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 **DECEMBER 2008**

Temperature (°C / °F)			Anomaly	Rank in the past **127** years			
Mean maximum	7.3	45.1	-1.0	51st lowest			
Mean minimum	0.8	33.4	-1.7	36th lowest			
Daily mean	4.1	39.4	-1.3	43rd lowest			
Highest maximum	12.9	55.2	on 22nd	Lowest maximum	0.6	33.1	on 31st
Highest minimum	9.9	49.8	on 21st	Lowest minimum	-6.0	21.2	on 30th
Mean grass minimum	-2.0	28.4	-1.6	Lowest grass minimum	-10.2	13.6	on 30th
Mean earth @30 cm	6.1	43.0	-0.5	Earth @100 cm	8.6	47.5	-0.9
Frost duration (hrs)	115.3			Rain duration (hrs)	37.9		
Rainfall total (mm / in)	32.1	1.26	50 %	26th lowest			
Highest daily fall	10.8	0.43	on 12th				

Number of: Dry days (<0.2mm)	24	Wet days (>0.9mm)	5	days ≥5mm	3				
Sunshine total (hrs)	84.7	Daily mean	2.73	161 %		Sunniest day	7.4	on 6th&7th	
No days with: Air frost	12	Ground frost	22	Snow falling	0	Snow lying	0		
Thunder	0	Hail ≥5mm	0	Small hail/ice	0	Fog @09	2	Nil sun	5

Air pressure MSL : Mean @09 GMT (mbar/in)	1019.0	+3.9	30.09	
Absolute highest	1038.2		30.66	on 26th
Absolute lowest	979.1		28.91	on 4th

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

Notes: **Dry and Very Sunny with Temperature Well Below Normal.**

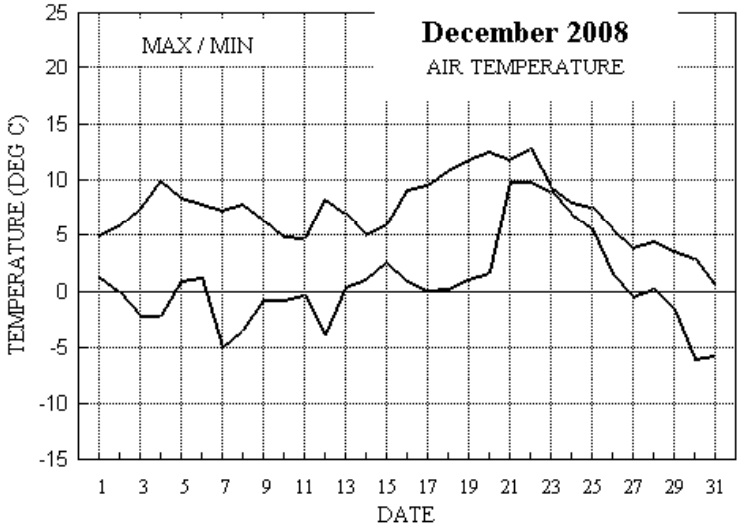
Temperature: Both the mean maximum and daily mean are lowest since 2001, while the mean minimum is lowest since 2005. The highest max is close to the median while the lowest max is 0.8° below the median. 23 years out of the past 97 have had at least one December day where the temperature failed to get above 0° but the last was in 1996. The highest min is 0.6° above the median whilst the lowest min is 0.8° below its median, but 8.9° above the record –14.9° set in 1981. The lowest grass min is close to the average for the past 30 years, and is well above the –23.3° recorded in 1981. Earth temperatures at both 30 cm and 1 m depth are below average. The duration of air frost is 24 hours more than average. The number of days with air frost is 2 above average, and is 6 above for days with ground frost. **Rainfall:** A dry month overall, with only half the average rainfall, and 20.1 mm, 63 % of the month's total, falling nearly continuously during one midnight to midnight period on the 13th. A dry spell of 8 days was unbroken at the end of the month. The number of dry days is most since 1991. The duration of measurable rain is 19 hours less than average. The highest rainfall rate this month was only 6.8 mm per hour on the 4th, the lowest rate for any month since this statistic became available in December 2006. No snow was recorded this December, but slight freezing rain fell between 0700 and 0830 GMT on the 12th. **Sunshine:** It does not take many sunny days in December to lift the sunshine total to near record values, and this month's 4 days with over 90 % of the maximum plus another 4 with over 66 % was enough. While this month's total was well above average it was exceeded as recently as 2005, and before that 2001. Overall there were 19 days with <3 hours and 6 days with =>6 hours. **Wind:** The mean wind speed of 6.2 mph this December is 1.1 mph below average, but is lowest only since 2005. The 21st was the windiest day, but its mean speed of 10.8 mph is lowest for December since before 1987. The highest gust of 39 mph was on the 13th. The 7th was the least windy day, 1.8 mph, and there were 836 minutes (13.9 hours) with a mean speed of 0.5 mph or less. Daily mean direction/number of days : N,3 NE,7 E,0 SE,0 S,3 SW,8 W,7 NW,3. **Humidity:** The overall mean relative humidity was 84.2 %, while the lowest value of 57 % occurred on the 1st. The mean water vapour content per kg of air was 4.3 g at 0900 GMT and 4.4 g at 1500 GMT. **Commentary: From the 1st to the 13th:** Temperatures were generally near or below normal, with anomalies near –3° for the max on the 1st, 10th and 11th, and near –5° for the min on the 3rd, 4th, 7th, 8th and 12th. There were 9 dry days, yet all except 1.8 mm of the month's total fell in this period, notably the fall of 21.2 mm over the 2 rainfall days, the 12th and 13th. Sunshine was plentiful until the 11th, with both the 6th and 7th having over 90 % of the maximum. Winds fluctuated between S and NW, mostly light or moderate, but fresh on the 4th, 12th and 13th. **From the 14th to the 24th :** Temperatures were well below normal at first, but a mild spell developed from the 19th to the 23rd, with anomalies near +4° for the max on the 20th and 22nd, and near +7° for the min on the 21st and 22nd. 8 of the 11 days were dry with only small amounts of rain on the others. Generally dull except for the 17th which had over 90 % of the maximum sunshine. Light or moderate winds were N'ly on the 14th, backed SW'ly on the 16th, temporarily increased fresh on the 21st, and veered N'ly on the 24th. **From the 25th to the 31st :** Temperatures fell steadily through this period and it became cold, with anomalies near –6° for the max on the 31st, and –8° for the min on the 30th. It was dry throughout and quite sunny, with near 90 % of the maximum on the 26th and 29th, though the 31st was overcast. Winds were mostly moderate NE'ly, dropping light on the 30th.

