

December - 01

TNPSC BITS

- ❖ Army Chief General Manoj Pande received a Guard of Honour at the Les Invalides in Paris.
- ❖ India – Malaysia joint military Exercise “Harimau Shakti -2022” commenced at Malaysia.
- ❖ The bilateral training exercise “AUSTRA HIND 22” between contingents of the Indian Army and the Australian Army begins in Rajasthan.
 - This is the first exercise in the series of AUSTRA HIND with participation of all arms and services contingent from both armies.

NATIONAL

IPR for ‘Combat uniform’



- ❖ Indian Army registered for Intellectual Property Rights (IPR) of the new design and camouflage pattern uniform to establish the ownership.
- ❖ The new digital pattern combat uniform for Indian Army soldiers was unveiled on 15 January 2022 (Army Day).
- ❖ The improved uniform has a contemporary look and functional design.

- ❖ The fabric has been made lighter, stronger, breathable, quick-drying, and easier to maintain.

Guest for Republic Day celebrations



- ❖ Egyptian President Abdel Fattah Al Sisi will be the chief guest at the Republic Day in January 2023.
- ❖ Mr. Sisi will be the first such guest since 2020, as plans for guests in 2021 and 2022 were cancelled due to COVID-19.
- ❖ This is the first time that the President of the Arab Republic of Egypt will be the Chief Guest at our Republic Day.
- ❖ Both countries are celebrating the 75th anniversary of the establishment of diplomatic relations this year.
- ❖ Also, Egypt has been invited as a 'Guest Country' during India's Presidency of G-20 in 2022-23.
- ❖ Leaders of friendly nations have graced the Republic Day celebrations since 1950.
- ❖ Then Indonesian President Sukarno was invited as the first chief guest in 1950.
- ❖ In 1952, 1953 and 1966, the Republic Day celebrations were held without a foreign leader as chief guest.
- ❖ Former U.S. President Barack Obama (2015), Russian President Vladimir Putin (2007) are the other special invitees in the past.

- ❖ In 2020, the then Brazil president Jair Bolsonaro was the chief guest.

Third Ship of Survey Vessel 'Ikshak'

- ❖ Indian Navy's third Survey Vehicle 'Ikshak' has been launched in Chennai.
- ❖ This is the third of the third of the four Survey Vessels (Large) (SVL) Project.
- ❖ The ship has been named 'Ikshak' which means 'Guide'.
- ❖ The ship has been named to signify the contribution of the Survey ships towards facilitating safe passage for Mariners at Sea.
- ❖ The first of class ship 'Sandhayak' was launched on 05 Dec 21 at GRSE in Kolkata.



INTERNATIONAL

Exercise 'Naseem Al Bahr'

- ❖ The Indian Naval Ship (INS) Trikand, INS Sumitra, and Maritime Patrol Aircraft (MPA) Dornier, participated in the 13th Edition of 'Naseem Al Bahr' at Oman.
- ❖ It is a bilateral maritime exercise between Indian Navy (IN) and Royal Navy of Oman (RNO).

- ❖ It had three phases: harbour phase, sea phase and debrief.
- ❖ The first IN-RNO exercise was conducted in 1993.
- ❖ Year 2022 marks 30 years of IN-RNO bilateral exercises.



SCIENCE AND TECHNOLOGY

PSLV-C54 rocket

LAUNCH PROVIDER / CONTRACT
Indian Space Research Organisation (ISRO)

MISSION TYPE
Earth Observation

LAUNCH WINDOW
NOVEMBER 26 0626Z UTC 2022 11:56 IST (INST/EXT WINDOW)
NOVEMBER 26 01:26 EST 07:26 CET

PAYLOADS(9)
EOS-06 (OCEANSAT-3)
Configuration: IRS-1 Bus with OCM, LWIR, SCATTEROMETER
Payload Mass: ~ 1117 kg
INS-2B (Indo-Bhutan Joint Satellite)
Payload Mass: ~ 18.28 kg
Anand [Pixxel TD 1] | Pixxel, India
Payload Mass: ~ 16.5 kg
Astrocast (0301 - 0304) | Astrocast SA, Swiss and SpaceFlight Inc
Payload Mass: ~ 1792 kg
Thybolt 1 & 2 | Dhruva Space, India
Payload Mass: ~ 145 kg

