

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

JUNE 2012

Temperature (°C / °F)			Anomaly	Rank in the past 131 years			
Mean maximum	18.9	66.0	-1.6	26 th lowest			
Mean minimum	10.5	50.9	0.0	31 st highest			
Daily mean	14.7	58.5	-0.8	48 th lowest			
Highest maximum	27.3	81.1	on 28 th	Lowest maximum	12.1	55.0	on 11 th
Highest minimum	16.3	61.3	on 27 th	Lowest minimum	4.8	40.6	on 13 th
Mean grass minimum	8.4	47.1	+0.8	Lowest grass minimum	0.6	33.1	on 13 th
Mean earth @30 cm	16.3	61.3	-0.5	Earth @100 cm	14.6	58.3	
Frost duration (hrs)	0			Rain duration (hrs)	89.0		
Rainfall total (mm / in)	124.2	4.89	252 %	3 rd highest			
Highest daily fall	26.0	1.02	on 10 th				
Number of: Dry days (<0.2mm)	14	Wet days (>0.9mm)	13	days ≥5mm	9		
Sunshine total (hrs)	108.5	Daily mean	3.62	56 %	Sunniest day	10.0	on 19 th
N ^o days with: Air frost	0	Ground frost	0	Snow falling	0	Snow lying	0
Thunder	0	Hail ≥5mm	0	Small hail/ice	0	Fog @09	0
							Nil sun 4
Pressure MSL : Mean @09 GMT, mbar	1011.1	-6.0	Highest	1020.9	on 26 th	Lowest	991.7 on 8 th
Relative humidity : Mean (%)	78.0	Lowest	36	on 9 th	Water vapour (g/kg), mean at 09 and 15 GMT 8.1, 7.9		
Overall mean wind speed (mph)	7.8	Windiest day	16.2	on 8 th	Max gust	47	on 8 th
Wind direction (days)	N 3	NE 0	E 5	SE 1	S 3	SW 17	W 0
Least windy day (mph)	3.6	on 13 th	Calm; less than 0.5 mph (minutes)				563

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

Notes: **The Dullest and 3rd Wettest June in over 100 years, with Below Normal Temperature and also Quite Windy.**

