

# 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

### MARCH 2025

Temperature (°C)		Anomaly	Rank in the past	144	years				
Mean maximum	14.4	+2.8	3rd highest						
Mean minimum	2.2	-1.0	71st highest						
Daily mean	8.3	+0.9	15th highest						
Highest maximum	21.0	on 20th	Lowest maximum	8.2	on 17th				
Highest minimum	9.4	on 22nd	Lowest minimum	-3.7	on 3&16				
Mean grass minimum	-1.5	-1.3	Lowest grass minimum	-8.2	on 16th				
Mean earth @30 cm	7.4	+0.1	Earth @100 cm	7.6	-0.1				
Frost duration (hrs)	82.0		Rain duration (hrs)	8.1					
Rainfall total (mm)	6.4	15 %	7th lowest						
Highest daily fall	2.5	on 23rd	Highest rate mm/hr	8	on 28th				
Number of: Dry days (<0.2mm)	25	Wet days (>0.9mm)	3	days ≥5mm	0				
Sunshine total (hrs)	195.6	Daily mean	6.31	156 %	Sunniest day	12.4	on 30&31		
N° days with: Air frost	12	Ground frost	19	Snow falling	0	Snow lying	0		
Thunder	0	Hail ≥5mm	0	Small hail/ice	2	Fog @09	2	Nil sun	0
Pressure MSL : Mean @09 GMT, mbar	1018.1	+2.5	Highest	1037.1	on 1st	Lowest	998.2	on 22nd	
Relative humidity : Mean (%)	74.8	Lowest	29	on 4th	Water vapour (g/kg), mean at 09 and 15 GMT	5.1,	4.8		
Overall mean wind speed (mph)	5.2	Windiest day	9.7	on 28th	Max gust	28	on 15th		
Wind direction (days)	N 6	NE 4	E 6	SE 3	S 1	SW 4	W 4	NW 3	
Least windy day (mph)	1.4	on 3rd	Calm; less than 0.5 mph (minutes)	n/a					

Anomaly = departure from 1991 to 2020 average (degrees C, percent and mbar).

Notes:

#### Record Sunshine and Very Dry with Above Average Mean Temperature

**Temperature:** The mean maximum this March is highest since 2012 and 3rd highest in 144 years, but the record set in 1938 is 1.2° higher than in this March. The mean minimum, however, is 1.0° below average, and equals the median value for the past 144 years. The resulting mean daily temperature range of 12.2° is a new record high for March in the past 50 years, the previous highest of 12.1° was in 2012. The highest max is 4.2° above the median and the lowest max is 3.4° above its median. The highest min is 0.5° above the median and the lowest min is 0.3° above its median. The mean grass min is equal lowest with 2016 since 2013, and the lowest daily value is lowest since 2016. The number of days with air frost is 6 above average and highest since 2013. The duration of air frost is 43 hours more than the average of 39 hours. Earth temperature at both 30cm and 1 m depth is close to average. Anomalies for daily maximum were negative between the 11th and 17th, with an extreme value of -3.0° on the 17th, but were above +6° on the 6th to 9th and 19th to 21st with an extreme value of +9.9° on the 20th. Anomalies for daily min exceeded -5° from 1st to 5th, 14th, 16th and 19th, and were above +5° on 21st and 22nd, with extreme values of -7.3° on 16th and +6.0° on 22nd. **Rainfall:** This has been an extremely dry March, the rainfall total of 6.4 mm is lowest for the month since 1961, and ranks 7th driest in 144 years. The highest daily fall of 2.5 mm is equal lowest for March since 1944. The number of dry days is equal highest since 2011, but it is the first March since 1999 to have no daily fall of 5 mm or more. The duration of rain is just 18 % of average. There were two dry spells ending in this month, one of 10 days on the 8th and one of 7 days on the 20th. There was no thunder or snow but showers of snow pellets occurred on the 12th and 13th, and ice pellets also fell on the 13th. All but 1.5 mm of the month's total fell between the 21st and 27th. **Sunshine:** This has been a remarkably sunny March, the daily mean sun is 156 % of average making it the sunniest in this millennium, and probably in over 100 years. The daily mean of 6.31 hours is 0.63 hours more than the average for April, and even 0.06 hours more than that of May. The highest daily total of 12.4 hours is also highest for March in this millennium. There were no days with nil sun for only the 3rd March in 47 years. Daily sunshine was 90% or more of the maximum on the 2nd to 4th, 8th, 9th, 18th, 30th and 31st. Days having <30% of the maximum were the 10th to 14th, 17th, 21st to 23rd, 25th and 27th. Daily accumulation compared with normal was 42 hours in surplus by the 9th, increasing to 54 hours by the 20th and to 70 hours by the 31st. Overall there were 9 days with <3 hours, 17 with =>6 hours and 2 with =>12 hours. **Wind:** The mean wind speed is 2.4 mph below average and lowest for any March in the past 38 years, though the mean in 2012 was only 0.1 mph higher. The highest gust is also lowest for the month in the same period. Daily mean speeds were light or moderate throughout. Directions were between N and E from the 8th to 11th, 14th to 18th, 23rd, 24th and 31st., between E and S on the 6th, 7th and 19th to 22nd , between S and W on the 4th, 5th and 26th to 29th, and between W and N on the 1st to 3rd, 12th, 13th, 25th and 30th.

