Summer 2020

(June, July, August)

Wet and dull with a stormy finish

After a spring where a weakened Jetstream remained away from Ireland to the north or south, the summer of 2020 saw an unseasonally strong North Atlantic Jetstream dominating our weather, keeping it mostly unsettled and cool at times. From a relatively dry beginning, June saw two intense thunderstorm outbreaks, between the 13th and 16th and on the 25th and 26th, when warm humid air was drawn up from the southeast over the country. The Jetstream was most active near Ireland in the final third of the month with Atlantic low-pressure systems bringing rain or showers on most days. July saw the Azores High briefly pushing up over Ireland between the 9th and 11th and between the 19th and 21st but for most of the month Ireland was situated directly under, or on the northern side of the Jetstream, keeping it cool and wet with low pressure in charge. The Jetstream weakened for a while after the first week of August, which brought some dry pleasant days, but slow moving fronts and thundery continental low-pressure systems kept it mostly cloudy with heavy rain at times. The final third of August saw the Jetstream activate again in the Atlantic, which brought two named storms, Storm Ellen and Storm Francis over the country with widespread gales and heavy rain causing some flooding.

Rainfall: Above average everywhere

All rainfall totals were above their Long-Term Average (LTA) for the season. Percentage of rainfall values ranged from 113% (the lowest seasonal rainfall total of 217.1 mm) at Oak Park, Co Carlow to 181% (the highest seasonal rainfall total of 561.1 mm) at Valentia Observatory, Co Kerry *(its wettest summer since 2009)*. The season's wettest day was also recorded at Valentia Observatory, Co Kerry with 54.5 mm on Wednesday 29th July *(its wettest summer day since 2003)*. The number of rain days ranged from 50 days at Roche's Point, Co Cork to 70 days at Markree, Co Sligo. The number of wet days[1] ranged from 36 days at Roche's Point, Co Cork to 56 days at Finner, Co Donegal. The number of very wet days[3] ranged from 5 days at Oak Park, Co Carlow to 19 days at Valentia Observatory, Co Kerry. Along with Valentia, six other stations had over 150% of their LTA rainfall for the season. These included Shannon Airport, Co Clare with 389.4 mm (178% of its LTA) *(its wettest summer since 1997),* Ballyhaise, Co Cavan with 367.6 mm (158% of its LTA), Newport, Co Mayo with 490.4 mm (151% of its LTA) *(its wettest summer since 2009)*, Dunsany, Co Meath with 319.2 mm (151% of its LTA), Finner, Co Donegal with 423.8 mm (157% of its LTA) and Casement Aerodrome, Co Dublin with 286.5 mm (151% of its LTA).

Temperature: Below average in most places

The majority of mean air temperatures across the country were below their Long-Term Average (LTA) for the season. Deviations from mean air temperature ranged from -0.5 °C (14.2 °C, 13.9 °C, 14.2 °C, 15.1 °C mean temperature) at Ballyhaise, Co Cavan, Markree, Co Sligo, Dublin Airport, Co Dublin and Shannon Airport, Co Clare respectively to 0.3 °C (15.2 °C (the season's highest mean temperature), 15.0 °C mean temperature) at both Oak Park, Co Carlow and Phoenix Park, Co Dublin respectively. Mean temperatures were lowest at Knock Airport, Co Mayo with 13.2 °C (0.1 °C below its LTA). The season's highest temperature was reported on the first day of summer (Monday 1st June) at Newport, Co Mayo with a temperature of 27.1 °C. The season's lowest air and grass minimum were recorded at Mount Dillon, Co Roscommon with the lowest air temperature reported on Monday 31st Aug with 1.6 °C while the lowest grass minimum was -1.6 ° C reported on Monday 8th June. There was no air frost reported this season. Less than half of stations reported ground frost. The number of days with ground frost ranged from zero days at a few stations to 7 days at Mount Dillon, Co Roscommon. Up to 11 stations had their coldest summer in the last five years.

Sunshine: Below average everywhere, dullest summer on record for Dublin Airport

All available monthly sunshine totals were below their Long-Term Average (LTA) for the season. Percentage of seasonal sunshine values ranged from 78% (seasonal sunshine total of 361.2 hours) at Casement Aerodrome, Co Dublin *(its dullest summer since 1987)* to 89% (the season's highest seasonal sunshine total of 451.2 hours) at Cork Airport, Co Cork. Seasonal sunshine totals were lowest at Gurteen, Co Tipperary with 275.5 hours (No LTA comparison*). The highest number of daily sunshine hours recorded this season was on the first day of summer (Monday 1st June) with 15.6 hours at Johnstown Castle, Co Wexford. The number of dull days[2] ranged from 15 days at Johnstown Castle, Co Wexford to 30 days at Valentia Observatory, Co Kerry. Dublin Airport had 22 dull days. Following its sunniest spring on record this year, Dublin Airport had its dullest summer on record, with just 331.4 hours of sunshine (record length 78 years).

