

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 2008

Temperature (°C / °F)			Anomaly	Rank in past 127 years			
Mean maximum	10.8	51.4	+0.3	38 th highest			
Mean minimum	4.8	40.6	+1.1	20 th highest			
Daily mean	7.8	46.0	+0.7	29 th highest			
Highest maximum	14.5	58.1	on 15 th	Lowest maximum	4.7	40.5	on 30 th
Highest minimum	10.6	51.1	on 16 th	Lowest minimum	-3.3	26.1	on 23 rd
Mean grass minimum	1.7	35.1		Lowest grass minimum	-8.6	16.5	on 23 rd
Mean earth @30 cm	9.3	48.7	+0.3	Earth @100 cm	11.3	52.3	
Frost duration (hrs)	18.0			Rain duration (hrs)	63.6	*	
Rainfall total (mm / in)	67.7	2.67	111 %	52 nd highest			
Highest daily fall	17.9	0.70	on 1 st				
Number of: Dry days (<0.2mm)	11	Wet days (>0.9mm)	14	days ≥5mm	4		
Sunshine total (hrs)	55.6	Daily mean	1.85	77 %	Sunniest day	7.2	on 25 th
N° days with: Air frost	4	Ground frost	11	Snow falling	1	Snow lying	0
Thunder	0	Hail ≥5mm	0	Small hail/ice	1	Fog @09	0
Air pressure MSL : Mean @09 GMT (mbar/in)	1014.1		-1.1	29.95			
Absolute highest	1036.0			30.59		on 16 th	
Absolute lowest	989.2			29.21		on 23 rd	

Anomaly = departure from 1971 to 2000 average (degrees C, percent and mbar). * Duration part estimated on 23rd due to snow/ice in gauge

Notes:

