

# 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

NOVEMBER 2006

Temperature (°C / °F)			Anomaly	Rank in past 125 years			
Mean maximum	12.7	54.9	+2.2	3 <sup>rd</sup> highest			
Mean minimum	4.3	39.7	+0.6	30 <sup>th</sup> highest			
Daily mean	8.5	47.3	+1.4	9 <sup>th</sup> highest			
Highest maximum	16.7	62.1	on 13 <sup>th</sup>	Lowest maximum	8.6	47.5	on 21 <sup>st</sup>
Highest minimum	11.9	53.4	on 15 <sup>th</sup>	Lowest minimum	-2.7	27.1	on 3 <sup>rd</sup>
Mean grass minimum	1.7	35.1		Lowest grass minimum	-6.5	20.3	on 4 <sup>th</sup>
Mean earth @30 cm	9.7	49.5	+0.7	Earth @100 cm	12.1	53.8	+0.6
Frost duration (hrs)	41.4			Rain duration (hrs)	59.3		
Rainfall total (mm / in)	112.0	4.41	183 %	14 <sup>th</sup> highest			
Highest daily fall	23.2	0.91	on 17 <sup>th</sup>				
Number of: Dry days (<0.2mm)	16	Wet days (>0.9mm)	13	days ≥5mm	8		
Sunshine total (hrs)	113.4	Daily mean	3.78	158 %	Sunniest day	9.1	on 2 <sup>nd</sup>
N <sup>o</sup> days with: Air frost	5	Ground frost	15	Snow falling	0	Snow lying	0
Thunder	2	Hail ≥5mm	1	Small hail/ice	1	Fog @09	1
Nil sun	1						
Air pressure MSL : Mean @09 GMT (mbar/in)	1014.7		-0.5	29.96			
Absolute highest		1037.0		30.62	on 4 <sup>th</sup>		
Absolute lowest		978.9		28.91	on 23 <sup>rd</sup>		

