GOVERNMENT OF INDIA
SPACE
LOK SABHA

STARRED QUESTION NO:221
ANSWERED ON:06.12.2006
TEST ON USE OF CRYOGENIC TECHNOLOGY
Meinya Dr. Thokchom

Will the Minister of SPACE be pleased to state:

(a) whether ISRO has successfully conducted a test on the use of cryogenic technology;

(b) if so, the details thereof;

(c) whether the test was conducted without any foreign assistance; and

(d) if so, the time by which India will be in a position to use this indigenous cryogenic technology in our space and missile programmes?

Answer

MINISTER OF STATE IN THE PRIME MINISTER`S OFFICE (SHRI PRITHVIRAJ CHAVAN):

(a), (b), (c) & (d) A statement is laid on the Table of the House.

STATEMENT LAID ON THE TABLE OF THE LOK SABHA IN REPLY TO PARTS (a), (b), (c) & (d) OF STARRED QUESTION NO.221 REGARDING `TEST ON USE OF CRYOGENIC TECHNOLOGY` BY DR. THOKCHOM MEINYA, FOR ANSWER ON DECEMBER 06, 2006.

(a) & (b) Yes, Sir. On 28th October 2006, ISRO has successfully carried out the ground hot test of the indigenous Cryogenic Upper Stage at the Liquid Propulsion Systems Centre test complex, Mahendragiri. The indigenous stage used the cryogenic engine which produced a thrust of 69.5 Kilo Newton. During the test, a number of stage elements like engine, insulated propellant tanks, booster pumps, fill and drain systems, pressurization systems, interstage structures, etc as per flight standards worked in unison. The test was for a duration of 50 seconds and the performance was as predicted.

(c) Yes, Sir.

(d) While the recent stage level hot test has demonstrated the design adequacy and performance of the integrated flight system, further qualification test for this flight unit is planned for flight duration of 720 seconds. After completion of the qualification test, the indigenous cryogenic stage is planned to be flight tested in the Geo-Synchronous Satellite Launch Vehicle (GSLV- D3) mission next year.