

Steady amid the squall

Public exhibition at the Custom House

This short exhibition looks at the development of scientific meteorology in Ireland from the early 1800s until 1936, when the Irish Meteorological Service was established. It makes special reference to the weather observed in Dublin during Easter Week 1916 and presents some weather-related information about significant events in the War of Independence and the Civil War.

The exhibition draws attention to Ireland's rich heritage of meteorological data and highlights the steady commitment of our weather observers who remained dedicated to their daily scientific endeavour throughout the years, sometimes against all odds.



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Comhshaoil, Pobal agus Rialtas Aitiúil
Environment, Community and Local Government

Steady amid the squall



Robert Fitzroy (1805-1865).
Source: Wellcome Library.

It's often said that Irish people are obsessed with the weather. And in a way, scientific weather observation demands a sort of obsession. Over the years, thousands of observers across Ireland have made an unfailing commitment to measure and record weather conditions in their locality on a daily basis.

Scientific weather observation depends on co-ordination and consistency. In 1861, when Vice-Admiral Robert Fitzroy established forty weather stations along the coastlines of Britain and Ireland, he understood the importance of co-ordinating the work so that data could be collected, collated and analysed centrally.

Every day at specific times, observers at each location used a standard set of instruments and followed clearly-defined procedures for recording weather parameters such as temperatures, sunshine, winds and atmospheric pressure. Measurements were carefully written on large forms which were ruled identically into rows and columns. The data were then returned to a main office in London. The demand for consistency meant that the weather observers needed an almost obsessive commitment to the daily task.



Below: The Meteorological Observatory,
Phoenix Park, 1829.
Source: Met Eireann Library.

The weather keepers

Some of Ireland's early weather stations were linked to scientific institutions such as the Ordnance Survey, the Botanic Gardens and the centres for astronomy at Armagh, Birr and Markree. Others were maintained by individuals. The rainfall network, led by G.J. Symons in London, was almost exclusively run by volunteers. It expanded from 13 Irish stations in 1860 to almost 200 by 1900 and included men and women, clergymen, industrialists, academics and others who routinely took rainfall measurements as a leisure pursuit.



National Botanic Gardens, Co. Dublin

Weather records have been taken here since 1800. *Image source: National Botanic Gardens Library.*

Banbridge, Co. Down

J. Smyth, Jun. Esq. voluntarily managed three rainfall stations in the Bann Valley in the 1860s. The linen industry relied heavily on water-powered mills.

Roches Point, Co. Cork

W. Kennedy recorded the first weather observation in July 1873, noting 'thick weather'.



Birr Castle, Co. Offaly

From 1874 until 1878 observations were taken by the famous astronomer John Louis Emil Dreyer (1852–1926).

Image source: Armagh Observatory.

Blacksod Point, Co. Mayo

Joseph Hodge, Chief Boatman recorded the first weather observations on 25 September 1899.

Valentia Observatory, Co. Kerry

On 8 October 1860, Ireland's first 'real time' weather observation was transmitted via telegraph from Valentia Island.



Inistogue, Co. Kilkenny

Rainfall readings were taken at Woodstock Estate by Rt. Hon. W.F. Tighe and Lady Louisa Tighe from 1865 until 1899. *Image source: Kilkenny County Library.*



Markree Castle, Co. Sligo

From 1874 until 1876 observations were taken by a Danish lady named Anna Doberck. *Image source: University of Cambridge, Institute of Astronomy.*

