

'Sharing is Caring'

If you have friends preparing for Civil Services, tell them that they can also receive Updates from PrepMate IAS by sending 'Name' and 'State' through WhatsApp on 75979-00000

1. ISRO launches SSLV: What is the aim behind developing Small Satellite Launch Vehicles?

Why in News?

The Indian Space Research Organisation (ISRO) successfully launched the third developmental flight of the Small Satellite Launch Vehicle (SSLV) from the Satish Dhawan Space Centre in Sriharikota recently. The SSLV-D3 placed the Earth observation satellite EOS-08 precisely into orbit.

It also marks the completion of ISRO/Department of Space's SSLV Development Project. NewSpace India Limited (NSIL), ISRO's commercial arm, and India's private space industry can now produce SSLVs for commercial missions.

What is an SSLV?

ISRO's Small Satellite Launch Vehicle (SSLV) is a three-stage Launch Vehicle configured with three Solid Propulsion Stages. It also has a liquid propulsion-based Velocity Trimming Module (VTM) as a terminal stage, which can help adjust the velocity as it prepares to place the satellite. Essentially, the aim behind SSLVs is to produce low-cost launch vehicles with short turnaround times and minimal infrastructural requirements. The SSLV can launch satellites weighing up to 500kg and accommodate multiple satellites.

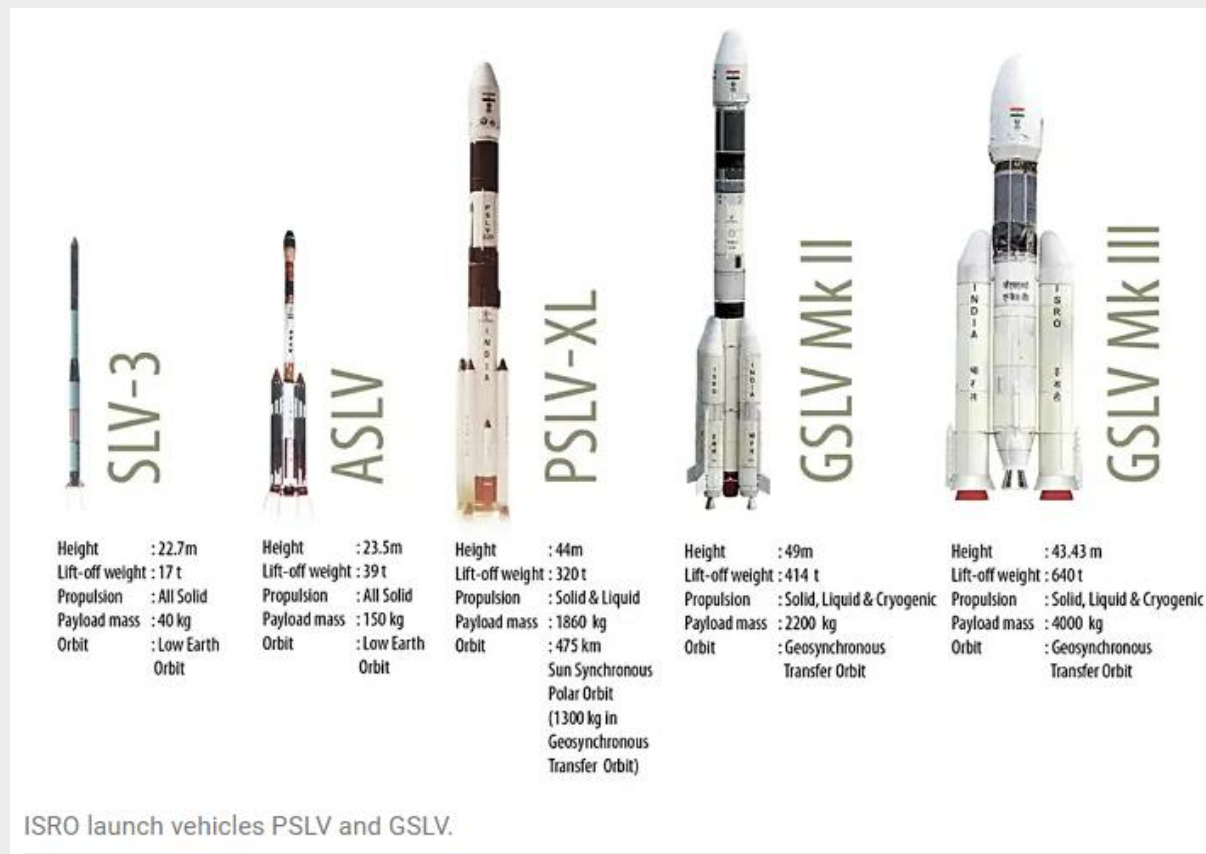
Before SSLVs, smaller payloads had to be sent into Space using other launch vehicles carrying multiple, bigger satellites. They depended upon the launch schedules of those satellites.

Former ISRO chairman K Sivan had stated in 2019 at the ISRO headquarters during an annual press conference that "The SSLV is the smallest vehicle at 110-ton mass at ISRO. It will take only 72 hours to integrate, unlike the 70 days taken now for a launch vehicle. Only six people will be required to do the job, instead of 60 people. The entire job will be done in a very short time and the cost will be only around Rs 30 crore. It will be an on-demand vehicle."

And what are PSLVs and GSLVs?

