

WOKINGHAM

METEOROLOGICAL

DATA

Wokingham Climatological Station, Emmbrook, Berkshire.

Lat/Long 51°25'N 00°51'W NGR (SU)798701 Altitude 46m ASL.

Monthly Means and Totals

MARCH 2020

		Anomaly	Rank in the past 139 years						
Temperature (°C)									
Mean maximum	12.1	+0.9	28 th highest						
Mean minimum	2.7	-0.5	48 th highest						
Daily mean	7.4	+0.2	37 th highest						
Highest maximum	16.0	on 24 th	Lowest maximum	5.6	on 5 th				
Highest minimum	9.5	on 18 th	Lowest minimum	-2.5	on 25 th				
Mean grass minimum	-0.4	-0.3	Lowest grass minimum	-7.1	on 23 rd				
Mean earth @30 cm	7.7	+0.6	Earth @100 cm	8.0					
Frost duration (hrs)	36.5		Rain duration (hrs)	57.4					
Rainfall total (mm)	41.8	91 %	66 th highest						
Highest daily fall	8.2	on 9 th	Highest rate mm/hr	50	on 8 th				
Number of: Dry days (<0.2mm)	18	Wet days (>0.9mm)	11	days ≥5mm	4				
Sunshine total (hrs)	177.2	Daily mean	5.72	145 %	Sunniest day	12.1	on 25 th		
N° days with: Air frost	9	Ground frost	18	Snow falling	2	Snow lying	0		
Thunder	0	Hail ≥5mm	0	Small hail/ice	2	Fog @09	0	Nil sun	2
Pressure MSL: Mean @09 GMT, mbar	1017.3	+1.4	Highest	1040.5	on 29 th	Lowest	984.2	on 2 nd	
Relative humidity: Mean (%)	75.3	Lowest	24	on 25 th	Water vapour (g/kg), mean at 09 and 15 GMT	4.9,	4.6		
Overall mean wind speed (mph)	8.9	Windiest day	15.1	on 29 th	Max gust	44	on 29 th		
Wind direction (days)	N 3	NE 9	E 2	SE 1	S 1	SW 12	W 3	NW 0	
Least windy day (mph)	3.8	on 6 th	Calm; less than 0.5 mph (minutes)	282					

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

Notes:

Mean Temperature and Rainfall near Average, Very Sunny, Windy at times.

