



July 2020

Cool and wet

The cool, Atlantic dominated weather from the end of June continued right through July with winds mostly between south-westerly and north-westerly. There were a few occasions where the Azores high ridged up over Ireland giving some dry pleasant weather, especially between the 9th and 11th and between the 19th and 21st. There was rain or showers on most other days during the month, with heavy falls of rain on the 1st in the East, on the 3rd in the West and Northwest and widespread heavy falls on the 7th and 8th as several pulses of rain pushed over the country from the West. After a few mostly dry days, a stream of low pressure systems to the north of Ireland, moving eastwards, brought their associated weather fronts over the country, interspersed with showers, between the 12th and 18th. Pressure remained high to the south of Ireland during this period keeping rainfall amounts generally low. The mostly dry weather between the 19th and 21st broke down once again as Atlantic weather fronts pushed in over the country on the 22nd. Low pressure remained in control of our weather for the rest of the month with some active weather fronts giving heavy falls of rain, especially in the Southeast on the 27th and in the Southwest towards the end of the month causing some flooding.

Rainfall: Above average everywhere

All rainfall totals were above their Long-Term Average (LTA) for the month. Percentage of rainfall values ranged from 116% (the month's lowest monthly rainfall total of 73.2 mm) at Roche's Point, Co Cork to 216% (the month's highest monthly rainfall total of 214.0 mm) at Valentia Observatory, Co Kerry (*its wettest July since 2009*). The month's wettest day was also recorded at Valentia Observatory, Co Kerry with 54.5 mm on Wednesday the 29th (*its wettest July day since 1940*). The number of rain days ranged from 14 days at Sherkin Island, Co Cork to 28 days at Markree, Co Sligo. The number of wet days¹ ranged from 11 days at Roche's Point, Co Cork to 22 days at Finner, Co Donegal. The number of very wet days³ ranged from 1 day at Oak Park, Co Carlow to 9 days at both Athenry, Co Galway and Valentia Observatory, Co Kerry. Along with Valentia Observatory, three other stations recorded rainfall above 200% of their July LTA. These included Dunsany, Co Meath with 130.9 mm (213% of its LTA) (*its wettest July since 2010*), Athenry, Co Galway with 174.3 mm (202% of its LTA) (*its wettest July since 2010*) and Casement Aerodrome, Co Dublin with 114.4 mm (211% of its LTA) (*its wettest July since 2007*).

Temperature: Below average everywhere

All mean air temperatures across the country were below their Long-Term Average for the month. Deviations from mean air temperature ranged from -1.8 °C (13.7 °C mean temperature) at Ballyhaise, Co Cavan to -0.3 °C at both Cork Airport., Co Cork (14.8 °C mean temperature) and Phoenix Park, Co Dublin (15.3 °C mean temperature). Mean temperatures for the month ranged from 12.7 °C (1.3 °C below its LTA) at Knock Airport, Co Mayo to 15.3 °C at both Phoenix Park, Co Dublin (0.3 °C below its LTA) and Moore Park, Co Cork (0.5 °C below its LTA). The month's highest temperature was reported at Phoenix Park, Co Dublin on Thursday the 16th with a temperature of 24.1 °C. The month's lowest air minimum was recorded on Monday the 20th at Mount Dillon, Co Roscommon with 2.2 °C (*its lowest July minimum on record (record length 10 years)*), while the lowest grass minimum was -0.9 °C reported at both Mount Dillon, Co Roscommon (*its lowest July grass minimum on record (record length 10 years)*) and Claremorris, Co Mayo (*its lowest July grass minimum since 1971*), both on the 20th. There was no air frost reported this month. Less than half of stations reported ground frost. The number of days with ground frost ranged from zero days at a few stations to 3 days at Mount Dillon, Co Roscommon.

