

# 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

## JANUARY 2009

Temperature (°C / °F)			Anomaly	Rank in past 128 years			
Mean maximum	6.8	44.2	-0.7	50 <sup>th</sup> lowest			
Mean minimum	-0.6	30.9	-2.1	24 <sup>th</sup> lowest			
Daily mean	3.1	37.6	-1.4	35 <sup>th</sup> lowest			
Highest maximum	10.5	50.9	on 22 <sup>nd</sup>	Lowest maximum	0.3	32.5	on 9 <sup>th</sup>
Highest minimum	7.0	44.6	on 13 <sup>th</sup>	Lowest minimum	-8.6	16.5	on 7 <sup>th</sup>
Mean grass minimum	-2.9	26.8	-1.8	Lowest grass minimum	-13.1	8.4	on 7 <sup>th</sup>
Mean earth @30 cm	4.1	39.4	-1.1	Earth @100 cm	6.6	43.9	-0.9
Frost duration (hrs)	184.3			Rain duration (hrs)	58.4		
Rainfall total (mm / in)	59.6	2.35	98 %	58 <sup>th</sup> highest			
Highest daily fall	13.5	0.53	on 22 <sup>nd</sup>				
Number of: Dry days (<0.2mm)	16	Wet days (>0.9mm)	11	days ≥5mm	4		
Sunshine total (hrs) 74.0	Daily mean	2.39	126 %	Sunniest day	7.5	on 6 <sup>th</sup>	
N <sup>o</sup> days with: Air frost 18	Ground frost	20	Snow falling	3	Snow lying	1	
Thunder 0	Hail ≥5mm	0	Small hail/ice	1	Fog @09	4	Nil sun 7
Air pressure MSL : Mean @09 GMT (mbar/in)	1011.1		-4.9	29.86			
Absolute highest	1032.0			30.47		on 2 <sup>nd</sup>	
Absolute lowest	967.6			28.57		on 23 <sup>rd</sup>	

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

Notes:

