

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

AUGUST 2011

| Temperature (°C / °F) | | | Anomaly | Rank in the past 130 years | | | |
|--|--------------------|---------------------------------------|---|----------------------------|--------------------|---------------------|---------------------|
| Mean maximum | 21.0 | 69.8 | -1.6 | 57 th lowest | | | |
| Mean minimum | 11.9 | 53.4 | -0.5 | 37 th highest | | | |
| Daily mean | 16.5 | 61.7 | -1.0 | 57 th highest | | | |
| Highest maximum | 28.0 | 82.4 | on 3 rd | Lowest maximum | 14.7 | 58.5 | on 18 th |
| Highest minimum | 16.2 | 61.2 | on 4 th | Lowest minimum | 7.0 | 44.6 | on 19 th |
| Mean grass minimum | 8.9 | 48.0 | -0.4 | Lowest grass minimum | 2.8 | 37.0 | on 19 th |
| Mean earth @30 cm | 18.1 | 64.6 | -0.6 | Earth @100 cm | 17.2 | 63.0 | |
| Frost duration (hrs) | 0.0 | | | Rain duration (hrs) | 42.1 | | |
| Rainfall total (mm / in) | 118.9 | 4.68 | 236 % | 6 th highest | | | |
| Highest daily fall | 61.6 | 2.43 | on 18 th | * New record* | | | |
| Number of: Dry days (<0.2mm) | 12 | Wet days (>0.9mm) | 13 | days ≥5mm | 5 | | |
| Sunshine total (hrs) 145.6 | Daily mean 4.70 | 75 % | | Sunniest day 10.5 | | on 22 nd | |
| N ^o days with: Air frost 0 | Ground frost 0 | Snow falling 0 | Snow lying 0 | | | | |
| Thunder 3 | Hail ≥5mm 0 | Small hail/ice 0 | Fog @09 0 | Nil sun 3 | | | |
| Pressure MSL : Mean @09 GMT, mbar 1013.5 | -2.8 | Highest 1026.7 | on 9 th | Lowest 1000.8 | on 6 th | | |
| Relative humidity : Mean (%) 75.2 | Lowest 25 | on 1 st | Water vapour (g/kg), mean at 09 and 15 GMT 8.7, 8.0 | | | | |
| Overall mean wind speed (mph) 5.8 | Windiest day 9.4 | on 11 th | Max gust 33 | on 7 th | | | |
| Wind direction (days) N 2 NE 2 E 1 SE 0 S 3 SW 16 W 5 NW 2 | | | | | | | |
| Least windy day (mph) 2.4 | on 3 rd | Calm; less than 0.5 mph (minutes) 735 | | | | | |

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

Notes: **Very Wet with a New 24 hour Rainfall Record.** **Very Dull.** **Temperatures Below Average.**

