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 2024**

Temperature (°C)   Anomaly   Rank in the past **143** years

Mean maximum	14.9	+0.1	28th highest			
Mean minimum	6.7	+2.0	2nd highest			
Daily mean	10.8	+1.1	7th highest			

Highest maximum 20.9   on 12th   Lowest maximum 9.2   on 22nd
Highest minimum 12.9   on 6th   Lowest minimum 1.2   on 25th
Mean grass minimum 3.6   +2.6   Lowest grass minimum -3.5   on 22nd
Mean earth @30 cm 11.4   +1.2   Earth @100 cm 10.9   +1.4
Frost duration (hrs) 0.0   Rain duration (hrs) 52.0
Rainfall total (mm) 59.6   124 %   39th highest
Highest daily fall 28.6   on 27th   Highest rate mm/hr 18   on 15th
Number of: Dry days (<0.2mm) 16   Wet days (>0.9mm) 11   days ≥5mm 2
Sunshine total (hrs) 122.7   Daily mean 4.09   72 %   Sunniest day 12.3   on 30th
N° days with: Air frost 0   Ground frost 8   Snow falling 0   Snow lying 0
Thunder 1   Hail ≥5mm 1   Small hail/ice 0   Fog @09 0   Nil sun 1
Pressure MSL : Mean @09 GMT, mbar 1013.4   -1.6   Highest 1031.9 on 21st   Lowest 990.0 on 1st
Relative humidity : Mean (%) 76.1   Lowest 36 on 18th   Water vapour (g/kg), mean at 09 and 15 GMT 5.9, 5.7
Overall mean wind speed (mph) 8.6   Windiest day 15.2 on 15th   Max gust 47 on 15th
Wind direction (days) N 4   NE 2   E 0   SE 1   S 4   SW 10   W 5   NW 4
Least windy day (mph) 2.9 on 22nd   Calm; less than 0.5 mph (minutes) 203