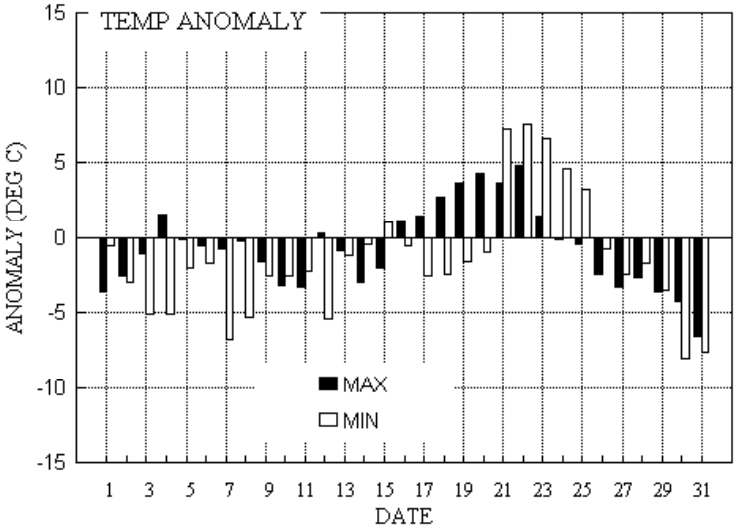
Table. Mean anomalies (max, min, rain, sun) for specified periods.

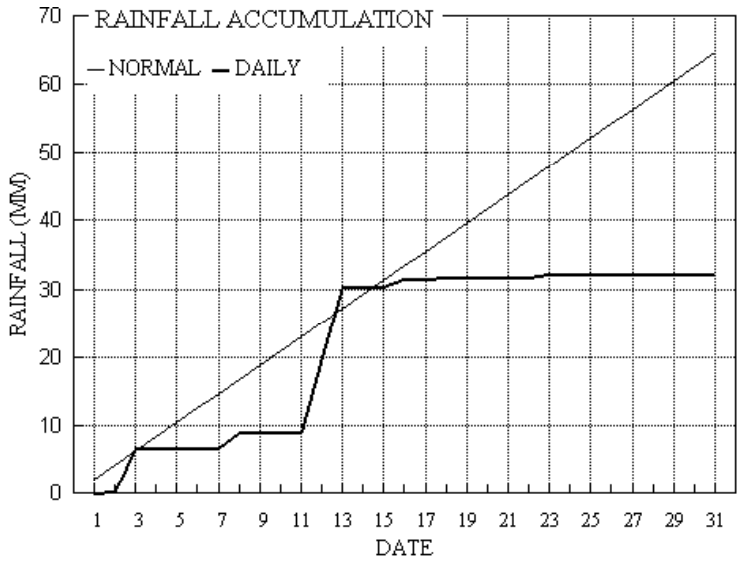
1st to the 10th				11th to the 20th				21st to the 31st			
-1.2°	-3.5°	43 %	270 %	+0.4°	-1.7°	111 %	71 %	-1.2°	+0.5°	2 %	147 %

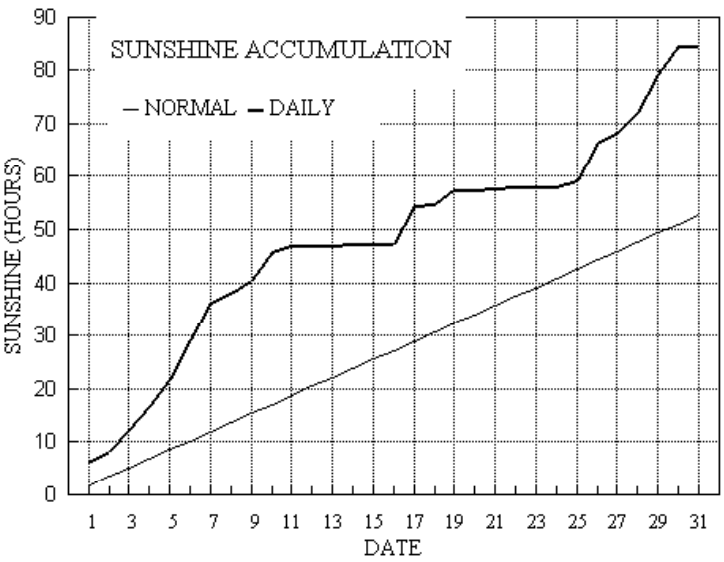
B J Burton FRMetS Hon. Met. Officeer to Wokingham Town Council.

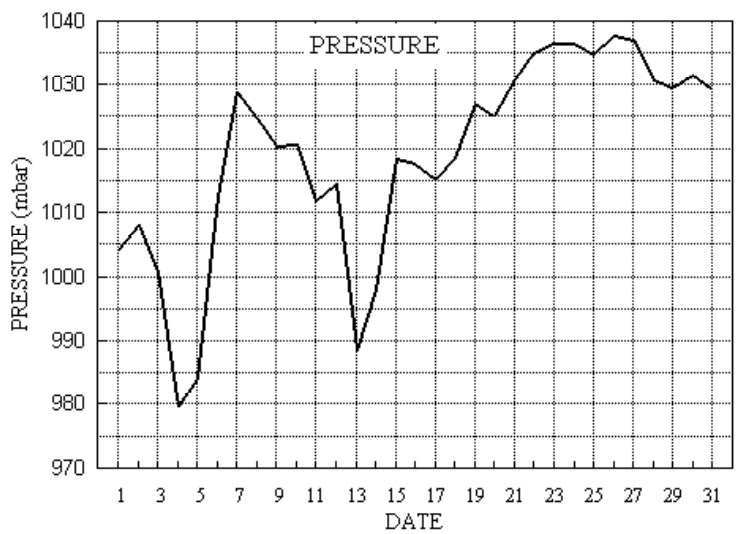
Wokingham Climatological Data Graphs for December 2008

