

Wokingham Climatological Station, Emmbrook.

January 2025 marks the start of the 50th year of operation for the Wokingham weather station at Emmbrook.

Meteorological readings commenced in January 1976, as a joint enterprise between the Wokingham Town Council, The Emmbrook School, and myself. The instruments were located in the grounds of the Emmbrook School on a plot of land next to the Emm brook. Over the years additional instruments were added and modernised. In 2006, the weather station was moved across the road into the grounds of the Emmbrook Junior School when The Emmbrook School required the weather station plot of land for additional car parking spaces. In 2025, daily meteorological readings for Wokingham continue from the Junior School site.

Bernard Burton F.R.Met.S. Hon. Met. Officer to Wokingham Town Council.

**Data from the weather station can be found at :
www.woksat.info/wwp.html**

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

JANUARY 2025

		Anomaly	Rank in the past 144 years						
Temperature (°C)									
Mean maximum	6.8	-1.3	52nd lowest						
Mean minimum	0.7	-1.3	43rd lowest						
Daily mean	3.7	-1.4	45th lowest						
Highest maximum	12.7	on 5th	Lowest maximum	1.5	on 8th				
Highest minimum	8.6	on 1st	Lowest minimum	-7.1	on 11th				
Mean grass minimum	-1.9	-0.8	Lowest grass minimum	-9.5	on 11th				
Mean earth @30 cm	5.9	+0.2	Earth @100 cm	7.7	0.0				
Frost duration (hrs)	107.4		Rain duration (hrs)	67.7					
Rainfall total (mm)	98.2	149%	11th highest						
Highest daily fall	19.3	on 28th	Highest rate mm/hr	60	on 24th				
Number of: Dry days (<0.2mm)	16	Wet days (>0.9mm)	9	days ≥5mm	7				
Sunshine total (hrs)	70.2	Daily mean	2.26	96%	Sunniest day	7.9	on 30th		
N° days with: Air frost	13	Ground frost	21	Snow falling	3	Snow lying	0		
Thunder	0	Hail ≥5mm	0	Small hail/ice	3	Fog @09	0	Nil sun	11
Pressure MSL: Mean @09 GMT, mbar	1013.4	-2.9	Highest	1041.9	on 12th	Lowest	970.9	on 6th	
Relative humidity: Mean (%)	90.0	Lowest	47	on 24th	Water vapour (g/kg), mean at 09 and 15 GMT	4.5,	4.7		
Overall mean wind speed (mph)	6.0	Windiest day	13.9	on 27th	Max gust	52	on 27th		
Wind direction (days)	N 4	NE 2	E 1	SE 1	S 3	SW 10	W 6	NW 4	
Least windy day (mph)	1.7	on 11th	Calm; less than 0.5 mph (minutes)	180					

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

Notes:

Cool and Very Wet with Average Sunshine

Temperature: This has been the coldest January since 2017, and in this millennium only 2009 and 2010 have also been colder. However, in the longer-term, since 1882, 44 years have had a colder January, with 1963 holding the record with a mean temperature of -2.4°, 6.1° below this January's value. The highest max this month is 0.2° above the median while the lowest max is 0.3° above its median. The highest min is 0.1° above the median while the lowest min is 1.2° below its median. The mean grass min is lowest since 2019, but the lowest value this month is 2.1° higher than the lowest in January 2024. Earth temperature at both 30 cm and 1 m depth is close to average. The number of days with air frost is 3 more than average, and the number of hours with air frost is slightly above average. Despite this month's highest daily temperature occurring in the first week, the period to the 12th also saw the coldest days and nights, with anomalies for daily max exceeding -5° on the 4th, 8th and 10th, and for daily min exceeding -7° from the 10th to 12th. After the 13th daily temperature fluctuated mainly within 3° of normal with more positive than negative anomalies, apart from anomalies of -4° for the max on the 18th and 19th. **Rainfall:** This has been a very wet January overall, having 49 % more rain than average. It is wettest since 2014, the current record holder, and before that 1995, and only 10 Januaries in the past 144 years have been wetter. Despite the overall wetness, the 17 day period to the 22nd was relatively dry, having 12 dry days, a total of 2.7 mm of rain, and containing a 5 day dry spell. At the other extreme, the 2days 4th and 5th saw 31.1 mm of rain, and the 5 days to the 27th had 44.8 mm, with two of those days having a total of only 0.3 mm. Snow fell during the evening of the 4th, producing a 1cm covering by midnight, but all but 10% had gone by morning. Sleet also occurred on the 7th and 8th. Ice pellets fell on the 1st, 4th and 27th, but there was no thunder. Rain rate exceeded the violent threshold of 50 mm/hr on the 24th. **Sunshine:** This has been a reasonably sunny January overall with the total just 4 % below average, but it is duller since 2021. In this millennium 17 Januaries have been sunnier, including 2003, the current record holder and the only January in the past 50 years to have over 100 hours sunshine. There were several sunny days up to the 13th, 6 having over 50 % of the maximum and 3 over 90 %, but from the 14th to the 24th only 3 days had over 20 % and 5 had nil sun. After the 24th there were 2 days with >50 % including over 80 % on the 30th. Overall there were 23 days with <3 hours and 5 days with =>6 hours. **Wind:** The mean wind speed this January is 1.8 mph below average, but is lowest only since 2022. The mean speed on the month's windiest day is 2.1 mph below average, but the month's highest gust is close to normal. Daily mean speed was strong on the 1st, then light, becoming fresh on 5th, decreasing light or very light by the 8th, increasing fresh or strong from 24th to 28th, then decreasing moderate. Daily mean directions were between N and E on 4th, 8th, 10th, 12th, 18th and 19th, between E and S on 21st and 26th, between W and N on the 2nd, 15th, 20th, 22nd, 29th and 30th, and between S and W on the rest. **Pressure:** The month's lowest pressure is lowest for January since 2009 and before that 1990. **Humidity:** The overall mean relative humidity is 4.5 % above average and is 2nd highest for January in the past 27 years.

