NEWSPAPER HIGHLIGHT

The Pentagon's top general said that China's recent test of an earth circling hypersonic missile was akin to the Soviet Union's stunning launch of the world's first satellite Sputnik in 1957, which sparked off• the superpowers' space race. Mark Milley, Chairman of the Joint Chiefs of Staff• , confirmed for the first time the Chinese test of a nuclear capable missile that would be very diffi• cult to defend against. Hypersonic systems are the new frontier because they fly lower and so are harder to detect, can reach targets more quickly, and are maneuverable. The U.S., Russia, China and North Korea have all tested hypersonics, and several others are developing the technology.

Stressing that the power of the state to snoop in the name of national security into the "sacred private space" of individuals is not absolute, the Supreme Court on Wednesday appointed an expert technical committee overseen by former Supreme Court judge R.V. Raveendran to examine allegations that the Centre used Israeli software Pegasus to spy on citizens.A three-judge Bench, led by Chief Justice of India N.V. Ramana, said it decided to refuse the Centre's offer to appoint an expert committee to investigate the allegations because "such a course of action would violate the settled judicial principle against bias, i.e., that 'justice must not only be done, but also be seen to be done'."Justice Raveendran would be assisted by Alok Joshi, former IPS offi• cer (1976 batch), and Sundeep Oberoi, Chairman, SubCommittee, International Organisation of Standardisation/International ElectroTechnical Commission/Joint Technical Committee.

China must not use its new "Land Boundary Law" to justify any actions that alter the situation at the Line of Actual Control (LAC), said India, in a strongly worded statement that expressed "concern" over the law. The Government called the law a "unilateral move", and said it could have no bearing on existing arrangements between both sides, as India and China have not resolved their boundary issues thus far. It also reaffirmed India's rejection of the ChinaPakistan 1963 agreement, in which Pakistan handed over the Shaksgam Valley of Aksai Chin to China. India claims all of Jammu and Kashmir, which includes Aksai

ROiP IN SYAMA PRASAD MOOKERJEE PORT

1.A Radio over Internet Protocol (ROIP) System is being introduced as a marine communication mode at Syama Prasad Mookerjee Port (SMP), Kolkata, for the first time in any Major Indian Port. This system may provide an effective long range Marine communication. It shall cover the entire Hugli River Estuary from Kolkata to Sandheads, having base stations at 4 Locations. With this facility, vessels at Sandheads can be directly communicated via Radio, from Kolkata, especially during storms and inclement weather.

2.Radio over Internet Protocol Radio over Internet Protocol (RoIP) is a technology for transmitting radio communication signals using the Internet Protocol (IP) standard. RoIP provides the same performance as well-enhanced radio communication but uses a digital IP network to enable communication and connection between 2 or more analog radio devices or networks. RoIP is similar to a Voice over Internet Protocol (VoIP), but with radio communication features and abilities. VoIP is a technology that allowing you to make voice calls over a broadband Internet connection instead of an analog (regular) phone line.

3.At its core, RoIP is the integration of VoIP technology in two-way radio. Rather than transmitting voice data through traditional means, RoIP uses internet to send data from one user to another. RoIP works in a half-duplex mode where only one radio device can communicate at a time. The user must push the push-to-talk (P2T) each time before communicating.

4.Besides radio communication features, RoIP enables the connection of 2 or more radio sites together using digital-to-analog converting receivers at both ends, which are directly connected to an Internet backbone. Moreover, RoIP also enables interoperability between different radio networks with different and non-compatible architecture.

5.Syama Prasad Mookerjee Port -Syama Prasad Mookerjee Port (Erstwhile Kolkata Port) is India's first Major Port, which was constructed by the British East India Company. It has two dock systems viz. Kolkata Dock System and Haldia Dock Complex (A deep water dock).

6.Despite being India's only riverine port, SMP has been maintaining its pivotal position in Indian Major Ports for the past 152 years. SMP is administered under the Ministry of Shipping through Major Port Trusts Act, 1963.

SUPERIORITY OF HYBRID IMMUNITY

1.Multiple studies have shown that the Hybrid Immunity had a higher neutralising antibody response than either natural infection without vaccination or full vaccination in infection-naïve individuals. Hybrid Immunity is the combination of natural immunity from an infection and immunity provided by the vaccine. People without prior infection but fully vaccinated with a vaccine showed a decline in neutralising antibodies over a period of 3 to 7 months.

2.But the decline was much less in vaccinated people with prior infection. After a single vaccine in people who have recovered from COVID-19, antibody levels skyrocket up. But, a study showed that boosting of pre-existing immunity from prior infection with vaccination resulted in a brief benefit to antibody levels with little-to-no long-term increase in cellular immune memory. Immunological advantage from hybrid immunity arises mostly from memory B cells.

3.In general, the antibody levels after infection or vaccination decline after a short period. But, the memory B cells get triggered on subsequent infection or vaccination. So when people recovered from COVID-19 are re-exposed to the virus, the memory B cells are capable of churning out highly potent antibodies.

NATIONAL TRAFFIC MANAGEMENT POLICY FRAMEWORK FOR DRONES

1.Ministry of Civil Aviation has notified a National Unmanned Aircraft System (UAS or drones) Traffic Management (UTM) Policy Framework that will manage drone movement in the UTM

Chin, and has maintained that the agreement is "illegal and invalid".

The Centre has proposed amendments to a 1969 law that will enable it to "maintain the database of registered births and deaths at the national level". The database may be used to update the Population Register and the electoral register, and Aadhaar, ration card, passport and driving licence databases, says the proposed amendment to the Registration of Births and Deaths Act (RBD), 1969. Presently, the registration of births and deaths is done by the local registrar appointed by the States. It is proposed that the Chief Registrar (appointed by the States) would maintain a unified database at the State level and integrate it with the data at the "national level," maintained by the Registrar General of India (RGI).