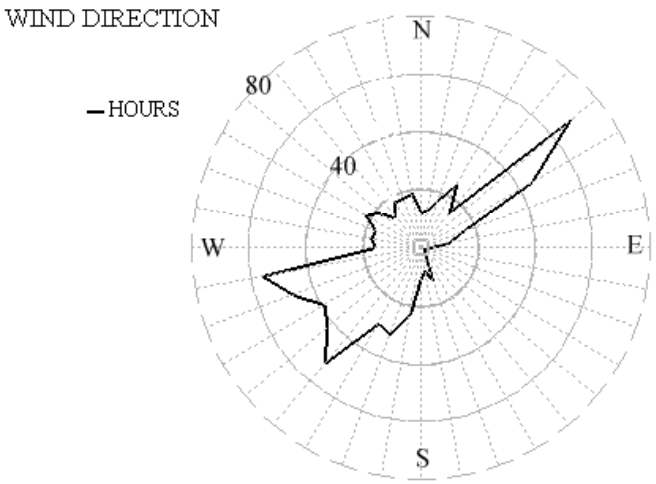


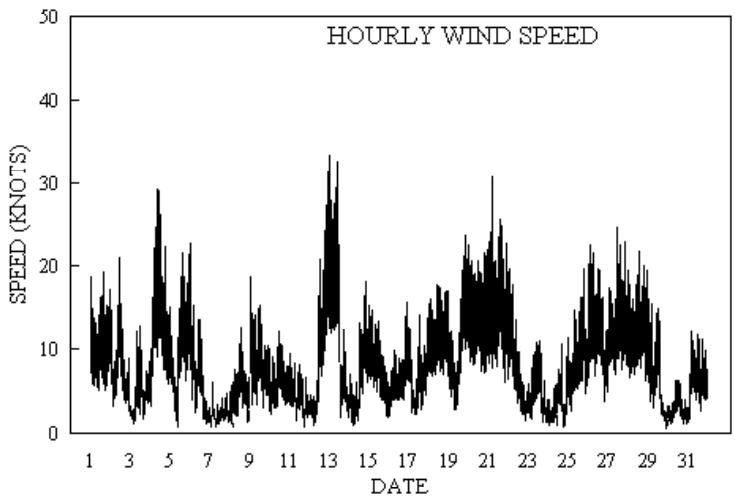


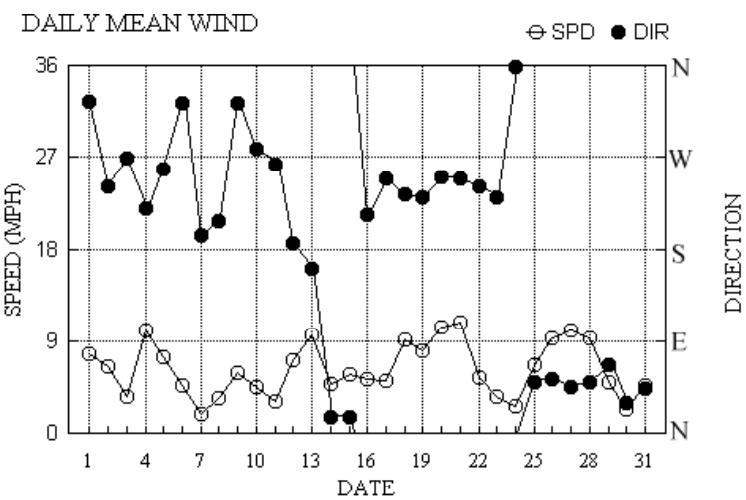












Daily meteorological data. Emmbrook, WOKINGHAM, Berkshire.