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

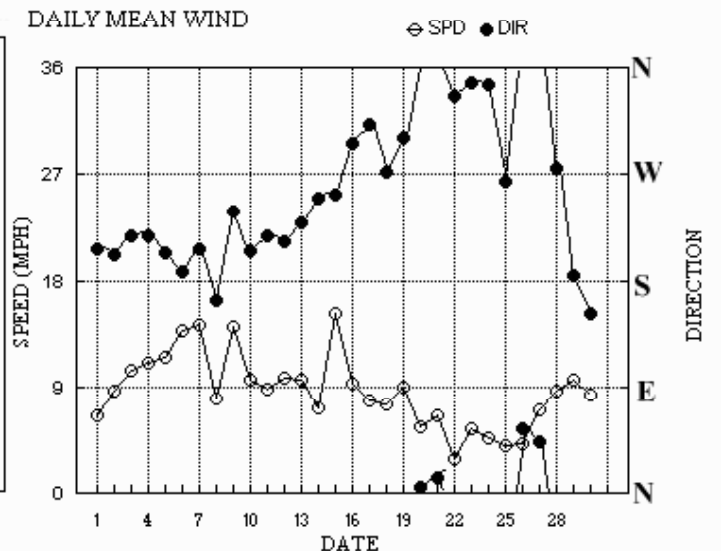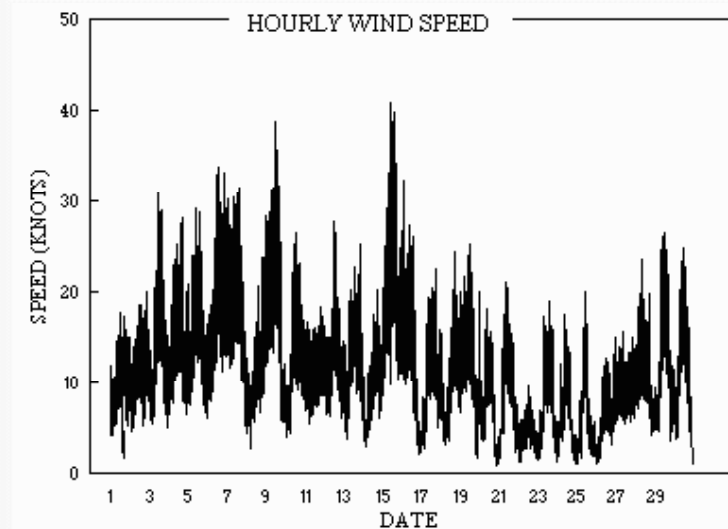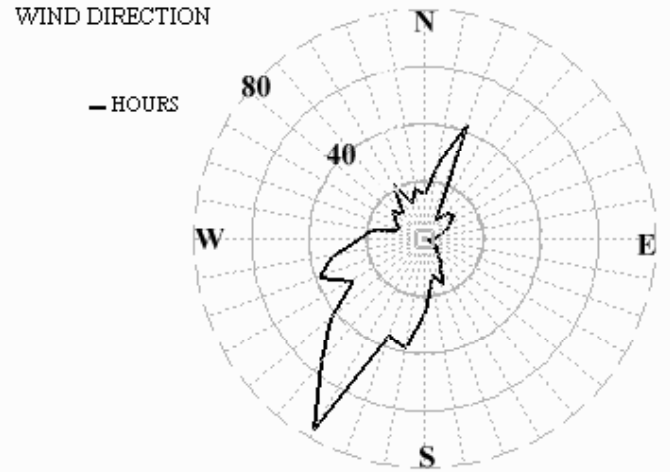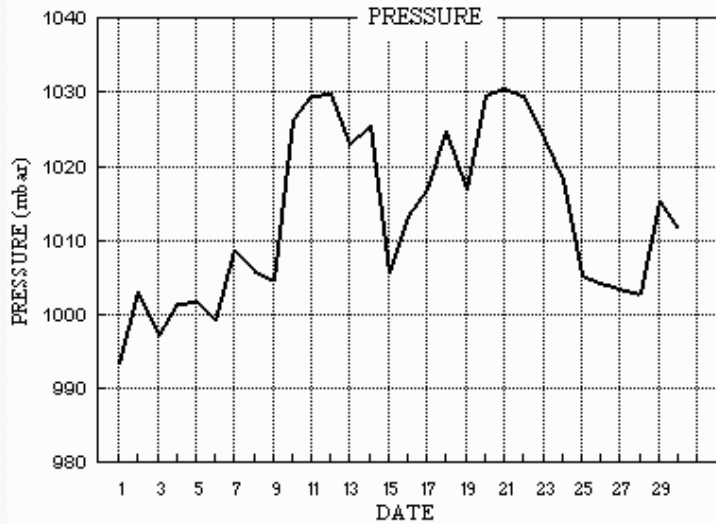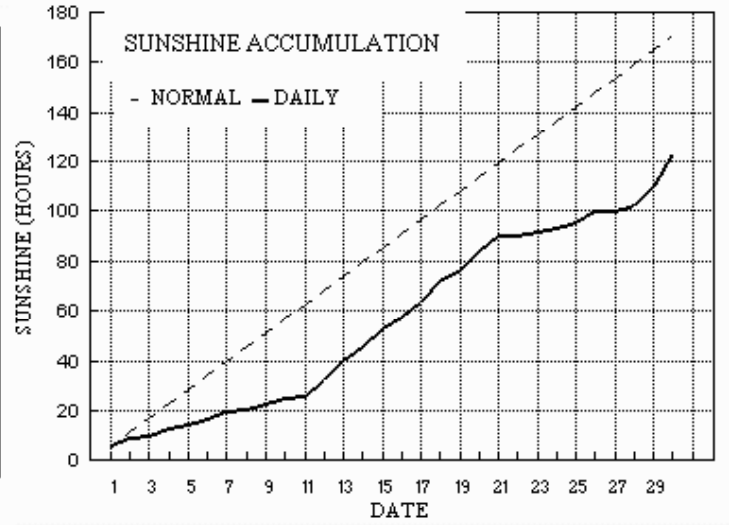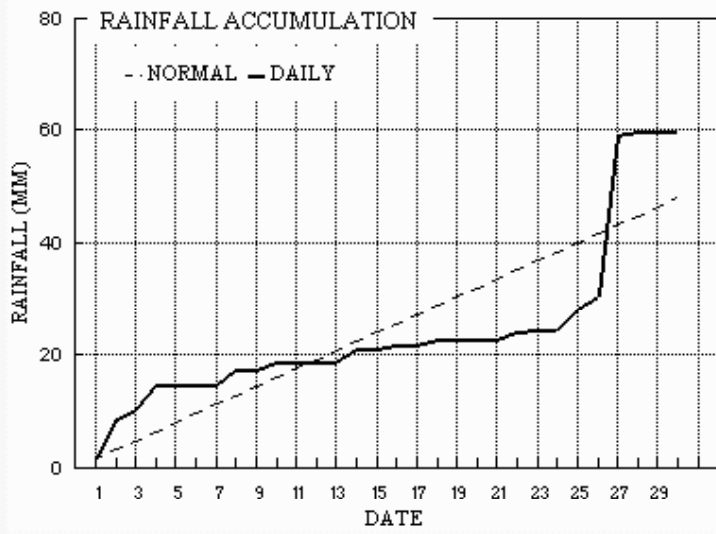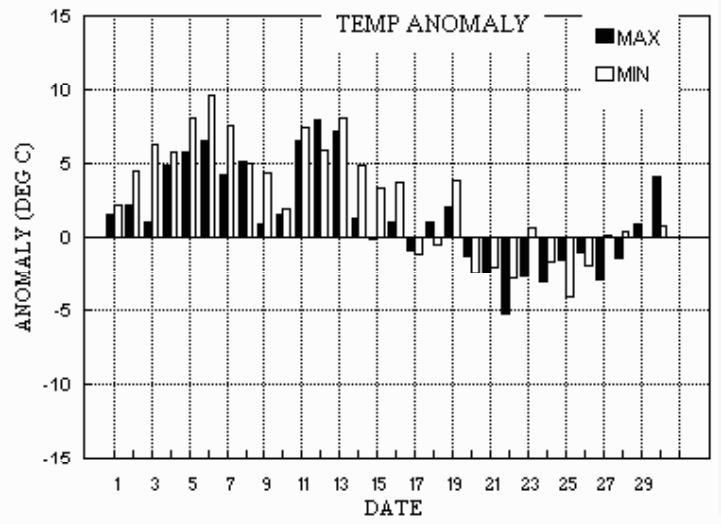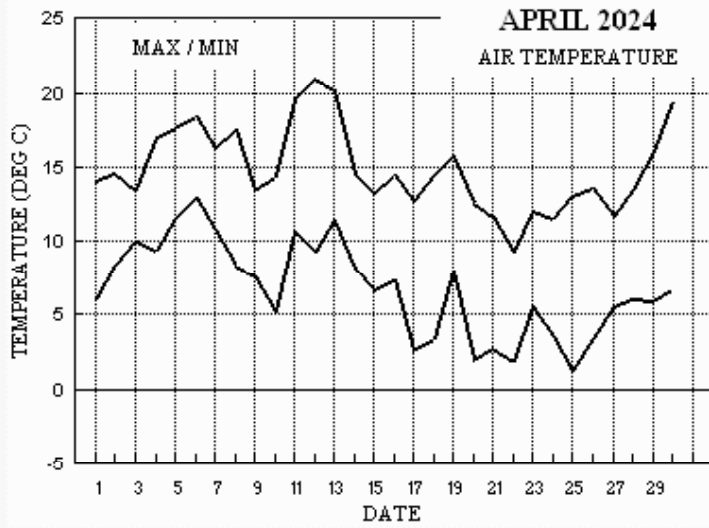Notes: **Mild Overall,   Wet   and   Dull**