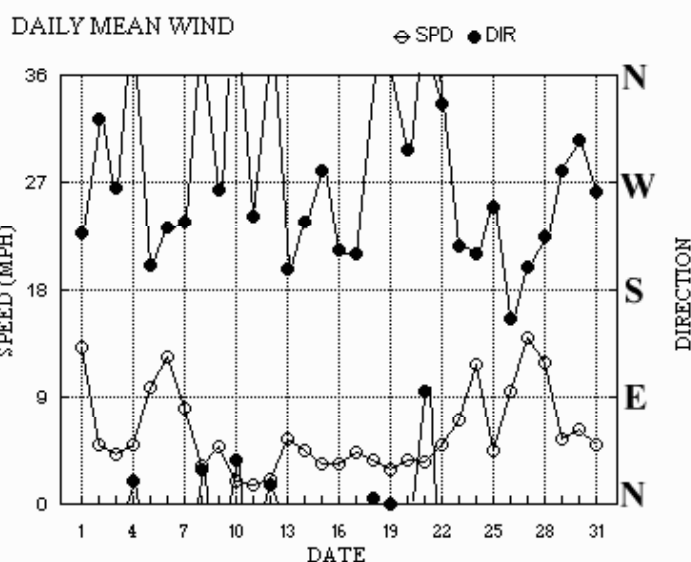
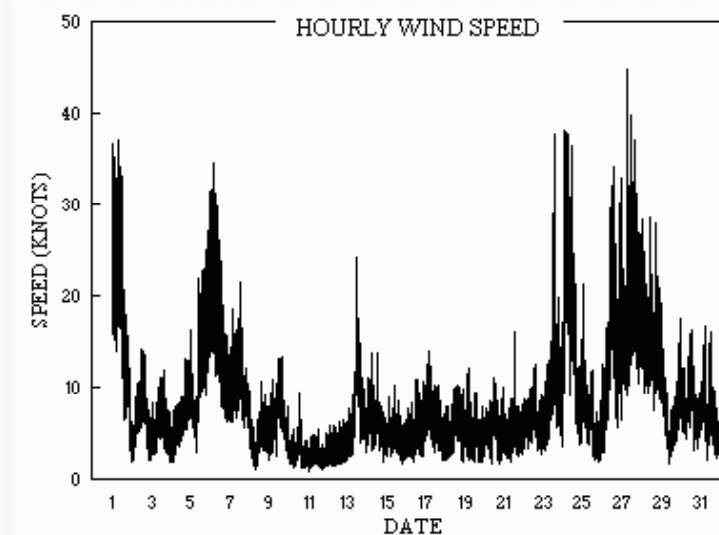
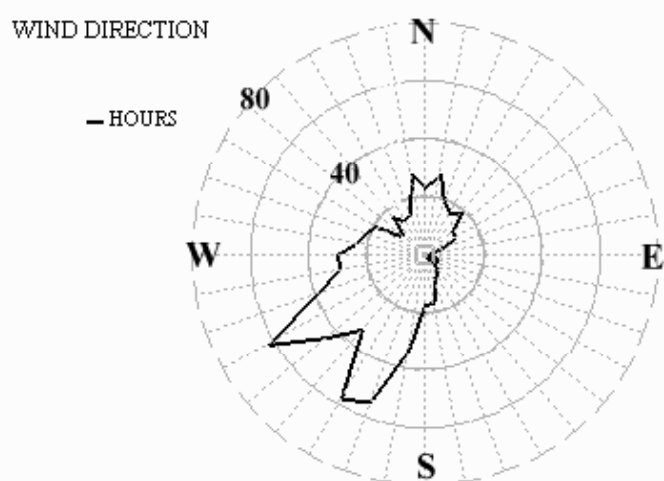
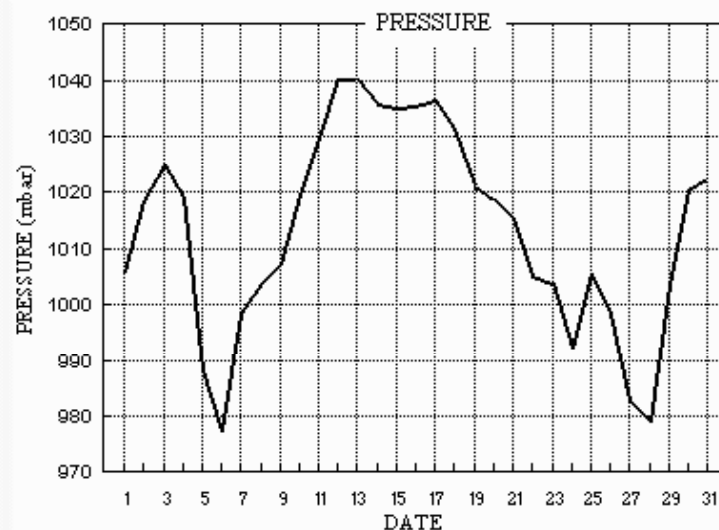
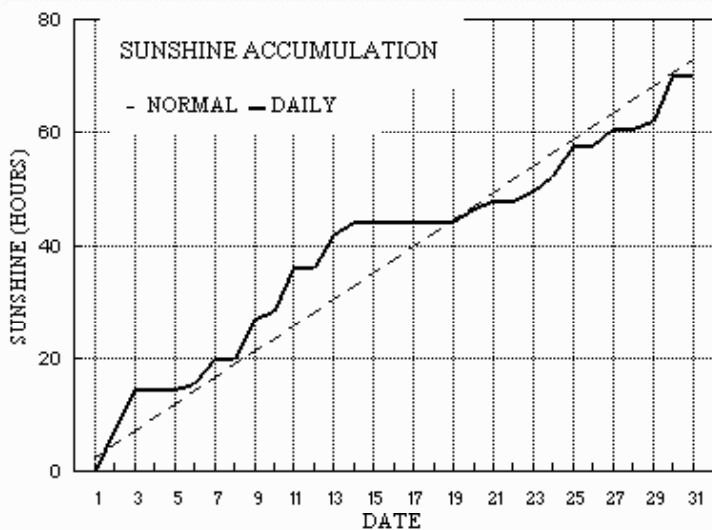