Wind: Gales, strong gales and storm force winds reported with two named storms

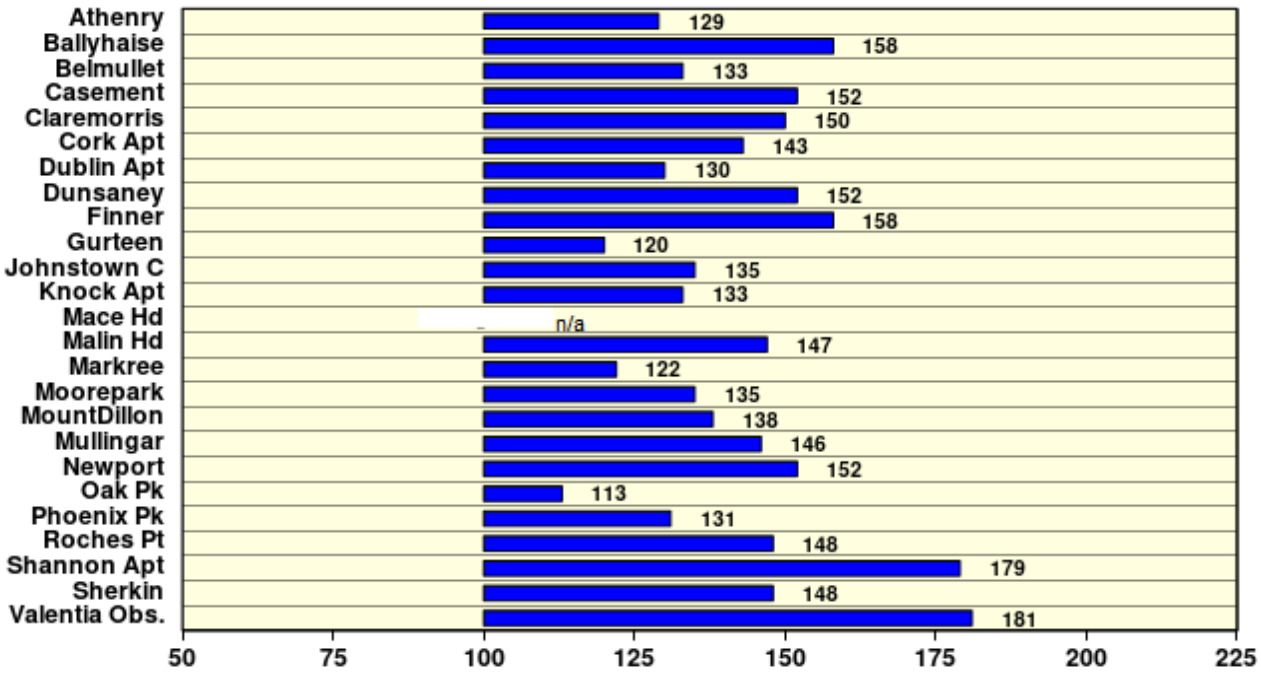
Seasonal mean wind speeds ranged from 5.5 knots (10.2 km/h) at Ballyhaise, Co Cavan to 12.9 knots (23.9 km/h) at Mace Head, Co Galway. Gales were reported on 5 days or more during the season with strong gales reported on Thursday 20th August during Storm Ellen and Tuesday 25th August during Storm Francis. Mean wind speeds were storm force and reached violent storm force 11 on the south coast on Wednesday 19th August during Storm Ellen. The number of days with gales ranged from zero days at Dublin Airport, Co Dublin to 6 days at both Roche's Point, Co Cork and Malin Head, Co Donegal. The number of days with up to strong gales ranged from zero days at most stations to 2 days at Malin Head, Co Donegal. The number of days with storms force winds was 1 day at Roche's Point, Co Cork. Both the season's highest gust and 10-minute mean wind speed was reported at Roche's Point, Co Cork on Wednesday 19th August. The highest gust was 77 knots (143 km/h) while the season's highest 10-minute mean wind speed was 60 knots (111 km/h).