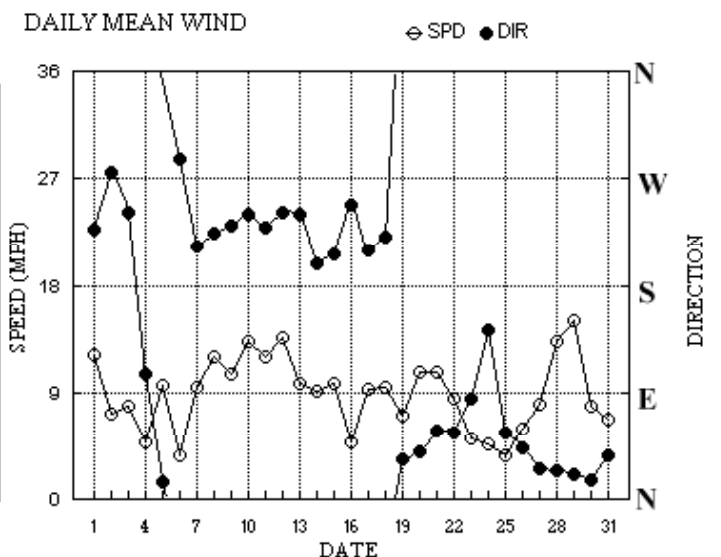
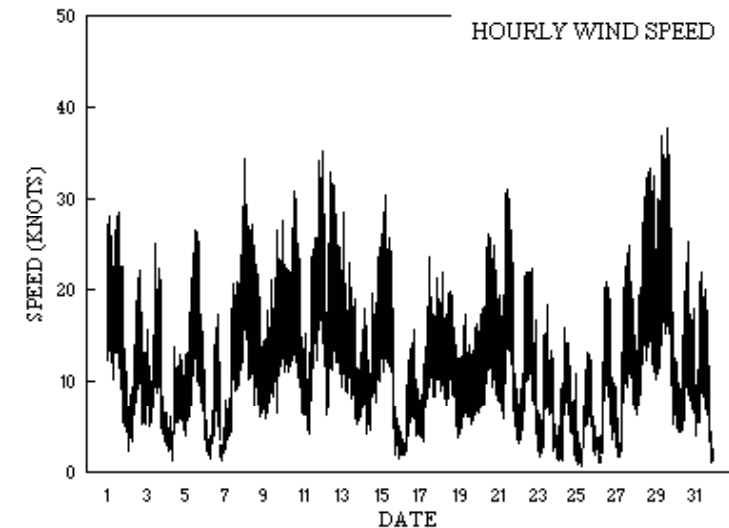
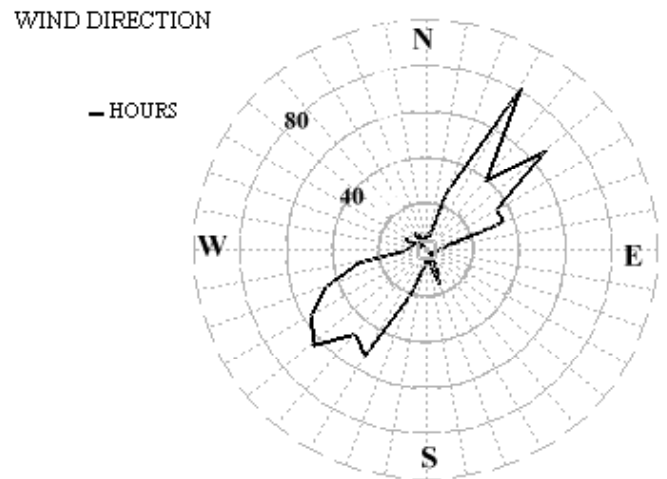
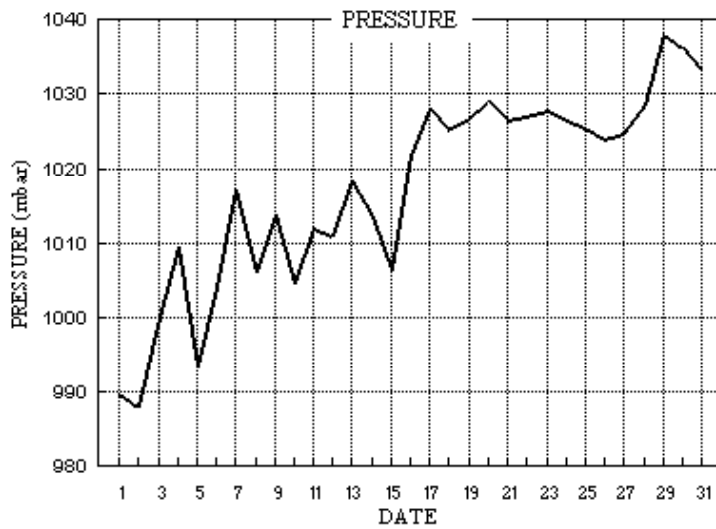
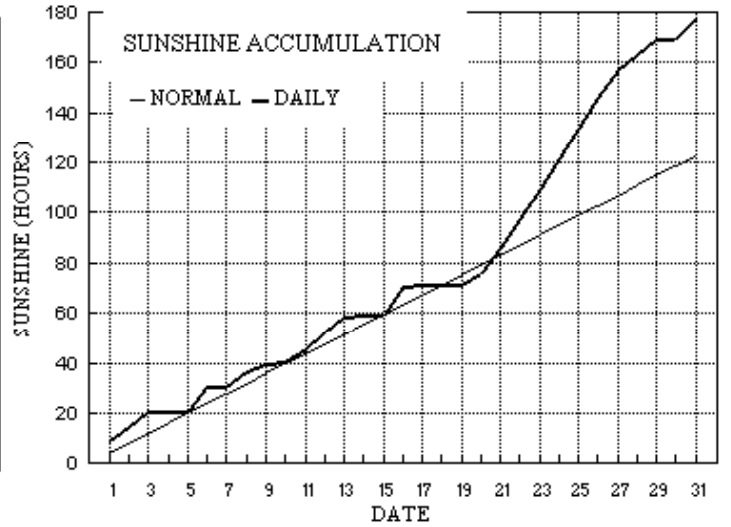
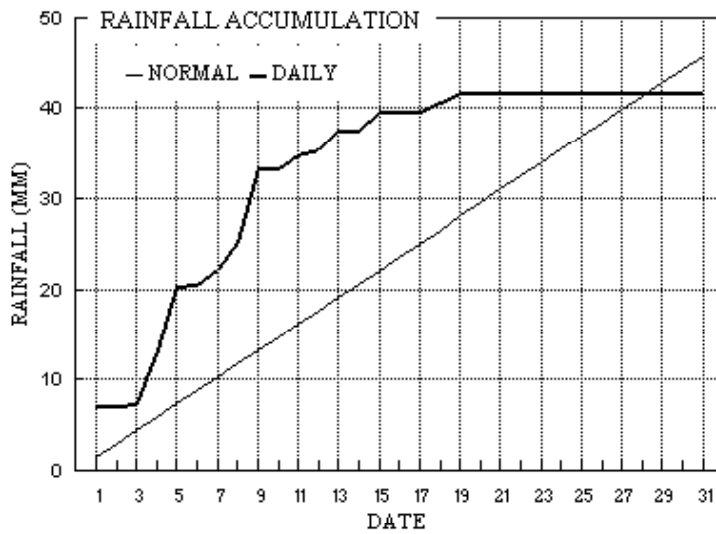
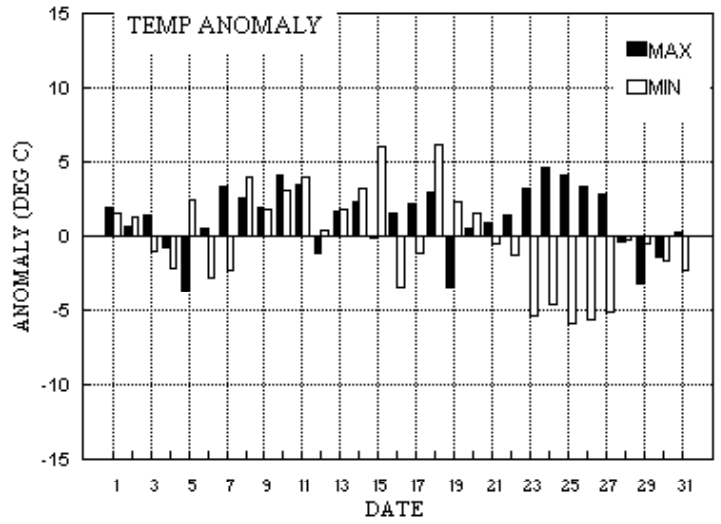
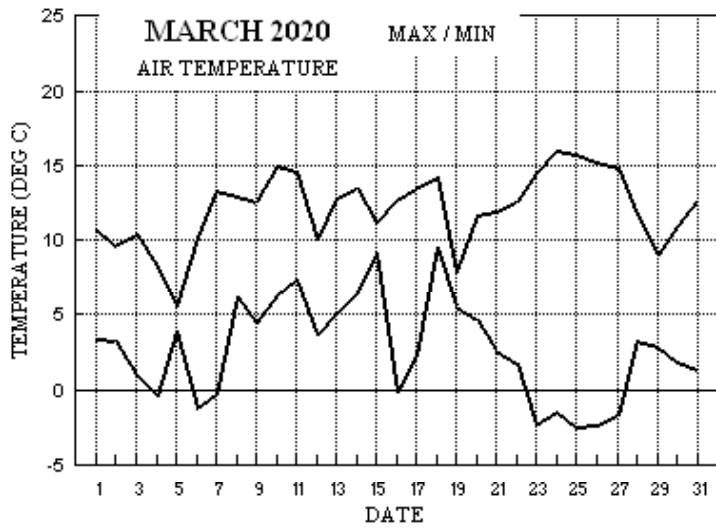
Temperature: The mean is just 0.2° above the current climatological average for March, but is 1.0° above the long-term median. March mean temperatures seem to have become more extreme with both the highest and lowest since 1862 occurring in the last decade, 3.6° in 2013 and 9.8° in 2017. However, the record coldest March in the past 139 years is 2.9° in both 1883 and 1892. This month's highest max is 0.5° below the median and the lowest max is 1.0° above its median. The highest min is 0.7° above the median, and the lowest min is 1.6° above its median. The mean grass min is lowest since 2016, but the lowest grass min is 2.0° above average. The mean earth temperature at both 30 cm and 1m depth are about 0.5° above average. The number of days with air frost is 2 more than average, but the duration of air frost is 3 hours less than average. Anomalies for daily max were variable but mainly +ve, and were over +4° on the 10th, 24th and 25th, and were over -3° on the 5th, 19th and 29th, with extreme values of +4.6° on 24th and -3.7° on 5th. Similarly, anomalies for daily min were variable, and were over +6° on the 15th and 18th, but were over -5° on the 23rd and 25th to 27th, with extreme values of +6.2° on 18th and -5.8° on 25th. **Rainfall:** The rainfall this March is a little below average, and it is driest since 2017, and in this millennium March has been drier in 10 years. There was one more dry day than the average of 17. Despite the modest rainfall total, the duration of measurable rain is 128 % of the average of 45.0 hours. A dry spell of 12 days was unbroken at the end of the month. Daily rainfall accumulation compared with average was in surplus by 12 mm on the 5th, increasing to 20 mm by the 9th, after which it became drier, the surplus falling to 12 mm by the 19th, the month ending with a 4 mm deficit. There was no thunder this March, but small hail (ice pellets) fell during showers on the 8th and 12th, and there were a few snowflakes together with rain in showers on the 29th and 30th. Rainfall rate reached the heavy shower category (10 mm/hr) on the 8th, 11th and 12th. **Sunshine:** This has been a very sunny March with the highest total since 2012, and before that 2003. The period 21st to 27th was particularly outstanding, producing a 7 day total of 81.1 hours, a daily mean of 11.59 hours, and with all but one of the days having over 90 % of the maximum. Daily accumulation compared with average showed level pegging to the 21st, then a rapid build up of a surplus which reached 55 hours by the 31st. Overall there were 10 days with <3 hours, 13 with =>6 hours, 10 with =>9 hours and 3 with =>12 hours. **Wind:** This has been quite a windy March, the mean speed of 8.9 mph being 1.2 mph above average, and 2nd windiest after 2019 since 2008. However, both the month's windiest day and highest gust are about average. Daily mean direction was SW'ly on 1st, 3rd and 7th to 18th, but W'ly on 2nd and 6th, E'ly on 4th and N'ly on 5th, then NE'ly from the 19th to the 31st except SE'ly on 24th. Speeds were mainly moderate or fresh until the 22nd, but strong on the 8th, 11th and 12th, and light on the 4th, 6th and 16th. After the 22nd, light or moderate dominated except for fresh on the 28th and strong on the 29th.