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

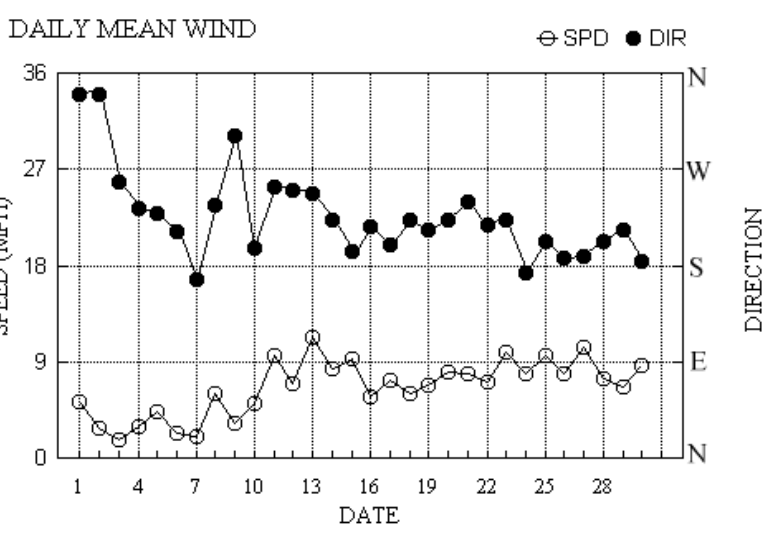
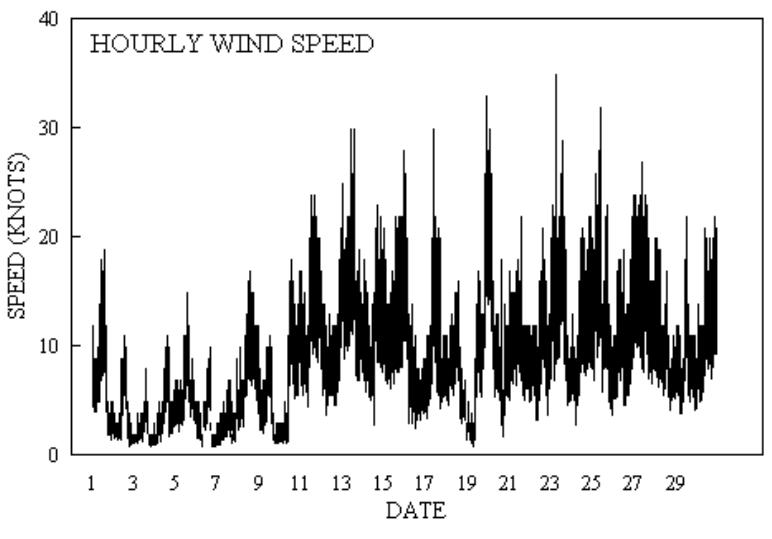
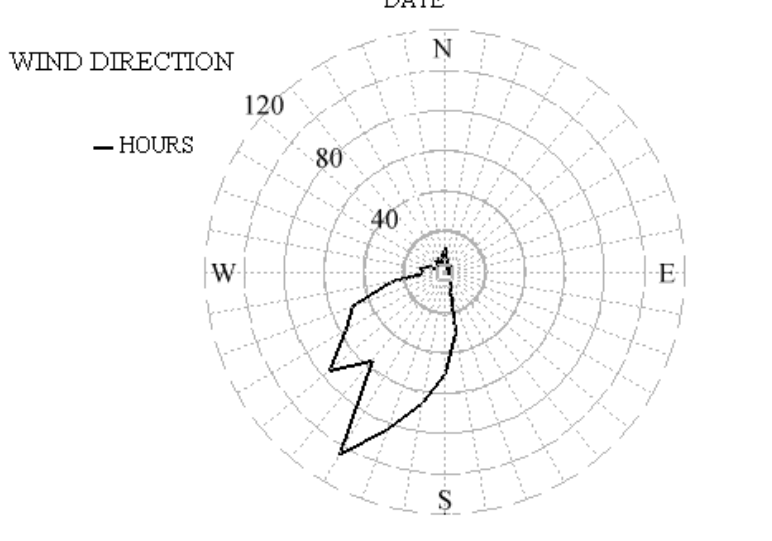
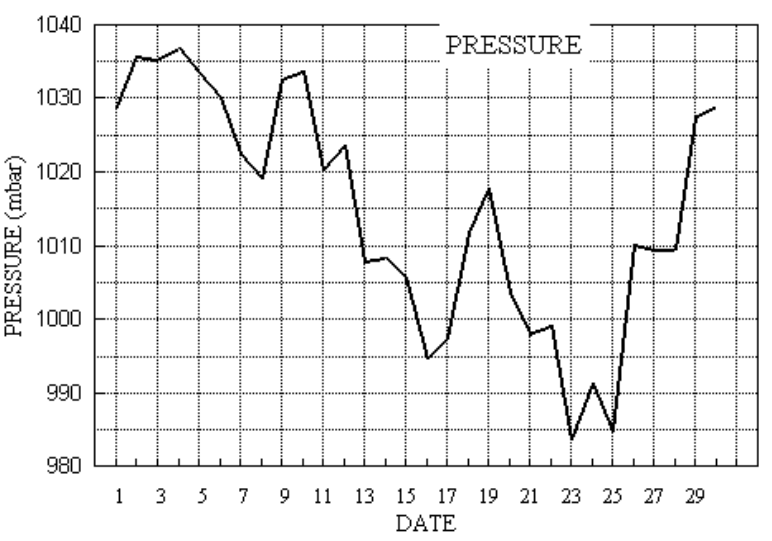
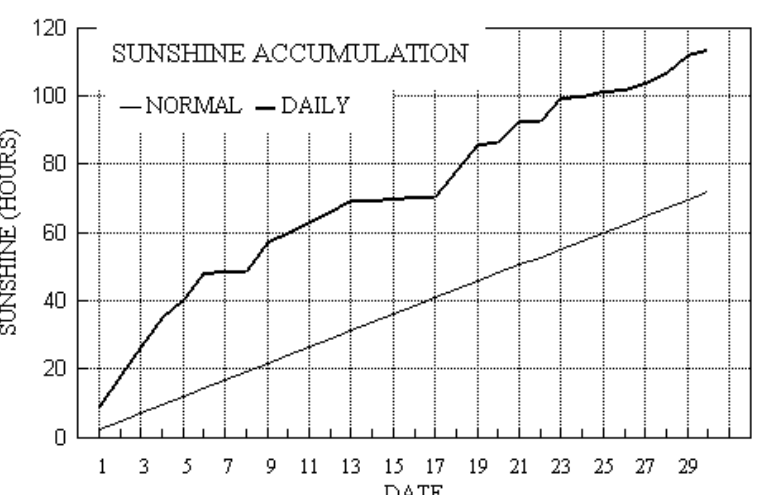
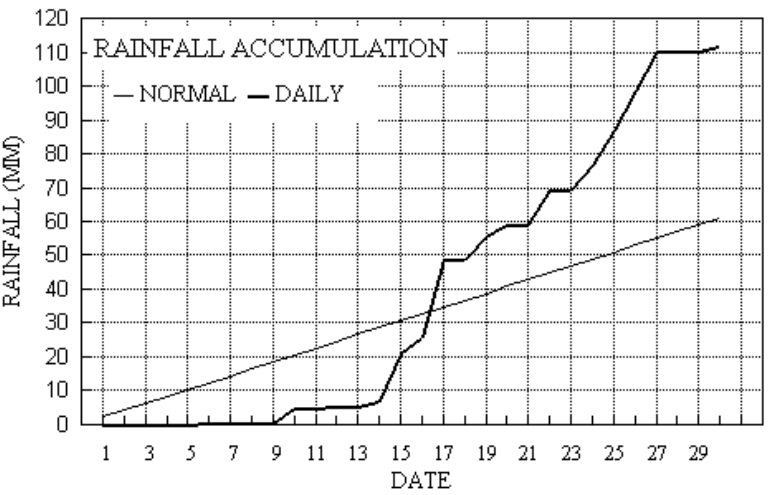
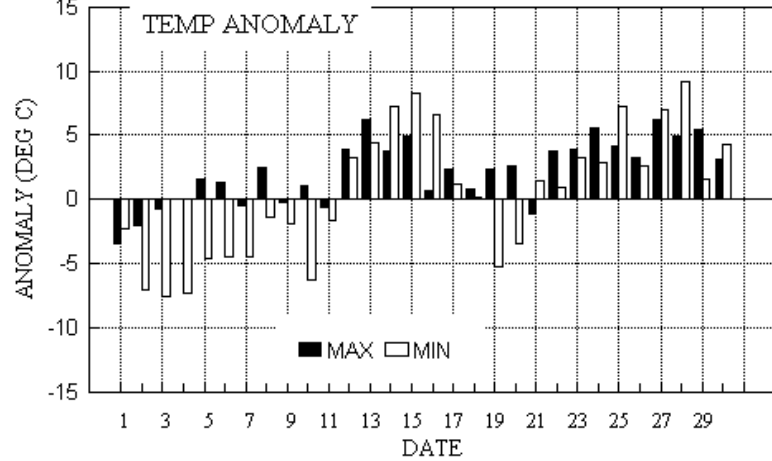
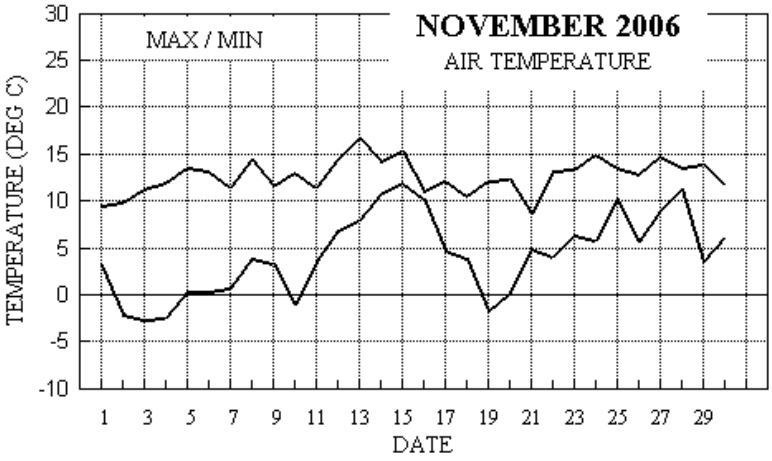
Notes: **Very Mild.** **Wet.** **Very Sunny.**