Temperature: Although the daily mean is 1.1° above average and ranks 7th highest for April in 143 years, the mean maximum is only 0.1° above average and ranks 28th highest, while an exceptionally high mean minimum, 2.0° above average, ranks 2nd highest after 2018 in the same period. The highest max is equal to the median while the lowest max is 1.2° above its median. The highest min is 3.1° above the median and is 2nd highest after 2007 in 112 years, while the lowest min, also 3.1° above its median, is 5th highest in 121 years. This is the 4th April in this millennium to have no air frost, and 10th in the past 69 years. Also, there were 6 fewer ground frosts than average. Both the mean and lowest grass min are 2nd highest after 2018 in the past 45 years. The mean earth temperature at 30cm depth is equal highest with 2014 since 2011, while at 1 m depth it is a new record high for the past 35 years, as is the lowest daily value at that depth. Anomalies for daily max were over +6° on the 6th and 11th to 13th and exceeded -3° on the 22nd, 24th and 27th, with extreme values of +8.0° on the 12th and -5.2° on the 22nd. Anomalies for daily min were over +8° on the 5th, 6th and 13th and exceeded -2°on the 20th to 22nd and 25th, with extreme values of +9.5° on the 6th and -4.2° on the 25th. **Rainfall:** The total this April is 24% above average, but is slightly less than fell in April last year. It is 18.5 mm above the long-term median, but had we not had one exceptionally large fall on the 27th, the total for the month would have been 35% below average. The 28.6 mm that fell on the 27th is a new record daily amount for April in the past 121 years, but exceeding the previous highest in 1991 by only 0.1 mm. There were no cases of violent rainfall rate this month, but there was a thunderstorm with large hail on the 16th, with stones up to 7mm diameter, but these were very sparse at this location. The absense of snowfall is not unusual in April, the last was in 2022, and 24 of the past 49 Aprils have had at least one day. There were no dry spells this April but only 2 days had >1 mm in the 14 days to the 24th. Rainfall accumulation compared with normal was 14 mm in surplus by the 4th, becoming a 14mm deficit by the 24th, then a 19 mm surplus on the 27th. **Sunshine:** This has been a dull April, with only 72 % of average sunshine, making this the 3rd dullest April in this millennium after 2018 and 2001. The total this April of 122.7 hours can be compared with a recent record breaking April in 2020 with 265.5 hours. Daily accumulation compared with normal was in deficit by 40 hours on the 11th, decreasing to 28 hours by the 21st, but increasing to 98 hours by the 28th. The periods 2nd to 11th and 22nd to 28th were especially dull, with 14 of the 17 days having less than 20 % of the maximum. Of the 7 sunniest days, each having at least 50 % of the maximum, only the 30th had >60%. Overall there were 14 days with <3 hours, 9 with =>6 hours and 1 with =>12 hours. **Wind:** This has been quite a windy April, the mean speed 1.8 mph above average and equal highest with 2013 since 1994. The highest gust, although 5 mph above average, was exceeded in April in both 2023 and 2022. Daily mean winds were moderate or fresh from the 1st to the 21st, increasing to strong on the 7th, 9th and 15th. After the 21st they were light or moderate, but became fresh on the 29th and 30th. **Cloud:** The mean cloud amount at 0900 GMT is highest since 1998, and at 1500 GMT is equal highest with 2018 in the past 27 years.

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			
+3.4°	+5.5°	118%	45%	+2.5°	+3.3°	24%	104%	-1.6°	-1.1°	231%	67%

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

Wokingham climatological graphs for April 2024

APRIL 2024
MAX / MIN — AIR TEMPERATURE

TEMP ANOMALY

RAINFALL ACCUMULATION

SUNSHINE ACCUMULATION

PRESSURE

WIND DIRECTION

HOURLY WIND SPEED

DAILY MEAN WIND

Daily meteorological data.　　　　　Emmbrook, WOKINGHAM, Berkshire.