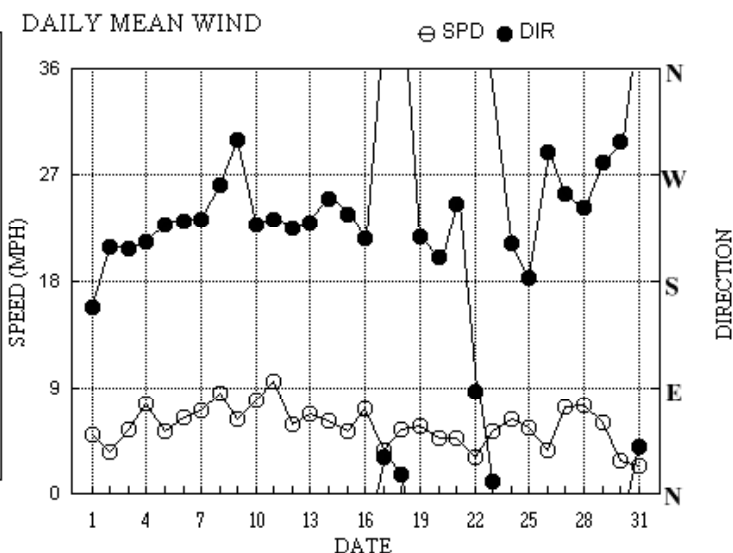
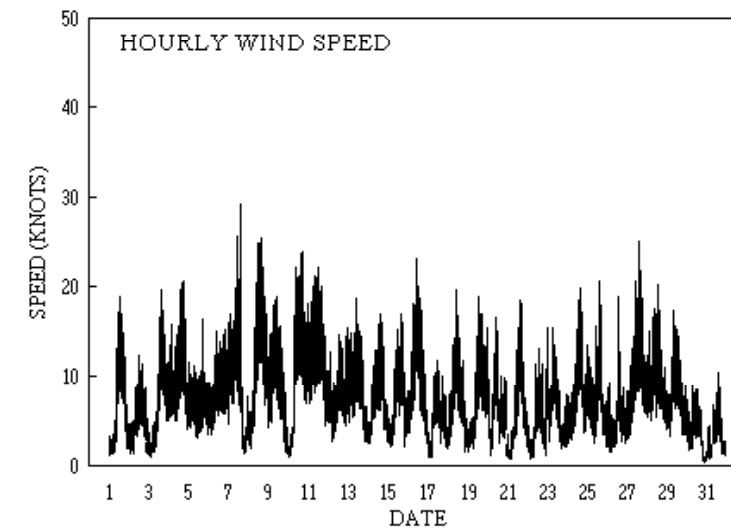
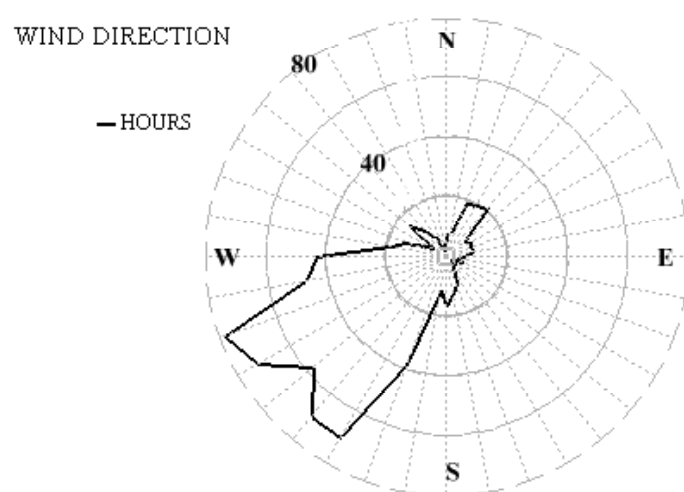
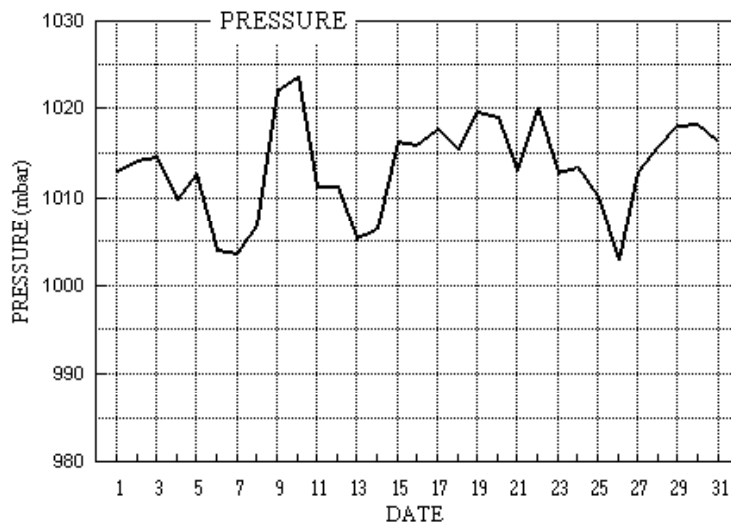
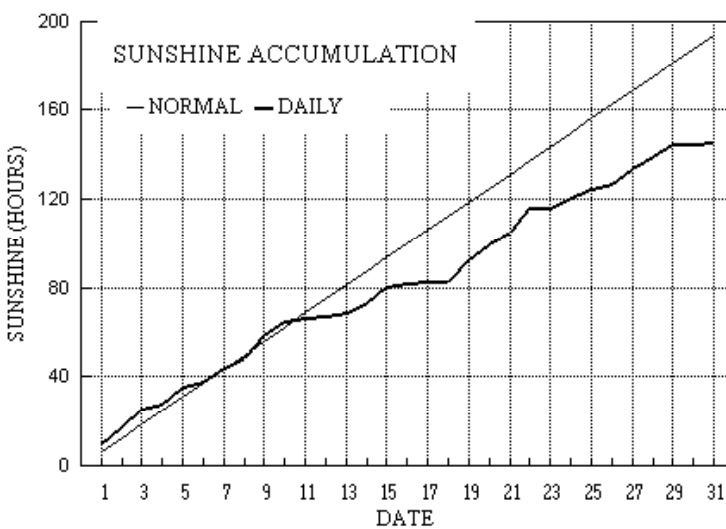
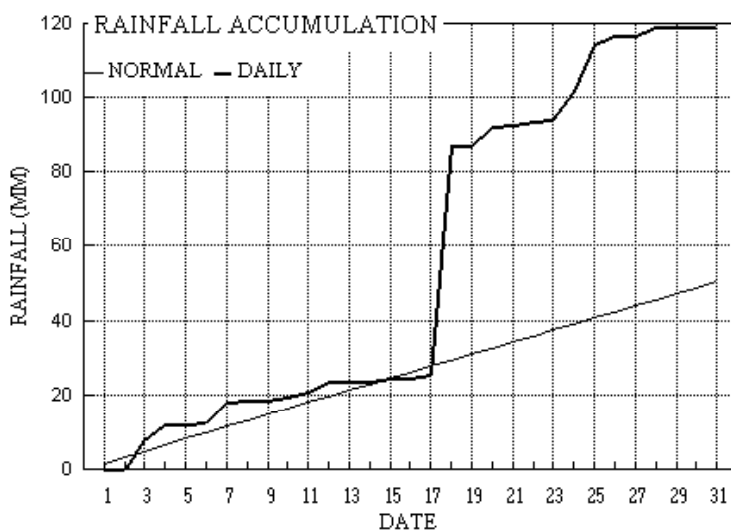
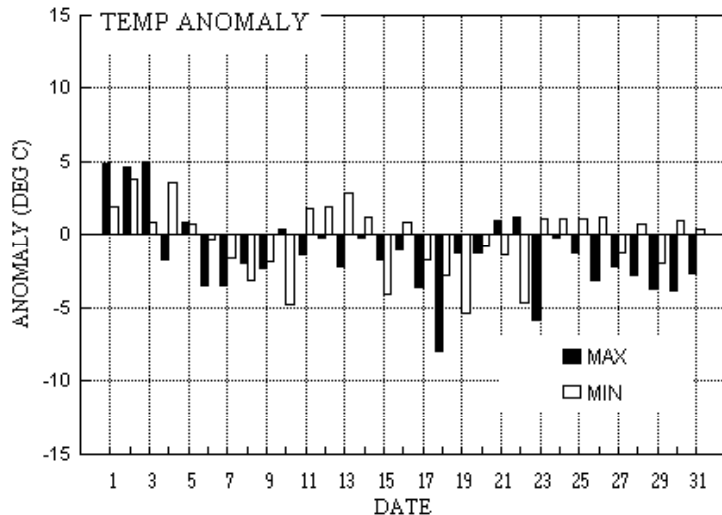
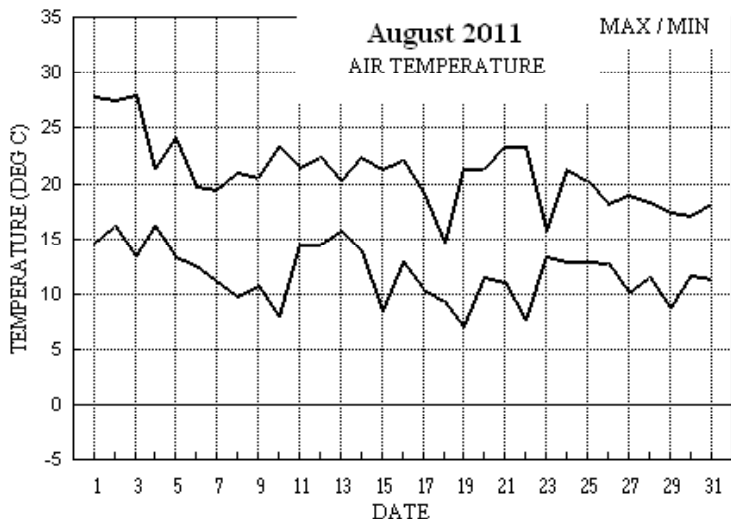
Temperature: This has been a disappointing August for those who enjoy hot weather, with the mean maximum 1.6° below the current 30 year average, and only 3 days reaching 25° or more. However, both 2010 and 2008 had a slightly lower mean max, but all other Augusts back to 1988 were warmer. Similarly the mean temperature is 0.2° above that of last August, but is 1.0° below the climatological average. The month's highest max is close to the long-term median, but the lowest max is 2.2° below the median and is lowest since 1986. The highest min is equal to the median and the lowest min is 0.7° above the median. Earth temperatures at both 30 cm and 1 m depth continue to be below normal. **Rainfall:** This has been a very wet August, with well over twice the average rainfall. The total is highest since 1977 and ranks 6th highest since before 1882. The 18th saw a notable 24 hour rainfall, when 61.6 mm was recorded, which is a new local record for August, 5.6 mm above the previous highest in 1932. It is also the 3rd highest daily fall at any time in the past 107 years, the other two being 71.6 mm on the 20th Sept 1980, and 62.2 mm on the 22nd Sept 1992. Some local flooding was reported. The extreme rainfall occurred in a fairly narrow line from Dorset through Berkshire, with places either side getting far less, for example, 24 mm in Bracknell and 34 mm in Southcote, Reading. (Preliminary incomplete survey). There were 7 fewer dry days than average, and an 11 day dry spell ended on the 2nd. Thunder occurred on the 7th, 25th and 26th. Rainfall duration was about 11 hours above normal. **Sunshine:** Only 75 % of average sunshine, but 20.7 hours more than in August last year, though 10 of the past 12 Augusts have had more than this one. The 8 day period 11th to 18th was especially poor, having a mean of 2.1 hours per day. The month's highest daily sunshine is lowest since before 1979. Overall there were 12 days with <3 hours, 13 with =>6 hours and 4 with =>9 hours. **Commentary: From the 1st to the 16th:** The first 3 days were the warmest of the month, and anomalies for daily max were around +5.0°, after which it was near or below normal. There were 7 dry days, but also a total of 24.4 mm of rain of which 17.9 mm fell on the 3rd, 4th and 7th. Sunshine was near normal until the 10th, then became poor. Light or moderate winds were mainly SW'ly, temporarily fresh on the 8th, and NW'ly on the 9th. **From the 17th to the 31st:** Temperatures were mainly below normal, with anomalies for daily max between -7.9° on the 18th and +1.3° on the 22nd, and for min -5.4° on the 19th and +1.3° on the 26th. Rainfall was dominated by the 61.6 mm on the 18th, though there were only 5 dry days, and a further fall of 13.2 mm on the 25th. Sunshine was poor at first and was generally below normal with just the odd sunny day on the 19th and 22nd. Light or moderate winds started N'ly, backing SW'ly on the 19th, backing E'ly on the 22nd, returning via N to S'ly on the 24th, becoming W'ly on the 26th, dropping very light on the 30th and veering NE'ly on the 31st.

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 | | | |
|--|-------|------|------|---|-------|------|-----|---|-------|------|-----|
| +0.3° | -0.1° | 117% | 104% | -2.1° | -0.6° | 448% | 54% | -2.1° | -0.2° | 147% | 67% |