**Temperature.** The third consecutive month in the very mild category. Although the mean temperature is 1.9° above the long-term median, it is 2.1° below the record set in 1994, and has been exceeded as recently as 2003. The high ranking of the mean was mainly due to the mean max, 2.7° above the median and 0.5° below the record set in 1994, with 1938 the only other year with a higher value. In contrast, the mean min is only 1.1° above the median, and 3.7° below the record. The highest max is 1.2° above the median and 3.7° below the highest, while the highest min is 1.3° above the median and 2.6° below the record. The lowest min is 0.9° above the median and 5.6° above the lowest on record, but the lowest max is 4.0° above the median and 2<sup>nd</sup> highest after 1994 in 94 years. The earth temperatures at both 30 cm and 1 m depth are above average, but well below record values. The duration of air frost is close to average, while the number of days with ground frost is 2 above average. **Rainfall.** A wet November, within 2 mm of the very wet category. However, the month's total is only highest since 2003, and was also exceeded in 2002 and 2000. There were two very wet episodes, 15<sup>th</sup> to 17<sup>th</sup> with 42.3 mm and 24<sup>th</sup> to 27<sup>th</sup> with 40.8 mm. Despite the overall wet nature of the month, the early part was dry and a 12 day dry spell ended on the 9<sup>th</sup>. The number of days with =>10 mm is most in the past 31 years. Both thunder and hail were recorded on the 25<sup>th</sup> and 26<sup>th</sup>, and the rainfall rate exceeded 80 mm/hr at 0418 and 1042 GMT on the 25<sup>th</sup>. **Sunshine.** This was a record breaking sunny November, pushing 2005 into 2<sup>nd</sup> place with 7.5 hours more sun. The period 1<sup>st</sup> to 4<sup>th</sup> was outstanding with >90 % of the max possible on each day, resulting in an accumulated surplus of 34 hours by the 6<sup>th</sup>, a surplus that persisted, with some small increase, to the end of the month. The 9.1 hours of sun on the 2<sup>nd</sup> is also a new record for the month. Overall there were 15 days with <3 hours, 10 with =>6 hours and 1 with =>9 hours. **Wind.** The mean wind speed was 6.6 mph, 0.5 mph above average and highest since 2000. The 13<sup>th</sup> was the windiest day, mean 11.4 mph, and the 3<sup>rd</sup> was least windy, 1.7 mph. The highest gust was 40 mph on the 23<sup>rd</sup>. There were 961 minutes with a mean speed of 0.5 mph or less. Daily mean direction/number of days: N,2 NE,0 E,0 SE,0 S,8 SW,16 W,3 NW,1. **Humidity.** The mean relative humidity was 84.9 %, and the lowest value was 44 % on the 2<sup>nd</sup>. The mean water vapour content per kg of air was 6.0 g at 0900 GMT and 6.2 g at 1500 GMT. **Commentary. From the 1<sup>st</sup> to the 10<sup>th</sup>:** Mean anomalies (max, min, rain, sun), -0.1°, -4.7°, 24%, 250 %. Daily anomalies for max ranged from -3.4 on 1<sup>st</sup> to +1.6 on 5<sup>th</sup>, but for min the range was -7.6° on 3<sup>rd</sup>, the month's coldest night, to -1.4° on the 8<sup>th</sup>. Dry until the 9<sup>th</sup>, and sunny until the 6<sup>th</sup>. Light or moderate winds were N'ly until 2<sup>nd</sup>, then mainly between S and W. **From the 11<sup>th</sup> to the 20<sup>th</sup>:** Mean anomalies +2.7°, +2.1°, 266 %, 112 %. Anomalies for daily max ranged from +6.2° on 13<sup>th</sup>, the month's mildest day, to -0.6° on 11<sup>th</sup>. For min, the range was +8.3° on 15<sup>th</sup>, the month's mildest night, to -5.3° on the 19<sup>th</sup>. Only 3 dry days and the month's wettest day was on the 17<sup>th</sup>. Just 2 sunny days, 18<sup>th</sup> and 19<sup>th</sup>. SW'ly winds were mostly moderate, but fresh on 13<sup>th</sup>, 15<sup>th</sup>, 19<sup>th</sup> and 20<sup>th</sup>. **From the 21<sup>st</sup> to the 30<sup>th</sup>:** Mean anomalies +3.9°, +4.0°, 259 %, 112 %. Daily anomalies for max ranged from -1.2° on 21<sup>st</sup>, the month's coolest day, to +6.2° on the 27<sup>th</sup>. For min the range was +0.9° on 22<sup>nd</sup> to +9.2° on the 28<sup>th</sup>. Plenty of rain again, 4 dry days only. The 21<sup>st</sup>, 23<sup>rd</sup> and 29<sup>th</sup> were reasonably sunny. SW'ly winds backed S'ly on 24<sup>th</sup>, and were mostly moderate, but fresh on 23<sup>rd</sup>, 25<sup>th</sup> and 27<sup>th</sup>.

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

# Wokingham Climatological Graphs

November 2006



Daily meteorological data.

Emmbrook, WOKINGHAM, Berkshire.

