

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

APRIL 2016

		Anomaly		Rank in the past 135 years					
Temperature (°C)									
Mean maximum	13.5	-0.5		65 th highest					
Mean minimum	3.6	-0.8		45 th lowest					
Daily mean	8.5	-0.7		59 th lowest					
Highest maximum	18.6	on 21 st	Lowest maximum	9.6	on 16 th				
Highest minimum	8.3	on 15 th	Lowest minimum	-1.7	on 28 th				
Mean grass minimum	-0.3	-1.0	Lowest grass minimum	-7.0	on 28 th				
Mean earth @30 cm	10.1	+0.2	Earth @100 cm	9.5					
Frost duration (hrs)	19.2		Rain duration (hrs)	48.0					
Rainfall total (mm)	61.3	126 %	36 th highest						
Highest daily fall	22.7	on 15 th							
Number of: Dry days (<0.2mm)	11	Wet days (>0.9mm)	12	days ≥5mm	5				
Sunshine total (hrs)	160.7	Daily mean	5.36	100 %	Sunniest day	13.4 on 20 th			
N° days with: Air frost	5	Ground frost	17	Snow falling	0	Snow lying	0		
Thunder	1	Hail ≥5mm	1	Small hail/ice	4	Fog @09	0	Nil sun	1
Pressure MSL : Mean @09 GMT, mbar	1012.8	-2.2	Highest	1031.2	on 20 th	Lowest	997.1	on 15 th	
Relative humidity : Mean (%)	74.7	Lowest	29	on 27 th	Water vapour (g/kg), mean at 09 and 15 GMT	5.1,	4.7		
Overall mean wind speed (mph)	6.6	Windiest day	11.9	on 6 th	Max gust	41	on 6 th		
Wind direction (days)	N 2	NE 4	E 1	SE 1	S 5	SW 6	W 8	NW 3	
Least windy day (mph)	3.6	on 13 th	Calm; less than 0.5 mph (minutes)	304					

Anomaly = departure from 1981 to 2010 average (degrees C, percent and mbar).

Notes:

Cool and Wet with Average Sunshine.

Temperature: This has been a cool April by modern standards, 0.7° below the current 30 year climatological average. In recent years 2013 was equally cool and 2012 was 0.4° colder, but apart from those we have to look back to 2000 to find another April colder than this year's. The highest maximum is 2.1° below the median and is lowest since 2006 while the lowest max is 1.9° above the median. The highest min is 1.6° below the median while the lowest min is 0.2° above its median. The mean grass minimum is 1.0° below average but is lowest only since 2013. The mean earth temperature at both 30 cm and 1 m depth are close to normal. Up to the 14th anomalies of daily maximum were in the range +3.9° on the 13th to -1.9° on the 9th. Daily min were mainly near or above normal, anomaly +4.6° on the 4th, but there were two cold nights, anomaly -5.4° on the 1st and -5.0° on the 10th. For the remainder of the month there were more negative than positive anomalies, and no positive after the 22nd. Anomalies for daily max were below -4° on the 16th, 22nd, 24th and 26th. For min the anomalies were -7.3° on the 28th and -7.1° on the 30th, otherwise between +4.6° on the 15th and -5.1° on the 27th. **Rainfall:** The rainfall in April can be very variable, some Aprils such as 2007 and 2011 having less than 2 mm in total, while others, like 2000 with 140 mm and 2012 with 119 mm, reveal its wetter face. The year April is in the wet category, having 26% more rain than average, caused to a large degree by a single one day fall of 22.7 mm on the 15th, giving the wettest April day since 2000, and 5th wettest since before 1904. Rainfall accumulation was a little above normal by the 14th, becoming 25 mm in surplus on the 15th. A dry spell of 5 days followed, reducing the surplus to 17 mm by the 21st, and generally small amounts to the end of the month reduced this further to around 13 mm on the 30th. Showers were wintry at times, with hail, ice pellets and snow pellets accompanying the rain on the 5th, 6th, 25th, 27th and 29th. There was also thunder on the 7th. The rainfall rate reached the violent category on the 15th, when 51 mm/hr was recorded at 1429 GMT. **Sunshine:** A near average month and the 2nd sunniest of the past 5 Aprils, although since 2000 7 Aprils have been sunnier. Daily sunshine accumulation was in deficit by about Overall there were 9 days with <3 hours, 14 with =>6 hours, 4 with =>9 hours and 1 with =>12 hours. **Wind:** The mean wind speed this month is 0.3 mph below average, but is highest since 2013. The highest gust of 41 mph is exactly average. Daily mean winds were light or moderate throughout apart from fresh on the 6th, 28th and 29th. Directions started S'ly veering W'ly on the 5th, backing SW'ly by the 9th, becoming temporarily E'ly on the 10th, then SW'ly veering NW'ly on the 16th, becoming NE'ly on the 19th, backing W'ly by the 25th.

