

PSLV-C54 SUCCESSFULLY PLACES EARTH OBSERVATION SATELLITE, 8 NANO SATELLITES IN ORBIT

In News:

- The Indian Space Research Organisation (ISRO) successfully launched 9 satellites, including an Earth Observation Satellite (EOS-06), into multiple orbits using the space agency's Polar Satellite Launch Vehicle (PSLV-C54) in one of its longest missions.

About the mission:



- Launch vehicle: PSLV:** This is the 56th flight of the PSLV and the 24th flight of the PSLV-XL version that took off from the Satish Dhawan Space Centre (SDSC), SHAR, Sriharikota.

The PSLV is an expendable medium-lift launch vehicle designed and operated by the ISRO.

It was developed in **1993** to allow India to launch its Indian Remote Sensing (IRS) satellites into sun-synchronous orbits.

- PSLV can also launch small size satellites into Geostationary Transfer Orbit (GTO).
- Some notable payloads launched by PSLV include India's first lunar probe **Chandrayaan-1**, India's first interplanetary mission - Mars Orbiter Mission (**Mangalyaan**) and India's first space observatory - **Astrosat**.
- PSLV-XL** is the upgraded version of PSLV which uses larger strap-on motors (**PSOM-XL** or S12) to achieve higher payload capability up to 1,800 kg (4,000 lb) to Sun-synchronous orbit.
- Satellites:**
 - The 8 nano satellites:**
 - It includes ISRO Nano Satellite-2 for Bhutan (INS-2B), Anand, Astrocast (four satellites) and two Thybolt satellites.

○ EOS-6:

- It is the Oceansat series' 3rd-generation satellite envisaged to observe ocean colour data, sea surface temperature and wind vector data to use in oceanography, climatic and meteorological applications.
- **Separation of the satellites:**
 - The primary satellite (EOS-06) was separated in Orbit-1 and subsequently, orbit was changed by using two Orbit Change Thrusters (OCTs) introduced in the Propulsion Bay Ring of the PSLV-C54.
 - Later, all the 7 commercial satellites from **NewSpace India Limited (NSIL)** were deployed successfully.

The India-Bhutan Satellite:

- **The INS-2B satellite**, a joint mission between India and Bhutan, contains two payloads -
 - **NanoMx**, a multispectral optical imaging payload developed by Space Applications Centre (SAC), and
 - **APRS-Digipeater**, built collaboratively by DITT-Bhutan and URSC.
- The India-Bhutan satellite achieved a historic milestone in **India's bi-lateral cooperation with Bhutan**.
- Also, the ISRO is working with Bhutan in establishing a ground station in Thimphu, which will be commissioned shortly.

Future missions ISRO is planning:

- ISRO is planning to have its mission to the sun with its satellite **Aditya-L1**, a coronagraphy spacecraft to study the solar atmosphere, with a PSLV rocket next year.
- The space agency will also launch **4 navigation satellites** for the country's NavIC constellation, with the first one going up in 2023.

[AUSTRA HIND 22](#)

The bilateral training exercise “AUSTRA HIND 22” between contingents of the Indian Army and the Australian Army is scheduled to take place at Mahajan Field Firing Ranges (Rajasthan).



About:

- Aim of the exercise is to build positive military relations, imbibe each other’s best practices and promote the **ability to operate together while undertaking multi-domain operations in Semi deserts terrain under a UN peace enforcement mandate.**
- This is the first exercise in the series of AUSTRA HIND with participation of all arms and services contingent from both armies.
- AUSTRA HIND” will be a **yearly event** that will be **conducted alternatively** in India and Australia.
- The joint exercise, besides promoting understanding and interoperability between the two armies, will further help in strengthening ties between India and Australia.

E-COURT INITIATIVES

Recently, Prime Minister Narendra Modi launched various initiatives under the e-court project.