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

Wokingham climatological graphs for August 2011



Month: August 2011

| Date | Max C | Min C | Rain mm | Grass Min | 30cm C | 100cm C | Sun hrs | Frost hrs | pp09 mbar | Af Gf | Sf Sl | Th Ha | Ic Fg | Vec mean ddd ff sp | Max gust ddd gg HHhh | High hr ddd ff | Rain HH hrs | | | | | | |
|------------|----------|----------|------------|--------------|-----------|------------|------------|--------------|--------------|----------|----------|----------|----------|-----------------------|-------------------------|-------------------|----------------|------|-----|----|----|-----|------|
| 1 | 27.8 | 14.6 | 0.0 | 11.6 | 18.8 | 17.0 | 10.4 | 0.0 | 1013.0 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 158 | 3.7 | 4.3 | 197 | 19 | 1356 | 167 | 8 | 13 | 0.0 | |
| 2 | 27.6 | 16.2 | 0.0 | 12.7 | 19.2 | 17.1 | 7.7 | 0.0 | 1014.3 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 209 | 2.5 | 3.1 | 174 | 13 | 1153 | 172 | 5 | 13 | 0.0 | |
| 3 | 28.0 | 13.4 | 7.7 | 10.3 | 19.5 | 17.2 | 8.0 | 0.0 | 1014.6 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 208 | 4.4 | 4.7 | 205 | 20 | 1620 | 212 | 10 | 16 | 4.6 | |
| 4 | 21.4 | 16.2 | 4.3 | 14.2 | 19.7 | 17.4 | 1.8 | 0.0 | 1009.8 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 214 | 5.5 | 6.5 | 261 | 21 | 1923 | 256 | 10 | 17 | 2.2 | |
| 5 | 24.1 | 13.4 | tr | 10.0 | 19.1 | 17.5 | 7.9 | 0.0 | 1012.6 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 228 | 4.2 | 4.6 | 206 | 17 | 1807 | 209 | 8 | 18 | 0.0 | |
| 6 | 19.7 | 12.6 | 0.3 | 9.5 | 19.3 | 17.5 | 1.9 | 0.0 | 1004.1 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 231 | 5.2 | 5.6 | 253 | 15 | 1904 | 234 | 7 | 15 | 0.4 | |
| 7 | 19.5 | 11.2 | 5.9 | 9.4 | 18.7 | 17.6 | 6.3 | 0.0 | 1003.7 | 0 0 0 0 | 1 0 0 0 | 0 0 0 0 | 233 | 5.6 | 6.0 | 268 | 29 | 1510 | 222 | 11 | 11 | 1.9 | |
| 8 | 21.0 | 9.8 | 0.2 | 6.3 | 18.4 | 17.6 | 5.1 | 0.0 | 1006.8 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 262 | 7.1 | 7.4 | 269 | 26 | 1531 | 266 | 13 | 13 | 0.3 | |
| 9 | 20.6 | 10.8 | 0.0 | 7.6 | 18.1 | 17.5 | 9.8 | 0.0 | 1022.1 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 300 | 5.1 | 5.5 | 299 | 19 | 1006 | 310 | 9 | 07 | 0.0 | |
| 10 | 23.3 | 7.9 | 0.9 | 4.6 | 17.9 | 17.4 | 6.5 | 0.0 | 1023.6 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 228 | 6.7 | 6.8 | 217 | 24 | 1731 | 225 | 11 | 17 | 0.4 | |
| 11 | 21.5 | 14.4 | 1.6 | 12.6 | 18.2 | 17.4 | 1.2 | 0.0 | 1011.3 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 232 | 8.1 | 8.2 | 196 | 22 | 1232 | 225 | 11 | 12 | 0.9 | |
| 12 | 22.4 | 14.5 | 2.8 | 11.8 | 18.4 | 17.4 | 0.9 | 0.0 | 1011.3 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 226 | 4.8 | 5.1 | 220 | 15 | 2339 | 232 | 7 | 15 | 1.4 | |
| 13 | 20.3 | 15.7 | 0.0 | 15.0 | 18.7 | 17.4 | 1.4 | 0.0 | 1005.5 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 230 | 5.4 | 5.9 | 264 | 19 | 1048 | 270 | 9 | 10 | 0.0 | |
| 14 | 22.5 | 13.9 | 0.0 | 11.0 | 18.6 | 17.4 | 4.6 | 0.0 | 1006.4 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 250 | 5.0 | 5.3 | 265 | 17 | 1412 | 261 | 8 | 14 | 0.0 | |
| 15 | 21.3 | 8.4 | 0.7 | 3.1 | 18.4 | 17.4 | 6.9 | 0.0 | 1016.3 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 237 | 4.3 | 4.6 | 221 | 17 | 1649 | 241 | 8 | 12 | 1.0 | |
| 16 | 22.1 | 13.0 | tr | 9.7 | 18.3 | 17.4 | 2.1 | 0.0 | 1015.9 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 217 | 6.0 | 6.3 | 217 | 23 | 1053 | 223 | 11 | 10 | 0.0 | |
| 17 | 19.1 | 10.4 | 1.2 | 6.7 | 18.1 | 17.4 | 0.1 | 0.0 | 1017.7 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 30 | 2.6 | 3.1 | 81 | 12 | 1125 | 52 | 5 | 11 | 1.5 | |
| 18 | 14.7 | 9.4 | 61.6 | 5.1 | 17.8 | 17.4 | 0.0 | 0.0 | 1015.4 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 16 | 4.6 | 4.8 | 25 | 20 | 1059 | 13 | 10 | 10 | 8.5 | |
| 19 | 21.3 | 7.0 | 0.0 | 2.8 | 16.3 | 17.3 | 10.5 | 0.0 | 1019.7 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 218 | 4.8 | 4.9 | 206 | 19 | 1448 | 219 | 8 | 16 | 0.0 | |
| 20 | 21.4 | 11.5 | 4.8 | 8.0 | 17.0 | 17.1 | 6.5 | 0.0 | 1019.2 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 200 | 3.6 | 4.1 | 228 | 17 | 1114 | 214 | 8 | 11 | 1.8 | |
| 21 | 23.3 | 11.0 | 0.4 | 8.4 | 17.3 | 17.0 | 6.0 | 0.0 | 1013.0 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 246 | 3.6 | 4.0 | 255 | 19 | 1547 | 266 | 9 | 17 | 0.2 | |
| 22 | 23.3 | 7.6 | 1.0 | 3.4 | 17.5 | 17.0 | 10.5 | 0.0 | 1020.0 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 86 | 2.0 | 2.7 | 67 | 13 | 1552 | 81 | 5 | 15 | 2.2 | |
| 23 | 15.8 | 13.4 | 0.3 | 10.8 | 17.9 | 17.0 | 0.0 | 0.0 | 1012.9 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 10 | 3.4 | 4.5 | 24 | 16 | 0745 | 21 | 9 | 07 | 1.9 | |
| 24 | 21.4 | 12.9 | 7.4 | 9.4 | 17.4 | 17.0 | 4.5 | 0.0 | 1013.4 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 212 | 5.0 | 5.4 | 206 | 20 | 1530 | 210 | 10 | 15 | 2.0 | |
| 25 | 20.2 | 12.9 | 13.2 | 10.8 | 17.6 | 17.0 | 3.8 | 0.0 | 1010.2 | 0 0 0 0 | 1 0 0 0 | 0 0 0 0 | 183 | 3.9 | 4.9 | 202 | 21 | 1543 | 202 | 10 | 15 | 8.8 | |
| 26 | 18.2 | 12.8 | 2.3 | 12.8 | 17.6 | 17.0 | 2.6 | 0.0 | 1003.0 | 0 0 0 0 | 1 0 0 0 | 0 0 0 0 | 290 | 0.9 | 3.1 | 269 | 19 | 1417 | 282 | 7 | 14 | 1.5 | |
| 27 | 19.0 | 10.1 | 0.1 | 6.8 | 17.4 | 17.0 | 7.0 | 0.0 | 1012.8 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 254 | 6.2 | 6.3 | 257 | 25 | 1531 | 272 | 9 | 13 | 0.1 | |
| 28 | 18.4 | 11.5 | 2.2 | 9.9 | 17.4 | 17.0 | 5.3 | 0.0 | 1015.8 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 243 | 6.3 | 6.4 | 267 | 20 | 1448 | 258 | 9 | 11 | 0.5 | |
| 29 | 17.4 | 8.7 | 0.0 | 3.9 | 17.2 | 17.0 | 5.8 | 0.0 | 1018.1 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 281 | 4.8 | 5.2 | 277 | 17 | 0845 | 307 | 8 | 13 | 0.0 | |
| 30 | 17.2 | 11.7 | 0.0 | 11.0 | 17.1 | 16.9 | 0.0 | 0.0 | 1018.3 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 299 | 2.0 | 2.4 | 295 | 9 | 0832 | 329 | 4 | 11 | 0.0 | |
| 31 | 18.2 | 11.3 | 0.0 | 8.1 | 17.1 | 16.9 | 0.5 | 0.0 | 1016.3 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 40 | 1.7 | 2.1 | 19 | 11 | 1546 | 36 | 4 | 15 | 0.0 | |
| Total | | | 118.9 | | | | 145.6 | 0.0 | | | | | | | | | | | | | | | 42.1 |
| Mean | 21.0 | 11.9 | | 8.9 | 18.1 | 17.2 | 4.70 | 0.0 | 1013.5 | | | | | 236 | 3.2 | 5.0 | | | | | | | |
| Anom | -1.6 | -0.5 | 236% | | -0.6 | -0.4 | 75% | | | | | | | | | | | | | | | | |
| Daily mean | | 16.5 | | | | | | | | | | | | | | | | | | | | | |
| Anom | | -1.0 | | | | | | | | | | | | | | | | | | | | | |

Number of days with:

Air frost = 0 Ground frost = 0 Nil sun = 3
Snow falling = 0 Snow lying = 0 Thunder = 3
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 August 2011

