



P.L.RAJ IAS & IPS ACADEMY

Building Bureaucrats Since 2006

July 19, 2026 – Dinamani Newspaper – Tit bits

1. For the first time in India's space history, Vikram-1, an indigenously developed rocket built by a private company, was successfully placed into Low Earth Orbit (LEO) in the 16th minute after launch.

i. Development of Vikram-1

To encourage private participation in space exploration, the Indian National Space Promotion and Authorization Centre (IN-SPACe), functioning under ISRO, granted approval to Hyderabad-based private company Skyroot Aerospace to develop launch vehicles. Under its "Prarambh" programme, the company designed three types of rockets. They were named "Vikram" in memory of Dr. Vikram Sarabhai, the father of the Indian space programme.

ii. Evolution of the Rocket

In 2022, the company successfully launched the Vikram-S rocket as a technology demonstrator. Following this success, Skyroot developed Vikram-1, capable of carrying a 350-kg payload. The rocket is designed to place small and medium-sized satellites into Low Earth Orbit and has been built entirely using indigenous technology.

iii. Launch Delayed by 35 Minutes

The Mission Agaman launch of Vikram-1 was scheduled for 11:30 a.m. on Saturday from the First Launch Pad at the Satish Dhawan Space Centre, Sriharikota, Andhra Pradesh. However, due to a minor technical issue, the launch was delayed by 35 minutes and 30 seconds and finally took place at 12:05:30 p.m. Sixteen minutes after liftoff, the rocket successfully placed its small and medium-sized satellites into the planned 450-km Low Earth Orbit, following which scientists declared the mission a complete success.

iv. New Technologies Used

- Vikram-1 is 24 metres tall and is capable of carrying satellites weighing up to 350 kg.
- The rocket is built entirely from carbon composite materials, making it lightweight.
- All of its engines are manufactured using advanced 3D-printing technology, improving

efficiency, reliability, and reducing overall weight.

The mission also carried several experimental payloads:

- Cosmosurge Space's "Embrace" experimental payload, equipped with robotic arms designed to remove floating space debris.
- A German-built experimental payload for testing space technologies.
- "Scope", an experimental payload developed by Skyroot Aerospace to test future space technologies.
- A miniature experimental satellite developed by Grahha Space, intended to demonstrate new capabilities in Low Earth Orbit.

(All the above, except the German payload, are products of Indian companies.)

Additionally, the rocket carried:

- An artificial diamond developed by Cosmos Diamonds Laboratory.
- A miniature 18-carat gold rocket containing microscopic sculptures of India's space and scientific pioneers:
 - Dr. Vikram Sarabhai
 - Sir C. V. Raman
 - Dr. A. P. J. Abdul Kalam

Dignitaries Present

Those present during the launch included:

- ISRO Chairman V. Narayanan
- Andhra Pradesh Minister for Information Technology Nara Lokesh
- IN-SPACe Chairman Pawan Kumar Goenka
- Satish Dhawan Space Centre Director S. Muthuchezian, among others.

v. Prime Minister's Postcard Also Sent to Space

Along with satellites and experimental payloads, a postcard personally written by Prime Minister Narendra Modi also travelled into space aboard India's first privately developed rocket, Vikram-1.

vi. The founders of Skyroot Aerospace are:

- Pawan Kumar Chandana
- Naga Bharath Daka

vii. ISRO Chairman on Upcoming Missions

Speaking after the successful launch, ISRO Chairman V. Narayanan said:

- ISRO's next rocket launch will take place within the next two months.
- The organisation plans to launch at least six to seven rockets during the current financial year.
- Two rockets have already completed production and are undergoing testing.
- Manufacturing of the remaining five rockets is nearing completion.
- Construction of India's second rocket launch port at Kulasekarapattinam, Thoothukudi district, was originally expected to be completed this year. However, due to certain delays, the project is now expected to be completed by the end of March next year.

2. The Monsoon Session of Parliament will commence on 20 July and continue until 13 August. Several Bills replacing Ordinances recently promulgated by the Central Government are expected to be introduced during the session.

i. Major Bills

One of the key Bills is the Income Tax (Amendment) Bill. It seeks to replace an Ordinance that granted foreign investors exemption from income tax on interest income and capital gains earned from Government securities, with the objective of attracting foreign investment and easing pressure on the Indian rupee. Another Bill will replace the Ordinance that increased the strength of Supreme Court judges to 38.

ii. Other Bills

The session is also expected to witness the introduction of:

- A Bill making the insult of the National Song "Vande Mataram" a punishable offence.
- The Births and Deaths Registration (Amendment) Bill, along with several other legislative proposals.

iii. Women's Reservation Bill to Be Reintroduced?

