

**GOVERNMENT OF INDIA  
DEPARTMENT OF SPACE**

**LOK SABHA  
UNSTARRED QUESTION NO. 3870**

**TO BE ANSWERED ON WEDNESDAY, AUGUST 12, 2015**

**HIGH THRUST CRYOGENIC ROCKET**

**3870. ADV. M. UDHAYAKUMAR:  
DR. SUNIL BALIRAM GAIKWAD:  
SHRI SUDHEER GUPTA:  
SHRIMATI SANTOSH AHLAWAT:  
SHRI GAJANAN KIRTIKAR:  
KUNWAR HARIBANSH SINGH:  
SHRI ASHOK SHANKARRAO CHAVAN:  
SHRI SUMEDHANAND SARSWATI:  
SHRI B. VINOD KUMAR:  
SHRI P.P. CHAUDHARY:  
SHRI CHANDRA PRAKASH JOSHI:  
SHRI A. ARUNMOZHITHEVAN:**

**Will the PRIME MINISTER be pleased to state:**

- (a) whether ISRO has successfully tested the high thrust cryogenic rocket engine recently;**
- (b) if so, the details thereof along with the expenditure incurred on its development;**
- (c) whether it is also a fact that this successful test of indigenously developed high thrust cryogenic engine will help in launching heaviest satellite GSLV Mk-III;**
- (d) if so, the details thereof and the time by which ISRO is likely to launch GSLV Mk-III satellite;**
- (e) whether the above capability would enhance country's capability to be a competitive player in the multi-million dollar commercial launch market; and**

**(f) if so, the details thereof?**

**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) The High thrust cryogenic rocket engine has successfully undergone the endurance hot test for duration of 800 seconds on July 16, 2015 at ISRO Propulsion Complex, Mahendragiri. Further tests are planned under High Altitude conditions and stage configuration, prior to the realization of flight stage. The expenditure incurred on the development of cryogenic engine and stage is ₹ 593.45 Crores.**

**(c) Yes, Madam.**

**(d) The successful development and qualification of indigenous high thrust cryogenic engine and stage will enable the capability to launch up to 4 ton class of satellites to Geosynchronous Transfer Orbit (GTO). The first developmental flight of GSLV MkIII is targeted by the end of 2016.**

**(e)&(f) The GSLV MkIII launch vehicle is currently under development. The possibility of clinching commercial contracts to launch up to 4 ton class of communication satellites would emerge after its operationalisation.**