

NEWSPAPER HIGHLIGHT

What looks much like craggy moonlit mountains is the edge of a nearby, young, star forming region NGC 3324 in the Carina Nebula. Captured in infrared light by the Near Infrared Camera (NIRCam) on NASA's James Webb Space Telescope, among many revealed at the White House on Tuesday, shows previously obscured areas of star birth. Called the Cosmic Cliffs, the region is actually the edge of a gigantic, gaseous cavity within NGC 3324, roughly 7,600 lightyears away.

5.59 lakh of public grievances against various government departments received by the Centre between January 1 and June 25, according to an official report. Of the total complaints received on the Centralised Public Grievance Redress and Monitoring System, as many as 5.32 lakh were disposed of. The maximum number of grievances were against the Dept of Financial Services followed by the Ministry of Labour and Employment and the Ministry of Railways.

India's retail inflation inched lower to 7.01% in June, from May's 7.04%, but stayed stuck above the 7% mark for the third straight month. Price gains also exceeded the RBI's upper tolerance limit of 6% for the sixth month. Rural inflation edged up to 7.09%, from 7.08% in May, while urban consumers faced a 6.92% price rise, as per the Consumer Price Index released on Tuesday. Food price inflation, as per the Consumer Food Price Index, eased to 7.75%, from 7.97%, but remained above 8% in urban areas, at 8.04%.

The decision of the Directorate General of Civil Aviation (DGCA) to deny a commercial pilot licence to a transgender candidate is "discriminatory" and "violates" the law on the rights of transgender people, the Union Social Justice and Empowerment Ministry has said in a letter to the aviation regulator. The Ministry has demanded that the DGCA provide guidelines for licensing and separate medical standards to enable transgender people to join the flying profession.

₹62 crore, the amount contributed by the Department of Administrative Reforms and Public Grievances to the government exchequer by selling off scrap, according to Union Minister of State Jitendra Singh. The Minister was addressing the

SARFAESI ACT OF 2002

1. Banks have invoked the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act against telecom infrastructure provider GTL to recover their pending dues. The Sarfaesi Act of 2002 is the abbreviation for the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002.

2. This Act was brought in to guard financial institutions against loan defaulters. To recover their bad debts, the banks under this law can take control of securities pledged against the loan, manage or sell them to recover dues without court intervention.

3. Objectives of the Act - Efficient or rapid recovery of non-performing assets (NPAs) of the banks and financial institutions (FIs). Allows banks and financial institutions to auction properties (say, commercial/residential) when the borrower fails to repay their loans.

4. **Applicability - The law is applicable throughout the country and covers all assets, movable or immovable, promised as security to the lender. Under this Act, "bank" means A banking company; or A corresponding new bank;** or The State Bank of India; or A subsidiary bank; or 4 [(iva) a multi-State co-operative bank; or] Such other bank which the Central Government may, by notification, specify for the purposes of this Act.

5. According to a 2020 Supreme Court judgment, co-operative banks can also invoke Sarfaesi Act. According to the Finance Ministry, the non-banking financial companies (NBFCs) can initiate recovery in Rs 20 lakh loan default cases. Powers of the banks - The Act comes into play if a borrower defaults on his or her payments for more than six months.

6. The lender then can send a notice to the borrower to clear the dues within 60 days. In case that doesn't happen, the financial institution has the right to take possession of the secured assets and sell, transfer or manage them. The defaulter, meanwhile, has a recourse to move an appellate authority set up under the law within 30 days of receiving a notice from the lender.

CART-CELL THERAPY

1. Indian pharmaceutical companies and start-ups may soon offer CAR T-cell therapy-based treatment for cancers at nearly one tenth of the cost in the US. The Chimeric Antigen Receptor (CAR) T-cells are genetically engineered to produce artificial T-cell receptors. CAR T-cell therapy is also sometimes talked about as a type of cell-based gene therapy, as it involves altering the genes inside the immune cells called T cells (a type of white blood cell) to help them attack the cancer.

2. This type of treatment can be very helpful in treating some types of cancer, even when other treatments are no longer working. Since live cells are re-engineered to fight the disease, cellular immune therapies are considered 'living drugs'.

3. A living drug is not a pill, but a process that is personalized to the needs of the patient. CAR T-cell therapy for cancers like leukaemia has the potential to reduce the 3-year conventional treatment (using oral drugs, chemotherapy, bone marrow transplant, etc) to just 3 weeks. This will be a one-time treatment. It would start to show results within weeks, and will last for years.

4. Success rate - Success rates vary with the type of cancer and the stage of the disease. Globally, at least 40-50% patients show no disease recurrence after many years. Almost 85% of the cell therapies are tested on terminally ill or stage-4 cancer. This has the potential to become the first line of therapy for patients, and then the success rates should be better, as when the first and second line treatments fail, the patient's bone marrow is already fatigued.

5. Side-effects - Sometimes there is cytokine release syndrome as there are several dead cancer cells in the body, which can be managed. Over time as cells die, they are replaced by healthy cells, and within 2 to 3 weeks, the symptoms usually go away.

valedictory session of a regional conference, "Bringing Citizens, Entrepreneurs and Government Closer For Good Governance", in Karnataka. The Dept took up a cleanliness drive during which they collected this amount by selling off mostly old electronics.