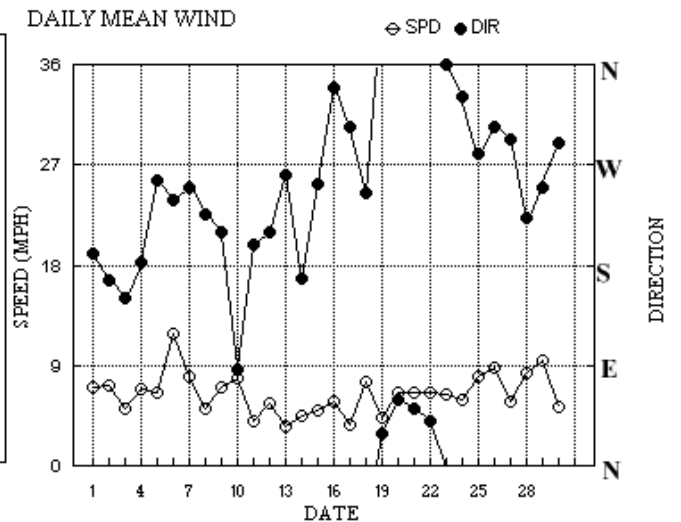
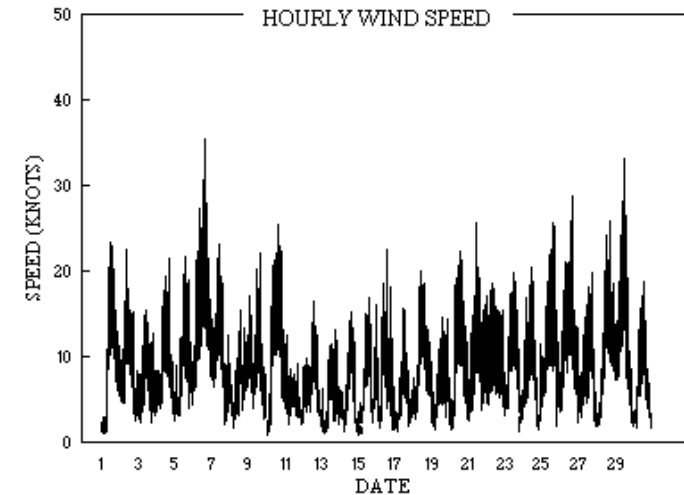
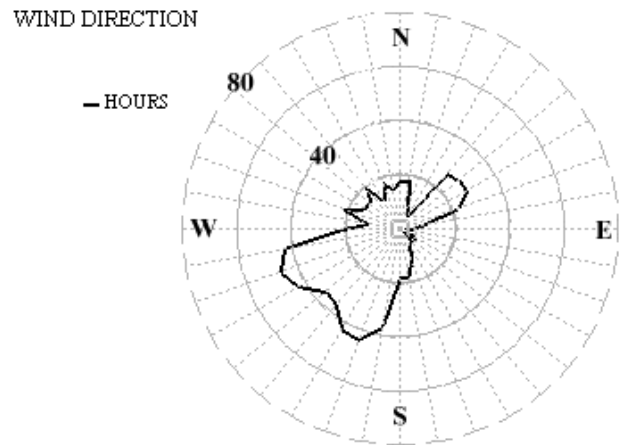
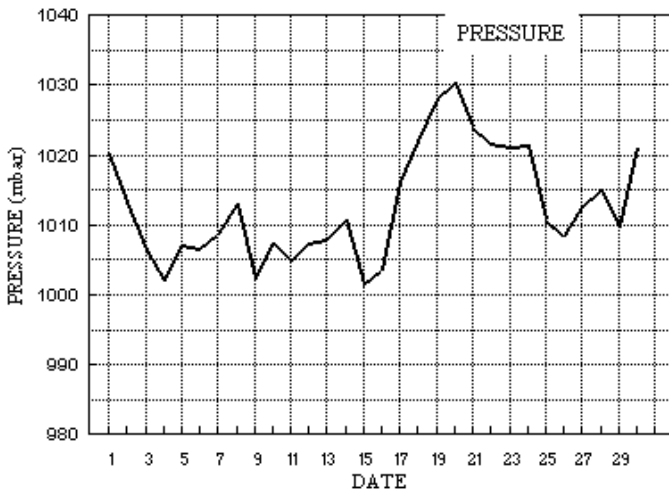
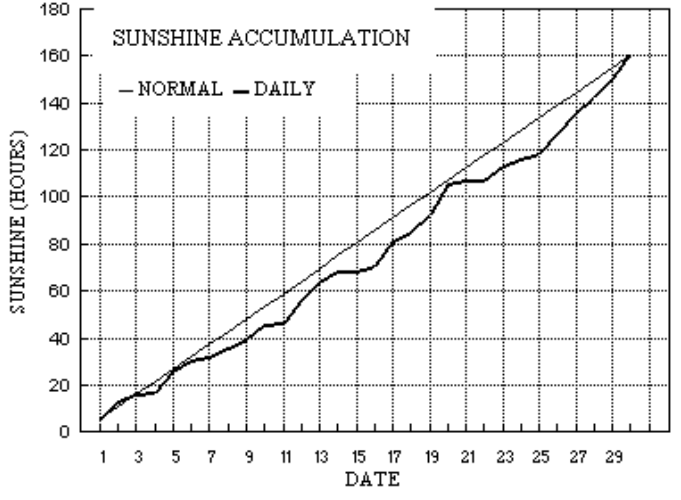
