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 2022**

Temperature (°C)		Anomaly	Rank in the past **141** years		
Mean maximum	16.2	+1.4	8th highest		
Mean minimum	3.8	-0.9	71st highest		
Daily mean	10.0	+0.3	21st highest		
Highest maximum	22.4	on 15th	Lowest maximum	9.8	on 3rd
Highest minimum	8.9	on 6th	Lowest minimum	-3.9	on 3rd
Mean grass minimum	-0.1	-1.1	Lowest grass minimum	-8.0	on 3rd
Mean earth @30 cm	10.6	+0.4	Earth @100 cm	9.9	+0.4
Frost duration (hrs)	24.9		Rain duration (hrs)	13.4	
Rainfall total (mm)	14.8	31 %	14th lowest		
Highest daily fall	6.0	on 6th	Highest rate mm/hr	70	on 6th

Number of: Dry days (<0.2mm) 25 Wet days (>0.9mm) 4 days ≥5mm 1

Sunshine total (hrs) 187.4 Daily mean 6.25 110 % Sunniest day 13.6 on 21st

Nº days with: Air frost 5 Ground frost 15 Snow falling 1 Snow lying 0

Thunder 1 Hail ≥5mm 0 Small hail/ice 1 Fog @09 0 Nil sun 1

Pressure MSL : Mean @09 GMT, mbar 1016.5 +1.5 Highest 1032.8 on 29th Lowest 984.4 on 7th

Relative humidity : Mean (%) 70.5 Lowest 16 on 17th Water vapour (g/kg), mean at 09 and 15 GMT 5.6, 5.2

Overall mean wind speed (mph) 6.4 Windiest day 15.7 on 7th Max gust 52 on 7th

Wind direction (days) N 5 NE 9 E 2 SE 1 S 2 SW 6 W 5 NW 0

Least windy day (mph) 3.5 on 30th Calm; less than 0.5 mph (minutes) 910

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

Notes: **Mean Temperature and Sunshine Above Average. Very Dry**

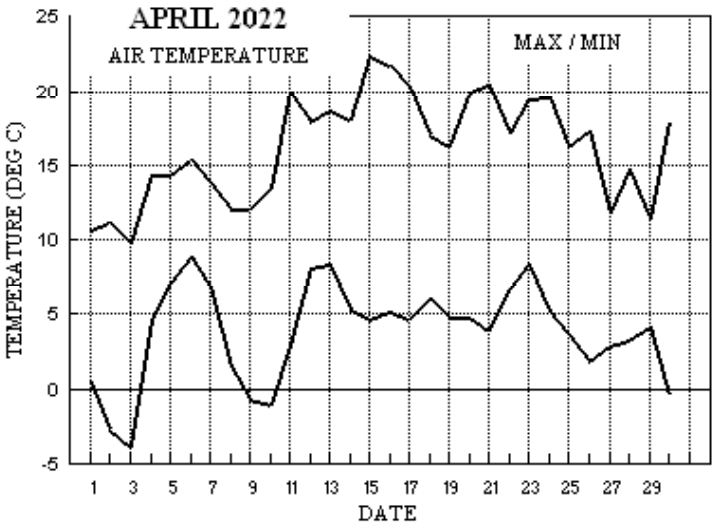
Temperature: While the mean this April is slightly above average, there was a large discrepancy between the anomalies for the mean maximum and minimum, also in the long-term rankings, 8th highest and 71st highest for the max and min respectively. In this millennium, 2007, 2011 and 2020 had a higher mean maximum than this year's, and 2011 holds the April record with 19.5°, 3.3° above the 2022 value. The highest max is 1.5° above the median while the lowest max is 1.8° above its median. The highest min is 0.9° below the median and the lowest min is 2.0° below its median. The mean grass min, while 1.1° below the current 30 year average, is 2.4°above last April's record low value. Nevertheless, the lowest grass min is lowest since 2013. Earth temperatures are slightly above average. The number of days with air frost and ground frost are 1 above average. Anomalies for daily max were above +6° on the 11th, 15th to 17th, 20th and 21st, and exceeded -3° on just the 29th, with extreme values of +9.1° on the 15th and -3.7° on the 29th. Anomalies for daily min were above +5° on the 6th and 13th, and exceeded -5° on the 2nd, 3rd and 30th, with extreme values of +5.5° on the 6th and -7.6° on the 3rd. **Rainfall:** This has been a very dry April, but only in this category by less than 1 mm. It is, however, driest only since 2017 and is only 4th driest in this millennium. All of this month's rain fell before the 12th, the final 19 days being dry. In fact, only 0.4 mm fell in the 22 days after the 8th. The number of dry days is 7 more than average for the past 47 years. The duration of rain is 35% of average. Daily rainfall accumulation was close to normal until the 8th, thereafter there was a steadily increasing deficit reaching 33 mm by the 30th. Snow fell overnight on the 1st but not enough to lay, and snow pellets fell during a shower on the 8th. There was thunder during a violent rain shower on the 6th, the first thunder this year. **Sunshine:** This has been quite a sunny April overall, the daily mean being 10% above average. However, the Aprils of 2021 and 2020 were much sunnier than this year's, and there have been 8 sunnier Aprils in this millennium, including the record holder in 2020. During the month there were 16 days with at least 50% of the maximum, including 3 over 90%, the 15th, 16th and 21st. At the other extreme, the 4th, 5th, 13th, 22nd, 27th and 28th all had less than 10% of the maximum. Daily accumulation was within 10 hours of normal until the 17th, but showed a surplus of 18 hours on the 18th, increasing to 22 hours by the 21st where it remained until the 26th, decreasing to 10 hours on the 29th but ending the month 17 hours in surplus. Overall there were 9 days with <3 hours, 16 with =>6 hours, 10 with =>9 hours and 5 with =>12 hours. **Wind:** The mean speed is 0.4 mph below average, but is highest for April since 2018. The mean speed of 15.7 mph on the month's windiest day is equal highest with 2013 for any April day since 1994, but the highest gust, while 11 mph above average, was exceeded in April 2019. The hourly mean speed of 24 mph at 1200 GMT on the 7th has not been exceeded in April since 1994. This April, daily mean speeds were very strong on the 7th, fresh on the 1st and 6th, otherwise light or moderate. Directions were between N and E on 2nd, 16th, and 19th to 29th, between E and S on the 10th, 11th and 17th, between S and W on 3rd to 7th and 12th to 15th, also on 18th, and between W and N on 1st, 8th, 9th and 30th. **Humidity:** The relative humidity fell to 16% on the 17th, the lowest April value in the past 25 years, and the 3rd lowest for any month in that period.