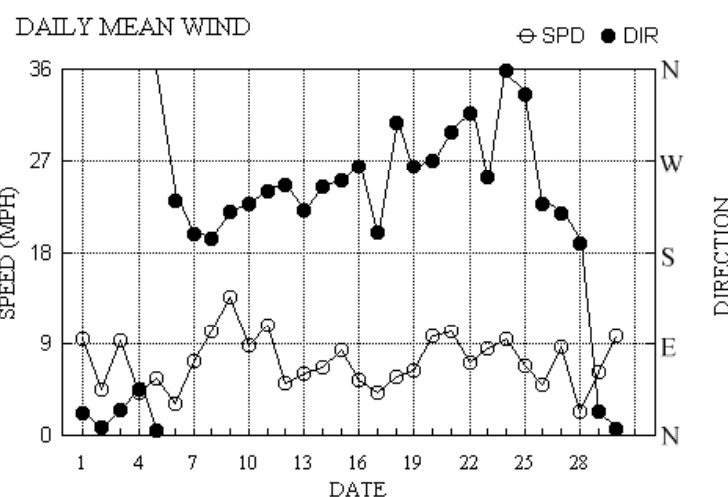
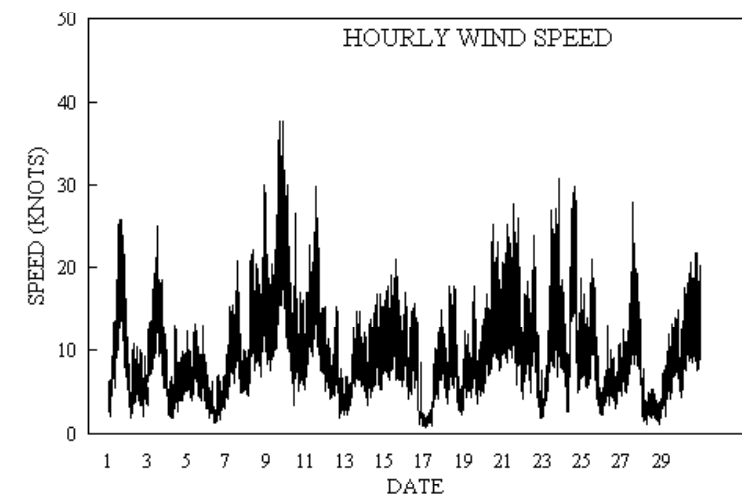
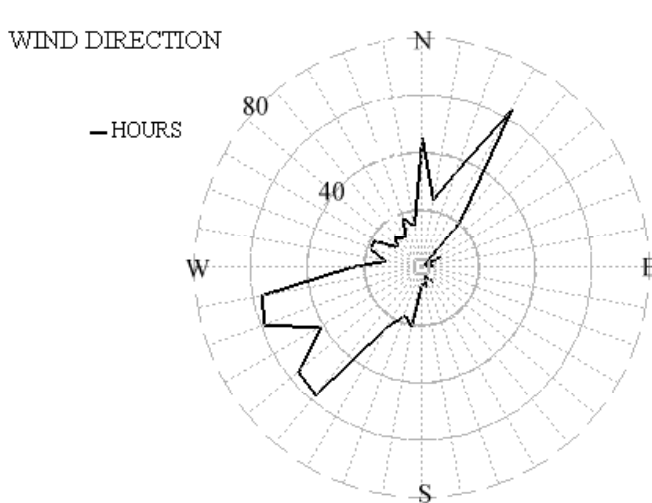
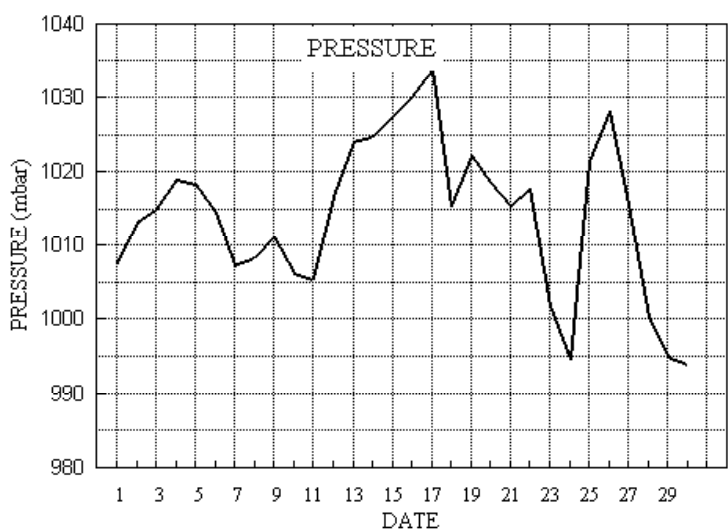
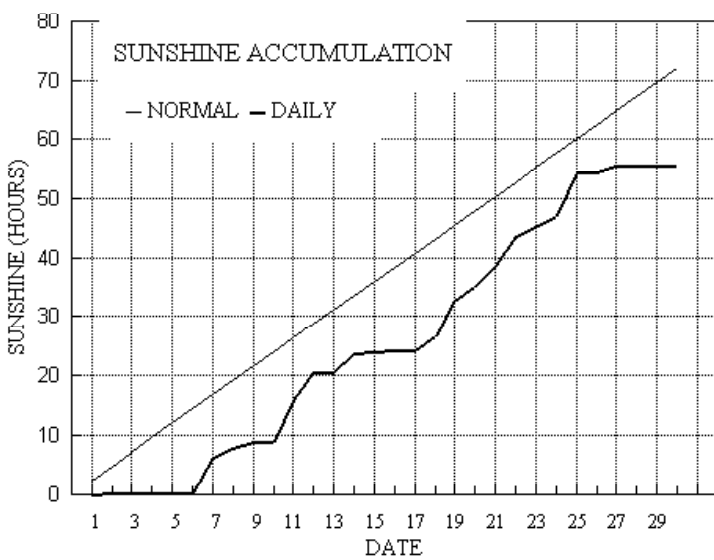
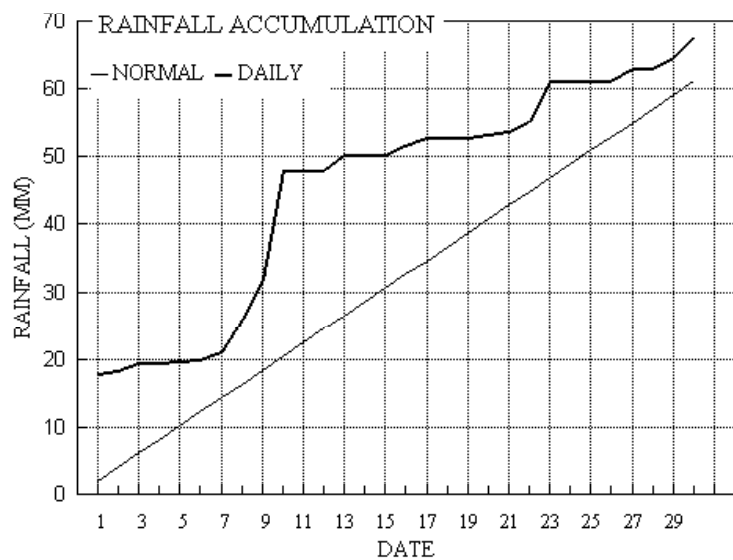
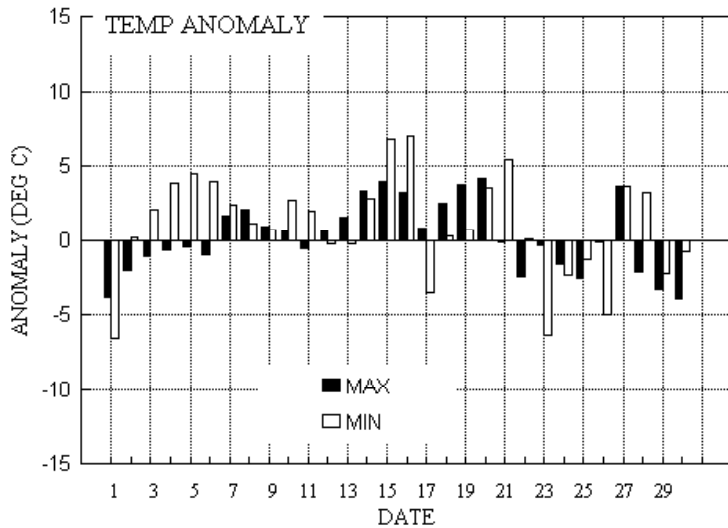
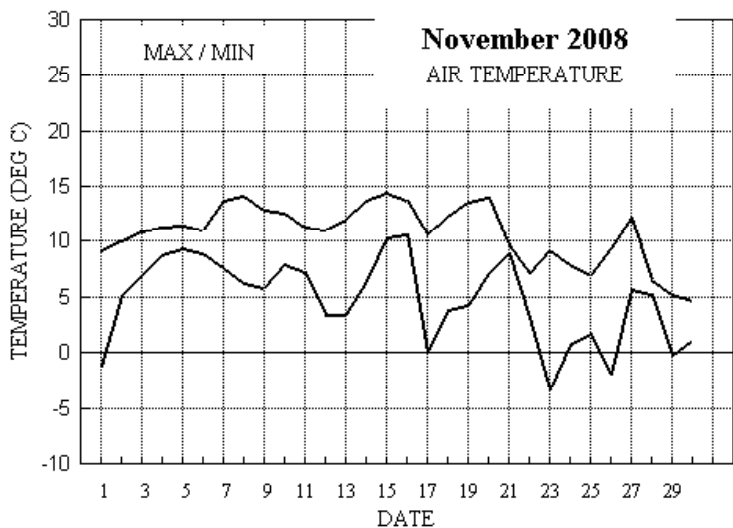
Mild and Dull with Rainfall Above Normal.