Month: DECEMBER 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	Sl	Ha	Fg	ddd	ff	sp	ddd	gg	HHhh	ddd	ff	HH	hrs
1	5.0	1.4	tr	-0.7	7.6	10.1	6.1	0.0	1004.1	0 1	0 0	0 0	0 0	325	6.3	6.7	301	19	1516	356	9	00	0.0
2	5.9	0.0	0.1	-5.5	7.2	10.0	2.3	0.0	1008.1	0 1	0 0	0 0	0 0	242	5.0	5.6	244	21	1049	238	10	11	0.5
3	7.4	-2.1	6.6	-7.6	6.7	9.8	3.6	15.0	1000.7	1 1	0 0	0 0	0 0	269	1.3	3.1	298	13	1232	304	6	12	4.7
4	10.0	-2.1	0.1	-7.7	6.1	9.6	4.7	0.0	979.5	1 1	0 0	0 0	0 0	219	7.4	8.7	199	29	0810	254	13	11	0.1
5	8.4	1.0	tr	-3.6	6.3	9.4	4.9	0.0	984.1	0 1	0 0	0 0	0 0	258	5.7	6.5	269	22	1507	303	11	23	0.2
6	7.9	1.3	0.0	-3.9	6.3	9.3	7.4	6.0	1012.6	0 1	0 0	0 0	0 0	323	3.3	4.0	340	23	0047	332	11	00	0.0
7	7.3	-4.9	0.0	-9.2	5.7	9.1	7.4	17.4	1028.7	1 1	0 0	0 0	0 0	194	1.5	1.6	198	6	0449	194	3	18	0.0
8	7.9	-3.4	2.3	-7.4	4.9	9.0	1.7	9.7	1024.7	1 1	0 0	0 0	0 0	208	2.5	3.0	218	13	1358	212	7	13	4.3
9	6.5	-0.7	0.0	-0.1	5.1	8.7	2.4	0.0	1020.5	1 1	0 0	0 0	0 0	323	4.9	5.1	354	19	0041	354	7	01	0.0
10	4.9	-0.7	tr	-5.4	5.1	8.5	5.3	3.6	1020.6	1 1	0 0	0 0	0 0	278	3.7	3.9	294	12	1210	297	6	12	0.0
11	4.8	-0.3	tr	-4.6	4.8	8.4	1.1	2.6	1011.8	1 1	0 0	0 0	0 0	263	2.3	2.7	291	10	0046	281	4	00	0.0
12	8.3	-3.8	10.8	-8.6	4.7	8.2	0.2	8.6	1014.4	1 1	0 0	0 0	0 0	186	6.0	6.2	190	31	2207	187	14	22	10.6
13	7.1	0.4	10.4	5.7	5.1	8.1	0.0	0.0	988.6	0 0	0 0	0 0	0 0	161	5.7	8.4	183	34	0038	151	14	08	12.7
14	5.0	1.1	0.0	-2.5	5.6	8.0	0.1	0.0	997.9	0 1	0 0	0 0	0 1	15	3.3	4.1	34	18	2002	25	8	20	0.0
15	6.0	2.6	0.0	2.6	5.7	7.9	0.0	0.0	1018.5	0 0	0 0	0 0	0 0	15	4.9	5.0	9	16	0006	17	8	00	0.0
16	9.1	1.0	1.2	1.3	5.9	7.9	0.1	0.0	1017.7	0 0	0 0	0 0	0 1	214	4.3	4.5	209	16	2212	206	7	22	2.1
17	9.6	0.1	0.0	-4.7	6.1	7.9	7.2	0.0	1015.2	0 1	0 0	0 0	0 0	249	3.7	4.5	245	16	2327	236	8	23	0.0
18	10.9	0.3	0.2	-1.8	5.7	7.9	0.3	0.0	1018.4	0 1	0 0	0 0	0 0	234	7.7	7.9	241	18	1027	235	10	10	0.4
19	11.9	1.1	0.0	-3.8	6.2	8.0	2.6	0.0	1027.2	0 1	0 0	0 0	0 0	230	6.7	6.9	237	24	1930	225	11	18	0.0
20	12.5	1.7	0.0	6.4	6.3	8.0	0.1	0.0	1025.0	0 0	0 0	0 0	0 0	250	9.0	9.0	226	23	0000	246	11	00	0.0
21	11.9	9.9	0.0	7.3	6.9	8.0	0.1	0.0	1030.7	0 0	0 0	0 0	0 0	249	9.4	9.4	268	31	0427	250	13	12	0.0
22	12.9	9.9	0.1	7.9	7.4	8.1	0.6	0.0	1034.9	0 0	0 0	0 0	0 0	242	4.5	4.7	252	20	0251	251	9	02	0.5
23	9.5	9.0	0.3	8.5	7.7	8.2	0.0	0.0	1036.5	0 0	0 0	0 0	0 0	230	2.4	3.1	264	11	1348	255	6	13	1.8
24	8.0	7.0	0.0	6.4	7.9	8.4	0.0	0.0	1036.5	0 0	0 0	0 0	0 0	359	1.5	2.3	336	11	1522	41	5	22	0.0
25	7.6	5.6	0.0	3.9	7.8	8.5	1.2	0.0	1034.8	0 0	0 0	0 0	0 0	49	5.7	5.8	62	20	1915	60	10	18	0.0
26	5.6	1.6	0.0	-1.6	7.6	8.6	7.0	0.0	1037.7	0 1	0 0	0 0	0 0	53	8.0	8.0	58	23	0233	58	11	02	0.0
27	3.9	-0.4	0.0	-4.7	6.7	8.6	1.7	0.9	1036.9	1 1	0 0	0 0	0 0	45	8.7	8.7	48	25	1047	56	11	11	0.0
28	4.5	0.3	0.0	-3.0	6.1	8.6	4.1	0.0	1030.7	0 1	0 0	0 0	0 0	49	8.0	8.1	58	22	1329	48	10	18	0.0
29	3.6	-1.5	0.0	-5.5	5.8	8.4	7.1	11.0	1029.6	1 1	0 0	0 0	0 0	67	4.1	4.3	63	16	0001	64	8	00	0.0
30	2.9	-6.0	0.0	-10.2	5.0	8.3	5.4	19.4	1031.5	1 1	0 0	0 0	0 0	30	1.4	2.0	339	7	1151	30	4	14	0.0
31	0.6	-5.6	0.0	-9.7	4.3	8.1	0.0	21.1	1029.4	1 1	0 0	0 0	0 0	43	3.8	4.1	30	12	0418	36	6	04	0.0
Total			32.1				84.7	115.3															37.9
Mean	7.3	0.8		-2.0	6.1	8.6	2.73	3.7	1019.0					268	1	5.4							
Anom	-1.0	-1.7	50%		-0.5	-0.7	161%		+3.9														

Daily mean 4.1 Pressure, abs highest = 1038.2 on 26

Anom -1.3 Pressure, abs lowest = 979.1 on 4

Number of days with:

Air frost = 12 Ground frost = 22 Nil sun = 5

Snow falling = 0 Snow lying = 0 Thunder = 0

Hail=>5mm = 0 Hail<5mm or ice = 0 Fog at 09GMT = 2

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 December 2008

Date	VV	N	dd	ff	gg	TT	TdTd	RH	r	PPP	a	ppp	ww	W1	W2	Nh	Cl	h	Cr	Cm	Ch	sNChshs	NChshs	NChshs	Date	Remarks
1	63	6	32	05	11	1.4	-1.3	82	3.5	1004.1	2	018	02	2	2	1	5	6	4	1		81635	86075		1	1Ac65 COTRA Parhelion. u/a cont
2	80	1	23	07	12	1.4	-1.6	80	3.4	1008.1	8	017	03	1	1	1	0	9	7	0		81360			2	1Ac64 Ac du vir Hoar slt
3	56	6	35	07	12	-0.5	-1.7	92	3.4	1000.7	3	028	10	1	1	6	6	3	0	1		86708			3	1Ci78 COTRA
4	82	7	23	11	29	7.4	5.5	88	5.8	979.5	6	055	21	6	6	7	8	4	7	/		82710	84815		4	4Sc30 /Ac60 CF 0815
5	68	5	32	01	05	1.6	0.8	94	4.1	984.1	3	027	02	2	2	3	5	6	4	2		81630	83640		5	1Ac65 3Ci72 COTRA
6	62	1	28	03	07	3.0	1.2	88	4.1	1012.6	2	037	02	0	0	1	5	6	0	0		81640			6	
7	50	1	21	01	04	-3.4	-4.3	94	2.7	1028.7	2	016	10	0	0	0	0	9	0	1		81078			7	Hoar thk Gnd sfc frzn
8	35	7	28	01	07	-0.7	-1.3	96	3.4	1024.7	7	009	10	2	2	6	5	5	0	8		86628	87272		8	COTRA Hoar thk Gnd sfc frzn
9	60	4	30	05	08	2.8	1.2	89	4.1	1020.5	2	002	05	1	1	4	6	4	0	0		84710			9	
10	75	1	27	03	06	-0.1	-1.9	88	3.3	1020.6	7	007	02	1	1	1	5	6	0	0		81645			10	Hoar mod Gnd sfc frzn
11	61	7	25	02	04	1.8	-0.2	87	3.7	1011.8	3	007	02	2	2	7	8	6	/	/		81830	87640		11	Cu med N
12	57	8	17	03	05	0.5	-0.3	95	3.7	1014.4	0	001	60	6	2	1	5	5	2	/		81625	88550		12	Hoar slt. Ice. Gnd sfc frzn. Past fzra.
13	50	8	15	14	30	6.8	5.1	89	5.6	988.6	7	034	63	6	6	7	7	3	2	/		87708	88515		13	
14	02	9	03	03	05	2.6	2.1	96	4.5	997.9	3	033	43	4	4	9	/	/	/	/					14	
15	57	8	36	06	12	4.3	2.6	89	4.6	1018.5	2	030	05	2	2	8	6	3	/	/		86706	88708		15	
16	04	8	21	03	08	1.1	0.5	96	3.9	1017.7	7	001	45	4	4	8	6	1	/	/		88702			16	
17	75	1	21	03	04	0.3	-0.3	96	3.7	1015.2	2	023	02	0	0	0	0	9	0	2		81072			17	Hoar slt. Ice
18	61	7	22	07	14	9.4	7.1	86	6.2	1018.4	1	006	02	2	2	7	5	4	/	/		82712	87640		18	
19	72	2	16	03	06	1.7	0.5	92	3.9	1027.2	2	025	03	0	0	1	0	9	3	1		81368			19	2Ci72 Hoar slt. Ice
20	75	7	26	09	19	11.7	8.5	80	6.8	1025.0	2	018	02	2	2	7	5	4	3	/		87615			20	/Ac65
21	84	7	24	11	21	10.3	5.3	71	5.4	1030.7	8	008	02	2	2	7	5	5	/	/		87625			21	
22	63	7	25	06	13	10.4	8.6	88	6.8	1034.9	2	010	02	2	2	7	6	3	0	1		86709			22	2SC25 2Ci75
23	60	8	22	02	10	9.2	7.1	87	6.1	1036.5	3	007	20	5	2	8	6	3	/	/		81707	88710		23	VV20k ex NW
24	58	8	04	03	06	7.1	5.4	89	5.4	1036.5	3	009	05	2	2	8	5	5	/	/		88625			24	
25	77	7	05	08	15	5.7	2.9	82	4.5	1034.8	2	013	01	2	2	7	8	4	/	/		81712	86818		25	3Sc25 Cu hum
26	75	2	06	06	14	1.8	-2.1	75	3.2	1037.7	2	015	02	0	0	2	5	5	0	1		82620			26	1Ci80 COTRA Hoar v slt
27	62	1	04	08	14	0.5	-1.2	89	3.4	1036.9	8	001	02	0	0	1	6	3	0	0		81708			27	Hoar slt
28	58	7	05	09	15	1.3	-0.8	86	3.5	1030.7	4	000	05	2	2	7	6	4	/	/		87712			28	Hoar slt
29	56	1	08	05	11	-0.9	-3.5	82	2.9	1029.6	2	013	05	1	1	1	5	4	0	0		81618			29	Hoar v slt. Gnd sfc part frzn
30	30	8	05	02	04	-1.4	-2.4	93	3.1	1031.5	3	005	10	2	2	8	6	3	/	/		88707			30	Hoar mod Gnd sfc frzn
31	25	8	03	06	10	-1.6	-2.4	94	3.1	1029.4	8	002	10	2	2	8	6	2	/	/		86705	88707		31	Hoar thk. Gnd frzn

Mean vis = 14.2 km
Mean wind speed = 5.3 kn
Mean TT = 3.1 °C
Mean r = 4.3 g/kg
Mean cloud = 5.4 67%
Mean gust = 11 kn
Mean TdTd = 1.3 °C
Mean PPP = 1019.0 mbar
Mean RH = 88.2 %

