

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

MAY 2018

Temperature (°C)		Anomaly	Rank in the past 137 years	
Mean maximum	20.3	+2.8	3 rd highest	
Mean minimum	7.9	+0.4	22 nd highest	
Daily mean	14.1	+1.6	5 th highest	
Highest maximum	27.9	on 7 th	Lowest maximum	14.6 on 2 nd
Highest minimum	14.1	on 27 th	Lowest minimum	1.8 on 1 st
Mean grass minimum	3.9	-0.4	Lowest grass minimum	-3.0 on 18 th
Mean earth @30 cm	14.5	+1.0	Earth @100 cm	12.3
Frost duration (hrs)	0.0		Rain duration (hrs)	25.0
Rainfall total (mm)	45.6	90 %	64 th highest	
Highest daily fall	16.0	on 29 th		
Number of: Dry days (<0.2mm)	21	Wet days (>0.9mm)	10	days ≥5mm 3
Sunshine total (hrs) 265.4	Daily mean 8.56	139%	Sunniest day 15.3	on 14 th
N° days with: Air frost 0	Ground frost 7	Snow falling 0	Snow lying 0	
Thunder 5	Hail ≥5mm 0	Small hail/ice 1	Fog @09 0	Nil sun 2
Pressure MSL: Mean @09 GMT, mbar 1018.5	+2.6	Highest 1029.1	on 16 th	Lowest 1002.1 on 2 nd
Relative humidity : Mean (%) 73.6	Lowest 22	on 7 th	Water vapour (g/kg), mean at 09 and 15 GMT 7.4,	7.4
Overall mean wind speed (mph) 5.3	Windyest day 9.8	on 2 nd	Max gust 35	on 1 st
Wind direction (days) N 9	NE 10	E 1	SE 0	S 2 SW 6 W 2 NW 1
Least windy day (mph) 2.8	on 25 th	Calm; less than 0.5 mph (minutes)	959	

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

Notes:

Very Warm, Very Sunny, Rainfall Below Average.

Temperature: This has been a very warm May, especially by day, with the mean maximum 3rd highest in 137 years, only 0.2° below the record set in 1989. Night time temperatures, however, rank only 22nd highest, 1.3° below the record, and 1.0° below that of last May. The resulting daily mean temperature ranks 5th highest, and is 0.3° below the record held jointly by 2008 and 1992. The highest max is 2.5° above the median and is highest since 2005, the lowest max is 3.6° above the median and is 4th highest in 106 years. The highest min is 1.6° above the median while the lowest min is 1.3° above its median. The mean grass min is 0.4° below average, indicating less overnight cloud and wind than normal. Mean earth temperature at 30 cm depth is 1.0° above average, but is closer to average at 1 m depth. The number of ground frosts is most since 2013, but is only 1 above average. Anomalies for daily max were often above normal, with 2 hot spells, from the 5th to 8th and 25th to 28th, anomalies reaching +11° on the 7th and +9° on the 26th. On the 10 days with -ve anomalies, -2° on the 12th and 16th were the greatest. Anomalies for daily min were more often -ve, reaching -5° on the 1st and 18th, but became more definitely +ve after the 22nd, exceeding +5° on the 27th and 29th. **Rainfall:** This May has been slightly drier than usual, with 90% of the monthly average, but 8 Mays this millennium have been drier. Wet days were rare before the 20th, and there were 2 dry spells, the first of 6 days ending on the 8th and the other of 8 days ending on the 20th. Compared with normal, daily accumulation was 20 mm in deficit by the 20th, but this decreased to 4 mm after a significant fall on the 29th, the month's wettest day. Ice pellets fell on the 1st, but there was an increasing incidence of thunder after the 20th, with thunder heard on the 21st, 26th, 27th, 29th and 31st. The maximum rainfall rate this month was 85 mm/hr at 1814 GMT on the 29th. **Sunshine:** This is the sunniest May since 1992, and within the top 10 sunniest Mays in over 100 years. There were 2 outstandingly sunny periods, from the 3rd to the 10th, when 94.2 hours was recorded, mean 11.8 hours per day, and from the 14th to 22nd, 113.1 hours, mean 12.6 hours per day. In the first 22 days of the month, 16 had >50 % of the maximum and 10 had over 90 %. In contrast, during the final 9 days 8 had <50 % and 4 had <10 % of the maximum. Daily accumulation compared with normal was 60 hours in surplus by the 15th, and reached a peak of 102 hours surplus by the 22nd after which it decreased to 75 hours by the 31st. Overall there were 7 days with <3 hours, 21 with =>6 hours, 15 with =>9 hours, 11 with =>12 hours and 3 with =>15 hours. **Wind:** The mean wind speed is 1.3 mph below average and lowest for May since 2004, and 2nd lowest since before 1988. Winds from N or NE blew for 61 % of the month. Daily mean winds were fresh on the 2nd and 16th, otherwise light or moderate. Directions were SW'ly until the 4th then NE'ly to the 7th, were W'ly to the 10th backing S'ly on 11th then veering N'ly by the 14th, and remaining N'ly or NE'ly for the rest of the month.