Sunshine: Below average everywhere

All available monthly sunshine totals were below their Long-Term Average (LTA). Percentage of monthly sunshine values ranged from 84% (monthly sunshine total of 129.2 hours) at Casement Aerodrome, Co Dublin to 97% (the month's highest monthly sunshine total of 163.8 hours) at Cork Airport Co Cork. Monthly sunshine totals were lowest at Gurteen, Co Tipperary with 92.7 hours (No LTA comparison*). The highest number of daily sunshine hours recorded this month was 14.4 hours at Johnstown Castle, Co Wexford on Sunday the 19th. The number of dull days² ranged from 4 days at Johnstown Castle, Co Wexford to 13 days at Valentia Observatory, Co Kerry. Dublin Airport had its dulllest July for 34 years with 104.2 hours.

Wind: Gales reported

Monthly mean wind speeds ranged from 5.5 knots (10.2 km/h) at Ballyhaise, Co Cavan to 13.6 knots (25.2 km/h) at Mace Head, Co Galway. Gales were reported on the 5th. The number of days with gale force winds ranged from zero days at Phoenix Park, Co Dublin to 1 day at both Mace Head, Co Galway and Malin Head, Co Donegal. There were no strong gales or storms reported this month. The month's highest gust was reported at both Mace Head, Co Galway and Malin Head, Co Donegal, both on the 5th, with 47 knots (87 km/h). The highest 10-minute wind speed was 37 knots (69 km/h) reported at Mace Head, Co Galway, also on the 5th. Cork Airport, Co Cork had its highest July mean wind for 30 years with 10.2 knots (18.9 km/h).

EXTREME VALUES AT SYNOPTIC STATIONS

Rainfall

Highest total: 214.0 mm at Valentia Observatory, Co Kerry (216% of its LTA) (*its wettest July since 2009*)
Lowest total: 73.2 mm at Roches Point, Co Cork (116% of its LTA)
Highest daily rainfall: 54.5 mm at Valentia Obs., Co Kerry (55% of its monthly LTA) on Wed 29th (*its wettest July day since 1940*)

Temperature

Highest mean monthly temperature: 15.3°C at both Phoenix Park, Co Dublin (0.3°C below its LTA) and Moore Park, Co Cork (0.5°C below its LTA)
Lowest mean monthly temperature: 12.7°C at Knock Airport, Co Mayo (1.3°C below its LTA)
Highest Air temperature: 24.1°C at Phoenix Park, Co Dublin (3.9°C above its LTA) on Thu 16th
Lowest air temperature: 2.2°C at Mount Dillon, Co Roscommon on Mon 20th (*its lowest July minimum on record (record length 10 years)*)
Lowest grass minimum: -0.9°C at both Mount Dillon, Co Roscommon and Claremorris, Co Mayo on Mon 20th

