

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE**

**LOK SABHA
UNSTARRED QUESTION NO.3997**

TO BE ANSWERED ON WEDNESDAY, DECEMBER 23, 2015

LAUNCH OF GSLV

3997. SHRIMATI K. MARAGATHAM:

SHRI S. RAJENDRAN:

Will the PRIME MINISTER be pleased to state:

- (a) whether Indian Space Research Organisation (ISRO) has launched satellites weighing up to 2.5 tonnes into geosynchronous orbit, if so, the details thereof;**
- (b) whether the ISRO scientists are confident that the indigenous Cryogenic Upper Stage (CUS) could be tweaked further to enhance the performance of the GSLV rocket, if so, the details thereof;**
- (c) whether CUS has failed in 2010 and has scored its first success with the launch of GSLV D5 last year; and**
- (d) 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) Indian Space Research Organisation (ISRO) has launched satellites into Geosynchronous Transfer Orbit (GTO) using its Geosynchronous Satellite Launch Vehicle (GSLV). In its present configuration, GSLV can launch satellites weighing up to 2.2 tonnes into GTO. Details of the satellites successfully launched by GSLV are given below.**

Sl. No	Satellite (GSLV Mission)	Payload Mass (in tonnes)	Date of launch
1	GSAT-1 (GSLV-D1)	1.530	18.04.2001
2	GSAT-2 (GSLV-D2)	1.825	08.05.2003
2	EDUSAT (GSLV-F01)	1.950	20.09.2004
3	INSAT-4CR (GSLV-F04)	2.140	02.09.2007
5	GSAT-14 (GSLV-D5)	1.982	05.01.2014
6	GSAT-6 (GSLV-D6)	2.117	27.08.2015

(b) Yes Madam. To enhance the performance of GSLV rocket, ISRO is planning for optimising the mass of the Cryogenic Upper Stage and thrust upratement of Cryogenic engine.

(c) Yes, Madam.

(d) On January 5, 2014, GSLV-D5 with indigenous Cryogenic engine and stage successfully launched the GSAT-14 communication satellite from SatishDhawan Space Centre, Sriharikota.