About:

Virtual Justice Clock

- It is an initiative to exhibit vital statistics of the justice delivery system at the Court level giving the **details of the cases instituted, cases disposed and pendency of cases on day/week/month basis at the Court level.**
- The effort is to make the **functioning of the courts accountable and transparent** by sharing with the public the status of case disposals by the court.



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- Public can access the Virtual Justice Clock of any court establishment on the District Court's website.

JustIS Mobile App 2.0

- It is a tool available to judicial officers for effective court and case management by monitoring pendency and disposal of **not only his court but also for individual judges working under them.**
- This App is also made **available to High Court and Supreme Court Judges** who can now monitor pendency and disposal of all the States and Districts under their jurisdiction.

Digital Court

- It is an initiative to make the **court records available to the judge in digitised form** to enable the transition to Paperless Courts.

S3WaaS Websites

- It is a **framework to generate, configure, deploy and manage websites for publishing specified information and services** related to district judiciary.
- S3WaaS is a **cloud service developed for government entities** to generate Secure, Scalable & Sugamya (Accessible) websites. It is **multilingual**, citizen friendly and disability friendly.

CHINA HOLDS ITS FIRST MEETING WITH 19 COUNTRIES IN INDIAN OCEAN REGION WITHOUT INDIA

In News:

- Recently, China convened a first “China-Indian Ocean Region Forum” bringing together 19 countries from the region.
- Experts believe that the Chinese forum apparently is aimed at countering India’s strong influence in the Indian Ocean region where India-backed organisations like the Indian Ocean Rim Association (IORA) have taken strong roots.

IORA

- IORA is an inter-governmental organisation which was established in March 1997.

- It was formerly known as the Indian Ocean Rim Initiative and the Indian Ocean Rim Association for Regional Cooperation (IOR-ARC).
- The IORA Secretariat is based in Mauritius. It became an observer to the UN General Assembly and the African Union in 2015.
- **Members** – It has 23 Member States and 9 Dialogue Partners.
- China is a dialogue partner in the IORA.
- **Objectives**
 - To promote sustainable growth and balanced development of the region;
 - To focus on those areas of economic cooperation which provide maximum opportunities for development, shared interest and mutual benefits;
 - To promote liberalisation, remove impediments and lower barriers towards a freer and enhanced flow of goods, services, investment, and technology within the Indian Ocean rim.

Priority pillars



Significance

- The IOR has always made significant contributions to the world economy.
- The region is home to 35% of the world's population and also accounts for 19% of total GDP
- Moreover, 80% of seaborne trade uses routes through the Indian Ocean.
- Furthermore, 80% of seaborne oil trade and 100,000 commercial vessels depend on this route every year.

News Summary

- The China International Development Cooperation Agency (CIDCA) held a meeting of the **China-Indian Ocean Region Forum** on Development Cooperation.
- CIDCA is an organisation connected with the Chinese Foreign Ministry.

- The meeting was attended by 19 countries from the region – and all of India’s neighbours, except for India itself.

Key highlights

• Theme

- The meeting was held in a hybrid manner under the theme of “Shared Development: Theory and Practice from the Perspective of the Blue Economy”.

• Participating countries

- Participating countries included - Indonesia, Pakistan, Myanmar, Sri Lanka, Bangladesh, Maldives, Nepal, Afghanistan, Iran, Oman, South Africa, Kenya, Mozambique, Tanzania, Seychelles, Madagascar, Mauritius, Djibouti, Australia and representatives of 3 international organisations were present.
- India was not invited.

• Marine disaster prevention and mitigation cooperation mechanism

- China proposed to establish a marine disaster prevention and mitigation cooperation mechanism between China and countries in the Indian Ocean region.
- China expressed its willingness to provide necessary financial, material, and technical support to countries in need.

China is looking to increase its presence in IOR

- China is contending for influence in the strategic Indian Ocean region with substantial investments in ports and infrastructure in several countries.
- China has established a full-fledged naval base in Djibouti, its first outside the country.
- It has acquired the Hambantota port in Sri Lanka on a 99-year lease besides building the port at Pakistan’s Gwadar in the Arabian Sea opposite India’s western coast.
- China has also invested in infrastructure of the Maldives.