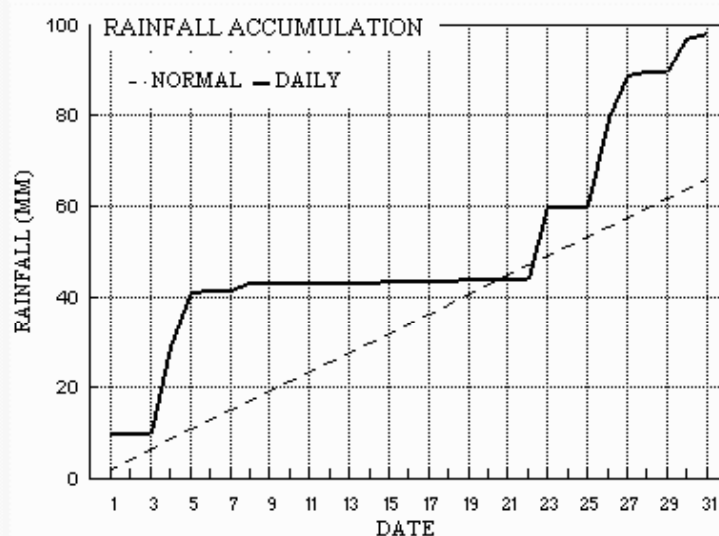
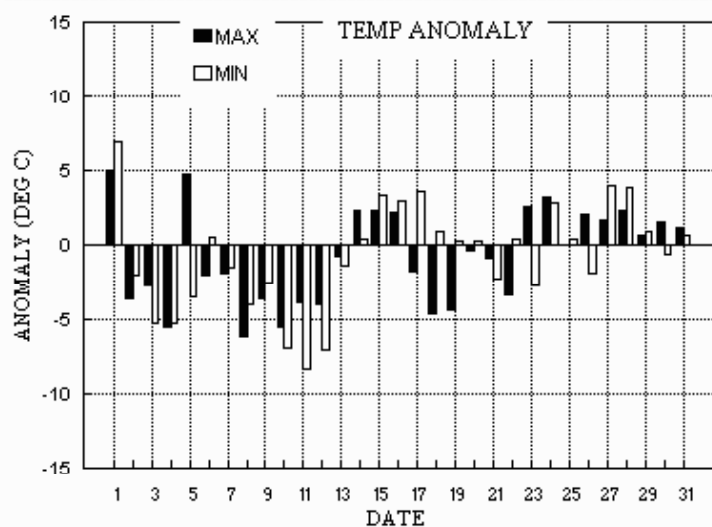
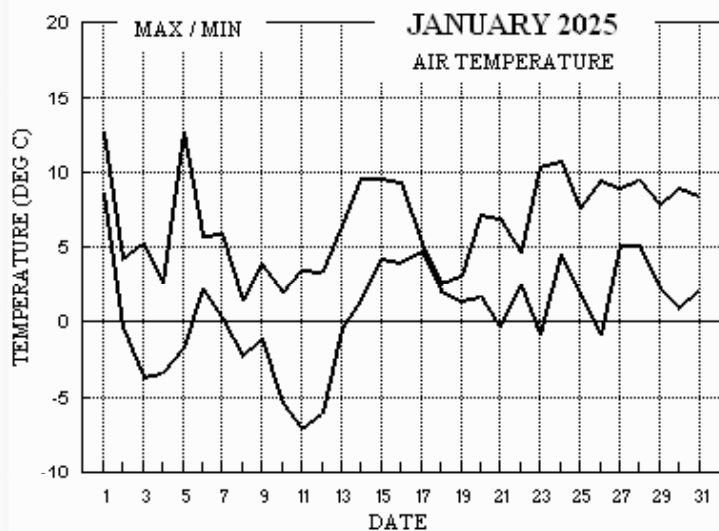
Table 1. Mean anomalies (max, min, rain, sun) for specified periods.