Month: NOVEMBER 2006

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	9.6	3.1	0.0	-0.5	12.9	14.5	8.9	0.3	1028.7	0 1 0 0	0 0 0 0	0 0 0 0	340	4.3	4.6	360	19 1413	350	9 11	0.0	
2	9.9	-2.1	0.0	-6.0	11.1	14.4	9.1	12.0	1035.6	1 1 0 0	0 0 0 0	0 0 0 0	340	1.2	2.4	30	11 1310	10	6 13	0.0	
3	11.2	-2.7	0.0	-6.1	9.8	14.1	8.6	10.4	1035.3	1 1 0 0	0 0 0 0	0 0 0 0	259	0.5	1.5	350	8 1340	350	3 14	0.0	
4	12.0	-2.4	0.0	-6.5	9.1	13.6	8.6	8.5	1036.7	1 1 0 0	0 0 0 0	0 0 0 0	233	2.1	2.5	290	11 1434	280	5 14	0.0	
5	13.6	0.3	tr	-2.7	8.6	13.2	5.3	0.0	1033.4	0 1 0 0	0 0 0 0	0 0 0 0	229	3.5	3.8	260	15 1245	260	7 13	0.0	
6	13.3	0.4	0.1	-2.6	8.7	12.8	7.7	0.0	1030.0	0 1 0 0	0 0 0 1	0 0 0 1	212	1.8	2.0	240	10 1521	220	5 14	0.0	
7	11.5	0.7	tr	-2.9	8.6	12.5	0.5	0.0	1022.4	0 1 0 0	0 0 0 0	0 0 0 0	167	0.7	1.7	190	9 2246	180	3 13	0.0	
8	14.5	3.8	tr	-0.7	8.9	12.2	0.0	0.0	1019.1	0 1 0 0	0 0 0 0	0 0 0 0	236	5.0	5.3	230	17 1326	230	8 13	0.0	
9	11.7	3.3	0.0	-1.6	9.6	12.0	8.5	0.0	1032.5	0 1 0 0	0 0 0 0	0 0 0 0	301	2.1	2.8	320	11 1233	320	6 12	0.0	
10	13.0	-1.1	4.8	-4.6	8.8	11.9	2.4	4.5	1033.7	1 1 0 0	0 0 0 0	0 0 0 0	196	3.6	4.4	210	18 1340	210	9 22	6.5	
11	11.4	3.5	0.0	6.6	9.4	11.8	3.4	0.0	1020.2	0 0 0 0	0 0 0 0	0 0 0 0	253	8.2	8.3	250	24 1505	260	11 12	0.0	
12	14.4	6.8	0.3	1.6	9.7	11.7	3.2	0.0	1023.5	0 0 0 0	0 0 0 0	0 0 0 0	250	5.9	6.1	240	21 2349	240	11 23	0.4	
13	16.7	8.0	tr	7.7	10.0	11.6	3.1	0.0	1007.9	0 0 0 0	0 0 0 0	0 0 0 0	247	9.6	9.9	260	30 1057	260	13 10	0.0	
14	14.3	10.8	1.4	8.2	10.5	11.6	0.1	0.0	1008.4	0 0 0 0	0 0 0 0	0 0 0 0	223	7.2	7.3	220	23 1536	220	11 14	1.8	
15	15.4	11.9	14.2	9.8	10.9	11.7	0.8	0.0	1005.6	0 0 0 0	0 0 0 0	0 0 0 0	193	7.9	8.0	200	28 2342	200	12 23	6.6	
16	11.1	10.2	4.9	9.8	11.3	11.8	0.2	0.0	994.7	0 0 0 0	0 0 0 0	0 0 0 0	216	4.4	5.0	200	26 0001	200	12 00	3.3	
17	12.1	4.8	23.2	-0.3	10.6	11.8	0.1	0.0	997.3	0 1 0 0	0 0 0 0	0 0 0 0	199	5.7	6.3	190	30 0913	190	11 08	6.1	
18	10.6	3.8	0.0	-0.3	9.9	11.8	7.8	0.0	1011.6	0 1 0 0	0 0 0 0	0 0 0 0	223	4.8	5.2	240	16 1413	240	8 11	0.0	
19	12.2	-1.7	6.7	-6.0	8.9	11.7	7.4	5.7	1017.7	1 1 0 0	0 0 0 0	0 0 0 0	214	5.4	5.9	210	33 2145	210	16 21	6.7	
20	12.4	0.1	3.5	5.5	8.9	11.5	0.8	0.0	1003.7	0 0 0 0	0 0 0 0	0 0 0 0	223	6.7	7.0	210	30 0220	210	14 01	1.2	
21	8.6	5.0	0.1	1.4	9.3	11.4	6.3	0.0	998.1	0 0 0 0	0 0 0 0	0 0 0 0	240	6.7	6.8	270	22 1355	250	9 13	0.1	
22	13.2	4.0	10.2	0.3	8.5	11.4	0.1	0.0	999.2	0 0 0 0	0 0 0 0	0 0 0 0	218	5.8	6.1	200	21 1512	210	10 15	6.6	
23	13.4	6.4	0.1	7.1	9.0	11.3	6.5	0.0	983.7	0 0 0 0	0 0 0 0	0 0 0 0	222	8.3	8.7	240	35 0632	230	13 13	0.1	
24	15.0	5.9	7.0	0.1	9.0	11.2	0.7	0.0	991.4	0 0 0 0	0 0 0 0	0 0 0 0	173	6.6	6.8	190	22 2007	190	9 19	4.4	
25	13.6	10.3	10.5	11.5	9.7	11.2	1.3	0.0	984.9	0 0 0 0	1 1 0 0	1 1 0 0	203	7.6	8.3	200	32 0928	200	14 09	2.1	
26	12.8	5.7	11.9	-0.3	9.5	11.3	0.3	0.0	1010.1	0 1 0 0	1 0 1 0	1 0 1 0	187	6.7	6.8	180	22 2222	180	11 22	4.7	
27	14.8	9.0	11.4	9.4	9.6	11.4	2.3	0.0	1009.5	0 0 0 0	0 0 0 0	0 0 0 0	189	8.9	9.0	190	27 0821	210	11 12	6.4	
28	13.5	11.2	tr	9.6	10.0	11.4	2.8	0.0	1009.5	0 0 0 0	0 0 0 0	0 0 0 0	203	6.1	6.4	180	20 0202	190	9 00	0.0	
29	14.0	3.6	0.0	-2.1	9.7	11.5	5.3	0.0	1027.3	0 1 0 0	0 0 0 0	0 0 0 0	214	5.6	5.8	220	22 1245	230	10 12	0.0	
30	11.7	6.2	1.7	4.5	9.4	11.5	1.3	0.0	1029.0	0 0 0 0	0 0 0 0	0 0 0 0	184	7.4	7.5	180	22 2028	190	11 23	2.3	
Total			112.0				113.4	41.4													59.3
Mean	12.7	4.3		1.7	9.7	12.1	3.78	1.4	1014.7					218	4.6	5.7					
Anom	+2.2	+0.6	183%		+0.7	+0.6	158%		-0.5												
Daily mean		8.5																			
Anom		+1.4																			