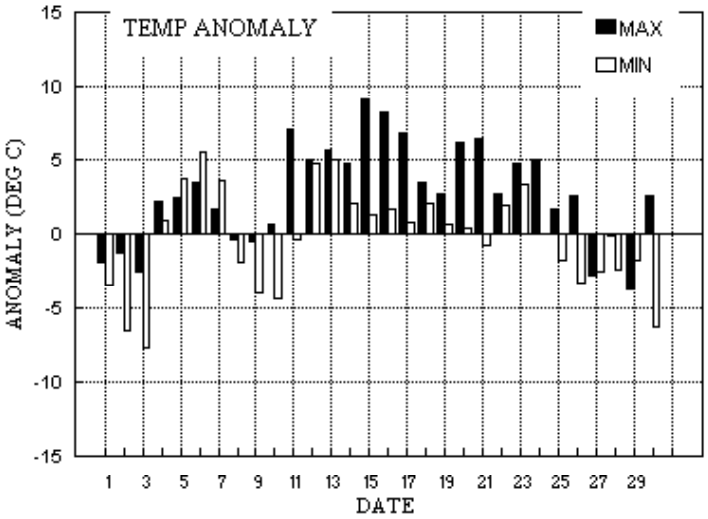
Table 1. Mean anomalies (max, min, rain, sun) for specified periods.

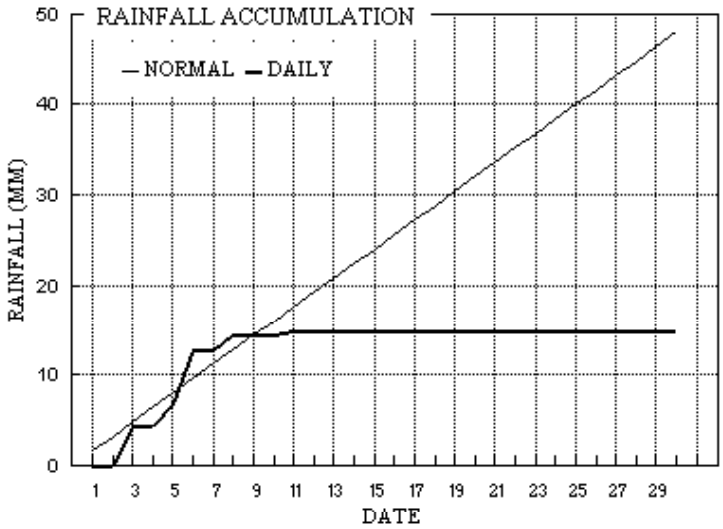
From the 1st to the 10th				From the 11th to the 20th				From the 21st to the 30th			
+0.4°	-1.4°	90%	99%	+5.9°	+1.8°	2%	134%	+1.9°	-1.4°	0%	99%

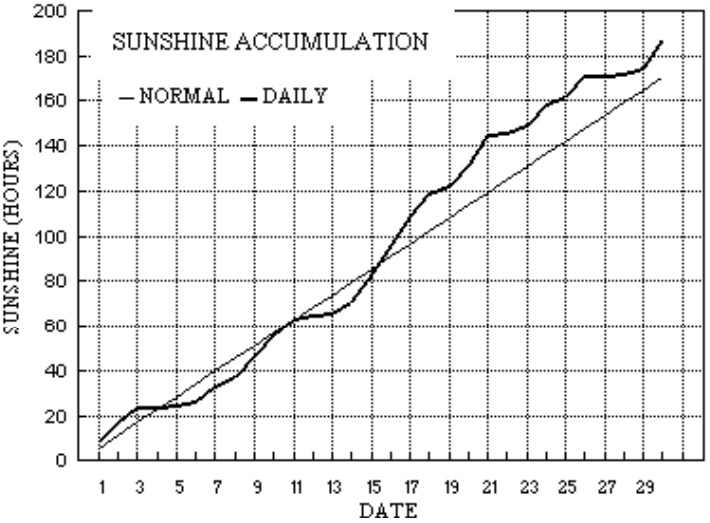
B J Burton FRMetS. Hon. Met. Officer to Wokingham Town Council.

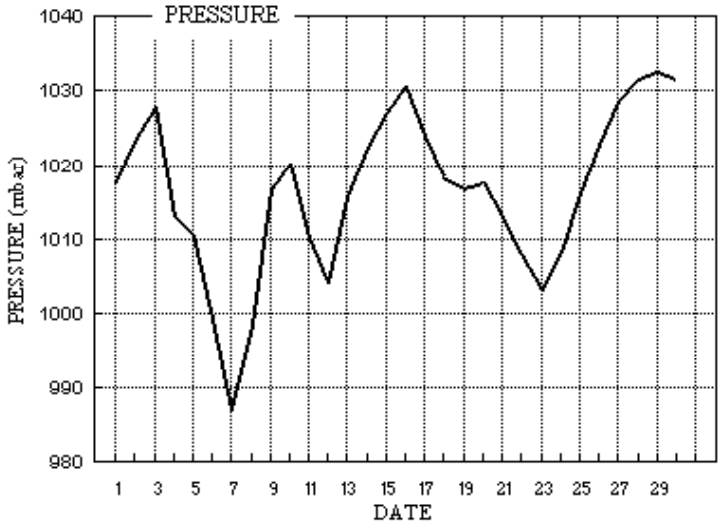
Wokingham climatological graphs for April 2022

