

August 2020

Warm, wet and unusually stormy

August 2020 was warm, humid and cloudy with two named storms in the final third of the month. The first week saw a mostly west or south-westerly airflow with high pressure to the south and low pressure to the north bringing bands of rain or showers, especially between the 3th and 5th. The second week saw a slack, mostly easterly airflow over the country, with high pressure to the northeast over Scandinavia. This brought a few dry, sunny days, but as the week wore on, heavy thundery pulses of rain pushed up from the southeast to affect the southern half of the country, especially on the 13th and 15th. Atlantic low-pressure systems dominated most of the remainder of the month with coastal, river and flash flooding causing disruption in some areas. Slow moving weather fronts gave heavy falls of rain in places on the 17th and 18th before Storm Ellen, a record breaking deep Atlantic low pressure system, which contained the remnants of Tropical Storm Kyle, brought widespread gales and heavy rain or showers, sometimes thundery, across the country between the 19th and 21st. After a brief respite, another deep Atlantic low-pressure system, Storm Francis, brought very heavy falls of rain and gales across the country late on the 24th and into the 25th. Yet another Atlantic low-pressure system brought more bands of rain or showers, sometimes thundery on the 27th and 28th before a cool North Atlantic high-pressure system settled it down for the final few days of the month.

Rainfall: Above average nearly everywhere

The majority of monthly rainfall totals were above their Long-Term Average (LTA). Percentage of rainfall values ranged from 95% (monthly rainfall total of 100.1 mm) at Finner, Co Donegal to 215% (monthly rainfall total of 189.7 mm) at Sherkin Island, Co Cork (*its wettest August since 1986*). Monthly rainfall totals ranged from 85.1 mm (118% of its LTA) at Casement Aerodrome, Co Dublin to 219.7 mm (191% of its LTA) at Valentia Observatory, Co Kerry (*its wettest August since 2009*). The month's wettest day was also recorded at Valentia Observatory, Co Kerry with 52.0 mm on Mon 24th (*its wettest August day since 1986*). The number of rain days ranged from 17 days at Dublin Airport to 23 days at both Mace Head, Co Galway and Sherkin Island, Co Cork. The number of wet days¹ ranged from 13 days at Oak Park, Co Carlow to 20 days at Belmullet, Co Mayo. The number of very wet days³ ranged from 2 days at Dunsany, Co Meath to 6 days at a few stations. Along with Sherkin Island, Shannon Airport, Co Clare also had rainfall above 200% of its August LTA with 213% (174.8 mm) (*its wettest August since 2008*). Eight stations in total had rainfall above 150% of their LTA's.

Temperature: Above average nearly everywhere

Nearly all mean air temperatures were above their Long-Term Average (LTA) for August. Deviations from mean air temperature ranged from -0.5 °C (14.7 °C mean temperature) at Dublin Airport, Co Dublin to 0.9 °C (the month's lowest mean temperature of 14.6 °C) at Knock Airport, Co Mayo (*its warmest August since 2003*). Mean temperatures were as much as 16.4 °C (0.3 °C above its LTA) at Shannon Airport, Co Clare (*its warmest August since 2003*). The month's highest temperature was reported at both Markree, Co Sligo and Mount Dillon, Co Roscommon on Friday 14th and Saturday 15th with a temperature of 25.2 °C. Both the month's lowest air and grass minimum temperatures were recorded on Monday 31st at Mount Dillon, Co Roscommon. The lowest air minimum was 1.6 °C while the lowest grass minimum was -1.4 °C. There was no air frost reported this month. Two stations reported ground frost, Phoenix Park, Co Dublin and Mount Dillon, Co Roscommon. The number of days with ground frost ranged from zero days at most stations to 2 days at Mount Dillon, Co Roscommon. Two other stations had their warmest August since 2003, these included Moore Park, Co Cork with a mean temperature of 16.2 °C (0.8 °C above its LTA) and Cork Airport, Co Cork with 15.6 °C (0.5 °C above its LTA).

