



Prime Meridian

(137) February 28, 2021

We find ourselves alive in both the greatest crisis, but also the greatest adventure that members of our species have ever set in motion.


The present Earth Crisis has been of our own making, but, at the same time, we all have the means to take decisive action.

We must remind our politicians on every possible occasion that the future will not be handed to our species as an automatic right, but must be won with an effort.

The global pandemic will leave behind it a damaging legacy, not least for the global economy, but there is a lesson to be learned; we must look ahead with foresight and plan for resilience.

Meanwhile, humans continue to seek discoveries and new benefits beyond the Earth. Images to left are from the International Space Station. Upper: The Cygnus space freighter from Northrop Grumman arrived on Feb. 22, 2021 (iss064e036104). This view looks down over Turkey. Lower: Russia's uncrewed ISS Progress 77 resupply ship on Feb. 17, (iss064e033750). Coastal NW Africa.

It is ironic that at the same time as we are threatening the living world down here, we are exploring other worlds. On Feb. 18, 2021, NASA's *Perseverance* craft landed successfully on Mars. Its aim, to explore an area where life might have once existed, Evidence of past or present life on Mars would be an historic turning point for science'. This is another opportunity to remind ourselves that our impact and responsibilities extend beyond one planet.





Global climate: 7th warmest January in a record dating back to 1880.

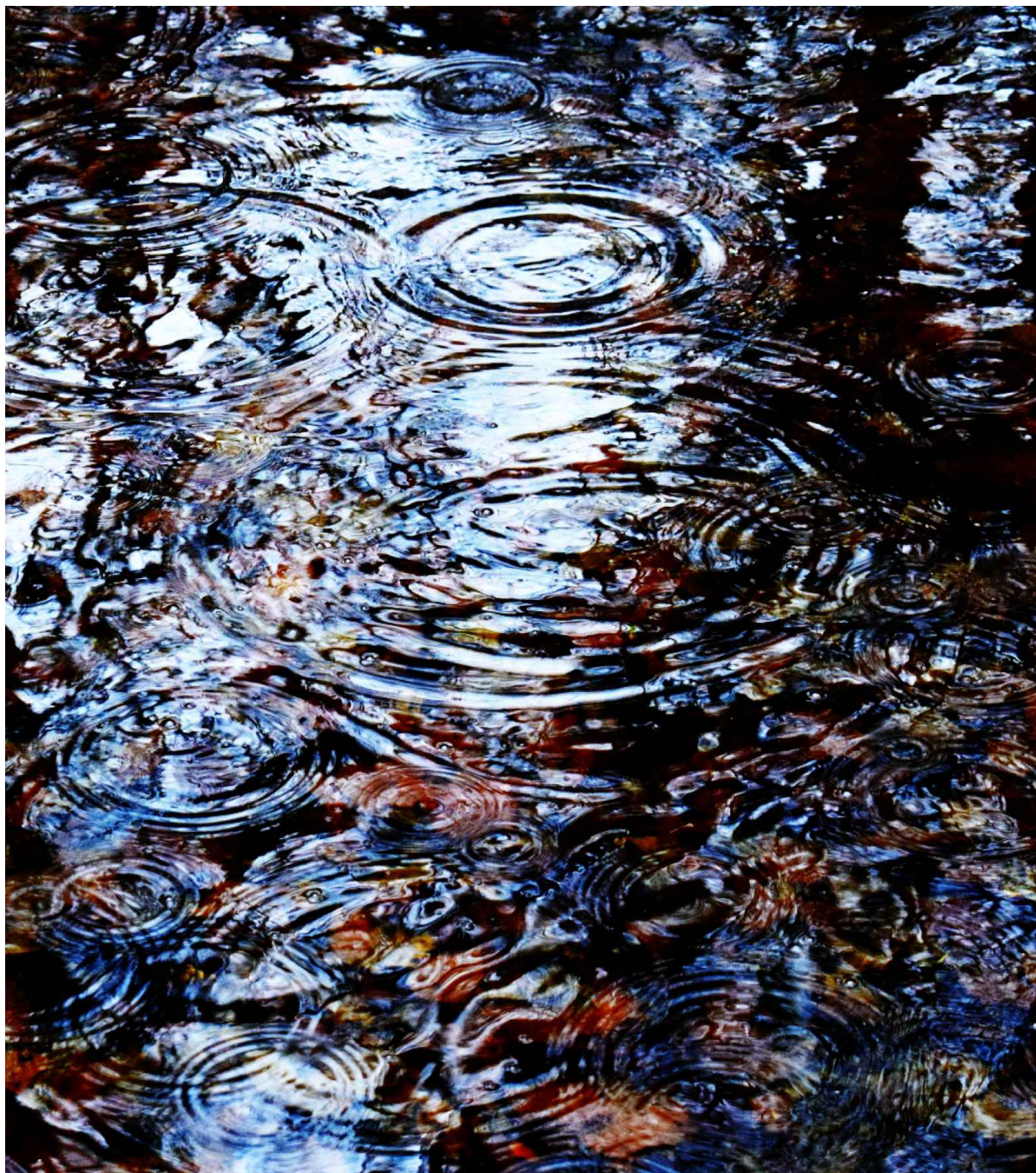
NOAA (USA's National Oceanic and Atmospheric Administration) stated: "The January 2021 global land and ocean surface temperature was 0.80°C . . . above the 20th century average and ranked as the seventh warmest January in the 142-year global records. January 2021 also marked the 45th consecutive January and the 433rd consecutive month with temperatures, at least nominally, above the 20th-century average."

