

**GOVERNMENT OF INDIA
SPACE
LOK SABHA**

STARRED QUESTION NO:78
ANSWERED ON:22.02.2006
RAMJET TECHNOLOGY
Vallabbhaneni Shri Balashowry

Will the Minister of SPACE be pleased to state:

- (a) whether the Indian Space Research Organisation (ISRO) has demonstrated the Supersonic Combustion Ramjet (SCRAMJET) technology;
- (b) if so, the details thereof; and
- (c) the future plans of ISRO in this regard?

Answer

MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE (SHRI PRITHVIRAJ CHAVAN):

(a) Yes, Sir.

(b) As part of the advanced technology initiative in the area of Air-Breathing propulsion, a series of ground tests on a supersonic combustion ramjet engine has been successfully completed. During these tests, a stable combustion has been achieved for nearly 7 seconds at supersonic speeds corresponding to an inlet Mach number of 6 (i.e., six times the speed of sound).

(c) The next step in the development of this engine is a flight test of an integrated SCRAMJET propulsion module comprising of air-intake, combustor and nozzle, in a two stage RH-560 sounding rocket.