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

From the 1 st to the 10 th				From the 11 th to the 20 th				From the 21 st to the 31 st			
+1.2°	+0.6°	227%	102%	+1.0°	+2.1°	57 %	91%	+1.4°	-3.0°	0%	232%

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

Wokingham climatological graphs for March 2020



Month: MARCH 2020

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	10.8	3.4	7.1	0.7	6.8	7.6	9.2	0.0	989.7	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	227 10.2 10.7	222 29 1410	238 15	14 6.8	
2	9.6	3.2	tr	-0.5	6.6	7.5	5.2	0.0	988.1	0 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	275 3.7 6.2	256 22 1649	253 12	16 0.0	
3	10.4	0.9	0.2	-3.9	6.6	7.5	6.4	0.0	1000.1	0 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	241 6.4 6.9	264 25 1057	254 10	11 0.2	
4	8.2	-0.4	6.0	-4.7	6.3	7.5	0.1	1.4	1009.5	1 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	106 2.2 4.3	152 14 1123	154 7	11 6.1	
5	5.6	3.9	7.1	4.6	6.4	7.4	0.0	0.0	993.4	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	15 7.6 8.3	25 27 1110	18 13	12 10.6	
6	10.1	-1.2	0.1	-5.5	6.4	7.3	9.8	4.2	1004.2	1 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	286 2.6 3.3	331 17 1526	296 7	13 0.5	
7	13.3	-0.3	1.8	-4.3	6.2	7.3	0.2	0.0	1017.1	1 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	212 8.1 8.2	213 29 2239	208 14	23 3.1	
8	12.9	6.2	2.9	7.0	6.8	7.2	5.6	0.0	1006.0	0 0 0 0	0 0 0 0	0 0 1 0	0 0 0 0	224 10.0 10.4	193 35 0038	208 16	01 1.2	
9	12.6	4.4	8.2	0.0	7.1	7.3	3.5	0.0	1013.8	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	231 8.5 9.2	225 28 2225	223 13	22 10.9	
10	15.0	6.3	tr	5.8	7.3	7.4	0.1	0.0	1004.6	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	240 11.4 11.5	250 31 1306	246 15	13 0.0	
11	14.6	7.3	1.4	4.6	8.1	7.5	5.9	0.0	1012.1	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	229 10.2 10.4	238 34 2058	225 17	22 0.2	
12	10.0	3.6	0.7	-0.5	8.4	7.7	6.7	0.0	1011.0	0 1 0 0	0 0 0 0	0 0 1 0	0 0 0 0	242 11.7 11.9	236 35 0135	254 16	01 0.5	
13	12.8	5.0	2.1	2.9	8.0	7.9	5.7	0.0	1018.5	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	240 7.7 8.5	258 29 0252	254 13	02 2.6	
14	13.5	6.4	tr	4.5	8.1	8.0	1.1	0.0	1013.6	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	198 6.8 7.9	197 25 2356	211 12	21 0.0	
15	11.2	9.1	2.1	8.4	8.5	8.0	0.1	0.0	1006.5	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	206 8.0 8.6	186 31 0544	190 14	09 2.2	
16	12.7	-0.2	0.0	-5.5	8.3	8.1	11.1	0.5	1021.6	1 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	248 3.4 4.2	239 16 1601	238 8	16 0.0	
17	13.4	2.2	0.0	-3.2	8.0	8.2	1.0	0.0	1028.1	0 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	209 8.1 8.1	195 24 1048	205 11	21 0.0	
18	14.2	9.5	1.0	8.4	8.4	8.2	0.1	0.0	1025.3	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	221 7.4 8.2	217 22 0337	232 10	11 5.1	
19	7.8	5.6	1.1	5.9	8.9	8.3	0.0	0.0	1026.8	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	35 6.1 6.1	34 18 0825	30 7	18 7.4	
20	11.6	4.7	tr	2.9	8.8	8.4	4.4	0.0	1029.1	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	41 9.2 9.3	24 26 1226	44 12	13 0.0	
21	11.9	2.6	0.0	-1.3	8.8	8.5	9.9	0.0	1026.6	0 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	58 9.2 9.4	62 31 1053	65 15	11 0.0	
22	12.5	1.7	0.0	-2.4	8.5	8.6	11.4	0.0	1027.1	0 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	57 7.3 7.4	63 22 1705	61 12	15 0.0	
23	14.5	-2.4	0.0	-7.1	8.3	8.6	12.0	5.1	1027.8	1 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	86 4.1 4.5	69 19 1115	82 7	11 0.0	
24	16.0	-1.5	0.0	-4.9	8.1	8.5	11.9	6.2	1026.6	1 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	142 3.3 4.0	146 16 0833	159 8	11 0.0	
25	15.7	-2.5	0.0	-6.2	8.0	8.5	12.1	7.5	1025.4	1 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	56 3.0 3.3	24 13 1419	61 6	17 0.0	
26	15.2	-2.3	0.0	-6.4	7.9	8.4	12.0	7.4	1024.1	1 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	44 4.8 5.1	71 21 1312	54 10	13 0.0	
27	14.8	-1.7	0.0	-5.8	7.9	8.4	11.8	4.0	1024.8	1 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	26 6.9 7.0	30 25 1733	22 11	17 0.0	
28	11.7	3.2	tr	-0.1	8.1	8.3	5.9	0.0	1028.5	0 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	24 11.6 11.6	38 34 1714	23 15	12 0.0	
29	9.0	2.9	tr	0.2	8.1	8.3	5.8	0.0	1038.0	0 0 1 0	0 0 0 0	0 0 0 0	0 0 0 0	21 13.0 13.1	31 38 1440	25 17	15 0.0	
30	10.9	1.8	tr	-1.9	7.8	8.3	0.6	0.0	1036.3	0 1 1 0	0 0 0 0	0 0 0 0	0 0 0 0	16 6.5 6.8	30 25 1756	33 10	15 0.0	
31	12.7	1.4	0.0	-4.0	7.7	8.3	7.6	0.2	1033.2	0 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	38 5.7 5.9	36 22 0900	41 9	08 0.0	
Total			41.8				177.2	36.5										57.4
Mean	12.1	2.7		-0.4	7.7	8.0	5.72	1.2	1017.3					256	1.1	7.7		
Anom	+0.9	-0.5	91%	-0.3	+0.6	+0.5	145%		+1.4									
Daily mean		7.4							Pressure, abs highest =									1040.5 on 29
Anom		+0.2							Pressure, abs lowest =									984.2 on 2

Number of days with:

Air frost = 9 Ground frost = 18 Nil sun = 2
 Snow falling = 2 Snow lying = 0 Thunder = 0
 Hail=>5mm = 0 Hail<5mm or ice = 2 Fog at 09GMT = 0

Abbreviations.

Max/min = highest and lowest air temperature at 1.2m in 24 hour period ending at 09 GMT

Rain = total rainfall and melted snowfall in 24 hour period ending at 09 GMT, millimetres. (Tr = trace, <.05mm).

Grass min = Lowest overnight temperature at grass tip level.

Sun = hours of bright sunshine, measured electronically. Frost = Number of hours with air temp below 0 deg C.

pp09 = Air pressure corrected to mean sea level at 0900 GMT, millibars.

Af = Air frost. Gf = Ground frost. Sf = Snow falling. Sl = Snow lying at 09 GMT.

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

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

Sp = 24 hour mean wind speed in knots.

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

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

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

Anom = Departure from 1981-2010 climatological average.

All temperatures in degrees Celsius.

Weather observations. Emmbrook, Wokingham, Berkshire.