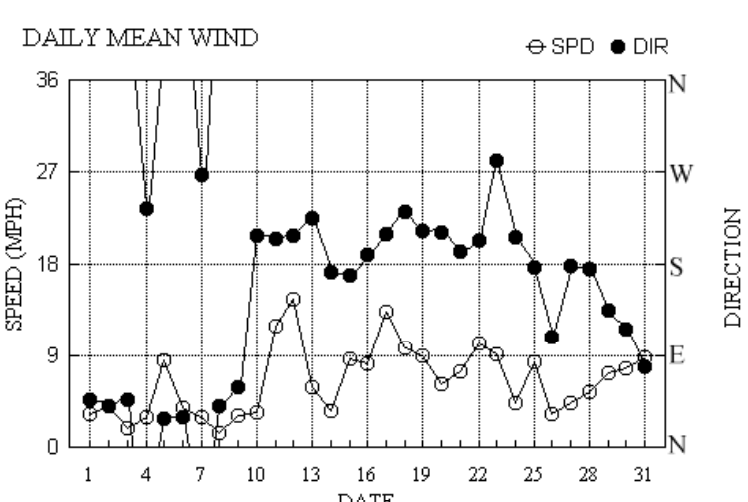
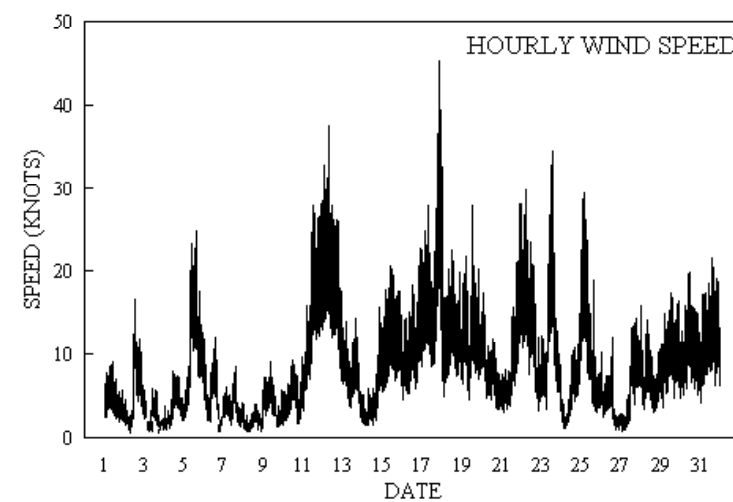
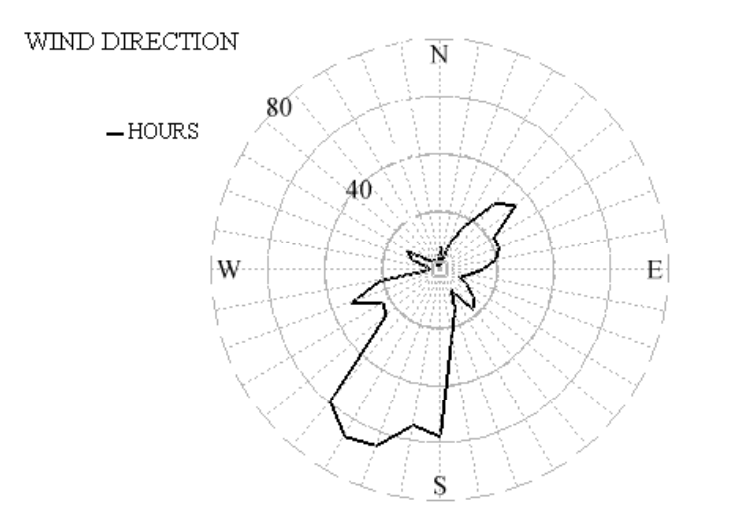
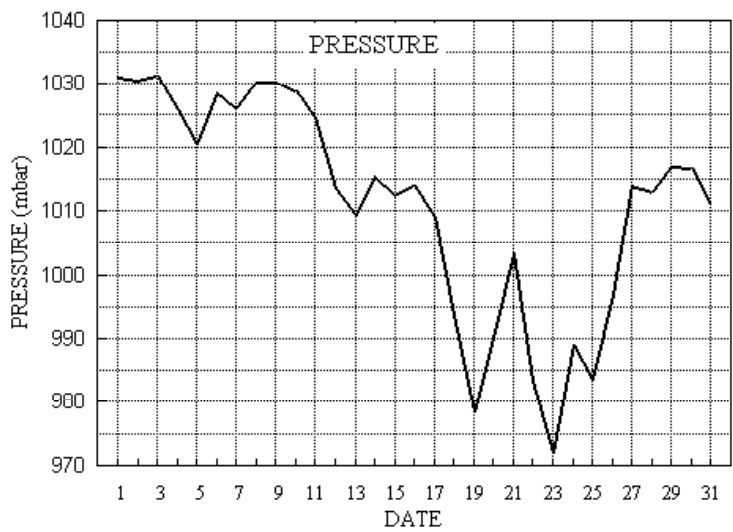
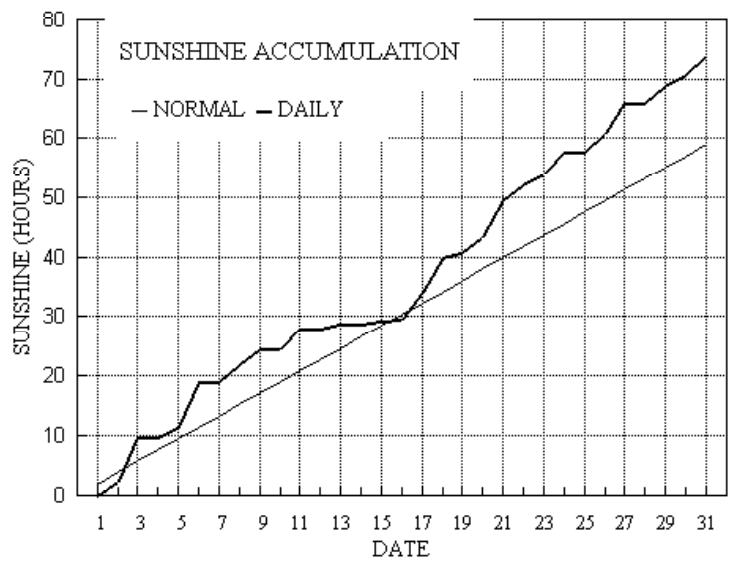