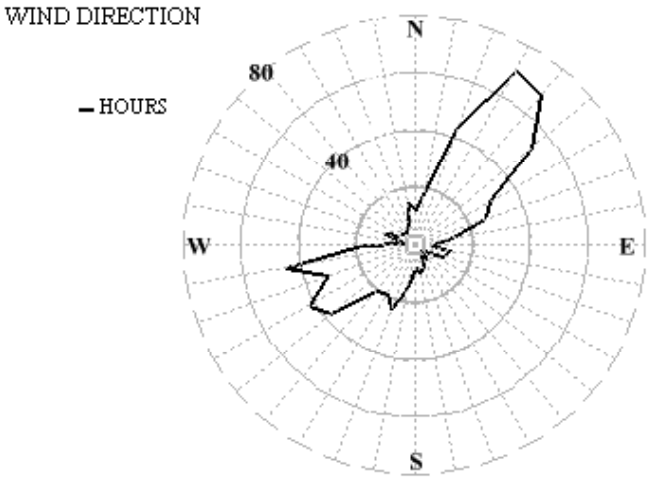


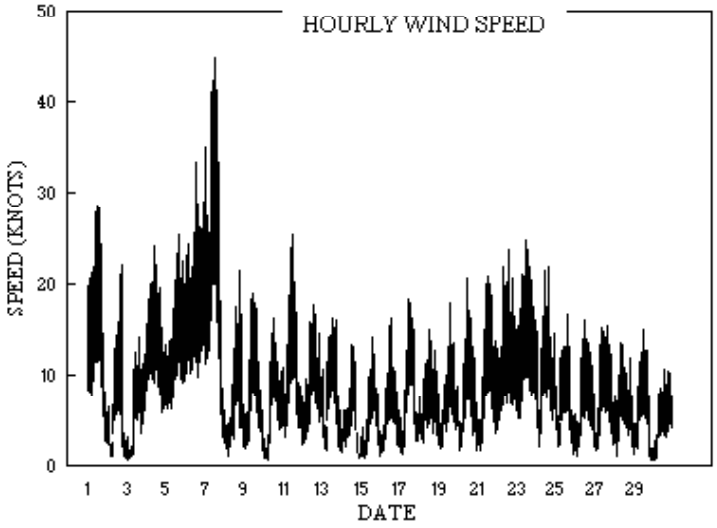


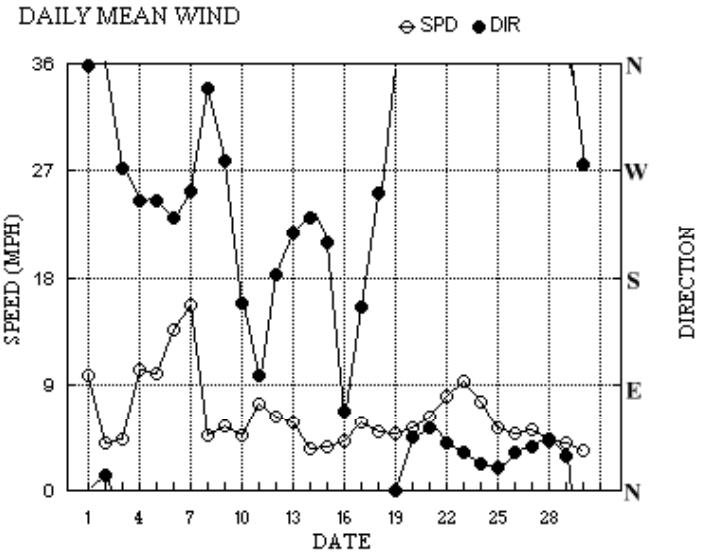












Daily meteorological data. Emmbrook, WOKINGHAM, Berkshire.