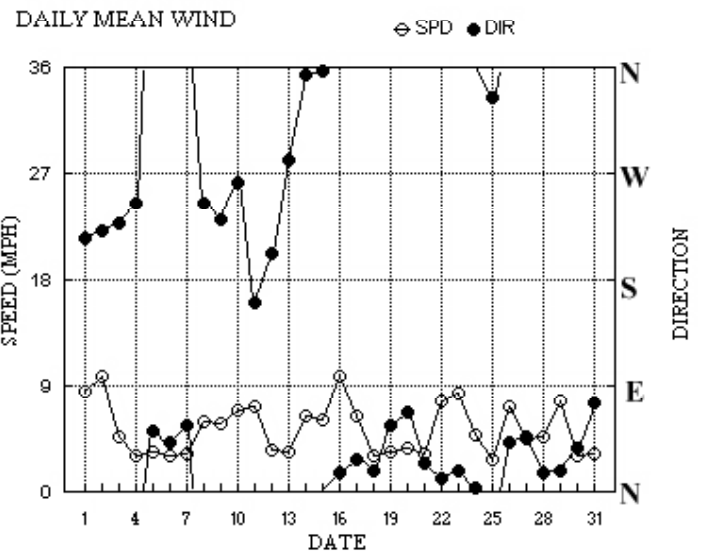
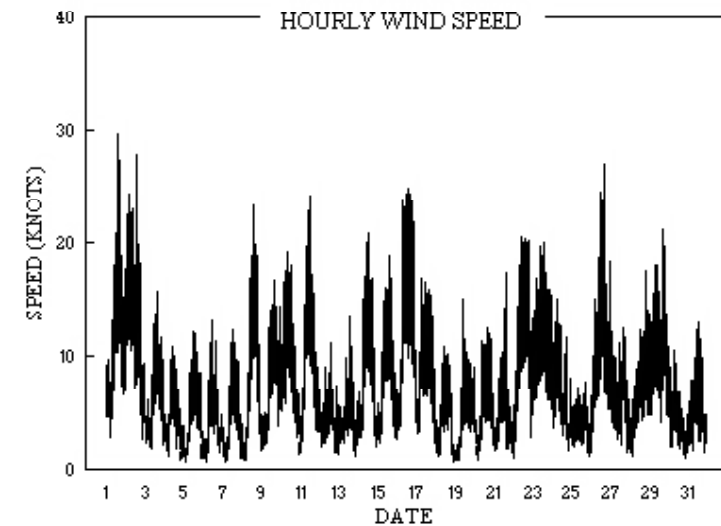
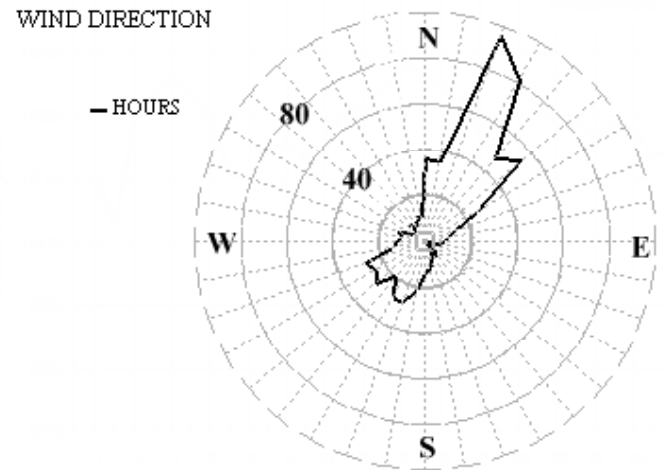
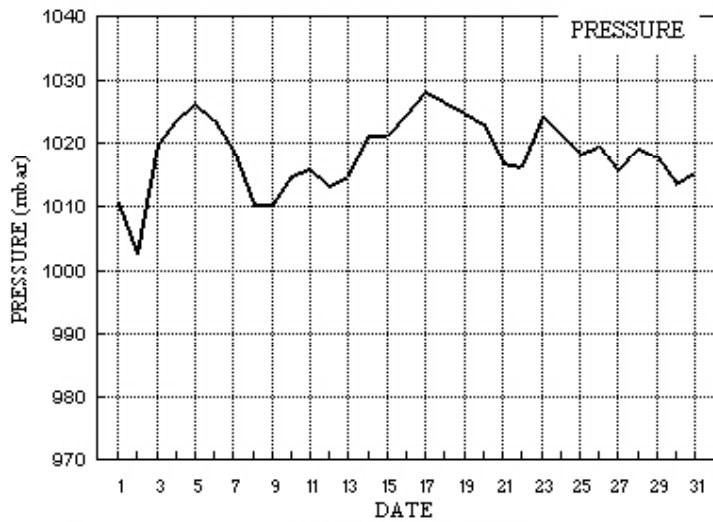
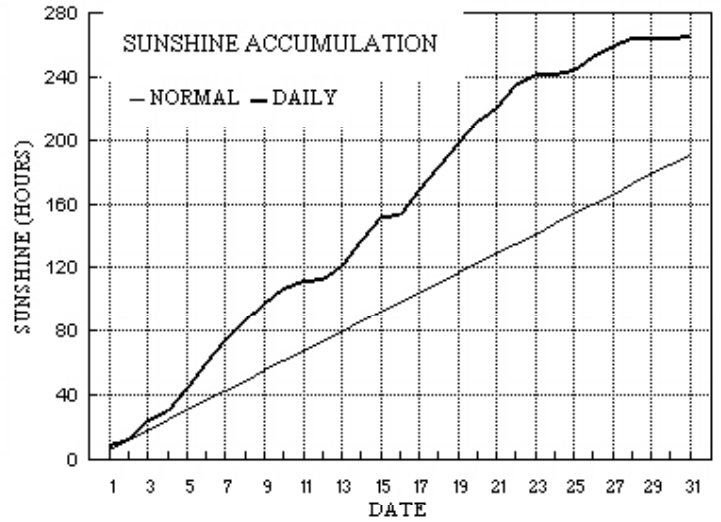
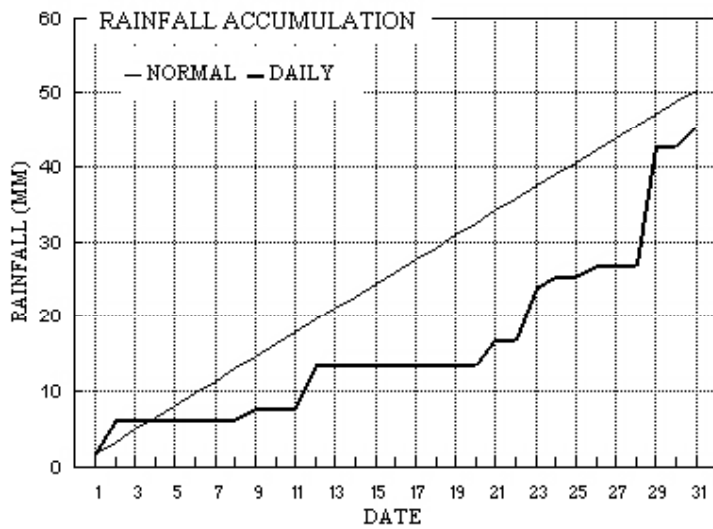
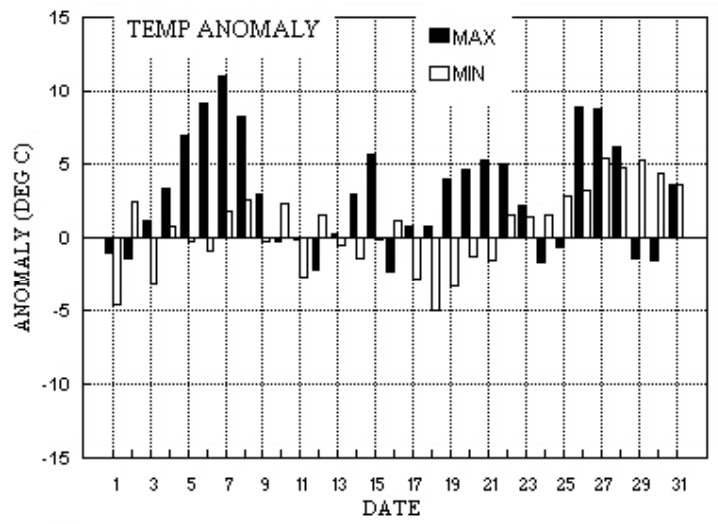
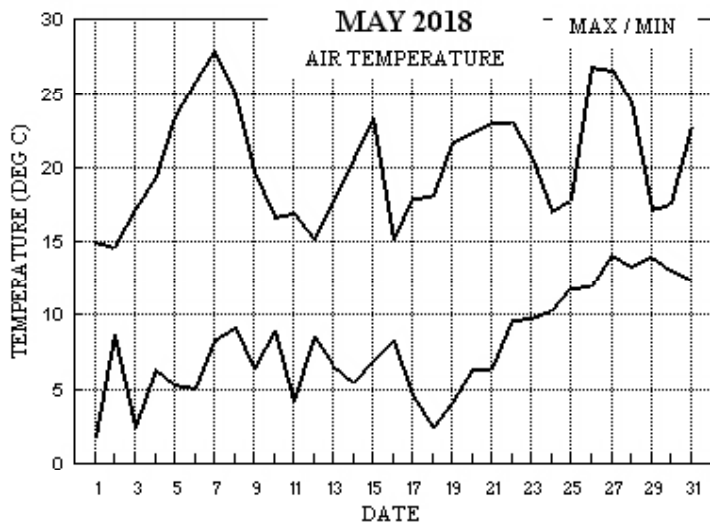
Table 1. Mean anomalies (max, min, rain, sun) for specified periods.