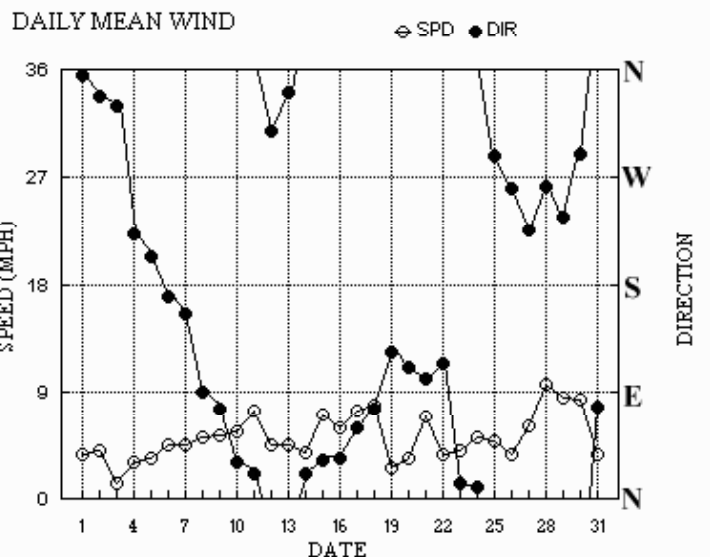
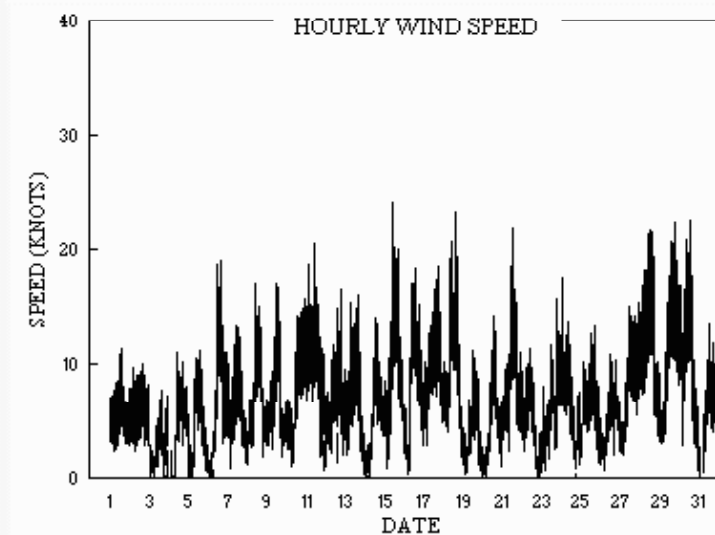
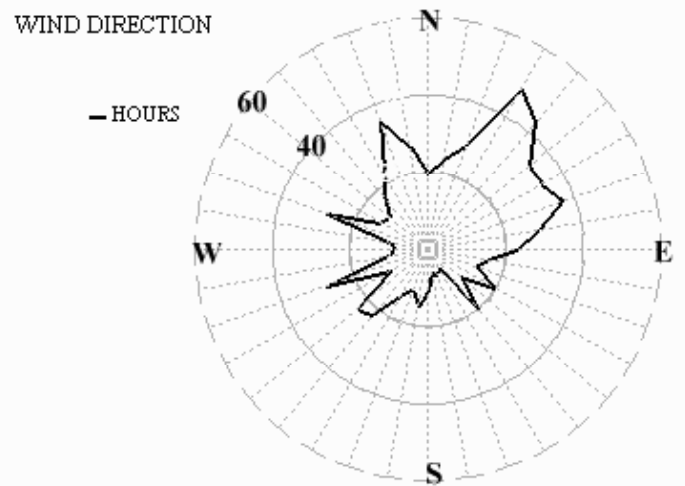
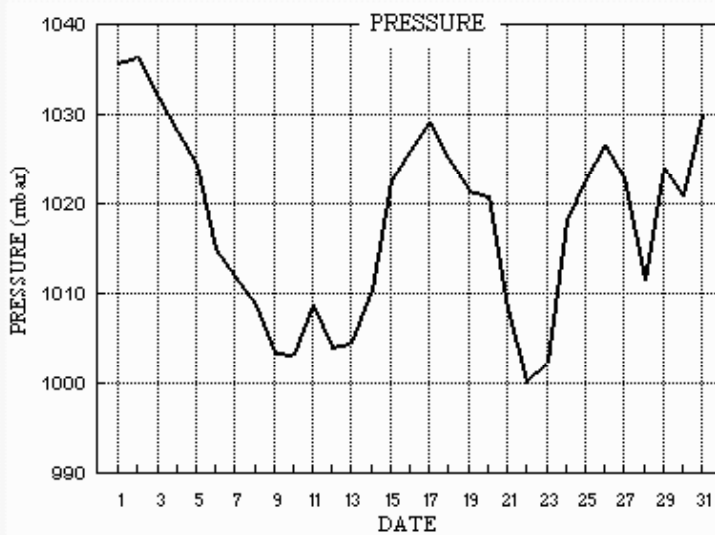
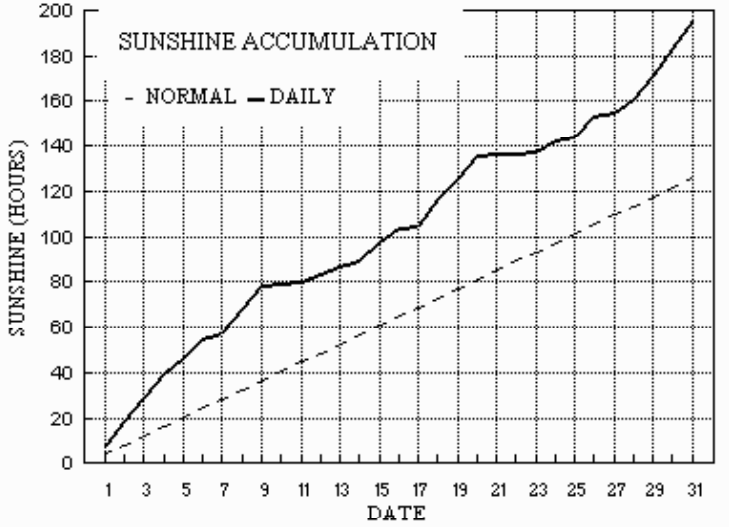
