

# MONTHLY WEATHER REPORT.

OCTOBER 1886.

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## SECTION I.

### GENERAL SUMMARY FOR THE MONTH.

THE weather of October was marked by several important features: (1) by the high temperatures which prevailed during the first few days of the month; (2) by the large number of depressions (many of them small and shallow) which passed directly over us, and by their irregular movements, as well as by the absence of anticyclones; (3) by the large and very deep system which passed over between the 14th and 17th, and the severity of its Westerly gales on our south-western and southern coasts; and (4) by the large number of thunderstorms which prevailed. Taking the month as a whole, pressure was slightly in excess of its average value in October at our northern stations, but in defect elsewhere. The gradients were slight and favourable for winds from a more southerly point than the normals. Temperature was from two to three degrees above the average; the winds varied greatly both in force and direction; and, except in a few places, the rainfall was large. Bright sunshine was deficient, especially over the north-eastern and midland counties.

October 1-6.—During this period the general distribution of pressure over north-western Europe was favourable for Southerly winds; the gradients were moderate as a rule, and the winds were not strong. Moreover, as the dominant system over the eastern parts of our area was anticyclonic, the thermometer rose very considerably during the daytime, so that maxima of  $75^{\circ}$  to  $78^{\circ}$  were recorded over England on the 1st, and  $75^{\circ}$  to  $80^{\circ}$  on the 4th. This warm, hot weather, however, was not continuous, for while some large depressions passed outside our extreme western coasts on the 2nd and 5th in a direction about parallel to the broken arrow marked "A" on Map 2, Plate XX., smaller systems were developed over the Bay of Biscay, and, moving northwards, brought thunderstorms and heavy rain to the British Islands, and finally broke up the bright warm weather completely.

October 7-8.—During these two days the distribution of pressure was complex, but the gradients were slight; while pressure was on the whole lowest in the north-west, a large "hollow" lay over the United Kingdom, and shallow, small disturbances appeared in the south-west, south, and south-east, causing thunderstorms, showers, and wet fogs, and keeping the weather in an unsettled condition generally. Temperature was rather high, but its diurnal range was small and the winds were exceedingly light and variable.

October 9-18.—The distribution of pressure now reverted to the old type, viz., that favourable for South-westerly winds, while the dominant systems were cyclonic. At first temperature rose over England, as a large depression (No. LXI.\*) approached our western coasts, and Southerly breezes spread all over the country. These were at first accompanied by fair weather, but as the depression moved north-eastwards a "hollow" was developed over the North Sea, and the wind veered towards South-west and West over the United Kingdom,

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\* See Section II. and Map 2 Plate XX., for the history and tracks of depressions.



while rain spread all over the country, and thunderstorms occurred in some places. No sooner had this system passed away to the north-eastwards than another disturbance (No. LXII.\*) appeared off our north-west coasts; this proved to be both deep and large, and caused South-westerly gales in the west and north. With this a subsidiary was formed over north-west of England, and growing deeper, moved east-north-eastwards till it reached the meridian of  $5^{\circ}$  E. It then turned northwards, and travelling steadily in that direction, passed out of our area to the northward of Christiansund. The next system (No. LXIII.\*) was of unusual depth, and its gradients (especially those on its southern side) were very steep. Its centre was observed to be approaching Ireland late on the 14th, causing Southerly gales to set in over that country, and to spread rapidly in an Easterly direction, with a rise of temperature and much rain. As the centre passed eastwards and south-eastwards the wind veered to South-west, West, and North-west on its southern side, and blew with a violence seldom exceeded in this country, while in the north it backed round through South-east and East to North-east, and blew with the force of a "strong gale."† At 8 a.m. on the 17th the centre had reached Holland, where it remained for nearly 36 hours, and grew shallower very quickly, while the weather improved. The centre then moved abruptly to the southward, and the system filled up entirely not far from Charleville in the Ardennes. By this time the barometer had risen over the northern and north-western parts of our area, and as a low-pressure system appeared over the Bay of Biscay, the pressure-distribution, winds, and weather became of an entirely new type.

October 20-22.—The conditions over the British Islands and their neighbourhood were still cyclonic but complex, for while a high-pressure area lay over Finland and the north of Scandinavia, there was another over Spain, while the readings between these two regions were relatively low. The depression (No. LXIV.\*) which lay over the Bay of Biscay on the 18th and 19th now began to move north-eastwards to the North Sea, while other cyclonic systems appeared off our north-western coasts. The winds consequently became exceedingly variable, showers fell in most places, and thunderstorms again prevailed over the British Islands, the Netherlands, and North Sea.

October 23-28.—The distribution of pressure now became more simple. Pressure was highest to the eastward of the North Sea, and a large ridge extended thence in a westerly direction across Scotland and the north of Ireland, while a depression, which appeared off the west of Ireland on the 22nd, travelled rapidly to the northward and passed out of our area; this was followed by another which was formed off our south-west coasts, and moving south-eastwards to the Bay of Biscay dispersed quickly. A new one (No. LXV.\*) then came over the Bay from the westward, and cold Easterly winds set in all over the kingdom, and blew strongly over the southern counties. The cold was greater in the northern and north-western parts of our area (where the distribution of pressure was anticyclonic) than in the south, but was not severe anywhere. Over our Islands the weather became much finer than of late, and fog appeared in some parts, but in the south-west and south of France thunderstorms occurred and much rain fell, while showers were reported daily in the south of England. The movements of this depression were very peculiar (see Map 2, Plate XX.), for after reaching the southern parts of the Bay of Biscay and the foot of the Pyrenees, it returned in a north-westerly direction, and moving in a track somewhat to the northward of that by which it entered the Bay, passed out again to the Atlantic on the 28th.

October 29-31.—The distribution of pressure now became favourable for Southerly and South-westerly winds, which accordingly set in—first, at our western, and afterwards at our eastern and south-eastern stations. Temperature rose decidedly, maxima of from  $63^{\circ}$  to  $65^{\circ}$  being recorded over England on the 29th, when the weather was fine and bright. Gradually, however, the cyclonic systems encroached more and more over us, and with freshening South-

\* See Section II. and Map 2 Plate XX., for the history and tracks of depressions.

† An account of this gale by Mr. C. Harding was read before the R. Met. Soc. Nov. 17, 1887.



westerly winds, depressions again began to appear off our north-west coasts, and to move north-eastwards, while cloudiness increased, and mild rains with bright intervals spread gradually over the kingdom. The new depressions, though large, were not deep, and their centres passed at so great a distance from our extreme north-western coasts, that their characteristics cannot be tabulated in Section II., nor their tracks shown on Map 2, Plate XX.