Month: APRIL 2024

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	Rain HH	hrs
1	14.1	6.0	1.5	0.7	9.8	9.7	6.3	0.0	993.3	0	0	0	0	0	0	0	0	207	5.4	5.8	183	18	1153	206	9	17	1.7
2	14.6	8.3	7.3	5.6	10.0	9.7	3.1	0.0	1003.0	0	0	0	0	0	0	0	0	201	6.7	7.5	193	20	2125	188	10	15	6.6
3	13.4	10.0	1.7	9.3	10.5	9.8	1.0	0.0	997.3	0	0	0	0	0	0	0	0	218	8.3	9.1	251	31	1112	242	15	14	1.9
4	17.0	9.4	4.2	7.1	10.7	9.9	2.6	0.0	1001.6	0	0	0	0	0	0	0	0	217	9.2	9.7	230	28	1633	223	13	16	4.2
5	17.6	11.5	0.1	11.0	11.2	10.1	1.8	0.0	1001.8	0	0	0	0	0	0	0	0	203	9.7	10.1	218	29	1321	211	14	14	0.0
6	18.4	12.9	tr	10.5	11.7	10.2	2.1	0.0	999.3	0	0	0	0	0	0	0	0	188	11.2	11.9	228	34	1320	210	16	13	0.0
7	16.3	10.8	tr	7.4	11.9	10.4	3.0	0.0	1008.6	0	0	0	0	0	0	0	0	206	12.4	12.4	216	32	1508	212	16	14	0.0
8	17.5	8.4	2.7	4.9	11.7	10.6	1.0	0.0	1005.9	0	0	0	0	0	0	0	0	164	6.3	7.0	182	27	2338	181	12	23	1.8
9	13.5	7.6	tr	6.9	11.8	10.7	2.4	0.0	1004.6	0	0	0	0	0	0	0	0	239	10.3	12.3	269	39	1129	256	17	11	0.1
10	14.3	5.1	1.4	-0.7	11.3	10.8	2.3	0.0	1026.4	0	1	0	0	0	0	0	0	205	8.3	8.4	197	27	1211	203	13	11	1.8
11	19.5	10.7	0.0	10.4	11.3	10.8	0.5	0.0	1029.6	0	0	0	0	0	0	0	0	217	7.5	7.7	230	18	2042	204	9	21	0.0
12	20.9	9.3	0.0	6.3	12.0	10.9	7.0	0.0	1029.9	0	0	0	0	0	0	0	0	212	8.3	8.5	228	28	1253	234	12	12	0.0
13	20.2	11.4	0.0	7.7	12.5	11.0	7.1	0.0	1022.9	0	0	0	0	0	0	0	0	228	8.1	8.4	260	25	2011	225	12	13	0.0
14	14.5	8.1	2.2	5.7	12.9	11.2	5.8	0.0	1025.5	0	0	0	0	0	0	0	0	249	6.1	6.3	249	20	1842	252	9	18	1.1
15	13.2	6.7	tr	2.9	12.6	11.4	7.0	0.0	1005.5	0	0	0	0	0	0	0	0	253	12.0	13.2	266	41	1114	268	19	14	0.4
16	14.5	7.3	0.8	4.8	12.0	11.5	4.9	0.0	1013.2	0	0	0	0	1	1	0	0	296	7.4	8.1	266	33	0214	299	12	08	0.7
17	12.7	2.6	tr	-1.7	11.7	11.5	6.3	0.0	1016.9	0	1	0	0	0	0	0	0	311	6.0	6.8	304	23	1736	302	10	17	0.1
18	14.5	3.4	0.8	-1.8	11.3	11.4	8.0	0.0	1024.7	0	1	0	0	0	0	0	0	272	4.4	6.6	262	24	1712	255	11	17	1.4
19	15.7	8.0	tr	5.5	11.7	11.4	4.5	0.0	1016.9	0	0	0	0	0	0	0	0	301	5.2	7.8	323	25	1101	297	11	10	0.5
20	12.6	2.0	0.0	-3.4	11.7	11.3	8.0	0.0	1029.5	0	1	0	0	0	0	0	0	5	4.7	5.0	19	20	0037	7	8	13	0.0
21	11.6	2.7	tr	-1.8	11.3	11.3	5.7	0.0	1030.5	0	1	0	0	0	0	0	0	13	5.7	5.8	23	21	0802	14	11	08	0.0
22	9.2	1.9	1.6	-3.5	11.0	11.3	0.4	0.0	1029.7	0	1	0	0	0	0	0	0	336	2.3	2.5	344	10	1300	310	4	12	6.3
23	12.0	5.6	0.1	5.7	11.0	11.2	1.5	0.0	1023.8	0	0	0	0	0	0	0	0	347	4.2	4.8	340	19	1445	17	8	15	0.7
24	11.5	3.5	0.0	-1.9	11.1	11.2	0.9	0.0	1018.0	0	1	0	0	0	0	0	0	345	3.3	4.0	318	18	0925	328	8	11	0.0
25	13.1	1.2	3.8	-3.0	10.9	11.2	2.6	0.0	1005.4	0	1	0	0	0	0	0	0	263	2.5	3.5	277	20	1052	258	9	10	2.7
26	13.6	3.4	2.2	0.7	10.7	11.1	4.2	0.0	1004.3	0	0	0	0	0	0	0	0	55	3.3	3.7	46	14	2304	47	7	23	3.9
27	11.6	5.5	28.6	5.7	11.3	11.1	0.0	0.0	1003.6	0	0	0	0	0	0	0	0	44	6.0	6.2	62	16	1020	59	7	10	14.5
28	13.4	6.0	0.6	6.4	11.3	11.1	2.9	0.0	1002.8	0	0	0	0	0	0	0	0	275	4.6	7.5	322	24	0834	320	10	07	1.6
29	16.0	5.9	0.0	0.9	11.2	11.1	7.5	0.0	1015.2	0	0	0	0	0	0	0	0	184	8.1	8.4	217	27	1320	183	14	11	0.0
30	19.4	6.7	0.0	0.4	11.2	11.1	12.3	0.0	1011.6	0	0	0	0	0	0	0	0	152	6.8	7.2	154	25	1303	165	12	13	0.0

	Max	Min	Rain	Grass	30cm	100cm	Sun	Frost	pp09									Vec		sp						Rain
Total			59.6				122.7	0.0																		52.0
Mean	14.9	6.7		3.6	11.4	10.9	4.09		1013.4									229	3.9	7.5						
Anom	+0.1	+2.0	124%	+2.6	+1.2	+1.4	72%		-1.6																	

Daily mean　　10.8　　　　　Pressure, abs highest =　　1031.9 on 21
Anom　　　　　+1.1　　　　　Pressure, abs lowest =　　　990.0 on 1

Number of days with:

Air frost = 0　　　　　Ground frost = 8　　　　Nil sun = 1
Snow falling = 0　　　Snow lying = 0　　　　　Thunder = 1
Hail=>5mm = 1　　　　Hail<5mm or ice = 0　　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 2024