Sunshine: Below average everywhere

All available monthly sunshine totals were below their Long-Term Average (LTA). Percentage of monthly sunshine values ranged from 70% (monthly sunshine total of 105.5 hours) at Casement Aerodrome, Co Dublin (*its dullest August since 2008*) to 98% (monthly sunshine total of 138.2 hours) at Shannon Airport, Co Clare. Monthly sunshine totals ranged from 97.2 hours (No LTA comparison*) at Dublin Airport (*its dullest August on record (length 78 years)*) to 151.5 hours (93% of its LTA) at Cork Airport, Co Cork. The highest number of daily sunshine hours recorded this month was 14.5 hours at Malin Head, Co Donegal on Saturday 8th. The number of dull days² ranged from 4 days at Shannon Airport, Co Clare to 10 days at Valentia Observatory, Co Kerry.

Wind: Record breaking violent storm force 11 reported and two named storms

Monthly mean wind speeds ranged from 5.1 knots (9.5 km/h) at Ballyhaise, Co Cavan to 12.1 knots (22.4 km/h) at Mace Head, Co Galway. Gales were reported on the 4th and 21st with strong gales reported on the 20th and 25th during Storm Ellen and Storm Francis. Storm force and violent storm force 11 winds were reported on the 19th during Storm Ellen. The number of days with gales ranged from zero days at Dublin Airport, Co Dublin to 4 days at both Sherkin Island, Co Cork and Roche's Point, Co Cork. The number of days with up to strong gales ranged from zero days at a few stations to 2 days at Malin Head, Co Donegal. The number of days with up to storm force was 1 day at Roche's Point, Co Cork. Both the month's highest gust and 10-minute mean wind speed were reported at Roche's Point, Co Cork on the 19th during Storm Ellen. The highest gust was 77 knots (143 km/h) while the month's highest 10-minute mean wind speed was 60 knots (111 km/h). This is the highest gust and highest 10-minute mean wind speed ever recorded in Ireland during August.

Pressure: Mean Sea Level (MSL) pressure - New August record for Ireland

Athenry, Co Galway recorded a MSL Pressure of 966.4 hPa at midnight of the 20th August 2020 during Storm Ellen, which is the lowest MSL Pressure on record for Ireland in August. The previous record was 967.8 hPa at Belmullet, Co Mayo on the 14th August 1959.

