

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 2010

Temperature (°C / °F)				Anomaly	Rank in the past 129 years			
Mean maximum	4.4	39.9	-3.1	13 th lowest				
Mean minimum	-1.0	30.2	-2.5	17 th lowest				
Daily mean	1.7	35.1	-2.8	14 th lowest				
Highest maximum	9.8	49.6	on 17 th	Lowest maximum	-0.4	31.3	on 7 th	
Highest minimum	5.1	41.2	on 23 rd	Lowest minimum	-8.7	16.3	on 7 th	
Mean grass minimum	-3.3	26.1	-2.2	Lowest grass minimum	-16.0	3.2	on 7 th	
Mean earth @30 cm	3.7	38.7	-1.5	Earth @100 cm	6.5	43.7		
Frost duration (hrs)	224.6			Rain duration (hrs)	(39.9)	*		
Rainfall total (mm / in)	72.1	2.84	118 %	40 th highest				
Highest daily fall	20.5	0.81	on 5 th					
Number of: Dry days (<0.2mm)	15	Wet days (>0.9mm)	12	days ≥5mm	5			
Sunshine total (hrs) 70.6	Daily mean 2.28	104 %	Sunniest day 7.5	on 30 th				
N° days with: Air frost 19	Ground frost 24	Snow falling 12	Snow lying 10					
Thunder 0	Hail ≥5mm 0	Small hail/ice 1	Fog @09 4	Nil sun 11				
Air pressure MSL : Mean @09 GMT (mbar/in)	1015.6	-0.4	29.99					
Absolute highest	1042.6		30.79	on 26 th				
Absolute lowest	989.5		29.22	on 29 th				

Anomaly = departure from 1971 to 2000 average (degrees C, percent and mbar). * Excludes snowfall 5th to 13th and 31st.

Notes:

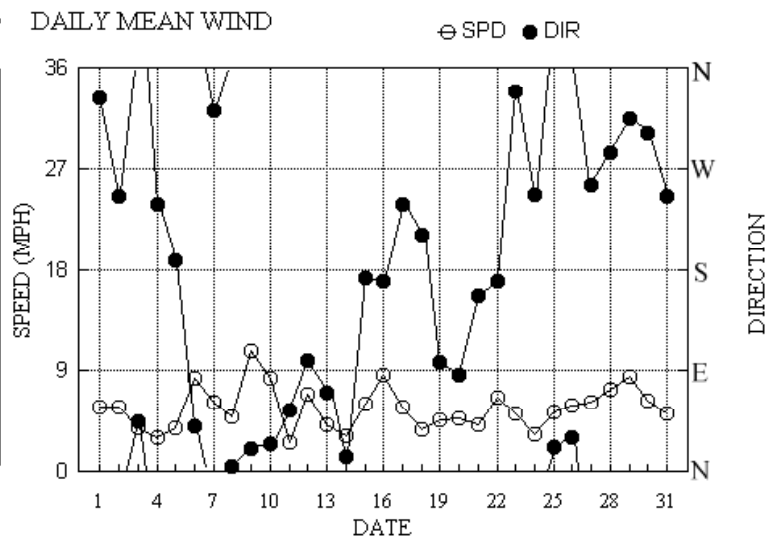
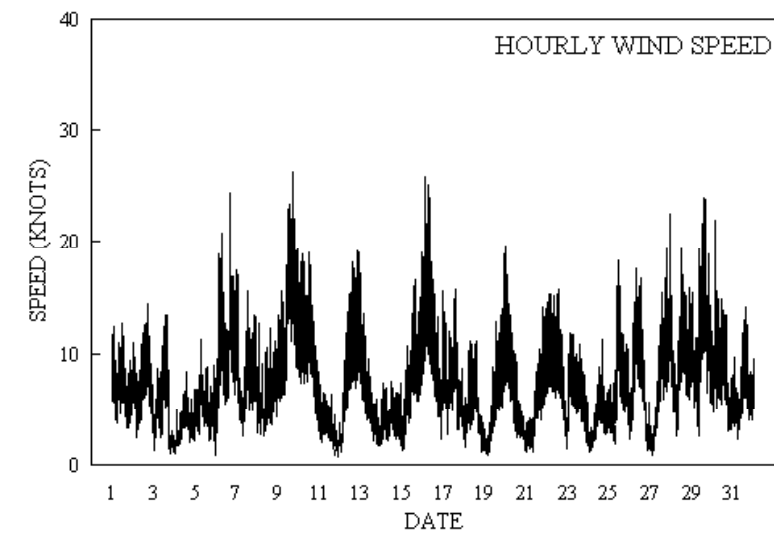
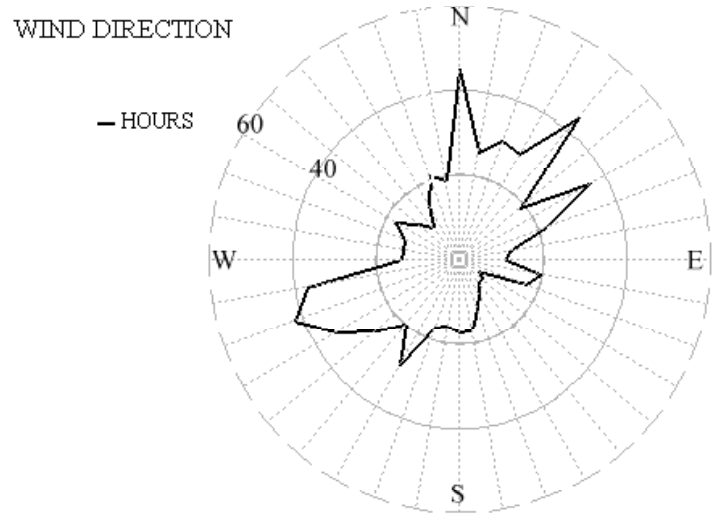
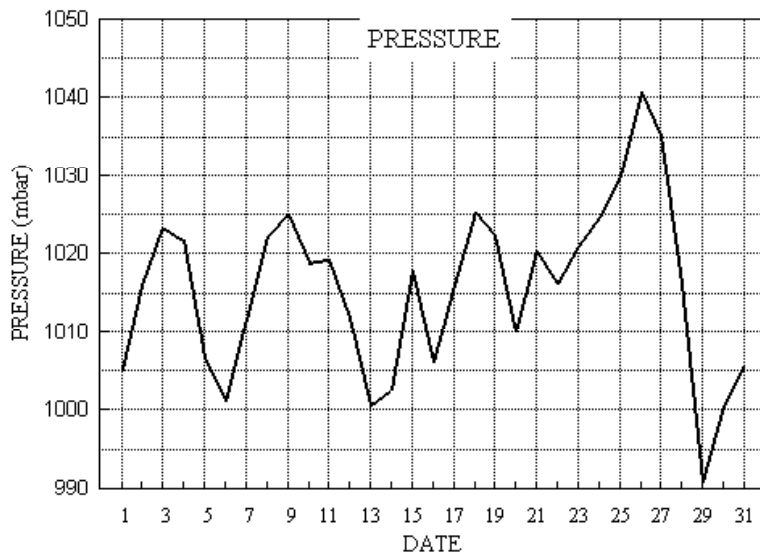
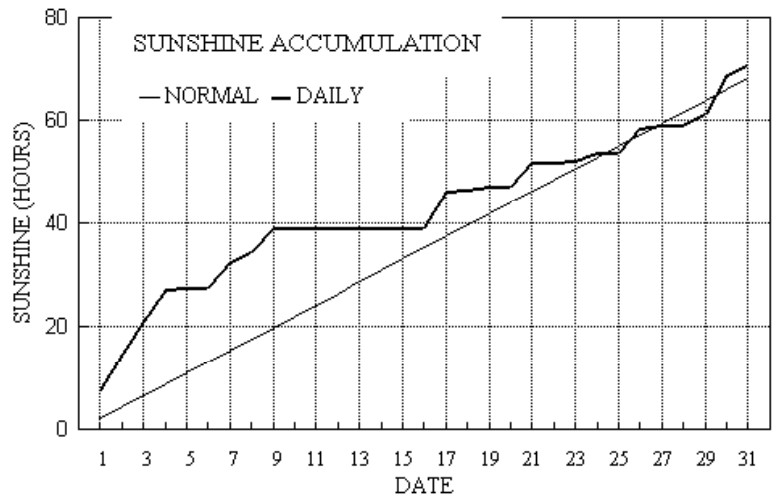
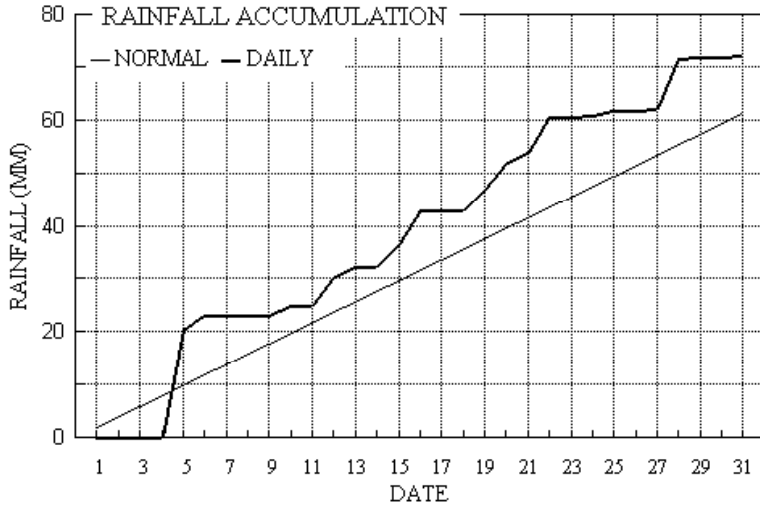
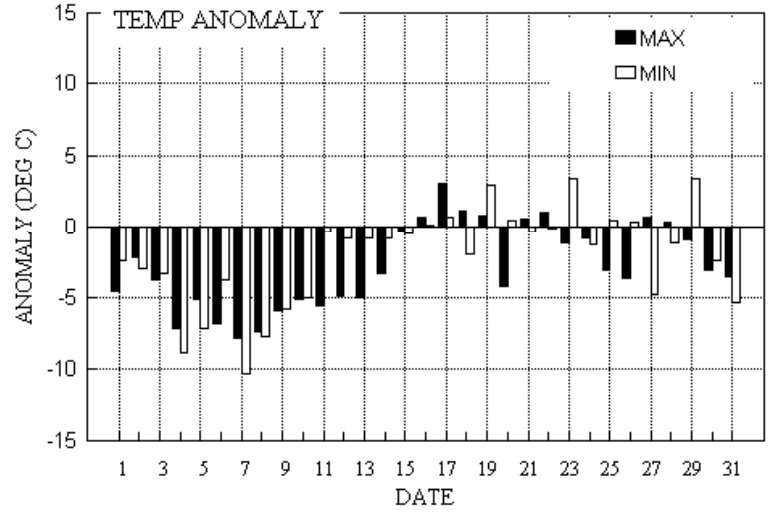
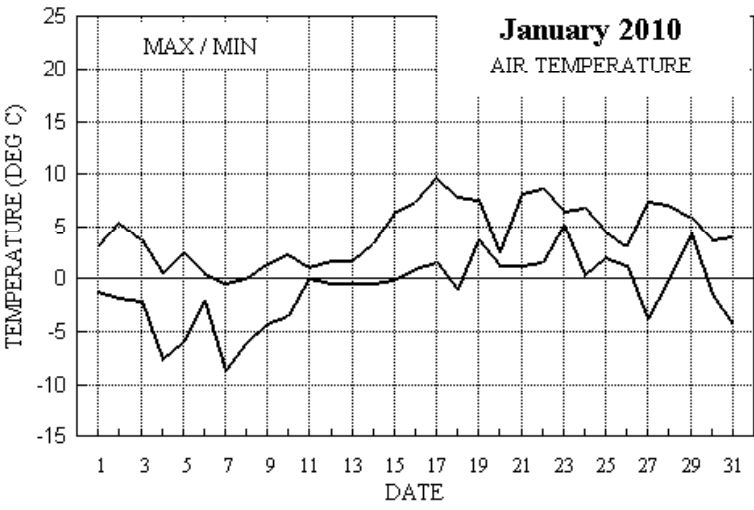
Cold with a Significant Snowy Episode. Rainfall and Sunshine Above Normal.

