

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE**

LOK SABHA

**UNSTARRED QUESTION NO. 3928
TO BE ANSWERED ON WEDNESDAY, MARCH 18, 2020**

REUSABLE LAUNCH VEHICLE

3928. SHRI GNANATHIRAVIAM S.:

Will the PRIME MINISTER be pleased to state:

- (a) the current status of the Reusable Launch Vehicle (RLV) programme and the details thereof;**
- (b) whether the RLV is capable of making an orbital re-entry and if so, the details thereof;**
- (c) whether the RLV has been certified for human spaceflight; and;**
- (d) if so, the details thereof including the proposed date of the first crewed RLV launch?**

ANSWER

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

(DR. JITENDRA SINGH):

- (a) ISRO has successfully developed a technology demonstration version of a winged-body vehicle, that is, Reusable Launch Vehicle – Technology Demonstrator (RLV-TD) vehicle and successfully carried out the first experimental mission on May 23, 2016 from Satish Dhawan Space Centre, Sriharikota. In this mission, critical technologies such as autonomous navigation,**

guidance & control and reusable thermal protection system have been successfully demonstrated.

(b) Yes, Sir. RLV is designed for orbital re-entry and autonomous runway landing. This will be demonstrated in the orbital re-entry experimental flight, wherein an Orbital Re-entry Demonstration Vehicle will be boosted to orbit using existing propulsion systems followed by re-entry & landing.

(c)&(d)

The Development of Reusable Launch Vehicle is a technical challenge and it involves development of many cutting edge technologies. A series of technology demonstration missions would be required before it is made operational. Present version of RLV is not designed for human spaceflight.