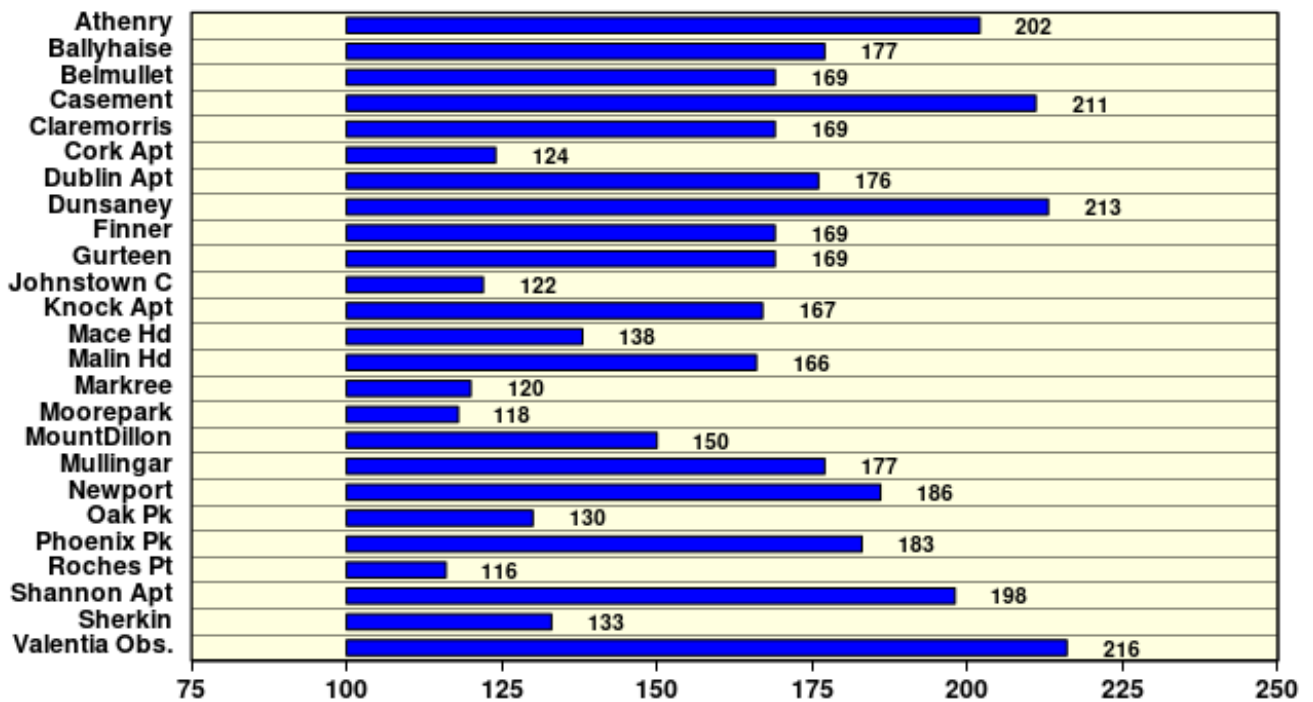
Sunshine

Highest monthly total: 163.8 hrs (daily mean 5.28 hrs/day) at Cork Airport, Co Cork
Lowest monthly total: 92.7 hrs (daily mean 2.99 hrs/day) at Gurteen*, Co Tipperary
Highest daily sunshine: 14.4 hours at Johnstown Castle*, Co Wexford on Sun 19th