Temperature. This has been the coldest January since 1987. Both 1985 and 1979 were also colder, but before that it was the extremely cold 1963, when the mean temperature was 4.2° lower than this month's. The highest max this month is lowest since 1979 and 5th lowest in 107 years. The lowest max is 1.2° below the median and is lowest since 1997. The highest min is lowest since 1985 and 9th lowest in 98 years. The lowest min is 2.8° below the median and is lowest since 1997. The mean grass min is lowest since 1997 and the lowest grass min is lowest since 1987. Earth temperatures are over 1° below normal. The duration of air frost is most since 1997. The number of days with air frost is 8 more than average, and there were 6 more ground frosts than average. **Rainfall.** The outstanding feature this January was the deep snowfall from the 6th to the 15th. The maximum snow depth was on the 7th, 19 cm, beating the previous highest since 1976 of 17 cm on 12th December 1981. Snow depth remained above 10 cm until the rapid thaw on the 16th. The Winter Snow Index devised by Philip Eden gives a value of 151 for this January, exceeding the highest for any month since 1976, 95 in Dec 81. The number of days with snow falling is most since 1985, and with snow lying, since 1987. The rainfall total, including melted snowfall, is 15.6 mm above the median and only 0.5 mm below the wet category. **Sunshine.** Despite a prolonged spell from the 10th to the 16th with nil sun, the month got off to a very sunny start, the first 4 days having a mean of 86 % of the maximum. Apart from the odd sunny day, it was generally dull after the 9th. Overall there were 21 days with <3 hours and 6 with =>6 hours. **Wind.** The mean wind speed this January was 5.6 mph, 2.6 mph below average and lowest since 1997. The windiest day was the 9th, mean 10.8 mph, the lowest for January since before 1988. The highest gusts of 30 mph on the 9th and 16th are also lowest since before 1988. The 11th was the least windy day, mean 2.5 mph, and there were 575 minutes (9.6 hours) with a mean speed of 0.5 mph or less. Daily mean direction/number of days: N,5 NE,5 E,4 SE,1 S,4 SW,6 W,2 NW,4. **Humidity.** The overall mean relative humidity was 88.7 %. The lowest value was 54 % on the 29th. The mean water vapour content per kg of air was 3.8 g at 0900 and 3.9 g at 1500 GMT. **Pressure.** The month's highest pressure is highest for January since 1997. **Commentary. From the 1st to the 14th :** This period was cold, with daily max and min exclusively below normal. Daily anomalies for max ranged from -7.8° on the 7th to -2.2° on the 2nd. For min, daily anomalies ranged from -10.3° on the 7th to -0.4° on the 11th. Snow fell on 9 days, but the major snow event was on the evening of the 5th, with snow continuing until the late afternoon of the 6th, giving a combined 2 day rainfall equivalent of 23.1 mm. Apart from the 5th and 6th it was sunny until the 9th, then dull. Winds were generally light and variable until the 5th, becoming fresh NE'ly on the 6th, then light or moderate from between North and East. **From the 15th to the 31st :** Temperatures were generally near normal with isolated cold days. Daily anomalies for max ranged from -4.2° on the 20th to +3.0° on the 17th, while for the min anomalies were between -5.3° on the 31st and +3.4° on the 23rd and 29th. Rainfall was recorded on all but 6 days, and a little snow or sleet fell on the 20th and 29th. Many days were sunless or nearly so, the exceptions being the 17th and 30th, both having over 80 % of the maximum. Winds were light or moderate throughout, S'ly from the 15th to 18th, E'ly on the 19th and 20th, veering NW'ly by the 23rd, and remaining between North and West until the 31st.