Month: APRIL 2022

Date	Max	Min	Rain	Grass	30cm	100cm	Sun	Frost	pp09	Af	Sf		Th	Ic		Vec mean			Max gust			High hr			Rain
	C	C	mm	Min	C	C	hrs	hrs	mbar	Gf		Sl	Ha		Fg	ddd	ff	sp	ddd	gg	HHhh	ddd	ff	HH	hrs
1	10.6	0.4	0.0	-1.1	8.6	9.2	8.3	1.3	1017.6	0	1	1 0	0	0	0 0	357	8.3	8.5	22	29	1235	16	13	11	0.0
2	11.2	-2.7	tr	-6.8	8.0	9.1	8.4	9.6	1023.3	1	1	0 0	0	0	0 0	14	2.7	3.5	6	22	1753	38	7	16	0.3
3	9.8	-3.9	4.3	-8.0	7.8	8.9	6.8	7.4	1027.7	1	1	0 0	0	0	0 0	271	2.5	3.8	306	14	1457	226	7	23	5.6
4	14.3	4.5	0.1	-0.8	7.9	8.8	0.5	0.0	1013.0	0	1	0 0	0	0	0 0	245	8.7	8.9	260	24	1124	255	12	11	0.3
5	14.3	7.1	2.3	8.2	8.7	8.7	0.6	0.0	1010.5	0	0	0 0	0	0	0 0	245	8.6	8.7	248	26	1625	251	12	16	1.0
6	15.4	8.9	6.0	7.0	9.3	8.8	1.7	0.0	999.3	0	0	0 0	1	0	0 0	230	11.8	11.9	259	34	1343	229	15	21	4.1
7	13.8	6.8	0.0	4.2	9.7	8.9	7.0	0.0	987.0	0	0	0 0	0	0	0 0	252	13.4	13.6	265	45	1351	258	21	12	0.0
8	12.0	1.5	1.7	-2.5	9.5	9.1	4.3	0.0	998.4	0	1	0 0	0	0	1 0	339	2.3	4.0	311	22	2046	3	8	15	1.6
9	12.1	-0.7	0.0	-5.1	9.1	9.1	9.3	1.3	1016.6	1	1	0 0	0	0	0 0	278	4.3	4.8	302	19	1231	281	9	13	0.0
10	13.5	-1.1	0.0	-5.2	9.0	9.2	8.8	3.4	1020.2	1	1	0 0	0	0	0 0	158	3.1	4.1	180	16	1251	178	8	14	0.0
11	19.9	2.9	0.4	-2.1	9.0	9.2	7.7	0.0	1010.3	0	1	0 0	0	0	0 0	98	6.1	6.4	96	26	1318	99	11	13	0.4
12	17.9	8.1	tr	4.0	9.7	9.2	1.8	0.0	1004.0	0	0	0 0	0	0	0 0	182	4.0	5.5	190	18	1412	200	10	14	0.0
13	18.7	8.4	tr	5.6	10.2	9.3	0.8	0.0	1015.6	0	0	0 0	0	0	0 0	217	4.7	5.1	220	17	1333	202	8	14	0.0
14	18.0	5.3	0.0	1.0	10.6	9.4	4.6	0.0	1022.5	0	0	0 0	0	0	0 0	231	2.9	3.2	266	13	1423	247	7	15	0.0
15	22.4	4.7	0.0	0.6	10.9	9.6	12.9	0.0	1027.0	0	0	0 0	0	0	0 0	210	2.6	3.2	264	14	1552	240	6	15	0.0
16	21.7	5.2	0.0	0.9	11.4	9.8	13.0	0.0	1030.5	0	0	0 0	0	0	0 0	68	3.5	3.7	62	16	1319	61	6	12	0.0
17	20.3	4.6	0.0	0.9	11.8	10.0	12.2	0.0	1024.1	0	0	0 0	0	0	0 0	156	4.0	5.0	148	18	1105	168	9	13	0.0
18	17.0	6.0	0.0	2.4	11.6	10.2	10.2	0.0	1018.5	0	0	0 0	0	0	0 0	251	4.0	4.4	203	15	1336	253	6	15	0.0
19	16.3	4.8	tr	0.4	11.8	10.4	3.4	0.0	1016.9	0	0	0 0	0	0	0 0	1	3.1	4.3	62	18	1459	33	7	14	0.1
20	20.0	4.8	0.0	0.8	11.6	10.5	9.4	0.0	1017.5	0	0	0 0	0	0	0 0	46	4.3	4.6	99	21	1234	60	9	12	0.0
21	20.5	3.9	0.0	-0.5	12.0	10.6	13.6	0.0	1012.9	0	1	0 0	0	0	0 0	54	5.3	5.4	63	21	1434	73	9	11	0.0
22	17.1	6.7	0.0	0.9	12.3	10.8	0.4	0.0	1008.0	0	0	0 0	0	0	0 0	41	6.8	7.0	56	24	1542	53	9	15	0.0
23	19.4	8.4	0.0	5.7	12.1	10.9	3.4	0.0	1003.0	0	0	0 0	0	0	0 0	33	8.1	8.1	33	27	1236	43	11	13	0.0
24	19.6	5.2	0.0	0.6	12.4	11.0	9.1	0.0	1008.2	0	0	0 0	0	0	0 0	23	6.5	6.5	26	22	1638	19	10	16	0.0
25	16.3	3.6	tr	-1.4	12.3	11.1	3.8	0.0	1016.0	0	1	0 0	0	0	0 0	20	4.5	4.6	64	17	1528	23	7	00	0.0
26	17.3	1.9	0.0	-3.1	12.1	11.2	9.3	0.0	1022.7	0	1	0 0	0	0	0 0	32	4.1	4.2	24	16	1311	24	7	16	0.0
27	11.8	2.9	0.0	-2.2	12.2	11.3	0.0	0.0	1028.5	0	1	0 0	0	0	0 0	38	4.5	4.5	70	16	1751	32	7	11	0.0
28	14.7	3.2	0.0	-2.0	12.0	11.3	0.6	0.0	1031.7	0	1	0 0	0	0	0 0	42	3.5	3.8	46	14	0946	40	6	09	0.0
29	11.4	4.1	0.0	-0.3	12.0	11.3	2.7	0.0	1032.7	0	1	0 0	0	0	0 0	29	3.5	3.6	13	15	1220	18	7	12	0.0
30	17.9	-0.4	0.0	-4.3	11.6	11.3	12.8	1.9	1031.7	1	1	0 0	0	0	0 0	275	0.4	3.0	273	11	1554	230	6	20	0.0
Total			14.8				187.4	24.9																	13.4
Mean	16.2	3.8		-0.1	10.6	9.9	6.25	0.8	1016.5							325	0.8	5.6							
Anom	+1.4	-0.9	31%	-1.1	+0.4	+0.4	110%		+1.5																

Daily mean 10.0 Pressure, abs highest = 1032.8 on 29

Anom +0.3 Pressure, abs lowest = 984.4 on 7

Number of days with:

Air frost = 5 Ground frost = 15 Nil sun = 1

Snow falling = 1 Snow lying = 0 Thunder = 1

Hail=>5mm = 0 Hail<5mm or ice = 1 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.