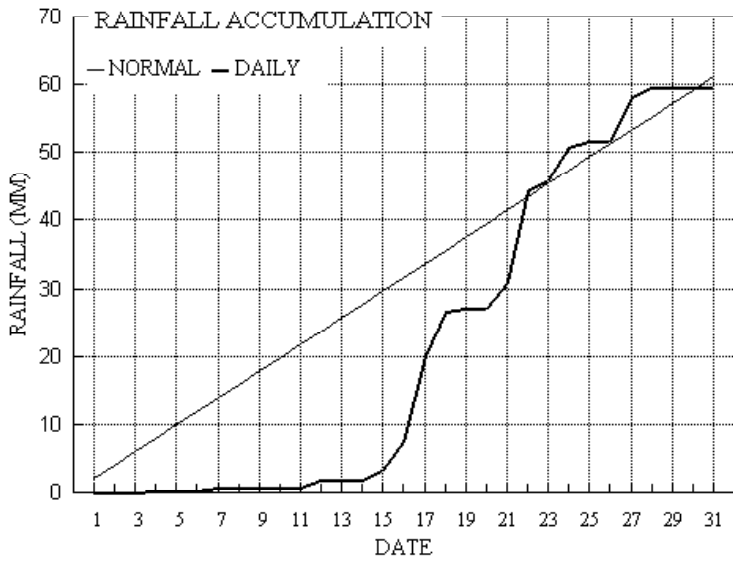
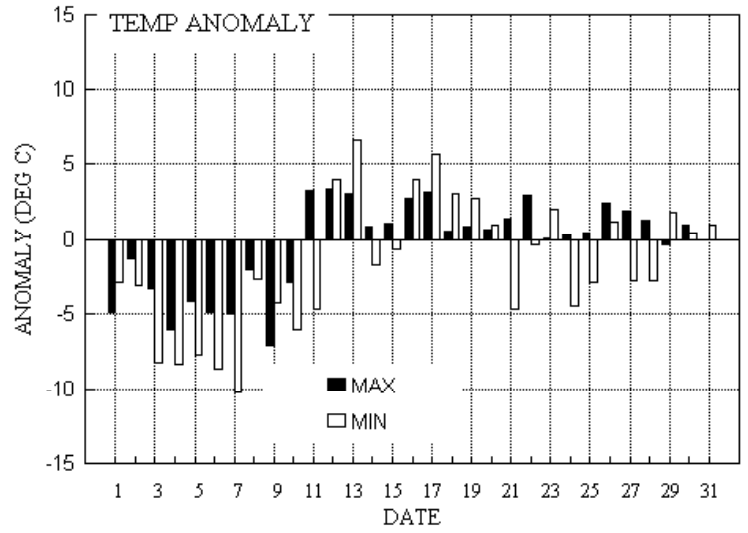
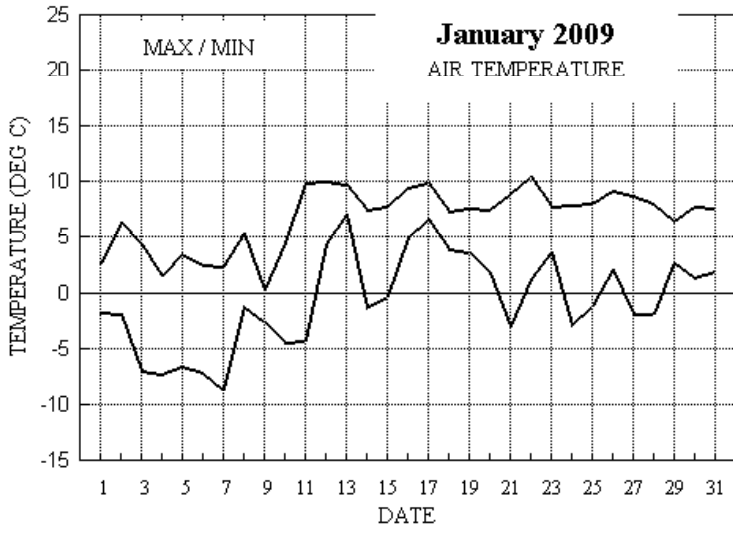
**Coldest January for 12 years. Rainfall Near Normal. Very Sunny.**