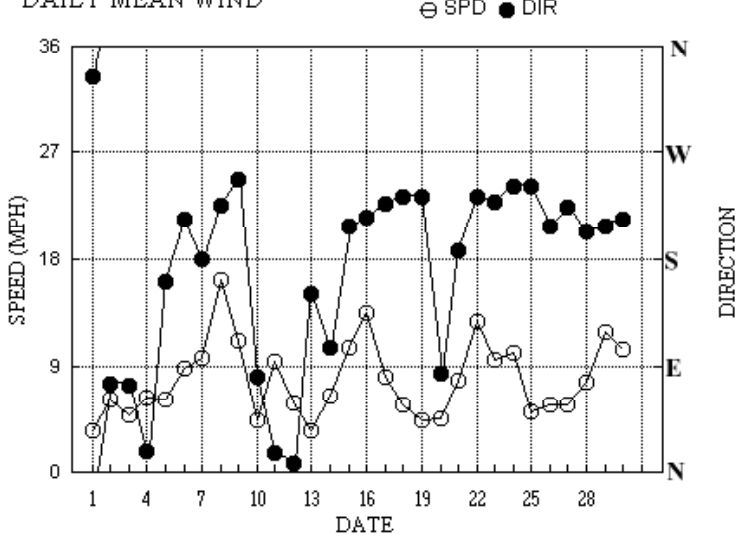
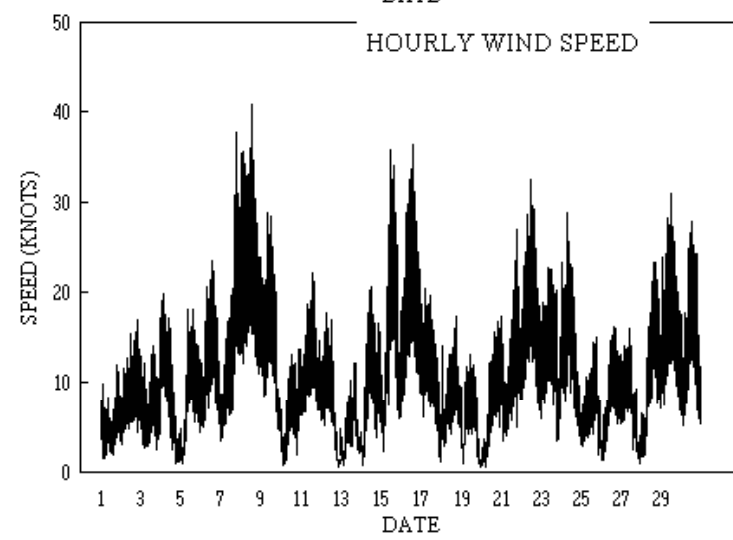
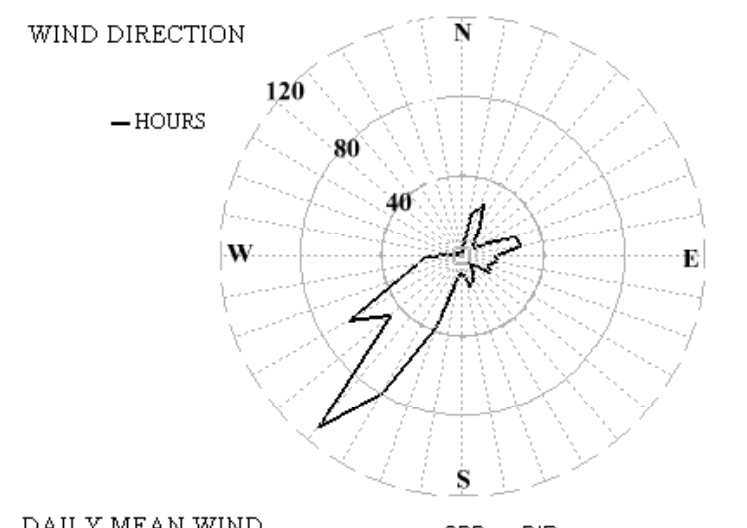
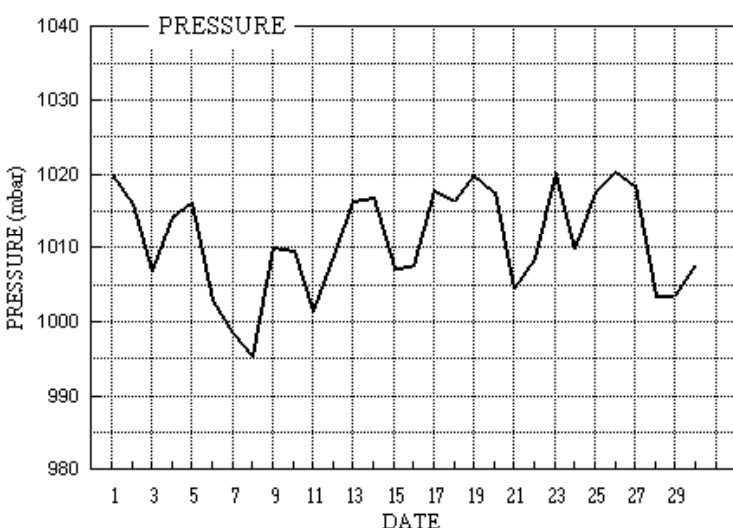
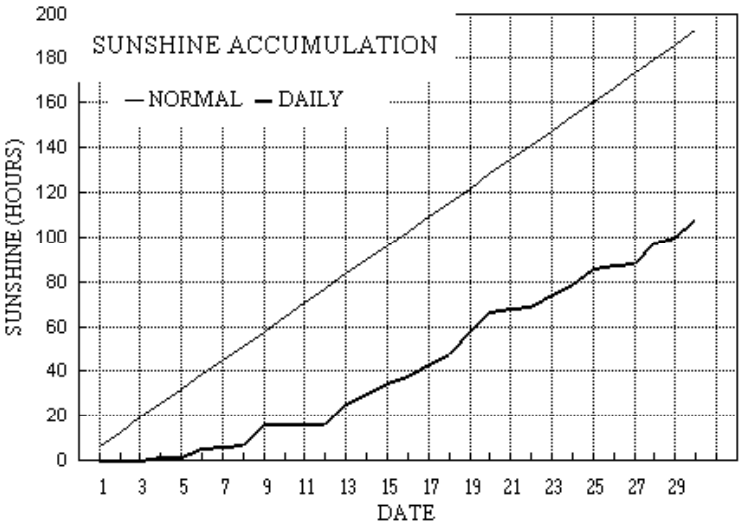
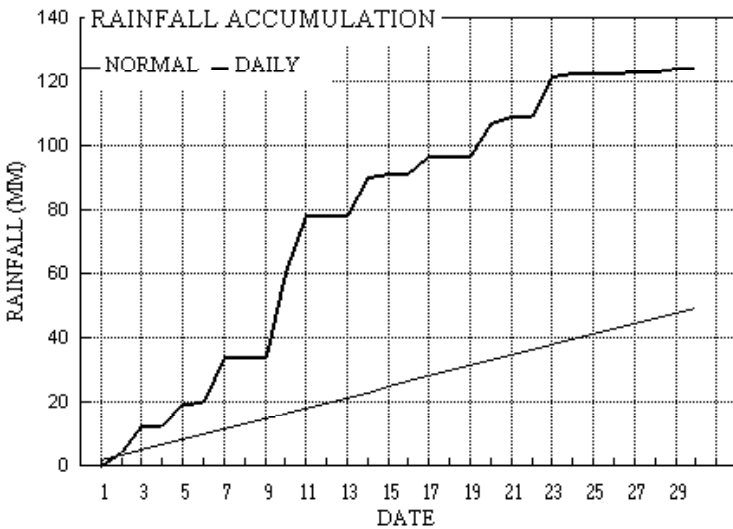
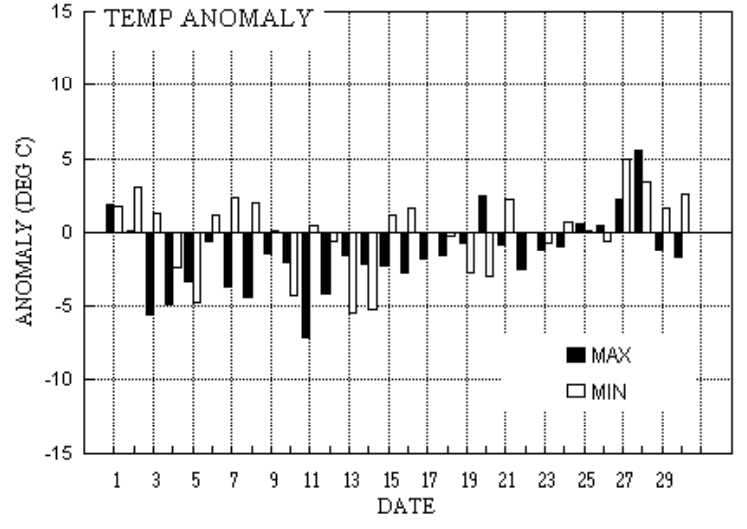
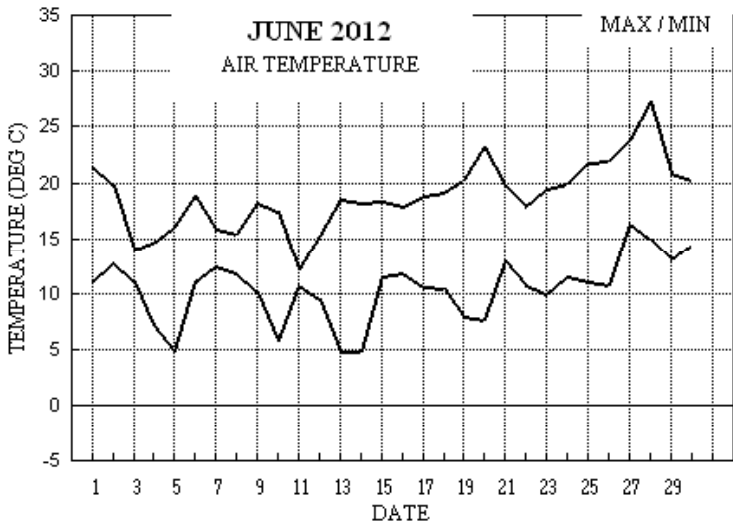
This June is one for the record books, a month with excessive rainfall and sunshine that would be about average in March or October, and very few warm days. **Temperature:** The mean max is lowest since 1991, but the mean min is highest since 2008. The resulting mean temperature is lowest since 1991, but is only 0.1° below that of June last year. The highest max is 0.3° above the median but is lowest since 2008, while the lowest max is 2.7° below the median and is lowest since 1989. The highest min is 1.5° above the median and is highest since 2006 while the lowest min is 0.1° above its median. The mean daily temperature range is 1.6° below average and lowest since 1998. Earth temperatures are around 0.5° below average. **Rainfall:** With over two and a half times the average rainfall this has been the wettest June since 1971, with only one other wetter, 1903, since before 1882. In recent years only 1985 came close with 3.5 mm less than this June's total. While rainfall accumulation was above average for much of the month, the 24th to 30th was somewhat drier with only 2.6 mm, while the 2 days 10th/11th saw 44.1 mm fall, and there were also 4 other days having over 10 mm each. Rainfall duration was 57 hours above average and most for June since before 1993. The highest rainfall rate was 44 mm/hr on the 15th at 0852 GMT. Thunder and hail were absent this month. **Sunshine:** With just over half the average this has been the dullest June for over a century. The previous dullest was 1909, but in more recent times 1991 ranks 3rd dullest with a daily mean of 4.23 hours, 0.61 hours per day more than this June. The period 1st to 12th was especially poor with 9 of those days together contributing only 1.5 hours. The 10.0 hours on the sunniest day is just 60% of the maximum, and is lowest for June since before 1979. Overall there were 16 days with <3 hours, 7 with =>6 hours and 4 with =>9 hours. **Wind:** This is the windiest June since 1994 with the mean speed 1.3 mph above average. The highest gust is only 1 mph below the record set in 1999. **Pressure:** The mean pressure is lowest since 1997, but the highest value is lowest since before 1976. **Commentary: From the 1st to the 15th:** Daily max temperatures were below normal except on the 1st and 2nd, with anomalies between -7.2° on the 11th to +1.9° on the 1st. Min temps were more variable, with anomalies in the range -5.5° on the 13th to +3.1° on the 2nd. Rainfall was copious with a total of 91.4 mm compared with a normal of 22 mm. Sunshine was exceptionally poor, the accumulation showing a deficit of over 60 hours by the 15th. Winds were light or moderate NE'ly until the 4th, veering S'ly on the 5th and increasing strong on the 8th, dropping light E'ly on 10th, backing N'ly by 12th, veering strong SW'ly by 15th. **From the 16th to the 30th:** Temperatures were near or below normal except for warm days on the 27th/28th. Anomalies for daily max ranged from -2.8° on the 16th to +5.5° on the 28th, and for daily min -3.0° on the 20th to +4.9° on the 27th. There were 8 dry days in this period, and a total of 32.8 mm of rain, though amounts were generally small after the 24th. Sunshine improved a little, but not enough to prevent the deficit from reaching nearly 90 hours by the 30th. Winds were mainly SW'ly, but E'ly on the 20th, and were strong on the 16th, falling light by the 18th, increasing moderate or fresh on the 21st, decreasing light or moderate on the 25th and increasing fresh on the 29th.