From the 1 st to the 10 th				From the 11 th to the 20 th				From the 21 st to the 31 st			
-2.1°	-2.4°	202%	121%	-1.3°	-0.5°	4%	77%	+1.0°	+0.5°	232%	91%

B J Burton FRMetS.

Hon. Met. Officer to Wokingham Town Council.

Wokingham climatological graphs for January 2025



Daily meteorological data.

Emmbrook, WOKINGHAM, Berkshire.

Month: JANUARY 2025

Date	Max C	Min C	Rain mm	Grass Min	30cm C	100cm C	Sun hrs	Frost hrs	pp09 mbar	Af Gf	Sf SI	Th Ha	Ic Fg	Vec ddd	mean ff	sp	Max gust ddd	gg	High hr HHhh	High hr ddd	ff	Rain HH	hrs
1	12.6	8.6	9.8	9.3	8.7	9.4	0.0	0.0	1006.0	0	0	0	0	0	11.0	11.4	229	37	0643	222	18	06	6.4
2	4.2	-0.4	0.0	-4.3	8.5	9.4	7.4	6.8	1018.4	1	1	0	0	0	4.0	4.4	328	14	1259	329	7	12	0.0
3	5.3	-3.7	0.0	-8.3	7.2	9.4	7.3	14.6	1024.9	1	1	0	0	0	3.5	3.6	298	12	1503	277	6	14	0.0
4	2.6	-3.4	19.2	-6.8	6.0	9.2	0.0	11.9	1019.0	1	1	1	0	20	3.6	4.3	53	16	2347	52	7	23	13.9
5	12.7	-1.8	11.9	-0.7	5.7	8.8	0.0	0.0	988.1	1	1	0	0	200	4.6	8.5	197	32	2346	201	14	23	9.4
6	5.8	2.2	0.5	2.5	6.8	8.5	0.9	0.0	977.2	0	0	0	0	232	9.1	10.7	182	35	0455	202	16	05	1.5
7	5.9	0.3	0.1	-2.9	6.7	8.4	4.2	0.0	998.4	0	1	1	0	236	6.8	7.0	254	22	1204	258	10	12	0.2
8	1.5	-2.2	1.5	-6.8	6.0	8.4	0.0	11.7	1003.8	1	1	1	0	29	1.2	2.9	33	11	1531	15	5	19	3.5
9	3.8	-1.1	0.0	-5.0	5.6	8.2	7.1	7.4	1007.3	1	1	0	0	263	3.3	4.2	268	13	1512	260	7	11	0.0
10	1.9	-5.5	0.0	-9.3	5.0	8.0	1.5	19.1	1019.5	1	1	0	0	37	0.6	1.8	28	10	1405	16	4	13	0.0
11	3.5	-7.1	0.0	-9.5	4.3	7.7	7.6	19.0	1029.8	1	1	0	0	242	0.4	1.5	254	6	1255	249	3	12	0.0
12	3.3	-6.1	0.0	-7.3	3.9	7.4	0.0	9.8	1040.3	1	1	0	0	16	1.1	1.8	133	7	1949	165	3	20	0.0
13	6.4	-0.5	0.0	-4.9	3.8	7.1	5.8	0.8	1040.2	1	1	0	0	196	4.7	4.8	204	24	1208	198	10	12	0.0
14	9.6	1.4	0.3	-1.3	4.2	6.9	2.3	0.0	1035.8	0	1	0	0	237	3.7	3.9	201	14	0545	231	6	13	1.2
15	9.6	4.3	0.1	7.2	5.1	6.8	0.0	0.0	1035.0	0	0	0	0	280	2.7	2.9	322	10	1025	317	5	10	0.0
16	9.3	4.0	0.0	-1.0	5.9	6.8	0.1	0.0	1035.3	0	1	0	0	213	2.3	3.0	192	11	1247	201	4	13	0.0
17	5.3	4.7	0.0	4.6	6.2	6.9	0.0	0.0	1036.6	0	0	0	0	209	3.3	3.8	179	14	0533	194	5	03	0.0
18	2.6	2.1	tr	2.5	6.2	7.1	0.0	0.0	1031.5	0	0	0	0	6	1.6	3.3	360	10	1519	23	5	13	0.0
19	3.1	1.4	0.5	1.6	6.0	7.2	0.0	0.0	1021.3	0	0	0	0	1	0.2	2.6	252	12	0413	265	4	15	1.6
20	7.2	1.7	0.0	-0.3	5.9	7.2	2.4	0.6	1018.9	0	1	0	0	297	1.8	3.2	205	11	1249	246	5	12	0.0
21	6.9	-0.3	tr	-4.4	5.8	7.2	1.4	0.0	1015.3	1	1	0	0	95	1.2	3.1	142	16	1342	145	7	13	0.1
22	4.6	2.4	0.2	2.4	6.0	7.2	0.0	0.7	1005.2	0	0	0	0	336	3.8	4.3	341	13	1547	337	7	15	0.5
23	10.4	-0.8	15.7	-5.6	5.8	7.2	1.5	1.2	1003.7	1	1	0	0	216	5.7	6.2	263	38	1515	245	12	15	8.5
24	10.8	4.5	0.3	0.2	5.8	7.2	2.8	0.0	992.4	0	0	0	0	209	9.5	10.2	185	38	0327	192	17	04	0.1
25	7.5	1.8	tr	-4.5	6.2	7.1	5.4	2.1	1005.6	0	1	0	0	250	3.2	4.0	235	21	0203	280	8	02	0.0
26	9.5	-0.8	19.3	-5.3	5.7	7.2	0.0	1.7	998.4	1	1	0	0	155	7.8	8.2	151	34	1408	149	15	14	8.8
27	9.0	5.1	9.5	3.6	5.8	7.1	2.9	0.0	982.7	0	0	0	0	198	11.6	12.1	206	45	0838	194	15	14	3.2
28	9.4	5.1	0.8	4.0	6.1	7.1	0.2	0.0	978.8	0	0	0	0	224	8.4	10.3	232	29	1121	182	13	00	2.0
29	7.8	2.2	0.0	-1.6	6.5	7.1	1.4	0.0	1003.3	0	1	0	0	279	1.4	4.7	241	19	0015	245	9	00	0.0
30	8.9	0.9	7.4	-3.8	6.2	7.2	7.9	0.0	1020.3	0	1	0	0	305	3.8	5.5	2	18	0114	7	8	00	4.3
31	8.5	2.2	1.1	-3.3	5.7	7.2	0.1	0.0	1022.6	0	1	0	0	262	1.5	4.3	164	17	0626	181	8	06	2.5
Total			98.2				70.2	107.4															67.7
Mean	6.8	0.7		-1.9	5.9	7.7	2.26	3.5	1013.4					231	2.7	5.2							
Anom	-1.3	-1.3	149%	-0.8	+0.2	-0.0	96%		-2.9														
Daily mean		3.7																					
Anom		-1.4																					

Number of days with:

Air frost = 13 Ground frost = 21 Nil sun = 11
Snow falling = 3 Snow lying = 0 Thunder = 0
Hail=>5mm = 0 Hail<5mm or ice = 3 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. SI = Snow lying at 09 GMT.

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

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

Sp = 24 hour mean wind speed in knots.

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

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

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

Maximum daily rain rate in mm/hr

All temperatures in degrees Celsius.