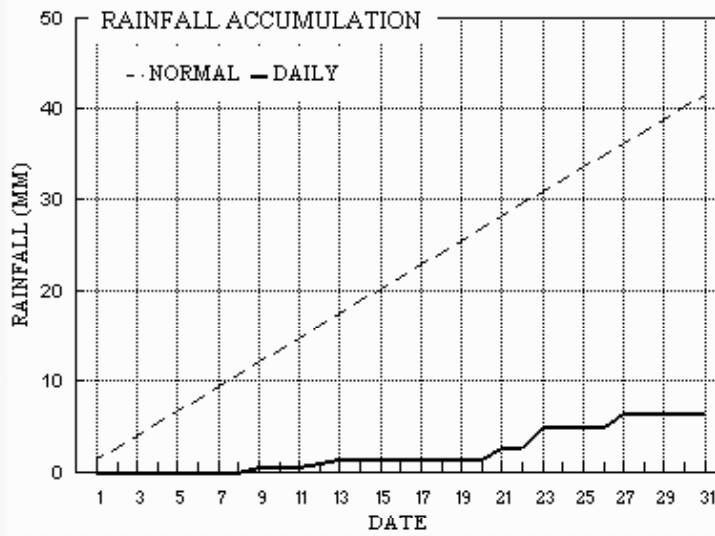
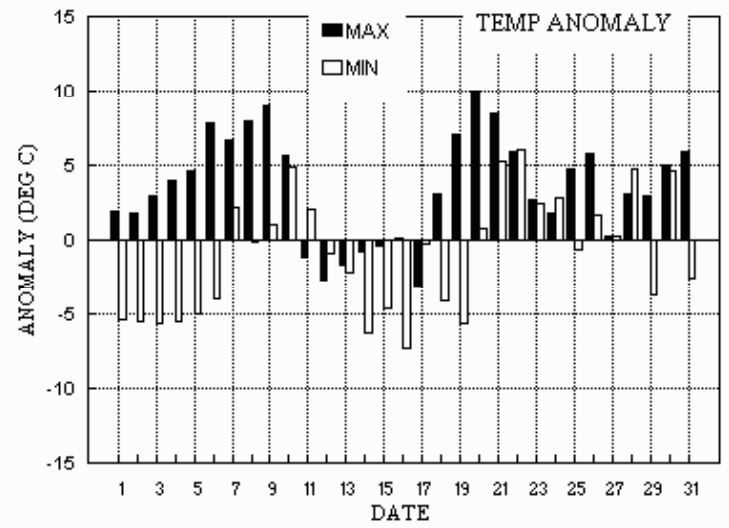
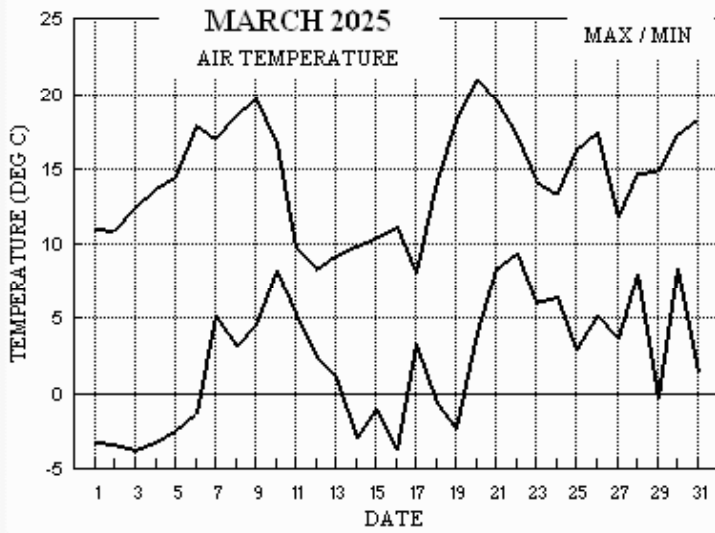
Table 1. Mean anomalies (max, min, rain, sun) for specified periods.