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

From the 1 st to the 10 th				From the 11 th to the 20 th				From the 21 st to the 30 th			
-2.4°	+0.1°	366%	25%	-2.2°	-1.4°	287%	78%	+0.6°	+1.5°	104%	65%

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

Wokingham climatological graphs for June 2012



Month: JUNE 2012

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 HH	Rain hrs		
1	21.5	11.0	tr	7.1	17.2	14.4	0.2	0.0	1019.9	0	0	0	0	334	0.8	3.1	70	12	1957	70	5	22	0.0
2	19.7	12.7	4.4	13.0	17.4	14.6	0.3	0.0	1015.8	0	0	0	0	75	5.3	5.4	73	17	2015	69	7	19	7.1
3	14.0	11.0	7.9	11.2	17.0	14.7	0.0	0.0	1006.7	0	0	0	0	73	3.7	4.2	69	14	1611	67	6	14	10.0
4	14.6	7.1	tr	6.9	16.3	14.7	1.2	0.0	1014.3	0	0	0	0	18	5.1	5.5	21	20	0347	24	11	03	0.0
5	16.0	4.9	7.3	0.6	15.7	14.7	0.0	0.0	1016.1	0	0	0	0	161	5.0	5.3	151	18	0950	164	8	10	5.1
6	18.8	11.1	0.4	10.5	15.5	14.6	4.2	0.0	1002.8	0	0	0	0	214	7.6	7.7	208	24	1447	211	11	16	0.9
7	15.9	12.5	14.1	10.0	16.1	14.5	0.2	0.0	998.3	0	0	0	0	180	7.3	8.4	215	38	1818	208	15	19	8.1
8	15.4	11.8	tr	11.3	15.7	14.5	0.7	0.0	995.2	0	0	0	0	225	13.6	14.1	236	41	1355	231	17	12	0.1
9	18.2	10.1	0.0	9.5	15.4	14.4	9.3	0.0	1010.1	0	0	0	0	247	9.5	9.7	246	29	0844	258	13	11	0.0
10	17.4	5.7	26.0	1.8	15.7	14.4	0.0	0.0	1009.5	0	0	0	0	80	2.6	3.8	29	14	2241	25	8	23	13.5
11	12.1	10.8	18.1	11.1	15.8	14.4	0.0	0.0	1001.5	0	0	0	0	16	8.1	8.1	21	22	1448	21	10	15	12.8
12	15.3	9.5	tr	9.7	15.0	14.4	0.1	0.0	1008.8	0	0	0	0	7	5.0	5.1	6	18	0642	10	9	06	0.0
13	18.5	4.8	0.0	0.6	14.8	14.4	9.5	0.0	1016.5	0	0	0	0	151	1.9	3.1	192	12	1743	203	6	17	0.0
14	18.2	4.9	11.9	1.0	15.2	14.3	4.3	0.0	1016.8	0	0	0	0	105	5.4	5.6	115	21	1259	106	9	11	7.5
15	18.4	11.5	1.3	7.4	15.3	14.3	5.3	0.0	1007.3	0	0	0	0	207	9.0	9.2	218	36	1243	209	16	13	0.3
16	17.9	11.9	tr	8.4	15.6	14.3	2.7	0.0	1007.6	0	0	0	0	215	11.7	11.7	210	37	1427	214	17	14	0.0
17	18.9	10.6	5.1	7.6	15.6	14.3	5.2	0.0	1017.7	0	0	0	0	227	6.8	7.0	225	21	0629	238	9	07	5.9
18	19.1	10.4	0.0	10.2	15.8	14.4	5.1	0.0	1016.3	0	0	0	0	232	4.2	5.0	197	18	1804	207	8	17	0.0
19	20.2	7.9	0.0	3.1	16.0	14.4	10.0	0.0	1019.9	0	0	0	0	233	3.6	3.8	249	13	1208	237	5	16	0.0
20	23.2	7.7	10.5	3.5	16.6	14.5	8.2	0.0	1017.6	0	0	0	0	83	3.3	4.0	75	17	2022	102	7	16	4.0
21	19.7	12.9	2.1	11.9	17.0	14.6	1.6	0.0	1004.5	0	0	0	0	187	3.8	6.8	257	27	2020	251	11	20	3.0
22	17.9	10.7	tr	10.4	16.8	14.7	1.1	0.0	1008.4	0	0	0	0	232	10.9	11.1	234	33	1128	238	14	12	0.1
23	19.4	9.9	12.5	7.0	16.5	14.8	4.8	0.0	1020.2	0	0	0	0	229	8.0	8.2	217	23	0859	238	11	08	8.8
24	20.0	11.5	1.0	11.4	16.5	14.9	5.3	0.0	1009.8	0	0	0	0	242	7.6	8.8	256	29	0808	253	13	10	0.3
25	21.8	11.1	0.0	6.2	16.6	14.9	7.0	0.0	1017.6	0	0	0	0	241	3.9	4.4	208	15	1817	214	7	19	0.0
26	22.0	10.8	tr	7.1	16.9	15.0	1.2	0.0	1020.4	0	0	0	0	208	4.9	5.0	212	16	1651	207	8	13	0.0
27	23.9	16.3	0.7	15.5	17.4	15.0	0.6	0.0	1018.6	0	0	0	0	224	4.3	5.0	226	16	1103	233	8	11	0.8
28	27.3	14.9	tr	11.9	17.7	15.2	9.6	0.0	1003.4	0	0	0	0	203	5.0	6.6	212	24	1741	216	12	16	0.0
29	20.8	13.1	0.9	11.5	18.3	15.3	2.4	0.0	1003.4	0	0	0	0	208	10.2	10.3	219	31	1209	215	14	14	0.7
30	20.2	14.5	tr	14.0	17.9	15.3	8.4	0.0	1007.7	0	0	0	0	214	9.0	9.0	206	28	1405	216	13	14	0.0
Total			124.2				108.5	0.0															89.0
Mean	18.9	10.5		8.4	16.3	14.6	3.62	0.0	1011.1					214	3.6	6.8							
Anom	-1.6	-0.0	252%	+0.8	-0.5	+0.0	56%																-6.0
Daily mean		14.7																					
Anom		-0.8																					