**Temperature:** This is the coldest January since 1997 and before that 1987. The mean minimum temperature is 2.0° below the long-term median, and is 24<sup>th</sup> lowest since 1882. The highest max is 1.8° below the median, ranks 8<sup>th</sup> lowest since 1904 and is lowest since 1979. The lowest max is 0.5° below the median and is lowest since 1997, as is the lowest min, 2.7° below the median, and the highest min, 1.1° below its median. Also, the lowest grass min is lowest since 1997, as are the mean earth temperatures at 30 cm and 1 m depth. The duration of air frost is 90.7 hours more than average, and is most since 1997. The number of days with air frost is 7 more than average and also most since 1997, but there were only 2 more days with ground frost than average, and most only since 2001. **Rainfall:** The total fall this month is very close to average. However, the first half of the month was essentially dry with only 1.9 mm up to the 14<sup>th</sup>, with the majority of the month's rain falling between the 16<sup>th</sup> and 22<sup>nd</sup>. Snow fell on 3 days, the 5<sup>th</sup>, 7<sup>th</sup> and 10<sup>th</sup>, and >50% snow cover was recorded on the 5<sup>th</sup> though with <1 cm depth. Freezing fog occurred on the 9<sup>th</sup>, 10<sup>th</sup>, 14<sup>th</sup> and 27<sup>th</sup>. The highest rainfall rate this month was 60 mm/hr at 2219 GMT on the 17<sup>th</sup>, and small hail also fell near that time. **Sunshine:** Quite a sunny January, which is on average the second dullest month of the year. Compared with recent years it is sunniest since 2003. However, only 4 days had >66 % of the maximum possible, while 20 had <33 %. Overall there were 20 days with <3 hours and 3 with =>6 hours. **Wind:** The mean wind speed for the month was 6.6 mph, compared with an average of 8.3 mph. The 12<sup>th</sup> was the windiest day, mean speed 14.5 mph, but the month's highest gust of 52 mph was on the 17<sup>th</sup>. The least windy day was the 8<sup>th</sup>, mean 1.5 mph, and there were 894 minutes (14.9 hours) with a mean speed of 0.5 mph or less. Daily mean direction/number of days: N,0 NE,7 E,2 SE,2 S,7 SW,11 W,2 NW,0. **Humidity:** The overall mean relative humidity was 83.8% and the lowest value recorded was 42 % on the 6<sup>th</sup>. The mean water vapour content per kg of air was 4.0 g at 0900 GMT and 4.1 g at 1500 GMT. **Pressure:** Air pressure reduced to msl fell to 967.6 mbar on the 23<sup>rd</sup>, the lowest value for January since before 1976. **Commentary: From the 1<sup>st</sup> to the 10<sup>th</sup> :** This period was dominated by a spell of cold weather, with anomalies for daily max of -6° on the 4<sup>th</sup> and -7° on the 9<sup>th</sup>, while for daily min anomalies of -8° occurred on the 3<sup>rd</sup> and 4<sup>th</sup> and one of -10° on the 7<sup>th</sup>. There was very little precipitation, and what did occur fell mostly as snow, enough to give a thin covering on the 5th. The 3<sup>rd</sup> and 6<sup>th</sup> were both sunny days with over 90 % of the maximum, but the 1<sup>st</sup>, 4<sup>th</sup> and 10<sup>th</sup> were sunless. Winds were generally NE'ly, light or moderate in the main, but fresh on the 5<sup>th</sup>. **From the 11<sup>th</sup> to the 24<sup>th</sup> :** Temperatures were generally near of a little above normal in this period. It became wet after the 15<sup>th</sup>, with falls of over 10 mm on the 17<sup>th</sup> and 22<sup>nd</sup>. Sunshine was very poor until the 16<sup>th</sup>, then became near or above normal. Winds were generally S or SW, fresh or strong on 11<sup>th</sup> and 12<sup>th</sup>, dropping light until the 14<sup>th</sup>, increasing strong again by the 17<sup>th</sup>, then remaining moderate or fresh until the 24<sup>th</sup>. **From the 25<sup>th</sup> to the 31<sup>st</sup> :** Temperatures remained generally close to normal. Rainfall was about average, though the final 3 days were dry. Although the 25<sup>th</sup> and 28<sup>th</sup> were dull, overall sunshine for this period was above normal. A fresh S'ly wind on the 25<sup>th</sup> dropped light on the 26<sup>th</sup>, and became moderate E'ly by the 31<sup>st</sup>.