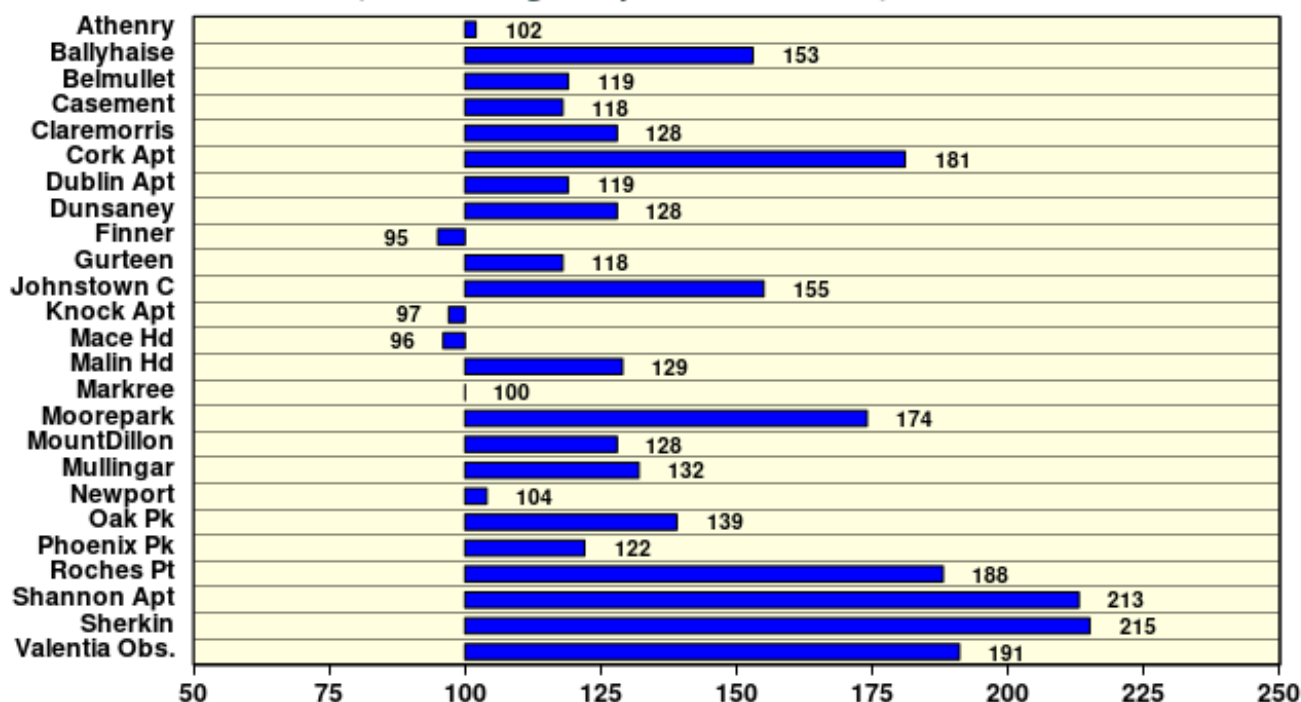
EXTREME VALUES AT SYNOPTIC STATIONS

Rainfall	<p>Highest total: 219.7 mm at Valentia Observatory, Co Kerry (191% of its LTA) (<i>its wettest August since 2009</i>)</p> <p>Lowest total: 85.1 mm at Casement Aerodrome, Co Dublin (118% of its LTA)</p> <p>Highest daily rainfall: 52.0 mm at Valentia Observatory, Co Kerry (45% of its monthly LTA) on Mon 24th (<i>its wettest August day since 1986</i>)</p>
Temperature	<p>Highest mean monthly temperature: 16.4°C at Shannon Airport, Co Clare (0.3°C above its LTA) (<i>its warmest August since 2003</i>)</p> <p>Lowest mean monthly temperature: 14.6°C at both Knock Airport, Co Mayo (0.9°C above its LTA) (<i>its warmest August since 2003</i>) and Malin Head, Co Donegal (at its LTA)</p> <p>Highest Air temperature: 25.2°C at both Markree, Co Sligo on Fri 14th and Mount Dillon, Co Roscommon on Sat 15th</p> <p>Lowest air temperature: 1.6°C at Mount Dillon, Co Roscommon on Mon 31st</p> <p>Lowest grass minimum: -1.4°C at Mount Dillon, Co Roscommon on Mon 31st</p>
Sunshine	<p>Highest monthly total: 151.5 hrs (daily mean 4.89 hrs/day) at Cork Airport, Co Cork</p> <p>Lowest monthly total: 97.2 hrs (daily mean 3.14 hrs/day) at Dublin Airport*, Co Dublin (<i>its dullest August on record (length 78 years)</i>)</p> <p>Highest daily sunshine: 14.5 hours at Malin Head*, Co Donegal on Sat 8th</p>