In April, during a special session of Parliament, the Government introduced a Constitution Amendment Bill proposing:

- Implementation of 33% reservation for women in the Lok Sabha from the 2029 General Election.
- Increasing the number of Lok Sabha constituencies to 850 to facilitate the reservation.

For a Constitutional Amendment Bill to pass, it requires:

- Support from more than half of the total membership of the House (543 members),
- A two-thirds majority of members present and voting.

However, the Bill failed because it did not secure the required two-thirds majority during voting. Following recent Assembly elections and changes in the political landscape, the Central Government is reportedly considering reintroducing the Women's Reservation Bill. However, the Bill has not been included in the Government's current legislative agenda.

3. On the occasion of Tamil Nadu Day, Chief Minister Joseph Vijay conveyed his greetings to the people of the State.

He also announced that November 1, the day on which the State was formed, will henceforth be officially observed as a State Government Day.

4. Following the completion of the term of the coalition Government led by Israeli Prime Minister Benjamin Netanyahu, the country's Parliament (Knesset) has been dissolved. Fresh general elections have been scheduled for October 27.

i. A Rare Full-Term Government

In Israel's political history, it is extremely rare for a Parliament to complete its full four-year term. Prior to the present Government, the last time an Israeli Government completed its full term was in 1988.

ii. Security Challenges

Since the Hamas attack in October 2023, Israel has been engaged in military operations in Gaza for the past three years. During this period, Israel also participated alongside the United States in military action against Iran.

iii. Political Situation

Amid these crises, Prime Minister Benjamin Netanyahu has been striving to retain power. However, recent opinion polls indicate that public support is shifting in favour of the opposition parties.

iv. Controversial Bills Passed Before Dissolution

In the final week before Parliament was dissolved, the Netanyahu Government hurriedly passed several controversial Bills. Most notably, to retain the support of ultra-Orthodox

Jewish parties, Parliament passed legislation exempting young men from the ultra-Orthodox community from mandatory military service.

5. Canadian Wildfires Severely Affect Air Quality Across North America

The rapidly spreading wildfires in Canada have caused air quality to deteriorate significantly across several cities in North America.

i. Current Situation

According to official data:

- 858 wildfires are currently burning across Canada.
- Of these, 111 fires remain out of control.

As a result, thick toxic smoke has spread as far as the Midwestern and Northeastern United States.

ii. Worst-Affected Cities

Among the cities recording some of the worst air pollution levels in the world are:

- Detroit
- Chicago
- New York
- Minneapolis

(all located in the United States).

iii. Health Warning

Medical experts have warned that smoke from wildfires is considerably more toxic than ordinary air pollution and poses serious health risks.

iv. Public Advisory

Since the toxic smoke could remain suspended in the atmosphere for several weeks, authorities have advised people to avoid going outdoors unless absolutely necessary.

v. Trump's Criticism

In this context, U.S. President Donald Trump sharply criticised the Canadian Government, stating that Canada's failure to properly manage its forests was responsible for the current wildfire crisis.

6. Indian badminton star P. V. Sindhu has reached the women's singles final of the BWF World Tour Japan Open Super 750 tournament for the first time in her career.

She will face Japan's Akane Yamaguchi, the reigning World Champion, in the final.

7. Argentina and Spain to Clash in the FIFA World Cup Final

Defending champions Argentina will take on former champions Spain (La Roja) in the final of the FIFA World Cup.

i. Argentina Chasing a Fourth Title

- Brazil holds the record with five FIFA World Cup titles.
- Germany and Italy have each won the tournament four times.
- Argentina, already a three-time champion, will be aiming to win its fourth World Cup title.

ii. Gold Rings for Champions Introduced for the First Time

For the first time in the 96-year history of the FIFA World Cup, players of the championship-winning team will receive gold rings.

- Awarding championship rings has been a long-standing tradition in North American sports since the 19th century.
- The winning team will receive 30 gold rings.
- A total of 2,026 rings have been produced.
- Apart from the 30 rings for the champions, the remaining rings will be sold to football fans.

iii. The World Cup final will be played at MetLife Stadium in New York.

Key highlights:

- The expanded tournament featured 48 teams and 104 matches.
- Before the final, seven matches had already been played at MetLife Stadium.

