

Prime Meridian (123) April 6, 2020

At the beginning of April 4, 2020, a waxing Moon was high in an almost cloudless sky. Our natural satellite was heading towards the Easter Full Moon. Days were becoming warmer. Leaves were beginning to appear on trees. Bluebells were flowering among the wood anemones.



Building a future should be the legacy for the sacrifices of 2020.

This would have been a welcome spring day had it not been for the fact that many people in our cities around the world found themselves having to spend most of their time indoors and unable to meet others face to face. There is an important lesson that we must never forget from this tragic episode. The pandemic is one of the many threats that our civilisation must overcome. Many of our politicians knew of the potential problem and did too little. We have no automatic right to survive into a far future. We will have you earn the privilege to enjoy the tenancy on Planet Earth. We must make it clear to political leaders that their job is to save the world and give us the future that all of us on this planet deserve. Our species must work together with determination and foresight.

In this issue we review the world's second warmest February in a record dating back to 1880.

Above: The Moon on April 5, 2020. Ash, Kent, England. Sunlight had crossed the entire 1,300 km wide Imbrium Basin (left top). This formed about 3.94 billion years ago, when a 250 wide body crashed into the Moon,

The waxing Moon and Venus,
the closest planet to the
Earth, shortly after Sunset
on February 27, 2020.





Above & below: Views from the fields at West Kingsdown, Kent on the afternoon of February 6, 2020.

Seasons in South East England

February 2020

A warm and wet month.

For the UK as a whole, the Met Office stated: “It was the wettest February in a series from 1862, with 237% of average, and some locations had over 400% of the long-term average”. The UK’s mean temperature was 5.1°C (1.4°C compared to the 1981-2010 long-term average), with England 6.2°C (2.1°C). At 7.0°C (2.4°C), our region, England SE & Central S, was the UK’s warmest region.

The UK’s minimum temperature of -10.2°C was recorded at Braemar (Aberdeenshire, Scotland) on Feb. 13. Its maximum temperature was recorded in Feb. 16 in our region at 6.0°C (East Malling, Kent).





Snowdrop (*Galanthus nivalis*) in ecology area created by the Editor in Belair Park, South London, Feb. 7.

The robin (*Erithacus rubecula*) is well-known as a bold bird in the UK, where it has little human threat. New Ash Green, Feb. 13.

The month saw three storms for the UK. Ciara (Feb. 9), Dennis (Feb. 15) and Jorge (Feb. 28).

After Storm Ciara, numerous fallen trees had obstructed roads in Kent. Feb. 10. Safety warnings alerted the public of potential hazards in Beacon Wood.

A rainbow appeared after rain in Kent on Feb. 17.





By Feb. 14, there were swollen rivers in South East England, and in places, water was spilling over the banks.

Left: The River Darent flows beside the Brooklands Ponds in Dartford, Kent. It crosses under the A 225, through the Darent Valley Park, and from there, it continues onwards toward the River Thames, joined by its tributary the River Cray, and enters the Thames opposite the RSPB's Rainham Marshes Nature Reserve, in Essex.

The tunnel had opened in 1923 and was renovated as a key link in the Darent Valley Park in 2009. The pedestrian walkway was flooded and the Darent was in spate.

Below: A storm cloud was dying away at the end of the day. Feb. 20, 2020. Crayford, Kent.

Data for Heathrow, Greater London from WeatherOnline showed that its warmest day was warmest Feb. 23, about 15°C and its coolest were Feb. 6 & 28, around 0°C. Its wettest day was Feb. 16, with 16 mm.
<https://www.weatheronline.co.uk/weather/maps/city>

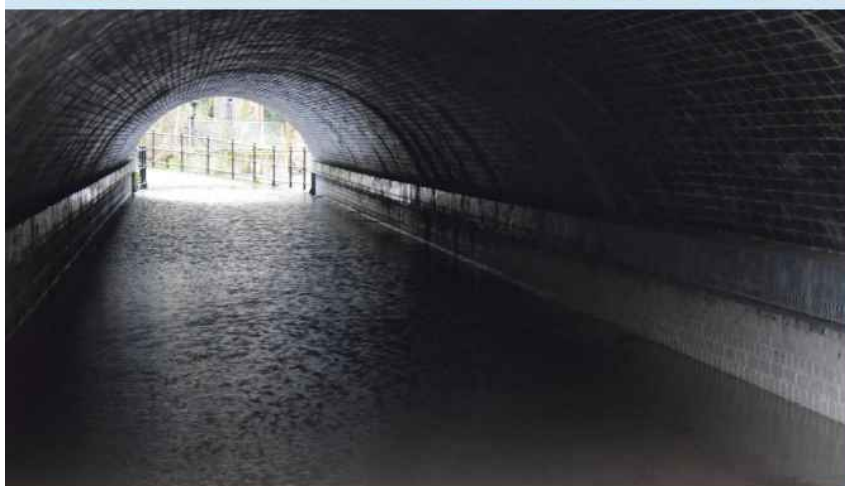
Monthly means for SE and central S England. Max. temp.: 10.2°C (2.5°C); min. temp.: 3.7°C (2.4°C). Hours of sunshine: 77.2 (98%). Rain: 130 mm (236%). Anomalies re. 1981-2010 norm in brackets. Date obtained from Met Office on-line monthly reports.