Temperature : The mean temperature of 7.8° puts this November into the mild category, that is when compared to the past 127 years, where it is 1.2° above the median. However, when compared with the current climatological average (1971 to 2000) the anomaly is only +0.7°, and compared with the average for the past 33 years the anomaly is only +0.4°. These figures serve to highlight the gradual increase in temperature now taking place, not only in November but at most other times of the year as well. Despite this there was an absence this month of mild days, and the highest max is 1.0° below its median and lowest since 1987. The lowest min is 0.3° above the median while the lowest max is 0.1° above the median and the highest min is exactly on the median. The number of hours with air frost is lowest since 2003, and is 25 below average. Both the number of days with air and ground frost is 2 fewer than average. Earth temperatures are not far from normal. **Rainfall :** The total fall this month is a little above average but is lowest since 2005. The amount that fell on the wettest day is 1.7 mm above the median. The number of dry days is 4 fewer than average and there were no dry spells. The highest rainfall rate was 22 mm/hr on the 10th at 1216 GMT. Snow fell on the morning of the 23rd and there was small hail on that day too. The few patches of snow on the ground at 09 hours was much less than the 50 % cover required to record a day with snow lying. **Sunshine :** A dull month overall, probably duller since 1994. There was only 0.1 hours of sun before the 7th, and only 1.2 hours over the final 4 days. The 7.2 hours on the month's sunniest day is lowest since 1997. Only 4 days had >66 % of the maximum, while 22 had <33 %. The 12 days with nil sun is equal highest with 2004 since 1994. Overall there were 22 days with <3 hours and 4 with =>6 hours. **Wind :** The mean wind speed of 7.3 mph this November is 1.2 mph above average, and highest since 2000. The 9th was the windiest day, mean 13.7 mph, and the month's highest gust of 44 mph was also on that day. The 28th was the least windy day, mean 2.4 mph, and there were 308 minutes (5.1 hours) with a mean speed of 0.5 mph or less. Daily mean direction/number of days : N,5 NE,3 E,0 SE,0 S,4 SW,9 W,5 NW,4. **Humidity :** The overall mean relative humidity was 82.9 %, and the lowest value was 39 % on the 21st. The mean water vapour content per kg of air was 5.5 g at 0900 GMT and 5.8 g at 1500 GMT. **Commentary : From the 1st to the 5th :** Temperatures were near or below normal by day, with an anomaly of -3.8° for the max on the 1st, but apart from an anomaly of -6.6° for the min on the 1st minima were above normal. The month's wettest day was the 1st, but there were only small amounts on subsequent days. There was virtually no sunshine in this period. Winds were N'ly, fresh on 1st and 3rd, otherwise light. **From the 6th to the 13th :** Temperatures were generally close to normal. It was wet at times, especially from the 8th to the 10th when 27.0 mm fell over the 3 days. It was sunny on the 7th and 11th, otherwise dull. Winds were mainly SW'ly, light on 6th increasing to strong on the 9th, becoming light again by the 12th. **From the 14th to the 21st :** Temperatures were mostly above normal, with anomalies of +4° for the max on the 15th and 20th, and of +7° for the min on the 16th. There were 4 dry days but no significant rainfall on the others. Mostly dull, but sunny on the 19th. Winds were mainly W'ly, light or moderate, but fresh on the 21st. **From the 22nd to the 30th :** Temperatures were generally below normal, except on the 27th, and there were anomalies of -3° for the max on the 29th and 30th, and -6° for the min on the 23rd. There was some precipitation on all but 4 days, with 6.1 mm on the 23rd the highest, and rain started as snow on that day. The 25th was the only sunny day, and 4 of the final 5 days were sunless. Moderate or fresh winds were between W and N until the 25th, backing light or moderate SW'ly on the 26th, becoming N'ly on the 29th.

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

1 st to the 10 th				11 th to the 20 th				21 st to the 30 th			
-0.4°	+1.5°	235 %	37 %	+2.3°	+1.9°	24 %	108 %	-1.3°	-0.6°	69 %	83 %