From the 1 st to the 10 th				From the 11 th to the 20 th				From the 21 st to the 31 st			
+4.0°	+0.0°	49%	176%	+1.4°	-1.5°	37%	171%	+3.1°	+2.9°	178%	78%

B J Burton FRMetS.

Hon. Met. Officer to Wokingham Town Council.

Wokingham climatological graphs for May 2018



Month: MAY 2018

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 ddd	mean ff	sp	Max gust ddd	gg HHhh	High hr ddd	ff	Rain HH	hrs					
1	15.0	1.8	1.7	-2.7	10.6	10.8	9.3	0.0	1010.7	0	1	0	0	0	1	0	214	6.9	7.3	211	30	1422	210	11	17	1.0	
2	14.6	8.6	4.6	6.9	11.0	10.7	4.5	0.0	1002.5	0	0	0	0	0	0	0	220	6.1	8.5	241	28	1313	187	12	08	2.6	
3	17.2	2.4	0.0	-2.2	11.1	10.7	10.8	0.0	1019.9	0	1	0	0	0	0	0	227	3.6	4.1	274	16	1406	242	7	15	0.0	
4	19.3	6.3	0.0	1.1	11.8	10.6	6.3	0.0	1023.6	0	0	0	0	0	0	0	244	1.5	2.8	260	11	1143	313	5	13	0.0	
5	23.4	5.3	0.0	1.8	12.3	10.6	14.6	0.0	1026.3	0	0	0	0	0	0	0	52	2.5	3.0	27	12	1255	37	6	13	0.0	
6	25.8	5.1	0.0	1.1	13.1	10.7	14.5	0.0	1023.7	0	0	0	0	0	0	0	43	2.2	2.6	41	13	1051	4	5	15	0.0	
7	27.9	8.2	0.0	4.9	14.0	10.9	14.5	0.0	1019.0	0	0	0	0	0	0	0	56	1.7	2.8	23	12	1207	43	5	11	0.0	
8	24.9	9.1	0.0	4.7	14.8	11.1	13.6	0.0	1010.2	0	0	0	0	0	0	0	245	4.8	5.2	261	24	1409	252	11	14	0.0	
9	19.7	6.3	1.5	1.8	15.0	11.4	9.8	0.0	1010.3	0	0	0	0	0	0	0	230	4.9	5.1	223	17	1625	235	9	16	2.6	
10	16.7	8.9	0.0	7.0	15.1	11.7	10.1	0.0	1014.8	0	0	0	0	0	0	0	262	5.1	6.0	294	19	0945	296	10	09	0.0	
11	16.9	4.2	tr	-1.5	14.7	11.9	4.9	0.0	1016.0	0	1	0	0	0	0	0	160	6.1	6.3	158	24	1235	162	12	09	0.0	
12	15.1	8.5	5.7	2.8	14.3	12.1	0.3	0.0	1013.2	0	0	0	0	0	0	0	201	2.2	3.1	127	11	1414	128	5	14	4.0	
13	17.7	6.6	0.0	1.5	14.0	12.2	8.8	0.0	1014.9	0	0	0	0	0	0	0	281	1.5	2.9	18	14	1408	349	6	14	0.0	
14	20.6	5.5	0.0	-0.4	14.1	12.3	15.3	0.0	1021.2	0	1	0	0	0	0	0	353	5.2	5.6	333	21	1209	355	10	13	0.0	
15	23.3	6.9	0.0	2.1	14.3	12.3	14.7	0.0	1021.2	0	0	0	0	0	0	0	356	5.0	5.3	324	19	1508	352	8	15	0.0	
16	15.1	8.2	0.0	3.1	14.7	12.4	1.6	0.0	1024.7	0	0	0	0	0	0	0	16	8.4	8.5	23	25	1317	16	13	11	0.0	
17	17.9	4.6	0.0	-0.5	14.2	12.5	15.2	0.0	1028.2	0	1	0	0	0	0	0	28	5.5	5.6	61	17	0755	23	8	06	0.0	
18	18.1	2.4	0.0	-3.0	14.3	12.6	14.7	0.0	1026.8	0	1	0	0	0	0	0	18	2.5	2.8	45	11	1050	352	5	17	0.0	
19	21.6	4.1	0.0	-1.1	14.5	12.6	15.0	0.0	1024.8	0	1	0	0	0	0	0	56	1.2	3.0	21	15	1013	179	5	23	0.0	
20	22.4	6.3	0.0	0.9	14.9	12.7	14.4	0.0	1023.2	0	0	0	0	0	0	0	67	2.6	3.3	62	13	1533	48	5	15	0.0	
21	23.0	6.3	3.4	0.4	15.2	12.8	7.4	0.0	1016.9	0	0	0	0	1	0	0	25	2.8	2.9	46	17	1507	38	5	14	0.4	
22	23.0	9.6	0.0	4.4	15.4	12.9	14.8	0.0	1016.3	0	0	0	0	0	0	0	12	6.4	6.7	21	21	1159	16	11	12	0.0	
23	20.7	9.8	7.1	5.2	15.7	13.0	7.4	0.0	1024.4	0	0	0	0	0	0	0	19	7.3	7.3	24	20	1442	26	9	14	3.4	
24	17.0	10.3	1.4	9.2	15.9	13.1	0.0	0.0	1021.3	0	0	0	0	0	0	0	4	3.0	4.3	22	15	0628	24	7	07	3.6	
25	17.8	11.8	tr	11.5	15.6	13.3	2.0	0.0	1018.2	0	0	0	0	0	0	0	334	1.5	2.4	16	8	1754	23	4	17	0.2	
26	26.8	12.0	1.4	7.4	15.6	13.4	8.1	0.0	1019.4	0	0	0	0	1	0	0	43	6.1	6.3	60	27	1628	63	10	14	0.8	
27	26.6	14.1	tr	12.8	16.5	13.5	7.3	0.0	1015.7	0	0	0	0	1	0	0	47	0.8	4.0	34	19	0024	37	7	00	0.0	
28	24.4	13.3	0.0	8.5	17.0	13.6	4.3	0.0	1019.1	0	0	0	0	0	0	0	16	3.6	4.0	22	18	2034	22	7	21	0.0	
29	17.2	14.0	16.0	11.4	17.1	13.8	0.0	0.0	1017.8	0	0	0	0	1	0	0	18	6.7	6.7	25	21	1818	19	11	18	5.9	
30	17.5	13.1	tr	13.2	16.8	14.0	0.6	0.0	1013.5	0	0	0	0	0	0	0	37	2.6	2.7	23	11	0004	9	5	01	0.2	
31	22.8	12.5	2.8	8.4	16.5	14.2	0.6	0.0	1015.5	0	0	0	0	1	0	0	76	1.8	2.9	48	13	1323	49	6	13	0.3	
Total			45.6				265.4	0.0																			25.0
Mean	20.3	7.9		3.9	14.5	12.3	8.56	0.0	1018.5							5	1.3	4.6									
Anom	+2.8	+0.4	90%	-0.4	+1.0	+0.5	139%																				+2.6
Daily mean		14.1																									
Anom		+1.6																									

