

Spacecraft launches to explore the Sun

The mission will take the most detailed images ever of the Sun and provide crucial information about how our star's volatile activity affects its atmosphere. This knowledge will help improve predictions of space weather events, which can disrupt and damage satellites and infrastructure on Earth.

This has never been more important as the UK economy is increasingly reliant on space, with satellite services such as communications, navigation and Earth observation supporting wider industrial activities worth £300 billion.

Solar Orbiter will allow scientists to study our star in much more detail than previously possible and to observe specific features for longer periods than can be achieved by any spacecraft circling the Earth. The spacecraft's orbit will also give unprecedented views towards the Sun's poles.

The UK is at the heart of this European Space Agency (ESA) mission with UK industry winning £200 million worth of contracts and the UK Space Agency investing £20 million in the development and build of the instruments.

Business Secretary Andrea Leadsom said:

Solar storms could cause major disruptions to technologies including our energy grid, mobile phone signal and navigation systems.

This new mission demonstrates the UK's leading role in the global space industry, while supporting our economy, creating jobs and helping establish the UK as a global science superpower.

Solar Orbiter will carry 10 state-of-the-art instruments. Remote sensing payloads will perform high-resolution imaging of the Sun's atmosphere – the corona – as well as the solar disk. Other instruments will measure the solar wind and the solar magnetic fields in the vicinity of the spacecraft.

This will give us unprecedented insight into how the Sun works, and how we can better predict periods of stormy space weather, which are related to coronal mass ejections (CMEs) that the Sun throws towards Earth from time to time.

UK scientists were instrumental in proposing the Solar Orbiter mission to ESA. The UK Space Agency provided funding for four of the 10 scientific instruments on board. Imperial College London, UCL Mullard Space Science Laboratory and the Science and Technology Facilities Council's RAL Space led international teams to design and build three instruments while UCL are major contributors to a fourth.

Chris Lee, Chief Scientist at the UK Space Agency, said:

I am incredibly excited by Solar Orbiter. It is the most important UK space science mission for a generation, both in terms of our leading industrial role on the satellite itself and our key academic roles on the science payload. It also contributes massively to the development of operational space weather forecasting as championed by the UK Met Office and so will have real impact for the UK public at large. Solar Orbiter truly is a “big beast” for our UK space community.

Solar Orbiter, which will take just under two years to reach its initial operational orbit, will follow in the footsteps of NASA’s Solar Parker Probe, which launched in 2018. The two missions will offer complementary perspectives of the Sun – with Parker Solar Probe travelling through the Sun’s atmosphere, while Solar Orbiter observes the surface and near environment.

Engineers at Airbus in Stevenage designed and built the spacecraft to withstand the scorching heat from the Sun that will hit one side, while the other is frozen as the orbit keeps it in shadow. It will face intense solar radiation that is 13 times more powerful than that in Earth’s orbit. The design is based on ESA’s BepiColombo mission to Mercury, the closest planet to the Sun, which launched in 2018 with significant involvement from UK engineers and scientists.

The UK’s space sector is going from strength to strength, employing around 42,000 people and carrying out world-class science while growing the economy. The UK continues to be a leading member of ESA, which is independent of the EU, having committed a record investment of £374 million per year in November 2019. This included £80 million on space safety and security for a mission in partnership with the US to protect infrastructure in space and on Earth from space weather and to help remove space debris.

[Secretary of State makes new regulations on coronavirus](#)



In light of the recent public health emergency from the novel Coronavirus originating from Wuhan, the Secretary of State has made regulations to ensure that the public are protected as far as possible from the transmission of the virus.

In accordance with Regulation 3, the Secretary of State declares that the incidence or transmission of novel Coronavirus constitutes a serious and imminent threat to public health, and the measures outlined in these regulations are considered as an effective means of delaying or preventing further transmission of the virus.

In accordance with Regulation 2, the Secretary of State designates Arrowe Park Hospital, Kents Hill Park and and Heathrow Ariel Hotel as an “isolation” facility and Wuhan and Hubei province as an “infected area”.

[The Health Protection \(Coronavirus\) Regulations 2020](#)

Published 10 February 2020

Last updated 25 February 2020 [+ show all updates](#)

1. 25 February 2020

Addition of Heathrow Ariel Hotel as an isolation facility.

2. 10 February 2020

First published.

[Foreign Secretary to set out UK ambition for dynamic relationships with Singapore and Malaysia](#)

In the final part of his first Asia-Pacific trip in 2020, the Foreign Secretary will highlight the new and exciting opportunities in trade and investment with the two countries as an independent and sovereign UK.

The Foreign Secretary, Dominic Raab, said:

Global Britain is open for business and there are huge trading opportunities with Singapore and Malaysia. They are two linchpin partners in South East Asia, and we share their interests in promoting security, stability and the international rule of law.

The region is also crucial to tackling climate change, so we're looking forward to taking our relations to the next level.

The Foreign Secretary will travel to Singapore (Monday 10 February) and Malaysia (Tuesday 11 February) to build stronger ties with important partners in South East Asia and to promote the UK as a dynamic nation.

Foreign Secretary Dominic Raab will meet Singapore's Deputy Prime Minister Heng Swee Keat, Foreign Minister Dr Vivian Balakrishnan and Minister for Trade and Industry Chan Chun Sing to ensure the relationship between our countries will flourish now the UK has left the EU. We will strengthen links in areas such as climate change, technology and trade between our countries – which was worth £12.7 billion in 2018.