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 0900 GMT for APRIL 2022

Date	VV	N	dd	ff	gg	TT	TdTd	RH	r	PPP	a	ppp	ww	W1	W2	Nh	Cl	h	Cr	Cm	Ch	NChshs	NChshs	NChshs	Date	Remarks
1	81	1	36	10	22	4.6	-1.4	65	3.4	1017.6	2	016	03	0	0	1	1	5	0	0		81825			1	Cu hum
2	70	3	02	05	12	5.6	1.5	75	4.2	1023.3	1	011	03	0	0	1	1	5	0	1		81820	83075		2	COTRA Cu hum
3	81	3	34	03	06	5.5	1.2	74	4.1	1027.7	0	001	03	0	0	1	1	5	0	1		81825	83080		3	COTRA Cu hum Hoar slt in shade
4	50	8	24	10	18	7.2	6.5	95	6.0	1013.0	7	018	61	6	6	7	7	3	2	/		87706	88515		4	
5	82	8	24	06	14	11.4	8.3	81	6.8	1010.5	0	000	01	2	2	7	8	4	/	8		83815	85625		5	/Cs70 COTRA Cu med
6	86	8	23	11	22	10.7	8.3	85	6.9	999.3	6	012	01	6	2	5	5	4	2	/		82618	84628	88462	6	
7	82	5	25	20	38	9.5	1.4	57	4.3	987.0	2	017	02	2	2	5	8	6	0	0		84835			7	2Sc45 Cu hum
8	82	7	06	03	05	5.0	2.7	85	4.7	998.4	5	005	03	2	2	1	5	7	1	/		81656	87460		8	Cld edge NNW
9	84	1	29	05	12	7.4	2.3	70	4.4	1016.6	2	019	03	0	0	1	1	5	0	1		81822			9	1Ci75 COTRA Cu hum
10	81	7	21	04	08	9.4	1.3	57	4.1	1020.2	8	001	03	2	2	1	0	9	4	5		81362	87080		10	1Cs75 COTRA
11	84	7	09	07	19	12.4	2.3	50	4.5	1010.3	7	017	02	2	2	1	0	9	4	2		81368	85075	86080	11	COTRA U/a cont+Parhelion
12	60	7	13	05	09	13.6	9.3	75	7.3	1004.0	0	004	60	6	2	5	5	6	7	8		81640	85656	85361	12	2Ac090 /Cs200 COTRA
13	61	7	22	06	13	13.4	10.4	82	7.8	1015.6	2	021	03	2	2	7	5	4	/	/		83710	87650		13	
14	63	7	27	02	06	12.6	9.4	81	7.3	1022.5	1	004	02	4	2	5	5	6	0	1		85640	85080		14	COTRA
15	70	6	21	02	05	15.7	9.8	68	7.4	1027.0	2	006	02	2	2	0	0	9	0	1		86080			15	COTRA
16	58	1	11	04	09	16.0	8.5	61	6.8	1030.5	4	000	05	0	0	0	0	9	0	5		81275			16	Cs edge W
17	58	7	16	06	13	14.8	5.9	55	5.7	1024.1	7	014	05	2	2	0	0	9	0	1		82075	87080		17	COTRA
18	84	7	32	06	11	12.8	5.7	62	5.6	1018.5	1	004	03	2	2	1	1	5	0	8		81820	84269	87075	18	COTRA Cu hum Halo 22°+U/a&L/a cont
19	68	6	33	05	09	11.7	6.0	68	5.8	1016.9	0	002	02	2	2	2	8	6	6	1		81842	85358		19	2Sc50 4Ci75 Cu med
20	62	5	02	05	12	12.7	7.0	68	6.2	1017.5	6	007	02	2	2	0	0	9	0	1		82070	84075		20	U/a cont
21	59	3	05	06	14	14.6	7.9	64	6.6	1012.9	7	002	05	0	0	0	0	9	0	2		83072			21	COTRA
22	58	6	05	08	22	12.1	7.4	73	6.4	1008.0	7	005	05	2	2	6	8	4	/	/		83818	85635		22	/Sc45 Cu hum
23	60	6	03	10	21	14.6	8.1	65	6.8	1003.0	7	001	05	2	2	1	1	5	7	/		81820	86358		23	Cu fra/hum
24	60	1	02	07	16	13.3	7.5	68	6.5	1008.2	2	008	05	1	1	0	0	9	0	1		81075			24	
25	75	7	03	04	11	9.9	5.1	72	5.4	1016.0	2	008	01	2	2	7	5	5	/	/		85620	87625		25	
26	82	0	05	05	12	11.8	3.8	58	4.9	1022.7	2	011	02	0	0	0	0	9	0	0					26	
27	84	7	03	06	14	9.6	2.5	61	4.4	1028.5	2	010	03	2	2	7	8	6	/	/		83830	87635		27	Cu hum
28	80	7	05	05	11	9.8	3.5	65	4.8	1031.7	1	005	02	2	2	2	5	6	0	2		82630	87070		28	
29	70	7	05	05	12	11.0	5.1	67	5.3	1032.7	2	007	03	1	1	7	8	5	/	/		81824	87638		29	Cu hum
30	72	4	36	04	08	10.1	4.3	67	5.0	1031.7	4	000	03	0	0	0	0	9	0	4		84080			30	COTRA

Mean vis = 26.1 km
Mean cloud = 5.3 66%
Mean wind speed = 6.2 kn
Mean gust = 13 kn
Mean TT = 11.0 °C
Mean TdTd = 5.4 °C
Mean RH = 69.1 %
Mean r = 5.6 g/kg
Mean PPP = 1016.5 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 2022