Date	VV	N	dd	ff	gg	TT	TdTd	RH	r	PPP	a	ppp	ww	W1	W2	Nh	Cl	h	Cm	Ch	NChshs	NChshs	NChshs	Date	Remarks
1	88	3	22	08	15	10.5	6.8	78	6.3	993.3	2	007	03	0	0	2	2	4	0	1	82815				2Ci72 COTRA Cu med
2	86	7	24	09	16	10.7	7.6	81	6.5	1003.0	2	034	02	1	1	6	5	4	/	1	86612				2 1Ci75
3	65	8	20	10	21	11.7	9.9	89	7.7	997.3	1	005	15	6	2	8	5	3	/	/	86709	88612			3 jpNW
4	81	7	24	14	24	11.6	8.1	79	6.8	1001.6	3	019	25	8	2	7	8	4	/	/	85818	87635			4 Cu hum
5	65	6	21	14	23	14.0	10.2	78	7.8	1001.8	2	021	02	6	2	6	2	4	0	0	86817				5 Cu hum/med
6	81	8	19	13	24	17.6	10.5	63	8.0	999.3	3	002	03	1	1	7	0	9	7	8	82366	87468			6 /Cs75 COTRA
7	70	7	21	14	29	13.1	7.3	68	6.4	1008.6	0	013	02	6	2	7	8	5	/	/	83822	86635			7 Cu hum/med
8	65	8	14	06	11	12.0	8.5	79	6.9	1005.9	7	005	03	2	2	1	6	4	7	7	81712	86366	88270		8 Halo 22° part
9	80	8	25	13	32	7.6	4.6	81	5.3	1004.6	2	064	60	6	2	7	5	4	2	/	82712	87615	88530		9
10	80	7	20	09	17	11.3	6.6	73	6.0	1026.4	1	002	03	1	2	1	4	7	1	81808	85362	86465		10 /Ci70 Cu hum
11	86	8	22	07	12	14.3	12.2	87	8.6	1029.6	2	018	02	2	2	8	5	3	/	/	88609				11
12	80	7	22	06	13	15.2	10.0	71	7.5	1029.9	1	004	02	2	2	1	1	5	3	8	81825	83272	87075		12 1Ac68 Cu fra COTRA Halo 22° part
13	75	7	21	08	18	14.3	11.5	83	8.3	1022.9	6	014	01	2	2	3	5	4	0	1	83611	87078			13 COTRA
14	86	7	27	04	10	10.9	3.7	61	4.9	1025.5	0	003	02	2	2	1	1	5	4	8	81828	83272	87078		14 1Ac65 COTRA Cu hum Ci edge NNW Halo 22° part
15	70	7	27	06	33	8.0	6.1	88	5.9	1005.5	5	027	61	6	2	7	5	3	7	/	81708	83615	85650		15 7Ac58 Cld breaks NW vv40k NW
16	83	5	29	12	24	11.7	4.9	63	5.4	1013.2	1	014	02	8	2	5	8	5	0	0	82825	84650			16 Cu med
17	84	7	32	08	17	8.0	2.7	69	4.6	1016.9	6	003	25	8	1	7	8	4	/	/	83818	85656			17 /Ci75 Cu med
18	83	5	33	04	10	8.7	2.7	66	4.5	1024.7	2	013	03	1	1	3	1	5	0	1	83825	84080			18 COTRA Cu hum
19	86	7	28	11	21	11.9	7.2	73	6.3	1016.9	1	004	03	1	1	7	8	5	/	/	85823	87630			19 /Sc40 Cu hum
20	80	1	36	07	17	8.4	0.4	57	3.8	1029.5	1	012	03	0	0	1	1	6	0	1	81830				20 1Ci75 Cu hum
21	84	3	02	12	21	8.8	1.0	58	4.0	1030.5	0	004	03	0	0	3	1	6	0	1	83831				21 1Ci80 COTRA Cu hum
22	72	8	06	03	07	7.4	-0.3	58	3.6	1029.7	7	008	60	2	2	5	8	5	1	/	82820	84640	88650		22 Cu hum
23	81	7	36	07	17	8.9	4.5	74	5.2	1023.8	7	006	01	6	2	5	5	4	0	1	85618	87072			23 1Sc50 COTRA
24	80	7	34	05	11	7.8	1.9	66	4.3	1018.0	7	007	01	8	2	7	8	5	/	/	81825	87640			24 Cu med
25	82	7	27	07	16	9.6	2.0	59	4.4	1005.4	7	018	03	1	1	7	8	5	/	1	81825	85650	86656		25 /Ci75 COTRA Cu hum
26	67	7	05	04	11	8.3	5.1	80	5.5	1004.3	1	006	02	2	2	5	8	4	3	1	81816	85650			26 4Ac59 /Ci75 COTRA Cu hum
27	75	8	06	06	11	7.3	5.8	90	5.8	1003.6	0	004	02	6	2	8	5	3	/	/	87709	88620			27 Wind est
28	62	8	30	08	24	6.2	4.5	89	5.3	1002.8	2	037	21	6	2	7	5	4	2	/	87611	88530			28
29	82	6	20	12	23	13.3	5.0	57	5.4	1015.2	1	004	03	1	1	2	4	5	0	4	82828	85073			29 1Sc40 Cu med
30	88	2	18	09	20	15.2	2.4	42	4.5	1011.6	8	007	02	0	0	1	1	5	4	8	81825				30 1Ac68 1Cs73b 2Ci78 COTRA Cs edge W&E

