

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 2006

Temperature (°C / °F)			Anomaly	Rank in past 125 years			
Mean maximum	27.5	81.5	+5.0	*Highest *			
Mean minimum	14.4	57.9	+2.1	2 nd highest			
Daily mean	20.9	69.6	+3.5	*Highest*			
Highest maximum	35.8	96.4	on 19 th	Lowest maximum	21.8	71.2	on 7 th
Highest minimum	18.8	65.8	on 22 nd	Lowest minimum	8.5	47.3	on 14 th
Mean grass minimum	11.3	52.3		Lowest grass minimum	3.7	38.7	on 14 th
Mean earth @30 cm	19.9	67.8		Earth @100 cm	17.2	63.0	
Frost duration (hrs)	0.0			Rain duration (hrs)	18.0		
Rainfall total (mm / in)	33.3	1.31	80 %	35 th lowest			
Highest daily fall	10.7	0.42	on 22 nd				
Number of: Dry days (<0.2mm)	21	Wet days (>0.9mm)	8	days ≥5mm	2		
Sunshine total (hrs)	302.3	Daily mean	9.75	171 %	Sunniest day	15.4	on 17 th
N° days with: Air frost	0	Ground frost	0	Snow falling	0	Snow lying	0
Thunder	4	Hail ≥5mm	0	Small hail/ice	0	Fog @09	0
Nil sun	0						
Air pressure MSL : Mean @09 GMT (mbar/in)	1019.3		+1.9	30.10			
Absolute highest	1032.3			30.48		on 14 th	
Absolute lowest	1005.8			29.70		on 31 st	

Anomaly = departure from 1971 to 2000 average (degrees C, percent and mbar).

Notes:

Hottest month of any in the past 125 years.

Dry.

Very sunny.

Temperature. A record breaking month, not only the hottest July on record, but also the hottest month of any name. However, in terms of the mean min, 1983 was 0.1° higher than this July's. The mean maximum is 0.6° above the July 1983 value, and 1.0° above the next highest in Aug 1995. In terms of monthly mean temp, the 5 hottest months since 1882 are: 1) July 2006, 20.9°, 2) July 1983, 20.8°, 3) Aug 1997, 20.0°, 4) Aug 1995, 19.9°, 5) Aug 2003, 19.8°. This month's highest max, 35.8°, is 7.4° above the median, and is a new July record, the previous being 34.0° in 1948. It is also 2nd highest for any month in the past 103 years, after 36.9° in Aug 2003. 30° was exceeded on 10 days, with a 6 day mean daily max of 32.0° at the peak of the heat wave, 16th to 21st. The lowest max is 5.1° above the median and is also a new record for July, 0.3° above the previous highest in 1934. The lowest min is 1.5° above the median but 1.3° below the record, and the highest min is 2.6° above the median and 0.6° below the record. The mean earth temp at 30cm depth is highest since 1989.

Rainfall. In the dry category, and 20% below average. However, the total is lowest only since 2004. The number of dry days is highest since 2001, and there were two dry spells, the first of 7 days ending on the 3rd, and the second of 11 days ending on the 21st. Thunder occurred on the 5th, 22nd, 26th and 27th, with the heaviest storm in the evening of the 26th.

Sunshine. Probably the sunniest July since 1911, although measurements with today's electronic sensor are not strictly comparable with earlier values from the Campbell-Stokes recorder. It could also have been 6th sunniest month of any name in the past 99 years. 14 of this July's days had over 80 % of maximum possible, including 6 with over 90 %. The 11 day period 11th to 21st was phenomenal, with a total of 150.9 hours of sunshine, a daily mean of 13.7 hours. The 6 days 29th June to 4th July was also outstanding with an mean of 12.5 hours per day. Overall just 2 days had <3 hours, 23 had =>6 hours, 17 =>9 hours, 15 =>12 hours and 5 =>15 hours.

Wind. The mean speed of 5.6 mph is slightly below average. The 9th was the windiest day, mean 11.4 mph, but the highest gust of 35 mph was on the 31st. The least windy day was the 17th, 3.0 mph, and there were 843 minutes, 14.05 hours, with a mean speed of 0.5 mph or less. Daily mean direction /number of days: N,0 NE,6 E,4 SE,3 S,1 SW,15 W,2 NW,0.

Humidity. The mean relative humidity was 65.5 %, and the lowest recorded value was 21 % on the 1st. The mean water vapour content per kg of air was 10.7 g at 0900 GMT and 9.3 g at 1500 GMT.

Pressure. The mean is highest since 1990.

Commentary. **From the 1st to the 10th :** Mean anomalies (max, min, rain, sun), +3.4°, +2.5°, 118 %, 123 %. There was a hot spell for the first 4 days, with anomalies for daily max up to +9.7° on the 2nd, and up to +5.2° for the min on the same day. Values returned to near normal on the 5th, with anomalies down to -1.0° for the max on the 8th, the month's coolest day. Dry for the first 3 days, then some rain on each subsequent day, giving a total of 15.8 mm. Sunny for the first 4 days, then 6 days with <33 % of max. Winds were light or mod E'ly, veering SW'ly by 5th, temporarily increasing fresh on 9th.