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

1 <sup>st</sup> to the 10 <sup>th</sup>				11 <sup>th</sup> to the 20 <sup>th</sup>				21 <sup>st</sup> to the 31 <sup>st</sup>			
-4.2°	-6.2°	5 %	132%	+1.9°	+2.0°	137%	100%	+1.0°	-1.1°	152%	147%

# Wokingham Climatological Graphs for January 2009



Daily meteorological data.

Emmbrook, WOKINGHAM, Berkshire.

Month: January 2009

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	2.7	-1.7	0.0	-0.6	4.2	7.9	0.0	6.3	1031.1	1 1 0 0	0 0 0 0	0 0 0 0	47 2.7 2.8	59 9 0936	66 4 09	0.0	
2	6.3	-1.9	0.0	-6.2	4.4	7.7	2.2	6.7	1030.5	1 1 0 0	0 0 0 0	0 0 0 0	40 3.3 3.5	32 17 1301	44 8 13	0.0	
3	4.3	-7.0	0.0	-11.5	4.2	7.5	7.4	18.9	1031.3	1 1 0 0	0 0 0 0	0 0 0 0	47 1.0 1.6	65 6 1056	52 3 00	0.0	
4	1.6	-7.2	0.3	-11.3	3.4	7.4	0.0	17.7	1025.8	1 1 0 0	0 0 0 0	0 0 0 0	234 2.3 2.5	257 8 1130	242 4 16	x	
5	3.5	-6.5	tr	-8.2	3.0	7.2	1.8	12.5	1020.3	1 1 1 1	0 0 0 0	0 0 0 0	28 6.5 7.4	54 25 1411	32 13 09	x	
6	2.5	-7.1	tr	-12.1	2.9	7.0	7.5	19.9	1028.6	1 1 0 0	0 0 0 0	0 0 0 0	30 2.7 3.3	36 12 1351	30 7 00	x	
7	2.4	-8.6	0.3	-13.1	2.6	6.7	0.1	9.9	1026.1	1 1 1 0	0 0 0 0	0 0 0 0	268 2.0 2.5	296 9 1403	300 5 14	0.5	
8	5.4	-1.1	tr	-0.7	2.4	6.5	3.0	5.0	1030.2	1 1 0 0	0 0 0 0	0 0 0 0	40 0.8 1.3	56 6 2354	29 2 14	0.0	
9	0.3	-2.6	tr	-8.3	2.4	6.3	2.6	24.0	1030.3	1 1 0 0	0 0 0 1	0 0 0 1	58 2.2 2.7	72 9 0927	72 4 08	0.0	
10	4.5	-4.4	tr	-9.5	2.4	6.2	0.0	24.0	1028.7	1 1 1 0	0 0 0 1	0 0 0 1	208 2.1 3.0	173 10 2259	227 5 11	0.0	
11	9.9	-4.3	0.1	-8.8	2.4	6.0	3.5	2.7	1024.7	1 1 0 0	0 0 0 0	0 0 0 0	204 10.2 10.3	205 29 2344	209 14 22	0.2	
12	10.0	4.4	1.2	6.4	2.9	5.9	0.0	0.0	1013.4	0 0 0 0	0 0 0 0	0 0 0 0	208 12.5 12.6	214 38 0619	213 16 06	2.9	
13	9.7	7.0	tr	4.9	4.0	5.9	0.6	0.2	1009.3	0 0 0 0	0 0 0 0	0 0 0 0	225 4.9 5.1	267 15 1507	216 7 00	0.0	
14	7.5	-1.3	tr	-6.3	4.2	6.0	0.0	8.9	1015.4	1 1 0 0	0 0 0 1	0 0 0 1	172 2.6 3.1	166 16 2048	160 7 20	0.0	
15	7.7	-0.3	1.2	-1.6	4.2	6.1	0.6	0.0	1012.4	1 1 0 0	0 0 0 0	0 0 0 0	168 7.4 7.5	163 21 1022	170 9 10	1.7	
16	9.5	4.9	4.2	3.5	4.6	6.2	0.3	0.0	1014.0	0 0 0 0	0 0 0 0	0 0 0 0	189 7.1 7.2	193 23 2133	198 10 21	3.0	
17	9.9	6.6	12.6	4.1	5.2	6.3	4.6	0.0	1008.9	0 0 0 0	0 0 1 0	0 0 1 0	209 11.1 11.6	206 45 2104	194 19 21	3.6	
18	7.3	3.9	6.8	0.6	5.5	6.4	5.7	0.0	993.8	0 0 0 0	0 0 0 0	0 0 0 0	231 8.1 8.5	244 33 0016	255 11 12	5.1	
19	7.6	3.6	0.4	1.5	5.2	6.5	0.9	0.0	978.3	0 0 0 0	0 0 0 0	0 0 0 0	212 6.0 7.8	241 28 1312	235 10 13	0.2	
20	7.4	1.8	tr	-0.9	5.0	6.6	2.7	0.4	990.0	0 1 0 0	0 0 0 0	0 0 0 0	211 5.2 5.4	237 18 0130	237 9 02	0.0	
21	8.9	-3.0	3.7	-8.1	4.5	6.6	6.0	4.3	1003.4	1 1 0 0	0 0 0 0	0 0 0 0	192 6.2 6.4	187 28 2314	177 12 23	10.2	
22	10.5	1.3	13.5	4.3	4.4	6.6	2.7	0.0	983.2	0 0 0 0	0 0 0 0	0 0 0 0	203 7.2 8.8	181 30 0513	189 13 05	11.7	
23	7.7	3.7	1.6	2.4	5.0	6.5	1.9	0.1	972.0	0 0 0 0	0 0 0 0	0 0 0 0	282 5.5 8.0	284 35 1407	288 14 12	1.3	
24	7.9	-2.8	4.9	-7.4	4.7	6.5	3.7	9.6	989.1	1 1 0 0	0 0 0 0	0 0 0 0	206 3.3 3.7	182 20 2338	185 9 23	5.5	
25	8.0	-1.2	0.9	-0.6	4.4	6.5	0.0	0.0	983.6	1 1 0 0	0 0 0 0	0 0 0 0	176 7.1 7.3	174 30 0447	175 14 02	1.8	
26	9.2	2.1	tr	-2.7	4.8	6.5	3.2	2.7	997.0	0 1 0 0	0 0 0 0	0 0 0 0	108 1.8 2.8	62 12 1319	165 5 00	0.0	
27	8.7	-1.8	6.4	-6.0	4.6	6.5	4.8	10.3	1013.9	1 1 0 0	0 0 0 1	0 0 0 1	178 2.7 3.7	150 16 2351	198 7 12	5.5	
28	8.0	-1.8	1.5	3.7	4.7	6.4	0.0	0.0	1013.1	1 0 0 0	0 0 0 0	0 0 0 0	175 4.6 4.7	168 14 0837	172 7 08	5.2	
29	6.5	2.8	0.0	2.4	5.2	6.4	2.9	0.0	1017.0	0 0 0 0	0 0 0 0	0 0 0 0	135 6.2 6.3	117 18 1329	139 8 11	0.0	
30	7.7	1.4	0.0	-1.0	5.0	6.5	1.9	0.0	1016.6	0 1 0 0	0 0 0 0	0 0 0 0	116 6.5 6.7	155 20 1152	130 9 09	0.0	
31	7.6	1.9	0.0	0.6	4.8	6.5	3.4	0.2	1011.0	0 0 0 0	0 0 0 0	0 0 0 0	79 7.6 7.6	67 22 1454	69 9 15	0.0	
Total			59.6				74.0	184.3									58.4
Mean	6.8	-0.6		-2.9	4.1	6.6	2.39	5.9	1011.1					189	2.9	5.7	
Anom	-0.7	-2.1	98%		-1.1	-0.9	126%										-4.9