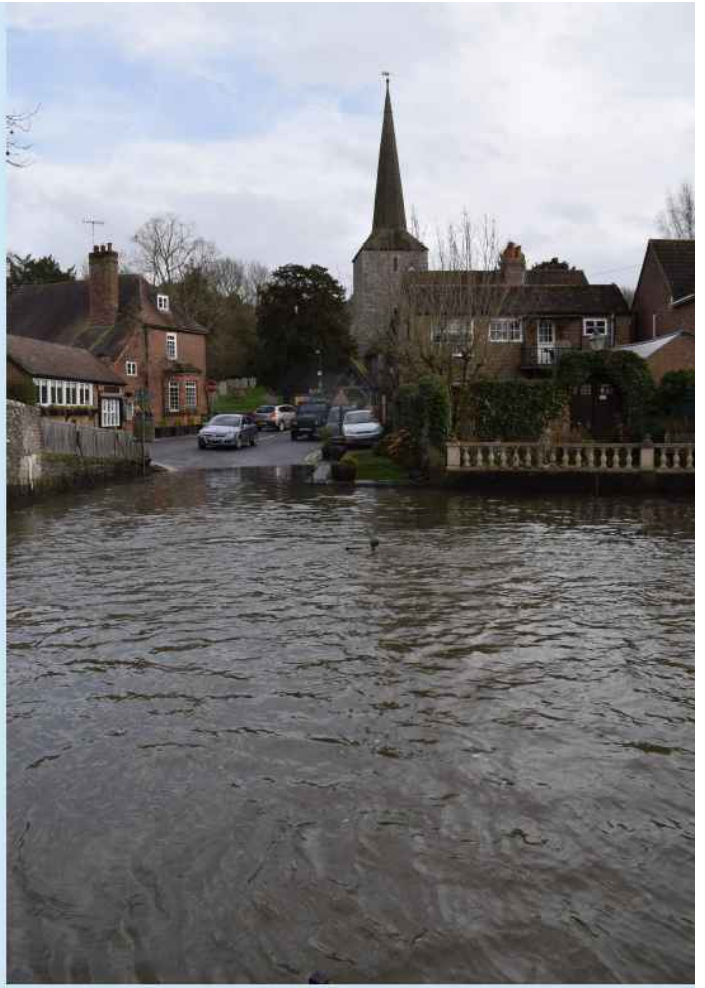
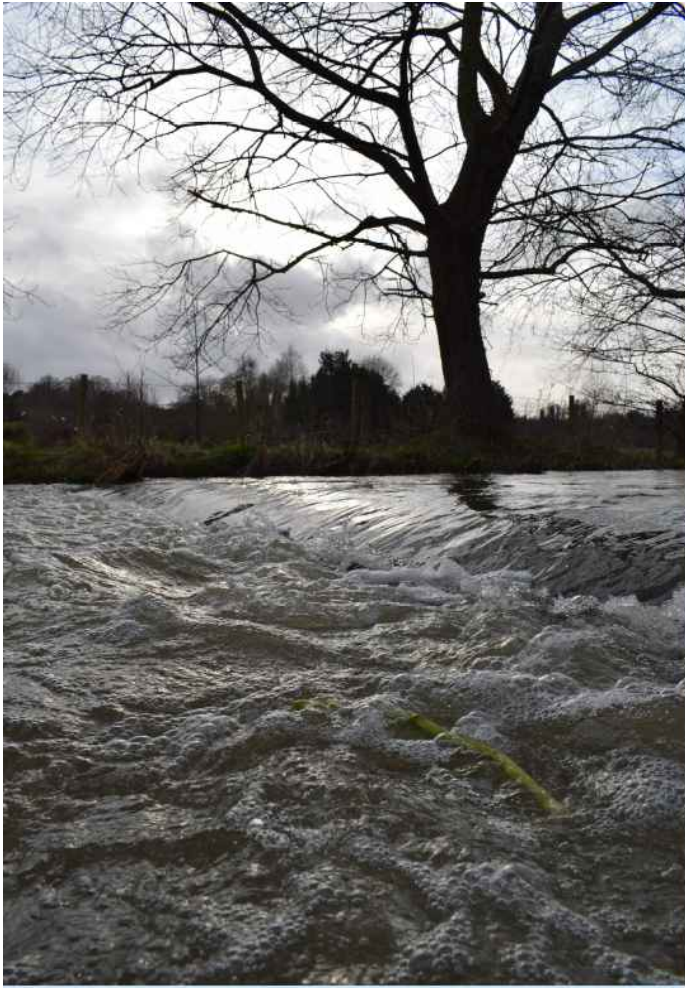
<https://www.metoffice.gov.uk/research/climate/maps-and-data/regional-values>