Number of days with:

Air frost = 0 Ground frost = 7 Nil sun = 2
 Snow falling = 0 Snow lying = 0 Thunder = 5
 Hail=>5mm = 0 Hail<5mm or ice = 1 Fog at 09GMT = 0

Abbreviations.
 Max/min = highest and lowest air temperature at 1.2m in 24 hour period ending at 09 GMT
 Rain = total rainfall and melted snowfall in 24 hour period ending at 09 GMT, millimetres. (Tr = trace, <.05mm).
 Grass min = Lowest overnight temperature at grass tip level.
 Sun = hours of bright sunshine, measured electronically. Frost = Number of hours with air temp below 0 deg C.
 pp09 = Air pressure corrected to mean sea level at 0900 GMT, millibars.
 Af = Air frost. Gf = Ground frost. Sf = Snow falling. Sl = Snow lying at 09 GMT.
 Th = Thunder. Ha = Hail =>5mm. Ic = Hail <5mm or ice. Fg = Fog at 09 GMT.
 Vec mean = 24 hour mean wind vector, ddd = direction in degrees from true north, ff = speed in knots.
 Sp = 24 hour mean wind speed in knots.
 Max gust = Highest gust in 24 hours, gg = speed in knots, HHhh = Time, hours and minutes, GMT.
 High hr = Highest hourly mean wind, HH = hour commencing. Rain Hrs = Duration of rain, 24 hours to 09 GMT. Excludes snow/hail.
 30cm and 100 cm are earth temperatures at those depths, read at 09 GMT.
 Anom = Departure from 1981-2010 climatological average.
 All temperatures in degrees Celsius.

Weather observations. Emmbrook, Wokingham, Berkshire.

Observations at 0900 GMT for MAY 2018

Date	VV	N	dd	ff	gg	TT	Td	Td	RH	r	PPP	a	ppp	ww	W1	W2	Nh	Cl	h	Cr	Ch	shs	NCh	shs	NCh	shs	Date	Remarks
1	81	1	24	07	13	11.1	4.8	65	5.3	1010.7	0	001	03	0	0	1	1	5	0	4	81825					1	1Ci60 COTRA	
2	40	8	19	12	23	9.6	8.5	93	7.0	1002.5	7	008	63	6	6	7	7	3	2	/	83708	87712	88530			2		
3	84	6	06	03	05	11.6	5.7	67	5.6	1019.9	1	012	03	2	2	1	1	5	3	2	81822	83367	86072			3	COTRA Cu hum Halo 22° part	
4	70	3	24	04	10	14.6	7.2	61	6.2	1023.6	1	007	01	1	1	3	8	5	0	0	81828	83645				4	Cu hum	
5	70	1	02	04	07	17.2	6.4	49	5.9	1026.3	0	000	02	0	0	0	0	9	0	1	81075					5	COTRA	
6	64	0	06	04	08	18.2	9.0	55	7.0	1023.7	8	005	02	0	0	0	0	9	0	0						6		
7	56	0	03	03	07	20.1	11.8	59	8.5	1019.0	8	006	05	0	0	0	0	9	0	0						7		
8	57	1	23	04	09	21.0	11.6	55	8.5	1010.2	7	010	05	0	0	1	5	7	0	0	81656					8		
9	80	6	22	04	09	16.1	8.3	60	6.8	1010.3	5	007	03	1	1	1	2	5	0	1	81828	86080				9	Cu med COTRA	
10	80	1	29	08	19	13.1	4.5	56	5.2	1014.8	2	025	03	0	0	1	1	6	0	0	81832					10	Cu hum	
11	80	5	16	12	20	14.4	5.2	54	5.5	1016.0	8	016	03	1	1	1	8	6	0	1	81835	85080				11	1Sc40 2Ci75 COTRA Cu hum	
12	62	7	23	04	07	12.8	8.9	77	7.0	1013.2	0	007	02	2	2	4	8	4	7	2	84815	83462	87365			12	1Sc50 /Ci72 Cu hum	
13	80	5	25	03	08	12.8	7.5	70	6.4	1014.9	1	011	01	2	2	1	1	5	3	1	81822	85070				13	2Ac63 COTRA Cu hum U/a cont	
14	88	3	36	08	15	15.5	3.6	45	4.9	1021.2	1	005	03	0	0	0	0	9	0	1	83081					14	COTRA	
15	88	1	35	07	14	17.2	5.8	47	5.7	1021.2	4	000	02	0	0	0	0	9	0	1	81080					15	El hz lyr	
16	62	7	02	13	24	14.7	9.9	73	7.5	1024.7	2	010	01	2	2	5	5	4	3	1	85617	83362	87070			16	COTRA	
17	80	1	05	06	14	12.2	4.7	60	5.2	1028.2	0	001	01	0	0	1	1	5	3	1	81828					17	1Ac63 1Ci75 Cu fra	
18	81	7	05	04	10	11.5	5.4	66	5.5	1026.8	8	004	03	2	2	1	1	5	0	1	81825	87075				18	1Ci72 COTRA Cu hum	
19	70	1	02	02	07	16.0	6.4	53	5.9	1024.8	1	003	03	0	0	1	1	6	0	0	81835					19	Cu hum	
20	62	3	03	02	06	16.7	8.9	60	7.0	1023.2	8	003	03	0	0	1	1	5	0	1	81828	83080				20	COTRA Cu hum U/a cont	
21	58	2	04	04	10	17.6	10.7	64	7.9	1016.9	7	012	05	1	1	2	0	9	8	0	81359					21	2Ac61 Ac cas	
22	68	5	01	09	15	18.7	10.8	60	8.0	1016.3	0	002	02	1	1	1	0	9	8	2	81360	85075				22	COTRA Ac cas	
23	60	5	02	08	16	13.4	8.7	73	6.9	1024.4	1	006	01	2	2	5	5	4	0	0	85615					23		
24	50	8	02	06	12	11.7	10.8	94	7.9	1021.3	7	001	61	6	2	7	7	3	2	/	84706	87709	88556			24		
25	56	8	32	04	06	13.4	11.8	90	8.5	1018.2	1	006	05	2	2	8	6	3	/	/	83707	88709				25		
26	35	7	04	05	13	16.7	14.7	88	10.3	1019.4	8	005	01	6	2	6	6	3	7	/	86707	87358				26		
27	58	5	03	04	09	19.2	16.1	82	11.3	1015.7	1	001	05	6	1	3	6	4	8	2	83710	83359				27	4Ac62 /Ci75 Absent vv&cld est	
28	25	8	36	04	09	16.0	15.4	96	10.7	1019.1	1	009	10	5	2	8	6	2	/	/	88703					28	Absent vv&cld est	
29	60	8	02	07	17	16.1	13.2	83	9.4	1017.8	5	002	02	2	2	8	5	4	/	/	87612	88656				29		
30	56	8	05	04	10	13.6	13.0	96	9.3	1013.5	2	004	50	6	5	8	6	3	/	/	86706	88708				30		
31	50	8	06	02	06	17.2	16.4	95	11.5	1015.5	2	008	10	4	2	8	6	2	/	/	86705	88710				31		