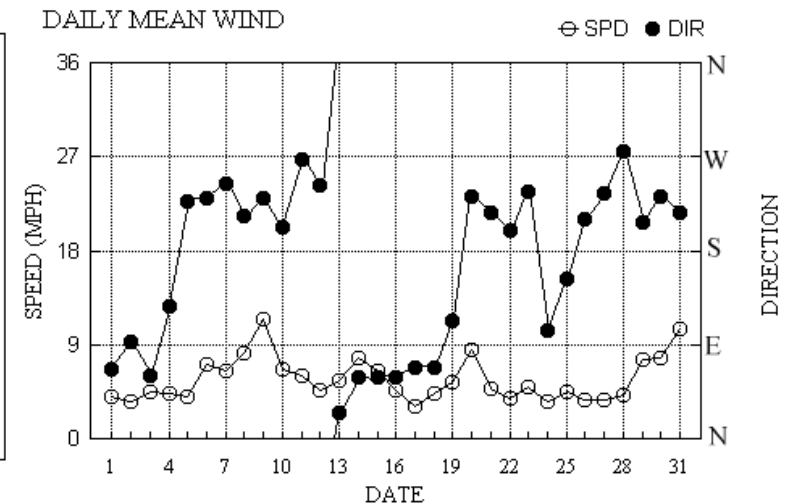
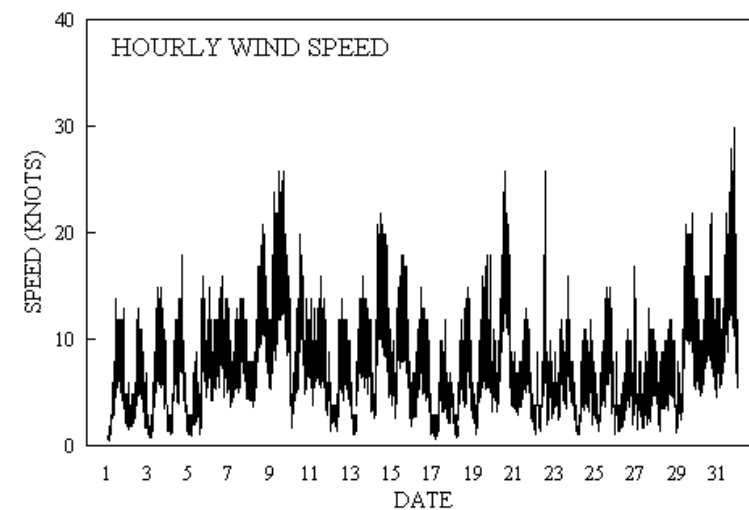
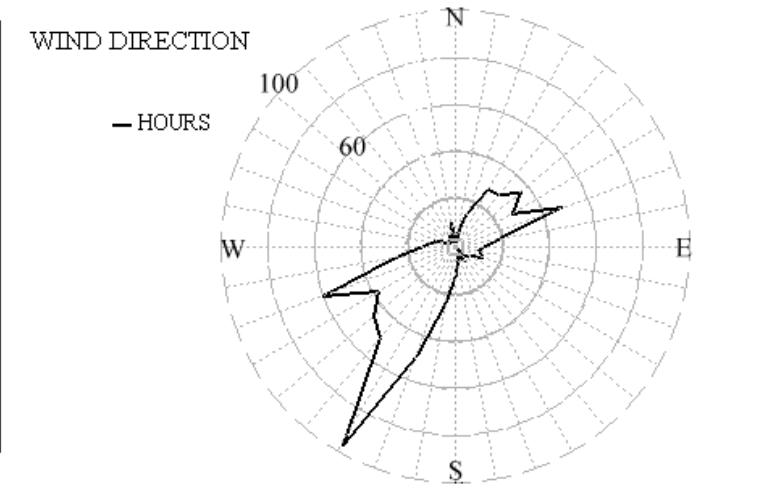
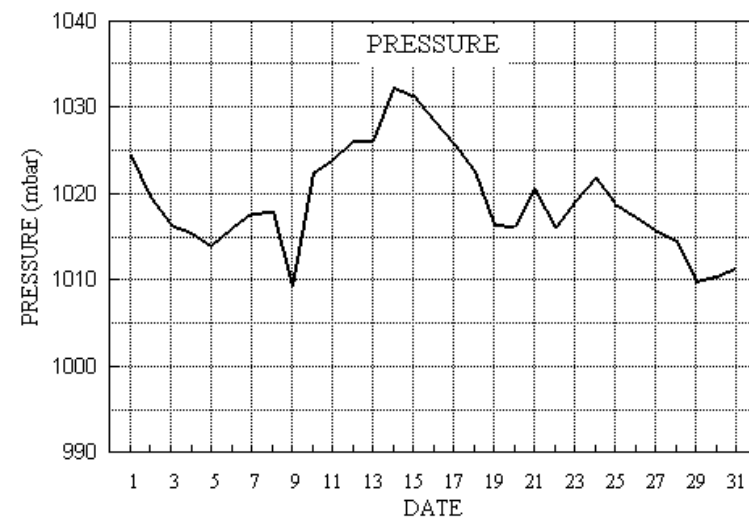
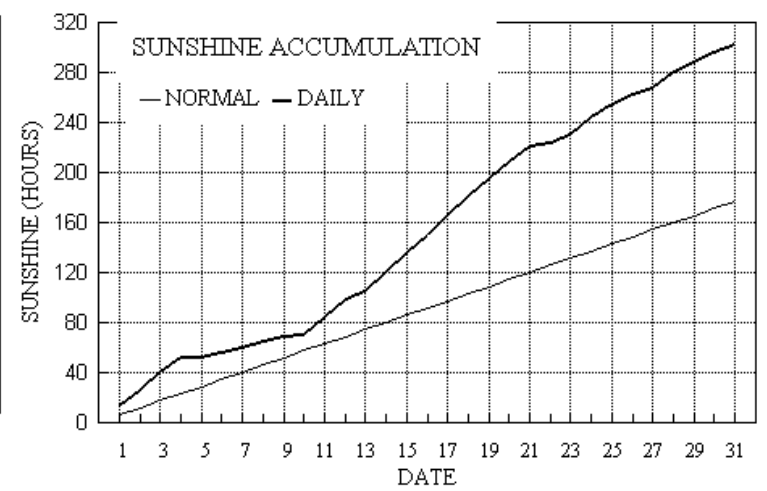
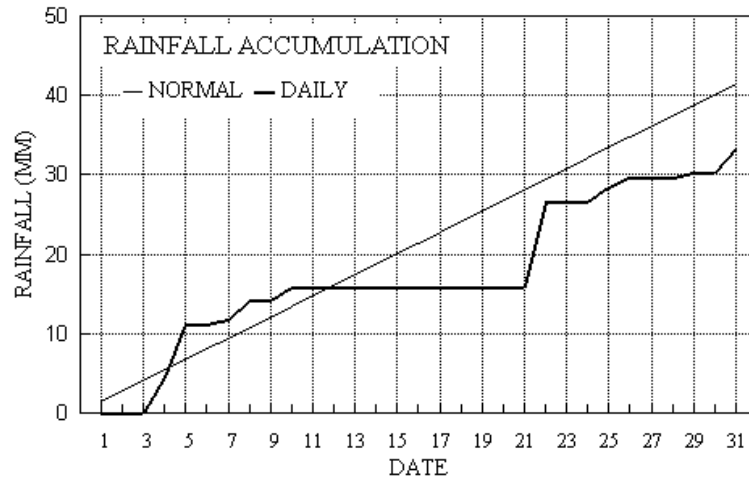
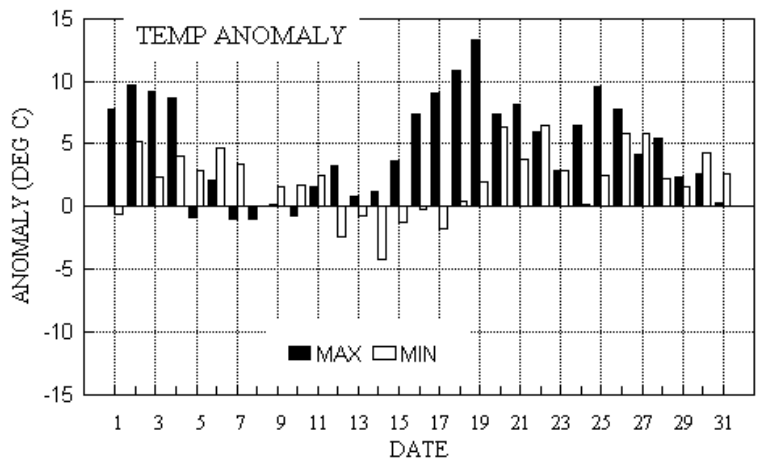
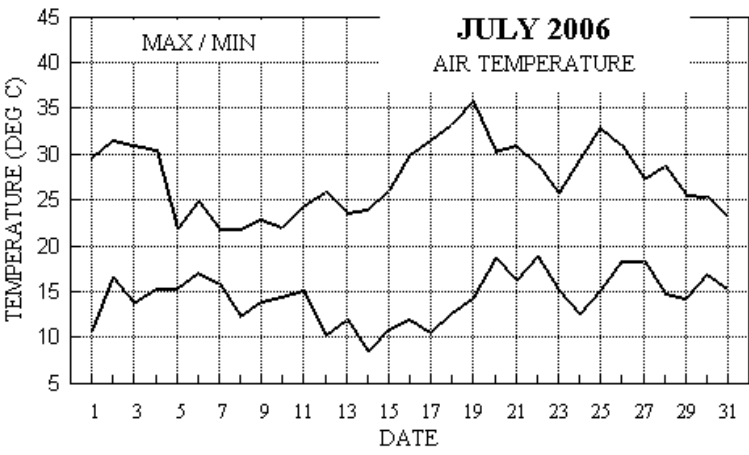
From the 11th to the 20th : Mean anomalies, +5.8°, 0.0°, 1 %, 242 %. This period contains some of the hottest July days on the local record. Daily anomalies for max ranged from +0.8° on 13th to +13.3° on 19th, the month's hottest day. Daily minima were often below normal, with anomalies down to -4.2° on 14th, the month's coolest night. Dry except for 0.1mm on 19th. Exceptionally sunny, with a 10 day mean of 13.8 hours, and 15.4 hours on the 17th, the month's sunniest day. Light or moderate SW'ly winds veered NE'ly on 13th, becoming fresh SW'ly on 20th.