Date	VV	N	dd	ff	gg	TT	TdTd	RH	r	PPP	a	ppp	ww	W1	W2	Nh	Cl	h	Cr	Ct	N	Chshs	N	Chshs	N	Chshs	Date	Remarks
1	84	3	01	10	26	7.7	-2.9	47	3.0	1017.9	4	000	15	1	1	3	8	6	6	0	8	2840					1	1Sc50 1Ac59 Cu med jp W-N
2	62	6	03	06	15	7.9	-3.0	46	3.0	1023.0	5	001	25	8	2	2	3	4	6	0	8	1815	8	2945	8	5362	2	Cb cal vir jp all quads vv60k ex p
3	83	6	29	09	14	8.6	-1.2	50	3.4	1025.1	8	012	01	2	2	6	8	6	/	/	8	1840	8	6657			3	2Sc56 Cu med
4	86	8	25	08	19	14.0	9.6	75	7.4	1010.5	7	007	02	2	2	7	5	4	2	/	8	5619	8	7628			4	/As62
5	82	7	25	12	19	13.7	6.1	60	5.9	1008.1	7	018	01	2	2	4	8	6	0	2	8	2832	8	3645	8	5073	5	COTRA Cu hum
6	62	6	25	12	25	12.4	8.7	78	7.1	994.5	8	020	25	9	8	5	3	4	6	3	8	1915	8	4650			6	2Cu35 2Ac60 1Ci68 jpSW vv60k ex p
7	80	3	25	17	36	12.0	2.2	51	4.5	991.9	2	025	15	1	1	2	8	6	6	1	8	2845					7	1Sc56 1Ac58 1Ci75 jpW vv60k ex p
8	80	6	35	08	17	10.7	-0.4	46	3.7	999.7	3	008	27	8	2	2	2	6	6	8	8	2845	8	6075			8	1Ac59 2Cs70 COTRA jpE vv60k ex p Halo 22° part
9	86	5	31	09	16	12.1	-3.3	34	3.0	1016.9	8	001	02	1	1	5	4	7	0	1	8	2856	8	3657			9	1Ci78 Cu med
10	84	8	18	08	15	12.7	-0.5	40	3.6	1017.7	6	012	01	2	2	1	4	7	0	7	8	1650	8	8270			10	COTRA Halo 22° part+parhelion
11	85	7	10	09	20	17.2	1.6	35	4.3	1005.8	6	018	14	2	2	6	0	9	8	8	8	1359	8	6362			11	/Cs72 Ac cas vir jp W
12	62	8	20	09	18	14.4	10.0	75	7.7	1006.6	3	022	60	6	2	8	8	4	/	/	8	5816	8	8635			12	Cu hum
13	84	6	21	07	15	18.6	9.1	54	7.1	1016.3	3	001	02	2	2	6	8	6	/	/	8	3835	8	5657			13	2Sc45 Cu med
14	88	7	25	07	13	16.6	8.6	59	6.8	1022.3	5	000	02	2	2	5	8	6	0	6	8	1838	8	5645	8	7080	14	3Cs73 COTRA Cu med
15	86	2	24	06	11	21.7	8.6	43	6.8	1025.8	6	003	02	0	0	2	2	6	0	1	8	2848					15	1Ci80 Cu med
16	70	6	04	05	11	21.4	8.7	44	6.8	1028.5	7	013	02	1	1	1	1	6	0	1	8	1848	8	6081			16	Cu hum
17	88	7	16	09	16	19.7	-5.3	18	2.5	1019.1	7	026	02	2	2	0	0	9	0	1	8	2075	8	7080			17	COTRA 22° halo part
18	86	7	26	04	12	15.2	2.7	43	4.6	1016.6	7	011	03	2	2	3	8	7	3	1	8	3850	8	6075			18	1Sc56 1Ac66 COTRA Cu hum E, med W
19	82	7	05	07	18	14.1	4.7	53	5.3	1015.8	5	005	02	8	2	7	8	6	7	/	8	1835	8	6650			19	2Sc45 /Ac60
20	82	4	07	06	16	18.9	2.7	34	4.6	1014.3	6	011	02	1	1	1	1	7	0	2	8	1856	8	3070			20	3Ci78 COTRA Cu hum
21	75	1	05	08	21	20.1	6.1	40	5.8	1010.4	7	013	02	0	0	1	8	7	0	0	8	1850					21	1Sc56 Cu hum
22	83	8	06	10	21	14.9	5.9	55	5.8	1005.9	7	012	02	2	2	8	5	6	/	/	8	5642	8	8648			22	
23	64	5	05	11	23	18.6	7.7	49	6.6	1002.0	6	009	03	2	2	3	8	6	0	1	8	3840					23	2Sc50 2Ci77 Cu med
24	73	6	02	09	15	16.6	6.4	51	6.0	1008.9	2	008	03	1	1	3	8	6	6	/	8	2845	8	5357			24	2Sc50 Cu med
25	65	6	03	06	13	15.0	4.4	49	5.2	1016.1	8	004	15	2	2	5	8	6	6	/	8	2845	8	4650			25	3Ac58 Cu med jpE vv40k ex p
26	83	5	02	06	14	16.2	2.9	41	4.6	1022.0	6	005	03	1	1	5	8	7	0	0	8	1850	8	5656			26	Cu hum
27	82	7	04	06	13	11.4	3.2	57	4.7	1027.8	6	007	02	2	2	7	5	6	/	/	8	7638					27	
28	75	8	04	05	11	13.2	5.1	58	5.4	1030.4	6	013	03	2	2	5	0	9	1	7	8	5466	8	8270			28	El hz lyr
29	82	8	02	06	12	11.1	2.9	57	4.6	1031.6	8	007	02	2	2	8	5	6	/	/	8	8638					29	
30	78	7	05	03	08	17.0	4.0	42	5.0	1027.2	7	024	03	2	2	1	2	7	3	1	8	1850	8	7075			30	2Ac69 COTRA Cu hum/med L/a cont

Mean vis = 38.9 km
Mean cloud = 6.0 75%
Mean wind speed = 7.9 kn
Mean gust = 17 kn
Mean TT = 14.8 °C
Mean TdTd = 3.8 °C
Mean RH = 49.5 %
Mean r = 5.2 g/kg
Mean PPP = 1015.3 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