EXTREME VALUES FOR SUMMER AT SYNOPTIC STATIONS

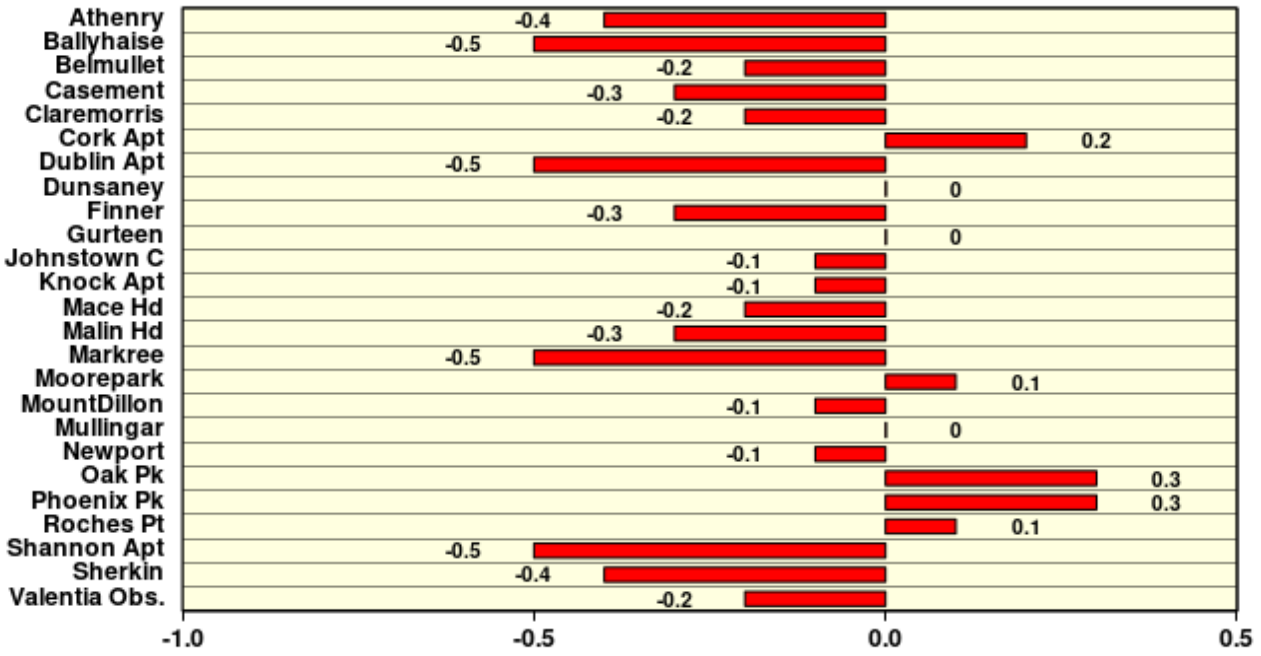
Rainfall	Highest seasonal total: 561.1 mm at Valentia Observatory, Co Kerry (181% of its LTA) *(its wettest summer since 2009)*
	Lowest seasonal total: 217.1 mm at Oak Park, Co Carlow (113% of its LTA)
	Highest daily rainfall: 54.5 mm at Valentia Observatory, Co Kerry (55% of its monthly LTA) on Wed 29th Jul *(its wettest summer day since 2003)*
Temperature	Highest mean seasonal temperature: 15.2°C at Oak Park, Co Carlow (0.3°C above its LTA)
	Lowest mean seasonal temperature: 13.2°C at Knock Airport, Co Mayo (0.1 below its LTA)
	Highest air temperature for the season: 27.1°C at Newport, Co Mayo on Mon 1st Jun
	Lowest air temperature for the season: 1.6°C at Mount Dillon, Co Roscommon on Mon 31st Aug
	Lowest grass minimum for the season: -1.6°C at Mount Dillon, Co Roscommon on Mon 8th Jun
Sunshine	Highest seasonal total: 451.2 hrs (daily mean 4.90 hrs/day) at Cork Airport, Co Cork
	Lowest seasonal total: 275.5 hrs (daily mean 2.99 hrs/day) at Gurteen*, Co Tipperary
	Highest daily sunshine for the season: 15.6 hours at Johnstown Castle*, Co Wexford on Mon 1st Jun