Next page:

Top: The swollen River Darent passes through the ford at Eynsford. Kent, Feb. 14.

Below left: A huge puddle appears after rains in Fawkham Road, Kent, Feb. 14. Below right: Water was pouring down Pease Hill towards Hartley Bottom, Kent. Feb. 16, 2020.







Above and below: After February's strong winds, weak trees were found fallen in woods and fields. A large tree, part of a stand in a cricket field opposite the church yard of St Peter & St Paul, Ash, Kent, had come down.

By February 23, 2020, much tidying up had taken place; it was all very neat. The larger branches had been cut up and stacked, while beside them was a pile of twigs.





Moon approaching Full on Feb. 8 (right) and Full on Feb. 9, 2020 (left).



Above: Here in Kent, England we did not see the snow bound fields of February 2019. On the early afternoon of Feb. 11, tiny snowflakes were falling from the sky, but melting quickly as they touched the tops of cars. Garden daffodils and relatives flourished in the Sun on the final day of a leap year February (Feb. 29). Seasonal crocuses and primulas (Feb. 14).

Below: Feb. 28. The spotted leaves of early purple orchids (*Orchis mascula*) as appeared in a former coppice in Ash, Kent, beside leaves of bluebells (*Hyacinthoides non-scripta*).





Above: February 29, 2020. Cherries in gardens at Hartley, Kent. Below: Blackthorn (*Prunus spinosa*). Rectory Meadow, a 2.2 hectare Local Nature Reserve, managed by the North West Kent Countryside Project.





Above: The Sun had set rather south of west, where a dull pink twilight was fading on a chilly winter night. Near West Kingsdown, Kent. February 6, 2020.

Global climate: February 2020 was second warmest on record.

The record began in 1880. Data from the USA's National Oceanic and Atmospheric Administration indicate that although "Averaged as a whole, February 2020 was near-record warm with a global land and ocean surface temperature departure from average of 1.17°C . . . above the 20th century average. Only February 2016 was warmer. This month marked the 44th consecutive February and the 422nd consecutive month with temperatures, at least nominally, above the 21th century average. The 10 warmest Februarys have occurred since 1998." The warmest month on record, February 2016, had been $+1.26^{\circ}\text{C}$ above the 20th century average.



Data is provisional. All the anomalies quoted are positive.

Check out NOAA data on:

<https://www.ncdc.noaa.gov/sotc/global/202002>

Above right: The NASA/NOAA Deep Space Climate Observatory space craft returned to active service during February 2020. This spectacular image of February 26 at 11:34:13 GMT, includes dust from the Sahara swept into the Atlantic.



Above: The Moon, a day before full, appeared above the trees on the hill at Hartley, Kent. February 8, 2020.

Prime Meridian.

PM is published by the Ecospheres Project, a research and media collaboration. PM follows global environment alongside the cycle of the seasons in South East England. It steps back to look at the Earth in its astronomical context and it pursues the search for other habitable worlds.

Editor: Dr Martin J. Heath.

Editorial assistance: Penelope Stanford & Dr Laurance R. Doyle.

Collaboration associates: Palash Dave, Lienkie Diedericks, Laura Elworthy, Elizabeth Gornall, Shaheen Komatsu and Veronica Mariquoe.

Email: Prime-meridian01@hotmail.com

Website: www.ecospheresproject.org

Prime Meridian is a not-for-profit publication. This newsletter may be copied and distributed freely by any organisation engaged in raising awareness of environmental issues or for general educational purposes.

Images in Prime Meridian are from M. J. Heath unless otherwise specified. © M. J. Heath