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 December 2008

Date	VV	N	dd	ff	gg	TT	TdTd	RH	r	PPP	a	ppp	ww	W1	W2	Nh	Cl	h	Cm	Ch	N	Chshs	N	Chshs	N	Chshs	Date	Remarks
1	77	6	31	09	17	3.7	-2.9	62	3.1	1006.4	3	011	03	1	1	5	5	5	0	1	8	5625					1	2Ci75
2	82	6	26	05	13	5.0	1.3	76	4.2	1003.5	7	019	02	6	2	4	8	5	3	5	8	3820	8	4357			2	2Sc50 2Cs75 Cu med
3	65	1	34	06	09	3.5	-0.5	75	3.7	1003.6	1	017	02	1	1	0	0	9	0	1	8	1080					3	
4	72	2	24	09	19	8.0	2.3	67	4.6	980.6	6	004	02	1	1	1	8	5	6	3	8	1825					4	1Sc50 1Ac60 1Ci72 Cb top W
5	83	5	27	10	17	8.1	1.9	65	4.5	990.5	1	024	01	1	1	3	8	5	4	1	8	2825					5	2Sc40 2Ac62 1Ci72 COTRA Iridescence in AC
6	81	0	36	04	10	6.5	0.2	64	3.9	1016.6	1	015	02	0	0	0	0	9	0	0							6	
7	65	4	20	03	04	5.7	1.5	75	4.2	1028.7	7	008	02	0	0	0	0	9	0	1	8	4080					7	COTRA Hoar mod in shade.
8	62	7	21	05	10	6.2	3.4	82	4.8	1019.3	7	028	02	2	2	1	5	7	7	1	8	1650	8	3365	8	5367	8	6Ci75 COTRA Ac du vir
9	84	7	32	07	13	5.2	0.9	73	4.0	1018.7	6	009	01	2	2	7	8	4	/	/	8	2818	8	6635			9	2Sc50
10	80	1	29	06	11	3.5	-0.5	75	3.6	1016.7	7	020	03	1	1	1	5	6	0	0	8	1645					10	
11	61	7	26	02	07	4.2	0.7	78	4.0	1011.9	5	002	02	2	2	7	8	5	/	/	8	1820	8	7645			11	Cu med NE
12	56	8	18	07	15	6.8	5.2	89	5.5	1010.1	6	026	58	6	5	8	5	3	/	/	8	7706	8	8620			12	
13	56	8	08	02	04	5.1	4.1	93	5.2	987.2	0	005	63	6	6	7	7	3	2	/	8	1706	8	6710	8	8520	13	
14	64	8	02	05	12	4.2	3.5	95	4.9	1002.6	3	028	02	2	2	8	5	4	/	/	8	3615	8	8618			14	
15	59	7	02	04	08	5.7	3.0	83	4.7	1018.9	8	005	05	2	2	7	6	3	/	/	8	7709					15	
16	62	7	21	05	08	3.6	2.5	92	4.5	1013.9	6	018	03	4	2	4	5	3	7	1	8	1708	8	6359			16	2Sc35 2Sc56 /Ci78 COTRA
17	80	1	29	05	09	6.6	0.3	64	3.9	1016.9	1	005	03	0	0	1	0	9	3	1	8	1365					17	1Ci75
18	70	8	23	09	17	10.7	7.0	78	6.2	1017.4	6	007	02	5	2	8	5	4	/	/	8	1715	8	5620	8	8640	18	
19	70	8	22	09	15	7.0	2.9	75	4.6	1024.7	7	014	03	2	2	2	5	7	7	/	8	1656	8	7462			19	2Ac60 /Ac64
20	70	7	25	09	19	12.0	8.5	79	6.8	1026.2	2	003	02	2	2	5	5	4	3	1	8	4615	8	5362			20	2Sc56 /Ci80 COTRA
21	84	7	25	13	26	11.3	6.0	70	5.7	1031.0	7	006	02	2	2	7	5	5	/	/	8	7622					21	
22	62	8	24	03	07	10.8	8.9	88	6.9	1034.9	6	005	20	5	2	8	5	3	/	/	8	3708	8	5712	8	8615	22	
23	62	8	25	05	10	8.8	6.7	87	5.9	1036.1	7	005	02	2	2	8	6	4	/	/	8	8710					23	
24	72	8	34	03	07	7.3	1.6	67	4.1	1034.2	7	011	02	2	2	8	5	5	/	/	8	8625					24	
25	81	7	06	08	17	6.6	1.5	69	4.1	1034.2	5	004	02	2	2	7	8	5	/	/	8	2820	8	7635			25	Cu hum
26	75	0	05	10	18	4.0	-1.8	66	3.2	1037.2	6	005	02	0	0	0	0	9	0	0							26	
27	62	5	04	10	22	1.9	-2.3	74	3.1	1034.8	6	013	02	2	2	5	5	4	0	0	8	5618					27	
28	63	1	04	09	18	3.0	-1.3	73	3.4	1028.5	6	011	01	1	1	1	5	5	0	0	8	1620					28	
29	59	1	07	06	14	1.9	-3.4	68	2.9	1028.5	6	007	05	0	0	1	5	5	0	0	8	1620					29	Absent vv&cld est
30	40	1	03	04	06	1.7	-1.6	78	3.3	1030.5	7	012	05	0	0	0	0	9	0	1	8	1075					30	Hoar mod in shade
31	38	8	06	04	08	0.1	-2.0	86	3.2	1028.9	5	001	05	2	2	8	6	3	/	/	8	8708					31	Hoar slt. Gnd frzn

Mean vis = 20.5 km Mean wind speed = 6.3 kn Mean TT = 5.8 °C Mean r = 4.4 g/kg

Mean cloud = 5.2 65% Mean gust = 13 kn Mean TdTd = 1.9 °C Mean PPP = 1018.5 mbar

Mean RH = 76.3 %

VV = Visibility code (Code FM12-4377)
N = Total cloud amount, oktas
dd = Direction from which wind is blowing, tens of degrees true
ff = 10 minute mean wind speed, knots
gg = Highest gust in past hour, knots
TT = Air temperature at 1.2 m, deg Celsius
TdTd = Dew point temperature at 1.2 m, deg Celsius
RH = Relative humidity at 1.2 m
r = Humidity mixing ratio at 1.2 m, g/kg
PPP = Air pressure reduced to sea level, mbar
a = Characteristic of pressure tendency (Code FM12-0200)
ppp = 3 hr pressure tendency, tenths of mbar
ww = Present weather code (Code FM12-4677)
W1, W2 = Past weather code (Code FM12-4561)- covers past 3 hours.
Nh = Amount of low cloud present, oktas
Cl = Type of low cloud (Code Fm12-0513)
h = Height of low cloud (Code FM12-1600)
Cm = Type of medium cloud (Code FM12-0515)
Ch = Type of high cloud (Code FM12-0509)
8 groups. 8 = indicator for cloud detail
N = Amount of cloud, oktas
C = Type of cloud (FM12-0500)
hshs= Height of cloud (FM12-1677)
Remarks : COTRA = persistent condensation trails present.