Mean vis = 36.4 km

Mean cloud = 6.4 80%

Mean wind speed = 8.5 kn

Mean gust = 18 kn

Mean TT = 10.8 °C

Mean TdTd = 5.8 °C

Mean RH = 72.0 %

Mean r = 5.9 g/kg

Mean PPP = 1013.4 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 2024

Date	VV	N	dd	ff	gg	TT	TdTd	RH	r	PPP	a	ppp	ww	W1	W2	Nh	Cl	h	Cm	Ch	NChshs	NChshs	NChshs	Remarks
1	58	7	27	09	15	10.3	6.4	77	6.1	995.9	2	014	25	8	2	7	3	5	6	/	82925	84830	83650	/Ac57 jpNW-N vv60k ex p
2	75	8	19	10	19	12.7	7.2	69	6.3	1004.1	8	004	03	2	2	1	1	5	2	/	81825	88459		Cu hum
3	84	7	24	16	29	12.5	6.1	65	5.9	1002.2	2	027	02	2	2	7	8	5	0	4	83825	85640		3Ci75 COTRA Cu med
4	60	7	23	11	28	14.0	10.4	79	7.9	1004.4	1	008	80	8	2	7	8	4	/	/	85813	87645		Cu med
5	68	7	21	14	29	16.1	9.8	66	7.5	1004.9	1	016	01	2	2	2	4	5	0	8	82825	87275		1Sc40 COTRA Cu med Halo 22° part+u/a cont
6	72	7	21	17	33	16.6	8.8	60	7.1	1002.3	2	020	02	2	2	5	1	6	3	1	85832	86075		2Ac64 Cu hum
7	80	7	21	16	31	15.1	6.4	56	6.0	1008.3	8	004	02	6	2	5	1	6	0	1	85833	86072		
8	88	7	13	08	17	17.0	8.2	56	6.8	1000.5	8	030	03	2	2	3	5	6	7	/	83635	83358	87363	
9	86	4	26	14	32	13.0	0.7	43	4.0	1012.8	2	037	15	1	1	4	4	6	0	2	83845			1Sc56 1Ci70 Cu med jpW
10	56	8	20	09	21	10.6	9.0	90	7.0	1025.9	5	002	51	6	5	8	5	3	/	/	82706	87708	88615	
11	86	7	22	09	14	18.5	12.3	67	8.7	1029.3	8	011	03	2	2	2	4	5	3	8	81825	87270		2Sc28 1Ac67 Cu hum Halo 22° part
12	88	7	21	10	21	19.5	11.3	59	8.2	1027.5	7	016	02	2	2	1	1	6	0	2	81822	87075		COTRA Cu hum
13	84	7	24	11	23	19.4	7.2	45	6.2	1019.7	7	015	02	2	2	1	1	6	4	1	81830	87078		1Ac60 COTRA Cu hum
14	86	7	23	10	18	13.2	2.7	49	4.6	1021.4	8	026	03	2	2	5	4	6	1	/	83848	83650	87465	Cu hum
15	82	3	28	19	43	11.6	-0.5	43	3.7	1007.9	2	010	15	1	1	3	9	6	6	3	81940	82845		1Sc56 1Ac58 1Ci68 Cu med/con jpNW&S
16	60	5	32	07	26	13.2	4.6	56	5.3	1014.0	2	003	17	8	1	4	9	6	6	3	82935	81840		1Sc50 2Ac57 1Ci68 TL to N. Vis60k ex N
17	84	7	32	08	19	11.2	-0.9	43	3.5	1015.1	8	010	15	2	2	3	2	7	6	1	83850	85357		/Ac64 /Ci75 Cu med. jpNE
18	86	8	25	11	19	13.6	1.6	44	4.2	1022.1	7	016	03	2	2	1	1	7	4	7	81850	83366	88270	2Ac62 Cu hum
19	84	2	01	11	22	15.0	5.5	53	5.6	1017.7	3	002	01	8	1	2	4	6	6	0	82845			1Sc56 1Ac57 Cu med/con S
20	86	7	02	07	15	11.3	0.4	47	3.8	1029.2	8	003	02	2	2	7	8	6	/	/	81845	85650	86656	Cu hum
21	86	7	01	07	16	10.2	0.0	49	3.7	1030.2	6	004	02	2	2	7	8	6	/	1	82842	87650		/Ci75 Cu hum
22	65	8	35	03	09	7.7	5.5	86	5.5	1027.1	7	014	61	6	6	6	8	4	2	/	82813	85620	88535	Cu med
23	70	7	02	08	19	11.3	6.8	74	6.1	1021.9	6	009	25	8	2	7	8	5	/	1	82825	83635	87656	/Ci75 Cu med jp all quads
24	84	7	35	06	14	9.9	-0.6	48	3.6	1015.6	7	013	02	2	2	7	8	6	/	/	82845	87650		Cu hum
25	62	8	28	04	11	8.4	7.0	91	6.3	1002.5	6	011	21	6	2	6	5	3	7		81707	86650	88359	2Sc20
26	83	7	07	05	13	12.4	3.1	53	4.8	1003.3	8	006	02	2	2	6	8	6	3		82848	85650	86360	Cu hum
27	70	8	05	06	12	10.8	7.3	79	6.4	1002.8	7	008	03	2	2	4	4	4	2	/	83815	88460		2Sc25 Cu hum Wind est
28	80	4	25	09	17	12.6	3.0	52	4.7	1008.7	1	017	01	6	2	2	4	6	7	/	82837			1Sc50 2Ac60 Cu med
29	84	6	19	12	25	14.7	4.7	51	5.3	1014.5	7	004	02	2	2	5	4	6	0	1	84840	83072		2Sc50 COTRA Cu hum
30	88	6	19	11	23	18.2	5.1	42	5.5	1008.4	7	014	02	1	1	2	4	7	0	6	82850	85078		1Sc56 2Cs75 COTRA Cu med U/a cont

Mean vis = 39.4 km

Mean cloud = 6.6 82%

Mean wind speed = 9.9 kn

Mean gust = 21 kn

Mean TT = 13.4 °C

Mean TdTd = 5.3 °C

Mean RH = 59.7 %

Mean r = 5.7 g/kg

Mean PPP = 1013.3 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 2024

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	0.08	0.00	0.00	0.00	0.00	0.04	0.01	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00
6	1.00	0.00	0.00	0.53	0.08	0.69	0.07	0.20	0.00	0.58	0.00	0.00	0.00	0.13	0.11	0.35
7	1.00	0.00	0.26	0.64	0.18	0.14	0.05	0.13	0.00	1.00	0.00	0.67	0.00	0.47	0.04	0.19
8	0.97	0.64	0.00	0.05	0.62	0.00	0.00	0.00	0.00	0.56	0.00	0.93	0.01	0.66	0.00	0.63
9	0.62	0.54	0.00	0.39	0.20	0.00	0.29	0.03	0.00	0.00	0.00	0.78	0.75	0.96	0.15	0.66
10	0.58	0.93	0.03	0.10	0.20	0.00	0.36	0.51	0.00	0.03	0.00	1.00	1.00	1.00	0.77	0.62
11	0.13	0.68	0.05	0.37	0.03	0.05	0.00	0.00	0.00	0.00	0.00	0.96	1.00	1.00	0.83	0.56
12	0.34	0.26	0.01	0.39	0.24	0.08	0.00	0.08	0.00	0.00	0.00	0.05	0.96	0.99	0.81	0.58	0.17
13	0.00	0.00	0.01	0.13	0.03	0.46	0.11	0.00	0.30	0.00	0.11	0.78	1.00	0.23	0.68	0.26
14	0.27	0.00	0.01	0.01	0.06	0.26	0.50	0.00	0.78	0.00	0.02	0.73	1.00	0.00	0.90	0.41
15	0.21	0.00	0.09	0.01	0.16	0.19	0.02	0.06	0.67	0.00	0.02	0.06	0.95	0.00	0.68	0.27
16	0.02	0.00	0.23	0.00	0.03	0.23	0.39	0.00	0.25	0.00	0.22	0.07	0.42	0.09	0.91	0.04
17	0.77	0.00	0.32	0.00	0.01	0.00	0.97	0.00	0.24	0.00	0.11	0.00	0.00	0.08	0.80	0.00
18	0.27	0.00	0.00	0.00	0.00	0.01	0.28	0.00	0.15	0.00	0.00	0.00	0.00	0.37	0.55	0.69
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	6.27	3.06	1.01	2.62	1.82	2.14	3.04	1.01	2.39	2.27	0.52	6.95	7.12	5.81	7.00	4.86

