

Thaxted Astronomical Society

News

Features

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Starlink Launch Sat's With  
Visors That Dim Them

<https://www.dailymail.co.uk/sciencetech/article-8332801/SpaceX-delays-Starlink-launch-Tuesday-reveals-satellites-special-visors.html>

## SpaceX delays eighth Starlink launch until Tuesday due to poor weather conditions, but reveals some satellites will feature special 'visors' that dim the device's brightness

Daily Mail 18<sup>th</sup> May 2020 >

- **SpaceX was set to launch a new batch of 60 Starlink satellites on Sunday**
- **But inclement weather foiled the launch and the firm is set to resume May 19**
- **Some of the satellites will feature a special 'visor' attached to them**
- **This is said to reduce how much light is reflected off the satellites in low orbit**

SpaceX was forced to delay its eighth launch of Starlink satellites on Sunday due to a tropical depression forming off the Southeast Coast and is now targeting Tuesday.

The payload of 60 new devices will take off aboard the firm's Falcon 9 rocket May 19 at 3:10am, bringing the total of satellites in low orbit to 482.

This batch will be different, as some of the satellites will feature a special 'visor' that dims the brightness of the technology.

Called VisorSat, the new addition is said to keep the antennae on the satellites in the shade and prevents sunlight from reflecting off them by forming a barrier over the devices.

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SpaceX was forced to delay its eighth launch of Starlink satellites on Sunday due to a tropical depression forming off the Southeast Coast and is now targeting Tuesday. Featured is a picture of the firm's launch at Kennedy Space Center in March

SpaceX is developing the constellation of satellites with the hopes of providing high-speed internet to everyone on the globe – no matter their location.

However, scientists and stargazers have voiced frustrations that the devices are hindering their ability to see the night sky.

Furthermore, the orbiting satellites can also interfere with the workings of ground-based radio telescopes that experts use to see more distant phenomena.

'The night sky is a commons — and what we have here is a tragedy of the commons,' Imperial College London astrophysicist Dave Clements told the BBC

he proposed constellations, he added, 'present a foreground between what we're observing from the Earth and the rest of the Universe.'

'So they get in the way of everything. And you'll miss whatever is behind them, whether that's a nearby potentially hazardous asteroid or the most distant quasar in the Universe.'

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SpaceX CEO Elon Musk announced last month that the firm was 'fixing' the problem with the 'VisorSat.'

'We have a radio-transparent foam that will deploy nearly upon the satellite being released, and it blocks the sun from reaching the antennas,' Musk said.

'They're sun visors, essentially: they flip out and block the sun and prevent reflections.'

Along with the new feature, Musk also shared that the firm may adjust how the satellites are laid out in orbit, which could also reduce the amount of light reflected back to Earth, Newsweek reports.

he tactic, called 'orientation roll', would shift the alignment of the solar panels, which would 'have a significant effect on the brightness during orbit raise,' said Musk.

The billionaire also revealed that Starlink's service will be available to certain locations in six months, with private beta in just three.