Pressure, abs highest = 1020.9 on 26
 Pressure, abs lowest = 991.7 on 8

Number of days with:
 Air frost = 0 Ground frost = 0 Nil sun = 4
 Snow falling = 0 Snow lying = 0 Thunder = 0
 Hail=>5mm = 0 Hail<5mm or ice = 0 Fog at 09GMT = 0

Abbreviations.

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

Weather observations. Emmbrook, Wokingham, Berkshire.

Observations at 0900 GMT for June 2012

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	63	7	31	04	09	17.9	12.7	71	9.0	1019.9	2	001	03	2	2	7	8	4	/	/	85818	87640					1	/Sc50 Cu hum/med
2	30	8	08	05	13	13.3	12.2	93	8.8	1015.8	7	001	20	5	2	8	6	2	/	/	88705						2	
3	25	8	08	04	08	12.2	11.7	97	8.6	1006.7	2	006	51	5	6	8	7	1	/	/	83702	86704	88710			3		
4	88	7	01	08	15	9.8	7.4	85	6.5	1014.3	1	025	01	6	2	7	8	4	/	/	84818	85635	87650			4	Cu med	
5	77	8	19	06	13	13.2	7.4	68	6.4	1016.1	7	014	03	2	2	4	8	5	7	/	83820	85357	88459			5	1Sc40 Cu med	
6	60	7	23	07	20	14.5	11.2	81	8.4	1002.8	0	002	25	8	1	5	8	4	7	/	83818	83640	87357			6	Cu med	
7	70	8	17	07	17	15.3	12.4	83	9.0	998.3	7	020	20	6	5	8	8	4	/	/	86812	83625	88656			7	Cu hum	
8	60	8	23	16	33	13.1	10.4	84	8.0	995.2	2	027	60	6	2	7	8	4	7	/	84815	85625	88460			8	2Ac58	
9	80	7	25	10	29	13.4	6.4	62	6.0	1010.1	2	015	03	2	2	4	8	5	7	/	82828	87359			9	2Sc50 /Ac62 Cu med		
10	75	7	12	03	09	14.3	11.3	82	8.4	1009.5	7	012	03	2	2	2	8	4	7	/	81812	87358			10	1Sc45 2Sc56 Cu hum Sc cas Cld edge N		
11	30	8	01	09	18	10.8	10.2	96	7.8	1001.5	5	003	63	6	6	7	7	2	2	/	81705	87707	88515			11	Hvy ra 0820	
12	70	8	01	07	14	10.5	9.0	90	7.1	1008.8	2	020	21	6	6	8	5	4	/	/	81712	87615	88620			12		
13	84	2	11	03	08	14.8	6.9	59	6.2	1016.5	2	002	03	0	0	1	8	5	7	1	81828					13	1Sc50 2Ac60 1Ac65 1Ci75 Cu hum	
14	70	6	11	08	14	15.5	8.9	65	7.1	1016.8	8	006	03	1	1	5	8	5	3	1	85825	83078			14	1Sc45 2Ac65 COTRA Cu med		
15	30	7	25	10	21	12.9	10.3	84	7.9	1007.3	3	001	81	8	2	7	8	4	7	/	82715	86820			15	/Sc50 /Ac57 Cu med/con Hvy rash		
16	75	7	21	11	28	15.7	8.4	62	6.9	1007.6	4	000	15	1	1	7	8	5	7	/	83828	87645			16	Cu med jpNW		
17	78	5	24	08	17	15.0	8.8	66	7.0	1017.7	2	011	03	1	1	4	8	5	0	1	84825					17	1Sc40 1Ci78 COTRA Cu med	
18	81	5	29	05	11	14.8	9.7	71	7.1	1016.3	2	013	03	1	1	5	8	5	0	0	83820					18	2Sc50 Cu med	
19	82	3	26	04	12	15.5	8.2	61	6.8	1019.9	0	000	01	1	1	1	2	5	3	1	81828					19	1Ac68 2Ci80 COTRA Cu med	
20	82	7	02	03	06	18.7	11.3	62	8.1	1017.6	8	005	03	2	2	1	2	5	7	1	81828	86075			20	1Ac57 2Ac62 COTRA Cu con Halo 22°		
21	35	7	16	05	12	16.7	15.9	95	11.3	1004.5	7	010	10	6	2	7	5	2	/	/	82705	85708	87615			21		
22	78	8	23	13	29	14.3	9.9	75	7.6	1008.4	2	015	21	6	2	8	5	5	/	/	87625	88630			22			
23	82	6	23	13	22	16.6	8.8	60	7.0	1020.2	0	007	03	1	1	2	2	5	0	1	82828	86080			23	1Ci75 COTRA Cu med		
24	80	7	26	12	29	15.2	11.7	80	8.5	1009.8	3	010	01	6	5	6	8	4	7	/	81712	85815	86365			24	2Sc35 Cu fra/hum Ac edge N	
25	78	7	34	04	10	18.1	10.7	62	7.9	1017.6	0	001	03	1	1	1	1	5	0	8	81828	87275			25	COTRA Cu hum Halo 22° part		
26	82	7	17	04	08	17.7	9.1	57	7.1	1020.4	0	001	02	2	2	1	5	7	7	1	81656	87360			26	1Ac58 /Ci75		
27	78	7	24	05	14	19.2	15.5	79	11.0	1018.6	8	003	02	2	2	7	5	4	/	1	87613					27	/Ci75	
28	67	2	18	04	10	23.4	19.4	78	14.2	1003.4	7	028	01	8	1	1	1	4	3	1	81815					28	2Ac62 1Ci75 Cu fra	
29	58	8	20	11	23	16.2	12.6	79	9.1	1003.4	3	002	58	6	5	8	5	4	/	/	83615	86620	88630			29		
30	84	5	22	08	17	16.4	11.3	72	8.4	1007.7	2	014	03	6	2	5	8	5	0	1	84820					30	1Sc40 1Ci75 Cu med	