Data is provisional. All the anomalies quoted are positive.

Check out NOAA dsts on: <https://www.ncdc.noaa.gov/sotc/global/202101>

Above: The Earth passed through perihelion, the closest point of its orbit to the Sun, on January 2, 2021 at 13:51.

This image, close to the time of perihelion, was sent from the DSCOVR (Deep Space Climate Observatory) space craft (NASA/NOAA), using its EPIC (Earth Polychromatic Imaging Camera) system. Jan. 2, 2021 at 13:22:10 UT.




Seasons in South East England

JANUARY 2021

The year began with a wet, cold and dull month.

This month saw a lot of standing water here in Kent, England. In the picture above, water had accumulated into pools in places in the woods at Seal Chart, Kent. On the afternoon of January 13, rain was pouring down from a grey sky and continued to flood low lying areas last year's fallen leaves.



A nearby firework display erupted as the New Year began. New Ash Green, Kent. Jan. 1, 2021. The afternoon was cold and gloomy out in the wet and muddy fields at Hartley, Kent.

Met Office data for Jan 2021.

The provisional UK mean temperature was 2.2°C, with an anomaly of 1.5°C below the 1981-2010 long-term average. The mean temperature for England was 2.9°C (-1.2°C). Our region, England SE & Central S, was the second warmest mean temperature for the UK at 3.7°C (-0.9°C), compared to the warmest, England SW & Wales S at 3.9°C (-0.8°C).

The maximum temperature in the UK was 14.2°C reported at Pershore College (Hereford & Worcester) on January 28. The minimum temperature was reported from Dawyck Botanic Garden (Peeblesshire, Scotland) on January 9 and also at Braemar (Aberdeenshire, Scotland) on January 31 as -13.0°C.

Monthly means for SE and central S England. Max. temp.: 6.6°C (-0.9°C); min. temp.: 0.7°C (-0.9°C). Hours of sunshine: 35 (60%). Rain: 103.3 mm (129%). Anomalies re. 1981-2010 norm in brackets.

Date obtained from Met Office on-line monthly reports.



