



Transatlantic Jet

This distance is the height at which aeroplanes fly.

It is the most efficient altitude for aeroplanes to fly at.

A photograph showing the transition from Earth's atmosphere to space. The bottom part shows a bright orange and yellow horizon, while the top part shows a clear blue sky. A thin white line marks the boundary between the two.

Official Limit of Space

There is no real beginning of space, instead the air just gets thinner as you go up.

There is no air in space so aeroplanes or helicopters cannot go there.

A photograph of the International Space Station (ISS) in orbit above Earth. The station's complex structure, including multiple solar panel arrays and modules, is clearly visible against the dark background of space.

International Space Station

This distance is known as *low Earth orbit* and is the distance at which the space station orbits the Earth.

This spacecraft is the size of two football pitches and has been permanently manned since 2000.

A close-up photograph of the Moon, showing its heavily cratered surface and various shades of gray.

The Moon

This is the distance to Earth's only natural satellite.

Only 24 humans have travelled this far into space, all between the years of 1969-1972. Twelve of them walked on here.



These are the closest and furthest distances between this planet and the Earth.

This distance varies because the Earth and this planet orbit our Sun at different speeds so, are sometimes closer together and sometimes further apart.



This is the distance to our Sun.

This distance was unknown until Venus passed across the face of the Sun in 1761.



Beyond the solar system, this is the nearest star to Earth.

This distance is important because it is the smallest distance, and time, that light from any star takes to reach us.



This is the closest galaxy to ours and this distance is important because this galaxy is travelling towards our own and will one day collide with ours.

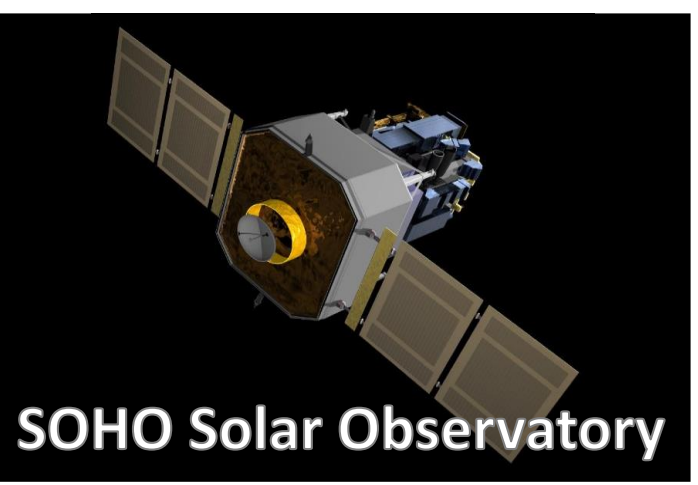
This galaxy is a spiral galaxy and contains 1 trillion stars.

1 trillion = 1,000,000,000,000



At this distance, satellites take 24 hours to orbit the Earth once.

This is where GPS, television and communication satellites are.



This is the distance to one of four special points around the Earth where satellites can be put and stay in place, relative to the Earth and the Moon.

This satellite helps scientists to learn about how our Sun works and how it affects our Earth.



This distance is how far the furthest spacecraft ever has reached.

This spacecraft is beyond the planet Pluto and near the edge of our solar system.

7 miles

**48,000,000 to 234,000,000
miles**

50 miles

**93,000,000 miles
= 1 astronomical unit**

250 miles

4 light years
1 light second = 186,000 miles

240,000 miles

2,500,000 light years
1 light second = 186,000 miles

20,000 miles

932,000 miles

40 astronomical units