Pre-match Entertainment

Before the final, performances will be held by:

- Coldplay's Chris Martin
- Madonna
- Shakira
- BTS
- Justin Bieber
- Gustavo Dudamel

The trophy will be presented to the champions by:

- U.S. President Donald Trump
- FIFA President Gianni Infantino

iv. MetLife Stadium

- Built in 2010 at a cost of approximately US\$1.6 billion.
- Several players have expressed dissatisfaction with the hard playing surface at the stadium.
- Lionel Messi previously played at the venue in 2012, 2016 and 2024.
- Spain's captain Rodri Hernández will be playing there for the first time.

8. As part of India's Gaganyaan Human Spaceflight Mission, the Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST) and ISRO's Human Space Flight Centre (HSFC) will jointly undertake bioastronautics research.

i. Objective of the Study

With astronauts expected to be sent into space under the Gaganyaan Mission, the research aims to prepare them to withstand:

- Microgravity,
- Space radiation, and
- Long periods of isolation.

ii. Joint Research Programme

According to a statement issued by SCTIMST, which functions under the Department of Science and Technology:

- SCTIMST and HSFC will jointly conduct bioastronautics research to ensure the safety of astronauts during space missions.
- Selected astronaut candidates will receive two years of specialised training from both institutions.
- The primary objective is to study the physiological changes and health effects experienced by humans during space travel.

iii. Training Programme

- Beginning in July 2026, two candidates will be selected for the programme every academic year.

- Additional details are available on the SCTIMST website.

iv. Earlier Agreement

- On 24 April 2025, SCTIMST and HSFC signed a Memorandum of Understanding (MoU) to strengthen cooperation in space medicine research for ISRO's human spaceflight missions.
- As a follow-up, a Centre for Space Medicine Research was inaugurated at SCTIMST on 26 November 2025.

v. Implementation Agreement

Subsequently, on 25 June 2026, the two organisations signed another agreement at ISRO Headquarters, Bengaluru, to formally implement the bioastronautics research programme.

9. Economic crisis facing milk producers in Tamil Nadu due to stagnant purchase prices by the state-run cooperative, Aavin.

i. Production and Market Statistics

- Over 30 lakh (3 million) farmers and laborers in Tamil Nadu are involved in milk production, with women primarily managing these activities to cover household expenses.
- The state produces approximately 3 crore liters of milk daily.
 - ❖ Producers retain 45 lakh liters for personal use.
 - ❖ 2.55 crore liters enter the market for sale.
- Market Share:
 - ❖ Aavin: Procures roughly 37 lakh liters daily.
 - ❖ Private Sector: Procures the remaining 2.18 crore liters, with large companies taking 68 lakh liters and local small traders/companies taking approximately 1.50 crore liters.

ii. Historical and Comparative Pricing

- Price Hike History:
 - ❖ In August 2019, the previous Government increased the price by ₹4 for cow milk and ₹6 for buffalo milk.
 - ❖ In November 2022, the subsequent Government increased both by ₹3 per liter.

❖ In December 2023, a Government incentive of ₹3 per liter was introduced, but no formal purchase price hike has occurred since then.

- Purchase prices in Tamil Nadu are significantly lower than other states:
 - ❖ Punjab: ₹65 per liter (recently increased from ₹60).
 - ❖ Madhya Pradesh: ₹50 per liter.
 - ❖ Kerala: ₹45 per liter.
- Aavin vs. Private Sector: For milk with 4.3% fat and 8.2% other nutrients, private companies pay ₹45 per liter, whereas Aavin pays only ₹35 per liter.

iii. Economic Crisis and Rising Costs

- It costs a minimum of ₹61 to produce one liter of milk.
- Over the last four years, the price of various types of fodder (straw, corn stalks, green and concentrated fodder) has risen by 30% to 40%.
- Wages for labor in the dairy sector have surged by 100%.
- Local small traders often pay as little as ₹32 per liter by purchasing directly from farmers' doorsteps.

iv. Impact on Farmers and Industry Risks

- Farmers supplying to Aavin face a combined daily loss of ₹2.96 crore due to the ₹8 price difference compared to private buyers.
- Based on production costs, farmers lose ₹24 per liter when selling to Aavin and ₹33 per liter when selling to local traders.
- The continuous financial loss is forcing many farmers to abandon milk production, which could lead to a total collapse of the state's milk supply.

v. Demands and Administrative Response

- Farmers' associations are demanding that the purchase price be set at ₹45 for cow milk and ₹60 for buffalo milk, with an increased incentive of ₹12.
- A price increase by Aavin would force private players to offer better rates, benefiting millions of families and encouraging farmers to supply more to Aavin, potentially turning it into a profitable entity.
- There are currently 12,000 milk cooperative societies under 32 unions in the state. Officials have brought the price concerns to the Government's attention through District Collectors, and the new Government led by Chief Minister C. Joseph Vijay is expected to consider the request.