Daily mean 3.1 Pressure, abs highest = 1032.0 on 2

Anom -1.4 Pressure, abs lowest = 967.6 on 23

Number of days with:

Air frost = 18      Ground frost = 20      Nil sun = 7  
 Snow falling = 3      Snow lying = 1      Thunder = 0  
 Hail=>5mm = 0      Hail<5mm or ice = 1      Fog at 09GMT = 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 January 2009

Date	VV	N	dd	ff	gg	TT	Td	Td	RH	r	PPP	a	ppp	ww	W1	W2	Nh	Cl	h	Cr	Ch	shs	NChs	h	NChs	Date	Remarks
1	56	8	05	03	08	0.5	-2.2	82	3.2	1031.1	3	004	05	2	2	8	5	4	/	/	86612	86614			1	Hoar slt. Gnd part frzn.	
2	40	8	34	01	03	0.8	-0.6	90	3.6	1030.5	2	009	05	2	2	8	6	2	/	/	88705				2		
3	78	0	06	01	03	-5.7	-7.0	91	2.2	1031.3	3	006	02	0	0	0	0	9	0	0					3	Hoar mod. Gnd frzn	
4	59	7	19	01	03	-6.3	-7.5	91	2.1	1025.8	6	005	05	2	2	1	5	6	0	7	81635	85272	87077		4	COTRA Hoar thk Gnd frzn	
5	80	7	02	09	20	1.5	-0.7	85	3.6	1020.3	2	018	03	7	2	7	5	4	/	/	83710	87615			5	VV 60k NW. Sn ly 80% 0.5cm. Gnd frzn	
6	75	1	36	02	05	-6.1	-7.6	89	2.1	1028.6	3	006	02	0	0	0	0	9	0	1	81078				6	COTRA Hoar mod Sn ly 30%<0.5cm Gnd frzn	
7	61	8	26	01	03	-1.1	-3.8	81	2.8	1026.1	2	013	02	7	2	8	5	4	/	/	88612				7	Hoar slt. Gnd frzn. Sn ly 20%<0.5cm	
8	18	7	32	01	02	1.4	0.6	95	3.9	1030.2	2	009	10	2	2	7	5	2	/	/	82705	83615	87630		8	Gnd frzn	
9	09	8	09	04	08	-2.2	-2.7	96	3.0	1030.3	2	014	41	4	2	8	6	1	/	/	88702				9	Rime slt. Gnd frzn	
10	06	8	22	04	06	-4.4	-5.0	95	2.6	1028.7	1	017	77	7	4	8	6	1	/	/	88702				10	Rime slt. Gnd frzn. Snly tr	
11	61	7	20	07	16	4.4	1.0	78	4.0	1024.7	0	004	02	2	2	1	0	9	4	1	81365	87073			11	COTRA Hoar thk Gnd frzn	
12	59	8	21	13	27	8.4	5.6	83	5.6	1013.4	7	001	50	6	5	8	5	4	/	/	82612	88615			12		
13	61	7	21	05	09	8.0	6.2	88	5.9	1009.3	3	007	02	2	2	6	5	3	3	2	81708	86612	87072		13	/AC68	
14	02	9	23	02	05	-0.3	-0.8	97	3.6	1015.4	1	110	49	4	4	9	/	/	/	/					14	Rime slt	
15	62	8	17	08	18	6.9	4.1	82	5.1	1012.4	2	009	02	2	2	8	5	3	/	/	85709	88612			15		
16	22	8	19	05	11	6.6	5.6	93	5.6	1014.0	3	010	20	5	2	8	6	2	/	/	83703	88705			16		
17	75	3	24	12	22	6.7	3.1	78	4.7	1008.9	3	029	21	6	1	2	9	4	7	3	81918	81820			17	1SC35 1Ac61 1As65 1Ci68 jpSW vv60k ex SW	
18	88	6	25	07	20	4.4	0.9	78	4.1	993.8	3	020	01	8	2	1	8	5	7	3	81820	86072			18	1Sc35 1Ac65 2As65 1Ci70 CbW	
19	84	8	27	06	10	3.8	2.6	92	4.7	978.3	5	020	21	6	2	8	5	3	/	/	82708	84612	88615		19		
20	75	7	19	04	09	3.2	0.8	84	4.1	990.0	3	019	02	2	2	1	0	9	7	2	81360	87070			20	1Ac65 Hoar slt	
21	60	1	22	04	08	1.3	0.1	92	3.8	1003.4	1	031	05	1	1	1	5	4	3	0	81615				21	1Ac58 Hoar mod Gnd sfc frzn	
22	33	8	19	09	19	8.8	7.5	92	6.7	983.2	6	016	51	6	5	8	7	3	/	/	87707	88710			22		
23	59	8	30	10	21	3.7	2.1	90	4.6	972.0	3	044	63	6	6	7	7	3	2	/	82706	87708	88515		23		
24	63	7	20	02	04	-1.2	-1.9	95	3.4	989.1	2	035	02	2	2	6	0	9	7	1	83363	85366	87075		24	COTRA Hoar mod Gnd frzn	
25	61	8	19	07	17	7.1	5.4	89	5.7	983.6	3	010	61	6	6	7	5	4	2	/	81712	87620	88530		25		
26	57	2	07	03	06	4.2	3.4	95	4.9	997.0	2	030	10	1	1	2	5	4	0	0	81615				26	2Sc22	
27	03	0	02	02	05	-1.8	-2.2	97	3.2	1013.9	1	012	48	4	4	0	0	9	0	0					27	Rime slt	
28	60	8	17	07	14	6.6	5.6	93	5.6	1013.1	2	005	21	6	2	8	5	2	/	/	82705	83708	86712		28	8Sc30	
29	60	7	11	06	14	2.8	0.1	82	3.8	1017.0	0	002	05	2	2	7	5	4	/	/	81710	87615			29		
30	45	7	12	09	15	3.4	0.6	82	3.9	1016.6	0	003	05	2	2	1	6	3	7	1	81708	83368	87075		30	1Ac66 COTRA	
31	60	7	08	08	15	2.4	-1.7	74	3.4	1011.0	2	004	05	2	2	7	0	9	7	8	83463	87466			31	2Ac65 /Cs72 COTRA	