The Polar Satellite Launch Vehicle (PSLV) is the third generation of Indian satellite launch vehicles. first used in 1994. More than 50 successful PSLV launches have taken place to date. It has also been called "the workhorse of ISRO" for consistently delivering various satellites into low earth orbits (less than 2,000 km in altitude) with a high success rate. The PSLV-XL can carry around 1,860 kg of payload.

On the other hand, Geosynchronous Satellite Launch Vehicles (GSLVs) have been instrumental in launching communication satellites in the geosynchronous transfer orbit. According to the European Space Agency (ESA), telecommunications satellites are usually placed in geostationary Earth orbit (GEO). It is a circular orbit 35,786 kilometres above Earth's equator.



GSLVs have a higher capacity because sending satellites deeper into space requires greater power. Therefore, cryogenic engines consisting of liquid hydrogen and liquid oxygen are used in GSLVs as they provide greater thrust than the engines used in the older launch vehicles. The GSLV Mk-II can carry satellites weighing up to 2,200 kg, while the Mk-III can carry up to 4,000 kg.

Relevance: GS Prelims & Mains Paper III; Science & Technology

Source: Indian Express

2. What is the contribution of Indian Americans to the US?

Introduction

Indiaspora, a US-based non-profit organisation which details the contributions of Indian Americans to the US and their impact on the country, has released a new report. Titled, 'Small Community, Big Contributions, Boundless Horizons: The Indian Diaspora in the United States', the report quotes data from the Migration Policy Institute and says,

5.1 million Indian Americans represent the Indian diaspora including those born in India and in the US. The Indian diaspora in the US makes up only 1.5% of the population.

45% of them migrated to the US after 2010, while around 30% moved before 2000. The population is concentrated in New York State and California.

72 unicorn startups out of 648 in the US are led by Indian migrants. The collective value of these startups exceeds \$195 billion. They employ approximately 55,000 people (13% of unicorn employees).

60% of all US hotels are owned by Indian Americans. These hotels generate approximately \$700 billion in revenue and create more than 4 million jobs, directly and indirectly, annually.

35%-50% of all convenience stores in the US are owned by Indian Americans. They generate \$350-\$490 billion in revenues each year.

\$300 billion is contributed in tax revenues by Indian Americans annually, on top of the \$370-\$460 billion in annual spending, which translates into a major economic wave in terms of sales tax, business growth, and support of employment.

13% of all 2023 journal publications were co-authored by scientists of Indian origin in the US, up from 11% in 2015.

35 out of top 50 colleges in the US have an Indian American in their leadership ranks, including roles like deans, chancellors, provosts, and directors of colleges.

28 out of the 34 Scripps Spelling Bee winners were of Indian origin since 2000.

\$3 billion has been donated by Indian Americans to US universities since 2008.

\$1.5–2 billion annually is contributed by Indian Americans to charity.

Relevance: GS Prelims & Mains Paper II; Governance

Source: The Hindu

3. UPSC Invites Applications for Lateral Entry Positions Across Central Ministries

Why in News?

The Union Public Service Commission (UPSC) has opened applications for lateral entry into 45 posts at the levels of Joint Secretary, Director, and Deputy Secretary across 24 Central ministries. This recruitment drive, targeting professionals from the private sector, state/UT governments, and Public Sector Undertakings (PSUs), will be conducted on a contract basis, with positions expected to be filled by September 17.

Available Positions and Areas of Focus

The vacancies include 10 posts for Joint Secretary, with key roles such as:

- **Joint Secretary, Digital Economy, FinTech, Cyber Security, and Investment** in the Finance Ministry.
- **Joint Secretary (Policy and Plan)** in the National Disaster Management Authority (NDMA) under the Ministry of Home Affairs.

Additional roles are available for Director and Deputy Secretary positions in various ministries, including:

- **Natural Farming, Organic Farming, and Water Management** in the Ministry of Agriculture.
- **Digital Media** in the Ministry of Information and Broadcasting.
- **Advanced Chemical Cell (ACC) Battery Manufacturing** for the automobile sector in the Ministry of Heavy Industries.

Terms of Appointment

The appointments are contract-based, initially for a period of three years, with a possibility of extension up to five years depending on performance. Notably, central government employees are ineligible for these positions.

Applicants must meet specific criteria:

- **Joint Secretary:** Minimum 15 years of experience; Age: 40-55 years. Gross salary: ₹2.32 lakh/month.
- **Director:** Minimum 10 years of experience; Age: 35-45 years.
- **Deputy Secretary:** Minimum 7 years of experience; Age: 32-40 years.

Political Reactions and Concerns

The lateral recruitment process has sparked criticism from opposition leaders. Congress President Mallikarjun Kharge, in a post on X, accused the ruling BJP of using these appointments to sideline candidates from Scheduled Castes (SC), Scheduled Tribes (ST), Other Backward Classes (OBC), and Economically Weaker Sections (EWS), thereby undermining the reservation system.

Kharge linked this process to broader concerns about reservation policies, citing a recent Allahabad High Court ruling. The court directed a revision of the selection list for 69,000 assistant teachers in Uttar Pradesh, uncovering irregularities in the application of quotas.

Background on Lateral Recruitment

Lateral recruitment, or the appointment of private sector specialists in government departments, was initiated in 2018 following recommendations from NITI Aayog and the Sectoral Group of Secretaries on Governance in 2017.

According to Jitendra Singh, Minister of State for Personnel, 63 such appointments have been made in the past five years, with 57 officers currently serving in various ministries and departments. This initiative is aimed at leveraging the specialized knowledge and expertise of professionals for specific government assignments.

Relevance: GS Prelims & Mains Paper III; Science & Technology

Source: Indian Express