They will celebrate the success of the SG-UK Partnership for the Future, a collaboration launched in 2019 to mark the 200th anniversary of Sir Stamford Raffles' arrival in Singapore. The first year of this collaboration saw 26 agreements to increase work together in areas such as science and innovation, education, medical technology, climate resilience and cyber security. In 2020, the collaboration will focus on climate, technology, security and knowledge.

The UK and Singapore have strong research bases and are committed to green technology development. The Foreign Secretary will visit the Tengeh reservoir which is being used as a test bed for floating solar power technology as Singapore seeks to diversify its energy mix. The Foreign Secretary will also visit a high tech research lab that is a collaboration between UK firm Rolls-Royce, Nanyang Technological University Singapore and Singapore's National Research Foundation. It is the first corporate lab to bring together universities and companies to jointly work on R&D focusing on electrics, manufacturing technology and data analytics.

While in Kuala Lumpur, the Foreign Secretary will use a series of high-level meetings – including with Malaysian Prime Minister Tun Dr Mahathir Mohamad, Foreign Minister Dato' Saifuddin Abdullah and Minister of Energy, Science, Technology, Environment and Climate Change Yeo Bee Yin – to set out our vision for our future relationship with Malaysia in trade, science and innovation, climate change and education.

Trade, investment and business links between the UK and Malaysia are already worth over £5 billion a year, with iconic projects like the redevelopment of Battersea Power Station in London showcasing Malaysian investment in the UK. Malaysia is the second largest market in ASEAN for the UK and there are huge opportunities for the future. Later this month, British company Smith+Nephew – one of the world's leading manufacturers of medical devices – will be breaking ground on its first manufacturing plant in South East Asia in Penang, creating up to 800 new jobs over the next five years and giving a big boost to UK-Malaysia trade.

Underlining the UK's position as a world leader in tackling climate change, promoting sustainability and preserving the environment, the Foreign

Secretary will make clear our support for Malaysian efforts to clean up the oceans by reducing plastic use and marine debris, and pledge to work together to stop illegal shipments of plastic waste from UK.

Further information

West Midlands Trains must invest £20 million after poor performance and delays

- government taking action to address poor performance of West Midlands Trains
- operator must invest £20 million to improve service for passengers and reduce delays
- Transport Secretary demands rapid introduction of a plan to improve services that passengers rely on

In a stark warning to train operators across the country, West Midlands Trains (WMT) will be required to spend an extra £20 million on improving services for passengers after badly breaching its performance targets, the Transport Secretary Grant Shapps set out today (9 February 2020).

Passengers across the West Midlands, who use West Midlands Railway and London Northwestern services, will benefit from the additional funding, which will be invested in delivering timetable improvements and recruiting new train drivers to tackle staff shortages. They will also continue to be offered compensation for poor service with discounts on season tickets and off-peak fares.

The Department for Transport has made clear that operators should consider this step a warning that poor performance impacting on passengers and the failure to meet contractual obligations will be met with a firm response.

Transport Secretary Grant Shapps said:

One of my priorities is getting the trains to run on time, and as a commuter myself I understand all too well the frustration caused by endless delays and cancellations.

West Midlands Trains have failed to fulfil their obligations – to their franchise agreement and, most importantly, to their passengers.

The action we're taking means they must invest in rapidly improving

services, so that passengers have reliable, punctual trains they can rely on.

Rail Minister Chris Heaton-Harris said:

Having monitored the poor performance of West Midlands Trains with great concern, we're taking action to ensure they fulfil their contractual commitments and deliver the service passengers deserve.

Every minute of delay adds up, and for far too long passengers have been left stuck on train platforms at the mercy of a fickle live departure board.

Having our country's trains run on time must be the rule, not the exception. This is a warning that operators simply must do better for their passengers.

Andy Street, the Mayor of the West Midlands, said:

West Midlands Trains' performance at the back end of last year was absolutely woeful and it is only right – as I requested – that the firm must pay the price financially. I am also pleased to see this money will be re-invested locally to help restore the reliable service that passengers want and deserve.

Since I issued my ultimatum in December of improve or lose the franchise, WMT has got better and performance is statistically on the up. But I still have very serious concerns and, alongside the DfT, will be keeping the firm under strict review. I will not hesitate to ask for the franchise to be stripped if performance slips again.

The additional £20 million funding will be used for a variety of measures including:

- compensating passengers for the poor service by offering a 3% discount on season ticket renewals and offering a 10% reduction in off peak fares during July and August 2020
- series of timetable improvements, with wide-ranging changes planned for May 2020 and December 2020
- recruitment of additional drivers and senior conductors to combat staffing shortages
- investment in day to day operations, to make services more reliable

Since their May 2019 timetable change WMT's performance has deteriorated to such an extent that they have exceeded breach level on delay minutes and cancellations franchise agreement targets. Under the terms of their contract, WMT are required to agree a 'remedial plan' to ensure that performance

recovers.

The department will continue to closely monitor the performance of the operator and ensure they meet their contractual obligations.

[CMO confirms fourth case of coronavirus in England](#)



A further patient has tested positive for novel coronavirus in England, bringing the total number of cases in the UK to four.

The new case is a known contact of a previously confirmed UK case, and the virus was passed on in France.

Experts at Public Health England continue to work hard tracing patient contacts from the UK cases. They successfully identified this individual and ensured the appropriate support was provided.

The patient has been transferred to a specialist NHS centre at The Royal Free Hospital, and we are now using robust infection control measures to prevent any possible further spread of the virus. The NHS is extremely well prepared to manage these cases and treat them, and we are working quickly to identify any further contacts the patient has had. This patient followed NHS advice by self-isolating rather than going to A&E. For the latest advice visit [gov.uk/coronavirus](https://www.gov.uk/coronavirus).

Published 9 February 2020