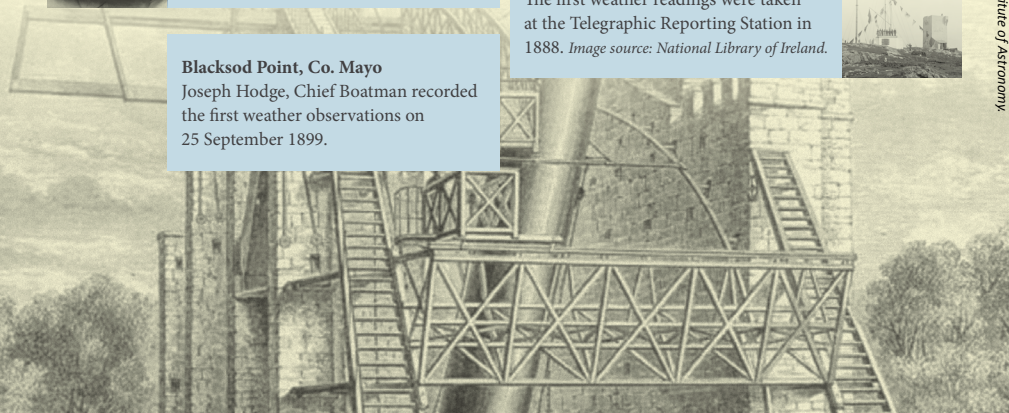


Malin Head, Co. Donegal

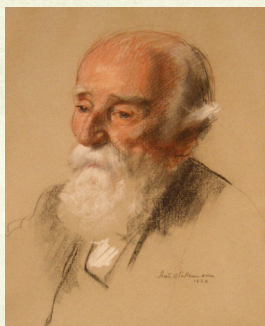
The first weather readings were taken at the Telegraphic Reporting Station in 1888. *Image source: National Library of Ireland.*



Below: The Leviathan of Parsonstown, Birr Castle (1886)
Source: University of Cambridge, Institute of Astronomy.



“Rebellion weather”



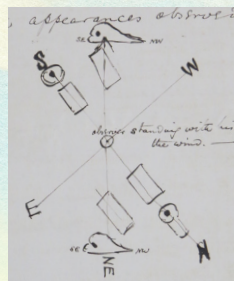
Sir John William Moore (1845-1937)
by Sean O'Sullivan, 1934.
Source: Royal College of Physicians Ireland.

A anecdotal accounts suggest that the weather in Dublin was remarkably good during the Easter Rising. The phrase ‘rebellion weather’, attributed to Liam O’Flaherty (1896-1984), is still sometimes used colloquially to describe balmy days in spring. Surviving records confirm that the weather in Dublin was unusually warm for that time of year.

Early in the week winds were moderate to strong and it was rather cloudy, with some passing rain. Later in the week winds were gentle or calm and the weekend was dry

and sunny. Maximum daytime temperatures were significantly higher than average, with 17.8°C recorded on both 24 and 27 April 1916.

Weather observations at Trinity College Dublin were suspended during the Easter Rising but observers in other parts of Dublin upheld their daily commitment to measure and record the weather. Observations continued at the Ordnance Survey Office in Phoenix Park and at the Botanic Gardens in Glasnevin. Closer to the conflict, the observations at Fitzwilliam Square were also maintained without interruption. These records were taken by a physician, Sir John William Moore (1845-1937), who volunteered as a weather observer for over 70 years. His dedication to meteorology was based on his professional interest in the relationship between climate and health.



Sketch of anticyclonic cloud slope
by Sir J.W. Moore (28 March 1871).
Source: Met Éireann Library.

Below: Observations taken at Botanic Gardens,
23-30 April 1916.
Source: Met Éireann Library.

2		23	Fine, bright sunshine, showers, fine at night.
3		24	Fine, intervals of sunshine, showers, mist at night.
4	°P	25	Cloudy, dull, mild, heavy showers, damp at night.
4	°P	26	Cloudy, breezy, intervals of sunshine, clear at night.
4	0	27	Fine, mild, bright sunshine, fine at night.
6	°P	28	Fine, dull in forenoon, bright sunshine, clear at night.
5		29	Fine, breezy, bright sunshine, fine at night.
8		30	Fine, breezy, warm, bright sunshine, fine at night.
10			

The week the weather stopped

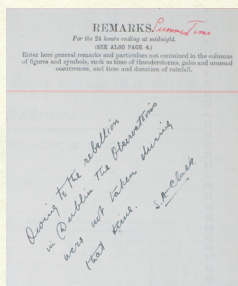


Trinity College Dublin.
Source: National Library of Ireland.

Sidney Alfred Clark, a student at Trinity College Dublin who took weather observations in 1916, generally ignored the 'remarks' field and concentrated instead on recording data from the instruments. During the last week of April 1916 however, he was prompted to make the following note in the 'remarks' section: 'Owing to the disturbances in Dublin the observations were not taken from 24th to end of month.'

Due to its central location in the city, Trinity College Dublin held an important strategic position during the Easter Rising. It was defended by students and graduates of the college together with soldiers from nearby Dublin Castle. When the records resumed on 18 May 1916, the same observer wrote another, slightly different, note in the 'remarks' field: 'Owing to the rebellion in Dublin the observations were not taken at that time.'