Wokingham climatological graphs for November 2008



Month: November 2008

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	SI	Ha	Fg	ddd	ff	sp	ddd	gg	HHhh	ddd	ff	HH	hrs				
1	9.2	-1.2	17.9	-5.9	8.7	12.3	0.0	3.5	1007.6	1	1	0	0	0	0	0	21	8.2	8.2	21	26	1307	24	14	16	8.7	
2	10.0	5.1	0.3	6.4	8.7	12.1	0.1	0.0	1013.3	0	0	0	0	0	0	0	8	3.7	3.8	32	12	0013	26	5	00	0.8	
3	10.9	7.0	1.3	4.0	9.2	11.8	0.0	0.0	1014.9	0	0	0	0	0	0	0	25	8.1	8.1	27	25	1115	26	13	11	4.9	
4	11.3	8.8	0.0	6.4	9.7	11.7	0.0	0.0	1019.0	0	0	0	0	0	0	0	45	3.4	3.7	70	13	0954	76	6	10	0.0	
5	11.5	9.4	0.2	8.9	10.1	11.6	0.0	0.0	1018.4	0	0	0	0	0	0	0	4	4.8	4.8	20	13	1022	14	7	10	0.2	
6	11.0	8.9	0.3	8.4	10.3	11.7	0.0	0.0	1014.6	0	0	0	0	0	0	0	230	0.9	2.6	135	9	2333	138	4	23	0.6	
7	13.7	7.6	1.1	2.0	10.4	11.7	6.1	0.0	1007.3	0	0	0	0	0	0	0	198	5.3	6.3	270	21	1357	229	10	12	0.6	
8	14.1	6.3	4.9	1.7	10.3	11.7	1.7	0.0	1008.4	0	0	0	0	0	0	0	193	8.5	8.8	200	30	2150	187	14	21	2.8	
9	12.9	5.9	5.8	2.6	10.4	11.7	1.0	0.0	1011.2	0	0	0	0	0	0	0	220	11.6	11.9	206	38	1636	210	18	19	2.9	
10	12.6	7.9	16.3	4.9	10.3	11.7	0.0	0.0	1006.2	0	0	0	0	0	0	0	228	7.1	7.7	262	30	0120	238	14	00	8.9	
11	11.4	7.2	0.0	4.7	10.1	11.7	7.0	0.0	1005.4	0	0	0	0	0	0	0	239	9.2	9.5	256	30	1220	260	14	11	0.0	
12	11.1	3.4	0.0	-1.7	9.7	11.6	4.8	0.0	1016.7	0	1	0	0	0	0	0	246	4.0	4.5	282	16	1325	291	7	14	0.0	
13	12.0	3.4	2.3	-1.0	9.4	11.5	0.0	0.0	1024.1	0	1	0	0	0	0	0	221	5.0	5.2	212	15	1427	213	8	14	6.7	
14	13.8	6.4	0.0	6.2	9.6	11.4	3.2	0.0	1024.7	0	0	0	0	0	0	0	245	5.7	5.8	246	17	1425	252	8	14	0.0	
15	14.5	10.4	0.0	5.9	10.1	11.3	0.1	0.0	1027.4	0	0	0	0	0	0	0	250	7.2	7.2	255	21	1229	250	9	11	0.0	
16	13.7	10.6	1.2	7.9	10.5	11.3	0.3	0.0	1030.0	0	0	0	0	0	0	0	265	2.8	4.7	240	17	0054	247	8	00	0.7	
17	10.6	0.1	1.2	-3.6	10.3	11.4	0.0	0.0	1033.7	0	1	0	0	0	0	0	199	3.1	3.6	202	15	2119	207	8	21	2.1	
18	12.3	3.9	tr	7.9	10.0	11.4	2.3	0.0	1015.4	0	0	0	0	0	0	0	308	3.5	5.0	347	18	1256	355	8	13	0.0	
19	13.6	4.3	0.0	-1.0	9.8	11.4	6.2	0.0	1022.1	0	1	0	0	0	0	0	265	5.0	5.4	285	18	1325	291	8	13	0.0	
20	14.0	7.1	0.5	0.9	9.6	11.3	2.5	0.0	1018.6	0	0	0	0	0	0	0	270	8.2	8.4	282	25	1156	279	10	10	0.7	
21	9.7	9.0	0.5	6.5	9.8	11.3	3.4	0.0	1015.3	0	0	0	0	0	0	0	299	8.0	8.8	320	28	1234	315	12	12	0.5	
22	7.1	3.2	1.3	-1.5	9.5	11.2	4.9	3.1	1017.6	0	1	0	0	0	0	0	317	5.6	6.2	358	24	1252	340	10	12	3.0	
23	9.2	-3.3	6.1	-8.6	8.6	11.1	1.7	7.1	1001.9	1	1	1	0	0	0	1	253	5.9	7.4	310	31	2040	281	11	14	3.4	
24	7.9	0.8	tr	-3.0	8.1	11.0	1.9	0.0	994.7	0	1	0	0	0	0	0	359	5.9	8.2	29	30	1458	29	15	13	0.0	
25	6.9	1.8	0.0	-1.7	7.7	10.8	7.2	1.3	1021.2	0	1	0	0	0	0	0	336	5.4	5.9	351	21	1115	352	10	13	0.0	
26	9.4	-1.9	0.0	-7.1	7.2	10.5	0.0	2.8	1028.0	1	1	0	0	0	0	0	227	4.1	4.2	249	13	0641	248	6	06	0.0	
27	12.2	5.7	1.8	2.4	7.6	10.3	1.2	0.0	1015.6	0	0	0	0	0	0	0	218	7.4	7.6	220	28	1241	218	11	13	3.1	
28	6.5	5.2	tr	1.5	8.0	10.2	0.0	0.2	1000.3	0	0	0	0	0	0	0	189	0.5	2.1	190	8	0129	202	4	01	0.0	
29	5.3	-0.2	1.7	-5.3	7.9	10.1	0.0	0.0	995.0	1	1	0	0	0	0	0	23	5.1	5.3	27	15	1910	30	9	16	6.0	
30	4.7	1.2	3.0	2.7	7.8	10.0	0.0	0.0	993.9	0	0	0	0	0	0	0	6	8.3	8.4	5	22	1825	356	10	22	7.0	
Total			67.7				55.6	18.0																		63.6	
Mean	10.8	4.8		1.7	9.3	11.3	1.85	0.6	1014.1								272	2.6	6.3								
Anom	+0.3	+1.1	111%		+0.3	-0.5	77%		-1.1																		
Daily mean		7.8							Pressure, abs highest =																		1036.0 on 16
Anom		+0.7							Pressure, abs lowest =																		989.2 on 23

Number of days with:

Air frost = 4 Ground frost = 11 Nil sun = 12
Snow falling = 1 Snow lying = 0 Thunder = 0
Hail=>5mm = 0 Hail<5mm or ice = 1 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 November 2008

