

An East Sussex Astronomical Society Cue Card.



What is the International Space Station (ISS)?

The **International Space Station (ISS)** is a research facility currently being assembled in space.

It is in a low Earth orbit and can be seen with the naked eye. It is at an altitude of between 350-460 km. The ISS completes 15.77 orbits a day or one orbit every 91 ½ minutes. It is a joint project among the space agencies of the United States (NASA), Russia (RKA), Japan (JAXA), Canada (CSA) and several European countries (ESA).

The ISS has been continuously inhabited since the first resident crew entered the station on November 2, 2002.

Do I need any special equipment to see the ISS?

No. It is visible to the naked eye.

How bright is it?

It depends on your location at the time of it passing but it is often brighter than the brightest star Sirius and as bright as the Pole Star (Polaris).

What does it look like?

It looks like a fast moving point of light. It takes about 4 minutes to travel from west to east.

Where is the ISS now?

To find the ISS you need to know your latitude and longitude on Earth. Or you can just select your town from the heavens-above website. See below. If you have a GPS device then that will give you this information. Otherwise use a road atlas which will often give this. If you want to look up your latitude and longitude on line then use a program like Google Earth and go to your location. You need the details given in the bottom left hand corner that may look like this. 50° 51' 04.09"N 0° 29' 06.38"E . Also note your altitude above sea level

The first part is your latitude. You need to convert this the decimal degrees. In the example the latitude is 50° 51' 04.09". Using a calculator perform this calculation $4.09/3600 + (51/60) + 50$. This convert the seconds to decimal degrees, converts the minutes to decimal degrees and adds the number of degrees. You should get 50.8511°. Now do the same for the longitude. $6.36/3600+(29/60) + 0$ which should give you 0.4851°. Note that if the longitude is east of Greenwich, as in this case, the longitude is positive; if west it is negative.

Go to the website www.heavens-above.com. Choose the option to edit your location details and enter the the latitude and longitude that you calculated.

Date	Mag	Starts			Max. altitude			Ends		
		Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.
10 Mar	0.5	04:52:18	12	SE	04:52:18	12	SE	04:52:57	10	SE
10 Mar	-0.5	06:23:39	10	SW	06:25:57	22	S	06:28:17	10	ESE

Alt is the altitude (angle from horizon) and Az the azimuth the number of degrees from north.

East Sussex Astronomical Society meets on the first Thursday of each month except August.

Check our website for details www.esas.org.uk email esas-secretary@esas.org.uk Dated 20100729