Number of days with:

Air frost = 5      Ground frost = 15      Nil sun = 1  
 Snow falling = 0      Snow lying = 0      Thunder = 2  
 Hail=>5mm = 1      Hail<5mm or ice = 1      Fog at 09GMT = 1

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 NOVEMBER 2006

Date	VV	N	dd	ff	gg	TT	TdTd	RH	r	PPP	a	pppww	W1W2	NhCl	hCrCl	NChshs	NChshs	NChshs	Date	Remarks						
1	86	2	35	06	12	6.1	-0.5	63	3.6	1028.7	1	029	02	0	0	0	0	1	82080	1	COTRA					
2	75	3	29	02	03	3.6	1.0	83	4.0	1035.6	1	006	01	1	1	3	0	9	3	0	83368	2	Ac str vir Hoar slt Iridescence			
3	60	3	22	01	03	3.7	0.5	80	3.9	1035.3	3	004	05	0	0	1	0	9	3	2	81368	83070	3	1Cc72 Hoar slt. Parheliion		
4	50	4	21	03	05	0.6	0.0	96	3.7	1036.7	0	005	10	1	1	0	0	0	0	1	84080		4	COTRA Hoar mod Parheliion faint		
5	30	7	20	03	05	4.1	3.6	97	4.8	1033.4	3	005	10	2	2	0	0	0	0	2	82075	87078	5	COTRA		
6	06	7	22	02	05	2.9	2.6	98	4.5	1030.0	0	001	42	4	4	0	0	0	0	1	87080		6	COTRA		
7	20	8	04	02	04	6.0	5.8	98	5.7	1022.4	6	004	10	2	2	8	6	3	/	/	88708		7			
8	30	8	22	06	10	10.1	9.3	95	7.3	1019.1	3	006	50	5	2	8	5	2	/	/	83705	85707	88612	8		
9	83	1	30	03	07	7.8	4.9	82	5.3	1032.5	2	028	02	0	0	0	0	0	1		81080			9		
10	57	8	33	01	04	3.5	2.5	93	4.4	1033.7	6	006	10	2	2	3	5	6	0	7	83630	88278		10	COTRA	
11	81	5	25	07	14	9.8	7.5	86	6.4	1020.2	1	020	03	1	1	1	8	5	0	1	81825	84080		11	1Sc40 1Ci75 COTRA Cu hum	
12	72	7	25	05	10	8.0	4.3	78	5.1	1023.5	2	016	03	2	2	1	0	9	3	8	81364	87277		12	COTRA Halo 22° part Parhelia fnt	
13	50	7	25	11	21	13.9	12.2	90	9.0	1007.9	6	003	80	8	5	7	8	4	/	/	83712	85820	86645	13	vv 40km ex p	
14	80	7	21	06	11	12.0	10.1	88	7.7	1008.4	2	004	21	6	2	1	5	7	7	2	81650	83358	87362	14	/Ci75 COTRA	
15	84	5	20	08	16	13.8	10.8	82	8.1	1005.6	8	004	02	1	1	4	8	4	3	1	82818	83625		15	2Ac57 1Ci78 Cu fra/hum	
16	62	8	27	02	07	10.4	9.4	94	7.5	994.7	1	014	61	6	6	6	5	3	2	/	81708	86630	88540	16	1Sc20	
17	58	7	19	11	24	11.0	8.6	85	7.1	997.3	6	013	81	8	1	7	9	4	/	/	82715	83920	86820	17		
18	86	1	22	06	11	5.7	2.0	77	4.4	1011.6	2	034	02	0	0	1	5	6	0	3	81645			18	1Ci70 1Ci80 COTRA Cb top S	
19	65	1	20	02	03	0.1	0.0	99	3.8	1017.7	0	001	02	0	0	1	5	6	0	2	81640			19	1Ci75 vv 40km ex NW Hoar slt.	
20	67	7	22	05	11	12.2	11.1	93	8.3	1003.7	3	001	25	8	2	7	8	4	3	/	82815	86640		20	2Ac57 Cu med	
21	84	1	24	10	15	5.8	3.4	85	4.9	998.1	3	004	02	0	0	1	0	9	7	0	81357			21		
22	78	7	21	04	09	6.4	3.6	82	5.0	999.2	8	005	03	2	2	1	5	6	7	/	81640	87362		22	1Ac60	
23	75	1	24	08	17	10.2	7.0	81	6.1	983.7	1	035	02	8	1	1	0	9	3	1	81365			23	1Ci72	
24	62	7	14	07	12	10.4	9.0	91	7.3	991.4	7	008	25	8	1	4	8	5	3	1	84820	85075		24	1Sc35 1Ac65 Cu med	
25	84	7	20	14	26	13.7	9.4	75	7.6	984.9	2	023	25	8	6	3	8	5	7	2	83825	84365		25	1Sc35 2Ac62 3Ci72 COTRA Cu med jpNW	
26	65	7	20	09	17	9.8	8.2	89	6.8	1010.1	2	026	80	8	2	6	9	4	2	/	81810	82915	85650	26	6As60	
27	60	7	19	11	22	12.2	9.7	84	7.5	1009.5	3	006	58	6	5	7	5	4	3	/	82712	85618	87625	27	/Ac62 vv 30k exS	
28	72	7	21	07	12	11.4	10.2	93	7.8	1009.5	3	013	60	6	6	4	8	4	2	/	81712	83645	87556	28	2Cu30 Cu med Cld edge W	
29	73	0	21	04	09	6.5	4.9	89	5.3	1027.3	2	023	02	0	0	0	0	0	0	0				29		
30	67	7	22	05	11	12.2	11.1	93	8.3	1003.7	3	001	25	8	2	7	8	4	3	/	82815	86640		30	2Ac57 Cu med	
																									31	

