15.7	8.5	62	6.8	1019.5	1	014	03	0	0	2	2	5	0	0	82828				5	Cu med	
6	77	1	13	03	06	19.4	12.5	64	9.0	1022.4	0	000	03	0	0	1	1	6	0	1	81830				6	1Ci80 COTRA Cu hum	
7	80	8	07	13	22	18.4	12.1	67	8.8	1014.5	6	020	03	2	2	1	1	5	8	7	81828	88272			7	1Ac62 Cu hum Halo 22 part	
8	73	7	07	05	12	17.1	13.6	80	9.8	1004.6	0	001	03	1	1	5	8	4	3	1	81715	85818	85075		8	1Sc40 3Ac62 COTRA Cu con	
9	81	7	32	07	15	14.0	8.9	71	7.1	1012.7	1	009	03	2	2	7	8	5	/	/	85820	85656			9	2Sc35	
10	83	4	26	07	12	15.8	9.5	66	7.4	1015.5	0	000	03	0	0	3	8	5	3	1	83825				10	1Sc50 1Ac60 2Ci78 COTRA Cu con	
11	84	7	32	05	10	14.9	10.4	74	7.8	1013.3	2	001	21	6	2	2	8	4	7	/	82813	87358			11	2Sc50 Cu con N	
12	75	7	33	05	10	14.6	10.8	78	8.1	1015.7	2	010	15	2	2	7	8	4	/	/	83815	86640	87650		12	Cu med jp E	
13	86	2	03	03	06	16.4	8.9	61	7.0	1019.0	1	003	01	1	1	2	8	6	0	0	81830				13	2Sc56 Cu med	
14	59	8	23	08	16	15.2	14.1	93	10.1	1016.8	6	003	21	6	5	8	5	3	/	/	81706	87708	88612		14		
15	68	7	25	08	15	19.2	15.9	81	11.3	1016.2	0	001	01	5	2	7	6	4	3	/	87615				15	/Ac63	
16	68	8	22	07	13	18.1	15.9	87	11.3	1014.6	1	004	50	5	2	8	5	3	/	/	86708	88612			16		
17	63	7	22	04	07	18.1	15.2	83	10.9	1011.3	8	003	01	2	2	7	6	4	8	/	87712				17	/Ac58 Ac cas	
18	63	8	26	03	05	15.9	13.8	87	9.8	1014.6	1	009	61	6	2	1	5	4	7	/	81710	88462			18	1Sc50 1Ac60	
19	84	3	21	04	09	18.4	9.6	56	7.4	1018.5	1	005	03	0	0	1	1	6	3	1	81832	83080			19	1Ac62 COTRA Cu hum	
20	70	6	14	03	06	19.6	13.5	68	9.7	1013.2	7	004	03	1	1	4	8	6	7	1	82645	83850			20	1Ac58 1Ac65 3Ci78 COTRA Cu med	
21	72	7	21	06	11	19.5	15.5	78	11.0	1014.0	1	007	01	5	2	7	8	4	/	/	85815	86630			21		
22	60	7	15	03	06	19.6	16.5	82	11.7	1017.8	0	000	05	2	2	2	5	4	8	/	81712	83650	85358		22	2Ac62 7Ac64	
23	84	2	32	06	11	19.4	11.5	60	8.4	1021.5	1	018	02	0	0	0	0	9	0	1	82080				23	COTRA	
24	82	7	27	07	15	18.9	11.1	60	8.1	1026.9	0	001	03	2	2	1	1	5	0	1	81825	87080			24	COTRA Cu hum	
25	81	5	25	08	15	17.9	11.5	66	8.4	1021.2	8	011	03	1	1	3	1	5	8	0	83824	84365			25	Cu hum Ac cas	
26	86	8	31	04	09	17.5	13.8	79	9.8	1018.0	2	003	03	2	2	7	8	4	7	/	84817	87635			26	/Sc45 /Ac60	
27	80	7	36	02	04	17.0	11.7	71	8.5	1021.0	0	008	03	2	2	7	8	5	/	/	81825	84630	87645		27	Cu hum	
28	75	5	15	03	06	20.8	13.4	62	9.5	1020.0	1	003	03	1	1	5	8	5	0	1	81828	85650			28	1Ci75 Cu med	
29	62	2	16	04	10	23.3	14.6	58	10.4	1015.0	8	002	01	1	1	1	0	9	3	1	81365				29	2Ci78 COTRA	
30	68	7	26	04	08	18.8	14.5	76	10.3	1019.7	1	011	03	2	2	7	8	4	/	/	85818	86625			30	Cu hum	
31	70	5	21	02	03	20.3	15.3	73	10.6	1021.5	1	005	02	2	2	5	0	9	8	1	82360	84363			31	2Ci80 COTRA Ac flo vir	

