

Formation of INCOSPAR: This Day in History – Feb 23

On 23 February 1962, the Indian National Committee for Space Research or INCOSPAR was established by the government. INCOSPAR would go on to play a crucial role in putting India in the global space race activities.

Background of INCOSPAR

- After the country gained its freedom in 1947, top politicians and scientists recognised the importance of space and rocket technology for India.
- The first Prime Minister Pandit Jawaharlal Nehru saw a lot of potential in rocket science and understood the need for a sound policy on space. This would have a lot of applications for a geographically large developing country like India. Nehru recognised the importance of science and technology for the development of a country.
- After the USSR launched its satellite Sputnik, which was the first artificial earth satellite, people began to realise the potential of satellites.
- Nehru then put space research under the ambit of the Department of Atomic Energy (DAE) in 1961. The DAE was founded and then headed by veteran nuclear scientist Homi J Bhabha.
- Bhabha created the Indian National Committee for Space Research or INCOSPAR in February 1962 with another brilliant scientist Vikram Sarabhai as its Chairman.
- Sarabhai organised space research under INCOSPAR. The chief mandate of the INCOSPAR was to formulate India's space programme. The responsibilities of the DAE related to space research were then taken up by the committee.
- INCOSPAR was part of the Tata Institute of Fundamental Research (TIFR) which was led by another eminent physicist from India, MGK Menon. Another young scientist was part of the rocket engineer team as well. He was none other than future president APJ Abdul Kalam.
- The committee took the decision to establish the Thumba Equatorial Rocket Launching Station (TERLS) at Thumba, near Thiruvananthapuram at India's southern tip. TERLS is a spaceport used to launch rockets.
- Thumba (an obscure fishing village) was chosen as the location because of its proximity to the magnetic equator of the planet. In fact, it is perfectly suitable for conducting low-altitude, ionospheric and upper atmosphere studies. Another factor that worked in favour of Thumba is its extremely distant location from Pakistan, China and Bangladesh.
- In 1969, the Indian Space Research Organisation (ISRO) was formed out of INCOSPAR. In 1972, it came under the newly-created Department of Space.

Events since the formation of ISRO

- ISRO built its first satellite in 1975 and named it Aryabhata. It was launched by the USSR. The first Indian-built launch vehicle was SLV-3 and it was used to launch the Rohini satellite in 1980. There has been no looking back since for the Indian space programme. ISRO launched a lunar orbiter, Chandrayaan I in 2008 and its first Mars orbiter, the Mars Orbiter Mission in 2014. With this, India became the first country to achieve success in putting a satellite on Mars orbit in its maiden attempt and the fourth space agency and the first Asian agency to do so.
- In 2017, ISRO created another world record by launching 104 satellites in a single rocket. It launched its heaviest rocket yet, the Geosynchronous Satellite Launch Vehicle-Mark III and placed the GSAT 19 in orbit. There are future plans for a human spaceflight, interplanetary probes and a solar mission as well.
- ISRO Launched its maiden moon mission Chandrayan-1 in October 2008, and operated until August 2009.
- The second mission to the Moon, Chandrayan-2 was launched on 22 July 2019.
- The craft reached the Moon's orbit on 20 August 2019 and began orbital positioning manoeuvres for the landing of the Vikram lander. The lander and the rover were scheduled to land on the near side of the Moon, in the south polar region at a latitude of about 70° south on 6 September 2019 and conduct scientific experiments for one lunar day, which approximates to two Earth weeks.
- However, the lander deviated from its intended trajectory while attempting to land on 6 September 2019 which caused a 'hard landing'. According to a failure analysis report submitted to ISRO, the crash was caused by a software glitch. ISRO may re-attempt a landing by the second quarter of 2021 with Chandrayaan-3.