

**GOVERNMENT OF INDIA
SPACE
LOK SABHA**

UNSTARRED QUESTION NO:3997

ANSWERED ON:23.12.2015

Launch of GSLV

Maragatham Smt. K.;Rajendran Shri S.

Will the Minister of SPACE 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

THE 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 upratemnt 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 Satish Dhawan Space Centre, Sriharikota.