Mean vis = 22.2 km  
 Mean cloud = 5.2 65%  
 Mean wind speed = 5.7 kn  
 Mean gust = 11 kn  
 Mean TT = 8.1 C  
 Mean TdTd = 6.1 C  
 Mean RH = 87.3 %  
 Mean r = 6.0 g/kg  
 Mean PPP = 1013.8 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 NOVEMBER 2006

Date	VV	N	dd	ff	gg	TT	TdTd	RH	r	PPP	a	pppww	W1W2	NhCl	hCrCl	NChshs	NChshs	NChshs	Date	Remarks					
1	83	1	36	07	15	8.5	0.8	58	4.0	1031.3	2	007	02	0	0	1	8	6	0	1	81835	1	1Sc40 1Ci80 COTRA Cu hum		
2	86	1	36	05	10	8.4	-0.2	54	3.6	1034.4	6	008	02	0	0	1	4	6	0	0	81640	2	Sc cugen		
3	77	6	34	03	07	10.2	1.9	56	4.3	1034.1	6	010	03	1	1	0	0	9	0	1	86080	3	COTRA		
4	78	3	28	05	11	10.7	3.5	61	4.8	1034.8	6	011	03	0	0	0	0	9	0	1	83078	4			
5	80	7	26	07	14	12.0	7.0	72	6.1	1031.1	6	010	03	2	2	1	0	9	4	2	81368	83072	87075	5	COTRA
6	72	1	24	04	09	11.6	5.8	68	5.6	1027.4	6	014	02	1	1	0	0	9	0	1	81080	6			
7	57	7	21	03	07	10.0	7.4	84	6.4	1019.4	6	013	05	2	2	7	5	4	/	1	82612	87614	7	/Ci78 COTRA	
8	59	8	24	07	14	14.5	12.7	89	9.0	1018.9	5	001	60	6	2	7	5	3	7	/	81708	87612	88360	8	
9	82	6	33	04	09	10.7	4.2	64	5.0	1034.0	1	009	03	1	1	1	1	6	0	1	81830	86078	9	COTRA Cu hum Parhelion faint	
10	77	8	19	08	15	11.2	5.8	69	5.6	1027.2	8	039	03	2	2	1	5	6	3	7	81635	83070	88275	10	2Ac65 COTRA Parhelion brgt
11	78	7	25	10	21	10.6	5.0	68	5.4	1018.5	7	016	02	2	2	3	5	6	3	8	83640	87275	11	2Ac68 COTRA	
12	82	7	26	06	10	12.0	8.0	76	6.6	1021.6	6	017	03	2	2	7	8	5	/	1	82822	87635	12	/Ci75 Cu hum	
13	83	4	27	13	27	14.5	8.3	66	6.8	1007.9	3	001	02	1	1	4	8	6	0	0	82830	83645	13		
14	82	8	23	11	22	14.1	12.6	91	9.1	1006.2	6	012	60	6	5	8	5	4	/	/	83615	87620	88630	14	
15	62	7	18	09	17	14.1	10.9	81	8.2	1001.0	7	029	02	2	2	7	8	4	3	1	84818	85635	15	2Sc25 /Ac65 /Ci78 Cu hum/med	
16	84	5	23	04	07	9.3	8.0	92	6.8	997.3	0	008	01	6	2	1	8	4	7	2	81812	83357	16	1Sc45 2Ac62 2Ci70 Cu fra/hum	
17	15	8	23	11	25	9.1	8.2	94	6.9	996.0	5	009	65	6	8	5	7	3	2	/	85708	88515	17	Rain rate 85 mm/hr at 1448	
18	88	1	24	07	16	9.2	2.4	62	4.5	1014.0	2	009	02	0	0	1	0	9	6	3	81362	18	1Ci70 Cb top W		
19	86	6	22	07	13	10.1	4.4	68	5.2	1015.8	6	014	03	1	1	1	8	5	0	6	81828	86077	19	1Sc35 2Cs75 COTRA Cu hum Parhelion	
20	35	7	27	08	20	8.5	7.3	92	6.4	1001.8	7	013	81	8	2	7	9	5	/	/	85920	86650	20	2Sc35 Cu med R rate 46mm/hr at 1450	
21	86	1	26	07	18	5.9	2.2	77	4.5	996.9	3	001	25	8	1	1	9	5	6	0	81820	81925	21	1Sc40 1Ac58 Cu fra Cb E	
22	62	8	21	10	20	10.4	9.1	92	7.3	992.0	7	046	21	6	2	8	5	3	/	/	82708	87710	88615	22	
23	80	1	23	11	25	11.5	6.3	70	6.1	985.0	2	009	02	1	1	1	1	5	7	3	81828	23	1Ac62 1Ci68 Cu fra Cb top NW		
24	61	7	17	08	17	13.0	10.3	84	8.0	988.0	6	018	80	8	2	7	8	4	/	2	83818	83630	86656	24	/Ci75
25	89	1	23	10	21	10.0	6.8	81	6.2	996.3	2	072	01	8	1	1	9	5	0	3	81818	81925	25	1Ci70 Cu fra Cb SW&W Vis 80km	
26	68	6	21	08	14	12.2	10.1	87	7.7	1011.9	1	001	25	8	2	5	8	5	0	0	82822	84635	26	2Sc56 Cu med	
27	62	6	21	09	19	13.5	9.7	77	7.5	1011.3	2	012	25	8	2	3	8	5	0	1	82825	84075	27	2Sc56 COTRA Rainbow	
28	81	1	21	08	15	11.9	7.6	75	6.5	1012.1	2	009	02	1	1	1	1	5	4	3	81820	28	1Ac62 1Ci70 1Cs75 Cu fra/hum. Cb top W		
29	70	6	21	06	12	12.6	9.2	80	7.1	1029.2	2	008	02	1	1	6	8	5	0	1	82825	85650	29	3Ci78 COTRA	
30	84	8	18	08	13	10.2	4.8	69	5.3	1024.5	6	027	02	2	2	6	0	9	7	7	83366	86468	88272	30	COTRA Ac len
																								31	

