



Review of Hypersonic Technology Demonstrator Vehicle

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Abstract:

This article is about Hypersonic Technology Demonstrator Vehicle. It is developed by DRDO.

DRDO:

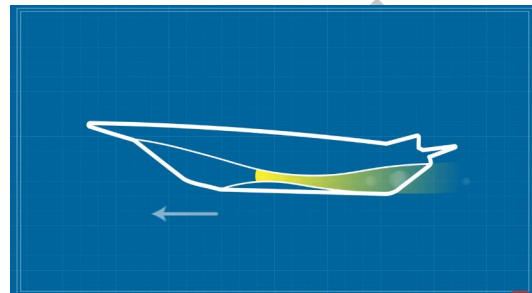
It is an Indian Government research and development organization for defence.

HSTDV:

It is powered by Scramjet Engine. It is tested by India reached a top speed of Mach 6 this is around 7400 kilometres per hour. It was able to move up to an altitude of 32.5 kilometres in just 20 seconds. Besides its utility for long range air missiles it is also used for launching satellites at low cost. It is not a weapon but it is act as a carrier vehicle for hypersonic and long range cruise missiles. The HSDTV is mounted on a solid rocket boosters which take it to the required speed of Mach 5 and an altitude of over 30,000 feet.

The cruise vehicle is then ejected and the scramjet engine are designed to combine the high efficiency of the turbojets and the fast speed of the rocket engines. The scramjet directly intake the atmosphere oxygen into hypersonic speed without any rotating air compressors. This makes them

lighter faster more efficient and cost effective.



Scram Jet Working, Credits: BrainVerse

Conclusion:

This test makes a technological breakthrough for India.