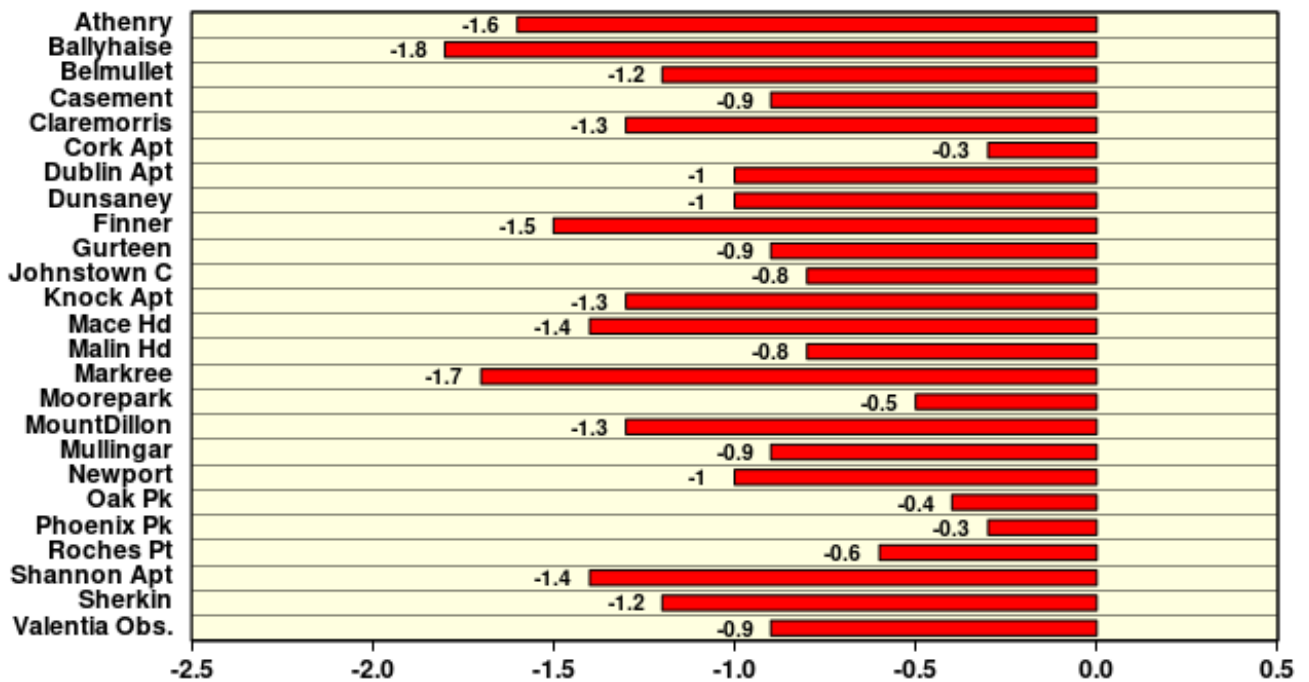
July 2020

Based on Data from 1- 31 July 2020 on whole month basis

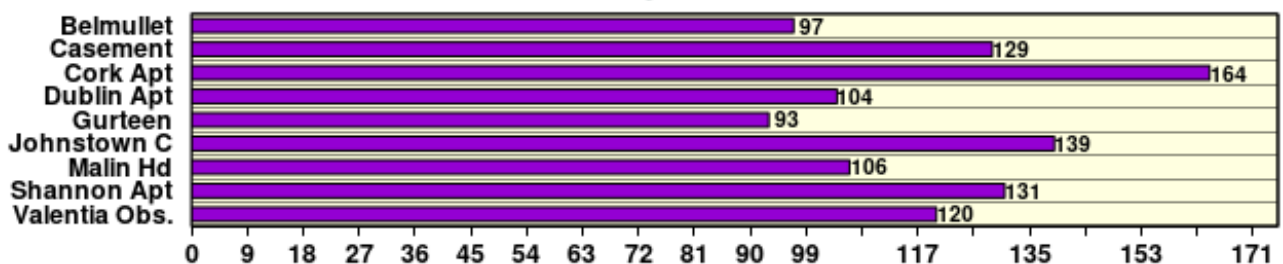
Rainfall (% of average for period 1981-2010) on whole month basis



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



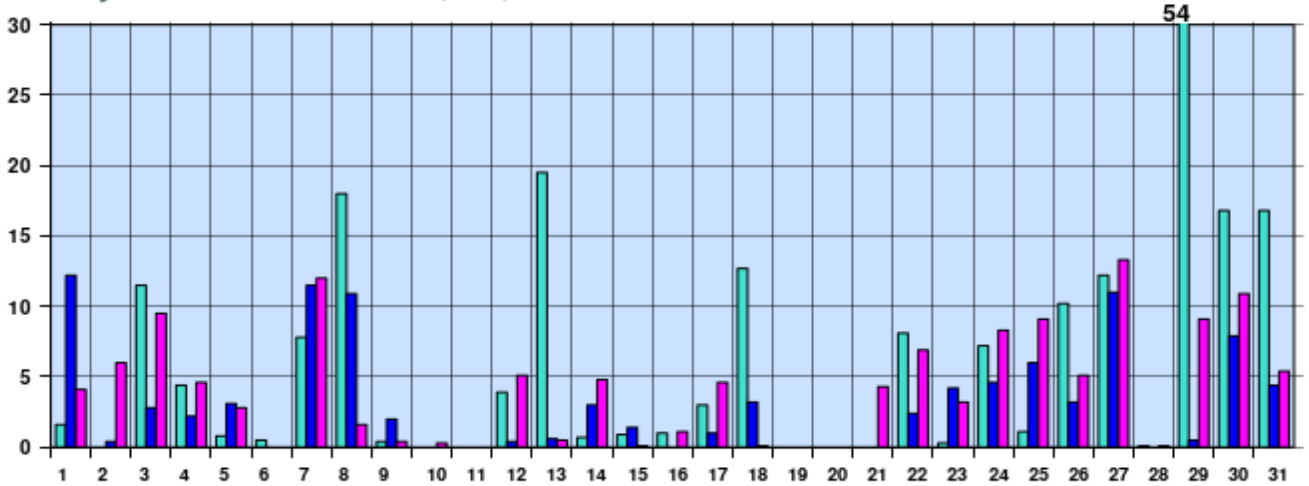
Sunshine (Number of monthly sunshine hours)