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	0.00	0.00	0.00	0.16	0.01
5	0.70	0.86	0.71	0.82	0.88	0.37	0.00	0.00	0.04	0.01	0.00	0.00	0.92	1.00	0.22
6	0.85	1.00	0.97	1.00	1.00	0.00	0.00	0.00	0.69	0.00	0.00	0.00	0.95	1.00	0.37
7	0.93	0.99	0.10	1.00	0.98	0.04	0.16	0.00	1.00	0.31	0.00	0.00	0.53	1.00	0.39
8	0.39	0.68	0.00	1.00	0.97	0.00	0.41	0.05	0.81	0.83	0.00	0.00	0.70	1.00	0.40
9	0.31	0.84	0.00	1.00	0.59	0.00	0.18	0.15	0.00	0.82	0.00	0.00	0.48	1.00	0.36
10	0.14	0.94	0.02	0.82	0.23	0.00	0.15	0.12	0.08	0.61	0.00	0.00	0.65	1.00	0.40
11	0.43	0.87	0.13	0.15	0.05	0.00	0.00	0.29	0.00	0.49	0.00	0.00	0.60	1.00	0.32
12	0.42	0.87	0.43	0.05	0.06	0.00	0.04	0.23	0.01	0.55	0.00	0.00	0.56	0.96	0.31
13	0.24	0.30	0.45	0.04	0.05	0.00	0.01	0.04	0.00	0.15	0.00	0.20	0.22	0.92	0.22
14	0.19	0.58	0.38	0.19	0.04	0.00	0.04	0.02	0.00	0.02	0.00	0.74	0.44	0.77	0.28
15	0.15	0.09	0.42	0.16	0.08	0.00	0.08	0.00	0.00	0.34	0.00	0.85	0.17	0.36	0.20
16	0.35	0.00	0.21	0.20	0.04	0.00	0.05	0.04	0.00	0.01	0.00	0.34	0.17	0.70	0.17
17	0.75	0.00	0.29	0.92	0.26	0.00	0.38	0.00	0.00	0.00	0.00	0.44	0.71	1.00	0.27
18	0.46	0.00	0.38	0.66	0.48	0.00	0.00	0.00	0.00	0.06	0.00	0.22	0.37	0.43	0.18
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	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	6.31	8.02	4.45	8.04	5.71	0.42	1.51	0.92	2.62	4.19	0.00	2.93	7.47	12.32	122.82

APRIL 2024		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	9.76	14.1	1130	6.0	547	82.2	96.7	627	53.8	1131	6.7	6.2	6.9	1426	5.3	1131	994.30	997.6	2333	990.0	25	1.5
	2	10.50	14.6	1228	8.3	627	85.9	96.5	2045	59.7	1314	8.1	6.7	7.5	2357	5.3	1544	1001.46	1004.6	1152	997.4	1	6.7
	3	11.24	13.4	1523	9.6	2304	83.5	97.1	439	64.5	1526	8.4	6.9	8.0	932	5.8	1755	1000.28	1004.3	2009	996.6	623	1
	4	12.51	17.0	1237	9.4	630	84.4	97.1	126	60.9	1237	9.8	7.6	9.0	1328	6.2	1038	1002.76	1006.1	1927	998.7	431	2.6
	5	13.86	16.7	1214	12.0	611	80.8	94.6	545	63.3	1348	10.5	7.9	8.6	2359	7.2	1329	1003.61	1006.9	1945	999.2	525	2.1
	6	15.51	18.4	1347	12.0	2352	69.5	84.0	8	53.8	1328	9.9	7.6	8.8	42	6.5	2310	1001.38	1004.8	2354	998.8	1040	0.1
	7	12.72	16.3	1004	10.0	2309	70.7	88.3	2315	55.3	1006	7.4	6.4	6.9	1351	5.8	1813	1007.79	1009.4	1249	1004.3	25	0
	8	12.19	17.5	1420	8.4	551	79.3	96.2	606	44.1	1336	8.4	6.9	9.6	1710	5.1	1339	1003.35	1008.2	32	998.6	2359	2.3
	9	9.51	13.5	1512	6.2	2354	72.5	91.4	259	41.8	1513	4.4	5.3	6.7	258	3.9	1516	1008.61	1023.4	2354	995.3	355	0.4
	10	9.93	13.8	1056	5.1	447	87.7	95.1	2124	59.7	1145	7.9	6.6	8.3	2342	5.0	447	1025.39	1026.6	921	1023.3	1	1.4
	11	14.65	19.5	1542	11.8	2356	85.3	94.4	605	66.0	1314	12.1	8.6	9.7	1618	7.7	0	1028.85	1030.7	1055	1025.2	114	0
	12	14.34	20.9	1353	9.3	300	76.6	92.2	49	57.5	1258	10.1	7.5	9.1	1414	6.4	533	1028.44	1030.2	940	1025.8	2355	0.1
	13	14.55	20.2	1348	10.1	2356	75.3	94.0	239	43.6	1437	9.9	7.5	8.6	1233	6.1	1437	1022.65	1026.0	0	1019.2	1553	0
	14	10.45	14.5	1259	6.7	2324	67.0	92.3	453	42.8	1122	4.2	5.1	6.6	44	4.0	1138	1022.48	1025.9	723	1016.7	2358	0
	15	9.21	13.2	1413	6.8	126	66.1	90.7	828	39.3	1354	2.8	4.7	6.5	828	3.4	1324	1009.02	1016.8	1	1004.1	759	2
	16	9.36	14.5	1338	4.9	2359	71.0	93.1	2227	42.7	1243	4.1	5.1	6.1	1501	4.1	1301	1013.85	1018.3	2245	1009.3	51	0.9
	17	7.63	12.7	1416	2.6	324	67.6	95.1	337	38.7	1701	1.5	4.2	4.9	1725	3.3	1725	1016.75	1019.5	2354	1014.5	1702	0
	18	9.10	14.5	1442	3.4	505	67.2	94.3	547	36.2	1713	2.8	4.6	6.2	2333	3.2	1712	1021.95	1024.8	906	1018.5	2356	0.8
	19	10.93	15.7	1357	7.2	2122	73.9	92.3	11	47.6	1431	6.3	5.9	7.8	1158	4.2	0	1018.83	1025.4	2357	1016.3	648	0.2
	20	7.14	12.6	1419	2.0	417	65.3	94.0	2334	43.7	1519	0.7	3.9	4.7	1031	3.3	158	1028.68	1030.0	2331	1025.3	0	0
	21	7.10	11.6	1219	2.2	2311	67.7	92.1	1	45.2	1252	1.2	4.1	4.9	219	3.6	1252	1030.46	1031.9	2244	1029.4	418	0
	22	6.20	8.4	1217	2.4	5	85.1	94.4	336	55.5	903	3.8	4.9	5.7	1550	3.4	903	1028.42	1031.7	35	1025.4	2358	1.3
	23	8.00	12.0	1416	3.9	2353	78.3	96.5	526	53.4	1233	4.2	5.1	6.4	1459	4.1	1903	1023.06	1025.5	13	1021.0	2333	0.4
	24	6.96	11.5	1221	1.7	2344	68.3	94.5	2346	39.1	1222	1.1	4.1	4.9	808	3.2	1223	1016.81	1021.2	5	1012.5	2359	0.1
	25	6.76	13.1	1046	1.6	154	84.5	98.1	2355	50.4	1046	4.1	5.2	6.7	1513	3.9	935	1004.99	1012.6	0	1001.8	1725	3.3
	26	8.39	13.6	1241	3.7	116	74.8	98.7	351	44.3	1550	3.7	5.0	5.8	1008	3.9	2350	1003.48	1004.4	939	1002.5	252	0
	27	7.78	11.6	1329	5.4	318	90.1	97.5	2357	62.8	0	6.2	5.9	7.2	1329	4.2	0	1002.80	1004.0	1	999.9	2358	12.6
	28	8.28	13.4	1521	6.0	831	83.2	97.7	32	51.2	1719	5.4	5.6	6.4	1252	4.5	1719	1005.68	1014.1	2353	997.6	311	14.6
	29	10.73	16.1	1414	5.1	454	68.8	94.4	528	43.8	1412	4.7	5.3	6.5	742	4.6	952	1014.61	1015.5	838	1013.8	38	0.1
	30	13.37	19.4	1328	6.7	502	69.0	96.8	2322	37.6	1042	7.0	6.2	8.1	2359	4.6	1018	1010.63	1014.7	0	1008.0	1649	0
Total																							54.5
Mean		10.29	14.81		6.35		76.1	94.34		49.94		5.92	5.88	7.10		4.72		1013.38	1017.16		1009.63		
Max		15.51	20.94		12.02		90.1	98.70		65.95		12.12	8.59	9.73		7.67		1030.46	1031.93		1029.40		
Min		6.20	8.35		1.61		65.3	84.00		36.23		0.74	3.93	4.66		3.16		994.30	997.58		989.96		