Table 1. Mean anomalies (max, min, rain, sun) for specified periods.

From the 1 st to the 10 th				From the 11 th to the 20 th				From the 21 st to the 31 st			
-5.6°	-5.7°	127 %	177 %	-1.8°	-0.1°	137 %	36 %	-1.2°	-0.7°	91 %	95 %

Wokingham Climatological Graphs for January 2010



Month: JANUARY 2010

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	3.1	-1.2	tr	-6.1	4.6	7.5	7.4	13.6	1005.0	1 1 0 0	0 0 0 0	0 0 0 0	333	3.3	5.0	353 13 1111	357 6 11	0.0
2	5.4	-1.7	0.0	-5.5	4.0	7.5	7.3	7.0	1016.0	1 1 1 0	0 0 0 0	0 0 0 0	246	4.9	5.0	234 15 1730	237 7 17	0.0
3	3.8	-2.1	0.0	-7.0	3.6	7.3	6.4	12.7	1023.5	1 1 0 0	0 0 0 0	0 0 0 0	44	2.8	3.3	46 14 1432	56 7 14	0.0
4	0.5	-7.6	0.0	-11.3	3.2	7.2	6.2	23.9	1021.8	1 1 0 0	0 0 0 1	0 0 0 0	239	2.4	2.6	262 8 1339	268 4 13	0.0
5	2.5	-5.9	20.5	-10.1	2.8	7.0	0.3	12.4	1006.6	1 1 1 0	0 0 0 0	0 0 0 0	188	2.4	3.4	215 8 0710	202 6 06	xx
6	0.6	-2.1	2.6	-1.0	2.6	6.8	0.0	7.8	1001.1	1 1 1 1	0 0 0 0	0 0 0 0	40	6.7	7.3	36 24 1625	36 12 16	xx
7	-0.4	-8.7	0.0	-16.0	2.6	6.7	4.8	24.0	1011.7	1 1 1 1	0 0 0 0	0 0 0 0	321	4.5	5.3	356 18 0044	316 8 12	xx
8	0.0	-6.1	tr	-10.4	2.7	6.5	1.9	24.0	1022.2	1 1 1 1	0 0 0 0	0 0 0 0	4	4.2	4.3	358 14 2306	2 7 23	xx
9	1.5	-4.2	0.1	-10.5	2.9	6.4	4.7	22.8	1025.1	1 1 1 1	0 0 0 0	0 0 0 0	20	9.3	9.4	28 26 1731	26 14 17	xx
10	2.3	-3.4	1.9	-2.5	3.0	6.3	0.0	0.0	1018.8	1 1 1 1	0 0 0 0	0 0 0 0	25	7.1	7.2	35 19 1210	31 10 11	xx
11	1.1	0.0	tr	-0.2	3.0	6.2	0.0	10.6	1019.3	0 1 1 1	0 0 0 0	0 0 0 0	55	2.1	2.2	26 7 0000	30 4 00	xx
12	1.8	-0.4	5.0	-2.0	3.1	6.2	0.0	3.9	1011.8	1 1 1 1	0 0 0 0	0 0 0 0	99	5.8	6.0	82 19 2040	88 9 20	xx
13	1.7	-0.4	2.1	-0.4	3.1	6.2	0.0	9.8	1000.5	1 1 1 1	0 0 0 0	0 0 0 0	71	3.5	3.7	85 17 0025	92 7 00	xx
14	3.4	-0.4	0.1	-0.1	3.1	6.1	0.0	0.0	1002.6	1 1 0 1	0 0 0 1	0 0 0 1	13	2.4	2.8	37 8 1032	43 4 04	0.2
15	6.3	-0.1	4.1	-0.1	3.1	6.1	0.0	2.1	1017.9	1 1 0 1	0 0 0 1	0 0 0 1	172	4.9	5.2	161 19 2236	183 8 13	4.4
16	7.5	1.0	6.5	3.1	3.0	6.0	0.0	0.0	1006.0	0 0 0 0	0 0 0 0	0 0 0 0	170	6.7	7.5	149 26 0352	156 11 05	3.8
17	9.8	1.6	tr	-3.3	3.6	6.0	7.2	0.0	1016.0	0 1 0 0	0 0 0 0	0 0 0 0	238	4.6	5.0	268 16 1335	259 8 13	0.2
18	7.9	-1.0	0.0	-4.8	3.4	6.0	0.3	3.2	1025.2	1 1 0 0	0 0 0 1	0 0 0 1	211	3.1	3.2	220 11 1344	203 6 05	0.0
19	7.6	3.8	3.9	-1.2	3.7	6.0	0.7	0.0	1022.3	0 1 0 0	0 0 0 0	0 0 0 0	97	3.6	3.9	81 20 2303	97 8 22	2.3
20	2.6	1.3	4.9	0.8	4.0	6.0	0.0	0.0	1010.0	0 0 1 0	0 0 0 0	0 0 0 0	86	2.7	4.1	109 18 0033	110 8 01	8.2
21	8.2	1.3	2.0	-0.7	4.0	6.1	4.7	0.0	1020.3	0 1 0 0	0 0 0 0	0 0 0 0	156	3.0	3.7	146 14 1948	142 7 21	4.2
22	8.6	1.6	6.7	4.1	4.3	6.1	0.0	0.0	1016.1	0 0 0 0	0 0 0 0	0 0 0 0	169	5.4	5.7	182 16 1402	190 8 13	9.7
23	6.5	5.1	0.0	4.4	4.9	6.2	0.1	0.0	1020.9	0 0 0 0	0 0 0 0	0 0 0 0	339	4.3	4.5	335 12 0350	326 6 02	0.0
24	6.8	0.4	0.5	-3.7	5.0	6.3	1.6	0.0	1024.7	0 1 0 0	0 0 0 0	0 0 0 0	247	2.6	2.8	271 11 1552	283 5 15	xx
25	4.5	2.1	0.9	-1.5	4.9	6.4	0.0	0.0	1029.9	0 1 0 0	0 0 0 0	0 0 0 0	21	3.9	4.7	39 19 1015	37 9 10	xx
26	3.2	1.3	0.0	0.5	4.8	6.5	4.9	6.7	1040.6	0 0 0 0	0 0 0 0	0 0 0 0	30	4.9	5.1	36 18 0720	41 9 07	0.0
27	7.5	-3.8	0.2	-8.1	4.3	6.5	0.4	9.2	1035.1	1 1 0 0	0 0 0 0	0 0 0 0	255	4.6	5.3	318 23 2235	321 10 22	0.4
28	7.1	-0.1	9.5	2.0	4.2	6.5	0.1	0.0	1016.2	1 0 0 0	0 0 0 0	0 0 0 0	285	5.7	6.3	287 20 1229	297 9 13	6.4
29	5.9	4.4	0.1	3.6	4.6	6.5	2.1	2.7	990.9	0 0 1 0	0 0 1 0	0 0 1 0	315	4.9	7.4	329 24 1412	348 11 14	0.1
30	3.7	-1.4	0.0	-4.7	4.3	6.5	7.5	13.6	1000.6	1 1 0 0	0 0 0 0	0 0 0 0	301	4.7	5.4	319 22 0246	302 8 03	0.0
31	4.1	-4.3	0.5	-8.7	3.6	6.5	2.0	14.6	1005.7	1 1 0 0	0 0 0 0	0 0 0 0	246	4.2	4.5	268 14 1453	257 6 13	xx
Total			72.1				70.6	224.6										39.9
Mean	4.4	-1.0		-3.3	3.7	6.5	2.28	7.2	1015.6					350	0.7	4.9		
Anom	-3.1	-2.5	118%		-1.5	-1.0	104%			-0.4								
Daily mean		1.7																
Anom		-2.8																

Number of days with:

Air frost = 19 Ground frost = 24 Nil sun = 11
Snow falling = 12 Snow lying = 10 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 2010