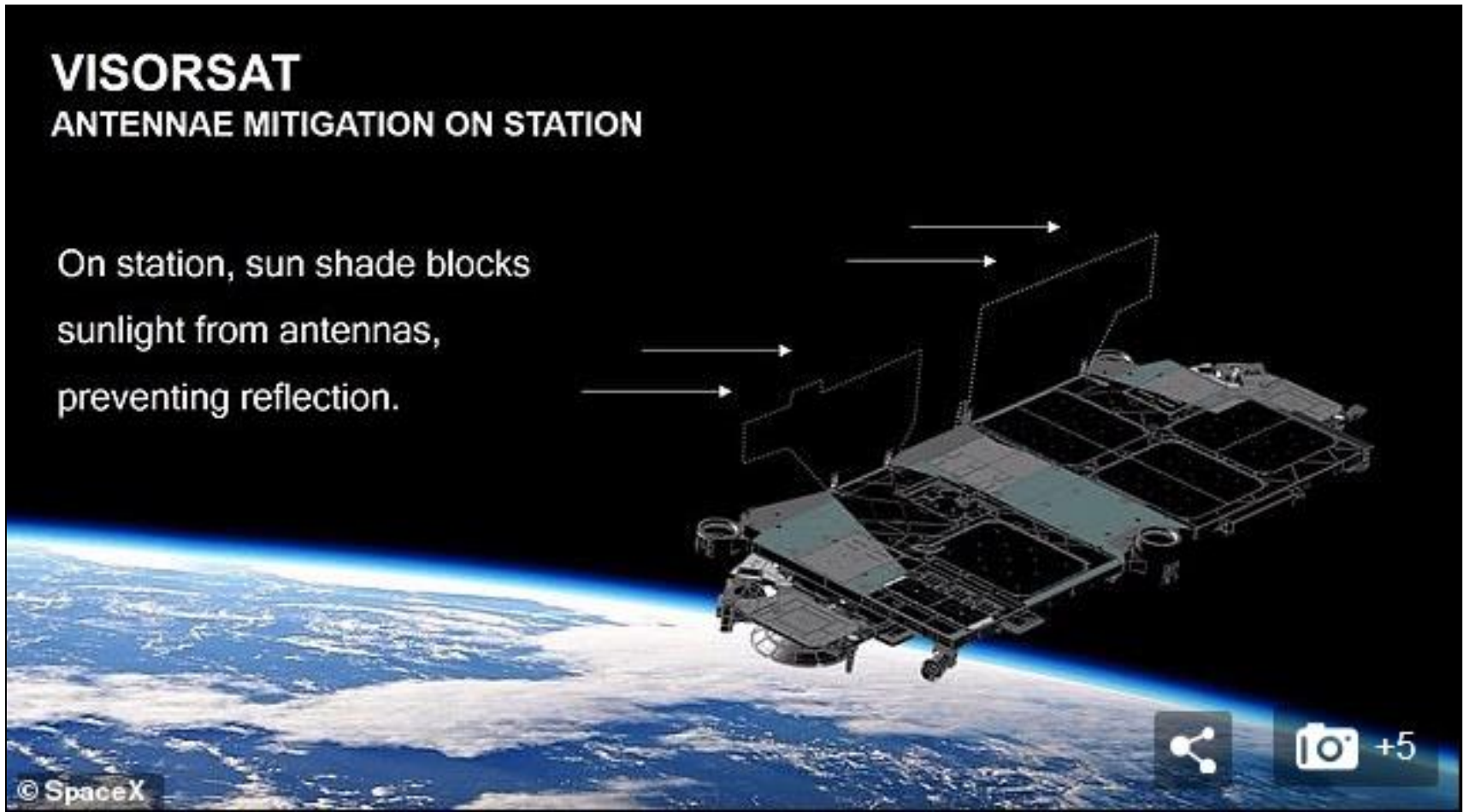
Musk had noted in the past that the project needed at least 400 satellites to launch and Wednesday, he said he sent 60 more devices into space last month.

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### ELON MUSK'S SPACEX SET TO BRING BROADBAND INTERNET TO THE WORLD WITH ITS STARLINK CONSTELLATION OF SATELLITS

Elon Musk's SpaceX has launched the fifth batch of its 'Starlink' space internet satellites - taking the total to 300.

They form a constellation of thousands of satellites, designed to provide low-cost broadband internet service from low Earth orbit.

The constellation, informally known as Starlink, and under development at SpaceX's facilities in Redmond, Washington.

Its goal is to beam superfast internet into your home from space.

While satellite internet has been around for a while, it has suffered from high latency and unreliable connections.

Starlink is different. SpaceX says putting a 'constellation' of satellites in low earth orbit would provide high-speed, cable-like internet all over the world.

The billionaire's company wants to create the global system to help it generate more cash.

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Musk has previously said the venture could give three billion people who currently do not have access to the internet a cheap way of getting online.

It could also help fund a future city on Mars.

Helping humanity reach the red planet is one of Musk's long-stated aims and was what inspired him to start SpaceX.

The company recently filed plans with the Federal Communications Commission (FCC) to launch 4,425 satellites into orbit above the Earth - three times as many that are currently in operation.

'Once fully deployed, the SpaceX system will pass over virtually all parts of the Earth's surface and therefore, in principle, have the ability to provide ubiquitous global service,' the firm said.

'Every point on the Earth's surface will see, at all times, a SpaceX satellite.'

The network will provide internet access to the US and the rest of the world, it added.



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It is expected to take more than five years and \$9.8 billion (£7.1bn) of investment, although satellite internet has proved an expensive market in the past and analysts expect the final bill will be higher.

Musk compared the project to 'rebuilding the internet in space', as it would reduce reliance on the existing network of undersea fibre-optic cables which criss-cross the planet.

In the US, the FCC welcomed the scheme as a way to provide internet connections to more people.