From the 1 <sup>st</sup> to the 10 <sup>th</sup>				From the 11 <sup>th</sup> to the 20 <sup>th</sup>				From the 21 <sup>st</sup> to the 31 <sup>st</sup>			
+5.2°	-2.3°	4%	195%	+1.1°	-2.9°	7%	139%	+4.2°	+1.9°	33%	135%

B J Burton FRMetS.

Hon. Met. Officer to Wokingham Town Council.

# Wokingham climatological graphs for March 2025



Month: MARCH 2025

Date	Max C	Min C	Rain mm	Grass Min	30cm C	100cm C	Sun hrs	Frost hrs	pp09 mbar	Af Gf	Sf SI	Th Ha	Ic Fg	Vec ddd	mean ff	sp	Max gust ddd	gg	HHhh	High hr ddd	ff	Rain HH	hrs		
1	11.0	-3.3	0.0	-7.4	6.0	7.4	7.9	10.9	1035.8	1	1	0	0	0	1	355	3.0	3.3	40	11	1427	10	5	15	0.0
2	10.9	-3.4	0.0	-7.7	5.7	7.3	10.6	10.7	1036.5	1	1	0	0	0	0	337	3.4	3.5	355	10	1643	351	5	16	0.0
3	12.4	-3.7	0.0	-7.9	5.3	7.2	10.7	9.6	1031.9	1	1	0	0	0	0	329	0.4	1.2	324	8	1425	327	4	14	0.0
4	13.7	-3.3	0.0	-7.6	5.0	7.0	10.6	8.5	1028.1	1	1	0	0	0	0	223	2.2	2.7	278	11	1035	211	6	16	0.0
5	14.5	-2.5	0.0	-7.2	5.0	6.8	6.9	7.1	1024.5	1	1	0	0	0	1	203	2.8	2.9	188	11	1455	195	7	15	0.0
6	17.9	-1.3	0.0	-4.9	5.1	6.7	8.1	5.1	1014.9	1	1	0	0	0	0	170	3.4	3.9	184	19	1655	183	10	12	0.0
7	17.0	5.1	tr	5.0	5.7	6.7	2.9	0.0	1012.0	0	0	0	0	0	0	156	3.6	3.9	167	13	1155	192	7	13	0.0
8	18.6	3.1	0.0	-1.5	6.6	6.7	10.4	0.0	1008.7	0	1	0	0	0	0	90	4.2	4.5	112	17	1100	107	8	14	0.0
9	19.7	4.5	0.5	-0.4	6.9	6.9	10.3	0.0	1003.4	0	1	0	0	0	0	76	4.3	4.6	79	17	1255	97	9	13	0.8
10	16.6	8.2	0.1	6.6	7.5	7.0	0.8	0.0	1003.2	0	0	0	0	0	0	31	4.8	5.0	30	16	2320	29	9	23	0.1
11	9.8	5.3	tr	4.8	8.1	7.2	0.9	0.0	1008.9	0	0	0	0	0	0	22	6.3	6.4	23	21	1115	25	10	11	0.0
12	8.3	2.3	0.4	-2.1	7.8	7.5	3.5	0.0	1004.2	0	1	0	0	0	1	309	3.5	3.9	11	17	1845	356	7	18	0.8
13	9.2	1.1	0.5	-2.8	7.4	7.6	3.0	1.8	1004.5	0	1	0	0	0	1	340	3.8	3.9	325	16	1525	336	7	14	0.5
14	9.9	-3.0	0.0	-6.6	7.0	7.7	3.1	8.0	1010.5	1	1	0	0	0	0	22	3.1	3.4	29	14	1415	14	7	00	0.0
15	10.4	-1.1	0.0	-5.5	6.8	7.6	8.6	2.2	1022.7	1	1	0	0	0	0	33	6.1	6.1	44	24	1045	32	10	00	0.0
16	11.2	-3.7	tr	-8.2	6.5	7.6	5.5	8.0	1026.0	1	1	0	0	0	0	35	5.1	5.3	51	18	1315	43	10	12	0.0
17	8.1	3.3	0.0	0.6	6.6	7.5	1.2	0.0	1029.1	0	0	0	0	0	0	60	6.3	6.4	88	19	1915	85	9	19	0.0
18	14.2	-0.7	0.0	-6.1	6.6	7.5	11.7	2.1	1025.2	1	1	0	0	0	0	75	6.8	6.9	83	24	1645	84	12	16	0.0
19	18.1	-2.3	0.0	-5.8	6.5	7.4	9.0	7.5	1021.6	1	1	0	0	0	0	124	1.5	2.3	173	11	1245	137	5	14	0.0
20	21.0	4.0	tr	0.0	7.2	7.4	9.8	0.0	1020.8	0	0	0	0	0	0	111	2.5	2.9	108	14	1420	141	7	00	0.0
21	19.6	8.4	1.1	3.5	7.9	7.5	1.3	0.0	1008.4	0	0	0	0	0	0	102	5.7	6.1	117	22	1355	113	11	13	1.7
22	17.1	9.4	0.0	5.1	8.6	7.7	0.2	0.0	1000.2	0	0	0	0	0	0	114	2.8	3.2	116	12	1110	109	7	11	0.0
23	14.2	6.0	2.5	1.8	9.1	7.9	0.3	0.0	1002.3	0	0	0	0	0	0	14	3.2	3.6	22	16	2050	13	7	21	3.5
24	13.3	6.4	0.0	6.3	9.2	8.1	5.3	0.0	1018.2	0	0	0	0	0	0	11	3.2	4.5	16	18	0320	22	8	03	0.0
25	16.3	2.9	tr	-1.2	9.0	8.3	1.7	0.0	1022.8	0	1	0	0	0	0	288	3.1	4.2	338	13	1705	278	7	14	0.1
26	17.4	5.1	0.0	0.6	9.3	8.5	9.5	0.0	1026.6	0	0	0	0	0	0	260	1.5	3.2	237	11	1300	219	6	19	0.0
27	11.8	3.7	1.3	-0.6	9.6	8.6	1.0	0.0	1023.0	0	1	0	0	0	0	225	5.2	5.4	214	15	1215	227	9	16	0.6
28	14.7	8.0	0.0	5.1	9.5	8.8	6.3	0.0	1011.6	0	0	0	0	0	0	262	6.7	8.4	281	22	1430	289	11	14	0.0
29	14.9	-0.3	0.0	-4.3	9.2	8.9	9.7	0.5	1024.1	1	1	0	0	0	0	237	7.0	7.3	228	22	2000	244	12	15	0.0
30	17.2	8.3	0.0	3.4	9.4	8.9	12.4	0.0	1021.0	0	0	0	0	0	0	289	6.4	7.2	287	23	1545	283	12	13	0.0
31	18.3	1.4	0.0	-2.6	9.5	9.0	12.4	0.0	1030.0	0	1	0	0	0	0	78	2.9	3.3	96	14	1450	110	6	19	0.0

