

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE**

**LOK SABHA
UNSTARRED QUESTION NO. 1706**

TO BE ANSWERED ON WEDNESDAY, MAY 4, 2016

LAUNCH OF SATELLITES

1706. DR. KIRIT P. SOLANKI:

Will the PRIME MINISTER be pleased to state:

- (a) the number of indigenously built satellites successfully placed in their orbit during the last three years and number of satellites which got destroyed before being placed in their orbit;**
- (b) whether the information provided by these satellites has been used by other countries for their own interest without the knowledge of the Government;**
- (c) if so, the details thereof;**
- (d) the number of satellites launched by the Government of India with the assistance of other countries and the details of cost incurred on these satellites and their present status; and**
- (e) whether some countries want to take the services of Indian satellite launching stations to launch their own satellites and 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) During last three years i.e. during 2013-14, 2014-15 and 2015-16, fourteen (14) indigenously built satellites have been successfully placed in their orbit. During the above said period, no satellite got destroyed before being placed in the desired orbit or in the orbit.**
- (b) No, Madam.**
- (c) Does not arise.**
- (d) As on date, 28 satellites have been launched from outside the country. Out of these, for 3 satellites (Aryabhata, Bhaskara-1 & Bhaskara-2) launch assistance was provided by Russia as part of Indo-Soviet friendship and 1 satellite (Apple) was assisted for launch by France as part of the development of their launch vehicle. Remaining satellites were launched by hiring launch services on a commercial basis. The details are attached in Annexure -1.**
- (e) The Indian satellite launching stations are used exclusively for launch vehicles developed by ISRO. While 57 foreign satellites from 20 countries have already been launched into orbit using ISRO's Polar Satellite Launch Vehicle under commercial arrangements with Antrix Corporation Limited (Antrix), agreements have been signed for launching 28 more foreign satellites from 7 countries viz. Algeria, Canada, Germany, Indonesia, Japan Malaysia and USA. The launches of these foreign satellites are envisaged during 2016-2017 time period. The details are attached in Annexure-2.**

Annexure-1**Satellites launched with the support from other countries**

SN	Satellite	Country	Launch Date	Launch Cost (₹ in Crores)	Present Status
1	Aryabhata	Russia	19-04-1975	free	India's first experimental satellite. Mission completed
2	Bhaskara-1	Russia	07-06-1979	free	Mission completed
3	Bhaskara-2		20-11-1981	free	Mission completed
4	Apple	France	19-06-1981	free	Mission completed
5	INSAT-1A	United States of America	10-04-1982	468.57	Failed in Orbit
6	INSAT-1B		30-08-1983		Mission Completed
7	INSAT-1C		22-07-1988		Mission Completed
8	INSAT-1D		12-06-1990		Mission Completed
9	IRS-1A	Russia	17-03-1988	7.50	Mission Completed
10	IRS-1B		29-08-1991	31.80	Mission Completed
11	INSAT-2A	France	10-07-1992	785.10	Mission Completed
12	INSAT-2B		23-07-1993		Mission Completed
13	INSAT-2C		07-12-1995		Mission Completed
14	INSAT-2D		04-06-1997		Failed in orbit
15	INSAT-2E		03-04-1999		Mission Completed
16	IRS-1C	Russia	28-12-1995	60.31	Mission Completed

SN	Satellite	Country	Launch Date	Launch Cost (₹ in Crores)	Present Status
17	INSAT-3A	France	10-04-2003	2273.63	Working 10 months beyond Designed Life
18	INSAT-3B		22-03-2000		Mission Completed
19	INSAT-3C		24-01-2002		Working 2 years beyond Designed Life
20	INSAT-3D		26-07-2013		Expected life 4 ½ more Years
21	INSAT-3E		28-09-2003		Mission Completed
22	INSAT-4A	France	22-12-2005	875.00	Expected life 2 more Years
23	INSAT-4B		12-03-2007		Expected life 3 more Years
24	GSAT-7	France	30-08-2013	485.29	Expected life 4 ½ more Years
25	GSAT-8	France	21-05-2011	297.00	Expected life 7 more Years
26	GSAT-10	France	29-09-2012	406.82	Expected life 11 ½ moreYears
27	GSAT-15	France	11-11-2015	601.19	Expected life 11 ½ moreYears
28	GSAT-16	France	07-12-2014	581.00	Expected life 11 more Years

Annexure-2

FOREIGN SATELLITES PROPOSED TO BE LAUNCHED DURING 2016-17				
SN	Satellite	Country	Mass(kg)	Tentative Launch schedule
1.	BIROS	Germany	135	2016
2.	SkySat-Gen2-1	USA	110	
3.	LAPAN-A3	Indonesia	120	
4.	M3M	Canada	85	
5.	Maxvalier	Germany	20	
6.	Venta-1	Germany		
7.	GHGSat-D	Canada	28	
8.	NLS-19	Canada	7	
9.	DOVE	USA	85	
10.	DOVE			
11.	DOVE			
12.	DOVE			
13.	DOVE			
14.	DOVE			
15.	DOVE			
16.	DOVE			
17.	DOVE			
18.	DOVE			
19.	DOVE			
20.	DOVE			
21.	Pathfinder-1	USA	50	
22.	ALSAT-2B	Algeria	120	
23.	ALSAT-1B		110	
24.	ALSAT-1N		7	
25.	PlanetiQ	USA	30	2017
26.	PlanetiQ			
27.	CE-SAT1	Japan	65	2017
28.	InnoSat-2	Malaysia	7	