The large forms that were designed to record rows and columns of weather data also included a section for 'remarks'. Here the observers could give a general description of the weather or note additional information such as the appearance of rainbows.



'Remarks' made by the weather observer at Trinity College Dublin in May 1916.
Source: Met Éireann Library.

Below: Title page of 'Meteorological Register' taken at Trinity College Dublin, April 1916.
Source: Met Éireann Library.

CLIMATOLOGICAL STATIONS
(Stations of the Second Order of the International Classification)
IN CONNEXION WITH THE METEOROLOGICAL OFFICES IN LONDON AND EDINBURGH.

Station *Trinity College Dublin* Month and Year *April 1916*

Instruments in Use. *April 1916*

Observers should communicate with the Office before making any change in the instruments or their positions.

No. *140930*
No. *6579*
No. *6550*

Instr. mounted
Corrections.

Earth Thermometer *4*

Solar *7*

Witness to war



Westwood House, Valentia Observatory,
Cahirciveen, Co. Kerry.

Source: Met Éireann Library.

Weather observations continued throughout the War of Independence and the Civil War. On 25 May 1921, the Dublin Brigade of the Irish Republican Army attacked and set fire to the Custom House, which was the centre of Local Government for the British administration in Ireland.

Weather records for Dublin

report that it was a warm day with highest temperatures of 22.2°C. It is likely that a sea breeze, which occurs under light winds and high temperatures on land, pushed the smoke in a north-westerly direction, as shown by surviving film footage of the fire.

It was sometimes quite challenging to maintain a steady network of weather observation. Official reports from C.D.

Stewart, Superintendent at Valentia

General. All land communication with this place broke down from the 5th of August, the Republican forces wrecking the railway and the telegraph wires. On the 23rd the Irish Free State forces took the town of Cahirciveen after some fighting, most of the actual shooting taking place in the vicinity of the Observatory. The whole operation was easily visible from the Observatory windows. The 18h. and 21h. observations were incidentally rendered extremely unpleasant by the constant cross fire of the two sides. At 11.30 p.m. the occupants of the observatory were awakened by a part of Free State troops requiring food and shelter. The lark about 2 a.m. for the town which has since been in their hands. This has not, however, led to any resumption of communications up to the present, although we are now hoping to get the usual telegraph

Valentia Observatory Report of Works, 1922.

Source: Met Éireann Library.

Observatory, described the events of August 1922 when Civil War gripped the town of Cahirciveen, Co. Kerry. He reported 'On 23rd the Irish Free State forces took the town of Cahirciveen after some fighting, most of the actual shooting taking place in the vicinity of the Observatory. The whole operation was easily visible from the Observatory windows. The 18h and 21h observations were incidentally rendered extremely unpleasant by the constant crossfire of the two sides.' Stewart later remarked satisfactorily that 'no observation was missed and no record was lost' during this time.

Below: Custom House in flames.
Source: National Library of Ireland.



Taking flight



Meteorological discussion for first trans-Atlantic flight into Rineanna, 16 September 1945.

Source: Met Éireann Library.

As meteorology developed and forecasting techniques improved, industries such as shipping, agriculture, aviation and hydro-electricity began to demand more detailed scientific weather information. Aviation was particularly weather sensitive and relied heavily on accurate meteorological information for safe and successful flight.

The emergence of trans-Atlantic aviation attached a new importance to scientific meteorology in Ireland. In 1933, pioneer aviator Charles Lindbergh chose Foynes, Co. Limerick as a suitable eastern terminus for the trans-Atlantic flying boat route. This prompted the Irish Government to provide landing facilities at the air-base including radio communications, air traffic control and meteorological services.

In response, the Irish Meteorological Service (now Met Éireann) was established in 1936. Until then, all Irish weather stations and services had continued under the management of the Meteorological Office in London. By this time, the network included Valentia Observatory, four telegraphic reporting stations, 18 climatological stations and 172 rainfall stations. A transition period was agreed to ensure the smooth transfer of equipment, stations and personnel, and on the first day of April 1937 Ireland's new meteorological service took flight.



Charles Lindbergh poses in front of the Spirit of St. Louis.

Source: Library of Congress.



Below: Flying boat at Foynes.
Source: Foynes Flying Boat & Maritime Museum.