Observations at 0900 GMT for MARCH 2020

Date	VV	N	dd	ff	gg	TT	TdTd	RH	r	PPP	a	pppww	W1W2	NhCl	hCrCl	NChshs	NChshs	NChshs	Date	Remarks					
1	80	1	23	12	23	6.1	0.6	68	4.1	989.7	2	010	02	0	0	1	5	7	3	0	81650	1	1Ac60		
2	62	7	33	08	12	4.6	3.3	91	4.9	988.1	2	028	21	6	2	6	5	3	3	/	83706	85618	2	3Ac58	
3	67	5	23	06	13	5.4	1.5	76	4.3	1000.1	2	009	03	1	1	2	0	9	3	2	82362	84072	3	COTRA Ac str vir	
4	57	8	18	03	04	3.9	3.2	95	4.8	1009.5	7	005	21	6	2	7	5	6	2	/	81645	87656	88460	4	
5	30	8	03	10	21	5.3	4.6	95	5.3	993.4	6	024	51	5	6	8	5	3	/	/	87706	88610	5	5	
6	58	3	30	03	07	3.4	1.8	89	4.3	1004.2	2	028	05	0	0	0	0	9	0	1	83070	6	6	6	
7	65	8	20	06	11	6.1	4.3	88	5.1	1017.1	0	002	02	6	2	8	5	4	/	/	87615	88625	7	7	
8	75	3	23	10	27	10.6	6.6	76	6.1	1006.0	2	015	15	1	1	1	8	4	6	3	81815	83362	8	1Sc50 1Ci70 Cu med jpSE vv40k ex p	
9	75	1	26	10	17	8.4	3.3	70	4.8	1013.8	1	022	03	0	0	1	8	5	0	4	81820	9	1Sc35 1Ci75 Cu fra		
10	62	8	23	13	22	12.6	11.0	90	8.2	1004.6	1	004	50	5	2	8	5	3	/	/	86708	88612	10	10	
11	80	7	23	08	13	9.3	7.4	88	6.4	1012.1	2	013	03	2	2	6	6	3	3	1	85708	83365	11	2Sc15 /Ci80 COTRA	
12	59	5	23	13	25	8.3	1.7	63	4.3	1011.0	1	007	16	1	1	5	8	5	7	/	81825	84635	12	4Ac61 jp W-NW	
13	75	3	25	11	21	9.3	2.6	63	4.5	1018.5	2	022	03	0	0	1	8	5	3	2	81825	13	1Sc40 2Ac68 1Ci72 Cu hum Ac str vir		
14	58	7	19	06	12	9.4	8.5	94	6.9	1013.6	2	003	21	6	2	6	6	3	3	1	86706	14	/Ac62 /Ci80 COTRA		
15	80	8	19	14	24	10.0	6.3	78	6.0	1006.5	7	004	02	2	2	8	5	4	/	/	87616	88630	15	15	
16	80	1	31	06	10	6.4	3.7	83	4.9	1021.6	2	023	02	0	0	1	5	6	0	0	81635	16	16		
17	80	7	21	08	18	9.7	6.1	78	5.7	1028.1	2	009	02	2	2	7	5	4	/	/	81712	84620	87650	17	17
18	82	8	23	07	16	11.4	9.1	86	7.1	1025.3	2	006	02	2	2	8	5	4	/	/	86710	88615	18	18	
19	25	8	04	06	18	6.1	5.5	96	5.5	1026.8	3	009	50	5	2	8	7	2	/	/	87704	88706	19	19	
20	70	6	04	11	22	7.8	3.1	72	4.6	1029.1	1	009	01	2	2	3	8	4	3	1	81818	83650	20	3Ac62 3Ci70 Cu hum	
21	70	7	06	11	25	8.0	2.9	70	4.6	1026.6	7	006	02	2	2	2	1	5	0	2	82820	86078	21	Cu hum	
22	65	7	06	11	22	6.6	1.3	69	4.1	1027.1	1	003	03	2	2	2	1	5	0	2	82820	86077	22	Cu hum	
23	82	1	11	09	15	6.3	-2.6	53	3.1	1027.8	0	005	03	0	0	0	0	9	0	4	81075	23	Hoar slt in shade		
24	70	3	15	08	16	8.8	0.5	56	3.9	1026.6	0	002	02	0	0	0	0	9	0	1	83080	24	COTRA		
25	68	1	05	03	06	7.9	1.5	64	4.2	1025.4	1	007	02	0	0	0	0	9	0	1	81081	25	COTRA		
26	59	1	04	07	12	7.0	0.7	64	3.9	1024.1	2	006	05	0	0	0	0	9	0	1	81080	26	COTRA		
27	58	0	02	06	13	7.7	0.9	62	4.0	1024.8	2	004	05	0	0	0	0	9	0	0	27	27	27	27	
28	59	1	02	13	24	8.5	1.9	63	4.3	1028.5	2	015	05	0	0	1	0	9	4	0	81360	28	28		
29	81	1	03	17	39	6.1	-3.8	49	2.8	1038.0	3	012	02	1	1	1	1	6	0	0	81832	29	Cu hum		
30	80	7	36	04	09	4.4	-1.0	68	3.4	1036.3	7	011	26	8	2	7	5	5	/	/	85620	87640	30	jp S proso 0840	
31	83	2	04	10	22	8.0	2.5	68	4.4	1033.2	1	005	03	0	0	2	1	5	0	0	82822	31	Cu hum		

Mean vis = 20.2 km

Mean cloud = 4.6 58%

Mean wind speed = 8.7 kn

Mean gust = 17 kn

Mean TT = 7.5 °C

Mean TdTd = 3.2 °C

Mean RH = 75.0 %

Mean r = 4.9 g/kg

Mean PPP = 1017.3 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

Weather observations. Emmbrook, Wokingham, Berkshire.

Observations at 1500 GMT for MARCH 2020

Date	VV	N	dd	ff	gg	TT	TdTd	RH	r	PPP	a	pppww	W1W2	NhCl	hCrCl	NChshs	NChshs	NChshs	Date	Remarks					
1	84	2	25	14	29	9.7	-0.8	48	3.7	989.1	5	009	02	0	0	2	8	6	0	1	82842	1	1Sc50 1Ci75 Cu hum		
2	84	3	28	09	18	9.3	-1.1	48	3.6	992.5	2	015	02	1	1	3	8	6	0	0	83840	2	1Sc50 Cu med		
3	83	6	26	09	19	9.3	2.2	61	4.5	1003.7	3	020	01	8	2	6	8	6	0	0	82830	85650	3	2Sc40 Cu med	
4	50	8	09	05	12	6.5	5.5	93	5.6	1005.4	6	022	63	6	6	7	5	3	2	/	84706	87615	88530	4	
5	58	8	01	11	22	5.3	4.1	92	5.2	991.9	3	004	63	6	6	7	5	4	2	/	87611	88520		5	
6	72	3	32	06	16	9.4	-0.8	49	3.6	1007.5	3	011	02	0	0	3	8	6	0	1	82837			6	2Sc45 1Ci70 Cu hum
7	70	8	21	09	20	12.9	8.0	72	6.6	1014.5	7	015	02	2	2	8	8	5	/	/	82820	86625	88650	7	Cu hum
8	65	6	25	10	23	9.9	5.3	73	5.6	1005.0	6	004	25	8	2	3	9	5	6	3	81920	82825	83070	8	1Sc50 1Ac62 jpS vv50k ex p
9	67	8	24	11	21	9.4	2.0	60	4.4	1014.2	7	005	15	2	2	5	8	6	2	/	83835	83640	88458	9	Cu hum jpW
10	84	7	26	13	26	14.9	10.3	74	7.8	1005.5	3	007	21	6	2	7	5	5	/	/	86622	87630		10	
11	84	5	23	14	25	14.2	5.8	57	5.7	1008.7	7	024	01	2	2	3	2	5	3	0	83828	84366		11	Cu med
12	80	5	24	14	24	8.7	1.1	59	4.1	1010.7	6	012	80	8	1	5	8	6	6	0	81830	85835		12	1Sc50 1Ac60 Cu med Rainbow vv50k ex p
13	82	4	25	09	16	11.1	-0.1	46	3.7	1019.3	7	005	03	1	1	2	8	6	5	0	82842			13	1Sc56 2Ac62 Cu med iridescence
14	86	7	23	11	20	12.0	5.9	66	5.7	1012.6	7	006	02	2	2	6	8	5	0	6	82825	85645	85275	14	Cu med Halo 22 part
15	30	8	28	06	18	8.3	7.4	94	6.4	1006.7	3	007	63	6	6	7	7	2	2	/	87705	88515		15	CF & R 1437
16	86	1	23	06	12	12.1	1.4	48	4.2	1022.8	7	001	03	0	0	1	1	6	0	5	81840			16	1Cs78 Cu hum
17	80	8	21	10	18	12.2	8.1	76	6.6	1027.4	6	010	02	2	2	8	5	4	/	/	87618	88630		17	
18	82	7	23	09	19	13.7	9.2	74	7.1	1024.0	6	011	02	2	2	7	8	4	/	/	81818	87620		18	Cu hum
19	40	8	03	07	13	6.9	6.2	95	5.8	1026.1	6	010	51	5	5	8	7	2	/	/	87705	88708		19	
20	84	7	05	11	25	9.4	1.6	58	4.2	1028.3	8	006	02	2	2	4	8	6	4	8	82835	83640	86268	20	2Ac63 Cu hum
21	86	7	06	16	28	10.3	-5.7	32	2.5	1024.3	7	016	02	2	2	0	0	9	0	2	87077			21	
22	83	2	06	11	21	12.5	-0.1	42	3.7	1024.9	7	016	01	1	1	0	0	9	0	1	82078			22	
23	81	4	12	08	12	13.7	-2.7	32	3.1	1024.9	6	012	02	0	0	0	0	9	0	1	84080			23	
24	81	2	16	04	12	15.7	-0.9	32	3.5	1024.5	8	012	02	0	0	0	0	9	0	1	82080			24	
25	70	1	04	06	13	15.0	-3.3	28	2.9	1022.9	7	017	02	0	0	0	0	9	0	1	81081			25	
26	70	3	04	09	20	15.0	-0.7	34	3.6	1022.2	6	011	02	0	0	0	0	9	0	1	83077			26	COTRA U/a cont
27	62	1	03	10	24	14.4	1.3	41	4.1	1022.6	7	014	02	0	0	1	1	7	0	1	81850			27	1Ci80 COTRA
28	82	7	03	15	29	9.6	1.8	58	4.2	1029.8	0	002	01	2	2	7	5	6	3	/	87632			28	/Ac60
29	82	5	02	18	42	6.8	-5.5	41	2.4	1038.5	6	003	15	1	1	5	8	6	0	0	82845	84650		29	jp S Cu hum
30	70	6	03	08	20	10.3	1.1	53	4.0	1032.0	7	022	25	8	2	6	8	6	0	0	83835	85656		30	Cu med jpW vv40k ex p
31	82	6	06	06	20	10.8	-0.6	45	3.5	1030.4	7	016	02	2	2	6	5	6	0	0	86645			31	