Mean vis = 31.6 km
 Mean cloud = 5.6 71%
 Mean wind speed = 5.6 kn
 Mean gust = 11 kn
 Mean TT = 17.7 C
 Mean TdTd = 12.4 C
 Mean RH = 71.5 %
 Mean r = 9.0 g/km
 Mean PPP = 1016.4 mbar

Weather observations. Emmbrook, Wokingham, Berkshire.

Observations at 1500 GMT for JULY 2004

Date	VV	N	dd	ff	gg	TT	TdTd	RH	r	PPP	a	pppww	W1W2	NhCl	hCr	Cr	NChshs	NChshs	NChshs	Date	Remarks			
1	86	7	23	12	24	18.4	9.6	56	7.4	1012.6	4	000	15	8	2	3	9	6	7	1	81930	83838	1	3Ac57 2Ac60 4Ci75 CbN jpW&N L+U/a cont
2	80	7	23	11	26	16.9	13.2	79	9.5	1009.7	3	002	25	8	2	6	9	5	0	1	82925	84830	2	1Sc40 2Ci72 jp E&S-SW vv50k ex p
3	83	5	24	13	26	18.9	10.6	59	8.0	1012.7	4	000	15	8	1	3	8	6	3	1	82835		3	2Sc56 2Ac58 1Ci75 Cu con jp N
4	81	7	19	07	12	16.8	10.2	65	7.8	1013.7	6	001	02	2	2	2	8	6	7	2	82835	84365 86072	4	1Sc50 2Ac60 Cu med
5	86	2	31	06	11	20.6	6.7	40	6.0	1020.1	0	000	02	0	0	2	2	7	6	0	82850		5	1Ac57 Cu med
6	81	5	15	03	09	21.6	7.9	41	6.6	1020.5	8	010	03	1	1	2	2	7	6	0	82850	84357	6	Cu con
7	58	8	06	09	30	14.8	11.9	83	8.7	1009.8	8	002	62	6	2	2	8	6	7	/	81835	88459	7	2Sc50 2Ac58 Hvy ra 1455
8	65	7	07	05	10	18.1	14.1	78	10.2	1004.5	5	000	25	8	2	3	9	4	6	1	81715	82922 86072	8	1Sc45 2Ac58 2Ac63 jp all quads
9	86	7	35	04	13	17.2	7.8	54	6.6	1014.0	1	007	02	2	2	6	8	6	3	1	82840	85656 85362	9	/Ci75
10	82	7	23	06	10	16.9	10.8	67	8.1	1014.5	7	005	25	8	2	1	8	6	7	1	81830	86360	10	1Sc56 2Ac58 3Ci75 COTRA Cu con jp N&E-SE
11	80	7	33	05	16	16.0	10.4	69	7.8	1012.7	5	002	80	8	2	6	8	6	7	/	82835	85650 87358	11	
12	80	7	33	07	12	17.6	9.7	60	7.5	1016.2	2	002	02	2	2	7	8	6	/	/	83835	87650	12	Cu med
13	82	3	25	05	11	20.1	7.5	44	6.4	1017.9	7	006	02	1	1	3	8	6	0	0	81840	83650	13	Cu hum
14	75	7	26	10	20	21.2	17.0	77	12.1	1015.9	5	005	02	2	2	7	5	5	/	/	86620	87628	14	
