Prime Meridian (121) February 29, 2020

A spacecraft that returned from the dead.
This old friend is returning beautiful pictures of the Earth.

DSCOVER was out of action from June 27, 2019 to February 12, 2020.

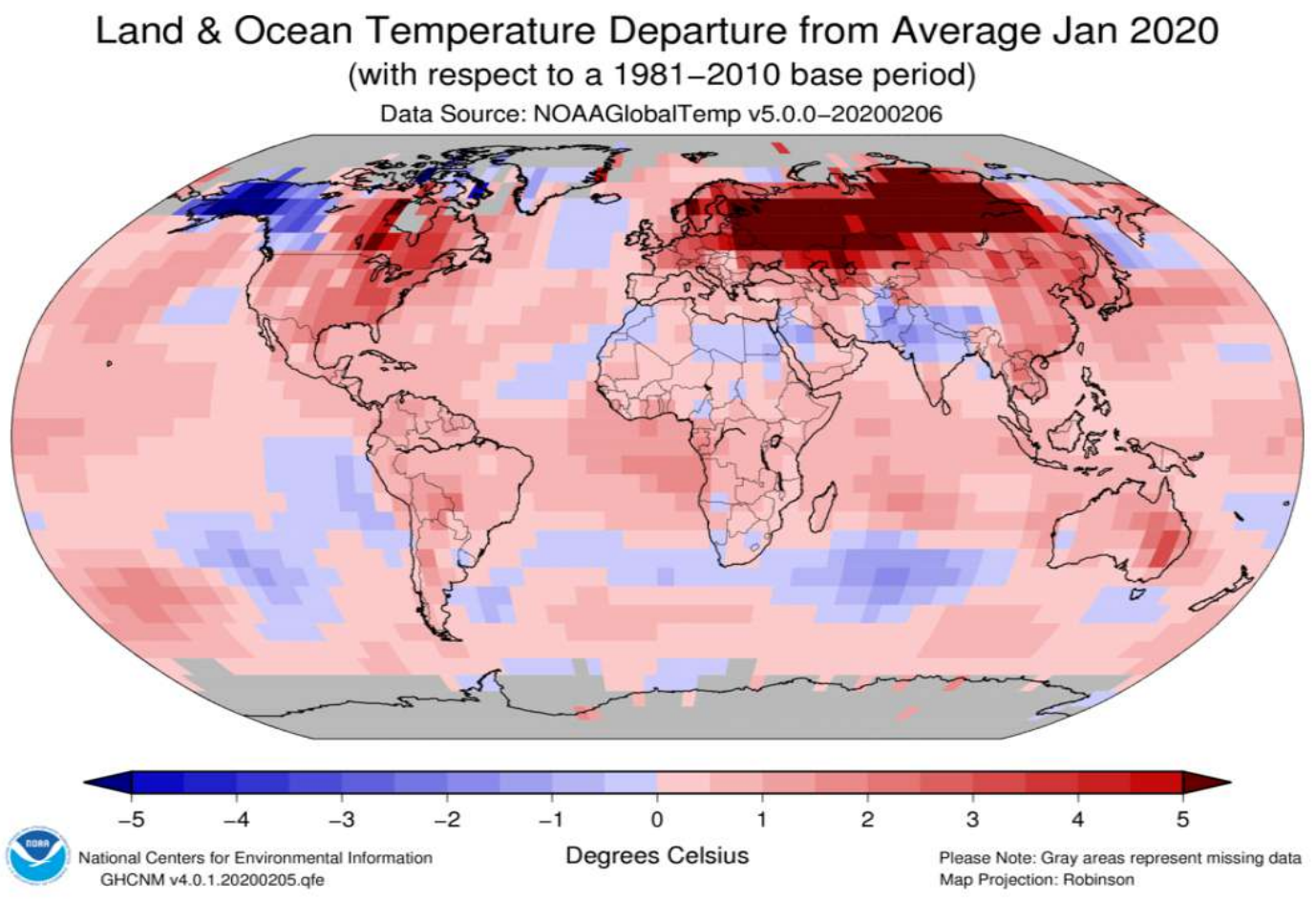
The view below on February 25, 2020 shows our world from the Arctic to the Antarctic and with dust from the Sahara near the Canaries and a sun-glint off Africa in the centre of the disc.

2020 saw the warmest January on record

It was great to see our world again.

The Deep Space Climate Observatory (DSCOVR) spacecraft orbits the Sun at the L-1 Lagrange point between the Earth and Sum, where it is locked into an orbit following the Earth as it orbits the Sun. DSCOVER lies at 1.5 million km from the Earth and can see the whole planet as a true disc. President Trump has long argued to abandon the satellite, because although its main function is to alert us to solar activity, it was devised by former Vice President Al Gore and finally launched by President Obama to promote an environmental agenda. The views above show the last image taken on June 27, 2019 (left) and the first new image returned on February 12, 2020 (right). Check out the daily pictures for yourself: https://epic.gsfc.nasa.gov/?date=2020-02-12

Below: We have just seen the world's warmest January on record.