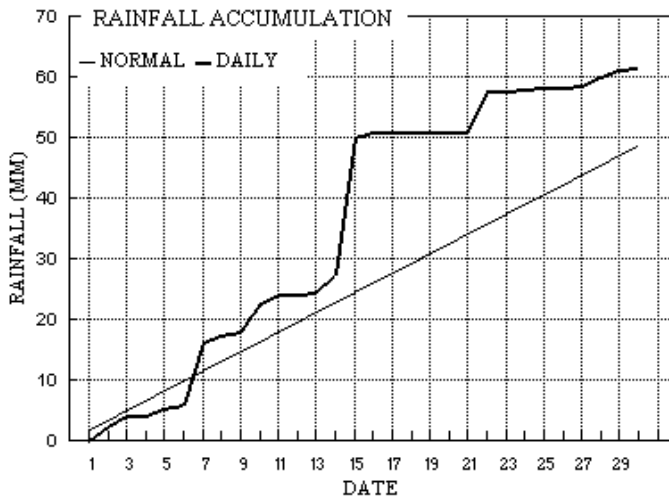
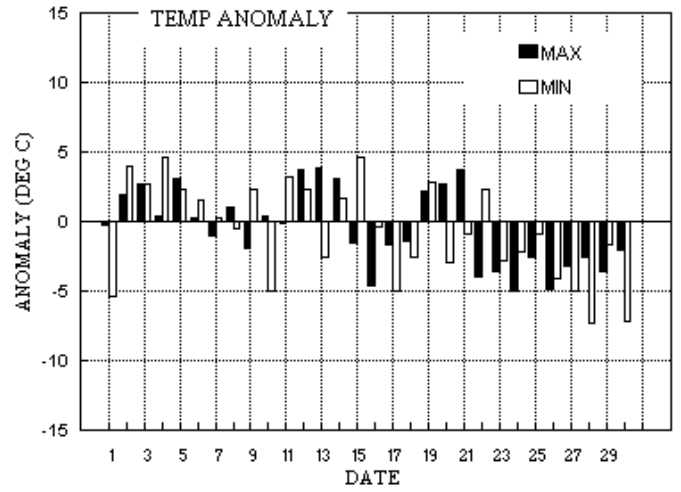
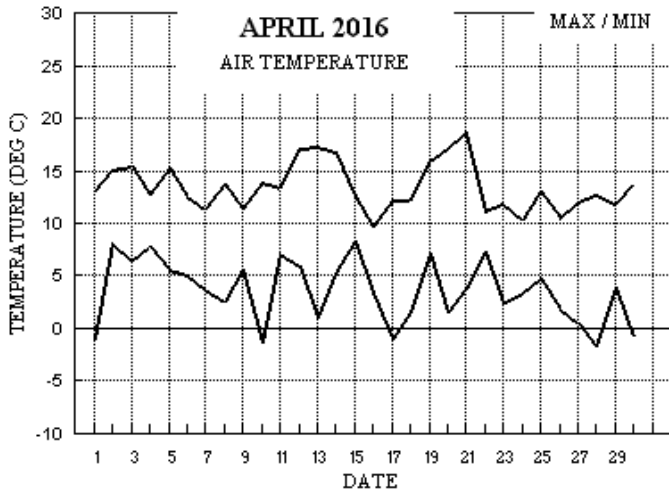
Table 1. Mean anomalies (max, min, rain, sun) for specified periods.