80 crore people who were provided with free ration for eight months during COVID19, without any discrimination, according to Minister of Information and Broadcasting Anurag Thakur. Appealing to the people to take adequate precautions, he claimed that in his constituency people have been administered the COVID19 vaccine, free of cost. The Minister made these statements while dedicating a PSA oxygen plant to Tounidevi Civil Hospital in his constituency Harimpur, Himachal Pradesh.

The Centre does not have any data on child labour in the country and a reason for this is the drying up of budgetary provisions meant for the National Child Labour Project (NCLP), which had been monitoring the issue for about three decades. The Labour Ministry is learnt to have told the Parliament Standing Committee on Labour, headed by MP Bhartruhari Mahtab, that since the NCLP was merged with the Samagra Shiksha Abhiyan in 2016, the Ministry has no records of child labour. The currently available data is of the 2011 Census, which says the country has more than a million child labourers.

With the number of incidents of "signal passing at danger (jumping red signal)" increasing across the country, the Indian Railways has decided to check the call detail records of loco pilots to ensure they had not used their phones while on duty. To prevent such incidents, the Railway Board has issued an advisory asking the General Managers of all Zonal Railways to ensure that loco pilots followed the safety protocols.

The Navies of India and Brazil, both of which operate the French Scorpene class submarines, are exploring options for collaboration towards maintenance of the diesel - electric attack submarines, the Navy said on Tuesday. A Brazilian Navy delegation was at the Western Naval Command in Mumbai, where this issue was extensively discussed.

Russian President Vladimir Putin will visit Iran next week, the Kremlin said on Tuesday, a day after the U.S. warned that Tehran could provide Moscow with drones for its action in Ukraine. During a trip to Tehran, Mr. Putin will attend a trilateral meeting with the leaders of

INTERNATIONAL CHILD SEXUAL EXPLOITATION INITIATIVE

1. India's Central Bureau of Investigation (CBI) has joined the Interpol's International Child Sexual Exploitation (ICSE) initiative and gained access to its image and video database. The International Child Sexual Exploitation (ICSE) image and video database is an intelligence and investigative tool. It allows specialized investigators to share data on cases of child sexual abuse.

2. The ICSE database uses video and image comparison to analyse Child Sex Exploitation Material (CSEM) and make connections between victims, abusers and places. India is the 68th country to have access to this database and software. The initiative will allow the CBI to collaborate with investigators in other countries for Detecting child sex abuse online and Identifying abusers, victims, and crime scenes from audio-visual clips using specialised software. On average, the database of the ICSE initiative helps identify 7 child victims everyday globally.

3. Using the image and video comparison software, the investigators attempt to identify locations of markers visible in a piece of media. The detectives in all 68 countries of the grouping can further exchange information across the world.

4. India's Actions to combat Online Child Sex Abuse- Interpol data - According to Interpol data, India reported over 24 lakh instances of online child sexual abuse from 2017 to 2020, with 80% victims being girls below the age of 14 years. More than 60% unidentified victims were prepubescent, including infants and toddlers. Around 65% of unidentified victims were girls, but severe abuse images were more likely to have boys, the Interpol said on its website.

5. OCSAE - In 2019, the CBI set up a special unit called the 'Online Child Sexual Abuse and Exploitation Prevention/Investigation (OCSAE)'. This special unit was set up for tracking and monitoring posting, circulation and downloads of CSEM online. Based on intelligence developed by the unit, the CBI started a country-wide operation against the alleged peddlers of online CSEM in 2021.

6. In 2019, the National Centre for Missing and Exploited Children, a US-based non-profit organisation, had started sharing tip-offs about child sex abuse with Indian agencies. Received by the National Crime Records Bureau (NCRB), this information was passed on to the states where the incidents took place, to boost detection of those sharing such content.

WORLD POPULATION PROSPECTS 2022

1. The 2022 edition of the United Nations' World Population Prospects (WPP) was released recently. About the Report - The WPP has been published by the Population Division of the UN in a biennial cycle since 1951. Each revision of the WPP provides a historical time series of population indicators starting in 1950. It does so by taking into account newly released national data to revise estimates of past trends in fertility, mortality or international migration.

2. Findings - According to the WPP 2022, India is projected to surpass China as the world's most populous country in 2023. It also projected the world's population to reach 8 billion on November 15, 2022. The world's population continues to grow, but the pace of growth is slowing down. The global population is expected to grow to around 8.5 billion in 2030, 9.7 billion in 2050 and 10.4 billion in 2100. In 2020, the global growth rate fell under 1% per year for the first time since 1950.

3. Rates of population growth vary significantly across countries and regions. More than half of the projected increase in global population up to 2050 will be concentrated in just 8 countries: the Congo, Egypt, Ethiopia, India, Nigeria, Pakistan, the Philippines and Tanzania. Disparate growth rates among the world's largest countries will re-order their ranking by size. The 46 least developed countries (LDCs) are among the world's fastest-growing.

4. Many are projected to double in population between 2022 and 2050, putting additional pressure on resources and posing challenges to the achievement of the UN's SDGs. The population of older persons is increasing both in numbers and as a share of the total.

5. A sustained drop in fertility has led to an increased concentration of the population at working ages (between 25 and 64 years), creating an opportunity for accelerated economic

Iran and Turkey, the so called Astana format of meetings for Syria related talks

growth per capita. International migration is having important impacts on population trends for some countries.