Date	VV	N	dd	ff	gg	TT	Td	Td	RH	r	PPP	a	ppp	ww	W1	W2	Nh	Cl	h	Cr	Ci	N	Ch	shs	N	Ch	shs	Date	Remarks
1	82	1	35	06	11	-1.2	-3.5	85	3.0	1005.0	2	021	02	0	0	1	2	6	3	0								1	Ac5 Cu med Hoar slt Gnd frzn
2	84	1	25	05	07	-0.7	-2.1	90	3.2	1016.0	3	020	02	1	1	1	5	6	0	0								2	Hoar slt Slnly 0% <0.5cm Gnd frzn
3	68	1	07	02	06	-1.2	-2.0	94	3.2	1023.5	3	015	02	0	0	1	5	7	0	1								3	1Ci75 Hoar mod Slnly 10% <0.5 Gnd frzn
4	08	3	26	03	05	-4.5	-4.8	97	2.6	1021.8	6	009	41	4	1	3	6	0	0	0								4	vv 1500SW Rime 3mm Grnd frzn
5	59	7	21	04	08	-2.3	-3.5	92	3.0	1006.6	6	019	05	2	2	2	8	5	7									5	2Sc45 Cu hum Hoar thk Gnd frzn Parhelion
6	18	8	05	07	15	0.1	-0.0	99	3.8	1001.1	2	026	71	7	7	8	7	2										6	Sn ly 17cm
7	56	5	26	04	08	-6.1	-7.1	93	2.2	1011.7	2	011	26	8	1	5	8	5	3	0								7	1Cu35 2Ac62 Slnly 19cm
8	58	7	35	03	10	-3.3	-3.9	96	2.8	1022.2	2	017	10	1	1	7	6	3										8	/Sc40 Slnly 18cm
9	65	1	02	07	12	-3.4	-4.7	91	2.6	1025.1	3	003	02	1	1	1	5	3	0	1								9	1Sc50 1Ci72 Slnly17 cm
10	80	8	03	06	15	1.1	-0.8	87	3.6	1018.8	3	002	68	7	6	8	5	4										10	Slnly 15cm thaw
11	35	8	07	03	06	-0.0	-0.4	97	3.7	1019.3	2	011	10	2	2	8	5	4										11	Slnly 13cm 1cm fresh
12	40	8	10	05	12	0.9	-0.8	88	3.5	1011.8	6	021	68	7	6	8	5	4										12	Slnly 13cm Thaw pptn v slt
13	11	8	06	05	10	-0.4	-0.7	98	3.6	1000.5	2	009	71	7	7	8	7	2										13	Slnly16cm New 4cm
14	09	8	02	03	05	1.5	1.4	99	4.2	1002.6	2	017	61	6	4	8	7	1										14	Slnly13cm Thaw
15	05	8	16	03	08	1.0	0.9	99	4.0	1017.9	1	012	46	4	2	8	6	1										15	Slnly10cm Thaw
16	56	8	17	09	19	4.7	3.7	93	5.0	1006.0	6	023	61	6	6	7	7	3	2									16	Slnly30% 3cm Thaw rapid
17	65	3	23	06	11	3.8	3.1	95	4.7	1016.0	2	031	03	0	0	1	0	9	3	1								17	Slnly <10% Ice on grass
18	09	8	19	04	11	4.0	3.8	99	4.9	1025.2	2	005	42	4	4	8	6	1										18	Slnly-old heaps only
19	35	7	09	04	08	5.3	5.2	99	5.4	1022.3	7	010	10	4	2	7	5	6										19	Slnly-old heaps only
20	30	8	07	05	10	1.3	0.7	96	4.0	1010.0	6	002	69	7	6	5	5	4	2									20	Sleet mod
21	20	6	21	02	03	1.7	1.4	98	4.2	1020.3	3	013	10	2	2	2	5	6	0	1								21	COTRA
22	59	8	17	07	15	8.0	7.4	96	6.4	1016.1	3	003	51	6	5	8	5	2										22	
23	58	7	32	05	10	5.0	3.8	92	4.9	1020.9	2	010	05	2	2	7	5	3										23	/Ci75 COTRA
24	35	7	22	02	04	3.0	2.3	95	4.4	1024.7	3	013	10	2	2	7	5	7										24	
25	22	8	36	04	07	3.3	2.6	95	4.5	1029.9	3	028	58	6	5	8	7	2										25	
26	58	7	03	08	15	1.3	-2.9	74	3.0	1040.6	2	014	05	2	2	7	5	5										26	/Cs72
27	38	8	23	04	08	-0.1	-2.6	83	3.1	1035.1	7	021	05	2	2	8	5	6										27	Hoar slt Gnd sfc frzn
28	75	7	30	07	11	5.0	2.2	82	4.4	1016.2	5	006	03	2	2	7	8	5										28	2Sc30 1Sc40 /Ci75 Cu hum
29	62	7	36	09	19	4.5	3.6	94	5.0	990.9	3	002	60	6	2	7	5	3										29	
30	88	1	34	07	11	-0.9	-5.2	72	2.6	1000.6	2	024	02	0	0	1	5	6	0	0								30	Hoar slt Gnd frzn Slnly 10% <0.5
31	80	7	24	05	09	-0.8	-3.1	84	3.0	1005.7	3	004	03	1	1	4	8	6	0	8								31	1Sc50 COTRA Cu med Hoar mod Gnd frzn