Summer 2020

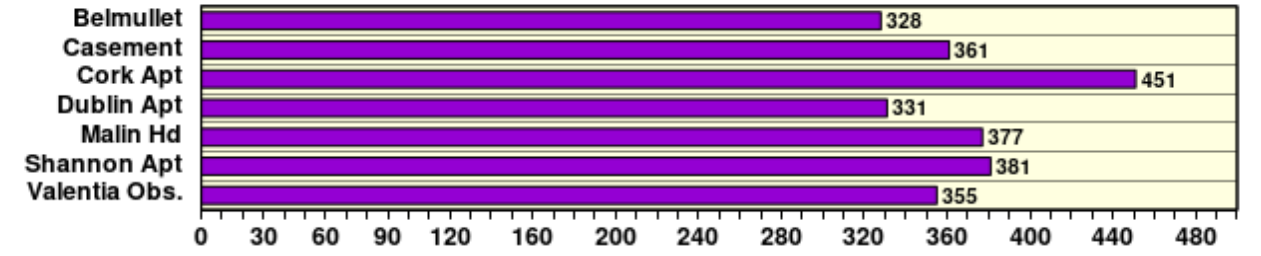
Rainfall *(% of average for period 1981-2010) on whole season basis*



Temperature (°C) *(difference from average for period 1981-2010)*



Sunshine *(Number of seasonal sunshine hours)*



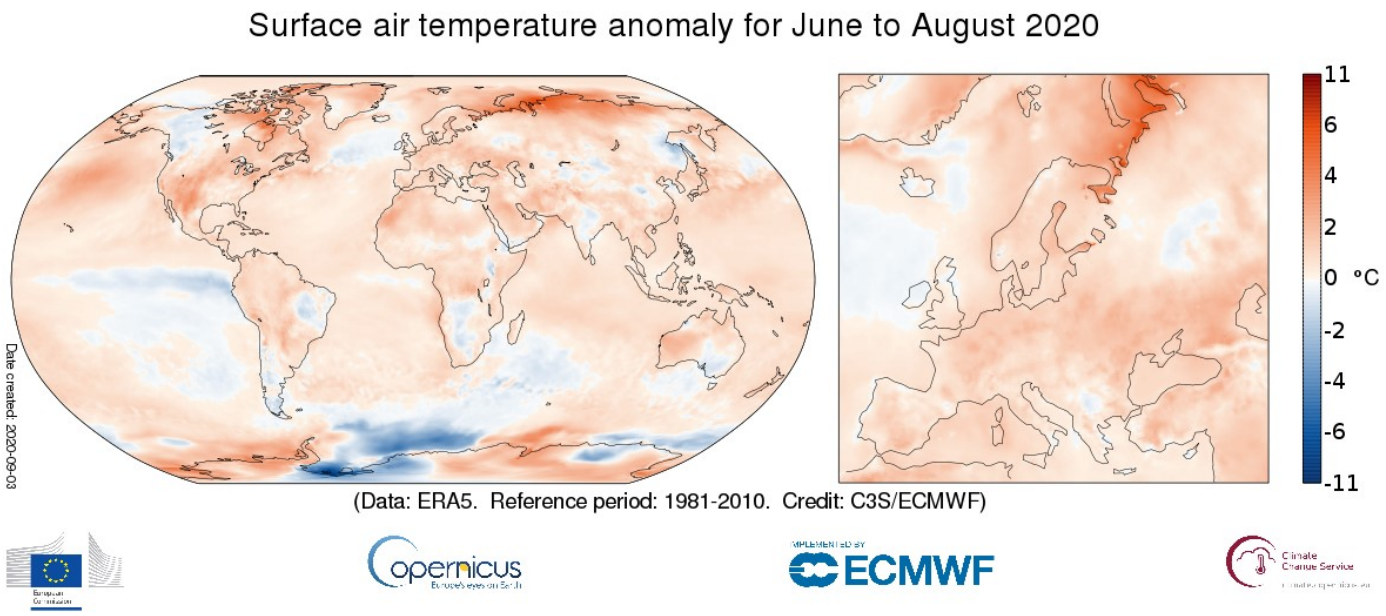
Issued by the Climatology and Observations Division of Met Éireann on Thursday 3rd August 2020. This report is based on available preliminary data from 25 principal weather stations operated by Met Éireann. Synoptic station data is midnight to midnight UTC. Long-Term Averages (LTAs) and "average" refer to the period 1981-2010. [1] A wet day is a day with 1.0 mm or more of rainfall. [2] A dull day is a day with less than 0.5 hours of sunshine. [3] A very wet day is a day with 10.0 mm or more of rainfall. [4] An absolute drought is a period of 15 or more consecutive days to none of which is credited 0.2 mm or more of precipitation. [5] A partial drought is a period of at least 29 consecutive days, the mean daily rainfall of which does not exceed 0.2 mm. [6] A dry spell is a period of 15 or more consecutive days to none of which is credited 1.0 mm or more of precipitation (i.e. daily tot < 1.0 mm). *Sunshine data is from the Autosol Network. LTAs for these sites are currently not used for comparison purposes. For more information, contact Met Éireann at 01-8064200 or e-mail: enq@met.ie

