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ISRO and UN: 50 years together

On 2 February, 1968, the Thumba Equatorial Rocket Launch Station (TERLS) was dedicated to the United Nations by India's then prime minister Indira Gandhi. This became a landmark in the history of the Indian space program. It came at a time when the program was at a nascent stage, just trying to stand on its feet.

The dedication of TERLS to the United Nations (UN) was done even before the birth of Indian Space Research Organisation (ISRO), which started as an institution only a year later on 15 August, 1969 (on India's 22nd Independence Day). TERLS came into existence way back on 21 November 1963, when India's first sounding rocket was launched from Thumba near Thiruvananthapuram.

During the 1960s, TERLS became an international launch station and the sounding rockets launched from here proved instrumental in studying the equatorial electro jet. At that time, the Indian space program received good support from countries like the US, USSR, France, UK and West Germany who provided technical equipment to TERLS, such as telemetry receivers, tracking systems and computers.

In return, India offered to dedicate TERLS to UN as a goodwill gesture. As a result, UN formally sponsored TERLS as an international scientific facility open to all its members. India's commitment to the peaceful use of outer space has been its hallmark, ever since the time of Cold War space rivalry when the US and the Soviets were trying to turn it into a battleground. As a responsible state, India signed the Outer Space Treaty in 1967 and ratified it in 1982.

Coming back to the present, it's been 50 years since then and still ISRO continues to grow as an institution. With ISRO launching its 100th satellite earlier this month and preparations in full swing for the launch of Chandrayaan-2 around the end of March this year, ISRO has come a long way in its journey of five decades. During this time, the vision of the pioneers of Indian space program was very clear from the outset.

They wanted to use outer space for the development of the country so that the common man could benefit from it. The impact of ISRO's activities has been seen in various fields including agriculture, fisheries, meteorology and specially telecommunication. This is precisely why Indian space program is still a very 'civilian space program'. The Satellite Instructional Television Experiment (SITE) in 1975 is one such example where outer space technology was used to educate the poor in India.

Elaborating on the vision behind having an indigenous space program, Dr. Vikram Sarabhai, who is considered to be the father of Indian space program, said in his speech during the dedication of TERLS to UN: "There are some who question the relevance of space activity in a developing nation. To us, there is no ambiguity of purpose. We do not have the fantasy of competing with economically advanced nations in the explorations of the moon and the planets or manned space flights".

Today, the Indian space program is a much more robust program with India's mars mission as well as the lunar mission (Chandrayaan-1) already behind us. The prospect of sending a manned space flight is still a distant idea, but in a not very distant future, it could very well be realized. This needs a lot of financial investment, and ISRO is still working on a limited budget as compared to space agencies like National Aeronautics and Space Administration (NASA), European Space Agency (ESA) and Roscosmos State Corporation for Space Activities.

India has signed and ratified most of the outer space and international space legislations. As of now, there are five major UN treaties on outer space, namely, The Outer Space Treaty in 1967, The Rescue Agreement in 1968, The Liability Convention in 1982, The Registration Convention in 1975 and the Moon Agreement in 1979. Apart from the Moon Agreement (which India has signed), India has signed and ratified all other treaties.

Domestically, the Space Activities Bill, 2017 has been drafted. The bill, highlighting the importance for a Space Act says, "There is a need for national space legislation for supporting the overall growth of the space activities in India. This would encourage enhanced participation of non-governmental/private sector agencies in space activities in India, in compliance with international treaty obligations, which is becoming very relevant today."

Currently, ISRO's activities are basically divided into five parts, namely, Earth observation, satellite communication, disaster management support, satellite navigation, climate and environment. In all these years, ISRO has done quite a commendable job. This was the very idea behind having a space program and using it as a developmental tool.

Outer space is not weaponized yet but it has been used for military purposes by great powers for a long time. Though India has leapfrogged in its path of development (a term used by Vikram Sarabhai in the context of Outer Space), it has always argued against both militarization as well as weaponization of space.

To conclude, the Indian space program has played a big role in our rise in the international system. India is among the select-few, elite group of nations which have a robust and comprehensive space program. With the expectations of Chandrayaan-2 mission being a grand success already, in hindsight, one could look back at the humble beginnings of Indian Space Program way back in 1963 and feel inspired of how ISRO has grown as an institution. With all this in mind, scientists and engineers in Thumba celebrated the 50th anniversary of the dedication of TERLS to UN on 2 February this year.

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