Date	VV	N	dd	ff	gg	TT	Td	Td	RH	r	PPP	a	ppp	ww	W1	W2	Nh	Cl	h	Cr	N	Ch	shs	N	Ch	shs	Date	Remarks	
1	70	7	03	08	13	5.1	2.9	86	4.7	1007.6	7	007	03	2	2	6	5	6	1	2	86640	83464	87068				1		
2	58	8	36	04	08	9.0	7.9	93	6.6	1013.3	2	033	50	5	2	8	5	2	/	/	82705	87707	88615				2	vv12km NW	
3	59	7	03	09	19	9.4	7.6	89	6.5	1014.9	8	002	05	2	2	7	6	3	3	/	87708						3	/Ac120	
4	28	7	08	03	07	9.5	8.9	95	7.0	1019.0	2	019	10	2	2	7	6	2	/	/	82805	87708					4		
5	32	8	36	06	12	9.9	8.5	91	6.8	1018.4	6	007	05	2	2	8	6	2	/	/	87705	88708					5		
6	20	8	30	01	03	9.1	8.3	94	6.8	1014.6	7	004	20	5	2	8	6	2	/	/	85703	88704					6		
7	86	6	23	06	12	9.1	6.8	85	6.1	1007.3	2	026	01	2	2	1	4	0	8		81815	83272	86078				7	COTRA Cu fra Halo 22 part	
8	40	8	18	09	22	10.6	9.1	90	7.2	1008.4	5	002	58	6	5	8	5	3	/	/	82706	87710	88620				8		
9	84	5	22	10	17	7.7	2.2	68	4.5	1011.2	1	014	03	1	1	1	0	9	4	2	81358	84072					9	1Cc70 COTRA	
10	50	8	22	04	15	8.0	4.9	81	5.4	1006.2	8	017	62	6	2	1	5	4	2	/	81715	88540					10	2Sc30	
11	86	3	24	10	18	8.7	4.6	75	5.3	1005.4	2	030	03	8	1	3	8	4	0	0	83818							11	1Sc40 Cu hum/fra
12	78	1	26	04	10	5.7	3.4	85	4.8	1016.7	2	022	02	0	0	1	5	6	0	1	81645							12	1Ci75
13	61	7	22	06	10	6.4	4.7	88	5.2	1024.1	3	004	03	2	2	1	5	6	7	/	81635	86360	87465				13	1Ac58	
14	75	7	23	05	11	11.1	8.5	84	6.8	1024.9	2	008	02	2	2	1	5	5	4	1	81620	87078					14	1Ac65 1Cc72 COTRA	
15	84	7	25	06	19	11.9	8.8	81	6.9	1027.4	3	010	02	2	2	7	5	4	/	/	87615							15	
16	70	7	24	05	10	11.8	8.8	82	6.9	1030.0	3	012	02	2	2	6	5	4	3	1	86612	84362					16	/Ci78 COTRA	
17	50	8	09	01	02	3.9	3.3	96	4.7	1033.7	7	014	10	2	2	8	5	5	/	/	88625							17	
18	58	8	32	08	17	9.1	7.0	87	6.2	1015.4	3	030	50	5	2	8	5	3	/	/	82708	87615	88620				18		
19	86	2	24	05	09	8.2	5.8	85	5.7	1022.1	8	001	02	0	0	0	0	9	0	1	82075							19	COTRA
20	86	3	27	08	15	12.2	8.3	77	6.8	1018.6	1	008	03	1	1	1	8	4	0	9	81818							20	1Sc25 2Cc70 1Ci75 Cu hum
21	72	8	31	13	23	9.0	3.2	67	4.8	1015.3	1	021	80	8	2	7	8	5	1	8	81820	85825	86640				21	/As68 /Cs72 Cu fra/med	
22	82	7	31	04	11	5.2	-0.5	67	3.7	1017.6	2	007	03	1	1	2	8	5	7	/	81822	87362					22	2Sc56 Cu hum Cld edge E	
23	57	8	19	10	18	0.8	-0.6	91	3.7	1001.9	7	087	61	7	6	7	7	3	2	/	82706	87708	88520				23	Snow before 08z. Gnd part frzn. Sonly 10% <1cm	
24	72	8	36	08	16	4.5	2.3	85	4.5	994.7	3	041	60	6	2	1	8	5	4	2	82712	86640	88550				24	2Sc020	
25	82	1	34	06	13	2.8	-1.2	75	3.5	1021.2	2	030	02	0	0	1	8	4	0	0	81815							25	1Sc35 Cu fra Hoar slit
26	62	8	23	03	08	5.7	3.3	85	4.7	1028.0	3	003	02	2	2	8	5	4	/	/	87610	87613					26		
27	65	7	20	08	14	8.6	6.5	87	6.0	1015.6	7	023	02	2	2	7	5	5	0	1	81625	83630	85650				27	2Ci80 COTRA	
28	60	7	18	03	05	5.3	4.2	92	5.2	1000.3	6	008	05	6	2	1	8	5	7	/	81820	86362	87465				28	1Sc56 Cu fra VV30k ex NW	
29	20	8	02	04	12	1.2	0.7	97	4.0	994.9	3	006	10	2	2	8	6	1	/	/	82702	88703					29		
30	58	8	01	10	18	4.0	2.4	89	4.6	993.9	3	004	61	6	6	7	7	3	2	/	83708	87712	88530				30		