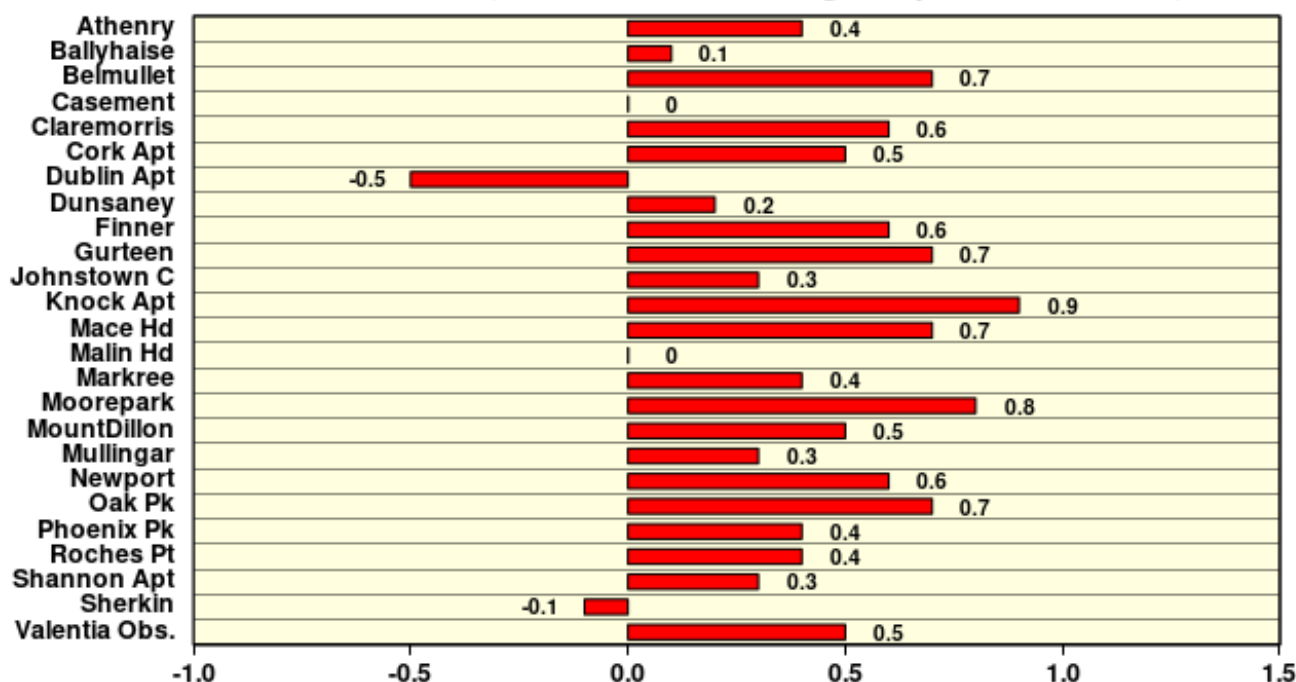
August 2020

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

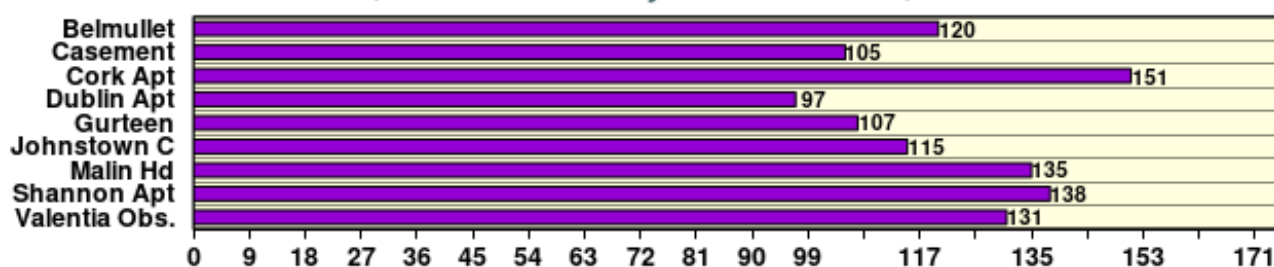
Rainfall (% of average for period 1981-2010) on whole month basis



