

Prelim Bits 07-07-2018

NASA Solar Probe

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- NASA plans to send its first robotic spacecraft “Parker Solar Probe” to the Sun.

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- It will travel directly into the sun’s atmosphere about 4 million miles from the star’s surface.

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- The mission is to study why the surface of the Sun, called the photosphere, is not as hot as its atmosphere, called the corona.

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- The surface temperature of the Sun is only about 5,500°C but the atmosphere above it is an over two million degrees Celsius.

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- The mission may also ascertain why the Sun occasionally emits high-energy particles that are a danger to unprotected astronauts and spacecraft.

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- **Recent Development** - NASA’s Parker Solar Probe has recently got its revolutionary **heat shield** permanently attached to the spacecraft.

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- The shield is made of superheated carbon composite material sprayed with a specifically formulated white coating on the sun facing side to reflect the sun’s energy away from the spacecraft.

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- As the spacecraft approach the sun, temperatures on the heat shield will reach nearly 1,300°C but the spacecraft will be kept at about 30°C.

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- The shield will help the spacecraft remain safe as it collects data about the inner workings of the corona.

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Temperature in the Sun’s Atmosphere

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- The sun's atmosphere corona is much hotter than its visible surface Photosphere.
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 - Normally, the layer closest to a source of heat, the Sun's surface, in this case, would have a higher temperature than the more distant atmosphere.
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 - But the reason for the high temperature is the constant eruption of tiny solar flares in the solar atmosphere.
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 - The solar flares produce hard X-rays, whose wavelengths are much shorter than the light humans can see and it is a signature of extremely hot solar material.
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Mudumalai Tiger Reserve

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- Mudumalai Tiger Reserve is a critical part of the Nilgiris Biosphere Reserve.
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 - The reserve, comprising the wildlife sanctuary and the national park, was declared a core tiger habitat in 2007.
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 - It extends over a core area of 321 sq.km and buffer area of 367 sq.km.
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 - Union Ministry of Environment has recently issued notification declaring 438 sq.km of area around the Mudumalai Tiger Reserve as an **ecosensitive zone**.
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 - The notification followed a Supreme Court order calling for an eco-sensitive zone around all national parks
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 - The declaration of an eco-sensitive zone would place restrictions on polluting industries but it would not stop agriculture activities in the area.
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 - The following activities are restricted/prohibited in the eco-sensitive zone,
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1. Commercial mining,
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2. Setting up of industries causing pollution,
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3. Establishment of major hydroelectric projects,
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4. Use or production or processing of any hazardous substances,
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5. Discharge of untreated effluents into natural water bodies or land area and
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6. Setting up of new saw mills or brick kilns.
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- But resorts already present in the area would not be forced to stop functioning.

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Gaming University

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- The UNESCO, specialised agency of United Nations, entered into an agreement with the Andhra Pradesh Economic Development Board for the establishment of a gaming digital learning hub.

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- **Visakhapatnam** will soon have a Design university for gaming.

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- The hub is seen as potential medium for creating around 50,000 jobs in 10 years.

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Common Service Centre

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- The Common Service Center (CSC) Scheme is an integral part of “Digital India” initiative of Ministry of Electronics and Information Technology.

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- CSCs are the access points for delivery of various electronic services to villages.

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- In addition to it, CSCs promote rural entrepreneurship, community

participation and collective action for social change.

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- CSC e-Governance Services India Limited is a Special Purpose Vehicle (CSC SPV) incorporated under the Companies Act, 1956 to monitor the implementation of the Common Services Centers Scheme.

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- Village Level Entrepreneur (VLE) under CSCs provide service to the rural consumer in villages.

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- **Recent development** - CSC SPV has entered into agreement with HDFC Bank.

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- This is to enable its three lakh Village Level Entrepreneurs (VLEs) managing the Common Services Centers operate as **Banking Correspondents of HDFC Bank**.

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- They will support the Government initiative to promote financial inclusion and make banking services more accessible in rural areas.

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- HDFC Bank will support CSC SPV in converting 1000 identified villages into Digital Villages within this financial year.

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Stree Swabhiman

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- Stree Swabhiman is an initiative under Ministry of Electronics and Information Technology for promoting women's menstrual health and hygiene.

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- Under this initiative, CSC SPV will provide access to affordable, reliable and modern (eco-friendly) sanitary napkins to adolescent girls and women in rural areas.

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- Under this initiative, semi-automatic and manual sanitary napkin manufacturing units will be set up at CSC for producing sanitary napkins.

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- HDFC Bank will also support CSC SPV by funding Stree Swabhiman Sanitary Napkin Manufacturing Units.

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Adopt a Heritage Project

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- It is a key initiative of Ministry of Tourism in close collaboration with Ministry of Culture and Archeological Survey of India (ASI).

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- It aims to encourage public / private sector companies and corporate citizens / NGOs / individuals to take up the responsibility of development, operation and maintenance of State heritage and other important tourist sites in India.

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- They will be considered as “Monument Mitras” for the development of tourist amenities.

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- In April this year, Dalmia Bharat Group won a bid to take over the maintenance of 'Red Fort', after it signed a memorandum with the Government of India.

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- Recently, one of the heritage site in Delhi has got a monument mitra for its development.

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Source: The Hindu, PIB

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