From the 1 st to the 10 th				From the 11 th to the 20 th				From the 21 st to the 30 th			
+0.7°	+0.7°	136%	86%	+0.6°	+0.1°	173%	112%	-2.8°	-3.0°	62%	103%

B J Burton FRMetS.

Hon. Met. Officer to Wokingham Town Council.

Wokingham climatological graphs for April 2016



Month: APRIL 2016

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	13.1	-1.1	0.0	-5.8	8.5	8.5	5.9	4.6	1020.2	1	1	0	0	0	0	0	0	13
2	15.1	8.2	2.4	7.0	8.6	8.5	6.9	0.0	1013.2	0	0	0	0	0	0	0	0	09
3	15.4	6.4	1.6	4.4	9.3	8.5	3.2	0.0	1006.5	0	0	0	0	0	0	0	0	10
4	12.7	7.8	tr	5.3	9.8	8.6	1.0	0.0	1002.0	0	0	0	0	0	0	0	0	16
5	15.3	5.6	1.1	-0.1	9.8	8.8	8.7	0.0	1007.2	0	1	0	0	0	0	0	0	12
6	12.6	5.0	0.8	0.0	9.9	8.9	4.7	0.0	1006.7	0	0	0	0	0	1	0	0	13
7	11.4	3.7	10.1	-0.4	9.5	9.1	1.6	0.0	1008.6	0	1	0	0	1	1	0	0	10
8	13.8	2.6	1.3	-2.2	9.2	9.1	4.1	0.0	1013.1	0	1	0	0	0	0	0	0	23
9	11.4	5.6	0.7	3.4	9.7	9.1	3.4	0.0	1002.2	0	0	0	0	0	0	0	0	02
10	13.9	-1.3	4.5	-6.2	9.5	9.2	6.5	4.1	1007.5	1	1	0	0	0	0	0	0	16
11	13.4	7.1	1.7	3.0	9.6	9.2	0.4	0.0	1004.9	0	0	0	0	0	0	0	0	13
12	17.1	6.0	0.0	3.0	10.0	9.3	9.7	0.0	1007.3	0	0	0	0	0	0	0	0	14
13	17.3	1.0	0.1	-3.6	10.4	9.3	8.0	0.0	1007.9	0	1	0	0	0	0	0	0	19
14	16.8	5.3	3.0	1.5	10.8	9.5	4.3	0.0	1010.6	0	0	0	0	0	0	0	0	16
15	12.6	8.3	22.7	7.1	11.0	9.6	0.2	0.0	1001.4	0	0	0	0	0	0	0	0	11
16	9.6	3.4	0.9	-0.4	11.0	9.7	2.3	0.0	1003.5	0	1	0	0	0	0	0	0	18
17	12.3	-1.1	0.0	-6.5	10.3	9.8	10.2	4.0	1016.0	1	1	0	0	0	0	0	0	11
18	12.3	1.6	0.0	-3.6	10.1	9.9	3.8	0.0	1021.9	0	1	0	0	0	0	0	0	12
19	16.0	7.1	0.0	5.4	10.2	9.9	7.5	0.0	1028.1	0	0	0	0	0	0	0	0	21
20	17.1	1.5	0.0	-5.2	10.6	9.9	13.4	0.0	1030.3	0	1	0	0	0	0	0	0	16
21	18.6	3.7	0.0	-2.5	11.0	9.9	1.3	0.0	1024.1	0	1	0	0	0	0	0	0	13
22	11.2	7.3	6.7	5.3	11.4	10.0	0.0	0.0	1021.6	0	0	0	0	0	0	0	0	16
23	11.8	2.4	tr	-2.2	11.0	10.1	6.4	0.0	1021.1	0	1	0	0	0	0	0	0	12
24	10.4	3.4	0.2	0.0	10.9	10.2	2.9	0.0	1021.4	0	0	0	0	0	0	0	0	09
25	13.0	4.7	0.4	-0.2	10.7	10.2	1.9	0.0	1010.7	0	1	0	0	0	0	1	0	17
26	10.5	1.8	tr	-2.5	10.5	10.2	8.4	0.0	1008.5	0	1	0	0	0	0	0	0	15
27	12.1	0.5	0.3	-3.3	10.1	10.2	8.9	0.0	1012.6	0	1	0	0	0	0	1	0	17
28	12.7	-1.7	1.5	-7.0	10.1	10.2	7.3	3.9	1015.1	1	1	0	0	0	0	0	0	18
29	11.8	3.9	1.0	1.9	10.3	10.1	7.4	0.0	1009.8	0	0	0	0	0	0	1	0	13
30	13.7	-0.9	0.3	-5.2	10.2	10.1	10.4	2.6	1021.1	1	1	0	0	0	0	0	0	15
Total			61.3				160.7	19.2										48.0
Mean	13.5	3.6		-0.3	10.1	9.5	5.36	0.6	1012.8									
Anom	-0.5	-0.8	126%	-1.0	+0.2	+0.3	100%											-2.2
Daily mean		8.5																
Anom		-0.7																

Number of days with:

Air frost = 5 Ground frost = 17 Nil sun = 1
 Snow falling = 0 Snow lying = 0 Thunder = 1
 Hail=>5mm = 1 Hail<5mm or ice = 4 Fog at 09GMT = 0

Abbreviations.

Max/min = highest and lowest air temperature at 1.2m in 24 hour period ending at 09 GMT
 Rain = total rainfall and melted snowfall in 24 hour period ending at 09 GMT, millimetres. (Tr = trace, <.05mm).
 Grass min = Lowest overnight temperature at grass tip level.
 Sun = hours of bright sunshine, measured electronically. Frost = Number of hours with air temp below 0 deg C.
 pp09 = Air pressure corrected to mean sea level at 0900 GMT, millibars.
 Af = Air frost. Gf = Ground frost. Sf = Snow falling. 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 1981-2010 climatological average.
 All temperatures in degrees Celsius.

Weather observations. Emmbrook, Wokingham, Berkshire.