Mean vis = 12.6 km

Mean cloud = 6.1 76%

Mean wind speed = 5.0 kn

Mean gust = 10 kn

Mean TT = 1.0 °C

Mean TdTd = -0.2 °C

Mean RH = 92.0 %

Mean r = 3.8 g/kg

Mean PPP = 1015.6 mbar

See appendix 2 below for full code details

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 January 2010

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	80	1	32	04	09	2.1	-3.6	66	2.9	1007.4	2	011	02	0	0	1	1	5	0	0	81825					1	Cu hum Hoar slt in shade
2	86	1	25	06	11	4.1	-1.3	68	3.4	1017.3	0	000	03	0	0	1	0	9	3	2	81362					2	1Ci72 Ci edge N Hoar+slnly in shade
3	84	1	04	07	13	1.7	-3.2	70	3.0	1023.0	5	011	02	0	0	1	4	5	0	0	81825					3	1Sc35 Cu med Hoar mod in shade
4	60	1	29	04	07	-0.2	-3.2	80	3.0	1017.8	7	025	05	0	0	0	0	9	0	1	81078					4	COTRA Hoar mod in shade
5	68	7	20	05	09	1.7	-2.1	76	3.3	1001.9	7	024	03	7	2	7	5	6	3	1	82640	86650				5	/Ac65 /Ci75 Hoar slt
6	25	8	03	08	12	0.1	-0.2	98	3.8	1004.2	3	013	71	7	7	8	5	2	/	/	83705	87708	88615			6	Snly 18cm
7	70	1	29	05	12	-1.5	-4.5	80	2.7	1012.4	3	003	02	1	1	1	5	5	0	0	81625					7	1Sc40 Snly 18cm
8	75	1	02	04	12	-0.9	-2.4	90	3.2	1023.6	3	008	01	7	1	1	5	6	0	0	81645					8	Snly18 cm
9	82	6	02	12	22	-0.6	-5.4	70	2.5	1023.3	6	016	02	1	1	1	1	4	7	/	81818	86362				9	1Ac58 /Ac64 Cu fra Snly 16cm
10	70	8	04	10	16	1.4	-1.0	84	3.5	1017.4	6	011	68	7	6	8	5	4	/	/	83612	88615				10	Snly 13cm vv 40k ex E&S
11	40	8	06	02	04	0.6	-1.2	88	3.5	1019.4	6	002	05	2	2	8	5	5	/	/	86620	88656				11	Snly 13cm
12	56	8	13	08	18	1.2	-1.5	82	3.5	1004.9	7	034	05	2	2	8	5	4	/	/	87712	88635				12	Snly 12cm
13	30	8	08	02	06	0.7	-0.4	92	3.7	1000.6	5	004	70	7	2	8	5	3	/	/	86708	88612				13	Snly15cm Thaw
14	17	8	36	03	06	2.2	2.0	98	4.4	1005.9	2	017	10	2	2	8	6	2	/	/	88705					14	Snly 11cm Thaw
15	56	8	18	06	17	5.7	4.9	94	5.4	1017.8	5	003	05	2	2	8	6	3	/	/	87706	88710				15	Snly8cm Thaw
16	60	8	20	07	15	7.1	6.2	94	5.9	1001.9	6	015	05	6	5	8	6	3	/	/	83706	88708	88710			16	Snly<1
17	73	1	25	07	15	8.5	3.2	70	4.8	1019.9	2	013	02	0	0	1	8	5	0	1	81822					17	1Sc35 1Ci72 1Ci80 COTRA Cu hum
18	63	7	20	04	10	7.5	6.7	95	6.0	1024.8	7	007	01	2	2	7	8	3	/	2	81708	83812	86630			18	Cu med
19	59	7	12	04	11	7.0	5.0	87	5.4	1019.4	7	024	05	2	2	3	8	4	0	2	81812	83635	86075			19	2Ci72 Cu hum COTRA Parhelia
20	20	8	36	03	05	1.3	0.9	97	4.0	1011.2	3	012	68	7	6	7	7	2	2	/	83703	87705	88515			20	
21	59	8	15	06	10	5.2	1.5	77	4.2	1019.6	6	007	05	2	2	7	5	5	/	8	82620	88625	87275			21	
22	57	8	18	06	16	8.4	7.5	94	6.4	1016.1	5	001	50	6	5	8	5	3	/	/	87708	88615				22	
23	63	8	35	06	10	5.4	2.9	84	4.6	1020.8	6	005	02	2	2	8	5	4	/	/	88615					23	
24	80	7	29	03	08	6.4	2.0	73	4.3	1024.7	5	004	02	2	2	7	8	5	/	/	81820	86656				24	1Sc50 Cu med
25	59	7	05	06	13	4.1	0.9	79	4.0	1033.1	3	012	05	2	2	7	8	5	/	/	83820	85630	87645			25	Cu hum
26	58	7	04	07	12	2.4	-3.0	67	2.9	1040.5	5	011	05	2	2	1	5	5	0	8	81625	87275				26	
27	56	7	24	07	13	4.0	0.5	78	3.9	1026.4	6	053	05	6	2	1	5	5	7	2	81625	85362	87075			27	4Ac64
28	81	7	30	10	17	6.7	1.9	72	4.4	1011.7	7	031	15	8	2	7	8	5	/	/	82825	87645				28	2Sc35 Cu med jpN
29	75	6	35	09	24	4.1	-2.2	63	3.3	992.9	3	007	27	8	2	3	8	5	6	/	82825	86357				29	2Sc45 Cu med jpS-W vv70k ex p
30	86	2	29	07	14	2.9	-4.1	60	2.8	1002.6	3	005	02	0	0	1	4	5	0	1	81828					30	1Sc30 1Ci70 Cu hum Snly dusting in shade
31	84	8	27	06	14	3.6	-2.1	66	3.3	1005.7	5	003	02	2	2	3	8	5	7	7	81822	88270				31	1Sc30 2Sc56 1Ac59 2As66

Mean vis = 19.5 km

Mean cloud = 5.8 73%

Mean wind speed = 5.9 kn

Mean gust = 12 kn

Mean TT = 3.3 °C

Mean Td = 0.2 °C

Mean RH = 80.4 %

Mean r = 3.9 g/kg

Mean PPP = 1015.1 mbar

See appendix 2 below for full code details

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 2010	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	0.01	2.9	1320	-1.9	2137	80.0	88.8	2139	63.1	1302	-3.08	3.04	3.4	4	2.8	737	1006.37	1011.5	2341	1001.5	0	0.0
2	1.25	4.5	1356	-1.1	819	82.6	91.5	822	66.9	1341	-1.45	3.40	3.8	2352	3.1	6	1016.12	1020.1	2320	1011.4	40	0.1
3	-0.79	2.9	1223	-5.8	2355	88.0	97.1	637	64.1	1436	-2.61	3.12	3.8	135	2.3	2355	1023.08	1024.7	1934	1019.7	38	0.0
4	-3.93	0.1	1354	-7.7	529	93.2	97.9	1131	78.5	1438	-4.90	2.64	3.3	1301	2.0	527	1019.65	1024.1	31	1013.3	2359	0.0
5	-1.54	2.1	1407	-6.1	100	89.7	98.8	2357	72.9	1330	-3.06	3.09	3.9	2226	2.3	318	1004.76	1013.4	0	998.6	2357	9.8
6	-0.69	0.4	342	-4.8	2359	95.8	99.1	303	85.3	1944	-1.28	3.52	3.9	342	2.4	2350	1003.12	1009.7	2358	997.5	325	6.8
7	-3.93	-0.6	1320	-9.0	710	88.4	97.1	415	75.7	1321	-5.60	2.51	3.1	2214	1.8	732	1012.62	1018.1	2358	1009.5	2	0.0
8	-2.81	-0.2	1408	-5.1	459	92.8	97.0	409	86.8	1544	-3.82	2.84	3.3	1359	2.5	459	1022.66	1025.7	2059	1018.1	2	0.0
9	-1.75	0.4	2356	-4.6	606	81.6	94.0	100	67.2	1528	-4.56	2.68	3.1	2358	2.4	606	1023.80	1025.3	57	1020.8	2350	0.0
10	1.01	2.1	1148	0.1	2201	86.2	98.3	2351	75.7	435	-1.07	3.49	3.9	2037	3.1	3	1018.56	1021.0	0	1017.3	1452	0.3
11	0.07	0.9	1255	-0.7	2308	95.2	99.1	427	87.0	1357	-0.61	3.61	3.8	224	3.4	1633	1019.08	1020.1	1029	1017.9	410	0.3
12	0.63	1.6	1129	-0.6	48	88.5	97.9	246	80.8	1422	-1.07	3.52	3.7	1021	3.3	2222	1008.47	1018.9	0	999.9	2354	0.0
13	0.13	1.1	1310	-0.7	611	95.3	99.2	2357	84.8	7	-0.53	3.69	4.0	2210	3.4	0	1000.54	1001.4	2057	999.2	404	2.8
14	1.44	3.2	1235	0.1	226	98.7	99.9	629	96.8	2252	1.28	4.19	4.7	1235	3.8	226	1005.41	1014.0	2352	1000.5	125	0.7
15	3.28	6.2	1522	-0.4	554	96.7	99.6	618	93.1	1530	2.80	4.66	5.5	1522	3.7	555	1016.96	1018.4	1033	1013.7	2	0.8
16	5.73	7.4	1940	3.8	424	93.9	98.8	2159	85.7	405	4.83	5.42	6.3	2001	4.3	424	1005.72	1015.2	0	1001.7	1437	8.0
17	4.97	9.4	1317	0.1	2357	88.6	98.4	629	66.1	1404	3.15	4.75	5.9	0	3.7	2357	1017.32	1024.2	2359	1006.1	1	0.2
18	4.09	7.7	1525	-1.1	237	98.1	99.3	245	93.6	1527	3.82	4.97	6.1	1451	3.4	237	1025.17	1026.1	1932	1024.0	107	0.1
19	5.46	7.5	1518	3.4	814	93.4	99.5	920	82.1	1518	4.46	5.18	5.8	1326	4.4	2310	1020.83	1025.2	0	1014.3	2359	0.0
20	2.64	4.9	11	1.1	820	92.5	97.5	1857	80.1	610	1.51	4.23	4.5	13	3.9	820	1012.19	1017.1	2348	1009.5	725	7.1
21	3.76	6.0	2357	1.2	854	87.9	98.4	900	71.6	1245	1.86	4.31	5.2	2358	3.8	1254	1019.26	1021.4	1037	1017.0	0	0.0
22	7.61	8.6	1346	5.8	0	95.6	98.3	2344	90.5	0	6.95	6.17	6.5	1204	5.2	0	1016.67	1018.4	2335	1015.4	702	6.6
23	5.55	7.5	119	2.4	2359	88.9	98.5	22	78.6	1924	3.84	4.99	6.3	119	4.0	2359	1020.81	1022.5	2323	1018.0	4	0.3
24	3.65	6.8	1513	0.1	127	88.5	97.9	402	69.3	1536	1.88	4.29	4.8	1047	3.6	127	1024.58	1026.0	2318	1022.1	29	0.1
25	3.20	4.5	1430	1.8	532	87.1	96.8	542	76.5	2035	1.23	4.08	4.7	955	3.4	2035	1031.65	1038.4	2351	1025.7	2	1.0
26	1.00	2.9	1344	-3.0	2336	80.1	94.9	2343	64.4	1334	-2.11	3.18	4.0	358	2.8	2336	1040.63	1042.6	1950	1038.2	138	0.0
27	1.91	7.4	2147	-3.8	136	85.3	96.5	247	65.2	1156	-0.39	3.71	5.4	2134	2.6	136	1030.20	1041.7	0	1018.4	2351	0.2
28	5.42	7.2	1345	3.5	646	80.3	88.8	700	70.2	1443	2.27	4.46	4.8	2113	4.2	343	1012.90	1018.5	18	1001.8	2359	0.1
29	3.51	6.0	1314	-0.7	2325	81.7	97.6	747	54.2	1635	0.53	4.12	5.5	718	2.6	1702	994.16	1001.8	0	989.5	735	7.5
30	0.32	3.6	1357	-1.8	2352	71.6	82.6	2213	58.7	1407	-4.28	2.80	3.0	1315	2.5	805	1001.31	1005.5	2348	996.2	30	0.0
31	-0.21	3.9	1326	-4.7	735	82.2	95.6	751	65.5	1338	-2.96	3.08	3.5	1206	2.5	550	1006.37	1009.1	2346	1005.2	137	0.1
Total																						52.9
Mean	1.65	4.15		-1.29		88.7	96.60		75.83		-0.10	3.86	4.50		3.20		1015.51	1020.01		1011.04		
Max	7.61	9.37		5.84		98.7	99.90		96.80		6.95	6.17	6.54		5.17		1040.63	1042.63		1038.24		
Min	-3.93	-0.62		-9.01		71.6	82.60		54.22		-5.60	2.51	3.02		1.81		994.16	1001.36		989.47		

