

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE**

LOK SABHA

STARRED QUESTION NO. 27

TO BE ANSWERED ON WEDNESDAY, JULY 22, 2015

LAUNCH OF SATELLITES

***27. DR. KIRIT P. SOLANKI:**

SHRI P.K. BIJU:

Will the PRIME MINISTER be pleased to state:

- a) the number of indigenous satellites successfully launched by India along with the number of satellites failed during launch period;**
- b) the details of proposed launches of indigenous satellites in near future;**
- c) whether the Government proposes to make available in the global market the images and data received from satellites and if so, the details thereof; and**
- d) the details of the commercial launch of foreign satellites undertaken or proposed to be undertaken by the country?**

ANSWER

**MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PG &
PENSIONS AND IN THE PRIME MINISTER'S OFFICE**

(DR. JITENDRA SINGH):

(a) to (d) A Statement is laid on the Table of the House.

**STATEMENT LAID ON THE TABLE OF THE LOK SABHA IN REPLY TO
STARRED QUESTION NO. 27 REGARDING "LAUNCH OF SATELLITES"
ASKED BY DR. KIRIT P. SOLANKI AND SHRI P.K. BIJU FOR ANSWER
ON WEDNESDAY JULY 22, 2015.**

(a) As on date, Indian Space Research Organisation (ISRO) has launched 72 indigenous satellites. Out of these, 45 satellites were launched from Satish Dhawan Space Centre, Sriharikota using Indigenous Launch Vehicles and 27 satellites were launched using Foreign Launchers. In addition, ISRO has successfully launched 4 micro & nano satellites built by students of Indian Universities.

Out of these, seven satellites namely Rohini Technology Payload, SROSS-1, SROSS-2, IRS-1E, INSAT-4C, GSAT-4 and GSAT-5P did not reach orbit due to failure of launch vehicle.

(b) Six indigenous satellites are proposed to be launched in near future i.e. by March 2016. These are two Communication satellites GSAT-6 & GSAT-15; three Navigation satellites IRNSS-1E, IRNSS-1F & IRNSS-1G; and one Space science satellite ASTROSAT.

(c) The images received from the Indian Remote Sensing (IRS) satellites (RESOURCESAT-2, RISAT-1 and CARTOSAT-1) are marketed globally by Antrix Corporation Limited (Antrix), the commercial arm of Department of Space, through International Ground Stations established outside India. The IRS images of region outside India received and processed at ISRO's Ground Station are also marketed to global customers through Antrix.

- (d) As on date, 45 foreign satellites from 19 countries have been successfully launched into orbit from Satish Dhawan Space Centre, Sriharikota using ISRO's Polar Satellite Launch Vehicle under a commercial arrangement with Antrix Corporation Limited (Antrix). The details are enclosed in Annexure-1.**

Antrix also has signed agreements for launching 28 more foreign satellites from 6 countries viz. Algeria, Canada, Germany, Indonesia, Singapore and USA. The launches of these foreign satellites are envisaged during 2015-2017 time period. The details are enclosed in Annexure-2.

FOREIGN SATELLITES LAUNCHED BY ISRO (AS ON DATE)				
S. N.	Satellite Name	Country	Date of Launch	Remarks
1	DLR-TUBSAT	Germany	26-05-1999	Successful
2	KITSAT-3	Republic of Korea	26-05-1999	Successful
3	BIRD	Germany	22-10-2001	Successful
4	PROBA	Belgium	22-10-2001	Successful
5	LAPAN-TUBSAT	Indonesia	10-01-2007	Successful
6	PEHUENSAT-1	Argentina	10-01-2007	Successful
7	AGILE	Italy	23-04-2007	Successful
8	TECSAR	Israel	21-01-2008	Successful
9	CAN-X2	Canada	28-04-2008	Successful
10	CUTE-1.7	Japan	28-04-2008	Successful
11	DELFI-C3	The Netherlands	28-04-2008	Successful
12	AAUSAT-II	Denmark	28-04-2008	Successful
13	COMPASS-I	Germany	28-04-2008	Successful
14	SEEDS	Japan	28-04-2008	Successful
15	NLS-5	Canada	28-04-2008	Successful
16	RUBIN-8	Germany	28-04-2008	Successful
17	CUBESAT-1	Germany	23-09-2009	Successful
18	CUBESAT-2	Germany	23-09-2009	Successful
19	CUBESAT-3	Turkey	23-09-2009	Successful
20	CUBESAT-4	Switzerland	23-09-2009	Successful
21	Rubin-9.1	Germany	23-09-2009	Successful
22	Rubin-9.2	Germany	23-09-2009	Successful
23	ALSAT-2A	Algeria	12-07-2010	Successful
24	NLS 6.1	Canada	12-07-2010	Successful
25	NLS 6.2	Switzerland	12-07-2010	Successful

26	X-SAT	Singapore	20-04-2011	Successful
27	VESSELSAT-1	Luxembourg	12-10-2011	Successful
28	SPOT-6	France	09-09-2012	Successful
29	PROITERES	Japan	09-09-2012	Successful
30	SAPPHIRE	Canada	25-02-2013	Successful
31	NEOSSAT	Canada	25-02-2013	Successful
32	NLS-8.1	Austria	25-02-2013	Successful
33	NLS-8.2	Austria	25-02-2013	Successful
34	NLS-8.3	Denmark	25-02-2013	Successful
35	STRAND-1	UK	25-02-2013	Successful
36	SPOT-7	France	30-06-2014	Successful
37	AISAT	Germany	30-06-2014	Successful
38	NLS 7.1	Canada	30-06-2014	Successful
39	NLS 7.2	Canada	30-06-2014	Successful
40	VELOX-1	Singapore	30-06-2014	Successful
41	DMC3-1	United Kingdom	10-07-2015	Successful
42	DMC3-2	United Kingdom	10-07-2015	Successful
43	DMC3-3	United Kingdom	10-07-2015	Successful
44	CBNT-1	United Kingdom	10-07-2015	Successful
45	De-orbitsail	United Kingdom	10-07-2015	Successful

Annexure – 2

FOREIGN SATELLITES PROPOSED TO BE LAUNCHED DURING 2015-17				
Sl. No.	Satellite	Country	Mass (kg)	Tentative Launch schedule
1	NLS-14	Canada	14	2015
2	LAPAN-A2	Indonesia	70	
3	LEMUR-2/1	USA	28	
4	LEMUR-2/2			
5	LEMUR-2/3			
6	LEMUR-2/4			
7	TeLEOS-1	Singapore	425	
8	VELOX-C1 (NTU)		135	
9	Kent Ridge-1 (NUS)		80	
10	VELOX-II (NTU)		18	
11	Athenoxat-1 (NTU)		8	
12	Galassia (NUS)		5	
13	BIROS	Germany	135	2016
14	SkySat-Gen2-1	USA	110	
15	LAPAN-A3	Indonesia	120	
16	M3M	Canada	85	
17	Maxvalier	Germany	20	
18	Venta-1	Germany		
19	GHGSat-D	Canada	28	
20	NLS-19	Canada	7	
21	DOVE-6	USA	20	
22	DOVE-7			
23	DOVE-8			

FOREIGN SATELLITES PROPOSED TO BE LAUNCHED DURING 2015-17

Sl. No.	Satellite	Country	Mass (kg)	Tentative Launch schedule
24	Pathfinder-1	USA	50	
25	ALSAT-2B	Algeria	120	
26	ALSAT-1B		110	
27	ALSAT-1N		7	
28	EnMAP	Germany	950	2017