Total 6.4 195.6 82.0 8.1

Mean 14.4 2.2 -1.5 7.4 7.6 6.31 2.6 1018.1 31 1.0 4.5

Anom +2.8 -1.0 15% -1.3 +0.1 -0.1 156% +2.5

Daily mean 8.3 Pressure, abs highest = 1037.1 on 1

Anom +0.9 Pressure, abs lowest = 998.2 on 22

Number of days with:

Air frost = 12 Ground frost = 19 Nil sun = 0

Snow falling = 0 Snow lying = 0 Thunder = 0

Hail=>5mm = 0 Hail<5mm or ice = 2 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. SI = Snow lying at 09 GMT.

Th = Thunder. Ha = Hail =>5mm. Ic = Hail <5mm or ice. Fg = Fog at 09 GMT.

Vec mean = 24 hour mean wind vector, ddd = direction in degrees from true north, ff = speed in knots.

Sp = 24 hour mean wind speed in knots.

Max gust = Highest gust in 24 hours, gg = speed in knots, HHhh = Time, hours and minutes, GMT.

High hr = Highest hourly mean wind, HH = hour commencing. Rain Hrs = Duration of rain, 24 hours to 09 GMT. Excludes snow/hail.

30cm and 100 cm are earth temperatures at those depths, read at 09 GMT.

Maximum daily rain rate in mm/hr

All temperatures in degrees Celsius.

Anomaly - Departure from the 1991 to 2020 climatological average



Weather observations. Emmbrook, Wokingham, Berkshire.

