

**GOVERNMENT OF INDIA
SPACE
LOK SABHA**

UNSTARRED QUESTION NO:1551

ANSWERED ON:04.03.2015

REUSABLE LAUNCH VEHICLE

Arunmozhithevan Shri A.;Gavit Dr. Heena Vijaykumar;Mahadik Shri Dhananjay Bhimrao;Patil Shri Vijaysinh Mohite;Satav Shri Rajeev Shankarrao;Sule Smt. Supriya Sadanand

Will the Minister of SPACE be pleased to state:

- (a) whether India is planning to test reusable launch vehicle;
- (b) if so, the details thereof;
- (c) whether the reusable vehicle will bring down the cost of satellite launches;
- (d) if so, the details thereof along with the current expenditure on satellite launches;
- (e) whether the Government is also planning to develop more advanced version of the vehicle which can be used for manned missions;
- (f) if so, the details thereof; g) the time by which it is likely to be developed and launched; and h) the other steps taken by the Government to bring down the amount spent on satellite launches?

Answer

MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PG & PENSIONS AND IN THE PRIME MINISTER'S OFFICE
(DR. JITENDRA SINGH):

a) Yes, Madam.

b) Indian Space Research Organisation (ISRO) will carry out a test flight of Reusable Launch Vehicle – Technology Demonstrator (RLV-TD) by second quarter of 2015. Technology Demonstrator winged body vehicle weighing 1.5 T will be lofted to a height of 70 km using solid booster, thus attaining 5 times the speed of sound. Thereafter it will descend by gliding and splashing down into the sea. This test flight would demonstrate the Hypersonic aerodynamics characteristics, Avionics system, Thermal protection system, Control system and Mission management.

c) Yes, Madam.

d) Development of Reusable Launch Vehicles is a technical challenge and it involves development of many cutting edge technologies. The magnitude of cost reduction depends on development and realization of fully reusable launch vehicle and its degree of reusability. The launching of 2 ton class of communication satellite by Geosynchronous Satellite Launch Vehicle (GSLV) to Geosynchronous Transfer Orbit (GTO) costs `173 crores as on date.

e) No, Madam.

f) & (g) Does not arise.

h) ISRO has taken steps to develop next generation launch vehicle GSLV MkIII, capable of launching 4 ton class communication satellites to Geo-synchronous Transfer Orbit, which would bring down the cost of satellite launches.