Space storms

15th July 2000

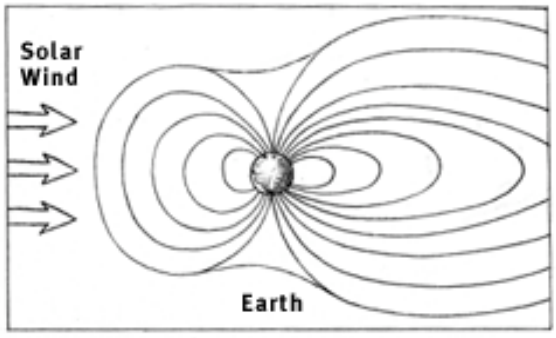
News alert! Millennium space storm approaching Earth!

A space satellite called ACE has made some measurements of the Solar Wind.

Scientists have spotted a fast stream of Solar Wind heading towards Earth. They can use data from the satellite to predict when the fast and dense Solar Wind will reach the Earth.

Fact box

The Solar Wind is a stream of ionised gas (plasma) that travels from the Sun into outer space. The plasma is made of ions and electrons and can travel at over 400 kilometers every second (that's millions of miles an hour!).



Can you help?

When a fast, dense portion of Solar Wind meets the Earth, it squashes the Earth's magnetic field and can cause aurora.

Can you help the scientists to predict what time the fast, dense solar wind will arrive?

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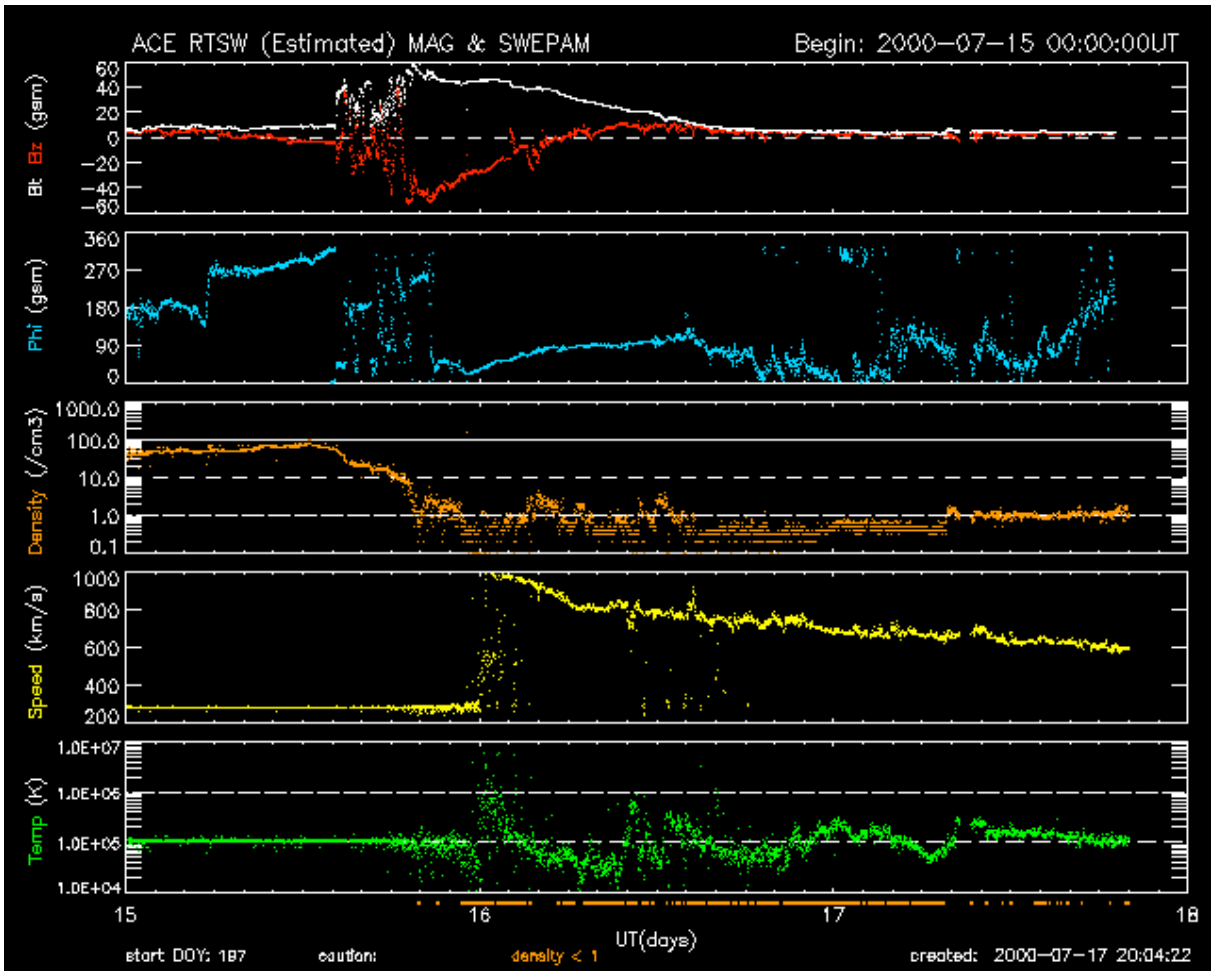
Things to find out

- How far from Earth was the ACE satellite on 15 July 2000? (Use website http://son.nasa.gov/tass/magnetosphere/sat_ace.htm to learn about ACE)
- This graph shows the Solar Wind travelling at 2 speeds. What speed does the slow Solar Wind travel at?
- What speed does the fast Solar Wind travel at?
- What time did the Solar Wind change speed?



What time do you think the fast Solar Wind will reach the Earth?