Mean vis = 32.3 km  
 Mean cloud = 5.1 64%  
 Mean wind speed = 7.5 kn  
 Mean gust = 15 kn  
 Mean TT = 11.0 C  
 Mean TdTd = 6.7 C  
 Mean RH = 75.2 %  
 Mean r = 6.2 g/kg  
 Mean PPP = 1014.0 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  
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 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  
 NOVEMBER 2006

Date	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	0-20	20-40	40-60	60-80	80-90	90-95	95-98
01	5.7	9.6	13:21	2.2	23:49	66.8	85.3	22:09	50.3	13:36		0	0	338	863	239	0	0	0
02	3.5	9.9	13:32	-0.8	07:13	76.3	93.5	07:48	44.1	13:07	102	0	0	260	346	628	104	0	0
03	3.6	11.2	13:57	-1.5	05:46	79.8	94.3	07:19	49.7	13:44	64	0	0	262	205	249	660	0	0
04	4.4	12.0	13:55	-1.5	07:05	83.0	94.6	09:05	50.7	14:13		0	0	187	208	270	775	0	0
05	6.8	13.6	12:39	1.8	04:05	87.8	97.9	09:04	62.4	12:49		0	0	0	328	236	359	517	0
06	5.6	13.5	13:45	1.2	06:41	89.6	100.0	09:16	58.2	15:03		0	0	18	253	120	339	531	179
07	6.3	11.5	13:16	2.7	03:31	95.6	100.0	10:48	74.3	13:21		0	0	0	27	190	181	358	684
08	10.4	14.6	14:04	4.7	00:05	92.1	99.9	06:15	70.3	17:35		0	0	0	82	622	55	108	573
09	7.3	11.7	13:58	1.4	23:23	81.8	93.8	03:36	54.3	14:01		0	0	220	237	224	759	0	0
10	7.0	12.6	23:59	-0.3	04:35	86.3	97.9	07:41	62.8	13:57		0	0	0	423	194	431	392	0
11	10.9	13.1	01:11	8.7	07:05	80.7	97.0	05:24	64.9	13:42		0	0	0	850	44	138	408	0
12	10.3	13.1	13:52	7.2	06:36	76.2	83.7	06:39	64.1	11:50		0	0	0	1209	231	0	0	0
13	13.3	16.8	12:22	11.0	00:00	78.1	93.1	09:04	57.9	13:50		0	0	59	658	656	67	0	0
14	12.7	14.0	14:32	10.9	07:55	88.2	96.6	13:16	80.7	01:49		0	0	0	0	1014	289	137	0
15	13.6	15.3	23:40	12.3	03:18	82.4	87.8	03:41	75.2	21:57		0	0	0	316	1124	0	0	0
16	9.9	14.8	00:00	6.2	23:50	94.9	98.1	07:28	81.3	00:00		0	0	0	0	104	642	691	3
17	8.0	11.9	12:13	4.8	23:57	93.4	97.4	17:54	84.4	12:29		0	0	0	0	161	841	438	0
18	5.8	10.7	14:00	2.9	23:15	79.7	94.1	00:00	55.6	14:46		0	0	98	441	623	278	0	0
19	6.2	11.5	13:57	-1.0	07:46	81.0	96.8	09:29	62.1	13:07	90	0	0	0	696	97	522	35	0
20	10.0	12.5	14:16	6.6	23:59	93.6	97.1	17:24	77.3	14:40		0	0	0	17	161	663	599	0
21	6.0	8.6	13:10	4.3	22:46	83.8	94.5	01:19	70.5	13:00		0	0	0	579	580	281	0	0
22	8.0	11.3	16:20	4.3	06:44	86.7	96.1	23:58	70.3	11:58		0	0	0	146	844	420	30	0
23	10.8	13.3	13:27	8.1	23:23	81.4	96.4	01:08	55.2	13:54		0	0	66	514	446	98	316	0
24	10.9	13.5	18:27	6.9	05:52	88.3	93.2	08:56	78.2	14:10		0	0	0	75	747	618	0	0
25	10.7	14.4	04:19	6.4	22:28	87.4	96.8	11:51	71.9	16:48		0	0	0	255	571	537	77	0
26	10.3	12.1	23:43	8.0	02:08	90.7	97.7	13:07	85.0	06:34		0	0	0	0	714	484	242	0
27	12.6	15.0	12:59	10.9	06:55	83.7	93.7	10:38	71.4	13:05		0	0	0	295	960	185	0	0
28	10.9	13.1	13:28	7.5	23:46	87.2	96.5	07:17	69.1	14:31		0	0	0	239	650	188	363	0
29	9.5	14.2	13:09	4.8	07:19	87.4	96.3	23:24	69.9	13:12		0	0	0	285	453	649	53	0
30	9.9	11.2	03:05	8.8	22:27	82.9	96.3	00:42	67.1	14:30		0	0	0	477	468	400	95	0
Mean	8.7	12.7		5.0		84.9	95.2		66.3			0.00	0.00	0.84	5.57	7.57	6.09	2.99	0.80
Hi	13.6	16.8		12.3		95.6	100.0		85.0	Tot	256	0	0	1508	10024	13620	10963	5390	1439
Lo	3.5	8.6		-1.5		66.8	83.7		44.1										

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.

# WOKINGHAM METEOROLOGICAL DATA

Wokingham Climatological Station, Emmbrook, Berkshire.