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

Appendix 1.

Explanation and definition of some of the terms used in the Wokingham Weather Reports.

Average: Generally refers to the 30 year climatological average, currently 1971 to 2000. This will be next updated in 2010. For some parameters, notably wind, the climatological average is not available, and if the word average is used in the context of wind, it refers to the average for the period for which data is held, namely 1988 to present.

For sunshine, there was a change, in July 1999, in the type of instrument used to detect sunshine amount, making the climatological average based on the old instrument of little use. In general, the new instrument produces higher values in the winter half year, and lower ones in the summer half, than the old type, due to a combination of faster reaction and higher sensitivity than the old type. The average used in this case is based on a theoretical equivalent 1971 to 2000 average, drawn from comparison with the Met Office published tables of departure from climatological average sunshine in the months since 2000 for their area 'Southern England'. Users of the Wokingham Monthly Weather reports should be aware of this, and regard anomalies for sunshine published therein as a guide only, until such time has elapsed since the introduction of the new instrument that a genuine average becomes available.

Mean: The mean of the data under discussion, often the monthly mean of daily data. The mean is obtained by summation of the individual values and dividing by the number of values. The term 'daily mean' in respect of temperature is defined as '(max + min) / 2'. A true daily 24 hour (00 to 24 GMT) mean temperature is available from the Automatic Weather Station (AWS), and is currently published on page 7 of the Wokingham Monthly Weather report, on the Wokingham Weather web site, page 1. <http://www.woksat.info/www1.html>

Anomaly: When a value is given for anomaly, this will have one of the following meanings:

- a): The departure of a mean from the current climatological average.
- b): The departure of a value on a particular day from the average for that day, (this need not be a climatological average).

When the word anomaly is used in respect of temperature, any values given are in °C. In respect of rainfall or sunshine, percent. In respect of wind, mph. In respect of pressure, millibars (hpa).

Categories: Reference may be made in the reports to 'categories'. Each category has a strict statistical range, as outlined below.

Temperature: The terms cold/mild are used in the winter half year, and cool/warm in the summer half. The term 'normal' is used when the individual mean (monthly, seasonal or annual) value is within 20 % of the median of all ranked values for that month/season/year.

Mild/warm: The value lies between 10 % and 30 % below the highest value in the ranked series.

Very mild/very warm: The value lies within 10 % of the highest value in the ranked series.

Cold/cool: The value lies between 10 % and 30 % above the lowest value in the ranked series.

Very cold/very cool: The value lies within 10 % of the lowest value in the ranked series.

Sunshine: The terms for sunshine are very sunny, sunny, normal, dull and very dull.

The definition of these terms follow the same rules as for temperature.

Rainfall: The terms for rainfall are very dry, dry, normal, wet and very wet.

The definition of the term 'normal' follows the same rule as for temperature and sunshine.

Wet: The value lies between 10 % and 30% of the highest value in the ranked series.

Very wet: The value lies within 10 % of the highest value in the ranked series.

Dry: The value lies between 10 % and 30 % above the lowest value in the ranked series.

Very dry: The value lies within 10 % of the lowest value in the ranked series.

Long-term: Mention may be made in the reports to the 'long-term'. The long-term record comprises a temperature/rainfall/sunshine data series compiled from records of various weather stations in the Wokingham area in the years prior to the establishment of the weather station at Emmbrook in 1976 together with data from this station.

In the case of monthly max, min and mean temperature and of rainfall total the series starts in 1882. For temperature extremes, the highest max and lowest min go back to 1904, and lowest max and highest min to 1913.

Rank: The word rank refers to the position of a value for a particular month/season/year in the ranked series, and may be expressed relative to either the highest or lowest value in the series. The central value in the ranked series is known as the **median**. This value may be different from the average of the whole series if the population is skewed. It can also be different from the climatological average which only refers to a 30 year period.

Month: Calendar month.

Season: Spring, March to May.

Summer, June to August

Autumn, September to November

Winter, December to February.

When discussing 'winter', if a single year is given this refers to the year in which the January/February fall.

Annual or Year: The calendar year, 1st January to 31st December.

The climatological day: runs from 0900 to 0900 GMT. The max temperature and rainfall read at 0900 hours are attributed to the previous day (thrown back), as is the duration of measurable rain. The min temperature and grass min read at 0900 hours are attributed to the day of reading. Pressure read at 0900 GMT, and the monthly mean pressure is the mean of the 0900 GMT readings. Sunshine data, wind data, rainfall rate data and 24 hour data from the AWS use the normal 00-24 GMT day.

Frost: An air frost day is recorded when the minimum temperature read at 0900 GMT on that day is -0.1°C or below. A ground frost day is recorded when the grass minimum temperature read at 0900 GMT on that day is -0.1°C or lower.

Duration of air frost is defined as the number of minutes that the AWS one minute average temperature is below 0.0°C , and the day runs from midnight to midnight.

Snow: A day with snow falling is triggered if snow falls at any time in the 24 hours from midnight on that day. A day with snow lying is entered if there is at least 50% snow cover at the 0900 GMT observation.

Snow depth is the depth of undrifted snow. Snow that collects in the raingauge funnel is melted and the amount recorded as rainfall.

Hail: A day of hail is recorded if hailstones 5 mm or more in diameter are observed or recorded on the hail pad in a 24 hour period starting at midnight.