| Date | VV | N | dd | ff | gg | TT | TdTd | RH | r | PPP | a | pppww | W1 | W2 | Nh | Cl | h | Cr | Cf | NChs | hshs | NChs | Date | Remarks | |
|------|----|---|----|----|----|------|------|----|------|--------|---|-------|----|----|----|----|---|----|----|------|-------|-------|-------|---------------------------------------|--|
| 1 | 75 | 6 | 09 | 01 | 06 | 22.1 | 11.8 | 52 | 8.6 | 1013.0 | 8 | 005 | 01 | 2 | 2 | 2 | 5 | 7 | 8 | 1 | 82656 | 86075 | 1 | 1Ac69 COTRA Ac flo vir Parhelion | |
| 2 | 86 | 2 | 27 | 02 | 08 | 22.5 | 13.5 | 57 | 9.5 | 1014.3 | 0 | 006 | 01 | 1 | 1 | 1 | 8 | 6 | 8 | 1 | 81835 | | 2 | 1Sc56 1Ac63 1Ac66 2Ci75 Cu hum Ac cas | |
| 3 | 61 | 3 | 12 | 01 | 05 | 22.0 | 15.8 | 68 | 11.3 | 1014.6 | 0 | 000 | 01 | 1 | 1 | 2 | 0 | 9 | 8 | 1 | 81358 | | 3 | 2Ac62 2Ci80 COTRA Ac cas | |
| 4 | 56 | 8 | 17 | 05 | 13 | 17.9 | 17.1 | 95 | 12.2 | 1009.8 | 7 | 013 | 63 | 6 | 6 | 7 | 7 | 2 | 2 | / | 82705 | 87708 | 88520 | 4 | |
| 5 | 78 | 7 | 25 | 02 | 10 | 18.9 | 13.1 | 69 | 9.3 | 1012.6 | 3 | 005 | 03 | 1 | 1 | 6 | 8 | 5 | / | 1 | 85822 | 83078 | | 5 | 2Sc40 COTRA Cu med |
| 6 | 75 | 7 | 24 | 05 | 12 | 16.5 | 11.3 | 71 | 8.5 | 1004.1 | 8 | 009 | 21 | 6 | 2 | 7 | 0 | 9 | 8 | / | 81359 | 85362 | 87365 | 6 | Ac cas |
| 7 | 83 | 7 | 24 | 10 | 20 | 16.5 | 11.0 | 70 | 7.9 | 1003.7 | 0 | 003 | 03 | 1 | 1 | 4 | 8 | 5 | 3 | 2 | 83820 | 83072 | | 7 | 2Sc50 1Ac62 Cu med |
| 8 | 84 | 6 | 28 | 07 | 16 | 16.2 | 10.1 | 67 | 8.0 | 1006.8 | 2 | 032 | 03 | 1 | 1 | 1 | 8 | 5 | 3 | 1 | 81832 | 85358 | | 8 | 1Sc56 2Ci78 COTRA Cu med |
| 9 | 82 | 3 | 31 | 08 | 19 | 15.4 | 7.0 | 57 | 6.0 | 1022.1 | 2 | 020 | 03 | 0 | 0 | 3 | 8 | 6 | 0 | 1 | 83830 | | | 9 | 1Sc40 1Ci78 Cu hum |
| 10 | 82 | 6 | 25 | 08 | 17 | 16.6 | 9.5 | 63 | 7.3 | 1023.6 | 7 | 015 | 03 | 1 | 1 | 1 | 8 | 5 | 8 | 1 | 81825 | 83358 | 85080 | 10 | 1Sc50 2Ac65 COTRA Cu fra Ac cas U/a cont |
| 11 | 62 | 8 | 22 | 08 | 19 | 16.4 | 14.9 | 91 | 10.6 | 1011.3 | 6 | 010 | 60 | 6 | 2 | 7 | 7 | 3 | 7 | / | 82707 | 87710 | | 11 | /Ac58 |
| 12 | 72 | 8 | 24 | 05 | 09 | 17.8 | 14.9 | 83 | 10.6 | 1011.3 | 1 | 004 | 02 | 2 | 2 | 8 | 5 | 4 | / | / | 83710 | 87713 | 88620 | 12 | |
| 13 | 82 | 6 | 27 | 08 | 15 | 17.5 | 14.4 | 82 | 10.4 | 1005.5 | 2 | 001 | 03 | 2 | 6 | 5 | 8 | 4 | / | 1 | 81712 | 84815 | | 13 | 2Sc35 2Ci75 Cu med |
| 14 | 84 | 7 | 25 | 06 | 11 | 17.9 | 11.5 | 66 | 8.5 | 1006.4 | 1 | 008 | 03 | 2 | 2 | 7 | 8 | 5 | 3 | 2 | 82822 | 87650 | | 14 | /Ac65 /Ci70 Cu med |
| 15 | 82 | 2 | 27 | 04 | 11 | 17.4 | 9.3 | 59 | 7.3 | 1016.3 | 2 | 011 | 03 | 0 | 0 | 1 | 2 | 6 | 4 | 4 | 81830 | | | 15 | 1Ac68 2Ci75 COTRA Cu med |
| 16 | 77 | 8 | 21 | 07 | 16 | 16.8 | 12.8 | 77 | 9.2 | 1015.9 | 7 | 002 | 02 | 2 | 2 | 8 | 5 | 4 | / | / | 85618 | 88630 | | 16 | |
| 17 | 84 | 7 | 03 | 06 | 10 | 16.2 | 10.9 | 71 | 8.1 | 1017.7 | 2 | 005 | 02 | 2 | 2 | 1 | 8 | 5 | 7 | / | 81820 | 83362 | 87465 | 17 | 1Sc40 2Ac62 Cu fra |
| 18 | 65 | 8 | 02 | 06 | 14 | 12.8 | 11.0 | 89 | 8.1 | 1015.4 | 2 | 002 | 63 | 6 | 2 | 7 | 5 | 6 | 2 | / | 82635 | 87640 | 88550 | 18 | |
| 19 | 63 | 2 | 26 | 02 | 06 | 14.4 | 12.4 | 87 | 9.0 | 1019.7 | 2 | 011 | 03 | 0 | 0 | 1 | 1 | 4 | 0 | 4 | 81810 | | | 19 | 2Ci80 COTRA Cu fra |
| 20 | 78 | 7 | 20 | 05 | 12 | 18.3 | 13.5 | 74 | 9.5 | 1019.2 | 8 | 004 | 02 | 2 | 2 | 5 | 1 | 5 | 3 | 1 | 85820 | 87072 | | 20 | 1Ac68 COTRA Cu hum |
| 21 | 82 | 7 | 25 | 04 | 07 | 17.7 | 12.2 | 70 | 8.7 | 1013.0 | 3 | 009 | 02 | 6 | 2 | 1 | 5 | 7 | 8 | / | 81650 | 83363 | 87465 | 21 | 1Ac60 /Ac68 Ac cas |
| 22 | 80 | 6 | 10 | 01 | 04 | 16.4 | 12.4 | 77 | 8.8 | 1020.0 | 2 | 002 | 03 | 1 | 1 | 1 | 1 | 4 | 3 | 8 | 81815 | 86075 | | 22 | 1Ac65 2Cs70 COTRA U/a cont |
| 23 | 70 | 8 | 01 | 06 | 13 | 13.7 | 12.5 | 92 | 9.0 | 1012.9 | 7 | 007 | 61 | 6 | 2 | 8 | 5 | 3 | / | / | 82707 | 86612 | 88620 | 23 | |
| 24 | 84 | 7 | 25 | 04 | 08 | 15.4 | 10.8 | 74 | 8.1 | 1013.4 | 2 | 003 | 21 | 6 | 2 | 7 | 8 | 4 | 0 | 1 | 81815 | 86656 | | 24 | 1Sc45 2Cu56 /Ci75 Cu fra Sc cas |
| 25 | 58 | 8 | 24 | 02 | 09 | 12.9 | 11.7 | 92 | 8.5 | 1010.2 | 0 | 006 | 95 | 9 | 6 | 8 | 9 | 3 | / | / | 83706 | 85630 | 88940 | 25 | |
| 26 | 57 | 8 | 02 | 02 | 05 | 14.1 | 13.6 | 97 | 9.7 | 1003.0 | 5 | 000 | 61 | 6 | 2 | 5 | 7 | 2 | 2 | / | 85704 | 88520 | | 26 | |
| 27 | 84 | 6 | 28 | 07 | 14 | 16.1 | 10.7 | 70 | 7.9 | 1012.8 | 2 | 018 | 03 | 1 | 1 | 4 | 8 | 5 | 3 | 0 | 82820 | 83650 | | 27 | 2Ac60 Cu med |
| 28 | 82 | 4 | 26 | 09 | 17 | 16.2 | 10.1 | 67 | 7.7 | 1015.8 | 0 | 004 | 03 | 1 | 1 | 3 | 8 | 5 | 3 | 0 | 81822 | 83656 | | 28 | 1Ac60 Cu med |
| 29 | 83 | 6 | 30 | 08 | 18 | 14.6 | 6.3 | 57 | 5.9 | 1018.1 | 0 | 005 | 03 | 1 | 1 | 1 | 8 | 6 | 0 | 1 | 81830 | 86075 | | 29 | 1Sc56 COTRA |
| 30 | 84 | 8 | 29 | 03 | 09 | 14.4 | 9.1 | 70 | 7.0 | 1018.3 | 0 | 003 | 02 | 2 | 2 | 8 | 8 | 4 | / | / | 81818 | 88645 | | 30 | Cu hum |
| 31 | 78 | 7 | 03 | 03 | 06 | 14.8 | 10.6 | 76 | 7.9 | 1016.3 | 1 | 004 | 02 | 2 | 2 | 7 | 5 | 6 | / | / | 87645 | | | 31 | |