Mean vis = 20.0 km

Mean cloud = 4.5 56%

Mean wind speed = 5.5 kn

Mean gust = 12 kn

Mean TT = 15.2 °C

Mean TdTd = 9.2 °C

Mean RH = 69.2 %

Mean r = 7.4 g/kg

Mean PPP = 1018.5 mbar

See appendix 2 below for full code details

VV = Visibility code (Code FM12-4377)

N = Total cloud amount, oktas

dd = Direction from which wind is blowing, tens of degrees true

ff = 10 minute mean wind speed, knots

gg = Highest gust in past hour, knots

TT = Air temperature at 1.2 m, deg Celsius

TdTd = Dew point temperature at 1.2 m, deg Celsius

RH = Relative humidity at 1.2 m

r = Humidity mixing ratio at 1.2 m, g/kg

PPP = Air pressure reduced to sea level, mbar

a = Characteristic of pressure tendency (Code FM12-0200)

ppp = 3 hr pressure tendency, tenths of mbar

ww = Present weather code (Code FM12-4677)

W1, W2 = Past weather code (Code FM12-4561)-
covers past 3 hours.

Nh = Amount of low cloud present, oktas

Cl = Type of low cloud (Code Fm12-0513)

h = Height of low cloud (Code FM12-1600)

Cm = Type of medium cloud (Code FM12-0515)

Ch = Type of high cloud (Code FM12-0509)

8 groups. 8 = indicator for cloud detail

N = Amount of cloud, oktas

C = Type of cloud (FM12-0500)

hshs= Height of cloud (FM12-1677)

Remarks : COTRA = persistent condensation trails present

Weather observations. Emmbrook, Wokingham, Berkshire.

Observations at 1500 GMT for MAY 2018

Date	VV	N	dd	ff	gg	TT	TdTd	RH	r	PPP	a	ppp	ww	W1	W2	Nh	Cl	h	Cr	Ci	NChs	hshs	NChs	Date	Remarks
1	70	6	20	07	30	11.1	7.4	78	6.4	1009.5	6	006	27	8	1	4	8	5	6	1	81820	83650	1	1Cu30 4Ac58 /Ci75 Cu fra/med jpE vv50k ex p	
2	65	6	31	08	16	11.5	7.4	76	6.4	1006.4	2	033	80	8	1	3	8	4	6	/	81815	85357	2	2Cu25 2Sc45 Cu fra/med vv50k ex p	
3	82	5	25	07	16	16.7	4.1	43	5.0	1018.8	8	011	02	2	2	1	4	7	4	1	81650	83072	3	2Ac64 1Ac68 COTRA	
4	80	5	34	02	09	17.1	8.5	57	6.8	1023.4	8	001	02	1	1	5	8	6	0	0	83833	83645	4		
5	73	0	02	04	12	22.7	6.0	34	5.7	1023.6	7	013	02	0	0	0	0	9	0	0			5		
6	62	0	34	04	08	25.1	7.3	32	6.3	1019.7	7	018	02	0	0	0	0	9	0	0			6		
7	70	0	04	05	11	27.4	8.3	30	6.8	1014.9	7	022	02	0	0	0	0	9	0	0			7		
8	73	1	24	10	24	23.4	7.1	35	6.3	1008.2	5	001	02	0	0	1	8	6	8	0	81845		8	1Sc56 1Ac65 Cu med Ac cas	
9	81	7	23	08	14	18.7	6.9	46	6.2	1006.9	8	019	03	2	2	2	4	6	5	2	82645	83368 87072	9	COTRA	
10	85	5	27	06	15	14.9	2.4	43	4.5	1017.6	1	010	02	1	1	4	4	7	0	1	83850		10	2Sc56 2Ci75 COTRA Cu hum	
11	82	8	16	10	17	16.0	4.1	45	5.1	1013.5	7	011	03	2	2	1	4	7	7	/	81850	88465	11	1Sc56 2Ac63 Cu hum	
12	50	8	15	05	11	11.3	9.7	90	7.5	1012.3	5	004	63	6	2	3	8	3	2	/	81806	83625 88550	12		
13	81	4	35	05	14	16.2	3.9	44	5.0	1015.7	0	002	02	1	1	2	8	7	0	1	82850	83075	13	1Sc56 COTRA Cu hum	
14	88	3	35	09	19	20.3	0.2	26	3.8	1020.2	7	005	03	0	0	1	0	8	4	1	81357	83081	14	COTRA	
15	84	1	36	10	18	23.1	8.0	38	6.6	1019.2	7	009	02	0	0	0	0	9	0	1	81075		15	COTRA EI hz lyr	
16	68	8	02	08	23	13.1	8.2	72	6.6	1026.7	0	006	02	2	2	8	5	5	/	/	87622	88628	16		
17	81	5	03	06	15	17.2	3.1	39	4.7	1025.9	7	015	03	0	0	0	0	9	0	1	85075		17	Parhelion L/a cont	
18	82	7	29	04	10	17.2	4.5	43	5.2	1024.2	7	012	02	2	2	1	1	7	0	1	81850	87070	18	COTRA Cu hum U/a cont	
19	75	1	35	05	10	21.1	4.6	34	5.2	1022.5	7	013	02	0	0	1	1	7	0	0	81850		19	Cu hum	
20	75	1	06	05	11	20.3	10.4	53	7.8	1019.9	7	018	02	0	0	1	1	6	0	1	81848		20	1Ci80 COTRA Cu hum	
21	62	7	05	05	14	21.1	11.7	55	8.5	1014.1	7	012	17	9	8	2	3	6	7	/	81935	82840 87362	21	2Ac59 tl NE	
22	78	1	02	10	19	22.2	9.4	44	7.3	1016.7	1	002	02	0	0	1	8	6	0	0	81845		22	1Sc56 Cu hum Cu con top SE	
23	65	2	03	10	20	19.7	10.1	54	7.6	1022.2	6	013	03	0	0	1	1	6	8	0	81838		23	2Ac57 Cu hum Ac cas	
24	35	8	28	03	06	15.4	14.1	92	9.9	1019.0	8	015	61	6	2	8	5	6	/	/	82640	88656	24		
25	58	8	24	20	05	16.5	13.2	81	9.4	1018.6	2	005	05	2	2	8	8	4	/	/	85812	88620	25		
26	65	2	06	10	24	26.3	17.4	58	12.2	1016.7	7	014	01	1	1	2	1	6	3	0	82835		26	1Ac62 Cu hum Absent vv&cld est	
27	65	5	17	02	06	25.3	16.7	59	11.8	1014.3	7	009	01	1	1	2	1	6	0	1	82832	84075	27	Absent vv&cld est	
28	59	7	36	06	13	24.4	17.6	66	12.4	1018.0	7	014	05	2	2	6	1	5	/	2	86825		28	/Ci75 Cu hum. Absent vv&cld est	
29	56	8	01	05	11	16.3	15.3	94	10.8	1015.2	8	013	61	6	2	5	5	3	7	/	81708	85612 87359	29	8As62	
30	57	8	08	02	04	17.1	14.9	87	10.5	1013.2	7	006	05	2	2	8	5	4	/	/	85710	88615	30		
31	60	7	09	03	11	20.5	17.3	82	12.2	1014.0	6	008	15	9	8	6	9	4	2	/	81715	82920 83825	31	3Sc56 5As65 jp SSE-WNW	