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



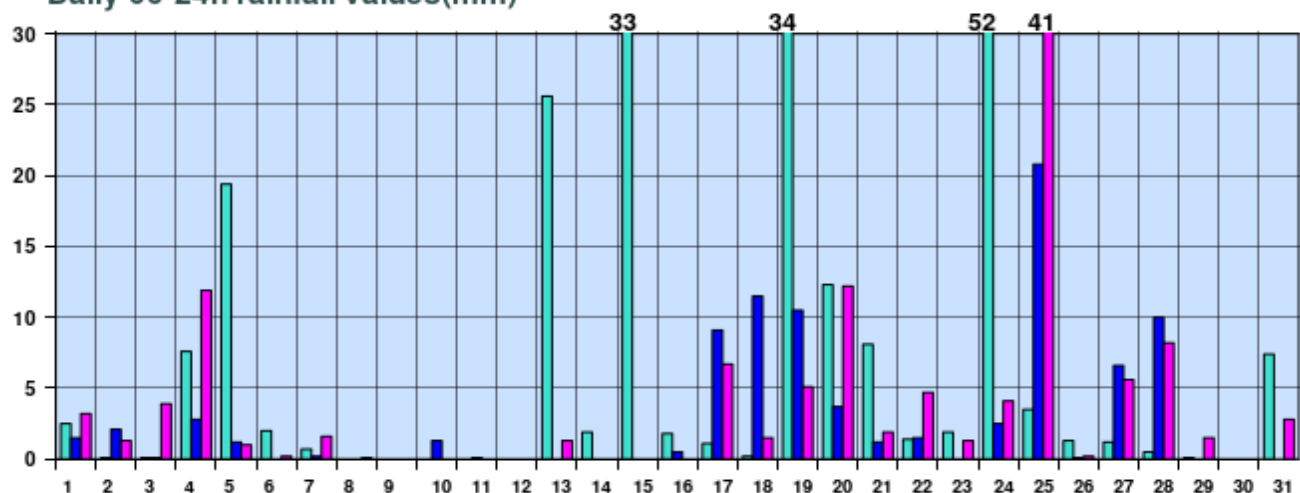
Sunshine (Number of monthly sunshine hours)



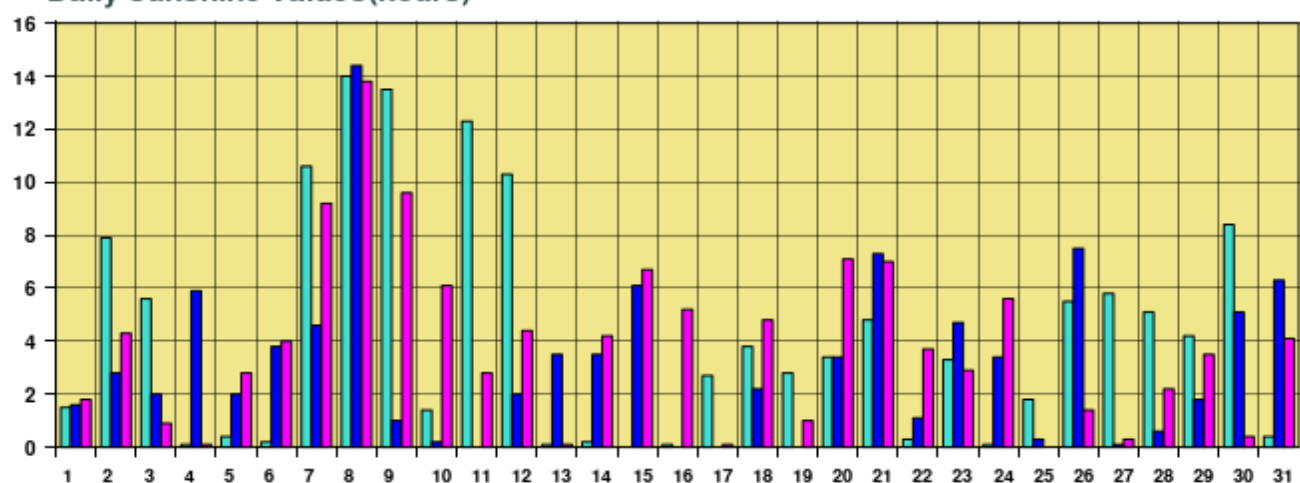
August2020 Daily Values at selected synoptic stations

