Prelim Bits 25-01-2019

MICROSAT-R and KALAMSAT

- PSLV-C44 successfully injected Microsat-R and Kalamsat-V2 satellites into their designated orbits.
- Microsat-R is a 130-kg military imaging satellite.
- It was put together by a handful of DRDO laboratories.
- The Kalamsat is a 10cm cube communication nano-satellite weighing about 1.2kg designed by students.
- Its life span is about two months and its cost is about Rs. 12 lakh.
- The PSLV is a four-stage engine expendable rocket with alternating solid and liquid fuel.
- In a normal launch vehicle, each stage falls off after fuel completes burn-off.
- However, stage four, after releasing the payload, wanders around in space as junk.
- The PSLV-DL, used for Kalamsat, will follow the same pattern, except that the fourth stage (PS4) won't fall off.
- It will serve as a platform for the satellite like deploying solar panels or other tools to aid the satellite.
- It is the first satellite to use PS4 as an orbital platform, thus reducing space debris.
- A 64-gram earlier version of the Kalamsat nicknamed "gulab jamun" was launched by NASA in 2017. But it never reached orbit.
- PSLV-C44 is a new variant of PSLV called PSLV-DL (D standing for demonstration).
- In its normal configuration, the rocket will have six strap-on motors in the first stage.
- However, PSLVDL will have just two strap-on motors for the first time.

INS Kohassa

- Naval Air Station (NAS) Shibpur was established in 2001 in Shibpur of North Andaman.
- It has a 1,000 feet-long airfield that permitted short-range maritime reconnaissance (SRMR) aircrafts.
- Many Indian aircrafts, which participated in the abortive search for the

missing Flight 370, operated from NAS Shibpur.
- It is now commissioned as INS Kohassa, a full-fledged naval base.
- It is the fourth military airfield in the Andaman & Nicobar archipelago.
- It has been named after a White-Bellied Sea Eagle, which is a large bird of prey endemic to A&N Islands.
- It is set up as a Forward Operating Air Base (FOAB) for surveillance in North Andaman.
- The station will function as a base for joint operation of both military and civil aircraft in keeping with the UDAN scheme of the government.

National Girl Child Day

- The Women & Child Development Ministry celebrated National Girl Child Day (NGCD) on 24th January.
- The theme of this NGCD is “Empowering Girls for a Brighter Tomorrow”.
- It was celebrated with objectives of generating awareness on the issue of declining Child Sex Ratio (CSR) and thereby creating a positive environment around valuing the girl child.
- The celebrations also marked the anniversary of Beti Bachao Beti Padhao (BBBP) Scheme.
- National Girl Child Day celebration was started by the Women and Child Development Ministry since 2008 to celebrate as the national observance.

E-Court Service

- Court case information of all computerized district and subordinate courts of the country was made available across all Common Service Centers in the country recently.
- Court case information are judicial proceedings/decisions, case registration, cause list, case status, daily orders, and final judgments.
- The Government of India had initiated second phase of the e-Courts project as one of the National e-Governance projects in 2015.
- The e-Courts project has made significant progress under the guidance of e-Committee of Supreme Court of India in computerizing district and subordinate courts of the country.
- It was done through installation of case information software, hardware and local area network in courts.
- They are also being connected on Wide Area Network through a dedicated network offering bandwidth up to 100 Mbps.
- E-Courts services have now been successfully rolled out through SMS, email, web, mobile app etc. benefiting millions of litigants and advocates.
- Now the Department of Justice has decided to deliver e-Courts services to them through around 2 lakh Common Service Centers (CSCs) to bridge the

digital divide among citizens.
- CSCs are the access points for delivery of essential public utility services to citizens in rural and remote areas of the country.

Biojet fuel for Aircraft

- IAF flew an An-32 aircraft in 'vic' formation, whose lead plane used a mix of Aviation Turbine Fuel blended with 10% biofuel.
- The biofuel has been extracted from Jatropha plant seeds using a technology patented by the CSIR and the Indian Institute of Petroleum, Dehradun.
- Following the clearance given by the Centre for Military Airworthiness and Certification IAF is expected to use biofuel for its transport fleet and helicopters.
- The 'vic' formation comprises 3 or more aircraft flying in close formation with the leader at the apex and the rest to left and right, the whole resembling the letter 'V'.

Source: PIB, The Hindu, Indian Express

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