LAUNCH SPACEPORT
First Launch Pad, Satish Dhawan Space Centre, India

DESTINATION
Sun-Synchronous Orbit
Altitude: ~740 km
Incl: 98.3°

LAUNCH VEHICLE
PSLV-XL (Extended)
Height 44.4 m
Width 4.8 m
LV mass 321 tons

STAGE/ENGINES	PROPELLANTS	TOTAL THRUST
4) PS4 2 × L2.5 (INCLUM)	MON-3 / MMH	14.6 kN
3) HPS3 S-7 (SOUL)	HTPB	240 kN
2) PS2 (PL40) 1 × VIKAS 4B (INCLUM)	N ₂ O ₄ / UH25	804.5 kN
1) PS1 S139 (SOUL)	HTPB	9,115 kN
BOOSTERS 6 × PS0M (SOUL)		

RECOVERY
LAUNCH VEHICLE IS EXPENDABLE

- ❖ The Indian Space Research Organisation (ISRO) successfully placed nine satellites in multiple orbits by its Polar Satellite Launch Vehicle (PSLV-C54).
- ❖ It includes an Earth Observation Satellite (EOS-06) and 8 nanosatellites.

- ❖ The eight nano satellites include ISRO Nano Satellite-2 for Bhutan (INS-2B), Anand, Astrocast (four satellites), and two Thybolt satellites.
- ❖ EOS-6 is the Oceansat series' third-generation satellite.
- ❖ EOS-06 is envisaged to observe ocean colour data, sea surface temperature and wind vector data to use in oceanography, climatic and meteorological applications.

India's first private space vehicle launchpad



- ❖ Chennai-based space tech startup Agnikul Cosmos has launched India's first private launchpad and mission control centre at the Satish Dhawan Space Centre, Sriharikota.
- ❖ The facility has two parts—the Agnikul launchpad and the Agnikul mission control centre
- ❖ The launchpad was designed to accommodate and support liquid stage-controlled launches.
- ❖ The Chennai-based startup plans to launch its Agnibaan rocket from this launchpad.

- ❖ Agnibaan is a two-stage launch vehicle that is capable of taking payloads of up to 100 kilograms to a low-earth orbit around 700 kilometres
- ❖ The Agnibaan rocket will be powered by the company's 3D-printed Agnilet engines.
- ❖ The Agnilet rocket is a “semi-cryogenic” engine that uses a mixture of liquid kerosene and supercold liquid oxygen to propel itself.

STATES

India's First Integrated Rocket Facility

- ❖ Telangana's will have the country's first integrated rocket Facility in Hyderabad by Skyroot Aerospace.
- ❖ It would help design, manufacturing and testing of Rockets.
- ❖ Skyroot Aerospace wants to build high-technology, low-cost, reliable launch vehicles.



5G Services in all districts



- ❖ Jio has rolled out its True 5G network in every headquarters of Gujarat's 33 districts.
- ❖ This making it the first state in India to get 100 percent coverage of 5G Services in the state.
- ❖ It will also launch a series of True 5 G-powered initiatives across health, education, agriculture, industry 4.0, and Internet of Things (IoT) sectors in Gujarat.

SPORTS

Annual Madras-Colombo Rowing Regatta

- ❖ The Madras Boating Club women won the 81st Annual Madras-Colombo Rowing Regatta, which was held in Colombo, Sri Lanka.
- ❖ They were awarded the Adyar Trophy.
- ❖ The Men's category was bagged by Colombo Rowing Club, and they were awarded Deepam Trophy.



MISCELLANEOUS

Yak - food animal

- ❖ The Himalayan yak has been accepted as a food animal by the scientific panel of 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 animal by making it a part of the conventional milk and meat industry.
- ❖ Yaks are traditionally reared under a transhumance system which is primitive, unorganised and full of hardship.

- ❖ According to 2019 census, India has some 58,000 yaks.
- ❖ It is a drop of about 25% from the last livestock census conducted in 2012.
- ❖ Yak milk contains 78-82% water, 7.5-8.5% fat, 4.9-5.3% protein, 4.5-5.0% lactose and 12.3-13.4% solids-not-fat.
- ❖ Mostly consumed locally, yak meat is known to be lean.
- ❖ The meat contains 74.8% moisture, 21.7% protein, 1.5% crude fat and 1.2% ash.