Anomaly - Departure from the 1991 to 2020 climatological average

Weather observations. Emmbrook, Wokingham, Berkshire.

Observations at 0900 GMT for JANUARY 2025

Date	VV	N	dd	ff	gg	TT	TdTd	RH	r	PPP	a	ppp	ww	W1	W2	Nh	Cl	h	Cr	Ch	shs	NChs	shs	NChs	Date	Remarks
1	62	8	22	15	36	12.1	9.5	84	7.4	1006.0	6	021	60	6	2	7	5	4	2	/	87612	88550		1		
2	82	1	35	05	10	0.2	0.1	99	3.8	1018.4	3	028	02	0	0	0	0	9	0	8	81275			2	Cs edge distant S Hoar slt Gnd sfc frzn	
3	86	0	25	05	10	-1.2	-2.3	92	3.2	1024.9	1	006	02	0	0	0	0	9	0	0				3	Hoar thk Gnd sfc frzn	
4	50	8	36	02	04	-1.7	-1.7	100	3.3	1019.0	6	010	10	2	2	7	5	6	2	/	83630	86640	88463	4	Hoar thk	
5	10	8	33	02	06	2.6	2.6	100	4.7	988.1	6	025	63	6	6	8	7	0	/	/	85701	88708		5	Sn ly 1cm 10% TBR snow in funnel Thaw	
6	50	8	28	11	25	2.2	1.6	96	4.4	977.2	3	055	61	6	6	7	7	3	2	/	87708	88515		6		
7	68	7	23	08	17	1.7	1.1	96	4.2	998.4	2	012	60	8	7	7	5	4	/	/	86710	87630		7	prso 0730	
8	70	8	33	01	04	-1.0	-1.0	100	3.6	1003.8	8	005	02	2	2	6	0	9	1	7	83434	88268		8	Hoar mod lcy patches Gnd sfc frzn	
9	58	1	27	02	06	-0.9	-1.3	97	3.5	1007.3	2	037	10	0	0	1	5	5	0	0	81622			9	Hoar slt. lcy patches	
10	15	7	03	01	04	-4.0	-4.0	100	2.8	1019.5	0	011	40	1	1	6	0	9	7	2	83365	85368	86073	10	jf W Hoar thk. Parhelion Gnd frzn	
11	40	1	09	02	05	-6.2	-6.5	98	2.3	1029.8	1	026	10	0	0	1	0	9	4	1	81365			11	1Ci75 Hoar thk Gnd frzn	
12	20	8	05	02	06	-0.3	-0.3	100	3.6	1040.3	1	015	10	2	2	8	5	5	/	/	83626	886328	Hoar m	12		
13	84	7	19	04	10	2.5	0.1	84	3.7	1040.2	8	002	02	2	2	1	5	5	0	1	81623	86081		13	COTRA Hoar slt	
14	59	7	24	03	07	4.2	3.3	94	4.7	1035.8	1	011	05	1	1	7	5	3	/	/	81707	84640	85650	14		
15	61	8	29	02	08	8.7	8.7	100	6.8	1035.0	2	005	02	5	2	8	6	2	/	/	86704	88706		15		
16	45	7	01	02	08	5.1	5.0	99	5.3	1035.3	0	005	10	2	2	7	6	3	/	/	87708			16		
17	60	8	21	04	08	4.7	2.6	86	4.4	1036.6	1	004	05	2	2	8	6	4	/	/	88710			17		
18	50	8	27	03	07	2.1	0.8	91	3.9	1031.5	6	002	05	2	2	8	6	3	/	/	88707			18		
19	56	8	13	02	07	2.6	1.0	89	4.0	1021.3	7	004	51	5	5	8	5	4	/	/	87712	88615		19	d very slt	
20	30	7	19	02	07	2.4	2.3	99	4.4	1018.9	7	002	10	6	2	5	5	3	0	2	81706	83618	86072	20	3Sc40	
21	50	8	07	02	05	3.8	3.5	98	4.9	1015.3	7	006	10	2	2	8	5	5	/	/	83620	88625		21		
22	20	8	35	05	09	2.9	2.6	98	4.6	1005.2	4	000	60	6	2	5	7	3	2	/	85706	88545		22		
23	20	8	19	05	11	4.6	4.5	99	5.3	1003.7	8	013	58	6	2	7	7	3	2	/	83707	86710	88535	23		
24	65	5	25	09	24	9.1	6.4	83	6.1	992.4	3	024	01	6	2	1	5	7	7	8	81656	83272		24	2Ac65 1Ac68 COTRA	
25	82	1	24	04	07	2.5	0.4	86	3.9	1005.6	2	034	02	0	0	0	0	9	0	8	81272			25	Hoar slt Cs len Gnd sfc frzn	
26	81	8	13	09	17	5.6	2.8	82	4.7	998.4	8	047	03	8	1	7	5	4	2	/	87615	88465		26		
27	65	6	21	13	47	5.1	3.1	87	4.9	982.7	3	025	25	8	1	3	9	4	6	3	83910	85068		27	1Sc30 2Ac60 2Ac64	
28	70	7	21	09	20	8.6	6.9	89	6.4	978.8	3	012	80	8	2	7	8	4	6	/	86813	85635		28	2Ac070 Cu fra/med	
29	62	6	20	04	09	4.1	4.0	99	5.1	1003.3	3	019	03	1	1	1	5	6	0	6	81640	86270		29	Halo 22° part	
30	80	0	31	05	09	2.2	-0.4	83	3.7	1020.3	2	034	02	0	0	0	0	9	0	0				30	Hoar slt	
31	59	7	31	03	10	5.7	5.6	99	5.6	1022.6	3	005	16	6	2	7	5	3	/	/	84706	85612	87625	31	jpW	