Mean vis = 32.8 km

Mean cloud = 5.3 66%

Mean wind speed = 9.8 kn

Mean gust = 21 kn

Mean TT = 10.9 °C

Mean TdTd = 2.1 °C

Mean RH = 57.5 %

Mean r = 4.6 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

Wokingham Sunshine Hourly analysis 2020	Hour	01-Mar	02-Mar	03-Mar	04-Mar	05-Mar	06-Mar	07-Mar	08-Mar	09-Mar	10-Mar	11-Mar	12-Mar	13-Mar	14-Mar	15-Mar	16-Mar
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.25	0.00	0.00	0.36	0.00	0.00	0.00	0.30
7	0.91	0.00	0.96	0.00	0.00	0.93	0.00	1.00	1.00	0.00	0.31	1.00	0.88	0.00	0.00	0.00	1.00
8	1.00	0.19	1.00	0.00	0.00	1.00	0.00	0.66	1.00	0.00	0.30	1.00	1.00	0.11	0.00	0.00	1.00
9	1.00	0.50	0.93	0.01	0.00	1.00	0.00	0.77	0.47	0.00	0.80	0.33	0.61	0.19	0.00	0.00	1.00
10	0.81	0.35	0.90	0.01	0.00	1.00	0.05	0.42	0.27	0.00	0.31	0.58	0.11	0.11	0.00	0.00	1.00
11	0.99	0.62	0.05	0.02	0.00	0.98	0.07	0.39	0.48	0.00	0.28	0.16	0.59	0.02	0.00	0.00	0.98
12	0.91	0.80	0.00	0.00	0.00	1.00	0.07	0.10	0.02	0.01	0.51	1.00	0.59	0.55	0.00	0.00	1.00
13	0.73	0.66	0.01	0.00	0.00	0.98	0.03	0.02	0.00	0.08	0.52	0.17	0.28	0.00	0.00	0.00	1.00
14	0.99	0.60	0.01	0.00	0.00	0.73	0.00	0.33	0.00	0.02	0.74	0.40	0.75	0.02	0.00	0.00	1.00
15	0.92	0.41	0.87	0.00	0.00	0.95	0.00	0.71	0.00	0.00	0.70	0.69	0.33	0.00	0.00	0.00	1.00
16	0.98	0.47	1.00	0.00	0.00	0.97	0.00	0.68	0.00	0.00	0.95	0.56	0.58	0.05	0.00	0.00	0.82
17	0.00	0.63	0.63	0.00	0.00	0.27	0.00	0.40	0.00	0.00	0.43	0.43	0.00	0.03	0.11	0.00	0.95
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot		9.23	5.21	6.37	0.03	0.00	9.81	0.22	5.64	3.49	0.11	5.85	6.67	5.70	1.07	0.14	11.05

Hour	17-Mar	18-Mar	19-Mar	20-Mar	21-Mar	22-Mar	23-Mar	24-Mar	25-Mar	26-Mar	27-Mar	28-Mar	29-Mar	30-Mar	31-Mar	Mean	
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	
6	0.51	0.00	0.00	0.00	0.44	0.68	0.82	0.72	0.81	0.62	0.63	0.64	0.08	0.00	1.00	0.26	
7	0.14	0.00	0.00	0.36	0.45	0.76	1.00	1.00	1.00	1.00	1.00	1.00	0.47	0.00	1.00	0.55	
8	0.33	0.00	0.00	0.96	0.71	0.77	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.61	
9	0.01	0.00	0.00	0.85	0.98	0.98	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.00	0.54	0.58	
10	0.00	0.00	0.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.04	0.00	0.32	0.49	
11	0.00	0.01	0.00	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.71	0.02	0.00	0.35	0.47	
12	0.00	0.00	0.00	0.24	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.23	0.01	0.13	0.46	
13	0.00	0.03	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.00	0.03	0.01	0.24	0.38	
14	0.03	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.01	0.17	0.13	0.34	0.43	
15	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.10	0.73	0.11	0.41	0.48	
16	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.24	0.83	0.07	0.75	0.51	
17	0.00	0.00	0.00	0.00	0.30	1.00	1.00	1.00	1.00	1.00	1.00	0.23	1.00	0.25	0.95	0.41	
18	0.00	0.00	0.00	0.00	0.00	0.16	0.18	0.21	0.29	0.33	0.20	0.00	0.28	0.00	0.47	0.07	
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		1.03	0.04	0.00	4.37	9.88	11.35	12.01	11.93	12.10	11.96	11.79	5.94	5.83	0.59	7.62	177.04

