

November 3, 2025 – Dinamani Newspaper – Tit bits

1. Italy's Yannick Sinner won the Champions Trophy at the Paris Masters men's tennis tournament in France. With this victory, he regained the number 1 spot in the world rankings.

- i. Sinner has become the first player to win every match in straight sets from the start to the final round at the Paris Masters.

2. In the final match of the Women's World Cup, India defeated South Africa by 52 runs to become the champion. India created history by becoming the champion for the first time in the World Cup.

- i. Deepti Sharma was named the Player of the Series for her 215 runs and 22 wickets in the match.
- ii. India has become the fourth country to win the Women's World Cup, joining Australia (7 times), England (4 times) and New Zealand (once) as the previous winners.

3. Russia has launched a new nuclear-powered submarine, the Khabarovsk, according to local media reports.

- i. Last month, Russia successfully tested the nuclear-powered Burevestnik missile, the first of its kind in the world. Following that, Russia successfully tested the nuclear-powered, unlimited-range, underwater drone Posidon. The drone is attached to a new submarine.
- ii. Defense Minister Andrei Belousov unveiled the new nuclear submarine Khabarovsk.
- iii. In an interview with news television, Andrei Belousov said, "The Khabarovsk nuclear submarine is designed to carry weapons under the sea." He said that the robotic systems installed in it ensure the protection of the Russian maritime border.
- iv. Notably, in response to Russia's testing of a nuclear-capable missile and a submarine drone, President Donald Trump has ordered the U.S. defence to resume nuclear weapons tests that had been suspended for about 30 years.

4. The LVM3-M5 rocket carrying the 4,410 kg CMS-03 satellite for coastal security telecommunications services was successfully launched into space by ISRO.

- i. ISRO scientists declared the mission a success after the satellite was placed in its planned Earth orbit. They also said that they will be able to access telecommunication services through it for the next 15 years.
- ii. A new milestone: With this success, CMS-03 has become the first heavy satellite (weighing 4,410 kg) to be placed into orbit from Indian soil. Furthermore, ISRO created this new history by executing the entire project using domestic industrial technology.
- iii. So far, 48 satellites have been launched into space by the Indian Space Research Organization to improve the country's communication facilities. In that regard, a coastal surveillance satellite named GSAT-7 (Rukmani) was launched in 2013.

- iv. The satellite, weighing approximately 2,650 kg, was launched into space by the European Union's Ariane rocket. At that time, India did not have the advanced rocket infrastructure to launch heavy satellites and spacecraft.
- v. 'Baahubali' rocket: ISRO developed the very advanced GSLV Mark 3, or LVM-3, rocket. With it, satellites weighing more than 8,000 kilograms can be placed into low Earth orbit, and satellites weighing over 4,000 kilograms can be inserted into geosynchronous transfer orbit.
- vi. In it, the capabilities of the S200 motors, Vikas engine, and cryogenic engine were improved, and its thrust was increased to 14 seconds compared to the usual. Considering its performance, the LVM 3 rocket was nicknamed 'Baahubali'.
- vii. The life of the GSAT-7 satellite, launched 12 years ago, is about to end. ISRO has designed a state-of-the-art CMS-03 (GSAT-7R) satellite to replace it at a cost of around Rs 1,600 crore. It was planned to be launched from the second launch pad of the Satish Dhawan Space Centre in Sriharikota using an LVM-3 rocket, and coordination and preparation work was carried out for this.
- viii. The rocket successfully placed the satellite into its planned Earth orbit at an altitude of 169 km, 16 minutes after liftoff. Its orbit will be gradually changed and placed in a geostationary orbit with a minimum distance of 170 km and a maximum distance of 29,970 km.
- ix. Multi-band beam technology: The CMS-03 rocket, weighing a total of 4,410 kg, has been designed with high-tech features. It has multi-band beam technology such as extended UHF, C, Q, S.
- x. This will provide real-time data for coastal border security applications. This satellite will be of great help in providing real-time audio and video communication between naval ships, submarines, and coastal defense centers. Furthermore, it will also help improve telecommunication services between warships and aircraft.
- xi. Typically, such heavy satellites are positioned at the center of the equator, allowing them to collect information from one-third of the Earth.
- xii. The CMS-03 satellite is centrally positioned and aimed at India, enabling us to obtain comprehensive coastal data and telecommunications for our country.
- xiii. ISRO sources say that the orbit of the currently launched CMS-03 satellite will be increased from Monday and its operations will begin in the next few weeks.
- xiv. The LVM 3 rocket has a total height of 43.5 meters. The rocket weighs 642 tons and has three stages. In the first stage there is a solid engine, in the second stage a liquid engine, and in the third stage (C-25) a cryogenic liquid engine filled with oxygen and hydrogen gases. Each stage is discarded once its functions are completed.
- xv. In this case, the current third stage engine has been domestically upgraded and designed with a thrust capacity of 28.6 tons. ISRO used it as a test for this project. Accordingly, the third stage rocket was stopped 16 minutes and 50 seconds after

its launch.

- xvi. After the satellite was released, it was re-launched and the thrust was tested. ISRO Chairman V. Narayanan said it was successful.
- xvii. He said that in the future, this technique will help to place satellites in different orbits with a single rocket.
- xviii. V. Narayanan – ISRO Chairman
- xix. Victor Joseph – LVM 3 Rocket Project Director
- xx. Rajendra Kumar – CMS-03 Satellite Project Director.

5. Canada and the Philippines have signed a major security cooperation agreement aimed at countering China's aggressive actions in the South China Sea.

- i. The main purpose of this agreement is to intensify joint military exercises and enhance security cooperation between the armed forces of the two countries. In this regard, the Philippine officials expressed confidence that China's aggressive actions would be restrained.
- ii. The Philippines is the third country under Ferdinand Marcos to enter into such a major security agreement with Canada, following Japan and New Zealand. The agreement provides a framework for the military forces of the two countries to legally travel through each other's borders. Previously, the Philippines signed similar agreements with the United States (1998) and Australia (2007).