From the 21st to the 31st : Anomalies +5.0°, +3.4°, 118 %, 151 %. The heat wave continued through the first half of this period, though not quite as severe as hitherto. Daily anomalies for max were up to +9.6° on the 25th, and down to +0.3° on 31st, while for min, +6.4° on 22nd, the month's warmest night, and 1.6° on the 29th. A total of 17.4 mm of rain, most on the 22nd, the month's wettest day, and there were 6 dry days. Still several sunny days, but 6 had <50% of max.

Light or moderate SW'ly winds temporarily backed E'ly on 24th, and increased fresh on 31st.

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

Wokingham Climatological Graphs



Daily meteorological data.

Emmbrook, WOKINGHAM, Berkshire.

Month: JULY 2006

Date	Max C	Min C	Rain mm	Grass Min	30cm C	100cm C	Sun hrs	Frost hrs	pp09 mbar	Af Gf	Sf SI	Th Ha	Ic Fg	Vec mean ddd ff sp	Max gust ddd gg HHhh	High hr ddd ff HH	Rain hrs	
1	29.6	10.7	0.0	7.4	18.4	16.0	13.9	0.0	1024.4	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	66 3.2 3.5	70 14 1025	70 7 10	0.0	
2	31.6	16.5	0.0	13.8	19.0	16.1	13.2	0.0	1019.5	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	93 2.2 3.1	100 13 1350	110 5 13	0.0	
3	31.0	13.7	0.0	10.1	19.5	16.2	13.9	0.0	1016.5	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	60 3.6 3.9	80 15 1242	70 7 17	0.0	
4	30.5	15.3	4.4	11.6	19.7	16.3	11.4	0.0	1015.5	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	127 0.9 3.8	200 18 1513	210 8 15	2.3	
5	21.9	15.3	6.8	12.0	19.9	16.5	0.1	0.0	1014.0	0 0 0 0	0 0 0 0	1 0 0 0	0 0 0 0	227 2.4 3.5	220 16 1623	210 8 16	2.0	
6	24.9	17.1	tr	16.3	19.5	16.6	4.0	0.0	1016.0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	231 5.9 6.1	230 16 1503	240 8 15	0.0	
7	21.8	15.8	0.6	12.0	19.5	16.7	3.2	0.0	1017.8	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	245 5.6 5.6	250 14 1710	250 8 14	1.0	
8	21.8	12.4	2.3	8.3	19.0	16.8	5.3	0.0	1017.9	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	213 7.0 7.2	200 21 1507	210 11 16	1.7	
9	22.9	13.9	tr	13.0	18.8	16.9	4.8	0.0	1009.3	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	230 8.9 9.9	240 26 1155	220 13 10	0.0	
10	22.1	14.4	1.7	12.4	18.5	16.9	0.2	0.0	1022.3	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	203 5.6 5.8	200 20 1129	210 10 12	2.6	
11	24.4	15.2	0.0	13.3	18.5	16.9	14.1	0.0	1023.8	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	267 4.9 5.2	260 16 1244	290 7 07	0.0	
12	26.0	10.3	0.0	6.5	18.9	16.9	15.4	0.0	1026.2	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	243 3.7 4.0	240 14 1242	200 7 17	0.0	
13	23.6	12.0	0.0	8.7	19.3	16.9	6.1	0.0	1026.1	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	24 4.0 4.9	40 16 1340	30 8 13	0.0	