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

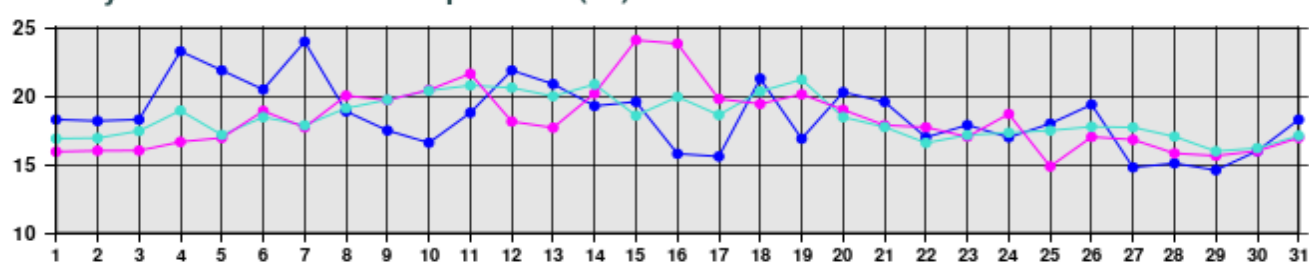
Daily 00-24h rainfall values(mm)



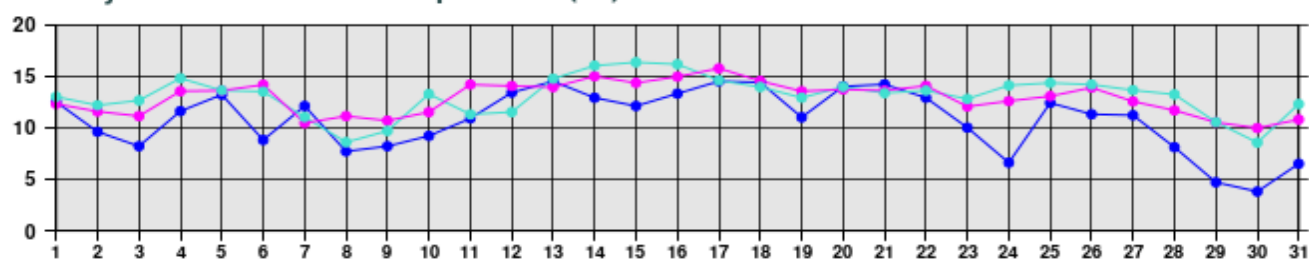
Daily sunshine values(hours)



Daily 00-24h maximum temperature (°C)



Daily 00-24h minimum temperature (°C)



- Valentia Observatory - Dublin Airport - Belmullet

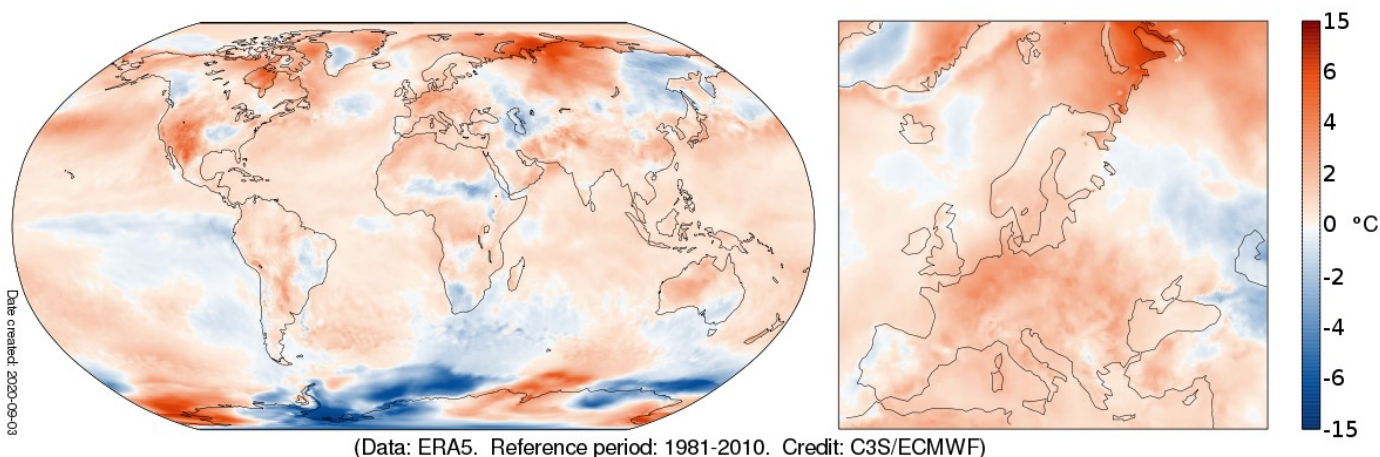
Issued by Met Éireann on Wednesday the 2nd September 2020. This report is based on available preliminary data from 25 principal weather stations operated by Met Éireann. Synoptic station data is midnight to midnight UTC. Long-Term Averages (LTAs) and "average" refer to the period 1981-2010. ¹ A wet day 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