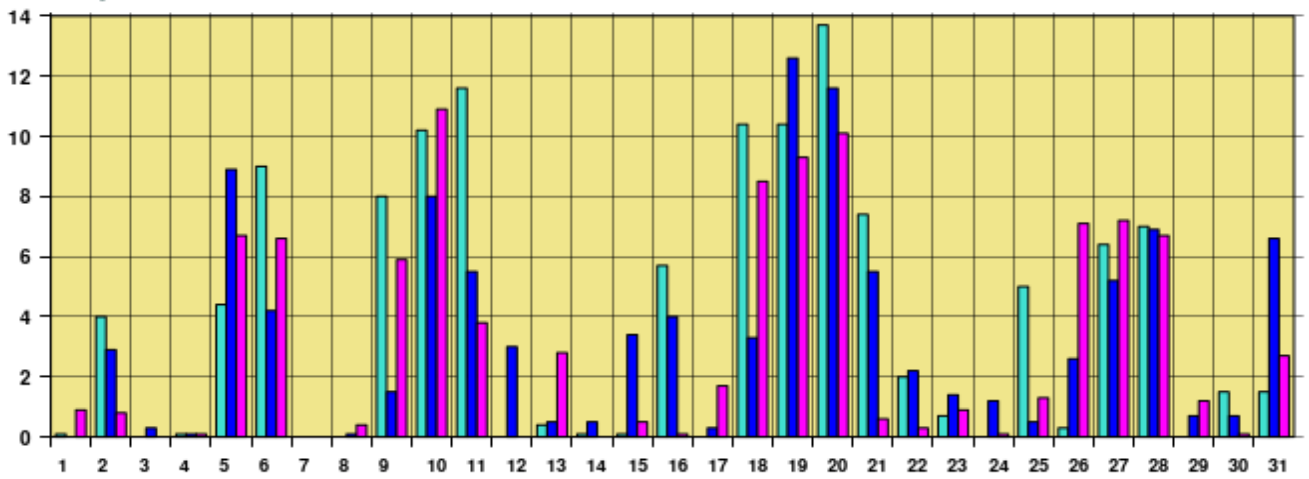
July 2020 Daily Values at selected synoptic stations

Based on data from 1-31 July 2020 on a pro rata basis

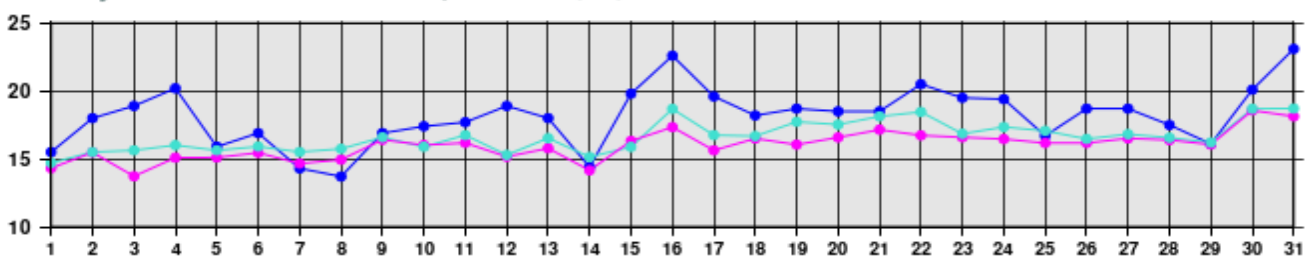
Daily 00-24h rainfall values(mm)