Observations at 1500 GMT for MARCH 2025

Date	VV	N	dd	ff	gg	TT	TdTd	RH	r	PPP	a	pppww	W1W2	NhCl	hCrCl	NChshs	NChshs	NChshs	Date	Remarks													
1	81	4	04	04	11	10.3	0.6	51	3.9	1034.4	7	011	02	1	1	1	4	6	0	1	81835	84081	1	1Sc38	Cu	hum							
2	82	1	34	04	08	10.5	-1.5	43	3.3	1032.7	7	023	02	0	0	0	0	9	0	1	81075		2										
3	83	2	03	03	09	12.4	-1.5	38	3.3	1028.2	6	025	03	0	0	0	0	9	0	1	81270		3	2Ci75	COTRA								
4	81	1	19	06	10	13.6	-3.6	30	2.9	1024.4	6	032	02	0	0	0	0	9	0	1	81078		4			Wind est until further notice							
5	59	2	21	05	11	14.2	1.5	42	4.2	1020.5	7	026	05	0	0	0	0	9	0	1	82081		5			Sky turbid							
6	82	6	18	08	19	15.5	3.6	45	4.9	1011.6	6	011	03	1	1	1	0	9	4	5	81368	86073	6	2Cs70	U/a	cont+Parhelion							
7	80	7	17	06	14	15.4	8.2	62	6.7	1011.0	6	006	02	6	2	4	5	7	7	1	84656	85358	86075	7			COTRA						
8	82	7	11	10	15	17.9	5.5	44	5.6	1005.5	7	020	03	2	2	1	0	9	8	1	81367	86073	8	OTRA	Cz	arc U/a	cont						
9	72	6	11	10	16	19.2	4.6	38	5.3	1000.4	7	015	02	2	2	0	0	9	0	1	86080		9			COTRA							
10	50	7	04	08	15	13.6	6.0	60	5.8	1003.6	5	000	05	2	2	7	0	9	7	/	81360	87362	10										
11	83	7	02	10	17	8.7	0.4	56	3.9	1007.5	6	012	02	2	2	7	8	6	/	/	83833	87650	11			Cu	med						
12	60	6	32	03	15	4.9	1.0	76	4.1	1002.5	6	010	27	8	1	5	4	4	6	/	82815	83650	85358	12	1Sc25	Cu	con. jpS	vv50k	ex	S	Past	snow	pel
13	58	6	36	08	15	8.7	1.4	60	4.2	1003.9	5	006	16	8	1	5	8	5	6	/	83825	83650	13	2Ac59	jpN&E	vv50k	ex	p					
14	70	7	03	10	15	8.3	0.8	59	4.0	1012.7	2	011	15	2	2	7	8	6	/	1	82835	83640	87650	14	/Ci75	COTRA	Cu	med	jpNW&NE	vv60k	ex	p	
15	88	2	05	12	20	9.9	-3.4	39	2.9	1021.8	8	010	01	1	1	2	1	6	0	0	82848		15			Cu	hum						
16	86	7	05	11	18	8.1	-0.1	56	3.7	1025.1	7	007	03	1	1	7	5	6	/	/	87635		16										
17	81	8	07	07	13	7.9	0.4	59	3.8	1027.5	8	015	02	2	2	8	5	6	/	/	88630		17										
18	80	0	09	11	20	13.1	-2.0	35	3.2	1021.3	7	023	02	0	0	0	0	9	0	0			18										
19	70	5	15	05	11	17.9	4.8	42	5.3	1019.5	6	011	03	1	1	4	0	9	4	2	81359	84369	19	3Ci72								Iridescence	
20	82	2	16	08	15	20.6	6.9	41	6.1	1017.3	6	017	02	0	0	1	2	7	0	5	81850		20	1Cs75	2Ci78	Cu	med	Cs	edge	SW			
21	67	7	13	10	18	17.4	6.9	50	6.2	1002.7	6	023	02	2	2	7	0	9	7	8	84465	85368	87273	21									
22	82	8	14	05	09	16.4	9.1	62	7.3	998.5	8	010	03	2	2	2	2	6	1	7	82830	85465	88270	22			Cu	con	E				
23	25	8	02	07	11	11.8	10.9	94	8.1	1004.7	2	014	51	6	5	8	5	3	/	/	86706	87710	88625	23									
24	57	1	04	04	07	12.6	5.5	62	5.6	1019.2	8	005	05	1	1	0	0	9	0	1	81080		24			Sky	turbid						
25	81	8	29	08	13	15.2	8.4	64	6.8	1021.9	7	007	03	1	1	8	8	5	/	/	81820	87627	25	/Sc56		Cu	fra						
26	80	1	25	06	11	17.0	6.2	49	5.8	1024.1	7	016	02	0	0	1	4	6	0	1	81838		26	1Sc40	1Ci75		Cu	hum					
27	68	8	25	07	13	11.5	7.8	78	6.5	1019.4	7	022	02	2	2	8	5	4	/	/	86613	88616	27										
28	88	2	31	12	22	14.3	-1.7	33	3.3	1012.0	7	001	01	1	1	2	4	7	0	8	82850		28	1Sc56	1Cs75		Cu	hum	Cs	edge	E.		
29	86	6	25	12	20	14.0	1.0	41	4.0	1021.2	8	019	03	1	1	1	4	6	3	6	81848	83272	86077	29	1Sc50	1Ac64		Cu	hum				
30	82	0	30	13	21	17.0	2.6	38	4.5	1022.3	2	001	02	0	0	0	0	9	0	0			30										
31	83	3	09	07	14	17.3	4.3	42	5.1	1027.8	7	013	02	0	0	1	4	7	0	1	81650	83080	31	1Ci75	COTRA								

Mean vis = 32.4 km

Mean cloud = 4.7 58%

Mean wind speed = 7.7 kn

Mean gust = 14 kn

Mean TT = 13.4 °C

Mean TdTd = 3.1 °C

Mean RH = 51.3 %

Mean r = 4.8 g/kg

Mean PPP = 1016.3 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

Wokingham Sunshine Hourly analysis  2025	Hour	01-Mar	02-Mar	03-Mar	04-Mar	05-Mar	06-Mar	07-Mar	08-Mar	09-Mar	10-Mar	11-Mar	12-Mar	13-Mar	14-Mar	15-Mar	16-Mar
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.01	0.03	0.09	0.05	0.15	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50
7	0.50	1.00	1.00	1.00	0.24	1.00	0.77	1.00	0.85	0.00	0.00	0.00	0.00	0.05	0.89	1.00	1.00
8	0.60	1.00	1.00	1.00	0.00	1.00	0.98	1.00	1.00	0.00	0.01	0.28	0.00	0.39	0.88	1.00	1.00
9	0.03	1.00	1.00	1.00	0.00	1.00	0.42	1.00	1.00	0.00	0.35	0.14	0.00	0.02	0.62	0.58	0.58
10	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.53	0.25	0.97	0.11	0.69	0.69
11	1.00	1.00	1.00	1.00	0.92	1.00	0.08	1.00	1.00	0.00	0.11	0.00	0.06	0.71	0.73	0.27	0.27
12	1.00	1.00	1.00	1.00	1.00	1.00	0.26	1.00	1.00	0.11	0.12	0.00	0.20	0.10	0.77	0.62	0.62
13	1.00	1.00	1.00	1.00	1.00	0.90	0.05	1.00	1.00	0.73	0.17	0.36	0.56	0.00	0.72	0.10	0.10
14	1.00	1.00	1.00	1.00	1.00	0.80	0.27	1.00	1.00	0.01	0.11	0.54	0.45	0.11	0.92	0.01	0.01
15	0.79	1.00	1.00	1.00	1.00	0.29	0.00	1.00	1.00	0.00	0.02	0.67	0.46	0.00	1.00	0.13	0.13
16	0.84	1.00	1.00	1.00	1.00	0.00	0.04	1.00	1.00	0.00	0.00	0.65	0.68	0.19	1.00	0.33	0.33
17	0.17	0.64	0.67	0.63	0.67	0.00	0.00	0.24	0.29	0.00	0.01	0.31	0.37	0.57	0.93	0.23	0.23
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Tot</b>	<b>7.93</b>	<b>10.64</b>	<b>10.67</b>	<b>10.63</b>	<b>6.86</b>	<b>8.08</b>	<b>2.93</b>	<b>10.39</b>	<b>10.33</b>	<b>0.84</b>	<b>0.91</b>	<b>3.49</b>	<b>3.04</b>	<b>3.11</b>	<b>8.61</b>	<b>5.46</b>	