Observations at 0900 GMT for APRIL 2016

Date	VV	N	dd	ff	gg	TT	Td	Td	RH	r	PPP	a	ppp	ww	W1	W2	Nh	Cl	h	Cr	h	Ch	shs	N	Chs	N	Chs	Date	Remarks
1	65	7	18	05	11	9.7	4.3	69	5.1	1020.2	7	001	02	2	2	0	0	9	0	1	82072	87075					1	COTRA	
2	82	5	20	10	17	12.1	0.5	45	3.9	1013.2	7	002	01	2	2	1	1	5	7	1	81820	84075					2	2Ac58 1Ac68 COTRA Cu fra	
3	58	7	17	05	10	10.5	7.0	79	6.3	1006.5	0	001	05	2	2	5	6	4	/	1	85713	87075					3	COTRA Halo 22° part	
4	70	7	19	07	16	10.3	7.0	80	6.3	1002.0	2	008	21	6	2	3	8	4	7	/	82812	83650	87358				4	Cu hum jp NE	
5	67	2	26	05	11	10.6	6.4	75	6.0	1007.2	1	013	03	0	0	1	8	4	3	1	81815						5	1Sc40 1Ac65 2Ci75 Cu hum	
6	80	7	24	09	20	9.6	5.6	76	5.7	1006.7	6	009	21	6	5	7	8	4	/	/	81818	87640					6	Cu fra vv50k NW CF 0802z	
7	68	7	25	11	19	7.6	2.1	68	4.4	1008.6	2	006	61	6	1	2	5	5	2	/	82625	87457					7		
8	78	7	32	04	08	8.9	5.3	78	5.5	1013.1	2	002	03	1	1	7	8	4	/	/	84818	85635					8	3Sc50	
9	82	3	26	06	12	8.0	3.7	74	5.0	1002.2	4	000	14	6	1	2	8	4	7	0	81818	83358					9	2Sc56 Sc vir SE Cld edge E	
10	86	6	10	10	21	9.3	1.9	60	4.4	1007.5	8	002	03	1	1	1	1	5	0	1	81828	86078					10	2Cc72 COTRA Cu hum U/A cont	
11	56	7	07	05	09	11.7	9.4	86	7.4	1004.9	5	002	21	6	2	1	5	7	8	8	81656	83360	87362				11	/Cs72	
12	61	7	21	04	08	9.6	6.9	83	6.2	1007.3	1	004	02	2	2	1	6	4	3	1	81710	87072					12	1Ac65 2Ci68 COTRA U/a cont	
13	65	6	27	02	04	11.3	4.7	64	5.3	1007.9	2	007	02	2	2	2	0	9	8	1	82358	85075					13	COTRA Halo 22° part	
14	59	7	05	03	05	12.9	6.0	63	5.8	1010.6	1	005	21	6	2	1	2	7	7	2	81856	86363					14	1Ac58 3Ci70 COTRA Cu med	
15	58	7	23	01	06	11.0	8.2	83	6.8	1001.4	7	007	20	5	2	7	8	3	/	/	82707	85810					15	3Sc40 Cu med jpN	
16	60	8	35	08	15	3.8	2.3	90	4.5	1003.5	2	023	61	6	6	8	5	3	/	/	81708	85610	88650				16		
17	84	1	34	04	08	6.8	1.9	71	4.3	1016.0	2	020	03	0	0	1	1	5	0	0	81820						17	Cu hum	
18	82	5	25	09	17	9.7	3.2	64	4.7	1021.9	1	006	03	1	1	5	8	5	0	0	82828	85640					18		
19	81	7	01	05	08	11.8	5.2	64	5.4	1028.1	1	012	01	2	2	7	8	5	/	/	82825	86650					19	1Sc45	
20	67	3	06	08	17	11.2	4.7	64	5.2	1030.3	8	004	03	0	0	1	1	5	0	1	81820	83080					20	COTRA Cu fra	
21	59	7	06	07	14	10.5	6.8	78	6.1	1024.1	3	002	02	6	2	1	6	3	7	8	81708	83359	86362				21	/Ci70	
22	62	8	05	08	19	9.3	4.9	74	5.3	1021.6	8	003	02	2	2	2	5	4	2	/	81715	88458					22	2Sc56	
23	80	5	36	09	17	6.7	2.2	73	4.4	1021.1	1	006	03	1	1	5	2	5	0	0	85820						23	Cu med	
24	84	5	01	10	14	7.0	-0.6	59	3.6	1021.4	1	010	03	6	1	3	2	5	0	1	83825	83080					24	COTRA Cu hum/med	
25	84	8	27	09	17	9.4	4.1	69	5.1	1010.7	7	021	03	2	2	8	8	6	/	/	86830	88656					25	Cu med	
26	84	3	33	10	21	6.2	-1.2	59	3.5	1008.5	2	005	03	0	0	3	8	6	0	0	83830						26	1Sc56 Cu hum	
27	75	2	28	05	11	7.0	0.6	64	4.0	1012.6	1	001	03	0	0	2	8	5	0	1	82822						27	1Sc50 1Ci75 Cu med	
28	84	3	24	05	12	8.0	-0.0	57	3.8	1015.1	0	000	03	0	0	1	2	6	4	1	81830	83075					28	1Ac58 COTRA Cu med.	
29	82	3	24	12	21	8.7	1.1	59	4.1	1009.8	0	003	03	1	1	2	2	6	0	8	82830						29	2Cs72 Cu med	
30	86	6	33	07	13	9.4	0.2	52	3.8	1021.1	1	012	03	1	1	1	1	6	0	4	81835	86070					30	COTRA Cu hum	

Mean vis = 28.4 km
 Mean cloud = 5.5 69%
 Mean wind speed = 6.8 kn
 Mean gust = 13 kn
 Mean TT = 9.3 °C
 Mean TdTd = 3.8 °C
 Mean RH = 69.3 %
 Mean r = 5.1 g/kg
 Mean PPP = 1012.8 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 APRIL 2016