Mean vis = 13.5 km

Mean cloud = 6.3 79%

Mean wind speed = 5.3 kn

Mean gust = 11 kn

Mean TT = 2.2 °C

Mean Td = 0.4 °C

Mean RH = 88.0 %

Mean r = 4.0 g/kg

Mean PPP = 1011.1 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

Td = 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 January 2009

Date	VV	N	dd	ff	gg	TT	Td	Td	RH	r	PPP	a	ppp	ww	W1	W2	Nh	Cl	h	Cr	Ch	shs	NChs	NChs	NChs	Date	Remarks
1	58	7	01	02	05	2.5	-1.8	73	3.2	1030.3	5	008	05	2	2	7	5	5	/	/	81622	87628				1	
2	80	7	04	05	11	4.4	-2.1	62	3.1	1030.0	7	007	02	1	1	7	8	5	/	/	81825	87650				2	Cu med
3	81	1	05	02	04	2.6	-6.1	53	2.4	1029.1	6	016	02	0	0	1	5	6	0	1	81635					3	1Ci75 Hoar mod in shade Gnd frzn
4	58	8	25	04	07	0.1	-3.3	78	2.9	1022.2	6	018	05	2	2	8	5	6	/	/	88640					4	Hoar mod Gnd frzn.
5	60	6	04	12	26	1.5	-3.8	68	2.8	1023.8	2	012	85	8	1	5	8	5	6	0	82825	84645				5	3Ac58 VV50k ex p Snly 20 %<1cm
6	80	1	03	05	10	0.5	-8.8	50	1.9	1027.0	5	008	02	0	0	0	0	9	0	1	81080					6	COTRA Hoar slt in shade Sn ly in shade, <10%<0.5cm Gnr
7	59	8	30	05	09	2.1	-1.4	77	3.4	1026.6	3	006	05	2	2	8	5	4	/	/	85612	86625	88630			7	Gnd frzn
8	50	3	03	02	03	4.2	1.0	80	4.0	1028.9	6	013	05	1	1	1	8	4	0	1	81815	83080				8	1Sc25 COTRA Cu hum
9	40	1	36	02	04	-1.4	-2.8	90	3.0	1029.2	6	004	05	1	1	1	6	3	0	0	81708					9	Gnd frzn
10	15	8	20	03	08	-1.5	-2.1	95	3.2	1026.2	7	014	10	2	2	8	6	2	/	/	88703					10	Gnd frzn
11	58	8	21	13	28	7.5	3.1	73	4.7	1022.0	5	006	05	2	2	7	5	4	2	/	87618	88460				11	
12	50	8	20	14	25	8.8	7.1	89	6.3	1008.3	6	027	51	6	5	8	5	4	/	/	86708	88612				12	
13	81	5	25	05	10	8.9	4.6	74	5.3	1009.2	5	002	01	2	2	4	8	5	0	1	81820	84635				13	3Ci75 Cu med
14	14	8	15	02	05	3.0	2.5	96	4.5	1014.4	7	011	28	4	2	8	6	1	/	/	88702					14	Fog ceased 1440
15	75	7	17	06	16	7.4	3.1	74	4.7	1012.5	5	002	01	2	2	3	5	5	3	1	83620	87075				15	2Ac62 COTRA
16	59	7	19	06	14	8.3	6.8	90	6.1	1012.8	6	006	05	6	2	6	6	3	0	1	86706	84075				16	1Sc40
17	75	8	21	09	20	9.0	2.8	65	4.7	1008.5	7	017	03	1	1	1	1	5	7	7	81825	83466	88272			17	1Ac63 Cu fra
18	84	1	24	09	18	6.2	-0.3	63	3.8	997.6	2	010	02	0	0	1	1	5	0	2	81828					18	1Ci70 Cu hum
19	86	7	23	09	20	6.2	1.6	72	4.4	978.7	5	003	02	8	2	1	8	5	8	2	81820	86070				19	1SC30 1Ac68 Cu hum
20	84	6	21	06	11	5.9	-0.4	64	3.8	992.0	3	006	02	2	2	1	2	5	6	3	81825	86070				20	1Ac63 Cu med Cb top W
21	77	6	19	08	14	6.8	0.5	64	4.0	1002.3	8	014	03	1	1	1	8	5	3	1	81825	86075				21	1SC35 1Ac68 Cu hum
22	75	6	26	10	21	8.6	1.9	63	4.4	987.2	3	018	02	2	2	2	8	5	3	1	81828	85075				22	2Sc40 1Ac62 Cu med
23	84	5	28	13	35	6.8	-2.0	53	3.4	982.1	2	048	02	1	1	5	8	6	0	1	83835	83645				23	1Ci75 Cu med
24	82	2	24	06	10	6.6	0.5	65	4.0	993.0	3	016	01	1	1	1	1	5	0	1	81825					24	2Ci75 COTRA Cu hum
25	65	8	21	04	19	6.5	4.4	86	5.4	985.2	3	003	60	6	2	7	8	4	2	/	82810	87625	88550			25	Cu fra/med VV 30kNW
26	80	4	06	02	05	7.6	4.0	78	5.1	1001.9	3	023	01	1	1	4	8	4	0	0	81818	83635				26	2Sc45 Cu med
27	63	7	18	06	13	7.7	3.5	75	4.9	1013.5	5	005	03	1	1	5	5	5	3	1	85620	83368				27	/Ci78 COTRA
28	50	8	19	04	08	7.7	6.8	94	6.1	1014.1	3	003	51	5	5	8	7	2	/	/	82705	87706	88708			28	
29	60	5	14	08	15	5.4	-0.7	65	3.6	1015.9	6	019	05	1	1	1	1	5	0	1	81822	85078				29	COTRA Cu fra
30	62	7	11	07	16	7.1	-0.2	60	3.7	1013.6	6	021	02	2	2	7	0	9	7	/	82462	83364	86366			30	
31	60	7	07	10	22	5.1	-0.9	65	3.5	1010.2	5	005	05	2	2	4	0	9	7	8	82365	83467	87272			31	COTRA

Mean vis = 20.8 km

Mean cloud = 5.8 73%

Mean wind speed = 6.4 kn

Mean gust = 14 kn

Mean TT = 5.2 °C

Mean Td = 0.6 °C

Mean RH = 72.7 %

Mean r = 4.1 g/kg

Mean PPP = 1011.2 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

Td = 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.