Mean vis = 22.3 km

Mean cloud = 6.5 81%

Mean wind speed = 6.2 kn

Mean gust = 13 kn

Mean TT = 7.5 °C

Mean TdTd = 5.0 °C

Mean RH = 84.9 %

Mean r = 5.5 g/kg

Mean PPP = 1014.1 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 2008

Date	VV	N	dd	ff	gg	TT	Td	RH	r	PPP	a	ppp	ww	W1	W2	Nh	Cl	h	Cr	N	Ch	shs	N	Ch	shs	Date	Remarks
1	40	8	03	14	24	7.3	5.7	89	5.7	1004.4	6	025	63	6	6	7	5	4	2	/	81712	87615	88530		1		
2	59	7	02	03	07	9.8	8.5	91	6.8	1015.0	3	006	21	6	5	7	5	3	/	1	81706	85708	87645		2	/Ci75 Breaks E&SE	
3	58	8	02	11	17	10.7	8.4	85	6.8	1014.7	8	002	05	2	2	8	6	3	/	/	86708	88710			3		
4	40	7	04	05	09	11.1	9.1	88	7.1	1019.2	6	004	05	2	2	7	5	3	/	/	81708	87615			4		
5	45	8	35	05	10	10.9	8.8	87	7.0	1017.3	6	005	60	6	2	8	6	3	/	/	82708	87615	88625		5		
6	58	7	21	02	05	10.7	7.9	83	6.6	1011.9	7	015	05	2	2	7	8	4	/	/	86812	84645			6	2Sc25 Cu med	
7	82	5	21	08	17	10.4	6.1	75	5.8	1008.1	0	002	25	8	1	1	8	6	6	1	81830	84358			7	2Sc50 Cu conSW jpE	
8	72	7	19	10	20	12.6	8.9	78	7.1	1007.5	7	012	02	2	2	1	8	4	4	2	81818	87072			8	1Sc25 1Ac68 COTRA Parhelia	
9	75	7	21	16	36	11.7	5.4	65	5.6	1007.9	8	029	02	8	2	3	8	5	3	1	81825	83650			9	4Ac65 2Ci72 Cu hum/fra Iridescence	
10	59	8	24	06	12	10.6	9.2	91	7.3	1000.6	6	002	63	6	6	7	2	3	2	/	82808	86712	88550		10	Cu med	
11	82	1	25	09	25	10.4	1.7	55	4.3	1009.1	1	011	02	0	0	1	2	6	4	3	81835				11	1Ac60 1Ci70 Cu med Cb top NW&N	
12	70	4	28	07	15	10.2	4.1	66	5.0	1019.0	2	009	02	1	1	4	8	5	0	1	81825	84645			12	1Ci75 Cu med	
13	62	8	21	08	15	9.6	8.3	91	6.7	1022.2	7	012	61	6	6	7	5	4	2	/	82712	87615	88530		13		
14	73	8	26	07	17	12.3	9.0	81	7.1	1025.0	6	005	02	2	2	8	5	4	/	/	81712	86615	88620		14		
15	83	7	25	08	19	14.3	10.2	77	7.6	1026.8	6	003	02	2	2	7	5	4	/	/	87618				15		
16	60	8	01	05	12	10.9	8.9	87	8.9	1031.2	3	011	50	6	5	8	5	3	/	/	83708	86612	88620		16		
17	20	8	21	04	10	8.7	7.7	93	6.5	1026.1	7	048	51	5	2	8	7	2	/	/	82703	87705	88708		17		
18	80	7	36	07	15	10.5	5.9	73	5.7	1019.1	2	023	01	2	2	3	8	5	0	1	82825	86075			18	2Sc45 COTRA	
19	80	7	31	05	14	12.1	6.0	67	5.8	1020.9	7	007	02	2	2	1	5	5	4	2	81625	86072			19	1Ac68 Ci flo iridescence on Sc	
20	86	7	28	11	21	12.4	4.7	69	5.3	1017.2	5	012	02	2	2	1	1	6	4	7	81830	86271	86075		20	1Ac68 COTRA Cu fra/hum	
21	59	8	28	08	20	8.6	0.4	56	3.9	1015.9	8	003	80	8	2	7	8	6	/	7	82830	87650	88275		21		
22	83	6	34	08	20	5.6	-5.3	46	2.6	1017.1	8	005	02	1	1	4	8	6	7	1	81840	83645	85078		22	2Sc56 1Ac58 COTRA	
23	81	1	28	12	24	8.3	1.8	63	4.4	992.5	6	025	01	8	1	1	8	5	3	3	81825				23	1Sc45 1Ac62 1Ci70 Cu hum Cb top N	
24	80	7	02	15	30	7.2	-1.2	55	3.5	1004.9	2	047	15	1	1	2	8	6	7	2	82835	86070			24	1Sc45 1Ac60 1Ac65	
25	75	2	35	07	18	6.0	0.3	66	3.8	1024.0	3	015	02	0	0	2	8	5	0	0	81825				25	2Sc30 Cu hum	
26	65	7	24	04	07	9.1	6.4	83	5.9	1025.6	7	016	01	2	2	7	5	4	/	/	87614				26		
27	62	7	21	10	23	10.8	6.8	76	6.1	1009.1	7	033	80	8	2	7	8	5	/	1	81815	84820	85640		27	/Ci80 COTRA Cu med vv30k NW	
28	68	7	03	03	05	5.6	3.2	84	4.8	996.9	7	021	02	6	2	1	8	4	7	/	81810	83358	86363		28	1Sc56 7As66 Cu med	
29	60	8	04	07	13	4.4	2.9	90	4.8	993.5	6	003	05	2	2	8	5	3	/	/	87608	88625			29		
30	60	8	01	09	18	4.3	2.7	89	4.7	994.6	3	006	61	6	6	7	7	3	2	/	83708	87712	88525		30		

Mean vis = 20.5 km

Mean cloud = 6.6 83%

Mean wind speed = 7.8 kn

Mean gust = 17 kn

Mean TT = 9.6 °C

Mean TdTd = 5.4 °C

Mean RH = 76.6 %

Mean r = 5.8 g/kg

Mean PPP = 1013.2 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.