Date	VV	N	dd	ff	gg	TT	Td	RH	r	PPP	a	ppp	ww	W1	W2	Nh	CI	h	Cr	h	Ch	shs	N	Ch	shs	N	Ch	shs	Date	Remarks
1	86	7	20	09	22	12.3	1.0	46	4.1	1017.5	7	017	02	2	2	1	1	6	4	8	81840	87272							1	1Ac68 COTRA Halo 22° part
2	84	6	13	08	16	13.7	-0.7	37	3.6	1009.7	7	022	03	1	1	5	0	9	7	2	85359	86070							2	1Ac65
3	80	8	10	04	10	14.1	6.0	58	5.8	1003.8	8	017	03	2	2	1	5	7	7	/	82650	86357	88359						3	
4	68	7	18	08	15	11.8	7.5	75	6.5	1001.0	7	005	25	8	2	7	8	5	/	/	83820	86635							4	Cu med jp NW&N
5	84	3	29	07	22	14.7	1.9	42	4.4	1007.6	2	002	02	8	1	3	4	6	0	0	82845								5	1Sc56 Cu med
6	80	5	25	15	31	10.5	2.4	57	4.5	1006.2	2	002	25	8	1	2	9	6	6	3	81940	82845							6	2Ac58 1Ci68 Cu con jp all quads
7	50	7	28	08	18	8.5	5.6	82	5.7	1009.5	3	004	88	8	6	5	9	4	6	3	81715	83922	82828						7	/Ac62 /Ci72
8	80	6	22	09	15	12.4	5.1	61	5.5	1010.0	8	020	25	8	2	5	8	6	/	1	82835	83356							8	1Sc45 3Ci75 Cu con
9	70	6	25	04	17	7.8	5.3	84	5.6	1001.5	0	001	25	8	2	3	8	6	7	9	83830	83362							9	1Sc45 3Cc72 Cu med jpN&W vv40k ex p
10	88	7	07	12	22	12.9	-2.6	34	3.2	1005.3	8	017	03	2	2	4	0	9	7	8	82360	83362	87272						10	COTRA Halo 22°
11	58	8	23	03	06	11.8	9.9	88	7.6	1005.5	0	004	21	6	2	8	5	4	/	/	86710	88650							11	
12	86	6	20	08	17	15.6	2.1	40	4.4	1005.6	8	007	02	2	2	3	2	7	0	1	83850	85075							12	COTRA Cu con
13	86	6	34	05	12	15.3	4.1	47	5.1	1007.7	8	003	15	2	2	2	2	7	6	1	82850	83358							13	1Ac60 3Ci75 COTRA Cu con jpE
14	86	7	16	08	13	15.7	5.0	49	5.4	1007.6	7	019	01	8	2	3	2	6	0	1	83842	87075							14	COTRA Cu con U/a cont+Parhelion
15	50	8	01	06	11	9.7	8.9	95	7.2	997.9	7	021	63	6	6	7	5	2	2	/	81705	83708	87625						15	8Ns35
16	75	7	30	04	23	6.1	2.7	79	4.6	1006.7	1	013	25	8	2	7	8	5	/	/	81822	83640	87650						16	Cu med jpS vv50k ex S
17	86	5	27	06	12	11.3	-2.1	39	3.2	1017.4	1	005	02	1	1	5	8	6	0	0	81845	85656							17	
18	80	7	24	09	16	11.4	2.9	56	4.6	1022.2	6	004	02	2	2	7	5	6	/	/	87635								18	
19	81	1	03	04	13	14.6	1.5	41	4.2	1028.1	8	005	01	1	1	1	4	7	0	0	81650								19	
20	80	4	06	09	22	16.3	1.6	37	4.2	1028.2	7	012	02	0	0	0	0	9	0	1	84080								20	COTRA
21	70	7	06	07	21	16.4	3.1	41	4.7	1021.5	7	012	02	2	2	6	0	9	7	8	86363	83366	87270						21	
22	59	8	02	06	14	10.7	7.2	79	6.3	1019.5	7	013	61	6	2	6	8	4	2	/	85815	88550							22	2Sc30 Cu med
23	82	5	36	09	19	10.7	-1.0	44	3.5	1020.6	8	002	02	2	2	5	4	7	0	0	82850	84656							23	Cu med
24	84	8	34	07	17	9.1	-0.6	51	3.6	1020.1	6	007	02	2	2	8	8	6	/	/	84845	88650							24	Cu hum
25	65	6	30	07	23	12.1	6.0	66	5.8	1006.9	7	019	25	8	2	5	9	6	6	/	81930	83835	83650						25	2Ac58 jp all quads vv60k ex p
26	70	5	28	09	24	8.8	-2.6	45	3.1	1007.8	7	004	25	8	1	2	9	6	0	3	82935	81840	85068						26	jp all quads vv50k ex p
27	82	4	25	03	12	11.4	-3.5	35	2.9	1011.8	7	010	15	8	1	3	2	7	3	1	83850								27	1Ac58 2Ci72 COTRA Cu con
28	86	8	22	10	21	10.3	0.3	50	3.9	1012.0	7	018	03	2	2	8	8	6	/	/	83842	88650							28	Cu hum
29	65	4	27	09	27	10.8	-0.7	45	3.6	1010.8	0	011	15	8	1	2	9	6	6	3	81935	82840							29	1Ac62 1Ci68 2Cs72 jpW&NW vv60k ex p
30	70	4	30	07	17	12.8	-1.6	37	3.4	1022.2	2	008	25	8	1	2	9	6	6	3	81945	82850							30	1Ac60 1Ci70 Cu con jpNE&SW vv70k ex p