Wokingham AWS Psychrometer, 1min readings

Daily means and extremes, 00-24 GMT and RH statistics

December 2008

Date	Mean TT	Max TT	Time	Min TT	Time	Mean RH	Max RH	Time	Min RH	Time	Missing RH N >0	Number of minutes RH in given ranges 0-20	20-40	40-60	60-80	80-90	90-100
01	3.0	4.8	1302	1.2	756	76.2	84.8	12	57.7	1348		0	0	58	773	609	0
02	2.5	5.6	1339	-0.1	635	81.1	89.9	2134	69.3	56		0	0	0	548	892	0
03	0.0	3.7	1350	-2.1	557	90.3	95.7	607	74.7	1441		0	0	0	147	241	1052
04	5.7	9.8	1320	0.5	6	80.0	92.2	132	59.4	1328		0	0	9	517	805	109
05	5.0	8.3	1452	0.6	752	81.0	94.7	804	63.9	1428		0	0	0	638	543	259
06	3.0	7.6	1311	-2.7	2400	82.4	95.2	2352	62.3	1426		0	0	0	540	465	435
07	-0.9	5.9	1444	-4.6	731	91.0	95.5	2241	73.5	1335		0	0	0	200	136	1104
08	2.3	7.2	1252	-2.8	18	90.7	96.0	708	78.0	1355		0	0	0	78	483	879
09	3.2	6.2	1145	0.7	2331	84.0	94.0	1	72.8	1509		0	0	0	421	670	349
10	1.5	4.3	1349	-0.7	302	80.7	88.9	834	67.9	1350		0	0	0	568	872	0
11	2.0	4.2	1509	-2.3	2355	84.6	95.2	2400	75.0	1242		0	0	0	297	951	192
12	3.2	8.2	1844	-3.7	342	90.6	95.5	126	82.8	1322		0	0	0	0	609	831
13	5.9	7.4	234	3.9	2138	91.0	94.6	1722	84.5	2		0	0	0	0	767	673
14	3.5	4.7	1237	0.7	308	93.0	96.5	837	84.5	1834		0	0	0	0	401	1039
15	4.6	5.9	1333	3.5	2400	87.0	90.3	455	80.8	1404		0	0	0	0	1386	54
16	3.6	8.6	2400	0.9	703	93.4	96.1	1031	89.6	1612		0	0	0	0	71	1369
17	4.9	9.0	55	-0.3	816	82.4	95.9	827	61.6	1326		0	0	0	515	458	467
18	9.2	10.8	1445	5.7	7	81.6	91.0	536	68.0	1739		0	0	0	483	849	108
19	6.4	10.6	2359	0.7	819	79.5	92.9	831	65.6	44		0	0	0	903	460	77
20	11.3	12.4	1142	9.8	2330	80.6	84.4	252	76.6	2400		0	0	0	562	878	0
21	10.8	11.7	1235	10.1	557	74.2	84.2	2310	65.8	432		0	0	0	1178	262	0
22	10.6	12.5	1130	9.8	2359	87.7	91.7	1804	80.6	1131		0	0	0	0	1116	324
23	8.7	9.8	1	7.5	2328	89.6	94.5	2211	83.7	1313		0	0	0	0	744	696
24	7.2	7.9	1129	6.2	2011	82.2	95.0	320	66.1	1354		0	0	0	647	266	527
25	6.1	7.5	1302	5.3	1933	79.6	90.4	416	64.8	1535		0	0	0	882	552	6
26	2.9	5.8	43	-0.0	2201	75.5	93.1	2348	62.7	1310		0	0	0	1048	204	188
27	1.6	3.6	1355	-0.2	801	82.3	93.5	10	69.6	1358		0	0	0	677	619	144
28	1.8	4.0	1256	0.3	420	80.1	87.7	740	69.2	1425		0	0	0	630	810	0
29	-0.1	2.9	1257	-4.7	2355	78.2	92.9	2153	59.2	1108		0	0	15	824	349	252
30	-2.3	2.1	1356	-5.9	357	89.8	94.9	2218	73.8	1400		0	0	0	185	182	1073
31	-1.2	0.2	1333	-5.6	200	90.0	95.5	553	84.5	1642		0	0	0	0	716	724
Mean	4.1	6.9		1.0		84.2	92.7		71.9			0.00	0.00	0.04	7.13	9.87	6.95
Hi	11.3	12.5		10.1		93.4	96.5		89.6	Tot	0	0	0	82	13261	18366	12931
Lo	-2.3	0.2		-5.9		74.2	84.2		57.7								