2022

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
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	0.06	0.20	0.00	0.00	0.00	0.00	0.00	0.51	0.46	0.00	0.00	0.00	0.02	0.54	0.43
6	0.98	0.83	1.00	0.00	0.00	0.00	0.45	0.00	1.00	1.00	0.82	0.23	0.00	0.24	1.00	1.00
7	1.00	1.00	1.00	0.00	0.00	0.00	0.38	0.00	1.00	1.00	1.00	0.16	0.00	0.45	1.00	1.00
8	1.00	1.00	1.00	0.00	0.00	0.00	0.35	0.00	1.00	1.00	1.00	0.00	0.00	0.42	1.00	1.00
9	0.87	0.80	0.91	0.00	0.00	0.00	0.51	0.00	1.00	1.00	1.00	0.55	0.01	0.53	1.00	1.00
10	0.33	0.74	0.89	0.00	0.00	0.00	0.23	0.00	0.99	1.00	0.84	0.64	0.00	0.23	1.00	1.00
11	0.56	0.22	0.49	0.50	0.01	0.08	0.67	0.44	0.59	1.00	0.96	0.08	0.01	0.33	1.00	1.00
12	0.32	0.44	0.19	0.01	0.04	0.08	0.78	0.61	0.47	0.61	0.61	0.09	0.03	0.11	1.00	1.00
13	0.71	0.66	0.00	0.00	0.07	0.29	0.81	0.28	0.62	0.22	1.00	0.00	0.14	0.20	0.88	1.00
14	0.52	0.48	0.01	0.00	0.21	0.82	0.79	0.28	0.50	0.92	0.38	0.00	0.49	0.00	0.64	1.00
15	0.96	0.67	0.64	0.00	0.11	0.20	0.64	0.92	0.29	0.55	0.01	0.00	0.00	0.07	1.00	1.00
16	0.29	0.31	0.01	0.00	0.19	0.04	0.63	1.00	0.52	0.00	0.00	0.00	0.00	0.71	1.00	1.00
17	0.52	0.86	0.05	0.00	0.00	0.20	0.47	0.82	0.50	0.00	0.01	0.00	0.00	0.98	1.00	1.00
18	0.26	0.30	0.42	0.00	0.00	0.00	0.27	0.00	0.32	0.00	0.00	0.00	0.15	0.31	0.88	0.61
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	**8.33**	**8.39**	**6.81**	**0.51**	**0.62**	**1.73**	**6.99**	**4.34**	**9.30**	**8.75**	**7.65**	**1.76**	**0.84**	**4.60**	**12.93**	**13.04**

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	0.01	0.00	0.00	0.00	0.17	0.01
5	0.19	0.67	0.26	0.00	0.67	0.07	0.00	0.65	0.01	1.00	0.00	0.36	0.45	1.00	0.25
6	1.00	1.00	0.55	0.00	1.00	0.00	0.00	0.70	0.00	1.00	0.00	0.03	1.00	1.00	0.53
7	1.00	1.00	0.27	0.45	1.00	0.08	0.00	0.77	0.09	1.00	0.00	0.00	1.00	1.00	0.56
8	1.00	1.00	0.81	1.00	1.00	0.11	0.46	1.00	0.15	1.00	0.00	0.00	0.24	1.00	0.58
9	1.00	0.89	0.42	1.00	1.00	0.00	0.32	1.00	0.20	1.00	0.00	0.03	0.00	1.00	0.57
10	1.00	0.84	0.00	1.00	1.00	0.00	0.01	0.98	0.26	1.00	0.00	0.06	0.00	1.00	0.50
11	1.00	0.92	0.40	0.47	1.00	0.05	0.03	0.59	0.75	1.00	0.00	0.00	0.00	1.00	0.51
12	1.00	0.96	0.06	1.00	1.00	0.03	0.50	0.52	0.35	0.95	0.00	0.00	0.00	1.00	0.46
13	1.00	0.78	0.02	1.00	1.00	0.05	0.52	0.40	0.67	0.62	0.00	0.07	0.00	1.00	0.47
14	1.00	0.21	0.06	1.00	1.00	0.00	0.40	0.11	0.47	0.57	0.00	0.00	0.00	1.00	0.43
15	1.00	0.49	0.00	0.99	1.00	0.00	0.66	0.02	0.01	0.01	0.00	0.00	0.00	1.00	0.41
16	1.00	0.71	0.00	0.73	1.00	0.00	0.14	0.31	0.45	0.10	0.00	0.03	0.00	1.00	0.37
17	0.77	0.64	0.18	0.09	1.00	0.00	0.34	1.00	0.35	0.00	0.00	0.00	0.00	0.59	0.38
18	0.27	0.05	0.39	0.67	0.92	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	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
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	**12.24**	**10.16**	**3.41**	**9.40**	**13.59**	**0.40**	**3.36**	**9.12**	**3.77**	**9.26**	**0.00**	**0.58**	**2.69**	**12.76**	**187.29**