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

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

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

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

Appendix 1.

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

Average: Generally refers to the 30 year climatological average, currently 1981 to 2010. This will be next updated in 2020. For some parameters, notably wind, the climatological average is not available, and if the word average is used in the context of wind, it refers to the average for the period for which data is held, namely 1988 to present.

For sunshine, there was a change, in July 1999, in the type of instrument used to detect sunshine amount, making the climatological average based on the old instrument of little use. In general, the new instrument produces higher values in the winter half year, and lower ones in the summer half, than the old type, due to a combination of faster reaction and higher sensitivity than the old type. The average used in this case is based on a theoretical equivalent 1981 to 2010 average, drawn from comparison with the Met Office published tables of departure from climatological average sunshine in the months since 2000 for their area 'Southern England'. Users of the Wokingham Monthly Weather reports should be aware of this, and regard anomalies for sunshine published therein as a guide only, until such time has elapsed since the introduction of the new instrument that a genuine average becomes available.

Mean: The mean of the data under discussion, often the monthly mean of daily data. The mean is obtained by summation of the individual values and dividing by the number of values. The term 'daily mean' in respect of temperature is defined as '(max + min) / 2' . A true daily 24 hour (00 to 24 GMT) mean temperature is available from the Automatic Weather Station (AWS), and is currently published on page 7 of the Wokingham Monthly Weather report, on the Wokingham Weather web site, page 1.   http://www.woksat.info/wwp1.html

Anomaly: When a value is given for anomaly, this will have one of the following meanings:
a): The departure of a mean from the current climatological average.
b): The departure of a value on a particular day from the average for that day, (this need not be a climatological average).
When the word anomaly is used in respect of temperature, any values given are in °C. In respect of rainfall or sunshine, percent. In respect of wind, mph. In respect of pressure, millibars (hpa).

Categories: Reference may be made in the reports to 'categories'. Each category has a strict statistical range, as outlined below.
Temperature: The terms cold/mild are used in the winter half year, and cool/warm in the summer half.
The term 'normal' is used when the individual mean (monthly, seasonal or annual) value is within 20 % of the median of all ranked values for that month/season/year.
Mild/warm: The value lies between 10 % and 30 % below the highest value in the ranked series.
Very mild/very warm: The value lies within 10 % of the highest value in the ranked series.
Cold/cool: The value lies between 10 % and 30 % above the lowest value in the ranked series.
Very cold/very cool: The value lies within 10 % of the lowest value in the ranked series.

Sunshine: The terms for sunshine are very sunny, sunny, normal, dull and very dull.
The definition of these terms follow the same rules as for temperature.

Rainfall: The terms for rainfall are very dry, dry, normal, wet and very wet.
The definition of the term 'normal' follows the same rule as for temperature and sunshine.
Wet: The value lies between 10 % and 30% of the highest value in the ranked series.
Very wet: The value lies within 10 % of the highest value in the ranked series.
Dry: The value lies between 10 % and 30 % above the lowest value in the ranked series.
Very dry: The value lies within 10 % of the lowest value in the ranked series.

Long-term: Mention may be made in the reports to the 'long-term'. The long-term record comprises a temperature/rainfall/sunshine data series compiled from records of various weather stations in the Wokingham area in the years prior to the establishment of the weather station at Emmbrook in 1976 together with data from this station.
In the case of monthly max, min and mean temperature and of rainfall total the series starts in 1882. For temperature extremes, the highest max and lowest min go back to 1904, and lowest max and highest min to 1913.

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

Month: Calendar month.
Season: Spring, March to May.
       Summer, June to August
       Autumn, September to November
       Winter, December to February.
       When discussing 'winter', if a single year is given this refers to the year in which the January/February fall.
Annual or Year: The calendar year, 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.