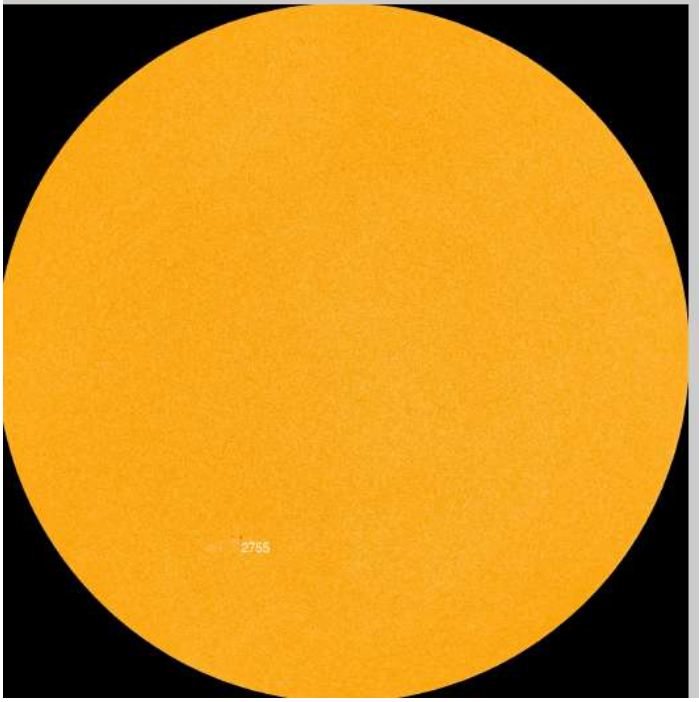


Seasons in South East England

January 2020

The UK's sixth warmest January in a record from 1884. Our region was the UK's joint warmest, yet dull and dry.

Above: The New Year began with the traditional fireworks in major cities around the world. With Australia being threatened by an unprecedented outbreak of wildfires, there had been arguments about whether it was appropriate to stage the traditional huge firework display in Sydney, state capital of New South Wales. In London, as midnight arrived with the chimes of Big Ben (despite its ongoing re-furbishing) fireworks exploded from the south bank of the Thames. During the opening minutes of 2020 massive crowds were celebrating on the north bank. Jan. 1 turned out to be a short and gloomy day, but Jan. 2 (below; afternoon at Hartley Bottom, Kent) was a bit brighter.



January 5, 2020: Perihelion – the closed point of the Earth's orbit to the Sun.

The view above is on January 4 at New Ash Green, Kent, shortly before the Sun sank over the horizon set. Perhelion takes place during the Northern Hemisphere's winter. The actual moment was 07.48 GMT, with the Earth at 0.98324 AU from the Sun.

On January 5, the Sun had few spots. According to SpaceWeather (January 5, 2020): "Sunspot AR2755 has a reversed magnetic polarity that identifies it as a member of new Solar Cycle 25. Credit: SDO/HMI"

https://spaceweather.com/archive.php?view=1&day=05&month=01&year=2020

January 10. The day came to its close at Hartley, Kent. The full moon rose.

Joint warmest region, but dull and dry.

The Met Office stated that the UK's mean temperature was 5.6°C (2.0°C compared to the 1981-2010 long-term average), with England 5.6°C (1.3°C). At 6.3°C (1.5°C) our region, England SE & Central S, was joint warmest with England SW & Wales S.

https://www.metoffice.gov.uk/binaries/content/assets/metofficegovuk/pdf/weather/learn-about/uk-past-events/summaries/uk_monthly_climate_summary_202001.pdf

The Met Office reported for England that: "January was mostly mild and unsettled with westerly and south-westerly winds. There was some quieter weather early in the month and more especially between the 18th and 25th, when high pressure brought fine weather initially, but in most areas it turned cloudy. Wet and windy weather returned from the 26th."

Later in the evening of Jan, 10, a penumbral eclipse of the Moon occurred from 17:07:44 to 21:12:19 (left; late in the eclipse). In clear skies, a reduced lunar brightness can be seen under the penumbra.

