



## HYPERSONIC WEAPONS


### ALTER THE GLOBAL STRATEGIC BALANCE


Valdai | Discussion Club

Hypersonic weapons can significantly alter the world's strategic balance. It limits the opponent's reaction time to a minimum, while high-precision maneuverable hypersonic ballistic missiles can pass through any missile defense system. Hypersonic speed is 5 to 10 Mach, or 6,174-12,348 km/h


 Speed

 Range



 Flight ceiling

 **USA**


**Lockheed Martin SR-72**






A successor of the SR-71 Blackbird spy plane, decommissioned in 1998

 6,400 km/h
 24,000 m

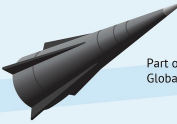
**Boeing X-51 Waverider**



Hypersonic cruise missile


 6,200 km/h
 740 km
 21,300 m

**Advanced Hypersonic Weapon (AHW)**




Part of the Prompt Global Strike program

**Hypersonic Technology Vehicle 2**




Developed by DARPA

Passes 17,000 km, the distance from London to Sydney, in 49 minutes

 21,000 km/h

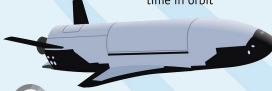
**HTV-3X**




Project Blackswift


Halted in 2008, said to be revived. The HTV-3X is the size of an ordinary fighter jet

**Boeing X-37B**




Could potentially be used as a hypersonic delivery system. Can spend extended periods time in orbit




 28,044 km/h

 **RUSSIA**


**Yu-71**



Project 4204 aircraft




 11,200 km/h
 5,500 km
 80,000 m

**AS-19 «Koala»**

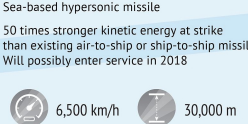


Strategic hypersonic air-to-surface cruise missile

Tu-95 used as delivery vehicle



 5,310 km/h
 3,000 km
 7,000 m (launch altitude)


**Zircon 3M22**




Sea-based hypersonic missile

50 times stronger kinetic energy at strike than existing air-to-ship or ship-to-ship missile. Will possibly enter service in 2018

 6,500 km/h
 30,000 m



 **INDIA**

**BrahMos-2**

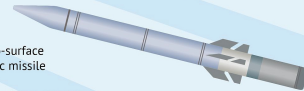


Hypersonic cruise missile

Developed in cooperation by NPO Mashinostroyeniya (Reutov, Russia) and India's Defence Research and Development Organization



 7,434 km/h
 290 km (estimated)


**Shaurya**




Tactical surface-to-surface hypersonic missile

Nuclear warhead-capable

 7,434 km/h
 750-1,900 km


 **CHINA**

**DF-ZF (American designation Wu-14)**



Hypersonic aircraft

Can be used as nuclear warhead delivery vehicle, or for high-precision conventional strikes

 6,173-12,359 km/h