Mean vis = 32.1 km

Mean cloud = 6.2 78%

Mean wind speed = 5.0 kn

Mean gust = 12 kn

Mean TT = 16.7 °C

Mean TdTd = 11.8 °C

Mean RH = 73.9 %

Mean r = 8.7 g/kg

Mean PPP = 1013.5 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 August 2011

| Date | VV | N | dd | ff | gg | TT | Td | Td | RH | r | PPP | a | ppp | ww | W1 | W2 | Nh | Cl | h | Cr | Cf | NChs | hshs | NChs | Date | Remarks | | | | |
|------|----|---|----|----|----|------|------|----|------|--------|-----|-----|-----|----|----|----|----|----|---|----|-------|-------|-------|-------|------------|------------|-----------|-----------------|--------|--------|
| 1 | 81 | 3 | 16 | 09 | 16 | 27.8 | 9.3 | 31 | 7.2 | 1011.4 | 7 | 004 | 02 | 1 | 1 | 1 | 2 | 7 | 4 | 1 | 81856 | 83075 | 1 | 1Ac68 | COTRA | Cu med | Parhelion | | | |
| 2 | 75 | 8 | 22 | 05 | 11 | 26.5 | 12.7 | 42 | 9.1 | 1012.8 | 6 | 007 | 15 | 2 | 2 | 2 | 2 | 7 | 6 | 7 | 82850 | 83359 | 88280 | 2 | 2Ac62 | COTRA | Cu con | jpNW vv50k exNW | | |
| 3 | 75 | 5 | 21 | 08 | 17 | 27.5 | 11.6 | 37 | 8.5 | 1013.6 | 7 | 005 | 03 | 2 | 2 | 1 | 2 | 7 | 3 | 2 | 81850 | 85362 | | 3 | 1Ci75 | Cu con | | | | |
| 4 | 60 | 7 | 25 | 10 | 20 | 19.2 | 17.5 | 90 | 12.4 | 1007.4 | 5 | 001 | 80 | 8 | 6 | 7 | 8 | 4 | 7 | / | 81710 | 83815 | 85630 | 4 | 7Sc45 | /Ac58 | vv30k | W Breaks W | | |
| 5 | 82 | 6 | 26 | 05 | 11 | 23.8 | 10.7 | 44 | 7.7 | 1010.7 | 8 | 010 | 02 | 2 | 2 | 3 | 8 | 7 | 0 | 1 | 82850 | 84078 | | 5 | 2Sc56 | COTRA | Cu med | | | |
| 6 | 80 | 7 | 26 | 05 | 14 | 18.5 | 10.0 | 58 | 7.5 | 1001.8 | 7 | 014 | 02 | 6 | 2 | 3 | 8 | 6 | 7 | / | 81835 | 83656 | 86365 | 6 | 3Ac60 | Cu med | | | | |
| 7 | 58 | 7 | 23 | 05 | 13 | 18.3 | 10.9 | 62 | 8.1 | 1002.5 | 7 | 008 | 17 | 9 | 8 | 5 | 9 | 5 | 6 | 3 | 82920 | 83830 | 83362 | 7 | 1Sc50 | 2Ci75 | ts | W | | |
| 8 | 84 | 7 | 26 | 13 | 23 | 19.5 | 6.9 | 44 | 6.1 | 1010.2 | 2 | 020 | 02 | 2 | 2 | 6 | 8 | 6 | 0 | 1 | 81848 | 86656 | | 8 | 2Ci75 | COTRA | Cu med | | | |
| 9 | 82 | 2 | 31 | 05 | 16 | 20.2 | 5.4 | 38 | 5.6 | 1024.1 | 2 | 005 | 01 | 1 | 1 | 2 | 4 | 7 | 0 | 1 | 81850 | | | 9 | 1Sc56 | 1Ci78 | COTRA | | | |
| 10 | 82 | 5 | 25 | 11 | 21 | 22.4 | 11.0 | 49 | 8.1 | 1019.3 | 7 | 022 | 02 | 1 | 1 | 2 | 8 | 6 | 3 | 1 | 81845 | 84075 | | 10 | 2Sc48 | 1Sc56 | 1Ac65 | COTRA | Cu hum | Sc len |
| 11 | 80 | 7 | 24 | 10 | 18 | 20.6 | 16.3 | 76 | 11.4 | 1009.3 | 6 | 003 | 25 | 8 | 6 | 4 | 8 | 5 | 7 | / | 82818 | 83645 | 88358 | 11 | Cu con | jpSW | vv60k | ex SW | | |
| 12 | 85 | 7 | 21 | 07 | 14 | 21.0 | 13.2 | 61 | 9.4 | 1010.2 | 8 | 007 | 03 | 2 | 2 | 7 | 8 | 6 | 3 | 2 | 82832 | 86650 | | 12 | /Ac65 | /Ci75 | COTRA | Cu med | | |
| 13 | 86 | 7 | 26 | 07 | 14 | 19.7 | 12.2 | 62 | 9.0 | 1005.5 | 8 | 001 | 02 | 2 | 2 | 4 | 8 | 6 | 3 | 2 | 82830 | 83635 | 87070 | 13 | 1Ac68 | Cu hum | | | | |
| 14 | 84 | 6 | 27 | 07 | 17 | 20.8 | 9.5 | 48 | 7.5 | 1007.1 | 2 | 005 | 02 | 2 | 2 | 6 | 8 | 6 | 0 | 0 | 83845 | 84656 | | 14 | Cu med | | | | | |
| 15 | 84 | 8 | 26 | 07 | 14 | 19.9 | 8.3 | 47 | 6.9 | 1016.9 | 2 | 001 | 03 | 2 | 2 | 4 | 8 | 6 | 7 | 8 | 82845 | 83656 | 87357 | 15 | /Cs70 | Cu med | | | | |
| 16 | 82 | 7 | 21 | 06 | 18 | 20.0 | 14.7 | 71 | 10.5 | 1014.6 | 6 | 011 | 02 | 5 | 2 | 7 | 8 | 5 | / | / | 81820 | 85825 | | 16 | 3Sc50 | Cu med | | | | |
| 17 | 70 | 8 | 01 | 05 | 09 | 18.1 | 8.2 | 52 | 6.6 | 1017.1 | 5 | 001 | 21 | 6 | 2 | 1 | 4 | 6 | 7 | / | 81640 | 86358 | 88462 | 17 | jp | N&SW | | | | |
| 18 | 58 | 8 | 03 | 06 | 15 | 12.9 | 12.3 | 96 | 8.8 | 1013.9 | 5 | 012 | 63 | 6 | 6 | 7 | 7 | 2 | 2 | / | 82705 | 87708 | 88540 | 18 | vv | 15k | N&NW | | | |
| 19 | 80 | 6 | 21 | 08 | 19 | 20.2 | 11.0 | 55 | 8.1 | 1019.0 | 5 | 005 | 02 | 2 | 2 | 2 | 8 | 6 | 3 | 2 | 82840 | 84070 | | 19 | 1Sc56 | 2Ac62 | 1Ac68 | Cu med | | |
| 20 | 82 | 6 | 23 | 03 | 07 | 17.9 | 13.9 | 77 | 9.9 | 1018.4 | 6 | 017 | 01 | 6 | 2 | 2 | 1 | 4 | 3 | 0 | 82815 | 85363 | | 20 | Cu | fra/hum | | | | |
| 21 | 84 | 3 | 23 | 07 | 15 | 22.9 | 12.7 | 53 | 8.8 | 1014.3 | 2 | 009 | 02 | 1 | 1 | 1 | 1 | 6 | 3 | 2 | 81838 | 83075 | | 21 | 1Ac65 | COTRA | Cu hum | Ci flo | | |
| 22 | 80 | 7 | 07 | 04 | 10 | 22.2 | 8.8 | 42 | 7.0 | 1017.5 | 7 | 020 | 02 | 2 | 2 | 1 | 4 | 7 | 7 | 8 | 81650 | 87272 | | 22 | 1Ac65 | COTRA | Halo | 22° | | |
| 23 | 32 | 8 | 34 | 03 | 08 | 14.6 | 13.7 | 94 | 9.8 | 1012.1 | 6 | 002 | 51 | 5 | 5 | 8 | 6 | 2 | / | / | 82704 | 87706 | 88612 | 23 | | | | | | |
| 24 | 84 | 6 | 22 | 10 | 19 | 20.7 | 10.4 | 51 | 7.6 | 1012.4 | 7 | 007 | 03 | 1 | 1 | 2 | 1 | 6 | 0 | 1 | 82840 | 85078 | | 24 | COTRA | Cu hum | | | | |
| 25 | 86 | 3 | 21 | 09 | 19 | 19.8 | 8.2 | 47 | 6.7 | 1008.9 | 8 | 005 | 01 | 1 | 1 | 1 | 2 | 6 | 7 | 1 | 81840 | 83075 | | 25 | 1Ac62 | Cu med | | | | |
| 26 | 82 | 7 | 28 | 06 | 19 | 14.9 | 11.1 | 78 | 8.3 | 1003.2 | 3 | 005 | 25 | 8 | 2 | 2 | 9 | 4 | 6 | 3 | 81915 | 84361 | | 26 | 1Cu18 | 2Sc50 | 3Ci70 | jp | NW&SE | |
| 27 | 84 | 6 | 25 | 09 | 19 | 17.2 | 6.7 | 50 | 6.0 | 1013.4 | 3 | 001 | 15 | 2 | 2 | 2 | 2 | 6 | 6 | 0 | 82838 | 85357 | | 27 | Cu med/con | Absent | vv&cld | est | | |
| 28 | 80 | 6 | 25 | 10 | 20 | 16.3 | 9.2 | 63 | 7.3 | 1015.4 | 6 | 001 | 25 | 8 | 1 | 6 | 8 | 6 | 6 | / | 82830 | 85656 | | 28 | 1Ac60 | Cu med/con | Absent | vv&cld | est | |
| 29 | 86 | 7 | 32 | 07 | 15 | 16.1 | 5.5 | 49 | 5.8 | 1018.0 | 2 | 002 | 02 | 2 | 2 | 7 | 8 | 6 | / | 1 | 81845 | 83650 | 87656 | 29 | /Ci75 | COTRA | Cu hum | | | |
| 30 | 85 | 8 | 32 | 03 | 08 | 16.5 | 7.1 | 54 | 6.3 | 1016.9 | 6 | 005 | 02 | 2 | 2 | 8 | 8 | 6 | / | / | 82838 | 88645 | | 30 | Cu hum | | | | | |
| 31 | 82 | 7 | 03 | 04 | 08 | 17.0 | 9.2 | 60 | 7.1 | 1015.0 | 8 | 012 | 02 | 2 | 2 | 7 | 8 | 6 | / | 1 | 82832 | 87642 | | 31 | COTRA | Cu hum | | | | |

