



Weather Front

December 2020/1920

December 2020

Observers Notes.

Lowdham: The mean maximum temperature for December is the lowest since 2010.

Derby: December 2020 was the coldest since 2012 and the tenth wettest since 1952.

Middleton: December 2020 was the coldest, and wettest, December since 2012. It was also the second dullest month of any on record; the first half of the month recorded only 6.2 hours of sunshine.

Mountsorrel: The month began on the cold side, with a little snow on the 4th. The middle of the month was generally mild before it got much colder after the 25th. Storm Bella gave maximum winds of 44 mph (38 kt) on the 27th. Here was a very rapid drop of pressure from 1030 mb on Christmas Day to 967 mb on Boxing Day; a drop of 63 mb in less than 48 hours. A light cover of snow, of 1 cm depth, was recorded on the 27th. Exceptionally small hail was noted at 0730 on the 27th. This was the coldest December since 2012, and the wettest December in 20 years of records.

Coton in the Elms: December 2020 was the coldest December since 2010 (mean of -1.3 C)! It shows how mild recent Decembers have been. The month was often mild however with a lack of very cold weather. Nevertheless, the end of the month brought some snow and sharp frosts. Some notable dates: 26th was especially stormy over-night, with heavy rain and squally winds. 29th, A spell of snow for much of the morning giving a covering by lunchtime.

Mickleover: December 2020 had the most rain-days for December since 1999 and the second highest on the station record (1981). It was also the fifth wettest December since 1989.

Lincoln: (Non-instrumental observations). 9 air frosts, 3 days of snow falling and 1 day of snow lying. The first snow of winter was noted on the 4th. It started at 0850 as sleet, turning to snow by 0900, becoming moderate by 0930 and ceasing by 1200. The snow lying

on the 5th was too thin and scattered to record any depth. All snow had thawed by 1000 on the 5th.

Saltfleetby: Snow grains were falling at daybreak on the 25th. There was a very sharp frost on the 31st; air min -4.5 C, grass min -8.0 C.

Pitsford: Colder than average and wet, particularly so on the 23rd. Notable weather in Northamptonshire; 23 December Prolonged and heavy rain results in flooding across parts of the county. 34.7mm of rain is recorded at Pitsford in the 24 hours ending at 0900GMT on the 24th. The river Nene bursts its banks in the St James area of Northampton resulting in the flooding of homes and some roads are rendered impassable. Drivers have-to be rescued as vehicles break down in the floodwater. The flooding transfers downstream on Christmas Day with residents at Belling Aquadrome having to be evacuated.ⁱ

Ely: December 2020 was the wettest December in 50 years on the station record and, in the same period, 39.6 mm was the wettest day. A maximum temperature of 0.1 C, on the 7th, a minimum of -4.3 C and a grass minimum of -5.6 C, both on the 31st, were the all the lowest in the calendar year.

Desford: A mixed month with colder conditions after Christmas and towards New Year. The 25th was a cold and frosty day but dry with sunshine. There was a hail shower at 0800 on the 27th which gave a good covering. Finally, on the 29th, there was steady slight snow, with the occasional heavy burst, which gave a covering of 1.5 cm between 0815 and 1130.

December 1920.

Observers Notes.

Derby/ Burton on Trent: All rain gauges were in general agreement, with a range between 60 mm and 70 mm; this would be near average. It was a cold month with 12 air frosts. Minimum temperatures were around -5 C on the 14th and -9 C on the 13th. The mildest days occurred early, and late, in the month with a maximum of 13 C on the 2nd and 31st.ⁱⁱ

Brocklesby: The maximum temperature of 55 F (13 C) occurred on the 3rd, and the lowest minimum temperature of 13 F (-11 C) on the 13th.ⁱⁱⁱ

Copdock (Ipswich): "Mr F L Bland reports that the heavy snowstorms on the night of the 11th ranks among the memorable falls of the last half-century, for it is extremely rare to find a uniform covering of 8 in. without any drifting at all. The snow fell light and dry so that the yield of water (17 mm) is not large compared with some other snowstorms of recent years".^{iv}

Overview of December 1920.^v

December 1920 saw a wintry spell of weather during the second week, followed by an unusually warm spell just before Christmas. Other notable events were gales, which occurred throughout the country on the 3rd, and extensive fog between the 6th and 9th.