Mean vis = 34.2 km
 Mean cloud = 6.0 75%
 Mean wind speed = 7.3 kn
 Mean gust = 18 kn
 Mean TT = 12.0 °C
 Mean TdTd = 2.5 °C
 Mean RH = 54.7 %
 Mean r = 4.7 g/kg
 Mean PPP = 1011.7 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
 CI = 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	Hour	01-Apr	02-Apr	03-Apr	04-Apr	05-Apr	06-Apr	07-Apr	08-Apr	09-Apr	10-Apr	11-Apr	12-Apr	13-Apr	14-Apr	15-Apr	16-Apr
2016	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	0.04	0.07	0.00	0.00	0.04	0.00	0.00	0.02	0.00	0.45	0.00	0.00	0.30	0.05	0.00	0.00
	6	0.54	0.28	0.00	0.00	1.00	0.00	0.82	0.57	0.00	1.00	0.00	0.24	1.00	0.38	0.00	0.00
	7	1.00	1.00	0.51	0.00	1.00	0.00	0.44	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00
	8	1.00	1.00	0.58	0.10	1.00	0.00	0.00	0.10	0.41	1.00	0.00	1.00	1.00	0.65	0.11	0.00
	9	0.87	1.00	0.59	0.00	1.00	0.81	0.00	0.51	0.96	0.79	0.09	1.00	0.99	0.37	0.05	0.16
	10	0.94	1.00	0.51	0.26	0.70	0.22	0.00	0.54	0.83	0.25	0.00	1.00	0.53	0.27	0.01	0.00
	11	0.26	0.98	0.67	0.11	0.71	0.38	0.00	0.13	0.34	0.15	0.00	0.76	1.00	0.03	0.00	0.11
	12	0.13	1.00	0.34	0.04	0.57	0.17	0.00	0.01	0.00	0.34	0.00	0.78	1.00	0.01	0.00	0.00
	13	0.00	0.55	0.00	0.00	0.19	0.21	0.01	0.46	0.00	0.36	0.00	0.99	0.42	0.28	0.00	0.05
	14	0.04	0.00	0.00	0.00	0.79	0.16	0.06	0.52	0.00	0.00	0.00	0.58	0.21	0.49	0.00	0.25
	15	0.96	0.00	0.00	0.00	0.36	0.80	0.20	0.02	0.03	0.13	0.01	0.54	0.37	0.77	0.00	0.24
	16	0.08	0.00	0.00	0.13	0.86	0.60	0.00	0.00	0.04	0.92	0.27	0.26	0.21	0.94	0.00	0.55
	17	0.00	0.00	0.00	0.40	0.29	0.97	0.01	0.21	0.62	0.11	0.05	0.89	0.00	0.00	0.00	0.88
	18	0.00	0.00	0.00	0.00	0.14	0.43	0.09	0.00	0.17	0.00	0.00	0.69	0.00	0.00	0.00	0.03
	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
Tot		5.85	6.88	3.21	1.03	8.65	4.73	1.63	4.08	3.42	6.51	0.43	9.72	8.03	4.26	0.17	2.27

Hour	17-Apr	18-Apr	19-Apr	20-Apr	21-Apr	22-Apr	23-Apr	24-Apr	25-Apr	26-Apr	27-Apr	28-Apr	29-Apr	30-Apr	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
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
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
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
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.10	0.00	0.13
5	0.67	0.44	0.00	0.76	0.00	0.00	0.55	0.00	0.00	1.00	0.96	1.00	0.00	1.00	0.24
6	1.00	1.00	0.00	1.00	0.00	0.00	0.72	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.45
7	1.00	1.00	0.00	1.00	0.00	0.00	0.96	0.17	0.00	0.90	1.00	1.00	0.59	1.00	0.55
8	1.00	1.00	0.69	1.00	0.00	0.00	0.78	0.70	0.00	0.71	1.00	1.00	1.00	1.00	0.59
9	0.93	0.15	0.23	1.00	0.00	0.00	0.40	0.68	0.00	0.43	0.53	0.97	0.66	1.00	0.54
10	0.89	0.00	0.00	1.00	0.11	0.00	0.66	0.76	0.00	0.36	0.29	0.80	0.38	0.55	0.43
11	0.69	0.00	0.20	1.00	0.69	0.00	0.65	0.55	0.00	0.74	0.44	0.54	0.54	0.54	0.41
12	0.53	0.02	0.68	1.00	0.01	0.00	0.48	0.02	0.00	0.78	0.83	0.54	0.64	0.57	0.35
13	0.39	0.02	0.85	1.00	0.30	0.00	0.38	0.00	0.00	0.77	0.54	0.10	0.50	0.50	0.30
14	0.39	0.08	1.00	1.00	0.22	0.00	0.41	0.00	0.07	0.33	0.50	0.07	0.67	0.80	0.29
15	0.48	0.03	1.00	1.00	0.00	0.00	0.20	0.00	0.21	0.89	0.96	0.00	0.84	0.50	0.35
16	0.63	0.08	1.00	1.00	0.00	0.00	0.05	0.03	0.74	0.22	0.43	0.07	0.59	0.33	0.33
17	0.81	0.00	1.00	1.00	0.00	0.00	0.15	0.00	0.77	0.13	0.41	0.00	0.54	0.39	0.32
18	0.77	0.00	0.83	0.61	0.00	0.00	0.01	0.00	0.10	0.04	0.00	0.14	0.14	0.98	0.17
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.27	0.09	0.01
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
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
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
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
Tot	10.16	3.81	7.48	13.37	1.34	0.00	6.40	2.91	1.88	8.40	8.88	7.34	7.36	10.38	160.64