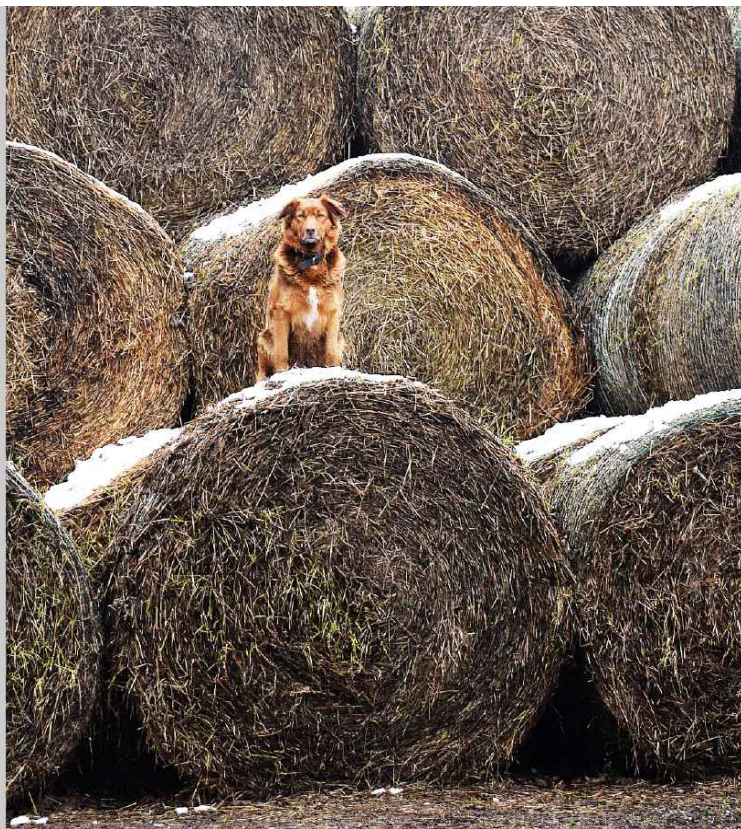


Above: January 6. Snow had fallen at New Ash Green, Kent, but had begun to thaw. Below: The forecourt of a garage had been flooded.

Next page: Jan. 9. Misty day in the wood and hedgerow near West Kingsdown, Kent. Left: Frost on a web among the trees. Right top: Feathery seeds on traveller's joy (*Clematis vitalba*). Right centre: Ivy (*Hedera helix*) and dark fruits. Right lower: The so-called "Belt of Venus." It is on the opposite side of the Sun, and nowhere near the planet Venus, which is never more than 47° from the Sun as seen from Earth. The Belt is glow from the Earth's atmosphere at twilight. Jan. 10. New Ash Green, Kent.







Above left: Jan. 9. Frost on hawthorn (*Crataegus monogyna*), hedgerow, Kingsdown, Kent.

Above right: Jan. 10, Ridley, Kent. A farm dog sits on a pile of snowy bales and surveys the world.

Below: Down the hill, trees were sparkling with frost.





January is a month with long and cold nights.

Above: Jan. 12, 2021, the sky darkens above the fields at Bean, Kent.

Centre: Jan. 16. Frost on hawthorn (*Crataegus monogyna*), near Kingsdown, Kent.

Lower: The Sun sets behind a woodland on Jan. 17, 2021.