Mean vis = 24.0 km
 Mean cloud = 4.6 58%
 Mean wind speed = 6.6 kn
 Mean gust = 14 kn
 Mean TT = 19.0 °C
 Mean TdTd = 9.0 °C
 Mean RH = 55.8 %
 Mean r = 7.4 g/kg
 Mean PPP = 1017.1 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 2018	Hour	01-May	02-May	03-May	04-May	05-May	06-May	07-May	08-May	09-May	10-May	11-May	12-May	13-May	14-May	15-May	16-May
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	0.13	0.00	0.24	0.00	0.19	0.18	0.19	0.19	0.36	0.00	0.30	0.00	0.00	0.60	0.46	0.00	
5	0.98	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.05	0.77	0.01	0.00	1.00	1.00	0.00	
6	1.00	0.00	1.00	0.26	1.00	1.00	1.00	1.00	1.00	0.94	0.80	0.19	0.36	1.00	1.00	0.00	
7	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.05	1.00	1.00	1.00	0.90	
8	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.98	1.00	0.00	1.00	1.00	1.00	0.12	
9	0.87	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.84	0.98	0.88	0.00	0.61	1.00	1.00	0.34	
10	0.83	0.00	0.95	1.00	1.00	1.00	1.00	1.00	0.49	0.89	0.12	0.00	0.28	1.00	1.00	0.01	
11	0.64	0.00	0.63	0.97	1.00	1.00	1.00	1.00	0.95	0.55	0.05	0.00	0.01	1.00	1.00	0.00	
12	0.31	0.57	0.70	0.33	1.00	1.00	1.00	1.00	0.96	0.33	0.00	0.00	0.13	1.00	1.00	0.00	
13	0.55	0.31	0.32	0.05	1.00	1.00	1.00	0.99	0.77	0.74	0.00	0.00	0.98	1.00	1.00	0.00	
14	0.27	0.35	0.96	0.01	1.00	1.00	1.00	0.93	0.99	0.27	0.00	0.00	0.98	1.00	1.00	0.00	
15	0.56	0.57	1.00	0.17	1.00	1.00	1.00	1.00	0.22	0.59	0.00	0.00	0.60	1.00	1.00	0.00	
16	0.05	0.76	0.99	0.33	1.00	1.00	1.00	1.00	0.16	0.73	0.00	0.00	0.39	1.00	1.00	0.00	
17	0.99	0.54	0.00	0.14	1.00	1.00	1.00	0.72	0.06	1.00	0.00	0.00	0.77	1.00	1.00	0.00	
18	0.11	1.00	0.00	0.00	1.00	1.00	1.00	0.33	0.00	0.79	0.00	0.00	1.00	1.00	1.00	0.10	
19	0.00	0.36	0.00	0.06	0.39	0.32	0.30	0.41	0.00	0.20	0.00	0.00	0.66	0.70	0.24	0.12	
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	9.28	4.48	10.79	6.32	14.58	14.50	14.49	13.58	9.80	10.06	4.93	0.25	8.78	15.31	14.71	1.59	

	Hour	17-May	18-May	19-May	20-May	21-May	22-May	23-May	24-May	25-May	26-May	27-May	28-May	29-May	30-May	31-May	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	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	0.49	0.49	0.33	0.47	0.17	0.52	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.18
5	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.53
6	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.01	0.81	0.00	0.00	0.00	0.00	0.61
7	1.00	1.00	1.00	1.00	0.77	1.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.66
8	1.00	1.00	1.00	1.00	0.86	1.00	0.36	0.00	0.00	0.00	0.00	0.71	0.00	0.00	0.00	0.00	0.67
9	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.03	0.07	0.00	0.00	0.00	0.03	0.65	
10	1.00	1.00	1.00	0.97	1.00	0.98	1.00	0.00	0.00	0.90	0.06	0.00	0.00	0.00	0.00	0.62	
11	1.00	1.00	0.96	0.93	0.96	0.67	1.00	0.00	0.00	0.81	0.25	0.00	0.00	0.00	0.30	0.58	
12	1.00	1.00	1.00	0.98	0.17	0.95	1.00	0.00	0.00	0.41	0.81	0.07	0.00	0.00	0.23	0.56	
13	1.00	1.00	1.00	1.00	0.00	0.92	1.00	0.00	0.00	0.58	0.21	0.62	0.00	0.00	0.03	0.57	
14	1.00	0.99	1.00	0.80	0.08	0.99	1.00	0.00	0.00	0.98	0.26	0.84	0.00	0.00	0.00	0.59	
15	1.00	1.00	1.00	0.93	0.00	1.00	0.89	0.00	0.00	1.00	0.47	0.22	0.00	0.00	0.00	0.57	
16	1.00	1.00	1.00	1.00	0.31	1.00	0.14	0.00	0.00	1.00	1.00	0.15	0.00	0.00	0.00	0.57	
17	1.00	0.98	1.00	1.00	0.06	1.00	0.00	0.00	0.44	1.00	1.00	0.95	0.00	0.00	0.00	0.59	
18	1.00	0.82	1.00	1.00	0.00	1.00	0.00	0.00	0.90	1.00	1.00	0.94	0.00	0.17	0.00	0.57	
19	0.68	0.40	0.67	0.35	0.00	0.80	0.00	0.00	0.67	0.37	0.31	0.49	0.00	0.45	0.00	0.30	
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	15.16	14.69	14.96	14.42	7.39	14.83	7.39	0.00	2.01	8.09	7.33	4.30	0.00	0.61	0.59	265.20	