14	24.0	8.5	0.0	3.7	18.7	17.0	15.4	0.0	1032.2	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	58 6.4 6.7	70 22 1043	60 11 08	0.0	
15	26.1	11.0	0.0	6.9	18.7	17.0	14.7	0.0	1031.3	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	59 5.4 5.7	80 18 1145	70 8 16	0.0	
16	29.9	12.0	0.0	6.7	18.8	17.0	15.2	0.0	1028.3	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	59 3.8 4.1	70 15 1053	60 7 10	0.0	
17	31.5	10.5	0.0	6.7	19.2	17.0	15.4	0.0	1025.8	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	68 2.1 2.6	90 12 1556	50 5 09	0.0	
18	33.3	12.7	0.0	8.3	19.7	17.1	15.1	0.0	1022.5	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	68 3.5 3.8	90 15 1837	80 8 18	0.0	
19	35.8	14.3	0.1	10.3	20.2	17.2	14.1	0.0	1016.5	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	113 2.3 4.6	180 18 1942	190 8 17	0.2	
20	30.3	18.7	0.0	17.2	20.7	17.3	12.5	0.0	1016.3	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	232 7.1 7.3	240 26 1315	240 13 12	0.0	
21	31.0	16.2	0.0	13.0	20.7	17.4	12.9	0.0	1020.6	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	216 4.0 4.1	200 13 1338	230 6 16	0.0	
22	28.9	18.8	10.7	15.8	21.0	17.5	3.5	0.0	1016.1	0 0 0 0	0 0 0 0	1 0 0 0	0 0 0 0	199 2.4 3.4	210 26 1253	200 9 12	2.2	
23	25.7	15.2	0.0	12.7	20.7	17.7	6.6	0.0	1019.0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	236 4.1 4.4	250 16 1533	250 8 15	0.0	
24	29.4	12.5	0.0	9.4	20.5	17.8	13.1	0.0	1021.9	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	103 2.1 3.0	120 12 1826	100 5 17	0.0	
25	32.9	15.1	1.8	11.3	20.7	17.9	11.4	0.0	1018.8	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	153 2.1 3.9	200 15 1248	200 7 17	0.8	
26	31.0	18.4	1.2	16.5	21.3	18.0	6.8	0.0	1017.4	0 0 0 0	0 0 0 0	1 0 0 0	0 0 0 0	210 2.4 3.2	190 17 2217	180 7 22	0.9	
27	27.4	18.4	0.1	16.1	21.7	18.1	5.4	0.0	1015.9	0 0 0 0	0 0 0 0	1 0 0 0	0 0 0 0	235 2.0 3.3	280 13 1404	270 5 21	0.2	
28	28.7	14.8	0.0	11.1	21.5	18.2	13.2	0.0	1014.5	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	275 3.1 3.6	320 12 1607	260 6 18	0.0	
29	25.6	14.2	0.6	10.9	21.5	18.3	7.5	0.0	1009.8	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	207 6.5 6.6	200 22 1802	210 11 14	0.4	
30	25.4	16.9	tr	15.7	21.1	18.4	7.9	0.0	1010.5	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	232 6.5 6.8	220 22 1603	230 10 16	0.0	
31	23.1	15.3	3.0	12.3	20.9	18.5	6.0	0.0	1011.3	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	217 9.0 9.1	220 30 1953	220 14 14	3.7	
Total			33.3				302.3	0.0										18.0
Mean	27.5	14.4		11.3	19.9	17.2	9.75	0.0	1019.3					213 1.7 4.9				
Anom	+5.0	+2.1	80%		+1.5	+1.0	171%		+1.9									
Daily mean		20.9																
Anom		+3.5																