Lat 51°25'N 00°51'W NGR (SU)798701 Altitude 46m ASL

## Seasonal Means and Totals

## AUTUMN 2006

Temperature (°C)		Rank in the past 125 years							
Mean maximum	17.7	(+3.0)	* New Highest *						
Mean minimum	9.4	(+2.7)	* New Highest *						
Daily mean	13.5	(+2.8)	* New Highest *						
Rainfall total (mm)	276.1	(145 %)	9 <sup>th</sup> highest						
Sunshine total (hours)	382.8	(124 %)							
N <sup>o</sup> of:	Dry days	46 (-5)	Wet days	37 (+8)					
Days with:	Air frost	5 (-3)	Ground frost	15 (-11)	Snow falling	0 (-1)	Snow lying	0 (0)	
Thunder	8 (+5)	Hail ≥5mm	1	Small hail/ice	1	Fog @09 GMT	2 (-3)	Nil sun	5
Air pressure MSL : Mean @09 GMT (mbar)		1012.8		(-2.8)					

Departure from 1971 to 2000 average shown in brackets.

Notes: **Record High Temperatures.** **Very Wet.** **Sunny.**

**Temperatures.** Autumn 2006 seems to mark a new chapter in the climatic journal of the area, breaking all previous temperature records by some considerable margin. The mean maximum is 1.0° above the previous highest in 1959, and is 3.2° above the long-term median, while the mean minimum is 1.3° above the previous highest in 2004 and 3.4° above the median. The mean temperature is 1.4° above the previous highest in 2005, and is 3.1° above the median. Such large changes from the previous extreme on a seasonal time scale is very rare, new record values usually differing from the previous record by about 0.2°. The winter of 1963 provides a striking exception, as this was 1.6° below the previous lowest. The season's highest maximum was 29.6° on the 11<sup>th</sup> Sept. This ranks 7<sup>th</sup> highest in 103 years, and is 5.1° above the median. The lowest minimum was -2.7° on the 3<sup>rd</sup> Nov, 1.2° above the median. The lowest maximum was 8.6° on the 21<sup>st</sup> Nov, and this ranks 2<sup>nd</sup> highest in 94 years, and is 4.0° above the median, while the highest minimum, 18.0° on the 5<sup>th</sup> Sept, is also 2<sup>nd</sup> highest in 94 years, and is 2.7° above the median. The mean grass min, 6.3°, is highest in the past 27 years. Mean earth temperature at 30 cm depth, 14.1°, is also highest in 27 years, but at 1 metre depth the mean of 15.0° is equal highest with 2005, 1995 and 1989. Air frost duration, 41.4 hours, is slightly below average. **Rainfall.** This is the wettest autumn since 2000. Both Oct and Nov were much wetter than average, while Sept was slightly below. November was the wettest month with 112.0 mm and September the driest with 53.1 mm. Despite the general wet aspect to the season, there were several dry spells, the longest was of 12 days ending on the 9<sup>th</sup> Nov. The season's highest 24 hour fall, 24.9 mm on the 11<sup>th</sup> Oct, is close to normal. The number of days with 10 mm or more, 12, is most since 1976, and is 7 more than average. Thunder was more frequent than normal, the 8 days being equal highest with 1993 and 1974 in the past 99 years. **Sunshine.** Despite the rainfall figures, this was also a sunny autumn, the total well above the median and only 3 hours short of the very sunny category. It is, however, sunniest only since 2003, and both 1997 and 1999 were also sunnier in recent years. Compared with average, Nov was the sunniest with 158 %, and Oct the least sunny with 108 %. In terms of daily mean sun, Nov with 3.78 hours was sunnier than Oct with 3.67 hours. This reversal of the normal trend has only happened 7 times since 1908. Overall there were 40 days with <3 hours, 31 with =>6 hours, 8 with =>9 hours and 1 with =>12 hours. **Wind.** The mean speed for this autumn was 6.2 mph, close to average. The windiest day was the 3<sup>rd</sup> Sept, mean 12.3 mph, and the season's highest gust of 43 mph was on the 2<sup>nd</sup> Sept. The 3<sup>rd</sup> Nov was the least windy day, mean 1.7 mph, and there were 2258 minutes (37.63 hours) with a mean speed of 0.5 mph or less. Daily mean direction/number of days : N,5 NE,3 E,5 SE,6 S,20 SW,40 W,10 NW,2. **Humidity.** The overall mean relative humidity was 83.0 % and the lowest value was 31 % on the 10<sup>th</sup> Sept. The mean water vapour content per kg of air was 8.4 g at 090 GMT and 8.0 g at 1500 GMT.

**September.** Very warm with rainfall below and sunshine above normal. Highest mean temperature and mean minimum since before 1882. Highest max is highest since 1949. Lowest max 3<sup>rd</sup> highest in 94 years. Highest min is 2<sup>nd</sup> highest in same period. Earth temps and mean grass min all new high records.

**October.** Very mild. Wet. Sunshine above normal. Mean temperature highest since before 1882. lowest max highest in 94 years. lowest min 2<sup>nd</sup> highest in 103 years. Earth temps new high records. Wettest since 2000.

**November.** Very mild. Wet. Very sunny. mean maximum 3<sup>rd</sup> highest in 125 years. Lowest max 2<sup>nd</sup> highest in 94 years. Number of days with =>10 mm of rain most in past 31 years. Sunshine a new high record.

Month	Mean Max	Anom	Mean Min	Anom	Rain mm	Anom	Sun hrs	Anom	Wind Mn mph	Max gust	Mean pressure	Anom
September	22.6	+3.7	13.4	+3.7	53.1	85 %	155.6	118 %	5.8	43	1013.5	-3.0
October	17.6	+2.8	10.5	+3.8	111.0	166 %	113.8	108 %	6.2	35	1010.3	-4.9
November	12.7	+2.2	4.3	+0.6	112.0	183 %	113.4	158 %	6.6	40	1014.7	-0.5

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