MARCH 2020	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	5.91	10.8	1355	3.2	1947	71.0	92.6	2333	43.2	1434	0.8	4.1	5.0	2359	3.3	1435	988.90	990.3	1818	986.8	2357	1.4
2	5.03	9.6	1420	2.2	2256	79.7	97.8	525	45.7	1511	1.5	4.3	5.3	931	3.3	1518	990.96	998.7	2338	984.2	401	5.7
3	4.96	10.4	1547	0.9	637	75.0	93.0	647	52.9	1710	0.7	4.0	4.9	1222	3.6	2117	1003.16	1011.1	2350	998.5	13	0.3
4	4.23	8.2	1131	-0.4	330	92.8	98.4	428	70.1	1132	3.1	4.8	5.8	1439	3.6	330	1007.06	1011.2	42	1001.6	2358	5.9
5	5.04	5.6	1247	4.2	2353	93.4	97.1	1	87.2	2338	4.1	5.1	5.4	1143	4.5	2353	995.40	1001.7	0	990.8	1312	7
6	3.81	10.1	1351	-1.2	647	80.7	99.8	734	45.6	1519	0.3	3.9	4.6	1028	3.4	1519	1006.19	1015.4	2358	998.4	0	0
7	7.70	13.3	1327	1.1	347	83.4	97.5	422	70.3	1329	5.0	5.5	6.8	1317	3.9	221	1014.96	1017.5	822	1009.2	2353	0.1
8	8.98	12.9	1143	5.2	2349	81.2	94.4	521	57.8	1141	5.9	5.8	6.9	522	4.8	2348	1006.03	1009.5	1	1004.0	500	4.8
9	7.49	10.6	1211	4.4	407	80.7	95.7	2101	53.8	1415	4.2	5.2	7.4	2351	4.0	1415	1011.26	1015.1	1026	1005.0	2358	5
10	12.11	15.0	1202	9.6	2207	88.0	95.9	637	72.2	1522	10.1	7.7	8.7	1259	6.7	2142	1005.64	1009.2	2328	1003.6	322	2.3
11	10.49	14.6	1217	7.3	705	77.8	91.0	625	57.1	1455	6.6	6.1	6.8	954	5.4	2354	1008.82	1012.2	856	1003.8	2205	1.3
12	6.78	10.0	1255	3.6	609	66.3	83.3	1159	51.1	1313	0.9	4.1	5.4	0	3.1	209	1010.71	1013.5	2359	1005.2	1	0.8
13	8.26	12.8	1413	5.6	8	66.8	84.5	2317	43.8	1455	2.3	4.4	5.1	2317	3.6	1517	1017.74	1020.1	1226	1013.5	0	0.1
14	9.31	13.5	1242	6.4	41	83.1	96.5	819	62.3	1243	6.5	6.0	6.9	949	5.1	3	1013.29	1017.2	2	1010.5	2357	2.1
15	8.65	11.2	1245	4.4	2307	86.2	98.0	2343	73.2	1047	6.4	6.0	6.9	1420	5.0	2307	1008.56	1014.8	2354	1005.6	1255	2.2
16	6.05	12.7	1511	-0.2	617	75.2	99.8	722	44.9	1513	1.5	4.2	5.4	1	3.5	2133	1021.77	1026.6	2257	1014.5	4	0.1
17	8.76	13.4	1305	2.2	418	83.4	96.3	434	70.1	1252	6.0	5.8	6.8	1305	4.1	414	1027.25	1028.6	1151	1025.8	2356	0
18	11.26	14.2	1400	8.0	2359	84.3	96.8	2356	70.0	1401	8.7	6.9	7.4	1047	6.3	2359	1024.78	1026.0	4	1023.2	1608	0.1
19	6.60	8.0	2	5.6	619	96.3	97.6	134	91.9	2357	6.0	5.7	6.4	2	5.2	2359	1026.38	1027.7	2253	1024.8	301	2.2
20	6.86	11.6	1246	3.6	2316	73.7	92.0	3	52.4	1246	2.3	4.4	5.1	3	4.0	1610	1028.60	1029.6	2148	1027.2	233	0
21	6.21	11.9	1314	2.6	517	66.9	89.2	618	26.3	1309	-0.3	3.7	4.8	842	2.2	1309	1026.12	1029.0	0	1023.8	1616	0
22	5.99	12.5	1501	1.7	318	69.0	88.4	322	40.1	1507	0.3	3.8	4.4	1227	3.5	1521	1026.37	1027.3	944	1024.7	1508	0
23	5.48	14.5	1416	-2.4	613	63.9	96.8	351	27.7	1353	-2.0	3.2	3.8	1159	2.7	1353	1026.42	1028.1	818	1024.5	1606	0
24	6.66	16.0	1520	-1.5	537	61.5	94.0	627	30.9	1558	-1.4	3.4	4.5	1143	2.8	1830	1025.56	1026.8	744	1023.8	1742	0
25	5.62	15.7	1440	-2.5	614	60.7	94.8	621	24.5	1436	-2.8	3.1	4.3	905	2.4	1436	1024.39	1025.8	707	1022.3	1619	0
26	6.00	15.2	1422	-2.3	606	59.8	94.3	609	28.9	1622	-2.5	3.1	4.2	1426	2.5	2011	1023.34	1024.5	2312	1021.6	1650	0
27	6.69	14.8	1419	-1.7	545	65.7	96.6	651	37.2	1449	-0.1	3.7	4.4	1338	3.1	1025	1024.21	1026.0	2345	1022.0	1606	0
28	6.69	11.7	1051	3.2	537	68.8	87.5	539	49.4	1026	1.2	4.1	5.0	1154	3.4	2044	1029.64	1035.5	2359	1025.8	4	0
29	4.77	9.0	1236	1.8	2159	56.3	77.4	2	35.3	1604	-3.5	2.9	3.8	2	2.2	1716	1038.25	1040.5	2123	1035.3	2	0
30	5.47	10.9	1531	1.9	246	71.8	86.9	2155	49.3	1532	0.7	3.9	5.1	1143	3.2	800	1034.81	1039.8	0	1031.5	1725	0
31	5.91	12.7	1329	-0.1	2350	70.2	93.7	454	39.8	1452	0.4	3.8	4.5	1108	3.3	1457	1031.42	1033.3	817	1029.1	2357	0
Total																						41.4
Mean	6.90	12.05		2.45		75.3	93.47		51.77		2.35	4.61	5.55		3.79		1017.03	1020.41		1013.58		
Max	12.11	15.95		9.58		96.3	99.80		91.90		10.13	7.74	8.73		6.65		1038.25	1040.49		1035.34		
Min	3.81	5.60		-2.48		56.3	77.40		24.48		-3.51	2.87	3.76		2.20		988.90	990.27		984.21		

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

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

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

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

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

Anomaly: When a value is given for anomaly, this will have one of the following meanings:

- a): The departure of a mean from the current climatological average.
- b): The departure of a value on a particular day from the average for that day, (this need not be a climatological average).

When the word anomaly is used in respect of temperature, any values given are in °C. In respect of rainfall or sunshine, percent. In respect of wind, mph. In respect of pressure, millibars (hpa).

Categories: Reference may be made in the reports to 'categories'. Each category has a strict statistical range, as outlined below.

Temperature: The terms cold/mild are used in the winter half year, and cool/warm in the summer half. The term 'normal' is used when the individual mean (monthly, seasonal or annual) value is within 20 % of the median of all ranked values for that month/season/year.

Mild/warm: The value lies between 10 % and 30 % below the highest value in the ranked series.

Very mild/very warm: The value lies within 10 % of the highest value in the ranked series.

Cold/cool: The value lies between 10 % and 30 % above the lowest value in the ranked series.

Very cold/very cool: The value lies within 10 % of the lowest value in the ranked series.

Sunshine: The terms for sunshine are very sunny, sunny, normal, dull and very dull.

The definition of these terms follow the same rules as for temperature.

Rainfall: The terms for rainfall are very dry, dry, normal, wet and very wet.

The definition of the term 'normal' follows the same rule as for temperature and sunshine.

Wet: The value lies between 10 % and 30% of the highest value in the ranked series.

Very wet: The value lies within 10 % of the highest value in the ranked series.

Dry: The value lies between 10 % and 30 % above the lowest value in the ranked series.

Very dry: The value lies within 10 % of the lowest value in the ranked series.

Long-term: Mention may be made in the reports to the 'long-term'. The long-term record comprises a temperature/rainfall/sunshine data series compiled from records of various weather stations in the Wokingham area in the years prior to the establishment of the weather station at Emmbrook in 1976 together with data from this station.

In the case of monthly max, min and mean temperature and of rainfall total the series starts in 1882. For temperature extremes, the highest max and lowest min go back to 1904, and lowest max and highest min to 1913.

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

Month: Calendar month.

Season: Spring, March to May.

Summer, June to August

Autumn, September to November

Winter, December to February.

When discussing 'winter', if a single year is given this refers to the year in which the January/February fall.

Annual or Year: The calendar year, 1st January to 31st December.

The climatological day: runs from 0900 to 0900 GMT. The max temperature and rainfall read at 0900 hours are attributed to the previous day (thrown back), as is the duration of measurable rain. The min temperature and grass min read at 0900 hours are attributed to the day of reading. Pressure read at 0900 GMT, and the monthly mean pressure is the mean of the 0900 GMT readings. Sunshine data, wind data, rainfall rate data and 24 hour data from the AWS use the normal 00-24 GMT day.

Frost: An air frost day is recorded when the minimum temperature read at 0900 GMT on that day is -0.1°C or below. A ground frost day is recorded when the grass minimum temperature read at 0900 GMT on that day is -0.1°C or lower.

Duration of air frost is defined as the number of minutes that the AWS one minute average temperature is below 0.0°C , and the day runs from midnight to midnight.

Snow: A day with snow falling is triggered if snow falls at any time in the 24 hours from midnight on that day. A day with snow lying is entered if there is at least 50% snow cover at the 0900 GMT observation.

Snow depth is the depth of undrifted snow. Snow that collects in the raingauge funnel is melted and the amount recorded as rainfall.