Number of days with:

Air frost = 0 Ground frost = 0 Nil sun = 0
 Snow falling = 0 Snow lying = 0 Thunder = 4
 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. SI = 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 2006

Date	VV	N	dd	ff	gg	TT	TdTd	RH	r	PPP	a	pppww	W1W2	NhCl	hCrCl	NChshs	NChshs	NChshs	Date	Remarks					
1	84	7	12	03	08	24.3	10.1	41	7.6	1024.4	8	006	02	2	2	0	0	9	0	1	87080	1	COTRA		
2	65	2	05	03	06	26.1	17.2	58	12.2	1019.5	7	002	02	0	0	1	0	9	8	1	81368	2	1Ci78 Ac cas		
3	67	3	04	04	08	26.2	16.0	54	11.4	1016.5	8	003	02	1	1	0	0	9	0	1	83080	3	COTRA		
4	62	4	05	06	11	22.6	15.1	63	10.7	1015.5	8	005	02	1	1	2	0	9	8	1	82362	83080	4	COTRA	
5	14	8	18	04	08	18.6	18.3	98	13.2	1014.0	3	010	65	9	6	8	0	7	8	/	83556	88462	5	2Ac58 tl 0557-0645z	
6	57	8	22	06	11	18.3	17.7	96	12.6	1016.0	2	010	20	6	5	8	5	2	/	/	81705	86707	88615	6	
7	80	7	25	06	14	18.7	13.5	72	9.6	1017.8	2	006	60	6	2	6	8	5	7	/	82825	83635	87360	7	3Sc50 Cu hum
8	88	4	21	06	13	19.6	10.2	55	7.7	1017.9	8	004	03	1	1	2	2	6	0	1	82835	83078		8	COTRA Cu hum/med
9	60	8	20	10	21	16.5	15.5	94	11.1	1009.3	6	004	50	6	5	8	5	3	/	/	87708	88615		9	
10	62	8	20	06	13	18.0	16.3	90	11.5	1022.3	3	008	50	5	2	8	5	4	/	/	81710	87712	88618	10	
11	83	4	29	06	12	19.5	13.2	67	9.4	1023.8	2	013	03	0	0	2	2	5	0	1	82825	83075		11	COTRA Cu med U/a cont
12	84	2	21	03	06	20.0	12.2	61	8.8	1026.2	0	000	02	0	0	0	0	9	0	1	82080			12	COTRA
13	65	8	01	06	11	19.0	14.7	76	10.3	1026.1	2	014	02	1	1	8	8	5	/	/	82825	88650		13	1Sc35 Cu hum
14	82	3	06	10	22	17.9	9.8	59	7.4	1032.2	1	003	03	0	0	3	8	6	0	0	81833	83635		14	Cu hum
15	72	6	06	08	16	18.1	12.8	71	9.1	1031.3	7	001	01	1	1	6	5	5	0	0	86620			15	
16	81	2	05	05	11	21.4	14.8	66	10.4	1028.3	8	004	02	0	0	0	0	9	0	1	82080			16	COTRA
17	88	3	07	04	09	25.1	12.3	45	8.8	1025.8	0	000	03	0	0	0	0	9	0	2	81172	83078		17	COTRA U/a cont, faint
18	86	0	04	06	11	25.6	13.6	48	9.7	1022.5	8	002	02	0	0	0	0	9	0	0				18	
19	65	1	09	04	10	26.2	17.3	58	12.4	1016.5	7	012	02	0	0	0	0	9	0	2	81078			19	
20	82	4	25	07	15	26.1	15.5	52	11.0	1016.3	3	008	01	1	1	3	0	9	8	1	82363			20	1Ac65 2Ci78 COTRA
21	60	1	22	04	08	23.5	15.6	61	11.0	1020.6	2	002	05	0	0	0	0	9	0	1	81080			21	
22	59	6	10	04	08	25.2	19.5	71	14.2	1016.1	2	001	05	2	2	6	0	9	8	1	82358	85365		22	/Ci80
23	77	8	25	05	12	19.9	16.8	82	11.9	1019.0	2	010	03	1	1	8	5	4	/	/	83615	88618		23	
24	82	2	07	04	10	22.7	15.0	62	10.6	1021.9	2	002	02	0	0	0	0	9	0	1	82080			24	COTRA
25	58	3	07	05	10	24.3	17.8	67	12.7	1018.8	8	005	05	1	1	0	0	9	0	1	83080			25	COTRA
26	58	7	24	02	04	24.5	19.2	73	14.0	1017.4	6	001	05	1	1	0	0	9	0	1	87080			26	COTRA Sky turbid
27	61	5	32	01	05	24.1	18.6	72	13.5	1015.9	1	005	01	2	2	1	0	9	8	1	81362	85080		27	1Ac68 COTRA
28	81	1	35	03	08	21.5	15.1	67	10.8	1014.5	7	001	02	1	1	0	0	9	0	1	81080			28	
29	80	7	21	07	14	20.5	15.1	71	10.8	1009.8	4	000	03	1	1	2	1	5	3	1	82825	87077		29	1Ac68 COTRA Cu hum
30	81	3	26	06	13	19.5	11.4	59	8.4	1010.5	2	017	03	1	1	2	2	5	3	8	82825			30	1Ac68 2Cs75 Cu hum/med
31	84	3	24	09	17	20.4	12.7	61	9.2	1011.3	8	001	03	1	1	3	2	6	3	1	83832			31	1Ac65 1Ci78 Cu med

Mean vis = 28.4 km

Mean cloud = 4.5 56%

Mean wind speed = 5.3 kn

Mean gust = 11 kn

Mean TT = 21.7 C

Mean TdTd = 14.9 C

Mean RH = 66.8 %

Mean r = 10.7 g/kg

Mean PPP = 1019.3 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.

Weather observations. Emmbrook, Wokingham, Berkshire.

