

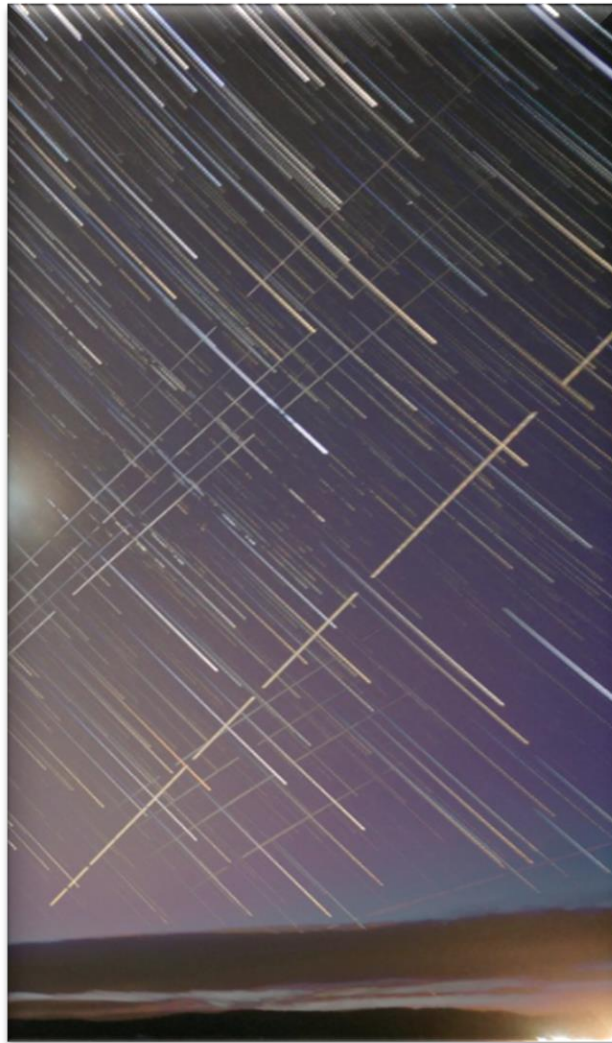


Picture News

Advanced

11th May 2020

What's going on this week?



SpaceX founder, Elon Musk, has a dream of providing the whole world with high speed internet using satellites in the sky. Mr Musk recently announced on Twitter that the firm's Starlink service will be available to certain locations in six months. The project aims to have the devices form a constellation around the planet from a distance of 200 miles to 700 miles above the surface and transmit data to stations and customers on the ground.

Eventually there should be 12,000 Starlink satellites in orbit around the Earth, 'With performance that far surpasses that of traditional satellite internet, and a global network unbounded by ground infrastructure limitations, Starlink will deliver high speed broadband internet to locations where access has been unreliable, expensive, or completely unavailable,' SpaceX writes on its website.

This week's news story: www.bbc.co.uk/news/technology-52391758

This week's useful video: <https://youtu.be/h-S67Y7gEeY>



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Main question: Who does outer space belong to?

Listen, think, share

- Read through this week's story and talk about the image. Did you see the satellites in the sky at the end of April? Think about how the image from the poster makes you feel. If you looked up and saw the satellites and had no idea what they were, would you be afraid, amazed or another adjective? Why?
- Not everyone is responding positively to the Starlink project, a professor at UCLA's (University College, Los Angeles) Institute of the Environment and Sustainability branded Starlink a 'crime against humanity'. Travis Longcore a professor has said, "Starlink is a crime against humanity; it robs us of the skies of our ancestors to every corner of the earth". However, the founder of SpaceX, Elon Musk, announced that he is working to fix the brightness of the ultra-bright constellation of satellites, saying, "The brightness of the constellation is due to the angle of the solar panels as the satellites rise to orbit altitude, while satellite internet has been around for a while, it has suffered from high latency and unreliable connections." Another cause for concern is for astronomers, as currently, the satellites are in a parked orbit, but over the next few months, the craft will use on-board engines to move slightly further from the Earth and rotate their solar panels towards the Sun. That will make them less visible to the naked eye but could mean they cause light pollution for astronomers trying to take pictures of the farther reaches of space. Do you think the consequences and subsequent negative affects these cause, overshadow any of the benefits?
- SpaceX says putting a 'constellation' of satellites in low earth orbit would provide high-speed, cable-like internet all over the world. The company wants to create the global system to help it generate more funds. Elon Musk has previously said that the venture could give three billion people around the world (almost half of the world's population), who currently do not have access to the internet, an affordable way of getting online. Do you agree with Elon Musk? Do you think that providing the satellites will mean that the internet would be accessible to all?
- Elon Musk has said that the profits made from the Starlink project could also help fund a future city on Mars. Helping humanity reach Mars is one of Musk's long-stated aims and was what inspired him to start SpaceX. What do you think of Elon Musk's ambitions?
- Have you heard of the Outer Space Treaty? It is an agreement made by 109 countries, created to protect outer space. It states that anyone can explore outer space and all of the countries are in agreement that outer space doesn't belong to any one country. As technology improves, and more people are able to send things into space more easily, do you think the treaty may need to change and adapt, considering objects we may send, such as satellites, to outer space and look at creating rights and restrictions?

Further questions for discussion

- Do you think there should be an international regulatory body to monitor space travel/exploration and sending objects such as satellites into orbit? E.g. similar to the WHO (World Health Organisation) but for outer space.
- Overall, do you think the benefits of global internet from satellites outweigh the negatives? Why?