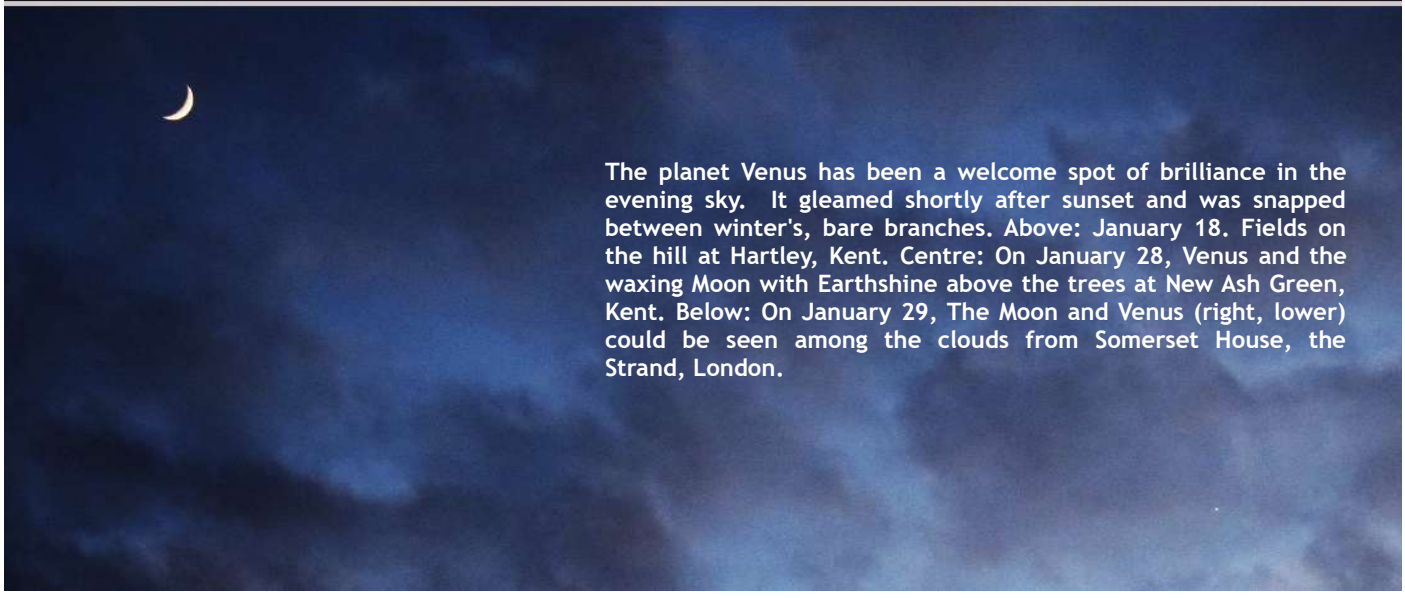
Previous page from top to bottom. Appearance of bluebells (*Hyacinthoides non-scripta*) in woodland at Ridley, Kent. January 20. Snowdrop (*Galanthus nivalis*) and primrose (*Primula vulgaris*) in the church yard of St Peter and St Paul, Ash, Kent. January 26.

The mean temperature for January was provisionally 2.1˚C above the 1981-2010 long-term average, making it the equal fifth warmest January in a series from 1884.

The UK's maximum temperature (15.5ºC at Achfary, Sutherland) on January 7 and the minimum temperature of (-7.9ºC at Braemar, Aberdeenshire) on January 10, were in Scotland and far north of our region.

The warmest day at Heathrow, greater London (Jan. 9) was about 13.5º C and coolest (Jan. 26), about -2ºC. Wettest days: Jan. 15 (9 mm) and Jan. 27 (7 mm). London data: https://www.weatheronline.co.uk/weather/maps/city

One of the most dramatic weather events was Storm Brendan (Jan. 13 to 14). On Jan. 14, a gust of almost 132 km per hour was recorded at the Needles, Isle of Wight.



The planet Venus has been a welcome spot of brilliance in the evening sky. It gleamed shortly after sunset and was snapped between winter's, bare branches. Above: January 18. Fields on the hill at Hartley, Kent. Centre: On January 28, Venus and the waxing Moon with Earthshine above the trees at New Ash Green, Kent. Below: On January 29, The Moon and Venus (right, lower) could be seen among the clouds from Somerset House, the Strand, London.

Above: Jan 15. A fallen tree at New As Green. Kent. This dead tree had featured in PM 117, where it remained standing on the day of Halloween 2019.

Monthly means for SE and central S England. Max. temp.: 9.3°C (1.8°C); min. temp.: 3.8°C (2.1°C). Hours of sunshine: 56.3 96%). Rain: 70.9 mm 89%). 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

Below: Jan 20. Skeletal trees and stubble in a field above Hartley Bottom, Kent.

Above: A winter's day beneath a blue sky. Silver birch (*Betula pendula*) and dogwood (*Cornus sanguinea*) beneath a cold, blue sky on January 31, 2020, North Field. New Ash Green, Kent.

Global climate: January was the warmest on record.

The USA's National Oceanic and Atmospheric Administration (NOAA) reported that: "The global land and ocean surface temperature for January 2020 was the highest in the 141-year record, with a temperature departure from average of 1.14°C . . . above the 20th century average. This value was only 0.02°C . . . higher than the now second highest January temperature departure from average set in 2016. The four warmest Januaries on record have occurred since 2016, while the 10 warmest Januaries have occurred since 2002. The only Januaries with a global land and ocean surface temperature departure from average above 1.0°C . . . occurred in 2016 and 2020."

"Record warm January surface temperatures present across parts of Scandinavia, Asia, the Indian Ocean, the central and western Pacific Ocean, the Atlantic Ocean, and Central and South America. However, no land or ocean areas had record-cold January temperatures."

Check out NOAA data on:

https://www.ncdc.noaa.gov/sotc/global/202001

New Ash Green, Kent. Above: Violats, Jan. 31. Right: After rainfall, Jan. 15.

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.

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