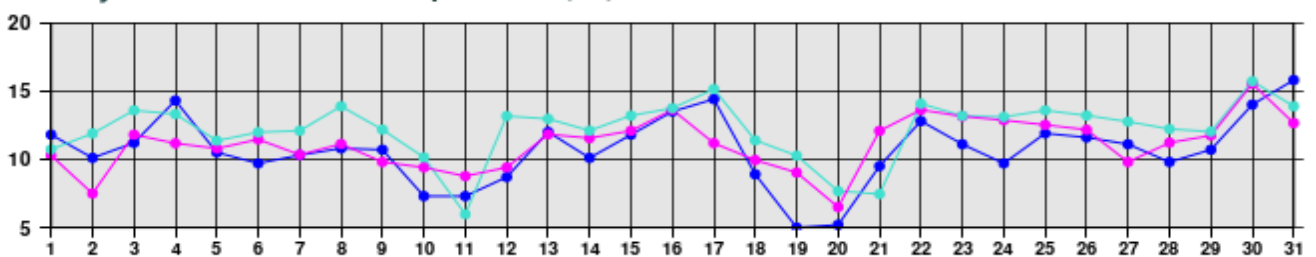
Daily sunshine values(hours)



Daily 00-24h maximum temperature (°C)



Daily 00-24h minimum temperature (°C)



- Valentia Observatory - Dublin Airport - Belmullet

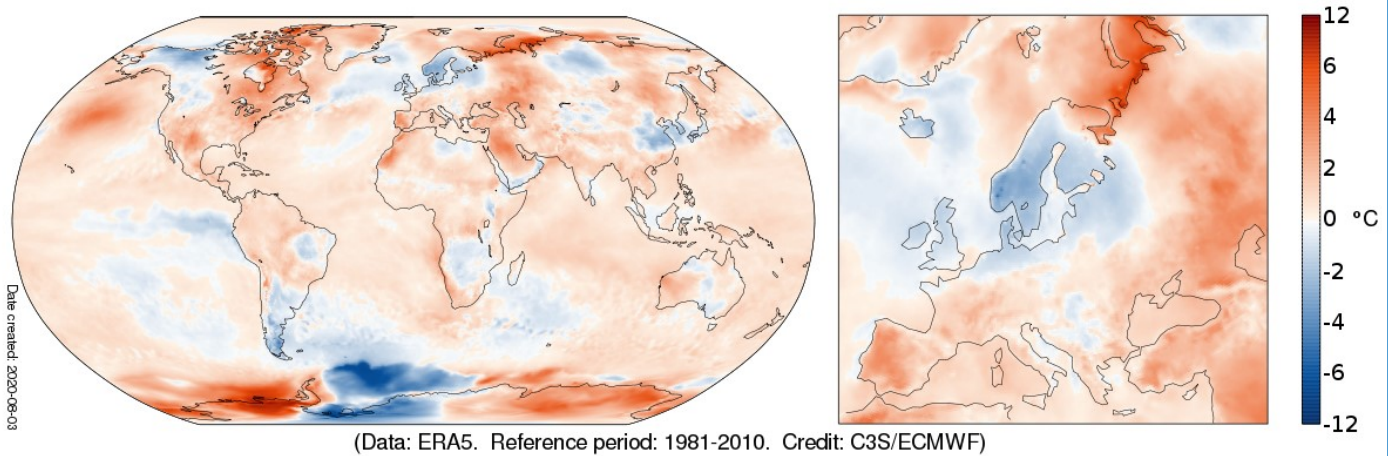
Issued by Met Éireann on Wednesday the 5th August 2020. This report is based on available preliminary data from 25 principal weather stations operated by Met Éireann. Synoptic station data is midnight to midnight UTC. Long-Term Averages (LTAs) and "average" refer to the period 1981-2010. ¹A wet day is a day with 1.0 mm or more of rainfall. ²A dull day is a day with less than 0.5 hours of sunshine. ³A very wet day is a day with 10.0 mm or more of rainfall. ⁴An absolute drought is a period of 15 or more consecutive days to none of which is credited 0.2 mm or more of precipitation. ⁵A partial drought is a period of at least 29 consecutive days, the mean daily rainfall of which does not exceed 0.2 mm. ⁶A 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