August 2020 Global

Surface air temperature for August 2020

Globally, it was the fourth warmest August on record, 0.44°C warmer than the 1981-2010 average. It was particularly above average over southwestern USA and over northwestern Siberia and much of the Arctic ocean. Air temperatures over the ocean were mostly above average, though in the Southern Hemisphere substantial regions were below average. A maximum temperature of 54.4°C reported for Death Valley, California will, if verified, become the highest August temperature ever measured reliably anywhere in the world.

Surface air temperature anomaly for August 2020

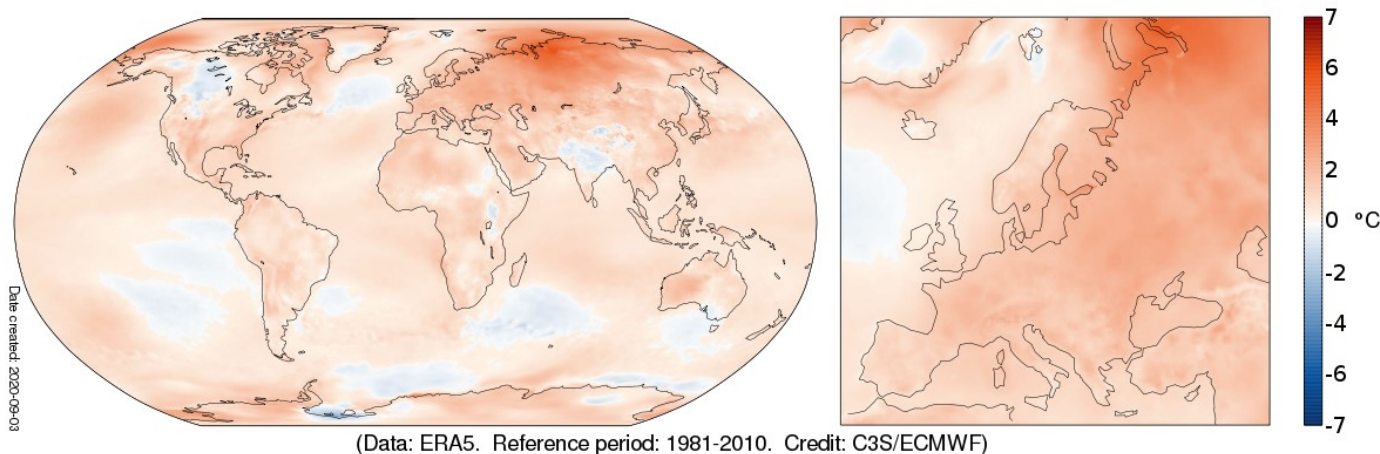


Surface air temperature anomaly for August 2020 relative to the August average for the period 1981-2010. Data source: ERA5. Credit: Copernicus Climate Change Service/ECMWF. <https://climate.copernicus.eu/surface-air-temperature-august-2020>

The last 12 months - September 2019 to August 2020

The last twelve-month period was close to 0.64°C warmer than average. Temperatures were well above the 1981-2010 average over a large part of Siberia, and the Arctic Ocean to the north of Siberia and Alaska. They were above average over virtually all of Europe, especially in the East and over most other areas of land and ocean. They were below average over a few land areas, particularly parts of western Canada, Greenland and northern India and over several oceanic areas including the eastern equatorial Pacific and over the North Atlantic in a band stretching from east of Newfoundland to Ireland.

Surface air temperature anomaly for September 2019 to August 2020



Surface air temperature anomaly for September 2019 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>