November 2008	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	5.13	8.7	2341	-1.1	107	89.9	96.4	315	76.9	1148	3.57	5.01	6.6	2341	3.4	107	1006.59	1010.0	40	1003.7	1534	14.4
2	8.79	10.0	1414	7.7	2025	92.9	95.0	1939	89.3	1337	7.70	6.52	6.9	1458	6.1	2025	1013.01	1016.5	1940	1005.5	1	0.1
3	9.31	10.9	1326	6.9	500	90.0	95.1	2359	81.1	1053	7.75	6.53	7.1	2359	5.8	500	1015.30	1016.3	2355	1014.4	1513	1.1
4	10.10	11.2	1451	8.5	710	91.1	96.3	800	83.4	2350	8.70	6.94	7.3	1418	6.4	2359	1018.77	1020.2	2046	1016.1	7	0.3
5	10.09	11.4	1114	8.8	2336	87.4	94.0	2247	80.0	117	8.09	6.66	7.2	1439	6.1	253	1018.20	1019.8	13	1016.9	2341	0.2
6	9.25	10.9	1431	7.2	1858	91.1	94.9	311	81.7	1506	7.88	6.60	7.0	1234	5.8	1858	1013.12	1017.1	4	1008.7	2356	0.0
7	9.39	13.5	1317	6.2	2346	80.9	92.0	2357	53.2	1318	6.15	5.91	7.2	611	4.9	1233	1008.02	1011.0	2334	1004.3	539	0.8
8	10.90	13.8	1250	6.1	100	84.4	93.6	107	69.8	2250	8.35	6.88	7.8	2219	5.4	7	1007.27	1011.0	45	1000.7	2201	4.9
9	9.53	12.9	2217	5.6	535	72.5	86.6	1806	60.8	1256	4.80	5.42	6.8	2225	4.1	642	1007.23	1011.5	1024	1001.8	2215	3.3
10	9.30	12.6	1150	7.5	923	82.8	94.1	1621	65.8	614	6.46	6.11	8.2	1147	4.6	425	1003.26	1007.7	605	1000.1	1619	15.5
11	8.32	11.3	1330	6.1	2359	72.9	86.7	1	49.6	1327	3.62	4.95	6.0	2	4.0	1322	1006.94	1012.4	2354	1000.5	12	0.2
12	7.04	11.1	1329	3.1	711	79.9	91.7	658	62.2	1333	3.70	4.92	5.5	1231	4.3	711	1017.88	1023.6	2359	1012.3	0	0.1
13	8.01	11.6	2331	2.9	533	89.9	93.4	2041	84.6	104	6.47	6.02	7.6	2124	4.2	532	1023.25	1024.3	902	1021.9	1626	1.9
14	11.76	13.5	1339	10.2	1913	83.5	91.2	214	76.4	1014	9.04	7.06	7.7	1338	6.4	1912	1024.85	1026.4	2310	1022.8	0	0.0
15	12.46	14.4	1451	11.0	303	81.0	84.6	628	75.6	1323	9.29	7.16	7.7	1431	6.6	518	1027.22	1029.1	2158	1025.8	250	0.0
16	10.17	13.8	1308	3.3	2253	86.6	95.7	2357	71.8	1123	7.98	6.57	7.6	1332	4.4	2254	1031.26	1036.0	2347	1028.2	129	1.2
17	5.94	9.9	2250	-0.1	436	93.3	97.0	517	87.2	1054	4.93	5.42	7.0	2347	3.6	436	1028.06	1036.0	45	1013.8	2353	1.0
18	8.94	12.2	1251	4.1	2246	85.1	94.3	2252	64.2	1248	6.51	6.02	7.2	528	4.6	2113	1017.41	1023.6	2133	1011.7	419	0.1
19	9.14	13.4	1300	6.0	0	76.9	90.8	3	54.7	1058	5.15	5.43	6.2	1832	4.8	1109	1021.25	1023.3	8	1019.1	2358	0.1
20	10.84	13.9	1009	7.0	0	71.5	87.8	617	57.2	1404	5.79	5.72	6.9	913	4.8	1927	1017.87	1019.4	6	1015.6	2357	0.0
21	8.22	11.7	321	3.1	2321	69.5	89.5	415	38.7	1325	2.81	4.75	7.1	345	2.8	1325	1015.68	1019.0	2156	1011.8	335	1.0
22	3.99	7.1	1249	-2.5	2337	61.0	79.3	2339	41.0	1525	-3.11	3.06	4.3	643	2.2	1542	1017.73	1018.8	2043	1016.5	515	0.0
23	3.19	9.0	1343	-3.4	118	78.5	93.9	1059	62.3	1454	-0.24	3.89	5.9	1226	2.4	6	999.85	1017.9	5	989.2	2350	5.5
24	4.15	7.8	1316	0.8	600	74.2	90.9	610	52.0	1318	-0.15	3.81	4.6	903	3.2	1646	1000.72	1014.9	2359	989.2	327	0.1
25	3.17	6.8	1409	-1.8	2348	74.5	92.0	2353	62.3	1335	-0.97	3.50	3.9	1409	2.9	2340	1022.35	1028.9	2359	1014.8	16	0.0
26	5.91	9.4	1728	-2.1	203	85.8	93.1	213	80.4	444	3.70	4.99	6.1	2334	2.9	203	1026.49	1029.1	106	1022.4	2359	0.1
27	8.99	12.0	1146	6.2	608	85.3	93.7	708	70.4	1246	6.62	6.06	6.8	2128	5.5	609	1012.65	1022.6	4	1004.8	2359	0.9
28	4.73	7.1	52	-0.2	2129	90.7	96.3	2350	79.7	1324	3.32	4.90	5.8	52	3.6	2130	999.17	1004.9	7	995.9	2358	0.6
29	2.60	5.0	1409	0.2	143	93.7	96.9	218	89.1	2345	1.68	4.37	5.0	1321	3.8	143	994.48	996.0	0	993.4	1353	0.3
30	3.94	4.7	1154	3.1	111	89.5	92.6	220	84.8	2357	2.37	4.57	4.9	1137	4.2	2343	995.27	999.9	2359	993.1	407	3.6

Total																						57.3
Mean	7.78	10.72		4.01		82.88	92.31		69.54		4.93	5.52	6.53		4.46		1013.70	1018.24		1009.17		
Max	12.46	14.44		10.98		93.70	97.00		89.30		9.29	7.16	8.22		6.60		1031.26	1036.02		1028.18		
Min	2.60	4.67		-3.40		60.98	79.30		38.72		-3.11	3.06	3.89		2.22		994.48	995.97		989.18		

Wokingham Automatic Weather Station

AWS samples taken every 0.5 seconds

x and n refer to maximum and minimum respectively

Readings taken at Wokingham Climatological Station, Emmbrook, Berkshire

Lat 51.425 N, Long 0.853 W, NGR (SU) 798701

Altitude 45 m ASL.