Observations at 1500 GMT for JULY 2006

Date	VV	N	dd	ff	gg	TT	TdTd	RH	r	PPP	a	pppww	W1W2	NhCl	hCrCl	NChshs	NChshs	NChshs	Date	Remarks												
1	83	5	06	06	14	29.4	4.9	21	5.3	1021.4	7	013	02	1	1	1	1	8	0	1	81857	85080		1	COTRA	Cu	hum					
2	82	5	11	04	12	31.2	9.4	26	7.3	1017.5	6	013	03	1	1	1	1	8	0	1	81857	85078		2								
3	78	6	07	05	13	30.4	10.2	29	7.7	1014.7	5	006	02	2	2	2	1	8	0	1	82857	86080		3		Cu	hum					
4	78	7	15	06	13	30.2	11.4	31	8.4	1013.4	7	007	03	1	1	1	9	7	6	1	81950	87075		4	1Ac62	COTRA	CbNE	Cz	arc			
5	40	8	17	01	04	21.8	18.8	83	13.6	1013.4	4	000	15	8	2	6	8	4	7	/	82815	83820	88362	5	2Sc50	Cu	med/con	jpS				
6	80	5	23	08	15	24.5	15.7	58	11.1	1015.5	4	000	15	2	2	2	2	6	6	1	82830	83075		6	2Ac62	COTRA	Cu	con	jp	W		
7	84	7	25	08	17	20.1	12.3	61	8.9	1017.9	6	002	02	6	2	7	8	6	7	1	82830	84650	86358	7	/Ci75	Cu	med					
8	86	7	21	10	20	20.9	9.8	49	7.5	1016.0	7	007	03	1	1	2	8	6	4	6	82845	87275		8	1Sc56	1Ac68	COTRA	Halo	22			
9	86	5	24	12	25	22.3	12.3	53	9.0	1011.6	2	015	01	2	2	5	8	6	0	0	84838			9	2Sc45	Cu	hum					
10	58	8	20	07	14	18.7	17.6	93	12.5	1021.9	8	001	61	6	2	7	5	3	2	/	82708	85712	86618	10	8Ns50							
11	86	2	25	06	12	23.9	8.2	37	6.7	1024.6	1	003	02	0	0	1	1	7	0	1	81856			11	2Ci75	COTRA	Cu	hum				
12	86	1	25	05	10	25.6	9.3	36	7.2	1023.7	7	010	02	0	0	0	0	9	0	1	81080			12								
13	81	6	04	07	13	22.3	13.4	57	9.5	1027.1	0	001	01	2	2	6	8	6	/	/	81830	85656		13	2Sc45	Cu	hum					
14	84	1	06	08	23	23.9	6.6	33	6.0	1030.7	7	008	02	0	0	0	0	9	0	1	81080			14		COTRA						
15	81	0	08	08	17	25.7	6.7	30	6.0	1029.3	7	007	02	0	0	0	0	9	0	0				15	Absent	vv&cld	est					
16	86	4	07	05	12	29.2	7.6	26	6.4	1025.6	7	011	02	0	0	0	0	9	0	2	84078			16	COTRA	Parhelion	faint					
17	86	5	06	03	08	31.0	8.5	25	6.8	1023.8	7	013	02	1	1	2	0	9	3	1	82368	84075		17		COTRA						
18	82	0	11	02	11	32.9	12.2	28	8.8	1019.1	7	014	02	0	0	0	0	9	0	0				18								
19	77	5	11	06	17	35.1	12.8	26	9.2	1013.1	7	013	03	1	1	1	2	9	3	1	81859	85075		19		Cu	con					
20	75	1	24	11	22	29.7	16.0	44	11.3	1016.7	1	003	01	0	0	1	1	7	4	0	81850			20	1Ac63	Cu	hum	Ac	len			
21	72	6	20	07	13	30.4	15.5	41	10.9	1018.5	6	008	03	1	1	3	2	7	0	1	83850	85080		21		COTRA	Cu	med/con				
22	63	7	03	03	09	19.9	19.3	96	14.0	1016.1	0	009	91	9	6	1	1	5	8	/	81825	83362	85465	22	1Ac58	/Ac68	Cu	fra	Last	t	1402z	
23	84	6	25	07	15	23.9	16.8	65	11.9	1019.1	5	000	02	2	2	6	8	6	0	0	84832	83650		23		Cu	med					
24	81	4	10	03	12	28.2	13.1	39	9.3	1019.7	7	011	02	0	0	1	1	7	0	1	82856	83080		24		COTRA	Cu	hum				
25	80	3	18	05	15	32.3	13.2	31	9.4	1016.4	7	007	02	0	0	2	1	8	0	1	82857			25	2Ci80	COTRA	Cu	hum				
26	63	7	21	04	11	30.3	16.0	42	11.3	1015.6	7	012	03	1	1	1	2	6	8	2	81845	85362	85078	26	1Ac59	cas	Cu	med				
27	60	5	28	04	13	26.7	19.9	66	14.6	1014.4	6	010	25	9	8	3	8	6	6	/	83840	83357		27	1Sc56	Cu	con	Sky	turbid			
28	83	1	26	04	11	27.9	13.8	42	9.8	1012.0	8	016	02	0	0	1	1	7	0	1	81850			28	1Ci80	Cu	hum					
29	86	8	21	09	20	22.8	15.7	64	11.2	1008.7	8	006	03	2	2	4	8	6	7	7	82830	83645	85358	29	8Cs72	COTRA	Cu	hum	Halo	22°	+U/a	cont
30	83	5	22	09	15	23.8	10.8	44	8.1	1010.7	4	000	03	1	1	3	2	7	6	0	83850	83357		30		Cu	med/con	SW				
31	86	3	22	13	26	22.8	12.1	51	8.9	1009.0	7	015	03	8	1	3	8	6	0	1	83840			31	1Sc56	1Ci78	Cu	med				