Hour	17-Mar	18-Mar	19-Mar	20-Mar	21-Mar	22-Mar	23-Mar	24-Mar	25-Mar	26-Mar	27-Mar	28-Mar	29-Mar	30-Mar	31-Mar	Mean
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.00
6	0.25	0.56	0.39	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.77	0.00	0.98	0.99	1.00	0.21
7	0.92	1.00	1.00	0.35	0.00	0.00	0.30	0.00	0.00	0.06	0.17	0.00	1.00	1.00	1.00	0.52
8	0.00	1.00	1.00	0.29	0.07	0.00	0.00	0.00	0.42	0.67	0.00	0.00	1.00	1.00	1.00	0.54
9	0.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.87	1.00	0.00	0.24	1.00	1.00	1.00	0.52
10	0.00	1.00	1.00	1.00	0.00	0.17	0.00	0.01	0.09	1.00	0.00	0.76	1.00	1.00	1.00	0.57
11	0.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.82	0.00	0.67	1.00	1.00	1.00	0.56
12	0.00	1.00	1.00	0.95	0.29	0.00	0.00	0.59	0.00	0.73	0.00	0.61	1.00	1.00	1.00	0.59
13	0.00	1.00	1.00	0.87	0.64	0.00	0.00	0.60	0.32	0.95	0.00	0.37	0.99	1.00	1.00	0.62
14	0.00	1.00	1.00	0.87	0.06	0.00	0.00	1.00	0.02	1.00	0.00	0.48	1.00	1.00	1.00	0.60
15	0.00	1.00	0.57	1.00	0.21	0.00	0.00	1.00	0.00	1.00	0.00	0.87	0.75	1.00	1.00	0.57
16	0.00	1.00	0.01	1.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.54
17	0.06	1.00	0.00	0.99	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.41
18	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.25	0.00	0.33	0.00	0.42	0.34	0.05
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Tot</b>	<b>1.23</b>	<b>11.69</b>	<b>8.96</b>	<b>9.83</b>	<b>1.26</b>	<b>0.18</b>	<b>0.30</b>	<b>5.32</b>	<b>1.73</b>	<b>9.49</b>	<b>0.95</b>	<b>6.31</b>	<b>9.73</b>	<b>12.42</b>	<b>12.36</b>	<b>195.69</b>

