

Spot the International Space Station

Watching this spacecraft track across the night sky can be strangely emotional

This tiny, bright dot is a satellite that's home to real people; scientists who live and work on the research ship that constantly orbits the Earth. These people spend their lives observing weather patterns, performing experiments in the microgravity laboratory, and stake a human presence in space. Seeing it tracking far above our heads gives us a sense of perspective and respect for the universe and science.

This satellite flies at a relatively low height – approximately 400 km (250 miles) above the earth – and reflects the light of the sun, making it the third brightest object in the night sky. Which means it's easy to spot! However, there are a few factors you have to consider if you want to see the ISS:

- ▷ The sky must be dark or darkening – any time between dusk and dawn.
- ▷ The night must be clear – you won't see the ISS if it's cloudy.
- ▷ The ISS must be orbiting over your location.



These factors may seem tricky to coincide, but help is on hand. Nasa's online ISS tracker can tell you when you'll spot the satellite from your location.

Search online at spotthestation.nasa.gov, enter your nearest town, and you'll find out when the ship will be above your heads. You can even sign up for email or text alerts that give you a ping ahead of visible flights. It helps to be prepared because the window of viewing time for the ISS can be very short – always under ten minutes, and often less than five. The site will also tell you which direction to look and the height the station will be above the horizon in degrees.

A little preparation will result in the most spectacular viewings; get yourself somewhere you can see a lot of sky – an open space with few trees or a high vantage point.



The Space Station moves in a distinctive straight line. It has no flashing lights and looks like a very bright star.

Watch it glide across the sky, imagine the scientists on board, and what they can see, and blow your minds.

Christmas Magic

Some people say that the ISS reminds them of Father Christmas riding his sleigh across the night sky. Use the NASA sight to look up December sightings and make the month a little more magical.

- ▷ Take a compass so you know in which direction to look.
- ▷ Wrap up warm and take something to sit on.
- ▷ Get to your viewing place in plenty of time, turn off your light sources, and let your night vision kick in (see page 124).

You don't have to go to any trouble to spot the satellite – you can get just as thrilling a show walking home from school on a dark winter evening – but a plan will make it a little more special, and smaller viewers will be more likely to be able to spot it easily.

Space Station Facts



- × The Station was launched in 1998 and is expected to continue orbiting until 2030.
- × Occupants carry out experiments in physics, astronomy, meteorology and other scientific fields.
- × It circles the Earth every 90 minutes.
- × Its six laboratories and living spaces are powered by solar energy.
- × It measures 108.5m (356ft) by 72.8m (239ft) – a little larger than a full-sized football pitch!
- × It weighs 450 tons – roughly 450 times heavier than a car.