Hail: A day of hail is recorded if hailstones 5 mm or more in diameter are observed or recorded on the hail pad in a 24 hour period starting at midnight.

A day of small hail is recorded if hailstones less than 5 mm diameter are observed or recorded in a 24 hour period starting at midnight. The term small hail also includes various other types of ice meteor such as ice pellets, snow grains and some types of snow pellets.

Fog: A day with fog is recorded if the horizontal visibility at 0900 GMT is below 1000 m.

Thunder: A day of thunder is recorded if thunder is heard in the 24 hour period from midnight on that day. The appearance of lightning without thunder being heard does not qualify as a thunder day.

Trace of rainfall: A trace of rain, entered as 'tr' in the daily log, is recorded if rain is observed to fall but is of insufficient quantity to collect in the raingauge, or if the amount of rain in the gauge is less than 0.05 mm.

Dry spell: A dry spell is defined as a period of 5 or more consecutive dry days.

Dry day: A dry day is one with less than 0.2 mm of rainfall.

Rain day: A rain day is one with 0.2 mm or more of rainfall.

Wet day: A wet day is one having 1.0 mm or more of rainfall.

Appendix 2.

Explanation and decode for code figures used in the Wokingham 0900 and 1500 GMT observations

VV : Visibility.

Code figures 00 to 50 are in km and tenths e.g. 01 = 0.1 km = 100 m, 33 = 3.3 km, 50 = 5.0 km

Code figures 60 to 80. Subtract 50 to obtain visibility in km. e.g. 56 = 6 km, 65 = 15 km, 77 = 27 km.

Code figures 81 to 89. Subtract 50 and add 5 for every one above 80. e.g. 83 = 45 km, 86 = 60 km.

Code figure 89 = visibility above 70 km.

N : Total cloud amount in okta (eighths of sky covered). 9 = sky obscured (e.g. by fog or snow)

dd : Wind direction in tens of degrees from true north. Wind is measured at a height of 10 m, and the direction is the mean over a period of 10 minutes ending at the observation time.

ff : Wind speed in knots, measured at 10 m, and is the mean over a period of 10 minutes ending at observation time.

gg : Wind gust in knots at 10 m. The highest gust in the 60 minutes up to observation time.

TT : Air temperature at 1.2m, degrees C and tenths.

TdTd : Dew point temperature at 1.2m, degrees C and tenths.

RH : Relative humidity at 1.2m, %.

r : Humidity mixing ratio (amount of water vapour per kg of air), grams and tenths.

PPP : Air pressure reduced to MSL, millibars and tenths.

a : Characteristic of pressure tendency during the past 3 hours.

Code figures 0 to 3, pressure higher than 3 hours ago, 5 to 8, pressure lower than 3 hours ago

Code figure 0 = Increasing then decreasing, pressure the same as or higher than 3 hours ago

1 = Increasing then steady or increasing more slowly

2 = Increasing steadily or unsteadily

3 = Decreasing or steady then increasing, or increasing then increasing more rapidly

4 = Steady, pressure the same as 3 hours ago

5 = Decreasing then increasing, pressure lower than 3 hours ago

6 = Decreasing then steady or decreasing more slowly

7 = Decreasing steadily or unsteadily

8 = Steady or increasing then decreasing, or decreasing then decreasing more rapidly

ppp : 3 hour pressure tendency in tenths of a millibar

ww : Present weather code figures, 00 to 99.

Present weather decode:

00 = Cloud development not observed or not observable

01 = Clouds generally dissolving or becoming less developed

02 = State of sky on the whole unchanged

03 = Clouds generally increasing or becoming more developed

04 = Visibility reduced by smoke, e.g. veldt or forest fires, industrial smoke or volcanic ashes.

05 = Haze, visibility reduced by extremely small dry particles (RH less than appx. 95 %)

06 = Widespread dust in suspension, not raised by the wind near the station at the time of the observation

07 = Dust or sand raised by the wind at or near the station at the time of the observation, but no well-developed dust whirls or sand whirls, and no duststorm or sandstorm seen: In marine environments, blowing spray at the station.

08 = Well-developed dust or sand whirls seen at or near the station during the preceding hour or at the time of the observation, but no duststorm or sandstorm.

09 = Duststorm or sandstorm within sight at the time of the observation, or at the station during the preceding hour

10 = Mist
11 = Patches of shallow fog not deeper than 2 metres on land
12 = More or less continuous shallow fog not deeper than 2 metres on land
13 = Lightning visible, no thunder heard
14 = Precipitation within sight, not reaching the ground
15 = Precipitation within sight, reaching the ground more than 5 km from the station
16 = Precipitation within sight, reaching the ground, near to but not at the station
17 = Thunderstorm, but no precipitation at the time of the observation
18 = Squalls at or within sight of the station at the time of the observation or during the preceding hour
19 = Funnel cloud(s) at or within sight of the station at the time of the observation or during the preceding hour

20 = Drizzle (not freezing) at the station during the preceding hour but not at the time of the observation
21 = Rain (not freezing) at the station during the preceding hour but not at the time of the observation
22 = Snow at the station during the preceding hour but not at the time of the observation
23 = Rain and snow or ice pellets at the station during the preceding hour but not at the time of the observation
24 = Freezing drizzle or freezing rain at the station during the preceding hour but not at the time of the observation
25 = Shower(s) of rain at the station during the preceding hour but not at the time of the observation
26 = Shower(s) of snow or rain and snow at the station during the preceding hour but not at the time of the observation
27 = Shower(s) of hail or rain and hail at the station during the preceding hour but not at the time of the observation
28 = Fog or ice fog at the station during the preceding hour but not at the time of the observation
29 = Thunderstorm, with or without precipitation at the station during the preceding hour but not at the time of the observation

30 = Slight or moderate duststorm or sandstorm has decreased during the preceding hour
31 = Slight or moderate duststorm or sandstorm with no appreciable change during the past hour
32 = Slight or moderate duststorm or sandstorm has begun or increased during the past hour
33 = Severe duststorm or sandstorm has decreased during the preceding hour
34 = Severe duststorm or sandstorm with no appreciable change during the past hour
35 = Severe duststorm or sandstorm has begun or increased during the past hour
36 = Slight or moderate drifting snow generally below eye level
37 = Heavy drifting snow generally below eye level
38 = Slight or moderate blowing snow generally above eye level
39 = Heavy blowing snow generally above eye level

40 = Fog or ice fog at a distance at the time of the observation, but not at the station during the preceding hour, the fog extending to a level above that of the observer.
41 = Fog or ice fog in patches
42 = Fog or ice fog, sky visible has become thinner during the past hour
43 = Fog or ice fog, sky invisible has become thinner during the past hour
44 = Fog or ice fog, sky visible no appreciable change during the past hour
45 = Fog or ice fog, sky invisible no appreciable change during the past hour
46 = Fog or ice fog, sky visible has begun or become thicker during the past hour
47 = Fog or ice fog, sky invisible has begun or become thicker during the past hour
48 = Fog, depositing rime, sky visible
49 = Fog depositing rime, sky invisible

50 = Drizzle, not freezing, intermittent slight at time of observation
51 = Drizzle, not freezing, continuous slight at time of observation
52 = Drizzle, not freezing, intermittent moderate at time of observation
53 = Drizzle, not freezing, continuous moderate at time of observation
54 = Drizzle, not freezing, intermittent heavy at time of observation
55 = Drizzle, not freezing, continuous heavy at time of observation
56 = Drizzle, freezing, slight
57 = Drizzle, freezing, moderate or heavy (dense)
58 = Drizzle and rain, slight
59 = Drizzle and rain, moderate or heavy

60 = Rain, not freezing, intermittent slight at time of observation
61 = Rain, not freezing, continuous slight at time of observation
62 = Rain, not freezing, intermittent moderate at time of observation
63 = Rain, not freezing, continuous moderate at time of observation
64 = Rain, not freezing, intermittent heavy at time of observation
65 = Rain, not freezing, continuous heavy at time of observation
66 = Rain, freezing, slight
67 = Rain, freezing, moderate or heavy
68 = Rain or drizzle and snow, slight
69 = Rain or drizzle and snow, moderate or heavy