Mean vis = 37.2 km

Mean cloud = 6.3 79%

Mean wind speed = 6.9 kn

Mean gust = 15 kn

Mean TT = 19.8 °C

Mean TdDd = 10.6 °C

Mean RH = 57.5 %

Mean r = 8.0 g/kg

Mean PPP = 1012.7 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

TdDd = 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-Aug | 02-Aug | 03-Aug | 04-Aug | 05-Aug | 06-Aug | 07-Aug | 08-Aug | 09-Aug | 10-Aug | 11-Aug | 12-Aug | 13-Aug | 14-Aug | 15-Aug | 16-Aug |
|-----------------|--|------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 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 |
| 2011 | | 4 | 0.00 | 0.00 | 0.00 | 0.00 | 0.20 | 0.00 | 0.22 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | 5 | 0.00 | 0.06 | 0.00 | 0.00 | 1.00 | 0.00 | 0.92 | 0.35 | 1.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.98 | 0.00 |
| | | 6 | 0.00 | 0.80 | 0.01 | 0.00 | 1.00 | 0.00 | 0.41 | 0.23 | 1.00 | 0.60 | 0.00 | 0.00 | 0.00 | 0.02 | 1.00 | 0.00 |
| | | 7 | 0.00 | 0.91 | 0.29 | 0.00 | 0.94 | 0.00 | 0.72 | 0.97 | 1.00 | 0.37 | 0.00 | 0.00 | 0.00 | 0.09 | 1.00 | 0.01 |
| | | 8 | 0.67 | 1.00 | 0.68 | 0.00 | 0.18 | 0.01 | 0.56 | 0.24 | 0.85 | 0.72 | 0.00 | 0.00 | 0.34 | 0.14 | 1.00 | 0.00 |
| | | 9 | 1.00 | 1.00 | 1.00 | 0.00 | 0.68 | 0.00 | 0.93 | 0.64 | 0.56 | 0.27 | 0.00 | 0.00 | 0.84 | 0.21 | 0.99 | 0.00 |
| | | 10 | 1.00 | 0.59 | 0.39 | 0.00 | 0.58 | 0.00 | 0.43 | 0.44 | 0.00 | 0.45 | 0.00 | 0.00 | 0.18 | 0.29 | 0.47 | 0.01 |
| | | 11 | 0.93 | 0.89 | 0.11 | 0.00 | 0.21 | 0.00 | 0.43 | 0.37 | 0.44 | 0.30 | 0.00 | 0.00 | 0.00 | 0.37 | 0.65 | 0.00 |
| | | 12 | 0.96 | 0.70 | 0.27 | 0.00 | 0.58 | 0.03 | 0.13 | 0.32 | 0.53 | 0.99 | 0.03 | 0.03 | 0.00 | 0.46 | 0.43 | 0.05 |
| | | 13 | 1.00 | 0.76 | 0.23 | 0.05 | 0.31 | 0.17 | 0.06 | 0.31 | 0.83 | 0.96 | 0.00 | 0.40 | 0.00 | 0.27 | 0.39 | 0.36 |
| | | 14 | 0.97 | 0.31 | 0.55 | 0.01 | 0.68 | 0.00 | 0.61 | 0.04 | 0.88 | 0.86 | 0.08 | 0.42 | 0.08 | 0.60 | 0.03 | 0.05 |
| | | 15 | 1.00 | 0.18 | 0.89 | 0.16 | 0.76 | 0.11 | 0.02 | 0.37 | 0.97 | 0.55 | 0.36 | 0.00 | 0.01 | 0.05 | 0.00 | 0.15 |
| | | 16 | 1.00 | 0.17 | 1.00 | 0.71 | 0.51 | 0.13 | 0.22 | 0.18 | 0.59 | 0.32 | 0.26 | 0.00 | 0.00 | 0.59 | 0.00 | 0.30 |
| | | 17 | 1.00 | 0.01 | 1.00 | 0.43 | 0.00 | 0.32 | 0.18 | 0.04 | 0.64 | 0.00 | 0.20 | 0.00 | 0.00 | 0.49 | 0.00 | 0.28 |
| | | 18 | 0.82 | 0.26 | 1.00 | 0.36 | 0.32 | 0.72 | 0.45 | 0.26 | 0.38 | 0.04 | 0.29 | 0.00 | 0.00 | 0.80 | 0.00 | 0.80 |
| | | 19 | 0.08 | 0.00 | 0.51 | 0.05 | 0.00 | 0.37 | 0.00 | 0.39 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.22 | 0.00 | 0.05 |
| | | 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 | | | 10.44 | 7.65 | 7.91 | 1.78 | 7.94 | 1.86 | 6.29 | 5.15 | 9.77 | 6.48 | 1.23 | 0.85 | 1.44 | 4.62 | 6.94 | 2.07 |

| | | Hour | 17-Aug | 18-Aug | 19-Aug | 20-Aug | 21-Aug | 22-Aug | 23-Aug | 24-Aug | 25-Aug | 26-Aug | 27-Aug | 28-Aug | 29-Aug | 30-Aug | 31-Aug | Mean |
|-----|--|------|-------------|-------------|--------------|-------------|-------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|
| | | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | 3 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | 4 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 |
| | | 5 | 0.00 | 0.00 | 0.61 | 0.12 | 0.00 | 0.80 | 0.00 | 0.00 | 0.00 | 0.00 | 0.58 | 0.00 | 0.19 | 0.00 | 0.00 | 0.21 |
| | | 6 | 0.00 | 0.00 | 1.00 | 0.97 | 0.12 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.36 | 1.00 | 0.00 | 0.00 | 0.34 |
| | | 7 | 0.03 | 0.00 | 1.00 | 0.76 | 0.16 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.40 |
| | | 8 | 0.00 | 0.00 | 1.00 | 0.51 | 0.07 | 1.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.75 | 0.98 | 0.97 | 0.00 | 0.00 | 0.38 |
| | | 9 | 0.08 | 0.00 | 1.00 | 0.40 | 0.28 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.21 | 0.57 | 0.63 | 0.00 | 0.00 | 0.40 |
| | | 10 | 0.00 | 0.00 | 0.88 | 0.06 | 0.00 | 1.00 | 0.00 | 0.08 | 0.32 | 0.00 | 0.26 | 0.36 | 0.74 | 0.00 | 0.00 | 0.28 |
| | | 11 | 0.00 | 0.00 | 0.53 | 0.00 | 0.00 | 0.91 | 0.00 | 0.86 | 0.45 | 0.00 | 0.38 | 0.39 | 0.92 | 0.00 | 0.00 | 0.29 |
| | | 12 | 0.00 | 0.00 | 0.62 | 0.00 | 0.09 | 0.94 | 0.00 | 0.91 | 0.48 | 0.04 | 0.50 | 0.18 | 0.25 | 0.00 | 0.00 | 0.31 |
| | | 13 | 0.00 | 0.00 | 0.67 | 0.07 | 0.36 | 0.41 | 0.00 | 0.71 | 0.10 | 0.33 | 0.50 | 0.43 | 0.08 | 0.00 | 0.01 | 0.31 |
| | | 14 | 0.00 | 0.00 | 0.06 | 0.40 | 0.93 | 0.82 | 0.00 | 0.85 | 0.72 | 0.06 | 0.28 | 0.58 | 0.01 | 0.00 | 0.00 | 0.35 |
| | | 15 | 0.00 | 0.00 | 0.51 | 0.90 | 1.00 | 0.89 | 0.00 | 0.11 | 0.99 | 0.64 | 0.05 | 0.00 | 0.00 | 0.00 | 0.01 | 0.34 |
| | | 16 | 0.00 | 0.00 | 0.96 | 1.00 | 1.00 | 0.77 | 0.00 | 0.23 | 0.59 | 1.00 | 0.48 | 0.06 | 0.00 | 0.00 | 0.34 | 0.40 |
| | | 17 | 0.00 | 0.00 | 0.87 | 1.00 | 1.00 | 0.00 | 0.00 | 0.70 | 0.00 | 0.47 | 0.52 | 0.00 | 0.00 | 0.00 | 0.14 | 0.30 |
| | | 18 | 0.00 | 0.00 | 0.76 | 0.30 | 0.94 | 0.00 | 0.00 | 0.00 | 0.12 | 0.07 | 0.45 | 0.41 | 0.00 | 0.00 | 0.00 | 0.31 |
| | | 19 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 |
| | | 20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | 21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | 22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | 23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tot | | | 0.11 | 0.00 | 10.49 | 6.49 | 5.95 | 10.53 | 0.00 | 4.46 | 3.76 | 2.62 | 6.97 | 5.33 | 5.80 | 0.00 | 0.50 | 145.39 |