Mean vis = 24.9 km

Mean cloud = 6.6 82%

Mean wind speed = 7.2 kn

Mean gust = 16 kn

Mean TT = 15.2 °C

Mean Td = 10.7 °C

Mean RH = 75.3 %

Mean r = 8.1 g/kg

Mean PPP = 1011.1 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

Td = 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 June 2012

Date	VV	N	dd	ff	gg	TT	Td	Td	RH	r	PPP	a	ppp	ww	W1	W2	Nh	Cl	h	Cr	Cl	N	Ch	shs	N	Ch	shs	Date	Remarks		
1	75	7	25	01	06	20.8	12.4	59	8.9	1018.4	8	009	02	2	2	7	8	6	/	/	82832	83640	87650						1	Cu hum	
2	62	7	08	05	13	18.5	13.3	72	9.7	1012.8	8	020	01	2	2	4	8	4	7	1	81820	84625	86362						2	/Ci75 Cu fra	
3	30	8	07	06	13	12.9	12.2	96	8.9	1007.3	2	001	63	6	5	7	7	2	2	/	82703	87705	88515						3		
4	84	7	03	04	12	13.7	5.6	58	5.5	1017.3	1	013	02	8	2	3	8	6	3	/	82835	86358							4	2Sc50 Cu med	
5	50	8	15	08	18	11.3	9.4	88	7.3	1012.2	8	023	63	6	6	7	7	3	2	/	83708	86712	88520						5		
6	75	7	20	12	24	17.6	11.5	68	8.6	1001.2	7	012	15	8	2	6	8	5	6	/	84825	83650							6	/Ac58	
7	56	8	15	08	16	14.6	13.3	92	9.7	993.2	7	032	58	6	5	7	7	3	2	/	82707	87710	88520						7		
8	62	7	24	16	32	14.2	9.2	72	7.2	1001.5	2	035	25	8	2	7	8	5	/	/	83820	86645	85656						8	Cu med jpS	
9	84	6	26	10	25	18.1	4.1	39	5.0	1011.1	4	000	01	2	2	2	1	7	4	0	82850	85360							9	2Ac65 Cu hum	
10	70	8	08	04	13	15.2	10.2	72	7.8	1006.4	7	014	61	6	2	8	8	5	/	/	82825	85645	88656						10	Cu med	
11	60	8	02	10	21	11.9	10.8	93	8.1	1002.2	2	007	58	6	5	8	5	3	/	/	83708	87712	88615						11		
12	78	8	36	05	13	12.2	7.9	75	6.6	1011.7	2	013	02	2	2	8	8	5	/	/	82822	87630	88640						12	Cu med	
13	80	7	21	05	08	16.5	6.1	50	5.8	1016.6	1	002	02	2	2	6	8	6	7	/	82840	85650	87357						13	Cu med	
14	80	8	11	08	18	17.0	7.7	54	6.4	1014.1	7	015	03	2	2	3	8	6	2	/	82840	88462							14	1Sc56 Cu med	
15	75	5	21	13	32	17.2	7.6	53	6.4	1007.1	4	000	02	1	1	3	8	6	0	2	82840									15	2Sc50 1Cc72 2Ci75 Cu con
16	65	7	21	14	37	16.1	9.4	64	7.3	1008.3	3	005	25	8	2	4	8	6	6	/	83830	85358							16	2Sc50 Cu med jpN	
17	83	7	21	07	16	17.3	8.8	57	7.0	1017.2	6	005	02	2	2	7	8	6	/	1	84840	87656							17	/Ci78 Cu med	
18	82	7	22	05	13	18.3	7.5	49	6.5	1018.1	3	003	02	2	2	7	8	6	/	/	82845	86656							18	2Sc50 Cu med	
19	82	7	25	05	11	19.6	8.7	50	7.3	1018.1	7	008	02	1	1	4	8	6	3	2	82845	83657	85072						19	1Ac66 Cu med	
20	81	7	09	06	13	21.3	9.2	46	7.4	1015.2	7	014	01	2	2	3	2	6	7	1	83845	85357							20	2Ac62 /Ci75 Cu med Absent vv&cl est	
21	70	6	22	05	17	15.9	11.9	77	8.7	1004.0	7	009	80	8	2	1	1	4	8	2	81815	83358							21	2Ac62 4Ci75 Cu fra/hum Ac cas U/a cont	
22	82	5	24	13	30	17.4	10.7	64	7.8	1012.5	2	020	80	8	2	2	8	5	6	0	82825	83357							22	1Sc50 Cu con	
23	80	8	24	07	17	16.8	10.4	66	7.6	1020.1	8	002	15	8	2	4	8	5	7	/	82828	83657	86362						23	8As66 Cu med jpW	
24	86	6	29	12	23	17.9	9.3	57	7.3	1012.3	3	014	25	8	1	3	2	6	6	0	83840	84358							24	Cu med/con	
25	77	7	33	03	10	19.9	11.4	58	8.8	1018.0	5	001	02	2	2	3	8	6	3	2	83835	87072							25	1Sc56 2Ac58 Cu med	
26	72	8	21	08	15	19.8	14.5	71	10.2	1020.2	8	001	03	2	2	8	5	5	/	/	81620	86625	88635						26		
27	80	8	06	03	08	19.3	16.4	83	11.6	1016.5	8	018	61	6	2	8	0	9	7	/	83358	87360	88462						27	vv60k N	
28	70	1	20	09	22	27.2	17.1	54	12.3	1001.2	8	006	02	0	0	1	2	6	3	0	81835								28	1Ac62 Cu hum/med Extensive elevated hz-sky milky	
29	80	6	22	15	29	18.8	10.6	59	8.1	1004.8	2	007	02	2	2	6	8	6	3	0	84835								29	2Sc50 1Ac57 Cu hum	
30	81	3	21	13	28	19.3	8.8	51	7.2	1008.5	1	005	02	1	1	3	2	6	3	1	83840								30	1Ac68 1Ci72 Cu med	

