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New Developments in National Space Policies and Programmes (1)

Author: Mr. V. Gopala Krishnan
Indian Space Research Organization (ISRO), India, gopal@isro.gov.in

Mr. A. Bhaskaranarayana
Indian Space Research Organisation, India, bhaskaranarayana@yahoo.com
Mr. Madhusudana H. N.
Indian Space Research Organization (ISRO), India, beahnm@isro.gov.in

A SECOND VISION FOR INDIAN SPACE PROGRAMME

Abstract

Space research activities started in India in the early sixties, with a basic objective of demonstrating the high technology means of applications to address the vast range of socio-economic issues that prevailed in a nation composed of multitudes of diversities. Taking a cue from these efforts, basic space policy of Indian space programme was envisioned under the ambit of Self-reliance and application oriented programmes. This out-of-box approach resulted in developing indigenous capabilities to build state of the art satellite systems and launch vehicles, establishing the basic infrastructure for fabrication, operation and utilization of space systems and launching a host of space based operational services to the nation. International cooperation practiced in such space efforts, as a matter of policy has been a catalyst in reaping mutual benefits. This paper examines the overall development of Indian Space programme pursued with a conviction on the intended objectives at various phases.

Having successfully realized the first vision, to-day, the Indian space programme is at a different threshold, which demands an extended vision to sustain the aspirations and give directions to the future programmes in the context of global space scenario. Exploration of the universe with a rejuvenated interest towards exploitation of planetary resources and ultimately establishing human habitats in Moon or Mars is the order of today's global space efforts. The direction of the Indian space research activities is being logically focussed towards developing technologies for low cost access to space, micro-wave and hyper spectral imaging systems with higher resolutions and high power communication systems with higher bandwidths. The zeal for meaningful exploration of planetary systems and the universe have culminated in advanced space science missions such as Chandrayaan, the first lunar mission of India, Astrosat, the multi-wavelength space observatory and subsequent missions to study the Sun, Heliosphere and earth etc. Human space flight programme, conceived as a next logical step after successfully performing space capsule recovery experiments, is a result of major policy development. This paper outlines the various programmes and projects pursued and their relevance to the future trends.

It is imperative to consolidate the Indian space efforts pursued with a vigour over forty years, to play a lead role in space research commensurate with the global developments, thereby truly bringing the benefits of space systems and their applications to the entire human kind. The policy developments and the strategic approaches followed are discussed.