A day of small hail is recorded if hailstones less than 5 mm diameter are observed or recorded in a 24 hour period starting at midnight. The term small hail also includes various other types of ice meteor such as ice pellets, snow grains and some types of snow pellets.

Fog: A day with fog is recorded if the horizontal visibility at 0900 GMT is below 1000 m.

Thunder: A day of thunder is recorded if thunder is heard in the 24 hour period from midnight on that day. The appearance of lightning without thunder being heard does not qualify as a thunder day.

Trace of rainfall: A trace of rain, entered as 'tr' in the daily log, is recorded if rain is observed to fall but is of insufficient quantity to collect in the raingauge, or if the amount of rain in the gauge is less than 0.05 mm.

Dry spell: A dry spell is defined as a period of 5 or more consecutive dry days.

Dry day: A dry day is one with less than 0.2 mm of rainfall.

Rain day: A rain day is one with 0.2 mm or more of rainfall.

Wet day: A wet day is one having 1.0 mm or more of rainfall.

Appendix 2.

Explanation and decode for code figures used in the Wokingham 0900 and 1500 GMT observations

VV : Visibility.

Code figures 00 to 50 are in km and tenths e.g. 01 = 0.1 km = 100 m, 33 = 3.3 km, 50 = 5.0 km

Code figures 60 to 80. Subtract 50 to obtain visibility in km. e.g. 56 = 6 km, 65 = 15 km, 77 = 27 km.

Code figures 81 to 89. Subtract 50 and add 5 for every one above 80. e.g. 83 = 45 km, 86 = 60 km.

Code figure 89 = visibility above 70 km.

N : Total cloud amount in okta (eighths of sky covered). 9 = sky obscured (e.g. by fog or snow)

dd : Wind direction in tens of degrees from true north. Wind is measured at a height of 10 m, and the direction is the mean over a period of 10 minutes ending at the observation time.

ff : Wind speed in knots, measured at 10 m, and is the mean over a period of 10 minutes ending at observation time.

gg : Wind gust in knots at 10 m. The highest gust in the 60 minutes up to observation time.

TT : Air temperature at 1.2m, degrees C and tenths.

TdTd : Dew point temperature at 1.2m, degrees C and tenths.

RH : Relative humidity at 1.2m, %.

r : Humidity mixing ratio (amount of water vapour per kg of air), grams and tenths.

PPP : Air pressure reduced to MSL, millibars and tenths.

a : Characteristic of pressure tendency during the past 3 hours.

Code figures 0 to 3, pressure higher than 3 hours ago, 5 to 8, pressure lower than 3 hours ago

Code figure 0 = Increasing then decreasing, pressure the same as or higher than 3 hours ago

1 = Increasing then steady or increasing more slowly

2 = Increasing steadily or unsteadily

3 = Decreasing or steady then increasing, or increasing then increasing more rapidly

4 = Steady, pressure the same as 3 hours ago

5 = Decreasing then increasing, pressure lower than 3 hours ago

6 = Decreasing then steady or decreasing more slowly

7 = Decreasing steadily or unsteadily

8 = Steady or increasing then decreasing, or decreasing then decreasing more rapidly

ppp : 3 hour pressure tendency in tenths of a millibar

ww : Present weather code figures, 00 to 99.

Present weather decode:

00 = Cloud development not observed or not observable

01 = Clouds generally dissolving or becoming less developed

02 = State of sky on the whole unchanged

03 = Clouds generally increasing or becoming more developed

04 = Visibility reduced by smoke, e.g. veldt or forest fires, industrial smoke or volcanic ashes.

05 = Haze, visibility reduced by extremely small dry particles (RH less than appx. 95 %)

06 = Widespread dust in suspension, not raised by the wind near the station at the time of the observation

07 = Dust or sand raised by the wind at or near the station at the time of the observation, but no well-developed dust whirls or sand whirls, and no duststorm or sandstorm seen: In marine environments, blowing spray at the station.

08 = Well-developed dust or sand whirls seen at or near the station during the preceding hour or at the time of the observation, but no duststorm or sandstorm.

09 = Duststorm or sandstorm within sight at the time of the observation, or at the station during the preceding hour

10 = Mist
11 = Patches of shallow fog not deeper than 2 metres on land
12 = More or less continuous shallow fog not deeper than 2 metres on land
13 = Lightning visible, no thunder heard
14 = Precipitation within sight, not reaching the ground
15 = Precipitation within sight, reaching the ground more than 5 km from the station
16 = Precipitation within sight, reaching the ground, near to but not at the station
17 = Thunderstorm, but no precipitation at the time of the observation
18 = Squalls at or within sight of the station at the time of the observation or during the preceding hour
19 = Funnel cloud(s) at or within sight of the station at the time of the observation or during the preceding hour

20 = Drizzle (not freezing) at the station during the preceding hour but not at the time of the observation
21 = Rain (not freezing) at the station during the preceding hour but not at the time of the observation
22 = Snow at the station during the preceding hour but not at the time of the observation
23 = Rain and snow or ice pellets at the station during the preceding hour but not at the time of the observation
24 = Freezing drizzle or freezing rain at the station during the preceding hour but not at the time of the observation
25 = Shower(s) of rain at the station during the preceding hour but not at the time of the observation
26 = Shower(s) of snow or rain and snow at the station during the preceding hour but not at the time of the observation
27 = Shower(s) of hail or rain and hail at the station during the preceding hour but not at the time of the observation
28 = Fog or ice fog at the station during the preceding hour but not at the time of the observation
29 = Thunderstorm, with or without precipitation at the station during the preceding hour but not at the time of the observation

30 = Slight or moderate duststorm or sandstorm has decreased during the preceding hour
31 = Slight or moderate duststorm or sandstorm with no appreciable change during the past hour
32 = Slight or moderate duststorm or sandstorm has begun or increased during the past hour
33 = Severe duststorm or sandstorm has decreased during the preceding hour
34 = Severe duststorm or sandstorm with no appreciable change during the past hour
35 = Severe duststorm or sandstorm has begun or increased during the past hour
36 = Slight or moderate drifting snow generally below eye level
37 = Heavy drifting snow generally below eye level
38 = Slight or moderate blowing snow generally above eye level
39 = Heavy blowing snow generally above eye level

40 = Fog or ice fog at a distance at the time of the observation, but not at the station during the preceding hour, the fog extending to a level above that of the observer.
41 = Fog or ice fog in patches
42 = Fog or ice fog, sky visible has become thinner during the past hour
43 = Fog or ice fog, sky invisible has become thinner during the past hour
44 = Fog or ice fog, sky visible no appreciable change during the past hour
45 = Fog or ice fog, sky invisible no appreciable change during the past hour
46 = Fog or ice fog, sky visible has begun or become thicker during the past hour
47 = Fog or ice fog, sky invisible has begun or become thicker during the past hour
48 = Fog, depositing rime, sky visible
49 = Fog depositing rime, sky invisible

50 = Drizzle, not freezing, intermittent slight at time of observation
51 = Drizzle, not freezing, continuous slight at time of observation
52 = Drizzle, not freezing, intermittent moderate at time of observation
53 = Drizzle, not freezing, continuous moderate at time of observation
54 = Drizzle, not freezing, intermittent heavy at time of observation
55 = Drizzle, not freezing, continuous heavy at time of observation
56 = Drizzle, freezing, slight
57 = Drizzle, freezing, moderate or heavy (dense)
58 = Drizzle and rain, slight
59 = Drizzle and rain, moderate or heavy

60 = Rain, not freezing, intermittent slight at time of observation
61 = Rain, not freezing, continuous slight at time of observation
62 = Rain, not freezing, intermittent moderate at time of observation
63 = Rain, not freezing, continuous moderate at time of observation
64 = Rain, not freezing, intermittent heavy at time of observation
65 = Rain, not freezing, continuous heavy at time of observation
66 = Rain, freezing, slight
67 = Rain, freezing, moderate or heavy
68 = Rain or drizzle and snow, slight
69 = Rain or drizzle and snow, moderate or heavy