Mean vis = 27.3 km

Mean cloud = 6.7 84%

Mean wind speed = 8.0 kn

Mean gust = 18 kn

Mean TT = 17.2 °C

Mean TdTd = 10.2 °C

Mean RH = 64.9 %

Mean r = 7.9 g/kg

Mean PPP = 1010.9 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	Hour	01-Jun	02-Jun	03-Jun	04-Jun	05-Jun	06-Jun	07-Jun	08-Jun	09-Jun	10-Jun	11-Jun	12-Jun	13-Jun	14-Jun	15-Jun	16-Jun
Sunshine	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
Hourly analysis	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
2012	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	0.42	0.43	0.03	0.00
	5	0.08	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.21	1.00	0.04	0.00
	6	0.07	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.25	0.00	0.00	0.00	1.00	1.00	0.10	0.50
	7	0.00	0.00	0.00	0.00	0.00	0.61	0.00	0.00	0.54	0.00	0.00	0.00	1.00	0.99	0.42	0.55
	8	0.03	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.01	0.00	0.00	0.00	1.00	0.56	0.04	0.10
	9	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.01	0.00	0.00	0.00	1.00	0.17	0.05	0.15
	10	0.00	0.00	0.00	0.02	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.02	0.54	0.16	0.50	0.11
	11	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.61	0.00	0.00	0.00	0.57	0.00	0.67	0.48
	12	0.00	0.00	0.00	0.03	0.00	0.12	0.00	0.00	0.90	0.00	0.00	0.00	0.40	0.00	0.37	0.07
	13	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.95	0.00	0.00	0.02	0.01	0.00	0.61	0.59
	14	0.03	0.00	0.00	0.14	0.00	0.14	0.00	0.00	0.97	0.00	0.00	0.00	0.00	0.00	0.43	0.10
	15	0.03	0.19	0.00	0.06	0.00	0.58	0.03	0.28	0.95	0.00	0.00	0.00	0.00	0.00	0.55	0.09
	16	0.00	0.15	0.00	0.08	0.00	0.50	0.15	0.33	1.00	0.00	0.00	0.00	0.35	0.00	0.57	0.00
	17	0.00	0.00	0.00	0.08	0.00	0.26	0.00	0.02	1.00	0.00	0.00	0.00	1.00	0.00	0.22	0.01
	18	0.00	0.00	0.00	0.03	0.00	0.16	0.00	0.02	1.00	0.00	0.00	0.00	1.00	0.00	0.73	0.00
	19	0.00	0.00	0.00	0.71	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	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		0.22	0.34	0.00	1.16	0.00	4.19	0.18	0.66	9.32	0.00	0.00	0.05	9.48	4.32	5.34	2.75

Hour	17-Jun	18-Jun	19-Jun	20-Jun	21-Jun	22-Jun	23-Jun	24-Jun	25-Jun	26-Jun	27-Jun	28-Jun	29-Jun	30-Jun	Mean
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.46	0.00	0.00	0.42	0.00	0.00	0.06	0.00	0.44	0.08	0.00	0.04	0.00	0.00	0.08
5	0.99	0.01	0.41	1.00	0.00	0.04	0.71	0.00	1.00	0.07	0.13	0.52	0.00	0.04	0.22
6	0.88	0.63	0.46	1.00	0.00	0.00	0.77	0.00	1.00	0.02	0.27	0.11	0.03	0.03	0.30
7	0.99	0.10	0.93	1.00	0.00	0.00	0.90	0.00	1.00	0.06	0.02	0.03	0.00	0.14	0.31
8	0.68	0.44	0.92	1.00	0.00	0.00	0.98	0.01	1.00	0.01	0.00	0.89	0.00	0.51	0.28
9	0.39	0.28	0.93	0.38	0.21	0.00	0.57	0.11	0.43	0.63	0.01	0.63	0.00	0.39	0.22
10	0.30	0.27	0.89	0.79	0.23	0.00	0.38	0.35	0.16	0.22	0.04	0.32	0.02	0.75	0.20
11	0.26	0.17	0.83	0.82	0.00	0.01	0.36	0.19	0.16	0.11	0.00	0.66	0.37	0.76	0.24
12	0.22	0.15	0.69	0.41	0.00	0.03	0.07	0.26	0.00	0.00	0.00	0.02	0.20	0.34	0.14
13	0.02	0.37	0.19	0.06	0.00	0.03	0.00	0.55	0.02	0.00	0.00	0.34	0.55	0.57	0.17
14	0.04	0.38	0.18	0.10	0.07	0.11	0.00	0.43	0.00	0.00	0.00	0.89	0.37	0.79	0.17
15	0.00	0.31	0.14	0.85	0.50	0.55	0.00	0.55	0.21	0.00	0.00	1.00	0.33	0.73	0.26
16	0.00	0.18	0.56	0.24	0.30	0.19	0.00	0.62	0.40	0.00	0.00	1.00	0.09	0.81	0.25
17	0.00	0.16	0.96	0.12	0.25	0.00	0.00	0.65	0.89	0.00	0.10	0.98	0.13	0.77	0.25
18	0.00	0.57	1.00	0.00	0.01	0.00	0.00	0.69	0.26	0.00	0.00	0.99	0.28	0.79	0.25
19	0.00	1.00	0.89	0.00	0.00	0.12	0.00	0.84	0.00	0.00	0.00	1.00	0.01	0.90	0.25
20	0.00	0.06	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.01
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot	5.21	5.10	9.99	8.19	1.56	1.08	4.80	5.26	6.97	1.19	0.58	9.55	2.37	8.35	108.24

