

Today, there are more than 6,000 satellites in orbit, most of them in low earth (100-2,000 km) and geostationary (35,786 km) orbits, placed there in more than 5,000 launches. In an uncontrolled re-entry, the rocket stage simply falls. Its path down is determined by its shape, angle of descent, air currents and other characteristics. It will also disintegrate as it falls. As the smaller pieces fan out, the potential radius of impact will increase on the ground. There is no international binding agreement to ensure rocket stages always perform controlled re-entries nor on the technologies with which to do so. The Liability Convention 1972 requires countries to pay for damages, not prevent them.

India, along with Russia and China, abstained from a UN Security Council resolution criticising Myanmar's military regime, and instead called for "quiet, patient" and "constructive" diplomacy with the junta. The vote, which marked the first Security Council resolution on the situation in Myanmar in decades, and, since the military overthrew the National Unity Government (NUG) in February 2021, demanded an end to the violence and the release of all political prisoners, including State Counsellor Aung San Suu Kyi.

The government on Thursday introduced a Bill in the Lok Sabha seeking to decriminalise minor offences to promote ease of doing business. The Bill was later referred to a joint committee of both Houses of Parliament. The Jan Vishwas (Amendment of Provisions) Bill, 2022, which was introduced by Commerce and Industry Minister Piyush Goyal also envisages the rationalisation of monetary penalties, depending on the gravity of the offence and bolstering trust-based governance.

According to the new land laws, the leases of current land owners will not be extended in case of their lease expiry. The LG administration has diversified the use of land on lease to education, healthcare, agriculture, tourism, skill development and development of traditional art, craft, culture and languages. The new rules have hundreds of properties open for fresh auction, where outsiders could also participate. The impact will be of great significance in tourist hotspot Gulmarg, where 56 hotels out of 59 have their leases expired already.

India and China held the 17th round of Corps Commander level talks on December 20, at the Chushul-Moldo border meeting point on the Chinese side, during which they agreed to continue dialogue through military and diplomatic channels and work out a "mutually acceptable resolution of the remaining issues at the earliest," the Ministry of External Affairs (MEA) said on Thursday.

Girls aged between nine and 14 years will get vaccination against cervical cancer through schools. India is expected to roll

RBI GOVERNOR RAISES CONCERNS OVER PRIVATE CRYPTOCURRENCIES

1. RBI Governor warned that private cryptocurrencies, if allowed to grow, would lead to next financial crisis. Recent crash of cryptocurrency exchange FTX, one of biggest financial frauds in US history, illustrate the threat posed by such instruments. Cryptocurrency is a digital, encrypted, and decentralized medium of exchange.
2. Cryptocurrencies run on a distributed public ledger called blockchain, a record of all transactions updated and held by currency holders. Advantages: Protected from inflation; keeps transaction record accurate and up-to-date; decentralisation helps the currency monopoly free etc.
3. **Concerns:** Illegal transactions like buying drugs in Dark web; its mining is energy intensive; vulnerable to hacks, etc. All cryptocurrencies are private in nature, as there is no single body controlling them. The terms "private" and "public" refer to level of privacy the cryptocurrencies provide.
4. **Public cryptocurrencies**-All transactions on blockchain can be viewed by any person who has access to blockchain. Transactions can be traced to wallet addresses, and even their amount can be deciphered. Provides less privacy. Examples: Bitcoin, Ethereum, Litecoin, etc.
5. **Private cryptocurrencies**-allow different levels of permissions for users. It means, on private cryptocurrency network, wallet addresses will be masked or hidden and transaction details may be hidden. Provides more privacy than public. Examples: Monero, Zcash, DASH, Horizen, etc.

SCIENTISTS FREEZE GREAT BARRIER REEF (GBR) CORAL IN WORLD-FIRST TRIAL

1. Scientists successfully used "cryomesh" technology to freeze and store coral larvae. This will help in building reefs threatened by climate change. Mesh technology will help to store coral larvae at -196C (-320.8°F). Corals are invertebrate animals belonging to a large group of colourful animals called Cnidaria.
2. Each coral is called a polyp. Polyps of reef-building corals contain microscopic algae called zooxanthellae, which exist with animal in a symbiotic relationship. Coral polyps (animals) provide algae (plants) a home, and in exchange the algae provide polyps with food they generate through photosynthesis. Corals form barriers to protect shoreline from waves and storms.
3. **Corals are of two types**-Hard corals, primary reef-building corals, extract calcium carbonate from seawater to build hard, white coral exoskeletons. Soft Corals, flexible because they lack solid skeleton. Threats: Ocean acidification, unsustainable fishing (Blast fishing), nutrients run-offs, coral harvesting etc. In India, Coral reefs are found in Gulf of Kutch, Gulf of Mannar, Andaman & Nicobar, Lakshadweep Islands and Malvan (Maharashtra).
4. GBR is world's largest barrier reef, located at north eastern coast of Australia in coral sea. It was declared a World Heritage Area in 1981 because of its 'outstanding universal value'.