MARCH 2025	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	2.35	11.0	1332	-3.3	631	85.0	100.0	839	48.1	1342	-0.4	3.6	5.1	1046	2.9	701	1034.71	1037.1	2211	1031.8	0	0.1
2	2.71	10.9	1344	-3.4	640	79.9	99.1	733	41.0	1426	-1.1	3.4	4.4	1103	2.8	640	1034.42	1036.9	10	1031.6	1658	0.1
3	3.30	12.4	1459	-3.7	659	75.9	98.5	807	35.7	1542	-1.3	3.4	4.2	1149	2.7	659	1029.93	1032.0	853	1027.7	1632	0.1
4	4.61	13.7	1456	-3.3	626	71.5	98.8	735	28.6	1517	-1.3	3.4	4.2	1112	2.7	1517	1026.33	1028.8	1035	1023.7	1622	0.1
5	4.29	14.5	1520	-2.5	637	81.6	99.8	832	32.3	1514	0.8	4.0	5.1	1204	3.1	652	1022.13	1024.7	950	1018.5	2357	0.2
6	8.13	17.9	1220	-1.3	638	70.5	99.7	713	35.7	1320	2.1	4.4	5.8	2356	3.4	638	1013.91	1018.8	37	1011.3	1518	0.1
7	12.06	17.0	1235	6.9	2328	72.0	89.7	2334	55.8	1236	7.0	6.2	7.1	1151	5.5	2354	1011.23	1012.2	909	1010.6	1615	0
8	10.44	18.6	1311	3.1	616	72.3	97.8	545	43.2	1534	5.1	5.4	6.4	1335	4.5	700	1007.53	1011.0	7	1005.0	1543	0
9	11.58	19.7	1312	4.5	657	67.1	91.6	707	38.1	1429	5.1	5.5	6.4	1234	4.7	1517	1002.52	1005.4	4	1000.2	1506	0
10	10.14	16.6	1330	7.1	2349	74.0	89.3	734	50.7	1340	5.6	5.7	6.6	1153	5.0	524	1003.82	1008.1	2358	1000.8	444	0.4
11	6.51	9.8	1433	3.7	1856	72.1	84.8	42	54.4	1335	1.7	4.3	5.2	41	3.6	1601	1007.98	1009.1	930	1006.7	2359	0
12	4.74	8.3	1416	1.5	2121	76.8	92.7	2137	56.7	1712	0.9	4.1	5.2	1315	3.5	1712	1003.97	1006.8	1	1001.9	1616	0.5
13	3.64	9.2	1335	-1.0	2333	83.1	98.7	2344	54.4	1500	0.9	4.1	4.9	1728	3.5	1503	1004.72	1007.6	2249	1003.1	415	0.7
14	3.39	9.9	1439	-3.0	506	81.4	99.5	325	54.2	1440	0.2	3.9	5.1	1139	3.0	521	1012.02	1018.7	2358	1007.5	0	0.1
15	4.26	10.4	1335	-1.1	514	71.4	98.9	605	39.3	1519	-1.1	3.5	4.6	824	2.8	1721	1022.14	1024.7	2303	1018.6	0	0
16	3.95	11.2	1256	-3.7	605	73.3	98.0	722	44.9	1257	-0.8	3.5	4.7	2358	2.7	637	1025.66	1027.9	2351	1024.1	305	0.1
17	5.72	8.2	1600	1.4	2349	74.2	94.5	2358	57.9	1406	1.3	4.1	4.9	301	3.3	1925	1027.99	1029.3	1041	1026.7	1658	0
18	5.39	14.2	1356	-0.7	606	66.4	96.9	630	29.1	1357	-1.6	3.3	4.1	820	2.4	1637	1023.59	1027.0	8	1020.8	1659	0.1
19	7.88	18.1	1437	-2.3	605	69.6	96.5	633	40.1	1231	1.9	4.4	5.9	1335	3.0	534	1020.84	1021.8	741	1019.2	1550	0.1
20	12.24	21.0	1353	4.0	633	66.1	96.0	651	37.8	1517	5.4	5.5	6.7	1131	4.7	550	1018.60	1021.3	107	1014.5	2358	0
21	12.86	19.6	1334	8.4	16	70.3	96.2	2218	43.0	1336	7.2	6.3	8.1	2224	5.3	12	1006.18	1014.6	1	1000.7	2305	1
22	12.60	17.1	1352	8.5	2351	82.8	97.0	656	59.2	1428	9.6	7.5	8.4	1028	6.6	2321	999.74	1000.8	1	998.2	1535	0
23	9.89	14.2	1148	6.0	542	93.3	98.6	619	75.0	1105	8.8	7.1	8.3	1454	5.8	542	1004.22	1012.5	2359	999.2	246	2.3
24	8.28	13.3	1552	4.9	2237	80.5	95.4	2129	57.9	1553	4.9	5.3	6.0	1405	4.9	2237	1018.23	1022.2	2237	1012.4	0	0
25	9.86	16.3	1352	2.9	204	82.1	98.9	333	59.6	1353	6.7	6.0	7.1	1539	4.5	204	1022.74	1025.2	2357	1021.6	311	0
26	11.43	17.4	1441	5.1	451	71.3	94.9	2359	45.1	1418	6.0	5.7	6.5	1127	4.9	450	1024.98	1026.7	904	1023.3	1620	0
27	8.52	11.8	1517	3.7	554	88.1	98.8	611	75.2	1536	6.6	6.0	6.6	1516	4.8	554	1020.66	1024.1	103	1014.8	2355	0
28	10.31	14.7	1234	4.4	2356	65.5	96.4	812	32.4	1458	3.4	5.0	7.4	837	2.9	1714	1013.43	1018.7	2314	1011.2	610	1.1
29	8.12	14.9	1347	-0.3	606	69.6	98.1	654	35.3	1358	2.3	4.4	6.7	2359	3.5	1354	1021.14	1024.1	938	1017.6	2356	0
30	11.94	17.2	1553	5.3	2338	63.6	90.2	25	34.1	1715	4.5	5.2	7.0	154	3.7	1806	1021.84	1027.7	2331	1017.1	149	0
31	9.92	18.3	1432	1.4	537	66.6	96.9	619	36.6	1558	3.2	4.7	5.8	1237	3.9	2247	1028.41	1030.0	856	1027.2	1621	0
Total																						7.1
Mean	7.78	14.42		1.72		74.8	96.20		46.18		3.02	4.81	5.95		3.89		1017.28	1020.51		1014.44		
Max	12.86	20.95		8.53		93.3	100.00		75.23		9.57	7.46	8.37		6.56		1034.71	1037.09		1031.80		
Min	2.35	8.18		-3.69		63.6	84.79		28.60		-1.56	3.35	4.14		2.41		999.74	1000.84		998.16		

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  
 Time = hours and minutes in GMT of extreme values

Temperature and humidity are from an aspirated Vaisala HMP45 unit  
 Pressure is from a Setra CS100 sensor  
 Data is logged on a Campbell Scientific CR10X measurement and control system  
 R tot = Rainfall from TBR, uncorrected

## 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 1981 to 2010. This will be next updated in 2020. 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 1981 to 2010 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/wwp1.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, 1<sup>st</sup> January to 31<sup>st</sup> 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  $-0.1^{\circ}\text{C}$  or below. A ground frost day is recorded when the grass minimum temperature read at 0900 GMT on that day is  $-0.1^{\circ}\text{C}$  or lower.

Duration of air frost is defined as the number of minutes that the AWS one minute average temperature is below  $0.0^{\circ}\text{C}$ , 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.