June 2012	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	16.72	21.3	1449	11.0	251	77.7	96.1	313	56.3	1452	12.61	9.00	10.0	1717	7.6	249	1018.93	1020.2	922	1017.3	2355	0.0
2	14.46	19.7	1601	11.0	2226	84.5	95.1	616	61.6	1726	11.76	8.56	9.8	1459	7.1	1944	1013.64	1017.6	8	1007.6	2359	3.1
3	12.09	13.8	1201	10.6	2359	96.2	97.6	2156	94.3	0	11.52	8.48	9.5	1202	7.7	2359	1006.80	1007.8	0	1005.4	411	7.5
4	9.60	14.4	1456	5.2	2338	82.5	97.5	40	53.3	1701	6.51	6.01	7.8	0	5.0	1701	1015.03	1020.1	2203	1007.1	5	1.3
5	10.94	14.1	1100	5.2	1	87.1	97.2	507	61.3	1147	8.73	7.06	9.1	2332	5.2	1	1013.07	1019.4	1	1003.6	2359	6.5
6	14.92	19.0	1530	11.7	310	79.7	95.8	8	59.7	1637	11.28	8.38	9.9	1149	7.7	1943	1002.21	1003.8	0	1000.6	1638	0.1
7	14.04	15.8	927	12.6	107	84.9	94.0	524	71.9	1816	11.50	8.58	10.4	1605	7.1	2245	996.71	1002.8	10	992.7	1618	8.1
8	12.96	15.6	1537	11.0	2347	76.5	91.5	559	61.5	1823	8.84	7.18	8.3	826	5.8	1833	998.78	1006.9	2358	991.7	254	5.5
9	13.72	18.5	1410	10.0	423	62.2	87.8	2356	35.5	1620	6.00	5.85	7.0	2204	4.2	1802	1010.11	1012.4	2207	1006.6	4	0.0
10	12.34	16.9	1240	6.0	351	82.5	97.6	638	50.0	1111	9.16	7.27	8.9	848	5.6	351	1007.89	1012.2	4	1003.4	2354	3.6
11	11.13	12.1	1401	10.0	2354	95.0	96.6	417	90.9	1708	10.36	7.88	8.4	1245	7.3	2354	1002.64	1005.0	2359	1001.2	836	28.6
12	11.02	13.4	1426	9.4	650	85.3	95.4	442	69.7	1431	8.58	6.94	7.9	959	6.3	1700	1010.01	1014.9	2319	1004.9	0	5.3
13	12.11	18.7	1246	5.1	406	71.0	97.6	546	37.7	1209	6.37	5.95	7.5	659	4.4	1238	1016.51	1018.6	2313	1014.4	126	0.0
14	12.68	18.2	1037	5.3	253	78.6	97.2	454	50.5	1329	8.62	6.99	8.7	2358	5.2	253	1014.85	1018.4	0	1008.0	2344	7.1
15	14.54	18.6	1432	11.4	401	76.9	96.2	403	47.6	1434	10.25	7.81	9.4	956	6.0	1446	1007.46	1008.7	3	1006.3	1340	4.1
16	14.41	18.0	1139	11.9	42	72.5	84.3	2140	53.0	1140	9.44	7.37	8.1	1130	6.6	1142	1008.37	1012.8	2358	1006.5	257	0.1
17	14.55	19.0	1348	10.5	420	70.7	94.1	2359	49.8	1214	9.02	7.11	8.2	1009	6.1	1728	1016.54	1017.9	2135	1012.7	0	0.2
18	13.90	19.2	1546	10.3	2355	73.3	95.2	221	44.5	1426	8.81	7.02	8.3	753	5.7	1432	1017.30	1020.0	2359	1014.8	324	4.4
19	14.72	20.1	1436	8.0	215	70.6	95.9	342	41.2	1202	8.81	7.00	8.5	648	5.3	1010	1019.06	1020.3	651	1017.4	1756	0.0
20	15.88	23.0	1542	8.1	412	66.7	97.5	501	37.1	1300	8.92	7.09	9.4	1008	5.4	1717	1015.90	1018.4	17	1010.2	2358	0.0
21	14.51	19.6	1019	10.7	2119	84.3	96.9	749	64.8	1644	11.79	8.71	12.4	941	6.7	1	1005.38	1010.4	0	1002.1	1856	10.2
22	14.22	18.2	1520	10.8	0	75.3	92.6	119	57.4	1614	9.76	7.51	8.6	1519	6.5	2041	1011.04	1018.0	2358	1006.3	326	0.5
23	14.06	19.4	1207	9.9	329	72.0	92.8	2359	45.5	1217	8.85	7.01	8.2	1334	6.0	1735	1019.36	1020.7	1309	1016.0	2359	3.3
24	15.24	20.3	1431	11.5	210	77.2	95.1	405	47.4	1421	10.93	8.12	9.9	1147	6.8	1421	1012.33	1016.2	0	1008.5	722	8.6
25	16.32	22.0	1546	11.2	125	70.2	92.5	134	43.2	1648	10.51	7.84	9.0	1015	6.9	1648	1017.80	1019.6	2315	1016.0	0	0.0
26	16.92	22.0	1114	11.1	408	77.8	93.4	400	50.2	949	12.86	9.25	11.3	1936	6.5	805	1019.92	1020.9	721	1019.1	0	0.0
27	18.18	21.5	1054	14.9	2343	85.3	95.7	2355	70.8	1057	15.63	10.96	12.3	1538	10.0	2340	1017.07	1019.9	23	1011.9	2343	0.1
28	19.94	27.6	1524	13.1	2346	77.6	97.4	524	44.7	1621	15.54	11.19	14.9	828	7.6	2104	1004.63	1012.2	1	1000.9	1514	0.6
29	16.33	20.6	1327	13.1	6	76.3	89.7	520	53.2	1428	12.03	8.79	10.5	1104	7.6	1447	1004.48	1006.5	2316	1003.1	717	0.0
30	16.44	20.5	1126	11.6	2358	70.0	92.0	657	46.4	1425	10.63	8.03	10.1	701	6.5	1753	1008.09	1011.6	2358	1005.8	153	0.8
Total																						109.6
Mean	14.30	18.70		10.06		78.0	94.61		55.03		10.19	7.83	9.41		6.41		1011.06	1014.47		1007.39		
Max	19.94	27.59		14.90		96.2	97.60		94.30		15.63	11.19	14.93		9.99		1019.92	1020.86		1019.10		
Min	9.60	12.13		5.10		62.2	84.30		35.54		6.00	5.85	6.98		4.25		996.71	1002.85		991.65		