Mean vis = 14.8 km

Mean cloud = 6.1 76%

Mean wind speed = 4.7 kn

Mean gust = 12 kn

Mean TT = 2.9 °C

Mean TdTd = 2.0 °C

Mean RH = 93.8 %

Mean r = 4.5 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 JANUARY 2025

Date	VV	N	dd	ff	gg	TT	TdTd	RH	r	PPP	a	pppwwW1W2	NhCl	hCrCl	NChshs	NChshs	NChshs	Date	Remarks
1	65	8	24	05	16	5.7	4.7	93	5.3	1007.7	1	020 61	6 6	1 5 5 2 /	81620	88540		1	
2	86	1	34	06	14	3.5	-1.3	71	3.4	1020.9	2	008 02	0 0	1 1 5 0 8	81820			2	1Cs75 Cu fra Cs edge distant S
3	88	1	29	06	12	4.6	-1.6	64	3.3	1023.3	6	015 03	0 0	0 0 9 0 4	81080			3	COTRA Ci low in SW Hoar mod in shade
4	61	8	09	04	06	1.7	0.8	94	4.0	1012.0	7	043 03	2 2	8 0 9 7 /	83358	88560		4	
5	58	8	20	08	23	12.6	12.4	99	9.2	984.8	6	017 60	6 2	7 7 2 2 /	85705	87708 88515		5	
6	88	4	25	09	18	5.8	2.3	78	4.6	988.6	2	041 25	8 1	2 8 5 6 3	82820			6	1Sc40 1Ac62 2Ci68 Cu med
7	89	5	25	07	16	5.0	0.9	75	4.1	1000.3	3	004 03	1 1	4 8 5 0 1	83820			7	2Sc50 2Ci75 Cu med
8	60	8	05	05	09	1.2	0.8	97	4.1	999.0	6	026 14	2 2	1 5 7 2 /	81650	88556		8	
9	82	1	26	07	13	3.6	-1.7	68	3.3	1012.1	3	016 02	0 0	1 5 7 0 0	81650			9	Hoar slt in shade
10	68	5	04	03	10	1.5	-0.4	87	3.6	1020.8	5	000 01	2 2	4 0 9 7 1	81361	84463 85070		10	As thin Sun pillar
11	58	1	26	01	03	3.4	0.5	81	3.8	1031.8	2	007 05	0 0	1 0 9 7 0	81362			11	Hoar thk in shade
12	35	8	02	02	06	1.9	1.6	98	4.1	1040.6	5	003 10	2 2	8 5 6 / /	88630			12	
13	82	8	21	08	18	5.5	0.7	71	3.9	1038.4	6	013 03	2 2	6 0 9 7 7	82358	85371 88278		13	Parheliion
14	62	7	24	05	14	9.1	6.2	82	5.7	1034.5	5	012 03	1 1	7 5 4 / /	85613	85625 86638		14	
15	70	7	26	03	08	9.0	7.0	87	6.1	1034.1	5	006 01	2 2	7 5 3 / /	87609			15	
16	75	7	20	04	11	8.9	5.8	81	5.6	1033.9	5	008 02	2 2	7 5 4 / /	87615			16	
17	61	8	22	04	10	4.9	2.3	83	4.4	1035.5	5	007 02	2 2	8 5 4 / /	88612			17	
18	45	8	03	06	10	2.2	0.6	89	3.9	1028.1	7	022 05	2 2	8 6 3 / /	88707			18	
19	50	8	27	04	08	2.4	1.5	94	4.2	1019.8	6	006 51	5 5	8 5 3 / /	86706	88610		19	
20	59	7	24	05	09	7.2	4.3	82	5.1	1017.1	7	019 05	2 2	5 8 4 3 2	82815	84640 87075		20	2Ac65 Cu med
21	58	8	13	03	10	4.9	2.6	85	4.6	1012.3	6	019 05	2 2	8 5 3 / /	86709	88612		21	
22	60	7	34	07	13	4.5	0.8	77	4.1	1003.0	6	012 05	2 2	6 5 4 1 2	86615	87072		22	2As68
23	58	7	24	11	18	7.4	5.0	85	5.5	999.7	5	007 16	6 1	5 8 5 7 /	83820	83650 85358		23	Cu med jpSW vv70k ex SW
24	68	6	23	12	24	9.6	0.8	54	4.1	997.7	3	017 02	1 1	1 1 6 7 1	81835	83363 85366		24	/Ci72 COTRA Cu fra Cld edge NW
25	82	7	28	02	06	6.6	-1.1	58	3.5	1006.4	8	005 03	1 1	3 0 9 7 6	81365	83468 87270		25	Halo 22° part
26	40	8	15	14	34	6.1	5.4	95	5.7	986.3	6	077 58	6 6	8 5 3 / /	83706	87709 88620		26	
27	62	5	19	18	31	8.4	3.7	72	5.1	981.1	8	010 02	8 1	1 2 5 6 3	81825	85068		27	1Ac62 Cu med
28	58	7	26	09	22	8.2	7.4	95	6.6	984.3	2	034 80	8 6	7 8 3 / /	82709	83812 87630		28	Cu med
29	72	8	04	03	08	6.8	4.8	87	5.4	1003.5	3	006 03	2 2	8 0 9 2 /	88563			29	
30	84	3	28	09	15	7.4	0.2	60	3.8	1023.1	1	015 03	0 0	1 1 6 4 1	81830	83371		30	1Ac70 1Ci75 Cu hum Ac len
31	58	7	33	06	11	7.8	5.8	87	5.6	1024.4	3	011 25	8 2	7 8 3 / /	82708	83815 87635		31	Cu med