India’s presence in IOR

- India has strong influence in the Indian Ocean region where India-backed organisations like the IORA have taken strong roots.
- PM Modi has proposed “Security and Growth for All in the Region” (SAGAR) in 2015 for active cooperation among the littoral countries of the Indian Ocean region.

- The Indian Navy-backed 'Indian Ocean Naval Symposium' (IONS) seeks to increase maritime cooperation among navies of the region.
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BLACK CORALS

Researchers at Smithsonian Institution, Washington recently discovered five new species of black corals living as deep as 2,500 feet (760 metres) below the surface in the Great Barrier Reef and Coral Sea off the coast of Australia.



About:

- Black corals can be found growing both in shallow waters and down to depths of over 26,000 feet (8,000 metres), and some individual corals can live for over 4,000 years.
 - Many of these corals are branched and look like feathers, fans or bushes, while others are straight like a whip.
 - Unlike their colourful, shallow-water cousins that rely on the sun and photosynthesis for energy, black corals are filter feeders and eat tiny zooplankton that are abundant in deep waters.
 - Among the many interesting specimens were **five new species** – including one that was found growing on the shell of a nautilus more than 2,500 feet (760 metres) below the ocean's surface.
 - Similarly to shallow-water corals that build colourful reefs full of fish, black corals act as important habitats where fish and invertebrates feed and hide from predators in what is otherwise a mostly barren sea floor.
 - For example, a single black coral colony researchers collected in 2005 off the coast of California, United States, was home to 2,554 individual invertebrates.
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HIMALAYAN YAK

The Himalayan yak has recently earned the food animal tag from the Food Safety and Standard Authority of India (FSSAI). The categorisation is expected to help check the

decline in the population of the high-altitude bovine by making it a part of the conventional milk and meat industry.



About:

- Yaks belong to the genus Bos and are therefore related to cattle (Bos primigenius species).
- **Domestic Yak (Bos Grunniens) descended from the wild yak**

(Bos mutus).

• Distribution:

- Yak is found throughout the Himalayan region -- Arunachal Pradesh, Sikkim, North Bengal, Uttarakhand, Himachal Pradesh, Ladakh and Jammu and Kashmir -- while wild Yak is found in Tibet.
- It is also found as far north as Mongolia and Russia.

• National Research Centre on Yak:

- The Government of India established the ICAR-National Research Centre on Yak, in 1989 at Dirang, Arunachal Pradesh as a dedicated centre for research into yak husbandry.

• Yak Census 2019:

- According to a census carried out in 2019, India has some 58,000 yaks – a drop of about 25% from the livestock census of 2012.
- The drastic decline could be attributed to less remuneration from the bovid and discouraging the younger generations from continuing with nomadic yak rearing.
- The sale of yak milk and meat is limited to local consumers.

NATIONAL CADET CORPS (NCC) RAISING DAY



The National Cadet Corps (NCC) is celebrating 74th anniversary of its Raising Day on November 27.

About:



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- National Cadet Corps (NCC) is a Tri-Services Organization, comprising the Army, Navy and Air Force, engaged in grooming the youth into disciplined and patriotic citizens.
 - **Working:**
 - It is a **voluntary organization** which recruits cadets from high schools, colleges and universities all over India.
 - The Cadets are given basic military training in small arms and parades. They are given preference in military service over normal candidates during selections.
 - **Background:** It came into existence in 1948 under the National Cadet Corps Act, 1948.
 - **Related Ministries:** Defence Ministry deals with NCC at the National level. Education Ministry deals with NCC in all States.
 - **Directorate General NCC:** It is the national level HQ located at New Delhi. It is headed by the Director General (DG), an Army Officer of the rank of Lieutenant General.
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