In Scotland there was a steady fall of temperature, from the 4th to the 24th, after a period of mild weather at the start of the month. Milder conditions set in after this date, with the highest temperatures being recorded on the 25th and 26th; Fort William noted a temperature of [13 C]. The cold was not severe considering mid-winter. West Linton recorded [-12 C] on the 18th, while a similar minimum was noted at Braemar on the 23rd. However, more wintry weather occurred in the south of England than anywhere in Scotland. The week ending the 18th saw exceptional temperature variations. In the far north of the country the mean for this week was well above average but going south there was a steady decrease in the variation from average; Lerwick [5.6 C, +1.0 C], Edinburgh [1.4 C, -2.6 C], York [0.8 C, -3.4 C], and Kew [-0.3 C, -5.5 C].

At the beginning of the month an anticyclone covered the Baltic and Central Europe, while a depression, near Iceland, affected the British Isles. This brought gales and rain to much of the west of the country. Further depressions brought gales and rain to the south of the country, northern France and much of north-west Europe. Gusts in these gales reached 60 kt at Dyce and Falmouth on the 3rd, and 74 kt at Southport. Considerable damage was done to shipping and, on the moors near Halifax, a "tram-car" was blown over with passengers being injured. Temperature variation was marked; at Dublin, the temperature fell from [12 C] at 0100 to [7C] at 0700 while at Lympne, during the same period, the temperature rose from [7 C] to [11 C].

From the 5th to the 18th the Weather was dominated by depressions and, although some days were sunny, with low temperatures, fog occurred and occasional falls of sleet and snow. Fog was widespread between the 6th and 9th and, at Manchester on the 9th, fog persisted all day while, on the 7th, fog extended over almost the whole of England. There was slight snow in eastern and south-eastern England on the 10th, and more extensive coverage on the 11th. This produced snow depths of 14 in. at Clacton. Further snow fell at many places between the 12th and 16th. The water equivalent of snow, at Jersey on the 12th, was 15 mm and, at Plymouth, on the 13th, 22 mm. However, in marked contrast on the 13th, Princetown noted 9 mm of water and Sheepstor only 3 mm. At Salcombe snow fell on the night of the 12th, continued all day on the 13th, and lay on the ground for 10 days. It was the heaviest fall of snow at this station for 29 years, with general depths between 12 and 15 in. There were some very-low temperatures noted during this period. Minima below [-9 C] were recorded at many stations and in the London area temperatures of [- 7 C] were noted on the 13th. The lowest recorded were [-18 C] at Raunds and [-16 C] at Cambridge and Oundle.

Milder weather set in from the 18th producing an abnormally mild Christmas. On the night of the 23rd, what appears to be, sub-tropical maritime air affected the south of England extending to a line Thames Estuary/ north-west Ireland by 0700 on the 24th, with maxima of [13 C] being reported at many southern stations. By Christmas Day maxima of [13 C] being noted, and [15 C] was recorded at Bude and Llandudno. Other maxima noted are [11 C] at

Valencia observatory, [10 C] at Pembroke, Roche's Point, and Scilly, while at Kensington only [9 C] was recorded. Rain was reported widely on Boxing Day, but temperatures remained high, with maxima of [13 C] being common. Apart from the northern parts of the country, mild conditions predominated for the rest of the month.

Flying conditions were generally unfavourable due to low cloud, poor visibility, and gales. The cloud base was generally low, but occasionally rose above 2,000 ft. In south-east England fog on the 8th, snow on the 11th, and low cloud, rain, and drizzle from the 17th to 19th, produced unfavourable flying conditions. The last 10 days of the month saw a change to a sub-tropical maritime air stream, which produced some fine days and good visibility, particularly in the south-east. However, periods of low cloud and rain on the 21st, 24th, 28th, and 31st affected operations.

In summary, "Cold at first, then abnormally Mild".^{vi}

Central England Data (Averaging period 1881-1910):

Mean Maximum Temperature: 6.4 C, average; 6.4 C.

Mean Minimum Temperature: 2.0 C, average; 1.6 C.

Mean Temperature: 4.2 C, average: 4.0 C.

England and Wales Rainfall: 92.1 mm, average; 90.7 mm.

Midlands Mean Maximum Temperature: 6.3 C.

Midlands Mean Minimum Temperature: 1.1 C.

Midlands Mean Temperature: 3.7 C.

Midlands Rainfall: 71.4 mm.

ⁱ Pitsford Weather Centre, Monthly Weather Report, December 2020, pp. 3 and 20.

ⁱⁱ D J Stanier, by email, 3 January 2021.

ⁱⁱⁱ Lincoln Archive Office, YARB 14/2.

^{iv} Monthly Weather Report, December 1920, Meteorological Office, HMSO, 1921, p. 155.

^v MWR, December 1920, p. 155.

^{vi} MWR, December 1920, p. 155.