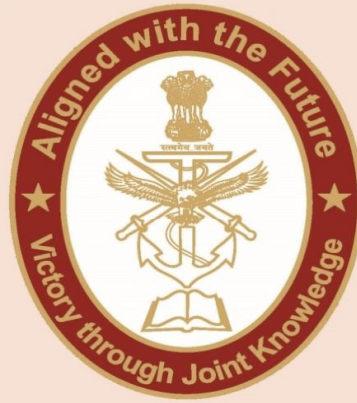


CENTRE FOR JOINT WARFARE STUDIES



CENJOWS

U.S. HYPERSONIC WEAPONS

The US military's Defense Advanced Research Projects Agency (DARPA) successfully tested two Lockheed Martin Corp hypersonic missiles on 11-12 July 2022. The test measured at five times the speed of sound or about 6,200 km (3,853 miles) per hour.

Operational Fires hypersonic weapon. Operational Fires is a ground-launched system that will "rapidly and precisely engage critical, time-sensitive targets while penetrating modern enemy air defenses:-

- The test was conducted at White Sands Missile Range in the US state of New Mexico.
- DARPA has requested and received \$45 million for Op Fires in fiscal year 2022.
- One of Lockheed Martin's concepts for the DARPA weapon is to use an existing High Mobility Artillery Rocket System (HIMARS) launcher, like those sent to Ukraine, to launch the weapon.

Air-Launched Rapid Response Weapon (ARRW) Booster. The booster was carried aloft under the wing of a B-52H before it was launched (In previous tests, the weapon did not detach from the plane). B-52 bomber carried out the test on 12 July, off the coast of California:-

- This second successful test demonstrated ARRW's ability to reach and withstand operational hypersonic speeds, collect crucial data for use in further flight tests, and validate safe separation from the aircraft.

- Having completed the booster test series, the US is ready to move forward to all-up-round testing later this year.
- The "all-up-round" includes the booster and the warhead.

These successful tests come after a failed June 29 test flight of a different type of hypersonic weapon, the Common Hypersonic Glide Body, at the Pacific Missile Range Facility in Hawaii.

<https://www.defensenews.com/2022/07/13/lockheed-hypersonic-weapon-moves-to-next-phase-after-us-air-force-test-success/>