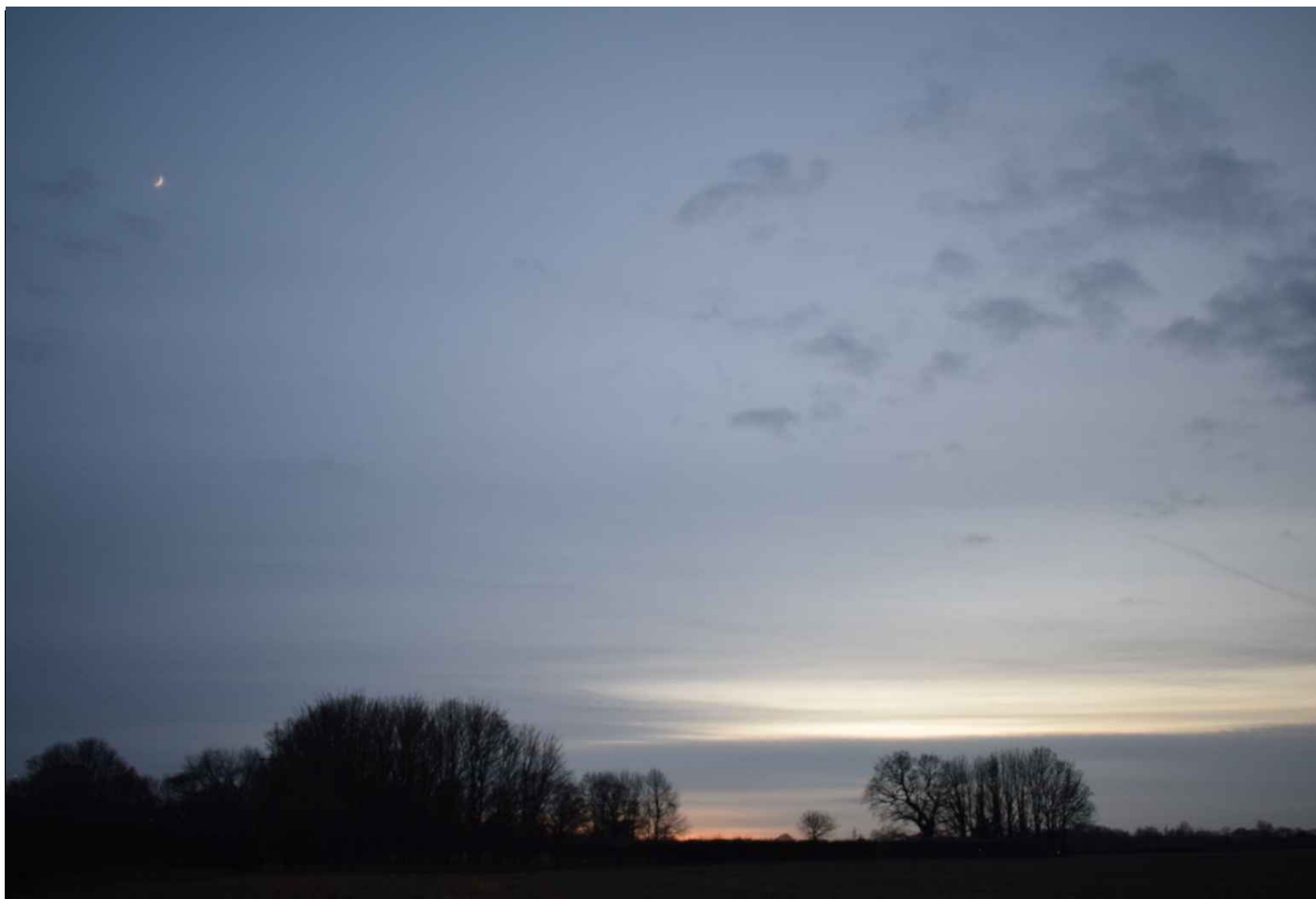
A mountainous cloud remained gleaming in the sunset after it has disappeared at ground level. Later, on that evening of January 23, 2021, snow began to fall in the church yard at Ash. Can you spot the Moon among the falling snow flakes caught in the camera flash? On January 24, families were enjoying the snow at Belair Park, South London. Snow fall is not a predictable annual event, and generally only over a few days.





Previous page. January 18, 2021. Top and lower left show rising waters on the seasonal lake and small stream in Beacon Wood, Bean, Kent and a stream in spate near Horton Kirby.

This page. A sports field, a road, lane and path had been locally flooded between New Ash Green and Ash, Kent on January 29, 2021. The picture to the lower left shows how the lake at Beacon Wood had now flooded over the walk way by January 30, 2021.



Above: A thin waxing Moon is visible against a twilight sky. Fields at Ash, Kent. January 17, 2021.

Below: The Full Moon occurred on January 29, 2021 and at New Ash Green, it shone over the roof tops.





Above: A wintery afternoon at Farningham Wood Nature Reserve. Kent. Jan. 26, 2021.

Prime Meridian.

Prime Meridian is published by the Ecospheres Project, a research and media collaboration. It follows global environmental issues 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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