IDEX REACHES MILESTONE WITH SIGNING OF ITS 150TH CONTRACT

1. Ministry of Defence signed 150th contract for defence innovation under Innovations for Defence Excellence (iDEX). Contract relates to an Indian Navy project of Defence India Start-up Challenge. iDEX framework, launched in 2018, provide a platform of co-creation and co-development in defence sector, engage start-ups and develop defence and aerospace set up in country.
2. iDEX is being implemented by Defence Innovation Organisation (DIO), established under Department of Defence Production. DIO was formed as a "not for profit" company as per Section 8 of Companies Act 2013.
3. Significance of Defence Start-up Achieve self-reliance and foster innovation & technology development in defence and aerospace sectors. Help youth to contribute towards India's defense needs. Reduce import of defence equipment.
4. **Other initiatives to promote innovation in Defence-Dare to Dream:** Pan India Innovation Contest to support start-ups &

out the programme by mid-2023. A one-time catch-up vaccine will be provided for adolescent girls in the 9-14 age group. Subsequently, it will be introduced at the age of nine. The vaccination will be provided primarily through schools because of the high enrolment of girls. Those unable to attend school will be given at a health facility.

The Karnataka Legislative Assembly on Thursday unanimously adopted a resolution, asserting that the boundary dispute between Maharashtra and Karnataka is “a closed chapter” as 66 years have passed since the Mahajan commission, which resolved the dispute, was formed, and people of both the States have lived cordially over the decades.

20 percentage by which the pandemic delayed Tokyo Olympics cost more than the final figure reported by the organising committee, according to Japan’s audit board. The Games cost 1.7 trillion yen (\$12.9 billion), up from the 1.42 trillion yen reported earlier this year. The 2013 bid estimated the event would cost just 734 billion yen, but the costs ballooned.

5.86 GW, projects that are non-operational, out of the total 210.6 GW coal and lignite based thermal power generation capacities in the country, Power Minister R.K. Singh said in the Lok Sabha. The Minister told the House that out of 5.86 GW non-operational plants, one plant, Bela Thermal Power Station (270 MW), was revived on October 2, 2022.

71 number of multi-state cooperative societies under liquidation this year, with the maximum number of them located in Rajasthan, Maharashtra, Delhi and Odisha, Parliament was informed on Wednesday. Out of 71 multicorporate societies, 15 of them are located in Rajasthan, followed by 13 in Maharashtra, and 11 each in Delhi and Odisha, the data showed.

13 number of free trade agreements (FTAs) India has signed with its trading partners to ensure greater market access for domestic goods and to promote exports, Union minister Anupriya Patel said. India has recently signed three such agreements with Mauritius, the UAE and Australia. It has also signed six preferential pacts.

innovators to contribute in Defence ecosystem. Technology Development Fund Scheme: Encourage industries especially MSMEs and Start-ups to develop various defence technologies. It is executed by DRDO under ‘Make in India’ initiative. SRIJAN portal: Provide development support to MSMEs/Start-ups/Industries for import substitution.

PROJECT TIGER, CAMPA FUNDS USED TO FINANCE CHEETAH PROJECT

1. Ministry of Environment, Forest and Climate Change informed that that funds from Project Tiger and Compensatory Afforestation Fund Management & Planning Authority (CAMPA) were used to finance project to bring African cheetahs to India.
2. Project Cheetah, approved in 2020, is a pilot programme to reintroduce at least 50 cheetahs over next five years. As part of it, 8 cheetahs from Namibia were reintroduced in Kuno National Park in Madhya Pradesh in September 2022. National Tiger Conservation Authority is nodal agency authorized for funding and supervision of project.
3. **Significance of reintroduced Cheetahs**-Restoration of open forest and grassland ecosystems in India. Conserve biodiversity and enhance ecosystem services like water security, carbon sequestration and soil moisture conservation. Cheetah is a keystone species (organism that helps define an entire ecosystem) of dry forests, scrub forests, and savannahs.
4. It is the only large wild mammalian species that went extinct from India. It is protected under Appendix 1 of Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). IUCN status: African Cheetah (Vulnerable) and Asiatic Cheetah (Critically endangered).

PEY JAL SURVEKSHAN(PJS)

1. Ministry of Housing and Urban Affairs starts ground survey of PJS under Atal Mission for Rejuvenation and Urban Transformation (AMRUT) 2.0. PJS aims to instill healthy competition motivation among cities and Urban Local Bodies.
2. It will serve as a monitoring tool and an accelerator for AMRUT Mission. Water utility services, used water utility services, water bodies, Non-Revenue Water (NRW) estimation, best practices and innovation are key focus areas.
3. It will be based on Self- assessment of service level, Direct Observation and Citizen’s Feedback. Third-party agency- IPSOS (a private firm) will conduct Survekshan.

INTERNATIONAL FINANCIAL SERVICES CENTRES AUTHORITY(IFSCA)

1. IFSCA and council on Energy, Environment and Water (CEEW) have signed a MoU for cooperation in area of sustainable finance.
2. IFSCA is a statutory authority established under IFSCA Act, 2019. Its mandate is to develop and regulate financial products, financial services, and financial institutions in IFSC. GIFT-IFSC is maiden IFSC in India.
3. CEEW is one of Asia’s leading not-for-profit policy research institutions. It has been consistently ranked among world’s top climate change think tanks.



“They look the same but there is a difference between following and chasing.”

DR. KHAN
(KSG)