| August 2011 | 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 | 20.80 | 28.1 | 1501 | 14.5 | 425 | 55.7 | 84.0 | 2325 | 24.7 | 1714 | 10.55 | 7.96 | 10.0 | 2353 | 4.8 | 1925 | 1012.76 | 1014.4 | 13 | 1011.1 | 1529 | 0.0 |
| 2 | 21.51 | 27.6 | 1444 | 16.0 | 2359 | 67.2 | 91.3 | 532 | 39.6 | 1445 | 14.58 | 10.28 | 12.0 | 1008 | 8.9 | 1343 | 1013.66 | 1014.7 | 2331 | 1012.6 | 1436 | 0.0 |
| 3 | 20.78 | 28.5 | 1328 | 13.2 | 425 | 66.5 | 97.0 | 437 | 33.7 | 1544 | 13.37 | 9.54 | 12.8 | 900 | 7.8 | 1544 | 1014.12 | 1015.1 | 2239 | 1013.0 | 1604 | 0.0 |
| 4 | 17.88 | 21.6 | 1637 | 13.9 | 2324 | 85.8 | 95.9 | 657 | 57.0 | 1823 | 15.35 | 10.93 | 13.7 | 1209 | 8.5 | 1823 | 1009.97 | 1014.5 | 5 | 1006.9 | 1402 | 11.1 |
| 5 | 18.32 | 24.2 | 1514 | 13.3 | 447 | 70.6 | 94.5 | 510 | 39.2 | 1515 | 12.36 | 8.93 | 10.9 | 753 | 7.1 | 1634 | 1010.96 | 1012.7 | 903 | 1008.2 | 2351 | 0.0 |
| 6 | 15.83 | 19.8 | 1616 | 12.4 | 314 | 72.3 | 91.7 | 316 | 48.3 | 1614 | 10.56 | 7.99 | 9.1 | 2 | 6.4 | 1925 | 1003.62 | 1008.4 | 3 | 1000.8 | 1802 | 0.3 |
| 7 | 14.17 | 19.6 | 1125 | 11.2 | 452 | 82.5 | 97.4 | 2152 | 51.4 | 1127 | 11.04 | 8.25 | 9.8 | 1832 | 7.1 | 1108 | 1002.61 | 1003.9 | 831 | 1001.0 | 2315 | 5.3 |
| 8 | 15.48 | 21.2 | 1557 | 9.9 | 409 | 72.3 | 96.6 | 425 | 40.8 | 1546 | 10.00 | 7.67 | 9.0 | 2225 | 6.0 | 1503 | 1008.25 | 1016.5 | 2356 | 1000.9 | 25 | 0.4 |
| 9 | 15.34 | 21.1 | 1549 | 9.6 | 2348 | 56.9 | 88.9 | 2353 | 33.4 | 1543 | 6.35 | 5.89 | 7.2 | 1501 | 4.9 | 1526 | 1022.50 | 1026.7 | 2336 | 1016.3 | 0 | 0.0 |
| 10 | 15.95 | 23.6 | 1444 | 8.1 | 339 | 69.9 | 95.6 | 419 | 42.6 | 1356 | 9.97 | 7.58 | 9.4 | 1654 | 6.3 | 339 | 1021.39 | 1026.6 | 32 | 1015.2 | 2340 | 0.0 |
| 11 | 17.25 | 22.0 | 1552 | 14.4 | 309 | 81.6 | 93.2 | 949 | 65.2 | 1643 | 14.03 | 10.00 | 12.6 | 1426 | 8.2 | 247 | 1011.01 | 1015.7 | 5 | 1008.8 | 1612 | 2.4 |
| 12 | 18.00 | 22.5 | 1416 | 14.5 | 432 | 79.6 | 93.0 | 453 | 53.5 | 1424 | 14.28 | 10.12 | 11.2 | 1223 | 8.9 | 1403 | 1010.36 | 1011.4 | 816 | 1008.8 | 2336 | 0.0 |
| 13 | 17.36 | 20.6 | 951 | 14.1 | 2357 | 79.5 | 95.9 | 624 | 59.6 | 1458 | 13.61 | 9.76 | 12.7 | 843 | 8.2 | 1159 | 1006.01 | 1009.1 | 0 | 1005.0 | 657 | 2.5 |
| 14 | 17.19 | 22.6 | 1250 | 12.7 | 2349 | 67.2 | 92.5 | 44 | 37.3 | 1655 | 10.49 | 7.96 | 9.6 | 746 | 6.0 | 1657 | 1007.33 | 1012.5 | 2354 | 1004.9 | 519 | 0.0 |
| 15 | 15.42 | 21.6 | 1241 | 8.5 | 506 | 72.9 | 96.3 | 530 | 37.4 | 1148 | 9.98 | 7.63 | 9.5 | 1926 | 5.8 | 1153 | 1016.26 | 1018.6 | 2159 | 1012.4 | 2 | 0.7 |
| 16 | 17.13 | 22.5 | 1610 | 13.0 | 343 | 76.3 | 94.1 | 346 | 52.7 | 1744 | 12.72 | 9.10 | 11.1 | 1545 | 7.9 | 2353 | 1015.91 | 1017.9 | 0 | 1014.2 | 1635 | 0.0 |
| 17 | 14.81 | 19.0 | 1125 | 10.6 | 310 | 76.8 | 96.8 | 537 | 49.8 | 1324 | 10.50 | 7.85 | 9.2 | 1606 | 6.5 | 1504 | 1017.13 | 1017.9 | 1017 | 1016.4 | 1831 | 0.2 |
| 18 | 12.01 | 13.3 | 1706 | 9.7 | 144 | 92.3 | 97.0 | 1706 | 79.3 | 520 | 10.79 | 8.02 | 9.2 | 1706 | 6.9 | 144 | 1015.37 | 1017.1 | 18 | 1013.2 | 1706 | 51.7 |
| 19 | 14.52 | 21.5 | 1350 | 7.1 | 405 | 78.0 | 98.6 | 641 | 45.4 | 1342 | 10.30 | 7.75 | 9.7 | 1015 | 6.1 | 405 | 1018.83 | 1020.0 | 2155 | 1016.1 | 5 | 0.1 |
| 20 | 15.97 | 21.4 | 1639 | 11.4 | 516 | 80.9 | 97.0 | 608 | 52.3 | 1802 | 12.52 | 8.98 | 11.2 | 1609 | 7.5 | 2235 | 1018.00 | 1020.2 | 1237 | 1013.7 | 2347 | 4.2 |
| 21 | 16.83 | 23.5 | 1550 | 11.1 | 238 | 74.2 | 96.7 | 516 | 44.1 | 1720 | 11.81 | 8.61 | 11.8 | 1257 | 7.2 | 1728 | 1014.23 | 1018.5 | 2328 | 1011.8 | 334 | 0.3 |
| 22 | 15.92 | 23.1 | 1320 | 7.7 | 520 | 72.4 | 97.7 | 619 | 40.0 | 1224 | 10.29 | 7.74 | 9.8 | 922 | 6.2 | 520 | 1018.55 | 1020.1 | 834 | 1016.8 | 2359 | 0.1 |
| 23 | 14.41 | 15.6 | 41 | 12.7 | 2224 | 89.6 | 96.1 | 2232 | 75.7 | 306 | 12.72 | 9.12 | 10.0 | 1410 | 8.0 | 309 | 1013.16 | 1016.8 | 0 | 1011.6 | 1545 | 1.2 |
| 24 | 16.15 | 21.6 | 1404 | 13.4 | 304 | 76.3 | 96.0 | 535 | 42.4 | 1232 | 11.55 | 8.46 | 9.7 | 609 | 6.3 | 1233 | 1012.98 | 1013.9 | 944 | 1011.7 | 2357 | 0.0 |
| 25 | 15.49 | 20.4 | 1518 | 12.6 | 918 | 78.1 | 95.0 | 2359 | 43.2 | 1510 | 11.39 | 8.42 | 10.5 | 1105 | 6.2 | 1610 | 1009.30 | 1011.9 | 4 | 1007.1 | 2359 | 8.6 |
| 26 | 14.17 | 18.3 | 1349 | 11.6 | 2356 | 89.4 | 97.5 | 557 | 63.4 | 1715 | 12.34 | 8.99 | 10.8 | 1236 | 7.5 | 1606 | 1004.37 | 1007.6 | 2359 | 1002.5 | 820 | 10.5 |
| 27 | 14.30 | 19.3 | 1401 | 10.2 | 443 | 74.7 | 96.2 | 11 | 38.9 | 1359 | 9.52 | 7.39 | 9.1 | 814 | 5.2 | 1359 | 1012.82 | 1016.1 | 2128 | 1007.5 | 0 | 0.2 |
| 28 | 14.00 | 18.6 | 1437 | 11.1 | 2301 | 78.2 | 92.0 | 2213 | 55.9 | 1124 | 10.13 | 7.66 | 9.3 | 1309 | 6.7 | 1511 | 1016.02 | 1017.6 | 2326 | 1014.8 | 353 | 1.6 |
| 29 | 13.73 | 17.7 | 1159 | 8.9 | 434 | 65.4 | 94.8 | 437 | 38.8 | 1200 | 6.86 | 6.16 | 7.8 | 15 | 4.6 | 1208 | 1017.96 | 1019.0 | 2024 | 1016.8 | 457 | 0.0 |
| 30 | 14.03 | 17.2 | 1351 | 11.2 | 2139 | 70.8 | 90.9 | 2357 | 51.9 | 1359 | 8.63 | 6.92 | 8.2 | 2338 | 6.0 | 1450 | 1017.21 | 1018.6 | 3 | 1015.9 | 1927 | 0.0 |
| 31 | 13.69 | 18.3 | 1620 | 8.2 | 2358 | 78.4 | 94.7 | 2341 | 50.6 | 1327 | 9.75 | 7.48 | 8.4 | 942 | 6.3 | 2358 | 1015.65 | 1016.6 | 940 | 1014.5 | 1808 | 0.0 |
| Total | | | | | | | | | | | | | | | | | | | | | | 101.4 |
| Mean | 16.08 | 21.15 | | 11.50 | | 75.2 | 94.67 | | 48.00 | | 11.24 | 8.36 | 10.16 | | 6.77 | | 1013.17 | 1015.82 | | 1010.65 | | |
| Max | 21.51 | 28.52 | | 15.99 | | 92.3 | 98.60 | | 79.30 | | 15.35 | 10.93 | 13.66 | | 8.92 | | 1022.50 | 1026.71 | | 1016.81 | | |
| Min | 12.01 | 13.34 | | 7.13 | | 55.7 | 84.00 | | 24.66 | | 6.35 | 5.89 | 7.15 | | 4.64 | | 1002.61 | 1003.88 | | 1000.78 | | |