Mean vis = 22.7 km

Mean cloud = 6.2 77%

Mean wind speed = 6.3 kn

Mean gust = 14 kn

Mean TT = 5.7 °C

Mean TdTd = 2.7 °C

Mean RH = 81.6 %

Mean r = 4.7 g/kg

Mean PPP = 1013.1 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	Hour	01-Jan	02-Jan	03-Jan	04-Jan	05-Jan	06-Jan	07-Jan	08-Jan	09-Jan	10-Jan	11-Jan	12-Jan	13-Jan	14-Jan	15-Jan	16-Jan
2025	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	0.00	0.00
	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8	0.00	0.44	0.44	0.00	0.00	0.00	0.00	0.00	0.40	0.01	0.53	0.00	0.60	0.31	0.00	0.00
	9	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.78	0.15	1.00	0.00	1.00	0.09	0.00	0.00
	10	0.00	1.00	1.00	0.00	0.00	0.00	0.36	0.00	0.94	0.43	1.00	0.00	1.00	0.01	0.00	0.00
	11	0.00	1.00	1.00	0.00	0.00	0.00	0.97	0.00	1.00	0.51	1.00	0.00	0.98	0.52	0.00	0.14
	12	0.00	1.00	1.00	0.00	0.00	0.05	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.22	0.00	0.00
	13	0.00	1.00	1.00	0.00	0.00	0.07	0.83	0.00	1.00	0.12	1.00	0.00	0.99	0.64	0.00	0.00
	14	0.00	1.00	1.00	0.00	0.00	0.17	0.65	0.00	1.00	0.02	1.00	0.00	0.21	0.46	0.00	0.00
	15	0.00	0.92	0.88	0.00	0.00	0.64	0.35	0.00	0.96	0.26	0.90	0.00	0.00	0.00	0.00	0.00
	16	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	0.00	0.00
	17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	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	0.00
	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
	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		0.00	7.36	7.32	0.00	0.00	0.92	4.19	0.00	7.08	1.47	7.58	0.00	5.78	2.26	0.00	0.14

Hour	17-Jan	18-Jan	19-Jan	20-Jan	21-Jan	22-Jan	23-Jan	24-Jan	25-Jan	26-Jan	27-Jan	28-Jan	29-Jan	30-Jan	31-Jan	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	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.72	0.00	0.05	0.00	0.85	0.92	0.00	0.18
9	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.02	1.00	0.00	0.16	0.09	0.11	1.00	0.00	0.25
10	0.00	0.00	0.00	0.57	0.27	0.00	0.00	0.00	1.00	0.00	0.93	0.05	0.24	1.00	0.00	0.32
11	0.00	0.00	0.00	0.15	0.84	0.00	0.00	0.59	1.00	0.00	0.10	0.02	0.15	1.00	0.00	0.35
12	0.00	0.00	0.00	0.22	0.27	0.00	0.00	0.86	0.76	0.00	0.41	0.00	0.00	1.00	0.02	0.32
13	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.62	0.95	0.00	0.14	0.00	0.00	0.89	0.00	0.32
14	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.65	0.45	0.00	0.97	0.00	0.00	0.97	0.00	0.29
15	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.46	0.00	0.00	0.07	0.00	0.00	1.00	0.00	0.21
16	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.02
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00
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
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	0.00	0.00	0.00	2.37	1.38	0.00	1.45	2.78	5.42	0.00	2.85	0.16	1.36	7.93	0.02	69.80

