

Rocket Launch Port in Tamil Nadu

written by iasexam.com | 08/03/2024



Context

- Prime Minister Narendra Modi opened a second rocket launch port of ISRO in Tamil Nadu, giving India's space exploration a giant leap.
- This launchport, situated in Kulasekarapattinam, will support commercial, on-demand, and small satellite launches.

Key Points

- India has opened up its space sector to private players, leading to an increase in demand for commercial launches.
- To ease the pressure on the existing launch facility in Sriharikota, a second launchport is needed.
- The new launch port at Kulasekarapattinam will cater mainly to the launch of small payloads and will cater to the growth of the small satellite launch market.
- The policy will also provide dedicated infrastructure for commercial launches and support private players entering the space sector.

About the Rocket launchport

- The Indian Space Research Organization (ISRO) has zeroed in on Kulasekarapattinam of the Thoothukudi district in Tamil Nadu for its second rocket launch site.
- The development also marks a significant expansion of space launch facilities for India beyond the existing Satish Dhawan Space Centre in Sriharikota, Andhra Pradesh.
- Based on this simulation, Tamil Nadu state has recognized Kulasekarapattinam as the most befitting place to enable the launch of ISRO's SSLV missions. It is a prestigious

project of the country aiming at more frequent and cost-efficient launches of small satellites in order to enhance the level of India in the global small satellite launch market.

- ISRO has finished acquiring land and is now working on securing the land within their boundary wall.
- The launch pad design is complete, and construction will start once ISRO has full control of the land.
- The construction is estimated to take around two years.
- The new spaceport inaugurated at Kulasekarapattinam is likely to earn the Indian space scientists international recognition for their stupendous feats in space technology. This will further help enhance India's standing in the international space community.

Reason for the rocket launch from Tamil Nadu

- Because the location is nearly on the equator, the new launchport will enable bigger velocity due to earth's rotation, and hence better payload capacity.
- Its actual position actually creates an excellent opportunity for launching directly southward, which is actually beneficial for any SS2LV, since it reduces fuel consumption and increases payload capacity.
- This will be contrary to the launches from another launchport that would have to proceed through a much longer route encircling Sri Lanka. The new launchport would see a face-off west of Colombo, from where the trajectory would save much fuel with improved efficiency.

SSLVs

- The SSLV is designed with three solid propulsion stages, including a liquid base module. It has a diameter of 2 metres and a length of 34 metres, weighing 120 tonnes at liftoff.
- It is going to be positioned at a planar orbit of 500 kilometres. Some of its characteristics include a cheap cost, very quick turn-around time, multi-satellite accommodation capability available, and it is able to provide on-demand launches with minimum launch infrastructure requirements.

Conclusion

- The new rocket launchport at Kulasekarapattinam demonstrates India's dedication to enhancing its space exploration capabilities and supporting a growing commercial space industry.
- With its prime location, specialised facilities, and emphasis on smaller payloads, the launchport is set to be a key player in India's space endeavours, serving both government and commercial missions.
- As development continues, it is likely to strengthen India's standing in the global space industry and encourage innovation and cooperation within the growing space sector.

Source: [The Indian Express](#)

UPSC Mains Practice Questions

Q.Examine the importance of ISRO setting up a new rocket launchport in Tamil Nadu and the reasons driving India's decision to establish a second launchport, taking into account technical and strategic considerations.