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

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

SUMMER 2011

| | | | | | | | | | |
|--|----------------------------|--------------|------------------|----------------|-------|-------------|-------|---------|--------|
| Temperature (°C) | Rank in the past 130 years | | | | | | | | |
| Mean maximum | 20.7 | (-1.3) | 47 th | lowest | | | | | |
| Mean minimum | 10.9 | (-0.9) | 51 st | lowest | | | | | |
| Daily mean | 15.8 | (-1.1) | 48 th | lowest | | | | | |
| Rainfall total (mm) | 234.7 | (162%) | 16 th | highest | | | | | |
| Sunshine total (hours) | 494.4 | (85%) | | | | | | | |
| N° of: | Dry days | 47 (-11) | Wet days | 35 (+11) | | | | | |
| Days with: Air frost | 0 (0) | Ground frost | 1 (0) | Snow falling | 0 (0) | Snow lying | 0 (0) | | |
| Thunder | 6 (-1) | Hail ≥5mm | 0 (0) | Small hail/ice | 0 (0) | Fog @09 GMT | 0 (0) | Nil sun | 5 (+2) |
| Air pressure MSL : Mean @09 GMT (mbar) | 1014.2 | (-2.4) | | | | | | | |

Departure from 1981 to 2010 average shown in brackets.

Notes:

Wet and Dull with Temperature Below Normal

This has been a pretty dismal summer season overall, coolest for 23 years, second wettest after 2007 since 1971, and sunshine only just outside the very dull category. **Temperature:** Both the mean maximum and daily mean are lowest since 1988. The mean minimum is equal lowest with 1988 since 1978. None of the summer months had a mean temperature above normal, with July coming off worst with an anomaly of -1.8° for the mean max, and -1.6° for the daily mean and mean min. June fared the best, with the anomaly for mean max of -0.4° , and for daily mean, -0.7° . The highest max was 28.6° on the 27th June, anomaly -1.7° compared to the long-term median. The lowest max was 14.7° on the 18th August, 0.3° above the median. The highest min, 16.2° on the 4th August, is 0.8° below the median, and the lowest min, 4.0° on the 12th June is 0.3° below the median. Overall there were just 8 days with a max of 25° or more, compared with an average of 18 since 1976. The mean grass min was 7.9° , 1.0° below average and equal lowest with 1984 since before 1980. The lowest grass min was -0.9° on the 1st June. The mean earth temperature at 30 cm depth was 17.4° , anomaly -0.6° and equal lowest with 1991 since 1988, and at 1 m depth the mean was 16.2° . **Rainfall:** This has been a wet summer overall, though with some dry interludes, with the total rainfall only 4.6 mm below the very wet category. 1968, 1970 and 1971 all had very wet summers, and apart from 2007, this is the wettest since then. Despite the high total, July actually contained a fair amount of dry weather, and was the driest summer month with 39.6 mm. June was wet and August very wet, with 118.9 mm, 236 % of average. The total was enhanced by one exceptional daily fall of 61.1 mm on the 18th August, the highest daily fall in the local records for any summer day since before 1904, the previous highest being 56.0 mm on the 20th August 1932, and some local flooding ensued. Thunder was heard on 6 days, 1 in June, 2 in July and 3 in August. No hail was recorded this summer. There were 11 fewer dry days than average, but there were some dry spells, one of 5 days ending on the 4th June, 6 days on the 4th July, 5 days on the 14th July and 11 days on the 2nd August. Estimated soil moisture deficit reached a maximum of 214 mm near mid August compared with a 36 year median of 188 mm. Shallow rooted plants were stressed between late May and mid June and again in the first week of August. Rainfall duration was 124.0 hours, 37.1 hours above normal and 2nd highest in 19 years. The highest rainfall rate was 102 mm/hr on the 18th August. **Sunshine:** Sunshine has not been a strong point this summer, the dullist since 2002. Compared with average, there was a deficit of 89.8 hours of sunshine. Monthly totals failed to reach the average in all of the summer months, with August the poorest with just 75 %, and June the best with 92 % of average. The 3rd of June was the sunniest day with 15.1 hours. Overall there were 31 days with <3 hours, 43 with \Rightarrow 6 hours, 17 with \Rightarrow 9 hours and 7 with \Rightarrow 12 hours. **Wind:** The mean wind speed of 6.1 mph is exactly average. The windiest day was the 6th July with a mean speed of 10.8 mph, and the highest gust was 38 mph on the 8th July. The 31st August was the least windy day, mean 2.4 mph, and there were 1781 minutes (29.7 hours), of calm (speed 0.5 mph or less). Daily mean direction/number of days: N,12 NE,8 E,1 SE,0 S,14 SW,39 W,11 NW,7. Compared with average, winds from E and SE were down 8.4 %, from W and NW also down 5.5 %, while SW winds were up 8.4 %, and N winds up 3.8 %. **Humidity:** The overall mean relative humidity was 73.2 %. The lowest value was 25 % on the 1st August. The mean water vapour content per kg of air was 8.0 g at 0900 GMT and 7.7 g at 1500 GMT, both about 1 g below normal. **Pressure:** The highest pressure was 1034.5 mbar on the 2nd June, and the lowest was 992.1 mbar on the 17th July, a range of 42.4 mbar, compared with an average of 35.0 mbar.

June: Dull and wet with below normal temperature. Coolest with 1999 since 1990. Earth temp. at 30 cm lowest since 1995.

July: Temperature, sunshine and rainfall all below normal. Lowest mean min since 1980, and mean temp. equal lowest with 2000 since 1988. Highest min 6th lowest in 99 years. Mean grass min lowest since 1984.

August: Very wet with a new 24 hour rainfall record, very dull, temperature below average. Lowest max lowest since 1986. Wettest since 1977 and 6th wettest since before 1882. 61.6 mm fell on the 18th, a new record for August and 3rd highest for any day in the past 107 years. Sunshine on month's sunniest day lowest since before 1979.

| Month | Mean Max | Anom | Mean Min | Anom | Rain mm | Anom | Sun hrs | Anom | Wind Mn mph | Max gust | Mean pressure | Anom |
|--------|----------|-------|----------|-------|---------|------|---------|------|-------------|----------|---------------|------|
| June | 20.1° | -0.4° | 9.6° | -0.9° | 76.2 | 155% | 177.8 | 92% | 6.8 | 32 | 1015.7 | -1.4 |
| July | 21.1° | -1.8° | 11.0° | -1.6° | 39.6 | 88% | 171.0 | 86% | 5.8 | 38 | 1013.6 | -3.0 |
| August | 21.0° | -1.6° | 11.9° | -0.5° | 118.9 | 236% | 145.6 | 75% | 5.8 | 33 | 1013.5 | -2.8 |

B J Burton FRMetS.

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 1971 to 2000. 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 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 1971 to 2000 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/www1.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.