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
 Rtot = 00-24 GMT rainfall total from AWS tipping bucket raingauge, mm
 Time = hours and minutes in GMT of extreme values

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 2010. 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 instrument used to detect sunshine amount in July 1999, and the data produced by the new instrument is not strictly comparable with that obtained prior to July 1999, 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 of instrument, due to a combination of faster reaction and higher sensitivity than the old type. Thus the average used in this case is for a theoretical equivalent average for the 1981 to 2010 climatological period for this new instrument, based on comparisons with Met Office published tables of departure from the 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 the 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 "half (max+min)". A true daily 24 hour (00 to 24 GMT) mean temperature is available from the AWS, and is currently published on page 7 of the Wokingham Monthly Weather Report on the Wokingham Weather Web Site, page1. <http://www.woksat.info/wwp1.html>

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

- a): The departure of a mean from the current climatological average.
- b): The departure of a value from the a long-term average for a particular day.

When the word anomaly is used in respect to temperature, any values given are in degrees C. In respect to rainfall, percent. In respect of sunshine, percent. In respect to wind, mph. In respect to 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 mild/cold are used in the winter half year, and warm/cool in the summer half.

The term normal is defined as being 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 for sunshine follow the same rules as for temperature.

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

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

The term wet is used for values lying between 10% and 30% below the highest value in the ranked series.

the term very wet is used for values lying within 10% of the highest value in the ranked series.

The term dry is used for values lying between 10% and 30% of the lowest value in the ranked series.

The term very dry is used for values lying 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 the records of various station in the Wokingham area in the years prior to the establishment of a weather station at Emmbrook in 1976.

In the case of monthly max, min and mean temperature and of rainfall total the 'long-term' goes from the present back to 1882. For extremes of temperature, highest max and lowest min are back to 1904, and for 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 values of the entire series. The central value in the ranked series is known as the median. This value may be different from the 'average' if the population of values is skewed. Also, as the median considers all values in the series, and the average refers to a 30 year climatological period, during periods of climatic change, the median will also be expected to differ from the average.

Month: Calendar month.

Season: Spring, March to May.

Summer, June to August

Autumn, September to November

Winter, December to February.

The year number given when discussing 'winter' is usually the year in which the majority of the period lies, i.e. January/February

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

The climatological day : runs from 09 to 09 GMT. The max temperature and rainfall read at 0900 are attributed to the previous day, as is the duration of measurable rain calculated up to 0900 GMT. The min temperature and grass min read at 0900 are attributed to the day of reading. Pressure is read at 0900 GMT, and the monthly mean pressure is the mean of the 0900 readings. Sunshine data, wind data, rainfall rates and 24 hour data from the AWS use the normal 00 to 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 % cover of snow at the 0900 GMT observation.

Hail : A day of hail is recorded if hailstones of 5 mm diameter or more are observed or recorded on the hail pad on 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. Note, various types of other ice meteors such as ice pellets, snow grains, and some types of snow pellets are included in this category.

Fog: A day of 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.

Rainfall : Rainfall is given in mm and tenths. "tr" (trace) is entered when: a) precipitation has occurred but there is no water in the gauge. b) There is water in the gauge but it is less than 0.05 mm.

Dry Spell : A dry spell, for the purposes of the Wokingham climatological data and reports, is defined as a period of 5 or more consecutive dry days. A dry day is defined as one where the 24 hour precipitation measured at 09 GMT is not greater than 0.1 mm.

Wind: The following abbreviations may be used to denote wind directions :

Degrees are from true north

N = North = 360° and 22.5° either side.

NE = NorthEast = 045° and 22.5° either side.

E = East = 090° and 22.5° either side.

SE = SouthEast = 135° and 22.5° either side.

S = South = 180° and 22.5° either side.

SW = SouthWest = 225° and 22.5° either side.

W = West = 270° and 22.5° either side.

NW = NorthWest = 315° and 22.5° either side.

Wind – terms for speed used in monthly reports: When the following terms are used in the monthly reports, they will be based on the following unofficial criteria, (the day runs from 00 to 24 GMT) :

Term	Daily mean speed, knots		Highest hourly mean speed, knots		24 hour maximum gust, knots
Very light	3 or less	and	4 or less	and	8 or less
Light	3 to 6	or	4 to 8	or	8 to 16
Moderate	6 to 9	or	8 to 12	or	16 to 24
Fresh	9 to 12	or	12 to 16	or	24 to 32
Strong	12 to 15	or	16 to 20	or	32 to 40
Very strong	15 to 18	or	20 to 24	or	40 to 48
Near gale	18 to 21	or	24 to 28	or	48 to 56
Gale	21 to 24	or	28 to 32	or	56 to 64
Severe gale	24 to 27	or	32 to 36	or	64 to 72

B.J.Burton. 3 August 2009
 Updated 8 Sept 2009,
 4 Nov 2011

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.