APRIL 2016	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	
1	7.23	13.4	1423	-1.0	431	70.0	99.0	414	36.9	1405	1.4	4.2	5.7	1012	3.4	1643	1018.55	1020.7	231	1015.3	2345	
2	10.34	15.5	1250	6.7	2016	64.3	99.0	2359	31.3	1423	3.0	4.8	6.5	2353	3.1	1552	1011.31	1015.5	0	1006.2	2359	
3	10.77	15.7	1212	6.5	457	82.6	99.0	531	51.0	1220	7.6	6.5	8.1	2051	5.2	1347	1004.59	1007.3	655	1001.4	1818	
4	10.08	13.0	1610	7.3	2331	83.6	99.2	106	63.7	1611	7.3	6.4	7.3	2	5.6	1800	1001.89	1004.1	2341	1000.7	503	
5	10.21	15.6	1419	5.6	2355	70.5	99.0	509	32.5	1613	4.4	5.3	6.9	1056	3.5	1613	1007.51	1011.4	2232	1003.9	2	
6	8.22	13.0	1004	5.1	213	73.5	98.1	805	43.7	1334	3.5	4.9	7.0	804	3.6	1532	1007.50	1011.3	0	1005.5	1150	
7	6.95	11.7	1436	3.8	408	83.1	97.5	1848	64.9	1438	4.2	5.2	6.4	1741	4.0	304	1009.55	1013.1	2205	1007.0	255	
8	8.63	14.2	1356	2.7	540	79.1	99.5	701	50.7	1444	5.0	5.4	6.8	1216	4.6	540	1010.89	1013.2	846	1005.8	2359	
9	7.02	11.7	1116	1.5	2359	82.2	98.3	530	45.9	1057	4.0	5.1	6.6	442	3.9	1037	1003.11	1006.2	2326	1001.1	1219	
10	7.40	14.2	1326	-1.2	310	74.2	99.5	616	32.7	1429	2.2	4.5	6.6	2358	3.1	1254	1006.64	1008.1	717	1004.7	1604	
11	10.08	13.7	1556	7.1	254	90.9	99.0	257	67.2	1032	8.6	7.0	8.2	1534	6.3	251	1005.57	1007.0	2240	1004.3	438	
12	10.71	17.5	1429	4.6	2351	73.2	96.4	2345	32.5	1432	5.5	5.6	7.6	1010	3.9	1432	1006.45	1007.4	2223	1005.1	1607	
13	10.33	17.7	1443	1.1	500	68.6	99.0	527	32.5	1129	3.9	5.0	6.9	826	3.6	1129	1008.17	1010.4	2312	1007.0	405	
14	11.52	17.1	1608	5.4	547	70.7	99.3	2355	42.2	1422	5.9	5.8	7.5	1123	4.9	1633	1008.58	1010.8	851	1004.7	2359	
15	9.43	12.9	948	6.8	2359	96.1	99.0	455	75.8	1000	8.8	7.1	8.2	947	5.7	2359	1000.37	1004.9	0	997.1	1645	
16	5.40	9.9	1655	1.6	2354	84.2	99.0	503	44.4	1705	2.7	4.7	6.0	36	3.1	1745	1004.97	1011.4	2359	999.6	1	
17	5.61	12.7	1503	-1.0	508	71.3	99.0	552	32.2	1615	-0.1	3.8	5.7	924	2.7	1615	1016.23	1020.5	2348	1011.3	30	
18	8.41	12.5	1517	1.7	333	70.5	99.0	339	52.7	1518	3.1	4.7	5.9	1418	3.6	5	1022.45	1026.0	2356	1020.5	2	
19	10.86	16.3	1512	5.7	2359	66.4	99.0	525	35.5	1537	4.3	5.1	6.7	823	3.9	1356	1028.08	1031.1	2305	1025.7	11	
20	9.32	17.4	1342	1.6	510	69.3	99.0	601	30.4	1449	3.0	4.6	6.5	1148	3.5	1602	1028.99	1031.2	330	1026.1	1708	
21	10.71	18.9	1358	3.8	319	69.6	99.0	500	37.0	1402	4.7	5.3	7.5	1105	3.7	2221	1023.23	1026.9	1	1020.8	1642	
22	8.46	11.6	1352	4.6	2359	82.1	99.0	1907	65.2	655	5.4	5.6	7.0	1608	4.3	442	1020.97	1023.0	11	1019.1	1727	
23	6.99	12.1	1323	2.5	401	70.3	99.0	329	33.0	1510	1.2	4.2	5.8	911	2.5	1540	1020.74	1021.3	1013	1019.8	208	
24	7.02	10.7	1253	3.5	637	70.6	99.3	2241	37.5	1315	1.6	4.3	5.7	1851	2.8	1203	1020.10	1021.5	856	1018.0	2359	
25	7.93	13.3	1658	3.3	2324	75.5	93.7	2221	33.3	1701	3.6	4.9	6.4	1615	3.1	1701	1010.53	1018.0	5	1005.9	1701	
26	5.34	10.8	1441	1.9	441	67.5	94.4	135	31.3	1432	-0.7	3.6	4.6	10	2.4	1432	1008.83	1011.1	2358	1007.4	1506	
27	5.66	12.4	1507	0.6	418	70.6	97.9	2359	29.1	1602	-0.0	3.8	4.9	954	2.4	1606	1012.61	1014.6	2357	1011.0	0	
28	6.44	13.1	1235	-1.6	502	72.9	99.0	407	32.3	1236	1.2	4.2	5.9	2206	2.7	1026	1012.80	1015.6	722	1008.8	2328	
29	7.27	12.1	1523	1.8	2347	66.9	93.8	2338	34.0	1316	1.2	4.2	6.1	1156	2.9	1316	1011.13	1016.5	2359	1008.8	113	
30	6.81	14.0	1405	-0.8	459	70.4	99.0	510	30.0	1506	0.9	4.0	5.3	1749	2.8	1506	1021.99	1027.3	2345	1016.4	0	
Total																						
Mean	8.37	13.82		3.05		74.7	98.33		42.04		3.57	5.00	6.54		3.69		1012.48	1015.58		1009.63		
Max	11.52	18.93		7.31		96.1	99.50		75.80		8.83	7.13	8.23		6.28		1028.99	1031.23		1026.06		
	5.34	9.86		-1.56		64.3	93.70		29.07		-0.73	3.63	4.56		2.35		1000.37	1004.05		997.05		

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

Note: Temperature calibration error, all temperatures are 0.2C high.

**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

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, 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 of 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.