APRIL 2022	T mn	Tx	Time	Tn	Time	RHmn	RH x	Time	RH n	Time	Tdmn	r mn	r x	Time	r n	Time	p mn	p x	Time	p n	Time	R tot
1	3.43	10.6	1412	-0.6	2307	72.1	95.0	2311	31.4	1402	-1.6	3.4	3.8	1731	2.3	1402	1018.01	1021.8	2307	1014.4	135	0
2	2.99	11.2	1432	-2.7	521	75.9	97.6	702	33.0	1423	-1.6	3.4	4.2	859	2.5	1423	1023.47	1027.1	2359	1021.5	209	0.1
3	3.88	9.8	1521	-3.9	531	69.1	96.7	302	41.4	1224	-2.0	3.2	4.1	859	2.7	531	1025.56	1028.0	819	1021.0	2355	0.1
4	9.78	14.3	1612	4.6	431	82.5	95.3	856	73.3	1357	6.9	6.3	7.9	1138	4.0	0	1013.12	1021.1	1	1010.1	1653	4.2
5	11.30	14.3	1418	9.4	2359	75.0	89.7	129	56.6	1435	6.9	6.2	7.2	1	5.1	1802	1009.13	1011.3	38	1005.4	2358	0
6	10.51	15.4	1331	8.9	156	79.4	94.5	746	55.0	1330	7.0	6.3	7.4	1404	5.3	104	996.76	1005.5	0	988.1	2359	4.5
7	8.90	13.8	1309	3.7	2353	63.4	91.0	249	34.0	1328	1.9	4.5	6.5	49	3.2	1328	991.37	1001.8	2358	984.4	436	3.5
8	6.18	12.0	1614	1.5	300	70.7	94.0	422	35.8	1712	0.6	4.0	4.8	1020	2.8	1741	1001.60	1010.5	2359	997.9	748	1.5
9	6.28	12.1	1414	-0.7	544	66.2	98.4	619	31.6	1500	-0.6	3.6	4.5	819	2.7	1355	1016.26	1020.1	2357	1010.5	0	0.1
10	6.83	13.5	1410	-1.1	518	63.4	97.3	608	37.1	1054	-0.6	3.6	4.7	1158	3.0	1907	1018.61	1020.7	755	1015.2	2359	0.1
11	11.86	19.9	1328	2.9	322	57.0	89.3	344	28.8	1312	2.7	4.6	5.9	2344	3.6	1021	1008.86	1015.3	6	1005.3	2349	0
12	12.30	17.9	1239	8.1	513	80.3	93.3	2357	63.5	1044	8.9	7.1	8.5	1152	5.7	205	1006.17	1011.4	2358	1003.6	915	0.4
13	12.64	18.7	1401	7.3	2359	80.5	97.1	611	50.1	1403	9.1	7.1	8.1	1040	6.0	1418	1016.07	1020.8	2119	1011.3	14	0
14	11.59	18.0	1223	5.3	244	78.5	99.0	646	49.5	1151	7.5	6.4	7.5	1010	5.3	244	1022.53	1025.0	2359	1020.5	25	0
15	13.76	22.4	1446	4.7	512	70.8	98.2	645	40.7	1448	7.7	6.5	8.0	1330	5.0	512	1026.53	1029.2	2341	1024.9	1	0
16	13.55	21.7	1313	5.2	458	71.1	98.3	620	40.2	1401	7.7	6.4	7.7	1310	5.2	458	1029.22	1030.8	626	1027.5	1747	0
17	12.20	20.3	1407	4.6	456	61.0	97.6	636	16.1	1432	3.1	4.8	6.7	746	2.3	1432	1021.95	1028.1	2	1017.7	2116	0
18	11.87	17.0	1334	6.0	510	64.5	95.6	546	39.2	1658	4.8	5.3	6.2	706	4.4	1241	1017.43	1018.6	808	1015.9	1759	0
19	10.55	16.3	1402	4.8	436	71.7	93.4	442	46.9	1612	5.4	5.5	6.6	1151	4.6	1612	1016.64	1018.1	2337	1015.3	1358	0
20	11.74	20.0	1421	4.8	307	65.2	97.2	503	29.5	1410	4.5	5.2	6.9	1044	4.2	1410	1015.96	1018.1	556	1013.9	1704	0
21	12.08	20.5	1419	3.9	434	63.0	95.1	559	35.6	1706	4.4	5.2	6.8	1136	4.2	1952	1011.99	1014.4	2	1010.2	1542	0
22	11.12	17.1	1308	6.7	37	69.6	86.3	430	51.0	1309	5.6	5.7	6.8	1306	4.7	25	1007.42	1011.1	0	1005.4	2353	0
23	12.62	19.4	1323	8.4	45	70.4	87.5	308	46.5	1320	7.1	6.3	7.3	1247	5.7	0	1003.38	1005.5	0	1001.6	1518	0
24	11.78	19.6	1333	5.2	512	66.7	95.7	543	38.9	1331	5.3	5.5	6.8	1146	4.5	1946	1008.83	1014.7	2359	1004.6	18	0
25	9.00	16.3	1348	3.6	501	76.9	97.2	618	44.6	1350	4.8	5.3	6.1	1129	4.6	1503	1016.39	1019.9	2359	1014.2	301	0
26	9.68	17.3	1343	1.9	453	66.4	98.7	534	34.1	1454	2.8	4.6	5.5	1248	3.8	1155	1022.44	1025.9	2346	1019.8	16	0
27	8.33	11.8	1348	2.9	257	71.4	94.7	328	51.1	1353	3.2	4.7	6.5	910	4.2	905	1027.97	1030.4	2358	1025.7	0	0
28	9.49	14.7	1329	3.2	429	70.5	92.5	434	50.5	1329	4.2	5.0	5.7	1323	4.2	59	1031.08	1032.7	2358	1029.7	259	0
29	7.64	11.4	1002	2.1	2355	74.9	96.0	530	53.7	1439	3.2	4.7	5.6	821	4.0	1629	1032.10	1032.8	925	1031.3	1653	0
30	9.93	17.9	1533	-0.4	500	67.9	98.9	548	37.4	1534	3.4	4.8	6.1	1312	3.5	501	1029.10	1032.4	59	1025.6	1738	0
Total																						14.5
Mean	9.79	16.17		3.68		70.5	95.04		42.56		4.08	5.18	6.34		4.12		1016.20	1020.11		1013.09		
Max	13.76	22.44		9.40		82.5	99.00		73.30		9.09	7.14	8.47		5.97		1032.10	1032.81		1031.29		
Min	2.99	9.81		-3.89		57.0	86.30		16.09		-1.98	3.25	3.78		2.31		991.37	1001.78		984.41		

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

Tmn = 00 to 24 GMT mean air temperature at 1.2 m, deg C
RHmn = 00-24 GMT mean relative humidity at 1.2 m, percent
TDmn = 00-24 GMT mean dew point at 1.2 m, deg C
rmn = 00-24 GMT mean humidity mixing ratio, g/kg
pmn = 00-24 GMT mean air pressure reduced to mean sea level, mbar
Time = hours and minutes in GMT of extreme values

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

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, 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.

B J Burton. 3 August 2009. Updated 4 May 2014.

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 of 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.