

Work to begin in Ladakh on world's largest solar telescope

It will help in understanding the process of creation and decay of sunspots

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NEW DELHI: Work on the world's largest solar telescope is likely to commence in the Ladakh region of Jammu and Kashmir by the end of this year.

The telescope, with an aperture of two metres, is expected to be of great help in understanding the process of creation and decay of sunspots, apart from furthering cutting edge research on other fundamental processes taking place on the Sun.

Giving details of the Rs. 300-crore project, the former

- Facility will have the capability to do both day and night astronomy
- Study required to counter threat to communication system

Director of the Bangalore-based Indian Institute of Astrophysics and chief investigator of the project, S. Siraj Hasan, said on Saturday that the telescope could come up either at Hanle or Merak village near Pangong Lake in Ladakh.

Once ready, it would be one of the few solar telescope fa-

cilities in the world with a capability to do both day and night astronomy. It would also fill the longitude gap between Japan and Europe.

The innovative design and backend instruments would further enable observations with an unprecedented high spatial resolution that would provide crucial information

on the nature of magnetic fields, he added.

Dr. Hasan was speaking to reporters on the sidelines of a panel discussion organised here as part of the on-going centenary session of the Indian Science Congress.

A better understanding of the how and why of the formation and decay of sunspots assumes importance as they pose a threat to the communication system on earth as well as space satellites.

Increased sunspot activity frequently accompanies an increase in the outflow of matter from the Sun in the

form of solar wind. Charged particles in this wind can interfere with the operation of satellites by introducing what is called background static and also interact with atoms in the upper part of earth's atmosphere, wreaking havoc with the communication systems on ground.

Satellites in low earth orbit face greater risk as during periods of heightened solar activity, the earth's upper atmosphere swells up slightly in response to the extra heating, which in turn increases the rate of decay of these satellites.