MAY 2018	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	8.48	15.1	1320	1.7	505	68.8	86.9	517	35.9	1319	2.8	4.7	7.0	1506	3.6	419	1009.57	1011.1	753	1006.6	2359	1.1
2	9.89	14.7	1245	5.5	2354	77.1	96.1	1125	53.1	1622	5.9	5.9	8.6	1201	4.3	2131	1006.70	1015.3	2359	1002.1	1022	5.3
3	10.62	17.4	1507	2.3	406	68.4	97.9	603	37.3	1523	4.3	5.1	6.5	941	4.2	1317	1019.22	1022.0	2358	1015.2	0	0
4	12.97	19.5	1616	6.2	344	73.1	96.0	2354	46.6	1128	7.9	6.5	8.1	1606	5.4	331	1023.52	1026.1	2341	1021.7	52	0
5	14.57	23.5	1540	5.2	440	62.8	97.8	538	25.7	1327	6.1	5.8	7.9	1530	4.2	1307	1025.04	1026.7	812	1023.1	1757	0
6	16.07	25.9	1431	4.9	404	65.4	97.0	548	27.0	1357	8.3	6.8	9.8	1747	5.1	404	1021.90	1025.1	43	1018.6	1740	0
7	18.45	28.0	1537	8.1	435	63.0	96.5	522	22.2	1636	9.8	7.5	10.7	1146	5.0	1636	1016.88	1020.2	5	1013.3	1807	0
8	16.28	25.1	1337	8.6	2356	69.5	97.7	545	29.6	1420	9.9	7.7	11.0	1056	5.5	1420	1010.27	1013.6	2	1007.6	1345	0
9	13.03	19.8	1409	6.2	450	71.0	97.1	511	38.2	1410	7.3	6.4	8.7	1407	5.0	1152	1009.28	1011.3	4	1006.8	1534	0
10	12.06	16.8	1542	5.9	2358	64.0	94.4	224	33.1	1625	4.7	5.4	7.4	212	3.8	1626	1015.48	1020.2	2241	1008.5	0	1.6
11	12.21	17.0	1255	4.1	402	65.8	97.4	501	38.9	1256	5.3	5.5	6.7	2359	4.6	1256	1014.99	1019.6	0	1011.7	1943	0
12	11.40	15.1	1216	8.4	405	85.9	97.5	2141	55.7	1211	9.0	7.1	8.1	1413	5.8	1211	1012.70	1013.6	750	1011.8	1311	6
13	11.79	17.9	1403	6.5	439	72.5	98.2	522	33.5	1437	6.2	5.9	7.4	834	4.1	1413	1015.38	1019.3	2349	1012.1	45	0.1
14	13.81	20.7	1533	5.4	418	57.6	95.1	420	24.3	1303	4.2	5.1	6.6	2056	3.3	1157	1020.54	1022.0	2234	1019.2	9	0
15	15.83	23.4	1502	6.9	421	55.9	89.5	355	31.0	1246	6.2	5.9	7.9	1823	4.5	1028	1020.54	1021.9	9	1018.4	1657	0
16	11.67	15.2	945	6.7	2355	70.7	82.5	2355	59.5	1736	6.5	6.0	7.9	945	4.8	2313	1025.50	1029.1	2222	1021.7	5	0
17	10.94	18.0	1428	4.5	410	65.9	94.4	412	32.9	1432	4.1	5.0	6.7	1347	4.0	1617	1027.34	1028.8	9	1025.7	1625	0
18	10.65	18.2	1531	2.3	411	68.6	97.0	522	34.2	1602	4.2	5.1	7.0	1056	4.1	1646	1025.59	1027.4	10	1023.8	1628	0
19	13.87	21.7	1448	4.0	410	65.7	97.2	532	28.4	1704	6.4	6.0	8.1	1046	4.3	1704	1023.59	1025.1	801	1021.3	1817	0
20	14.67	22.5	1414	6.2	437	69.7	97.5	557	35.3	1655	8.5	6.8	9.6	1148	5.5	1655	1021.49	1023.7	723	1018.7	1812	0
21	14.33	23.1	1210	6.2	406	80.1	97.1	450	41.3	1157	10.5	8.0	12.7	1610	5.6	405	1016.16	1019.7	14	1013.7	1624	3.5
22	15.98	23.2	1440	9.5	421	67.0	96.2	158	40.4	1519	9.3	7.3	10.2	1257	6.3	2354	1017.19	1022.1	2359	1014.7	50	0.1
23	13.81	20.8	1524	9.7	0	73.7	87.1	4	50.7	1523	9.0	7.1	9.2	1439	6.2	332	1023.02	1024.5	834	1021.8	1717	0
24	13.22	17.1	1301	10.2	209	91.8	96.8	613	77.2	1249	11.9	8.6	10.3	1551	6.7	5	1020.18	1023.1	0	1018.2	1710	8.1
25	14.19	17.9	1823	11.9	2258	89.0	97.5	2358	75.4	1830	12.4	8.9	10.2	1705	8.2	120	1018.38	1020.2	2355	1017.4	605	0.7
26	19.08	26.9	1407	12.0	30	79.2	98.0	146	49.2	1448	15.0	10.6	14.2	1305	8.4	30	1018.31	1020.2	48	1015.8	1611	0.7
27	19.53	26.7	1644	14.1	510	77.0	95.6	235	42.5	1649	15.0	10.6	14.3	1407	8.9	1716	1015.45	1017.6	0	1013.7	1641	0.7
28	18.28	24.5	1459	13.3	342	84.9	98.1	731	61.8	1459	15.6	10.9	14.3	1442	9.1	342	1018.28	1019.9	1034	1016.2	1	0
29	15.27	17.3	1142	13.7	2356	90.7	96.5	2312	78.8	959	13.7	9.7	11.2	1706	8.8	733	1016.28	1019.4	27	1013.7	2359	14.5
30	14.80	17.6	1813	12.8	2357	94.4	98.5	2318	84.2	1340	13.9	9.9	11.4	1621	9.0	207	1013.43	1014.7	2357	1012.3	346	1.6
31	17.69	22.9	1238	12.4	22	91.1	98.8	707	66.5	1239	16.1	11.4	13.7	1143	8.7	22	1014.76	1016.4	2346	1013.8	1559	2.7
Total																						46.7
Mean	14.05	20.43		7.58		73.6	95.61		44.84		8.72	7.19	9.46		5.70		1017.97	1020.64		1015.46		
Max	19.53	27.95		14.12		94.4	98.80		84.20		16.13	11.38	14.29		9.05		1027.34	1029.06		1025.68		
Min	8.48	14.72		1.68		55.9	82.50		22.24		2.79	4.69	6.46		3.26		1006.70	1011.06		1002.06		

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

WOKINGHAM METEOROLOGICAL DATA

Wokingham Climatological Station, Emmbrook, Berkshire.