15	80	7	25	10	18	22.1	17.1	73	12.2	1015.2	7	006	02	2	2	7	8	5	/	/	82822	87630	15	Absent vv&cld est
16	81	6	23	09	21	22.7	16.0	66	11.4	1013.9	7	002	01	6	2	6	8	5	3	1	83828	83650	16	1Ac65 2Ci78 COTRA Cu med
17	84	4	24	06	14	24.0	14.7	56	10.5	1009.6	8	007	03	1	1	3	8	6	3	3	83835		17	1Sc50 1Ac62 1Ci75 Cu med Cb top E
18	80	6	25	07	15	20.2	11.8	59	8.6	1014.1	6	003	15	2	2	5	8	6	3	1	82835	84656	18	1Ac60 2Ci75 COTRA Cu con jpN
19	82	6	22	06	14	22.4	9.8	45	7.5	1016.4	7	011	02	2	2	3	8	6	3	1	83848	84078	19	1Sc56 2Ac60 COTRA Cu med
20	72	6	20	08	14	23.2	14.3	57	10.2	1011.2	7	007	02	2	2	3	8	6	3	1	83835	84078	20	1Sc56 1Ac65 COTRA Cu con
21	70	7	20	07	16	21.6	16.4	72	11.6	1014.8	0	002	25	8	2	7	8	5	/	/	81825	87656	21	2Sc45 Cu med jp N
22	73	8	17	08	15	24.5	14.5	54	10.3	1015.8	6	009	14	2	2	1	1	6	8	/	81840	85362 88465	22	1Ac57 2Ac58 Cu hum jpSE
23	82	2	33	06	15	24.5	10.4	41	7.8	1022.7	2	007	02	0	0	2	1	7	0	0	82850		23	Cu hum
24	80	4	25	10	22	23.4	10.5	44	7.8	1024.4	6	015	03	1	1	1	1	7	8	1	81850	83080	24	2Ac68 COTRA Cu hum Ac cas
25	75	7	29	08	19	21.2	11.8	55	8.6	1018.8	6	004	21	6	2	1	8	6	8	1	81830	83358 86361	25	1Sc40 /Ci75 Ac cas
26	84	7	28	05	10	20.2	13.6	66	9.7	1017.8	6	003	01	2	2	7	8	6	/	/	83830	87656	26	Cu med
27	81	6	30	05	08	22.3	12.1	52	8.8	1020.3	8	001	01	2	2	6	8	6	/	/	82840	86650	27	2Sc45
28	78	5	19	06	12	25.3	12.4	45	8.9	1017.8	7	014	02	2	2	2	8	7	3	1	82850		28	1Sc56 2Ac68 1Ci78 COTRA Cu med
29	81	7	17	07	18	28.0	10.4	33	7.9	1013.7	6	002	01	2	2	3	0	9	8	2	82359	86072	29	2Ac62 Ac cas Absent vv&cld est
30	82	6	33	05	10	24.2	11.6	45	8.4	1019.5	0	000	03	1	1	2	4	7	0	1	82656	85078	30	COTRA Halo 22° part
31	80	2	24	03	09	26.7	10.7	37	8.0	1019.8	7	008	02	0	0	1	1	7	4	1	81856		31	2Ac57 1Ci75 Cu hum Ac len