December 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	3.04	4.9	1301	1.1	754	76.20	85.0	0	57.4	1346	-0.80	3.61	4.3	13	2.9	1430	1004.99	1009.5	2359	999.7	9	0.0
2	2.46	5.7	1337	-0.3	635	81.10	90.1	2132	69.1	55	-0.47	3.71	4.6	1331	3.1	748	1005.19	1009.9	241	997.9	2358	0.2
3	0.01	3.8	1349	-2.2	554	90.30	95.9	604	74.5	1440	-1.42	3.46	3.9	1240	3.1	1827	1001.16	1004.8	1724	997.0	319	0.1
4	5.73	9.8	1318	0.4	5	80.00	92.3	131	58.8	1329	2.44	4.67	5.8	859	3.6	5	984.10	1000.5	5	979.1	833	5.1
5	4.99	8.4	1451	0.5	750	81.00	94.8	919	63.5	1417	1.90	4.46	5.0	1042	3.8	750	988.03	999.7	2359	980.3	14	0.1
6	3.00	7.7	1310	-2.9	2358	82.40	95.4	2318	62.0	1424	0.17	3.85	4.4	1102	2.9	2358	1014.19	1024.4	2359	999.5	0	0.0
7	-0.93	6.0	1443	-4.7	712	90.90	95.6	2328	73.3	1444	-2.28	3.20	4.3	1321	2.5	730	1028.13	1029.9	1044	1024.4	0	0.1
8	2.34	7.3	1251	-2.9	16	90.70	96.2	707	77.9	1355	0.94	4.10	5.2	1251	2.9	18	1022.02	1028.0	0	1017.0	2016	1.4
9	3.23	6.3	1144	0.6	2330	84.00	94.1	0	72.6	1506	0.75	3.99	5.2	0	3.3	2330	1020.11	1022.6	2341	1017.5	0	0.6
10	1.53	4.4	1348	-0.8	301	80.70	89.1	833	67.6	1349	-1.46	3.39	3.7	1252	3.1	246	1018.42	1022.6	152	1013.1	2359	0.1
11	1.97	4.3	1504	-2.4	2354	84.60	95.3	2358	74.8	1241	-0.37	3.70	4.1	1148	3.0	2354	1012.41	1014.6	2343	1011.1	638	0.0
12	3.15	8.3	1841	-3.8	341	90.50	95.6	126	82.6	1321	1.72	4.44	5.9	1703	2.7	341	1010.62	1015.0	19	999.8	2357	0.9
13	5.91	7.5	233	3.8	2154	91.00	94.7	1716	84.3	0	4.55	5.37	5.8	259	4.8	2154	989.89	1000.3	0	986.5	1156	15.4
14	3.49	4.8	1236	0.6	307	93.00	96.6	810	84.3	1833	2.45	4.58	5.2	1238	3.9	307	1000.44	1011.1	2352	989.5	0	0.2
15	4.56	6.0	1359	3.4	2359	86.90	90.5	453	80.6	1402	2.57	4.54	4.8	1332	4.3	2202	1017.77	1020.4	2005	1010.9	6	0.0
16	3.57	8.7	2359	0.8	704	93.40	96.3	1037	89.5	1611	2.60	4.61	6.6	2359	3.8	704	1015.34	1019.6	150	1009.5	2359	0.8
17	4.90	9.2	53	-0.4	815	82.40	96.0	915	61.3	1325	2.04	4.43	6.8	53	3.5	815	1015.35	1018.6	2057	1009.2	110	0.3
18	9.18	10.9	1444	5.6	10	81.60	91.2	619	67.8	1737	6.16	5.85	6.6	1339	4.7	5	1017.87	1020.1	2345	1016.8	1613	0.2
19	6.39	10.7	2356	0.6	818	79.50	93.1	831	65.3	43	3.06	4.71	6.2	2354	3.5	756	1023.72	1027.8	1001	1019.9	1	0.1
20	11.33	12.5	1141	9.7	2329	80.60	84.6	250	76.5	2359	8.13	6.63	7.0	746	5.8	2352	1025.75	1030.3	2359	1021.0	5	0.0
21	10.77	11.8	1232	10.1	552	74.20	84.3	2308	65.6	431	6.33	5.83	6.6	2313	5.3	431	1031.53	1033.4	2351	1029.9	122	0.0
22	10.61	12.6	1128	9.7	2355	87.60	91.8	1802	79.9	1133	8.65	6.81	7.3	1125	6.4	2	1034.76	1036.1	2358	1032.7	52	0.0
23	8.73	9.9	9	7.4	2327	89.60	94.7	2247	83.5	1309	7.12	6.12	6.6	408	5.8	1413	1036.36	1037.8	2006	1035.5	524	0.2
24	7.17	8.0	1127	6.1	2010	82.20	95.2	306	65.7	1353	4.25	5.06	6.1	322	4.1	1500	1035.30	1036.7	829	1034.1	1449	0.1
25	6.09	7.6	1301	5.2	1925	79.60	90.5	415	64.4	1534	2.79	4.55	5.2	315	3.7	1534	1034.92	1036.4	1906	1033.3	513	0.0
26	2.94	5.9	39	-0.1	2200	75.50	93.2	2346	62.4	1309	-1.07	3.43	4.2	2	3.0	750	1037.22	1038.2	2232	1035.7	110	0.0
27	1.59	3.7	1354	-0.3	756	82.30	93.6	13	69.1	1357	-1.13	3.42	3.9	130	3.1	1552	1035.71	1038.0	5	1032.8	2352	0.2
28	1.84	4.2	1255	0.2	419	80.10	87.8	739	68.9	1424	-1.25	3.41	3.7	1118	3.1	2359	1029.80	1032.9	0	1027.9	1758	0.0
29	-0.14	3.0	1256	-4.8	2354	78.20	93.0	2152	58.2	1108	-3.60	2.87	3.3	113	2.4	2354	1029.08	1030.5	2342	1028.1	358	0.0
30	-2.33	2.2	1355	-6.0	355	89.80	95.0	2217	73.5	1359	-3.83	2.83	3.4	1147	2.2	353	1030.97	1032.0	945	1030.0	2350	0.0
31	-1.24	0.2	1328	-5.6	156	90.00	95.7	547	84.4	1641	-2.68	3.07	3.3	1252	2.3	156	1029.53	1030.6	1020	1028.5	1349	0.0
Total																						26.1
Mean	4.06	6.97		0.93		84.19	92.81		71.59		1.56	4.34	5.13		3.62		1018.73	1022.97		1014.46		
Max	11.33	12.55		10.06		93.40	96.60		89.50		8.65	6.81	7.28		6.44		1037.22	1038.24		1035.70		
Min	-2.33	0.24		-5.98		74.20	84.30		57.38		-3.83	2.83	3.28		2.19		984.10	999.70		979.13		

Wokingham Automatic Weather Station
AWS samples taken every 0.5 seconds
x and n refer to maximum and minimum respectively

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

Readings taken at Wokingham Climatological Station, Emmbrook, Berkshire
Lat 51.425 N, Long 0.853 W, NGR (SU) 798701
Altitude 45 m ASL.