

(c) and (d) Two satellites *viz.* GSAT-6 and GSAT-6A, being built by ISRO, are state-of-the-art national satellites meant for introduction of satellite digital multimedia broadcast services, for demonstration of mobile satellite applications to strategic and social sectors, and for advancing the frontiers of satellite technology in the country.

Launching of SLV

427. DR. K.V.P. RAMACHANDRA RAO: Will the PRIME MINISTER be pleased to state:

- (a) whether it is a fact that a Satellite Launch Vehicle was launched recently;
- (b) if so, the number of vehicles that were launched and were successful/failed; and
- (c) the achievements made therein?

THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE (SHRI V. NARAYANASAMY): (a) Yes, Sir. On December 25, 2010, launch of Geo-synchronous Satellite Launch Vehicle (GSLV-F06) took place from Satish Dhawan Space Centre (SDSC), Sriharikota. The launch was unsuccessful.

(b) So far, a total of seven launches of Geo-synchronous Satellite Launch Vehicle (GSLV) has taken place from SDSC, Sriharikota. Out of this, four launches of GSLV have been successful and three have been failure.

Also, there have been 17 launches of Polar Satellite Launch Vehicle (PSLV) that have taken place from SDSC, Sriharikota. Of this, 16 launches of PSLV have been successful and one has been failure.

(c) The successful launches of PSLV and GSLV have made possible placing in orbit several earth observation, communication and scientific satellites that are meeting the societal needs of the country.

Mid-air GSLV explosion

428. SHRI T.M. SELVAGANAPATHI: Will the PRIME MINISTER be pleased to state:

- (a) whether GSLV launched recently exploded in mid air few minutes after its launch;
- (b) if so, the details and the reasons therefor;
- (c) whether this failure would adversely affect India's programme to launch a manned mission to moon; and
- (d) the corrective steps proposed to be taken up by ISRO to ensure successful launch in future?

THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE (SHRI V. NARAYANASAMY): (a) and (b) The launch of GSLV-F06 that took place on December 25, 2010 was unsuccessful. The performance of the vehicle was normal up to 47.5 seconds from lift-off. Subsequently, the vehicle started developing larger errors in its orientation leading to build-up of higher structural loads and consequently the vehicle broke up at 53.8 seconds from lift-off. As per the Range safety norms, a destruct command was issued from the ground at 64 seconds from lift-off.

The reason for the unsuccessful launch of GSLV-F06 flight has been the untimely and inadvertent snapping of a group of 10 connectors located at the bottom portion of the Russian Cryogenic Stage. This led to stoppage of continuous flow of control commands to the First Stage control electronics, consequently leading to loss of control and break-up of the vehicle.

(c) As of now, ISRO doesn't have any plans to undertake manned mission to the moon.

(d) A Failure Analysis Committee has been constituted to assess the cause of the failure, and it has carried out in-depth analysis of the GSLV-F06 flight data. Based on the recommendations made by the committee, all necessary corrective actions and steps will be taken to implement them in the future flights of GSLV.

Agreement with Devas Multimedia

429. SHRI T.K. RANGARAJAN: Will the PRIME MINISTER be pleased to state:

(a) whether Antrix reached an agreement with Devas Multimedia to lease S-band transponder capacity in the year 2005;

(b) if so, the details of the agreement therein;

(c) whether competitive bids were invited prior to the agreement;

(d) if so, the details thereto; and

(e) if not, the reasons therefor?

THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE (SHRI V. NARAYANASAMY): (a) and (b) Yes, Sir. Antrix Corporation Limited have signed an agreement with M/s. Devas on January 28, 2005 which provides for leasing of 90% of the Space Segment capacity on two satellites for twelve years.

(c) and (d) No, Sir.

(e) The multimedia services through satellite using S-band was an evolving technology, being introduced for the first time in the country. Consistent with the practice in vogue, no competitive bidding was adopted for leasing of transponders.