Mean vis = 34.7 km
 Mean cloud = 5.9 73%
 Mean wind speed = 7.1 kn
 Mean gust = 15 kn
 Mean TT = 21.0 C
 Mean TdTd = 11.8 C
 Mean RH = 57.2%
 Mean r = 8.7 g/kg
 Mean PPP = 1015.5 mbar

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 Psychrometer
 Daily means and extremes, 00-24 GMT
 JULY 2004

Date	Mean		Max		Min		Mean		Max		Min		Missing RH N >0	Number of minutes RH in given ranges						
	TT	TT	Time	TT	Time	RH	RH	Time	RH	Time	RH	Time		0-20	20-40	40-60	60-80	80-90	90-95	95-98
01	14.6	19.6	14:04	9.9	04:31	76.7	92.4	04:40	51.9	14:04			0	0	126	612	517	185	0	0
02	14.4	18.0	14:01	11.6	03:52	85.2	98.6	06:12	62.7	09:15			0	0	0	391	605	226	210	8
03	15.0	19.5	14:42	11.0	04:34	75.3	89.7	02:17	55.8	15:22			0	0	120	669	651	0	0	0
04	14.2	18.5	16:03	10.8	04:31	81.9	98.8	22:56	58.5	16:02	82		0	0	35	517	238	354	180	34
05	15.3	20.8	14:27	9.1	04:41	70.3	100.0	06:19	37.2	14:23			0	34	553	287	101	31	177	257
06	16.5	23.1	13:22	8.7	04:04	65.8	94.9	04:44	34.9	13:19			0	169	408	414	134	315	0	0
07	14.6	22.0	11:47	10.3	03:06	80.6	98.0	21:38	39.6	11:45			0	5	285	205	259	341	343	2
08	14.3	18.6	15:01	12.0	02:28	91.8	98.7	03:23	72.8	15:08			0	0	0	70	394	491	340	145
09	14.3	19.0	16:36	10.6	03:23	70.2	90.4	01:14	43.4	16:34			0	0	401	588	438	13	0	0
10	14.1	18.6	12:24	9.2	04:42	77.9	93.9	04:42	49.5	12:50			0	0	227	399	486	328	0	0
11	14.3	17.5	14:32	11.0	04:43	76.7	94.4	06:59	56.0	15:40			0	0	132	673	350	285	0	0
12	15.2	18.3	14:35	12.4	01:00	73.1	87.4	00:24	54.0	15:29			0	0	133	739	568	0	0	0
13	15.6	21.4	15:22	8.9	04:30	68.6	95.4	05:10	39.0	15:27			0	8	528	485	93	269	57	0
14	17.1	22.3	16:53	12.6	03:48	82.9	97.1	08:01	66.5	16:44			0	0	0	594	486	202	158	0
15	19.7	23.7	15:09	16.5	04:20	81.1	97.5	04:31	64.1	17:30			0	0	0	649	514	154	123	0
16	18.9	23.1	15:23	16.8	05:12	83.9	95.5	05:00	65.1	14:59			0	0	0	499	486	408	47	0
17	19.0	24.7	15:10	15.6	05:20	77.6	93.2	05:27	52.4	15:09			0	0	151	571	440	278	0	0
18	17.3	21.2	12:00	12.7	23:59	73.1	93.0	08:24	53.5	12:21			0	0	412	490	460	78	0	0
19	16.7	22.7	15:04	9.6	04:55	66.5	91.2	05:03	41.8	15:36			0	0	636	403	318	83	0	0
20	18.2	24.5	15:09	10.4	03:44	71.6	94.1	04:34	52.6	11:13			0	0	423	600	106	311	0	0
21	18.6	22.6	15:59	15.3	23:48	78.5	95.8	07:10	60.1	15:59			0	0	0	722	575	136	7	0
22	20.3	26.2	13:17	14.5	03:20	76.1	96.5	03:36	49.4	14:19			0	0	326	464	189	195	266	0
23	19.8	25.1	15:47	14.0	04:48	63.1	91.4	00:51	38.3	15:42			0	59	612	384	336	49	0	0
24	18.0	24.0	13:31	12.3	04:22	67.8	95.5	04:09	40.8	13:57			0	0	636	313	201	254	36	0
25	17.1	22.7	12:17	12.5	03:35	70.9	88.1	03:34	41.0	12:05			0	0	389	559	492	0	0	0
26	17.4	21.2	16:56	14.1	23:53	77.5	92.8	23:48	59.8	15:29			0	0	1	677	696	66	0	0
27	18.1	22.7	15:03	13.5	02:22	71.0	94.0	01:02	49.2	15:21			0	0	579	346	177	338	0	0
28	19.6	26.5	13:43	11.8	04:40	65.9	94.9	04:11	39.7	16:58			0	5	710	277	90	358	0	0
29	20.9	29.0	14:46	13.2	04:59	64.2	95.4	23:29	31.6	12:42			0	306	335	336	270	178	15	0
30	20.2	25.3	13:50	16.1	23:25	69.3	96.6	01:34	41.3	13:30			0	0	569	310	196	170	195	0
31	20.9	27.9	14:23	13.3	04:02	61.9	92.0	05:11	31.3	15:53			0	319	414	273	276	158	0	0
Mean	17.1	22.3		12.3		74.1	94.4		49.5				0.00	0.49	4.91	7.80	5.99	3.36	1.16	0.24
Hi	20.9	29.0		16.8		91.8	100.0		72.8	Tot	82		0	905	9141	14516	11142	6254	2154	446
Lo	14.1	17.5		8.7		61.9	87.4		31.3											

Note. Aspirated Psychrometer exposed near house. Winds with a component from 030 deg can produce a distorted diurnal temperature profile. Compensation for this is made in post processing, and maxima are constrained to be within 0.2C of screen values about 500m away. Minima on radiation nights can also be about 1C higher than screen values, due partly to topography. No compensation is made for this. Humidity readings are similar to screen derived values under most conditions and in most instances can be considered more accurate due to controlled aspiration. The psychrometer is of experimental design, and logs one minute average values of temp and RH.