Summer Global

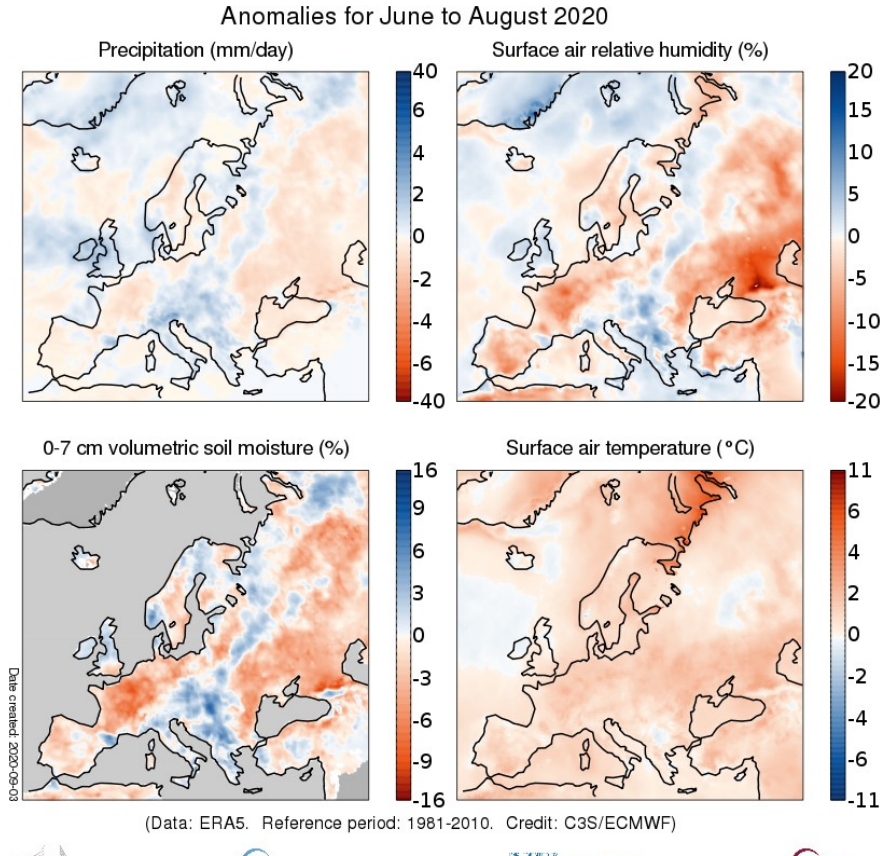
(June, July, August 2020)

Surface air temperature: Boreal Summer 2020 (June, July, August)

Boreal summer was marked by highly anomalous temperatures over northern Siberia. Relatively warm but less exceptional conditions extended around much of the Arctic, although the season was colder than average north of Alaska and over north-western Canada. Europe was generally warmer than average, but not remarkably so compared with other recent years. The June-August average temperature for Europe was 0.9°C above the 1981-2010 norm. The warmest summer was 2018, when the average temperature was 1.4°C above normal.



Surface air temperature anomaly for the boreal summer from June 2020 to August 2020 relative to the average for 1981-2010. Data source: ERA5. Credit: Copernicus Climate Change Service/ECMWF. https://climate.copernicus.eu/surface-air-temperature-august-2020



European Summer Anomalies

In Summer 2020, the four indicators for dry and wet conditions (precipitation, relative humidity, soil moisture and temperature), showed relatively consistent patterns across Europe. Conditions were wetter than average, indicated by precipitation, relative humidity and soil moisture being above the 1981-2020 average, over three main regions. The first region covers most of the United Kingdom and Ireland, the second centred over the Adriatic Sea, into large parts of the Balkans in the east and into central Europe in the north. The third region was northernmost Europe, covering northern Norway and Finland, as well as western Russia. Conditions were generally drier than average over most of the Iberian Peninsula, as well as over large parts of France, the Benelux countries, northern Germany, as well as the regions around the Baltic and the Black Sea.

Anomalies in precipitation, the relative humidity of surface air, the volumetric moisture content of the top 7 cm of soil and surface air temperature for summer (June 2020 to August 2020) with respect to 1981-2010. The darker grey shading denotes where soil moisture is not shown due to ice cover or climatologically low precipitation. Data source: ERA5 Credit: Copernicus Climate Change Service, ECMWF. https://climate.copernicus.eu/precipitation-relative-humidity-and-soil-moisture-august-2020