Tmn = 00 to 24 GMT mean air temperature at 1.2 m, deg C

RHmn = 00-24 GMT mean relative humidity at 1.2 m, percent

TDmn = 00-24 GMT mean dew point at 1.2 m, deg C

rmn = 00-24 GMT mean humidity mixing ratio, g/kg

pmn = 00-24 GMT mean air pressure reduced to mean sea level, mbar

Rtot = 00-24 GMT rainfall total from AWS tipping bucket raingauge, mm

Time = hours and minutes in GMT of extreme values

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 2008

Temperature (°C)

Rank in the past 127 years

Mean maximum	14.7	(0.0)	56 th highest
Mean minimum	6.5	(-0.2)	44 th highest
Daily mean	10.6	(-0.1)	48 th highest
Rainfall total (mm)	175.6	(92 %)	53 rd lowest
Sunshine total (hours)	322.5	(106 %)	
N° of: Dry days	46	(-5)	Wet days 31 (+2)
Days with: Air frost	8 (0)	Ground frost 26 (0)	Snow falling 3 (+2) Snow lying 1 (+1)
Thunder 3 (0)	Hail ≥5mm 0	Small hail/ice 2	Fog @09 GMT 2 (-3) Nil sun 17
Air pressure MSL : Mean @09 GMT (mbar)	1015.7	(+0.1)	

Departure from 1971 to 2000 average shown in brackets.

Notes: **Temperature Rainfall and Sunshine Near Normal**

Temperature : The mean temperature this autumn is equal lowest with 1996 since 1993, and the mean maximum is similar in this respect. However, the mean minimum is lowest only since 2003. Compared with the data since 1882, both the overall mean and the mean max are 0.2° above the median, while the mean min is 0.5° above its median. The highest maximum, 22.1° on the 12th October, is lowest since 1994 and is 2.4° below the median, but compared with recent years it is 2.9° below the average for the past 33 years. The lowest maximum, 4.7° on the 30th November, is close to the median. The highest minimum, 14.3° on the 11th September, is 0.9° below the median and is lowest since 1992. The lowest minimum, -3.3° on the 23rd November, is 0.6° above the median. The mean grass minimum is 0.3° above average, while the lowest grass min, -8.6° on the 23rd November, is 0.5° below average. The mean earth temperature at 30 cm depth was 12.8°, and at 1 m depth, 14.1°, both slightly below average. There were 31.2 hours with air frost, 20.8 fewer than average. The first ground frost of the season was on the 28th September after a ground frost free period of 129 days, while the first air frost was on the 25th October after a frost free period of 192 days. **Rainfall :** Rainfall this autumn is 8 % below average. Only November with 111 % had more than average, whilst October only managed 76 %. Despite this, the number of dry days is 5 fewer than average. The season's wettest day was the 5th September, 26.2 mm, but the longest duration in a 24 hour period was 10.4 hours on the 4th October. The highest rainfall rate was 95 mm/hr on the 5th September. Snow fell on the 28th and 29th October, and the 23rd November. This was the first case of snow in October since 1941. An autumn day with snow lying was recorded on the 29th October, the first such since 1995, and the first example in October since before 1912. Thunder occurred on the 2nd, 5th and 12th of September, but there was none after that. Small hail fell on the 28th October and 23rd November. There were just two dry spells, one of 10 days ending on the 22nd September and the other of 6 days ending on the 13th October. **Sunshine :** Despite the total sunshine this autumn being a little above average, it is the dullest such season since 2001. October was the only sunny month, with 140 % of average, while November was particularly dull with only 77 % of average. The sunniest day was the 26th September with 11.2 hours. There were 17 days with nil sun, 2 more than average and equal highest with 2003 since 1994. Overall there were 50 days with <3 hours, 30 with =>6 hours and 10 with =>9 hours. **Wind :** The overall mean wind speed of 6.4 mph is 0.3 mph above average and highest since 2000. The 9 November was the windiest day, mean 13.7 mph, and the highest gust of 44 mph was also on that day. The least windy day was the 27th September, mean 1.6 mph, and there were 3628 minutes (60.5 hours) with a mean speed of 0.5 mph or less. Daily mean direction/number of days : N,8 NE,12 E,4 SE,2 S,9 SW,34 W,16 NW,6. **Humidity :** The overall mean relative humidity was 81.1 %. The lowest value recorded was 35 % on the 1st October. The mean water vapour content per kg of air was 6.7 g at 0900 GMT and 6.4 g at 1500 GMT. **Pressure :** The highest pressure this autumn was 1037.1 mbar on the 26th September, while the lowest was 985.4 mbar on the 5th September.

September : Dull, with temperature and rainfall near normal. Coolest Sep since 1996. Highest max 3rd lowest in 105 years. Wettest Sep day since 1995 on 5th. Dullest since 2001.

October : Temperature and rainfall below normal, and very sunny. Snow for the first time since 1941. Snow lying for the first time since before 1912. The lowest maximum is lowest since 1981. The highest min is lowest since 1994. Most days with ground frost since 1992.

November : Mild and dull with rainfall above normal. Highest max lowest since 1987. Dullest since 1994. Number of days with nil sun equal highest with 2004 since 1994.

Month	Mean Max	Anom	Mean Min	Anom	Rain mm	Anom %	Sun hrs	Anom %	Wind Mn mph	Max gust	Mean pressure	Anom
Sep	18.5	-0.4	9.2	-0.5	56.9	91 %	119.7	91 %	5.5	35	1017.9	+1.4
Oct	15.0	+0.2	5.5	-1.2	51.0	76 %	147.2	140 %	6.6	39	1015.2	0.0
Nov	10.8	+0.3	4.8	+1.1	67.7	111 %	55.6	77 %	7.3	44	1014.1	-1.1

B J Burton FRMetS.

Hon. Met. Officer to Wokingham Town Council.