The Government of India has applied for loans from the Asian Development Bank (ADB) and the Asian Infrastructure Investment Bank (AIIB) to procure as many as 667 million doses of COVID19 vaccines. The Manilabased ADB, in which the U.S. and Japan are the biggest shareholders, and the Beijing based AIIB, where China and India are the biggest shareholders, are in the process of considering the loans.

India is committed to respecting the rights of all nations as laid down in the UN Convention on the Law of Seas (UNCLOS), Defence Minister Rajnath Singh said, while reiterating that India is determined to protect its legitimate maritime rights and interests. "We are fully determined to protect the legitimate rights and interests of our country in relation to our territorial waters and Exclusive Economic Zone, while supporting the maintenance of rule-based maritime systems, as mandated under UNCLOS, 1982," Mr. Singh said while addressing the IndoPacific Regional Dialogue being organised by the Navy and National maritime Foundation.

A controversial Buddhist monk in Sri Lanka, who is accused of hate speech, has been appointed head of a panel on legal reforms. According to a gazette notification issued on Tuesday, President Gotabaya Rajapaksa has set up a 13member 'Presidential Task Force for One Country, One Law', chaired by Galagodaatte Gnanasara of the Bodu Bala Sena (Buddhist Power Force).

An immediate power crisis may have been averted for now, but about a tenth of India's coal fired thermal power plants remain in danger of shutdowns and outages due to erratic coal supplies and high prices for imported coal, rating agency Crisil said. Domestic coal supplies

airspace. UTM Airspace is the airspace up to 1000 feet above ground level. This framework will allow both public and private third-party service providers to manage the drones in lower airspace.

2.To handle the traffic from unmanned aircraft, UTM Service Providers (UTMSPs) will extend automated software services instead of voice communication as in traditional Air Traffic Management (ATM) systems. They will primarily be responsible for segregating and separating a drone from other drones and manned aircraft in the lower airspace. All drones (except Nano drones operating in the green zone) shall mandatorily share their real-time location through the network to the Centre either directly or through third-party UTM service providers. SSP - UTM service providers will be assisted by Supplementary Service Providers (SSPs). SSPs will maintain data about terrain, weather, and location of manned aircraft and provide services such as insurance, data analytics and drone fleet management.

3.**Integration - The policy requires UTM to be integrated with ATM so that flight plans & real-time location of manned aircraft can be recorded to continuously separate manned & unmanned aircraft from each other.** Law enforcement and security agencies will also have access to some information in the UTM ecosystem on a need-to-know basis. Service fee - The policy also allows UTMSPs to levy a service fee on users, a small portion of which will also be shared with the Airports Authority of India.

GLOBAL PENSION INDEX

1.The 13th Global Pension Index 2021 is published by Mercer, in collaboration with CFA Institute and the Monash Centre for Financial Studies. The report compared 43 retirement income systems from around the world, highlighting strengths and weaknesses. As the world continues to grapple with the economic implications of the pandemic, the study also reveals factors causing the gender pension gap around the world.

2.Findings - In 2021, new entrant Iceland is named as having the world's best pension system overall. India has ranked at 40th position out of 43 countries in the 2021 Index. [In 2020, India was ranked at 34th position out of 39 countries.]

3.**The report reveals that the financial well-being of Indian future retirees is left to chance. Also, it shows that the minimum pension of Indians (as a % of average wage) will be the lowest across the nations.**

REPORT ON CRYPTOCURRENCY OWNERSHIP

1.According to data by comparison firm Finder, internet users in Nigeria have the world's highest rates of cryptocurrency ownership, followed by Malaysia and Australia. Japan ranked lowest in the list with only 4.6% of the population owning the virtual asset.

2.**India secured the 7th place with nearly 15.4% respondents saying they own at least one cryptocurrency. In India, nearly 48% women have invested in at least one cryptocurrency, against 52% owned by men.** This indicates that both genders are at par in terms of ownership, which is in contrast to other countries like Japan and Norway where less than 30% women own the asset.

3.Among all crypto assets, Bitcoin emerged as most popular, with the highest adoption seen in Japan with 76.7% people saying they own it.

4.About 57% Indians who own cryptocurrency have invested in Bitcoin, according to the Cryptocurrency Adoption Index 2021.

CRYPTOCURRENCY ADOPTION INDEX 2021

1.The Global Crypto Adoption Index 2021 was released by the crypto analysis platform Chainalysis. The Index ranked 20 countries to measure the level of cryptocurrency adoption and usage by individuals between July 2020 and June 2021.

2.Chainalysis ranks countries by their peer-to-peer (P2P) cryptocurrency trade volume and weights it to favour countries with lower purchasing power parity (PPP) per capita and fewer internet users. This is done to highlight countries where more residents are putting a larger share of their overall wealth into P2P transactions.

3.**Findings - Global adoption of cryptocurrency grew over 800% in the past year, especially in emerging market economies. This indicates that people turn to virtual money to preserve their savings in the face of currency devaluation**, to send and receive remittances and carry out business transactions.

have been erratic due to rains hampering mining operations, while non coking coal imports have slid more than 20%. As a result, coal stocks at power plants have depleted to an average of five days' worth of supplies.

4.Emerging markets took the top spots due to huge transaction volumes on P2P platforms when adjusted for purchasing power parity per capita and internet-using population. India ranked second in a list of 20 countries with the highest cryptocurrency adoption rate. Vietnam secured the first spot, and Pakistan came third.