70 = Intermittent fall of snowflakes slight at time of observation
71 = Continuous fall of snowflakes slight at time of observation
72 = Intermittent fall of snowflakes moderate at time of observation
73 = Continuous fall of snowflakes moderate at time of observation
74 = Intermittent fall of snowflakes heavy at time of observation
75 = Continuous fall of snowflakes heavy at time of observation
76 = Diamond dust (with or without fog)
77 = Snow grains (with or without fog)
78 = Isolated star-like snow crystals (with or without fog)
79 = Ice pellets

80 = Rain shower(s), slight
81 = Rain shower(s), moderate or heavy
82 = Rain shower(s), violent
83 = Shower(s) of rain and snow mixed, slight
84 = Shower(s) of rain and snow mixed, moderate or heavy
85 = Snow shower(s), slight
86 = Snow shower(s), moderate or heavy
87 = Shower(s) of snow pellets or small hail, with or without rain or rain and snow mixed, slight
88 = Shower(s) of snow pellets or small hail, with or without rain or rain and snow mixed, moderate or heavy
89 = Shower(s) of hail, with or without rain or rain and snow mixed, not associated with thunder, slight
90 = Shower(s) of hail, with or without rain or rain and snow mixed, not associated with thunder, moderate or heavy

91 = Slight rain at time of observation, thunderstorm during the past hour but not at time of observation
92 = Moderate or heavy rain at time of observation, thunderstorm during the past hour but not at time of observation
93 = Slight snow, or rain and snow mixed, or hail at time of observation, thunderstorm during the past hour but not at time of observation
94 = Moderate or heavy snow, or rain and snow mixed, or hail at time of observation, thunderstorm during the past hour but not at time of observation
95 = Thunderstorm, slight or moderate, without hail but with rain and or snow at time of observation
96 = Thunderstorm, slight or moderate, with hail at time of observation
97 = Thunderstorm, heavy, without hail but with rain and or snow at time of observation
98 = Thunderstorm combined with duststorm or sandstorm at time of observation
99 = Thunderstorm, heavy, with hail at time of observation

Hail includes large hail, small hail and snow pellets.

W1, W2 : Past weather (for 0900 and 1500 GMT observations, the period covered is 3 hours)

Code figures:

- 0 = Cloud covering half or less of the sky throughout the period
- 1 = Cloud covering more than half the sky during only part of the period
- 2 = Cloud covering more than half the sky throughout the period
- 3 = Sandstorm, duststorm or blowing snow
- 4 = Fog or ice fog or thick haze (visibility less than 1000 m)
- 5 = Drizzle
- 6 = Rain
- 7 = Snow or rain and snow mixed
- 8 = Shower(s)
- 9 = Thunderstorm(s) with or without precipitation

Nh : Amount of low cloud, or medium cloud if no low cloud present, okta

Cl : Type of low cloud

- 0 = No low cloud
- 1 = Cumulus with little vertical extent and seemingly flattened, or ragged Cumulus other than bad weather, or both
- 2 = Cumulus of moderate or strong vertical extent, either accompanied or not by other Cumulus or Stratocumulus all having their bases at the same level
- 3 = Cumulonimbus whose summits, at least partially, lack sharp outline, but are neither clearly fibrous (cirriform), nor in the form of an anvil; Cumulus, Stratocumulus or Stratus may also be present
- 4 = Stratocumulus formed by the spreading out of Cumulus; Cumulus may also be present
- 6 = Stratus in a more or less continuous sheet or layer, or ragged shreds, or both, but no Stratus fractus of bad weather
- 7 = Stratus fractus of bad weather or Cumulus fractus of bad weather or both (pannus), usually below Altostratus or Nimbostratus
- 8 = Cumulus and Stratocumulus other than that formed by the spreading out of Cumulus, the bases of the Cumulus and Stratocumulus are not at the same level.
- 9 = Cumulonimbus, the upper part of which is clearly fibrous (cirriform), often in the form of an anvil, either accompanied or not by any other type(s) of low cloud
- / = Types of low cloud invisible due to darkness, fog, blowing dust or sand or other similar phenomena.

'Bad weather' denotes the conditions which generally exist during precipitation and a short time before and after.

Cm : Type of medium cloud.

- 0 = No medium cloud.
- 1 = Altostratus, the greater part of which is semi-transparent; through this part the sun or moon may be weakly visible, as through ground glass
- 2 = Altostratus, the greater part of which is sufficiently dense to hide the sun or moon, or Nimbostratus
- 3 = Altocumulus, the greater part of which is semi-transparent; the various elements of the cloud change only slowly and are all at a single level
- 4 = Altocumulus in patches (often in the form of almonds or fishes), the greater part of which is semi-transparent ; the clouds occur at one or more levels and the elements are continually changing in appearance
- 5 = Altocumulus in bands semi-transparent, of Altocumulus in one or more fairly continuous layers (semi-transparent or opaque), progressively invading the sky; these Altocumulus clouds generally thicken as a whole
- 6 = Altocumulus resulting from the spreading out of Cumulus (or Cumulonimbus)
- 7 = Altocumulus in two or more layers, usually opaque in places, and not progressively invading the sky; or opaque layer of Altocumulus not progressively invading the sky; or Altocumulus together with Altostratus or Nimbostratus
- 8 = Altocumulus with sproutings in the form of small towers or battlements, or Altocumulus having the appearance of cumuliform tufts
- 9 = Altocumulus of a chaotic sky, generally at several levels
- / = Types of medium cloud invisible owing to darkness, fog, blowing dust or sand or other similar phenomena, or more often because of the presence of a continuous layer of lower clouds.

Ch : Type of high cloud

0 = No high cloud

1 = Cirrus in the form of filaments, strands or hooks, not progressively invading the sky.

2 = Dense cirrus, in patches or entangled sheaves, which usually do not increase and sometimes seem to be the remains of the upper part of a Cumulonimbus; or Cirrus with sproutings in the form of small turrets or battlements, or Cirrus having the appearance of cumuliform tufts

3 = Dense Cirrus, often in the form of an anvil, being the remains of the upper part of Cumulonimbus, or where the rest of the Cumulonimbus is below the horizon

4 = Cirrus in the form of hooks or filaments, or both, progressively invading the sky; they generally become denser as a whole

5 = Cirrus (often in bands converging towards one or two opposite points on the horizon) and Cirrostratus, or Cirrostratus alone; in either case they are progressively invading the sky, and generally growing denser as a whole, but the continuous veil does not reach 45 degrees above the horizon.

6 = Cirrus (often in bands converging towards one or two opposite points on the horizon) and Cirrostratus, or Cirrostratus alone; in either case they are progressively invading the sky, and generally growing denser as a whole; the continuous veil extends more than 45 degrees above the horizon, without the sky being totally covered

7 = Veil of Cirrostratus covering the celestial dome.

8 = Cirrostratus not progressively invading the sky and not completely covering the celestial dome

9 = Cirrocumulus alone, or accompanied by Cirrus or Cirrostratus, or both, but Cirrocumulus is predominant.

/ = Types of high cloud invisible owing to darkness, fog, blowing dust of sand or other similar phenomena, or more often because of the presence of a continuous layer of lower clouds.

8 Groups

N = Amount of cloud reported by C, okta.

C = Type of cloud

0 = Cirrus (Ci)

1 = Cirrocumulus (Cc)

2 = Cirrostratus (Cs)

3 = Altocumulus (Ac)

4 = Altostratus (As)

5 = Nimbostratus (Ns)

6 = Stratocumulus (Sc)

7 = Stratus (St)

8 = Cumulus (Cu)

9 = Cumulonimbus (Cb)

/ = Cloud type not visible owing to darkness, fog, duststorm, or other analogous phenomena.

hshs = Height of cloud above station level reported by type C

00 to 50 = Height in hundreds of feet

51 to 55 Not used

56 to 80 = Subtract 50 to obtain cloud height in thousands of feet

81 to 88 = Height of cloud between 35000 and 70000 ft in 5000 ft steps.