70 = Intermittent fall of snowflakes slight at time of observation
71 = Continuous fall of snowflakes slight at time of observation
72 = Intermittent fall of snowflakes moderate at time of observation
73 = Continuous fall of snowflakes moderate at time of observation
74 = Intermittent fall of snowflakes heavy at time of observation
75 = Continuous fall of snowflakes heavy at time of observation
76 = Diamond dust (with or without fog)
77 = Snow grains (with or without fog)
78 = Isolated star-like snow crystals (with or without fog)
79 = Ice pellets

80 = Rain shower(s), slight
81 = Rain shower(s), moderate or heavy
82 = Rain shower(s), violent
83 = Shower(s) of rain and snow mixed, slight
84 = Shower(s) of rain and snow mixed, moderate or heavy
85 = Snow shower(s), slight
86 = Snow shower(s), moderate or heavy
87 = Shower(s) of snow pellets or small hail, with or without rain or rain and snow mixed, slight
88 = Shower(s) of snow pellets or small hail, with or without rain or rain and snow mixed, moderate or heavy
89 = Shower(s) of hail, with or without rain or rain and snow mixed, not associated with thunder, slight
90 = Shower(s) of hail, with or without rain or rain and snow mixed, not associated with thunder, moderate or heavy

91 = Slight rain at time of observation, thunderstorm during the past hour but not at time of observation
92 = Moderate or heavy rain at time of observation, thunderstorm during the past hour but not at time of observation
93 = Slight snow, or rain and snow mixed, or hail at time of observation, thunderstorm during the past hour but not at time of observation
94 = Moderate or heavy snow, or rain and snow mixed, or hail at time of observation, thunderstorm during the past hour but not at time of observation
95 = Thunderstorm, slight or moderate, without hail but with rain and or snow at time of observation
96 = Thunderstorm, slight or moderate, with hail at time of observation
97 = Thunderstorm, heavy, without hail but with rain and or snow at time of observation
98 = Thunderstorm combined with duststorm or sandstorm at time of observation
99 = Thunderstorm, heavy, with hail at time of observation

Hail includes large hail, small hail and snow pellets.

W1, W2 : Past weather (for 0900 and 1500 GMT observations, the period covered is 3 hours)

Code figures:

- 0 = Cloud covering half or less of the sky throughout the period
- 1 = Cloud covering more than half the sky during only part of the period
- 2 = Cloud covering more than half the sky throughout the period
- 3 = Sandstorm, duststorm or blowing snow
- 4 = Fog or ice fog or thick haze (visibility less than 1000 m)
- 5 = Drizzle
- 6 = Rain
- 7 = Snow or rain and snow mixed
- 8 = Shower(s)
- 9 = Thunderstorm(s) with or without precipitation

Nh : Amount of low cloud, or medium cloud if no low cloud present, okta

Cl : Type of low cloud

- 0 = No low cloud
- 1 = Cumulus with little vertical extent and seemingly flattened, or ragged Cumulus other than bad weather, or both
- 2 = Cumulus of moderate or strong vertical extent, either accompanied or not by other Cumulus or Stratocumulus all having their bases at the same level
- 3 = Cumulonimbus whose summits, at least partially, lack sharp outline, but are neither clearly fibrous (cirriform), nor in the form of an anvil; Cumulus, Stratocumulus or Stratus may also be present
- 4 = Stratocumulus formed by the spreading out of Cumulus; Cumulus may also be present
- 6 = Stratus in a more or less continuous sheet or layer, or ragged shreds, or both, but no Stratus fractus of bad weather
- 7 = Stratus fractus of bad weather or Cumulus fractus of bad weather or both (pannus), usually below Altostratus or Nimbostratus
- 8 = Cumulus and Stratocumulus other than that formed by the spreading out of Cumulus, the bases of the Cumulus and Stratocumulus are not at the same level.
- 9 = Cumulonimbus, the upper part of which is clearly fibrous (cirriform), often in the form of an anvil, either accompanied or not by any other type(s) of low cloud
- / = Types of low cloud invisible due to darkness, fog, blowing dust or sand or other similar phenomena.

'Bad weather' denotes the conditions which generally exist during precipitation and a short time before and after.

Cm : Type of medium cloud.

- 0 = No medium cloud.
- 1 = Altostratus, the greater part of which is semi-transparent; through this part the sun or moon may be weakly visible, as through ground glass
- 2 = Altostratus, the greater part of which is sufficiently dense to hide the sun or moon, or Nimbostratus
- 3 = Altocumulus, the greater part of which is semi-transparent; the various elements of the cloud change only slowly and are all at a single level
- 4 = Altocumulus in patches (often in the form of almonds or fishes), the greater part of which is semi-transparent ; the clouds occur at one or more levels and the elements are continually changing in appearance
- 5 = Altocumulus in bands semi-transparent, of Altocumulus in one or more fairly continuous layers (semi-transparent or opaque), progressively invading the sky; these Altocumulus clouds generally thicken as a whole
- 6 = Altocumulus resulting from the spreading out of Cumulus (or Cumulonimbus)
- 7 = Altocumulus in two or more layers, usually opaque in places, and not progressively invading the sky; or opaque layer of Altocumulus not progressively invading the sky; or Altocumulus together with Altostratus or Nimbostratus
- 8 = Altocumulus with sproutings in the form of small towers or battlements, or Altocumulus having the appearance of cumuliform tufts
- 9 = Altocumulus of a chaotic sky, generally at several levels
- / = Types of medium cloud invisible owing to darkness, fog, blowing dust or sand or other similar phenomena, or more often because of the presence of a continuous layer of lower clouds.

Ch : Type of high cloud

0 = No high cloud

1 = Cirrus in the form of filaments, strands or hooks, not progressively invading the sky.

2 = Dense cirrus, in patches or entangled sheaves, which usually do not increase and sometimes seem to be the remains of the upper part of a Cumulonimbus; or Cirrus with sproutings in the form of small turrets or battlements, or Cirrus having the appearance of cumuliform tufts

3 = Dense Cirrus, often in the form of an anvil, being the remains of the upper part of Cumulonimbus, or where the rest of the Cumulonimbus is below the horizon

4 = Cirrus in the form of hooks or filaments, or both, progressively invading the sky; they generally become denser as a whole

5 = Cirrus (often in bands converging towards one or two opposite points on the horizon) and Cirrostratus, or Cirrostratus alone; in either case they are progressively invading the sky, and generally growing denser as a whole, but the continuous veil does not reach 45 degrees above the horizon.

6 = Cirrus (often in bands converging towards one or two opposite points on the horizon) and Cirrostratus, or Cirrostratus alone; in either case they are progressively invading the sky, and generally growing denser as a whole; the continuous veil extends more than 45 degrees above the horizon, without the sky being totally covered

7 = Veil of Cirrostratus covering the celestial dome.

8 = Cirrostratus not progressively invading the sky and not completely covering the celestial dome

9 = Cirrocumulus alone, or accompanied by Cirrus or Cirrostratus, or both, but Cirrocumulus is predominant.

/ = Types of high cloud invisible owing to darkness, fog, blowing dust or sand or other similar phenomena, or more often because of the presence of a continuous layer of lower clouds.

8 Groups

N = Amount of cloud reported by C, okta.

C = Type of cloud

0 = Cirrus (Ci)

1 = Cirrocumulus (Cc)

2 = Cirrostratus (Cs)

3 = Altocumulus (Ac)

4 = Altostratus (As)

5 = Nimbostratus (Ns)

6 = Stratocumulus (Sc)

7 = Stratus (St)

8 = Cumulus (Cu)

9 = Cumulonimbus (Cb)

/ = Cloud type not visible owing to darkness, fog, duststorm, or other analogous phenomena.

hshs = Height of cloud above station level reported by type C

00 to 50 = Height in hundreds of feet

51 to 55 Not used

56 to 80 = Subtract 50 to obtain cloud height in thousands of feet

81 to 88 = Height of cloud between 35000 and 70000 ft in 5000 ft steps.