Mean vis = 38.3 km

Mean cloud = 4.6 58%

Mean wind speed = 6.3 kn

Mean gust = 15 kn

Mean TT = 26.4 C

Mean TdTd = 12.6 C

Mean RH = 46.0 %

Mean r = 9.3 g/kg

Mean PPP = 1018.0 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 2006

Date	Mean			Min			Max			Missing			Number of minutes RH in given ranges						
	TT	TT	Time	TT	Time	RH	RH	Time	RH	Time	RH	N >0	0-20	20-40	40-60	60-80	80-90	90-95	95-98
01	22.6	29.6	13:55	12.3	04:01	54.0	89.2	04:22	21.0	15:00		0	605	166	348	321	0	0	0
02	24.9	31.6	13:38	17.5	04:05	51.8	80.2	04:31	24.3	14:30		0	517	376	537	10	0	0	0
03	24.2	31.0	13:18	15.1	04:20	49.3	82.2	04:23	25.9	16:26		0	613	309	500	18	0	0	0
04	23.7	30.5	14:37	16.8	04:43	55.3	75.3	23:49	30.4	15:03		0	246	550	644	0	0	0	0
05	18.8	21.9	14:44	16.6	04:10	86.8	95.0	10:38	74.8	00:05		0	0	0	106	978	356	0	0
06	19.9	24.9	14:46	17.4	03:41	80.9	96.1	08:53	52.2	13:24		0	0	86	447	684	134	89	0
07	18.2	21.8	17:34	14.1	23:59	74.3	92.5	04:50	51.5	18:46		0	0	250	645	357	188	0	0
08	17.5	21.8	14:06	13.3	00:53	65.1	85.8	04:01	42.7	10:35		0	0	625	448	367	0	0	0
09	17.5	22.9	16:01	13.8	05:19	75.2	93.5	04:51	48.6	16:01		0	0	378	441	124	497	0	0
10	17.8	22.1	11:38	14.6	01:44	86.4	95.1	16:57	71.0	11:32		0	0	0	358	507	572	3	0
11	19.7	24.4	16:30	14.9	05:30	63.5	94.9	03:54	36.0	14:55		0	268	420	356	77	319	0	0
12	19.4	26.0	14:50	11.7	04:13	62.9	91.8	04:53	33.6	14:13		0	243	450	346	275	126	0	0
13	18.3	23.5	16:21	12.6	23:59	69.4	92.2	04:52	40.0	16:21		0	0	411	628	223	178	0	0
14	17.6	24.0	14:56	10.0	03:35	59.3	93.0	04:21	32.3	14:35		0	323	456	403	139	119	0	0
15	19.1	26.1	14:36	11.6	04:28	56.0	91.4	04:34	21.7	17:23		0	536	239	267	299	99	0	0
16	21.7	29.9	15:20	12.5	04:42	56.4	93.6	04:43	22.9	15:11		0	522	315	190	169	244	0	0
17	23.6	31.5	14:39	12.6	04:41	49.4	86.0	04:38	23.0	14:11		0	683	321	222	214	0	0	0
18	24.9	33.3	15:21	14.6	05:09	50.3	83.5	05:07	26.1	12:55		0	571	366	392	111	0	0	0
19	26.1	35.8	14:15	16.0	04:28	55.3	83.9	04:28	24.8	15:15		0	420	343	539	138	0	0	0
20	24.4	30.3	15:40	18.8	03:22	62.9	90.0	03:44	40.3	16:19		0	0	752	340	348	0	0	0
21	24.2	31.0	15:02	17.0	04:56	64.7	91.4	05:12	38.8	15:06	40	0	10	653	294	345	98	0	0
22	21.5	28.8	10:50	17.9	23:59	82.0	97.0	14:40	49.8	10:47		0	0	165	177	739	260	99	0
23	20.5	25.8	15:41	15.9	04:27	75.1	95.1	05:25	53.0	15:43		0	0	221	628	180	409	2	0
24	22.3	29.4	15:18	13.9	04:17	63.2	91.3	04:56	32.7	16:13		0	206	474	428	206	126	0	0
25	24.6	32.9	15:05	15.7	04:48	61.8	96.0	05:22	29.9	14:50		0	378	410	176	175	207	94	0
26	24.6	31.0	15:05	18.8	05:03	70.5	99.6	06:45	40.4	14:54		0	0	587	326	79	178	251	19
27	22.7	27.4	13:39	18.7	04:34	74.5	95.5	03:52	55.9	12:33		0	0	148	807	75	360	50	0
28	22.2	28.7	15:18	16.2	04:16	61.6	84.3	04:16	36.7	15:21		0	88	582	605	165	0	0	0
29	20.2	25.6	12:58	15.0	05:09	73.3	94.2	23:50	41.0	12:59		0	0	283	549	549	59	0	0
30	20.3	25.5	13:48	16.9	06:22	66.8	94.9	01:18	31.7	13:39		0	115	519	287	316	203	0	0
31	19.0	23.1	15:13	15.9	05:15	72.3	96.0	23:59	47.5	10:19		0	0	350	521	440	80	49	0
Mean	21.4	27.5		15.1		65.5	91.0		38.7			0.00	3.41	6.02	6.97	4.64	2.59	0.34	0.01
Hi	26.1	35.8		18.8		86.8	99.6		74.8	Tot	40	0	6344	11205	12955	8628	4812	637	19
Lo	17.5	21.8		10.0		49.3	75.3		21.0										

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.