January 2009	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	1.01	2.7	1429	-0.4	1	80.10	86.4	20	71.8	1322	-2.06	3.20	3.4	2321	3.1	523	1030.59	1031.4	1033	1030.0	2336	0.0
2	1.46	6.1	1308	-2.3	2340	80.90	93.8	733	57.8	1308	-1.57	3.34	4.2	1126	2.4	2351	1030.49	1032.0	2321	1029.4	511	0.0
3	-3.01	3.3	1326	-6.8	724	79.70	91.8	729	50.1	1355	-6.25	2.35	2.9	1043	2.0	827	1030.15	1031.7	1	1028.6	2359	0.1
4	-3.08	0.7	1922	-7.4	613	85.90	93.2	2337	75.9	1415	-5.16	2.59	3.2	1908	1.9	611	1023.88	1028.7	17	1019.1	2358	0.0
5	-0.10	3.2	1249	-3.7	17	80.00	94.0	115	53.7	1409	-3.25	3.00	3.7	753	2.1	2354	1022.59	1027.7	2336	1018.4	510	0.0
6	-3.64	1.7	1326	-8.4	2359	74.00	90.1	2329	42.4	1427	-7.89	2.07	2.6	1122	1.7	1430	1027.57	1028.8	1003	1026.3	0	0.0
7	-1.02	2.3	1249	-8.6	205	85.10	92.8	2210	76.9	1451	-3.22	3.03	3.8	1933	1.7	31	1026.82	1029.6	2356	1024.6	632	0.1
8	1.03	4.6	1355	-2.7	2314	91.80	95.9	2356	77.9	1506	-0.18	3.69	4.3	1320	2.9	2314	1029.59	1030.8	943	1028.6	1542	0.0
9	-1.97	-0.4	1336	-4.3	1739	94.30	96.7	401	88.6	1403	-2.77	3.05	3.3	22	2.5	1739	1029.40	1030.8	1019	1028.7	1641	0.0
10	-3.11	-0.5	2310	-4.8	1020	95.10	95.9	605	93.9	2317	-3.78	2.83	3.4	2310	2.5	1020	1027.36	1029.2	12	1025.4	1639	0.0
11	5.32	9.6	1224	-3.8	224	79.30	96.4	235	57.8	1355	1.87	4.36	5.4	1949	2.7	224	1022.59	1026.3	3	1017.6	2349	0.2
12	8.80	10.0	2128	7.9	644	84.70	91.6	1920	73.7	150	6.35	5.97	6.9	2015	5.1	200	1011.12	1018.1	0	1006.4	1840	1.1
13	6.85	9.6	1238	-0.4	2357	85.70	95.3	2353	68.4	1508	4.57	5.32	6.2	111	3.5	2357	1009.94	1013.2	2339	1008.1	302	0.0
14	1.57	5.9	2355	-1.6	509	95.20	96.9	957	91.2	2328	0.89	4.07	5.3	0	3.2	509	1014.24	1016.1	1111	1012.4	2219	0.2
15	6.46	7.7	1506	5.2	1756	79.70	92.4	0	71.3	1623	3.19	4.79	5.6	131	4.0	1902	1012.57	1013.9	2352	1011.3	554	0.0
16	7.35	9.3	2311	4.8	117	87.50	93.9	815	78.5	0	5.40	5.58	6.2	1508	4.3	0	1012.86	1014.1	841	1010.1	2357	1.3
17	8.39	9.5	2036	5.6	2227	76.80	90.9	2353	59.9	1337	4.48	5.29	6.3	532	4.3	1335	1005.40	1010.7	1049	993.0	2359	13.5
18	5.32	7.8	16	3.5	158	75.90	89.5	200	59.6	1324	1.36	4.27	5.9	7	3.6	1324	995.86	999.6	1818	991.4	447	1.6
19	4.55	7.3	1229	1.5	2131	82.40	92.6	832	67.5	1551	1.79	4.47	5.5	1228	3.5	2223	982.56	995.7	0	977.3	755	6.7
20	3.21	6.7	1319	-0.4	2206	80.70	93.7	2236	62.2	1411	0.14	3.92	4.4	1257	3.5	2359	991.34	998.2	2359	984.0	26	0.0
21	3.36	7.2	1445	-2.7	316	82.40	96.0	353	59.1	1535	0.48	4.01	5.2	2358	3.0	316	1000.59	1004.0	1044	993.1	2359	1.5
22	7.40	10.2	1323	4.3	2336	82.70	93.3	949	60.8	1537	4.56	5.46	7.3	1024	4.1	1722	985.68	993.3	0	978.7	2358	5.6
23	4.59	7.7	1306	-0.6	2359	80.30	94.6	447	51.3	1410	1.27	4.36	5.4	334	3.3	1557	977.57	985.4	1736	967.6	519	8.3
24	1.91	6.9	1451	-2.8	623	85.50	95.5	630	62.6	1547	-0.39	3.80	4.8	2348	3.0	623	990.04	994.9	1742	983.9	0	0.2
25	6.55	7.8	1351	5.1	2115	87.00	92.4	2355	75.9	25	4.54	5.39	5.9	819	4.6	23	985.78	990.3	2358	982.0	714	4.6
26	3.94	8.9	1317	-1.3	2252	91.60	96.4	2357	74.3	1320	2.66	4.69	6.0	1223	3.3	2253	999.97	1010.1	2343	990.2	0	0.1
27	2.77	8.4	1352	-2.0	854	89.70	97.4	359	71.6	1354	1.17	4.18	5.8	1234	3.2	855	1013.19	1014.5	1046	1009.9	1	0.2
28	6.61	7.9	1354	5.2	250	93.00	95.4	2213	82.9	1	5.56	5.63	6.2	1354	4.7	0	1014.09	1016.0	1948	1012.5	605	5.7
29	3.72	6.1	7	1.4	2358	81.90	94.7	324	63.2	1439	0.85	4.06	5.5	0	3.4	1532	1016.57	1017.8	1205	1015.4	1428	0.1
30	3.99	7.4	1238	1.2	36	75.00	87.7	46	57.7	1516	-0.13	3.75	4.1	1321	3.4	2150	1014.98	1016.8	732	1012.1	2357	0.0
31	2.84	7.3	1343	-0.3	2342	72.20	83.5	2347	52.7	1349	-1.76	3.34	3.7	1518	3.0	2342	1011.26	1013.2	2358	1009.9	1402	0.0
Total																						51.1
Mean	3.00	6.21		-0.63		83.75	93.25		67.46		0.41	4.06	4.92		3.21		1011.18	1014.93		1007.28		
Max	8.80	10.19		7.90		95.20	97.40		93.90		6.35	5.97	7.26		5.12		1030.59	1031.95		1029.98		
Min	-3.64	-0.49		-8.58		72.20	83.50		42.41		-7.89	2.07	2.58		1.68		977.57	985.42		967.62		

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