JANUARY 2025	T mn	Tx	Time	Tn	Time	RHmn	RH x	Time	RH n	Time	Tdmn	r mn	r x	Time	r n	Time	p mn	p x	Time	p n	Time	R tot
1	8.49	12.5	953	2.0	2353	86.8	99.8	2359	72.7	143	6.3	6.0	7.7	1121	4.3	2353	1008.82	1014.2	1	1004.5	1116	7.9
2	0.95	4.1	1242	-3.0	2254	90.9	100.0	0	69.3	1525	-0.5	3.6	4.6	504	2.9	2254	1019.29	1025.1	2333	1012.0	18	0.2
3	-0.18	5.3	1310	-3.8	344	87.9	100.0	350	61.7	1310	-2.1	3.2	3.6	1226	2.8	344	1024.33	1025.3	1023	1023.2	1457	0.2
4	-0.50	2.6	1823	-3.4	530	97.5	100.0	113	83.9	1814	-0.9	3.6	4.2	1343	2.9	530	1014.34	1023.4	0	999.7	2359	3.4
5	7.84	12.6	1425	0.5	13	98.9	100.0	0	93.7	2316	7.7	7.0	9.1	1414	4.0	2	987.28	999.9	0	978.3	2353	18.8
6	5.95	12.1	115	1.8	2302	88.4	97.7	804	75.0	1307	4.2	5.4	8.4	343	3.9	2122	983.58	995.2	2356	970.9	634	3.3
7	2.31	5.8	1314	0.2	2314	87.2	96.7	819	69.4	1258	0.3	3.9	4.5	1100	3.5	403	999.71	1004.2	2315	995.1	4	0.4
8	-0.14	1.5	1637	-2.2	411	98.3	100.0	349	90.7	0	-0.4	3.7	4.1	1707	3.2	411	1001.80	1005.3	224	998.5	1526	1.4
9	0.71	3.8	1441	-2.2	2339	88.6	100.0	0	61.1	1259	-1.1	3.5	4.0	319	2.9	1301	1009.51	1018.5	2351	999.8	42	0.2
10	-2.71	1.9	1321	-5.5	657	97.5	100.0	130	84.9	1525	-3.1	3.0	4.0	1318	2.5	644	1020.62	1025.1	2357	1018.1	432	0.1
11	-2.57	3.5	1440	-7.1	753	96.0	100.0	1749	80.1	1441	-3.2	3.0	3.9	1437	2.1	753	1030.96	1037.0	2258	1025.0	7	0.1
12	0.24	2.9	2045	-3.5	157	99.0	100.0	0	94.4	2046	0.1	3.7	4.3	2020	2.8	157	1040.05	1041.9	2301	1036.0	15	0.1
13	3.64	6.4	1105	-0.5	643	83.5	100.0	635	66.9	1108	1.0	3.9	4.3	333	3.5	641	1039.23	1041.3	0	1036.8	2344	0
14	6.42	9.6	1330	1.4	56	90.7	99.9	2343	77.4	1144	5.0	5.3	6.7	2114	3.8	54	1035.37	1036.9	5	1033.9	1410	0
15	7.96	9.6	1418	4.0	2105	96.9	100.0	1	87.4	1419	7.5	6.3	6.9	1019	4.9	2105	1034.63	1035.5	1056	1033.7	1436	0.2
16	6.69	9.3	1257	4.6	119	90.3	100.0	0	79.5	1634	5.1	5.3	6.0	1127	4.8	2355	1034.70	1035.5	827	1033.5	1435	0.1
17	4.71	6.5	0	3.0	2351	84.6	88.0	802	80.1	1316	2.3	4.4	4.9	1	4.0	2358	1035.64	1037.1	1015	1034.2	2359	0
18	2.20	3.2	54	1.4	2151	90.3	97.6	2119	85.4	17	0.8	3.9	4.1	2119	3.7	1645	1029.60	1034.4	0	1024.6	2358	0
19	2.36	3.1	1210	1.6	1	89.6	95.4	1522	80.8	1230	0.8	4.0	4.2	1527	3.8	403	1021.03	1024.7	0	1019.3	1526	0
20	3.01	7.2	1457	-0.3	2118	95.8	100.0	419	81.0	1335	2.4	4.5	5.3	1107	3.7	2118	1018.37	1019.9	4	1016.9	1549	0.5
21	3.88	6.9	1129	2.6	127	92.8	100.0	0	79.1	1233	2.8	4.6	5.1	1117	4.3	2351	1013.56	1017.2	0	1008.7	2352	0.1
22	3.10	4.6	1423	-0.5	2342	92.1	100.0	500	77.4	1501	1.9	4.4	4.7	1210	3.7	2335	1004.86	1008.8	5	1002.8	1453	0
23	4.37	8.1	1239	-0.8	5	92.3	100.0	0	80.3	2126	3.2	4.8	6.3	1250	3.6	5	1002.70	1005.8	454	998.3	1354	8.5
24	8.69	10.8	1247	5.4	0	76.8	97.5	216	46.9	1354	4.5	5.4	7.7	802	3.6	1354	995.82	1000.4	0	989.0	652	4.5
25	4.28	8.7	155	-0.8	2233	80.0	97.7	2239	52.0	1421	0.9	4.1	6.1	141	3.2	1422	1004.95	1008.5	2056	997.9	47	0.2
26	5.31	9.5	2148	-0.7	59	88.6	97.6	2358	78.4	1039	3.6	5.1	6.5	2333	3.3	59	993.49	1007.9	105	975.4	2359	13.7
27	7.35	9.1	110	5.1	858	80.6	98.3	22	68.3	1633	4.2	5.3	7.1	59	4.7	838	980.52	983.6	841	973.5	50	5.7
28	8.06	9.4	1002	5.7	2357	88.3	95.2	1506	76.1	2022	6.2	6.1	6.7	1001	4.9	2246	984.07	998.6	2357	977.1	513	5.3
29	5.45	7.8	1327	2.2	819	89.8	100.0	824	80.6	2309	3.9	5.0	5.6	1327	4.4	819	1003.54	1010.7	2359	998.5	2	0
30	4.38	8.9	1309	0.9	751	77.1	90.0	2359	57.3	1358	0.6	3.9	4.8	46	3.5	818	1020.58	1025.8	2238	1010.6	1	0.1
31	5.89	8.5	1247	2.5	23	94.3	99.7	2350	83.3	215	5.0	5.4	6.3	1224	3.9	104	1024.86	1029.2	2359	1021.6	625	7
Total																						82.0
Mean	3.81	6.96		0.34		90.0	98.42		75.97		2.23	4.56	5.54		3.65		1013.48	1018.61		1007.98		
Max	8.69	12.64		5.74		99.0	100.00		94.40		7.67	7.00	9.15		4.89		1040.05	1041.88		1036.79		
Min	-2.71	1.50		-7.05		76.8	88.00		46.94		-3.16	2.99	3.61		2.12		980.52	983.63		970.92		

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.

Appendix 2.

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

VV : Visibility.

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

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

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

Code figure 89 = visibility above 70 km.

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

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

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

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

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

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

RH : Relative humidity at 1.2m, %.

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

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

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

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

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

1 = Increasing then steady or increasing more slowly

2 = Increasing steadily or unsteadily

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

4 = Steady, pressure the same as 3 hours ago

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

6 = Decreasing then steady or decreasing more slowly

7 = Decreasing steadily or unsteadily

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

ppp : 3 hour pressure tendency in tenths of a millibar

ww : Present weather code figures, 00 to 99.

Present weather decode:

00 = Cloud development not observed or not observable

01 = Clouds generally dissolving or becoming less developed

02 = State of sky on the whole unchanged

03 = Clouds generally increasing or becoming more developed

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Hail includes large hail, small hail and snow pellets.

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

Code figures:

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

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

Cl : Type of low cloud

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

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

Cm : Type of medium cloud.

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

Ch : Type of high cloud

0 = No high cloud

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

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

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

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

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

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

7 = Veil of Cirrostratus covering the celestial dome.

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

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

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

8 Groups

N = Amount of cloud reported by C, okta.

C = Type of cloud

0 = Cirrus (Ci)

1 = Cirrocumulus (Cc)

2 = Cirrostratus (Cs)

3 = Altocumulus (Ac)

4 = Altostratus (As)

5 = Nimbostratus (Ns)

6 = Stratocumulus (Sc)

7 = Stratus (St)

8 = Cumulus (Cu)

9 = Cumulonimbus (Cb)

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

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

00 to 50 = Height in hundreds of feet

51 to 55 Not used

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

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