July 2020 Global

Surface air temperature for July 2020

Globally, it was the third warmest July in this data record, behind 2016 and 2019. In Europe, temperatures were below average in the north and above average in the south, with temperatures in the southwest reaching close to record warmth during a heatwave late in the month. Temperatures in the Arctic were much above average along the Northern Sea Route (along the northern coast of Siberia), as well as over the Canadian Archipelago and over the central Arctic Ocean, with unusually early melting of sea ice.

Surface air temperature anomaly for July 2020

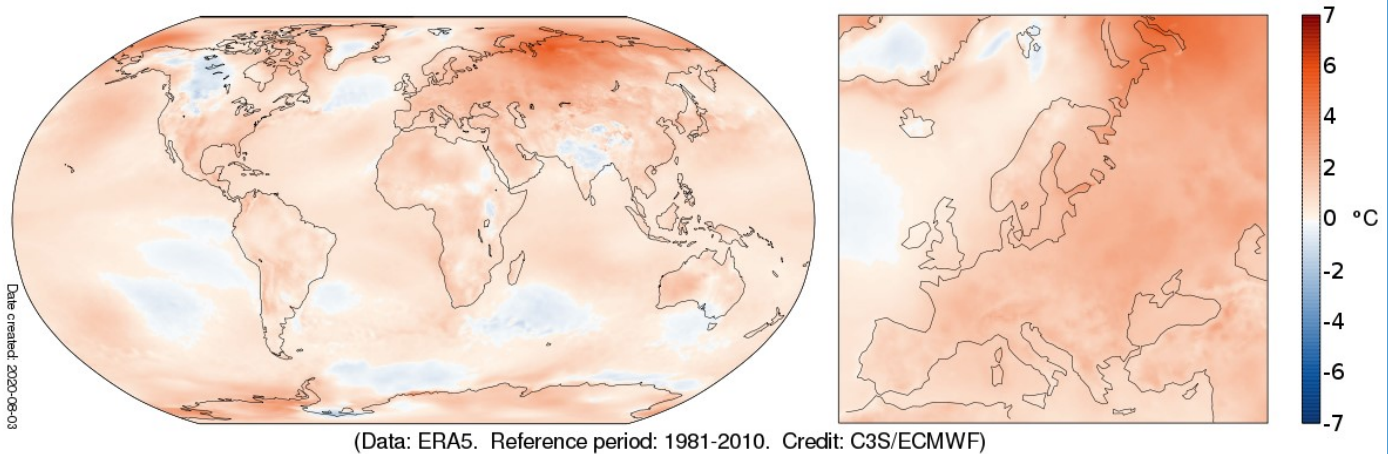


Surface air temperature anomaly for July 2020 relative to the July average for the period 1981-2010. Data source: ERA5. Credit: Copernicus Climate Change Service/ECMWF. <https://climate.copernicus.eu/surface-air-temperature-july-2020>

The last 12 months - August 2019 to July 2020

Globally, the twelve-month period from August 2019 to July 2020 was 0.65°C warmer than the 1981-2010 average. Temperatures averaged well above the 1981-2010 average over large part of Siberia, the Arctic Ocean to the north of Siberia and Alaska. They were above average over virtually all of Europe and over most other areas of land and ocean. They were below average over a few land areas, particularly central Canada, southern Greenland and northern India and also over several oceanic areas in the Southern Hemisphere, and over the North Atlantic in a band stretching from east of Newfoundland to Ireland.

Surface air temperature anomaly for August 2019 to July 2020



Surface air temperature anomaly for August 2019 to July 2020 relative to the average for 1981-2010. Data source: ERA5. Credit: Copernicus Climate Change Service/ECMWF. <https://climate.copernicus.eu/surface-air-temperature-july-2020>