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

Seasonal Means and Totals

SPRING 2018

Temperature (°C)					Rank in the past 137 years				
Mean maximum	15.0	(+0.7)			22 nd highest				
Mean minimum	5.8	(+0.8)			6 th highest				
Daily mean	10.4	(+0.8)			11 th highest				
Rainfall total (mm)	203.1	(140%)			15 th highest				
Sunshine total (hours)	459.1	(99%)							
N° of:	Dry days	47 (-5)	Wet days	39 (+11)					
Days with:	Air frost	8 (-3)	Ground frost	29 (-6)	Snow falling	7 (+3)	Snow lying	5 (+5)	
Thunder	7 (+2)	Hail ≥5mm	0 (-2)	Small hail/ice	6 (+1)	Fog @09 GMT	0 (-1)	Nil sun	18 (+9)
Air pressure MSL : Mean @09 GMT (mbar)	1010.5	(-5.1)							

Departure from 1981 to 2010 average shown in brackets.

Notes: **Very Mild and Wet with Sunshine Below Average. Notable Cold Spells in March.**

Temperature: The mean this spring ranks 11th highest in 137 years, and is 0.8° below the record set last year. The mean maximum, however, ranks only 22nd highest, and is 2.4° below the record, but it is the mean minimum, rank 6th highest, which has lifted the daily mean into the very mild category. In the past 20 years only 4 spring seasons have not been mild or very mild. This season's highest temperature was 27.9° on the 7th May, 2.5° above the median. The lowest maximum of -0.9° was on the 1st March, 5.4° below the median and the lowest spring maximum in 106 years, the previous lowest being -0.5° in 1942. The highest min was 14.1° on the 27th May, 1.5° above the median, and the lowest min was -5.1° on the 1st March, 0.9° below the median. Notable this spring was the marked extremes of temperature, with 2 wintry cold episodes in March, the first producing the coldest spring day on record, then 3 hot spells, two in May and a record breaking one in April. Compared with average, March was the coldest month, mean 5.9°, anomaly -1.3°, and April the mildest, mean 11.1° anomaly +1.9°, but May was also mild, anomaly +1.6°. The mean grass min was 2.7°, anomaly +1.2°, highest since 1999, and the lowest grass min was -7.8° on the 21st March. The mean earth temperature at 30 cm depth was 10.3°, close to average, and at 1 m depth, 9.3° 0.5° below average. The temperature at 1 m fell to 5.7° on the 6th March, which is a seasonal lowest since before 1990. **Rainfall:** This has been a wet spring, only 8 mm short of falling into the very wet category. The total is 65.3 mm above the long-term median, making it the wettest since 2001. March was a very wet month, with 204 % of average, but April's total was also 33 % above average, and May was the only month to fall short of the average, but only by 10 %. The duration of measurable rain was very high, 93 hours above the normal for the past 24 years, and most since before 1994. Daily totals were not especially high, with 16.0 mm on the 29th May the highest, 1 mm below the median value. Rainfall rates (mm/hr) reached the violent threshold on the 22nd April (88), 21st May (54), 29th May (85) and 31st May (73). Thunder was more frequent than average, with 5 storms in May and 2 in April. Snow was also more frequent, as a result of the cold spells in March, and lying snow was recorded on 5 days, the most in a spring season since 1947. Snow depths (cm) at 0900 GMT were; 1st (3), 2nd (4), 3rd (3), 18th (7) and 19th (7). Ice pellets or snow pellets were recorded 5 times in March and once in May. An index of moisture stress for shallow rooted plants is 63 this spring, close to normal, and stress was negligible before the 20th May. **Sunshine:** This has been a season of marked contrasts, with very poor showings in March and April, 67 % and 74 % of average respectively, and an exceptionally good May, 139 %. The period 8th to 13th April was very poor with only 0.2 hours recorded, also the 6 days to the 4th April had a mean of only 0.6 hours/day. In contrast the 3rd to 10th May had a mean of 11.8 hr/day, and 14th to 22nd May, 12.6 hr/day. Overall there were 47 days with <3 hours, 35 with =>6 hours, 22 with =>9 hours, 14 with =>12 hours and 3 with =>15 hours. **Wind:** The mean speed of 6.8 mph is 0.2 mph below average. The 1st March was the windiest day, mean 14.5 mph, and the highest gust of 45 mph was also on that day. The 25th May was the least windy, mean 2.8 mph, and there were 1351 minutes of calm, about 750 fewer than normal. Daily mean direction/number of days: N,17 NE,20 E,4 SE,7 S,14 SW,22 W,5 NW,3. Compared with average, winds from N and NE combined were 9.7 % more frequent, with SE and S, 5.6 % more frequent, at the expense of W and NW combined, 12.1 % less frequent. **Humidity:** The overall mean relative humidity was 78.5 %, and the minimum was 22 % on the 7th May. The mean water vapour content per kg of air was 6.3 g at 0900 GMT and 6.2 g at 1500 GMT. **Pressure:** The highest pressure was 1034.1 mbar on 21st March and the lowest 984.3 mbar on the 12th March, span 49.8 mbar, 3 mbar below average. **March:** Very wet, dull, temperature below average, and two quite extreme cold spells. Lowest max -0.9°, record low for March in over 100 years. Wettest since 2001 and before that 1981. 8 fewer dry days than average. Rain duration most for March in past 25 years. One of the dullest Marches this millennium. Lowest mean pressure in at least 43 years. **April:** Wet, dull and very mild with a record breaking hot spell. Daily mean 4th highest and mean min highest in 137 years. Highest max and lowest min new April record highs. Mean grass min highest in past 39 years. Dullest since 2001. **May:** Very warm, very sunny, rainfall below average. Mean max 3rd highest and daily mean 5th highest in 137 years. Highest max highest since 2005, lowest max 4th highest in 106 years. Sunniest since 1992. Lowest mean wind speed since 2004.

Month	Mean Max	Anom	Mean Min	Anom	Rain mm	Anom	Sun hrs	Anom	Mean Wind mph	Max gust	Mean pressure	Anom
March	9.5°	-1.7°	2.3°	-0.9°	93.2	204%	74.4	67%	7.7	45	1002.0	-13.9
April	15.1°	+1.1°	7.1°	+2.7°	64.3	133%	119.3	74%	7.1	37	1011.1	-3.9
May	20.3°	+2.8°	7.9°	+0.4°	45.6	90%	265.4	139%	5.3	35	1018.5	+2.6

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Hon. Met. Officer to Wokingham Town Council.

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.