

Hypersonics FY2019-20

Hypersonics, like many U.S. military technologies under development, are justified by pointing to exaggerated capabilities of Russia and China. To date, research and development of hypersonics have netted the U.S. war industry billions of dollars annually.

Aerojet Rocketdyne (Huntsville, AL)

- mature axial upper stage (AUS) component technologies and analytical tools; HQ0147-18-S-0002; issued 25 July 2019
 - o Missile Defense Agency (MDA) Redstone Arsenal, AL (HQ0147-19-C-6501) = the contracting activity

Boeing (St. Louis, MO)

- R&D of adaptive and robust control for hypersonic engagement research: comprehend and address impacts of complex flight environments on advanced weapon systems; 15 June 2020
 - o Air Force Research Lab (AFRL) Eglin AFB, FL (FA8651-20-D-0036)

CUBRC Inc. (Buffalo, NY)

- research & testing of high-speed vehicle concepts, and analysis of supersonic and hypersonic vehicles and their components; W31P4Q-15-D-0015; 29 March 2019
 - o Army Contracting Command, Redstone Arsenal, AL

University of Dayton Research Institute (Dayton, OH)

- design, fabricate, and flight test the payload structure on the GOLauncher 1 (GO1) subscale hypersonic flight vehicle; 24 May 2019
 - o AFRL, Wright-Patterson AFB, OH (FA8650-19-C-2404)

Draper Lab (Cambridge, MA)

- research into the applications of technologies to meet guidance requirements for operations on the Common Missile Compartment for the U.S. Columbia-class program and the U.K. Dreadnought-class program: technical knowledge and support for the hypersonic guidance, navigation, and control application → work in Cambridge, MA; El Segundo, CA; 1 Oct 2018, 9 Nov 2018
 - o Strategic Systems Programs, Washington, D.C. (N00030-19-C-0001)

General Atomics (Huntsville, AL)

- engineering design, analysis, and test support for critical test events for the Advanced Hypersonic Weapons Technology Demonstrator → Huntsville, AL; Albuquerque, NM; 30 Sept 2019
 - o Rapid Capabilities & Critical Technologies Office, Redstone Arsenal, AL (W50RAJ-19-C-0001)

General Electric Research (Niskayuna, NY)

- Materials Architecture & Characterization for Hypersonics (MACH) effort: design and experimental validation of a transpiration cooling system to reduce heating at the leading edge and control part temperature in line with material capability; 14 Nov 2019
 - o Wright-Patterson AFB, OH (FA8650-20-C-7011)

University of Notre Dame (Notre Dame, IN)

- develop a Mach 10 Quiet Wind Tunnel to help advance hypersonics fluid mechanics technologies; supports Naval Surface Warfare Center Crane's Hypersonics Program; 20 Dec 2019
 - o Naval Surface Warfare Center, Crane Division, IN (N00164-20-C-GT10)

Lockheed Martin (Orlando, FL)

- Air-Launched Rapid Response Weapon critical design review, test and production readiness support; FA8681-18-C-0021; 2 Dec 2019 (corrected later to be awarded on 5 Dec 2019)
 - o AFLCMC, Eglin AFB, FL

Lockheed Martin (Palmdale, CA)

- continued support for a research project under the Hypersonic Air-breathing Weapon Concept, Phase II, in Jupiter, FL (25%); Palmdale, CA (5%); other locations (70%); HR0011-16-C-0110; 27 Sept 2019
 - o DARPA Arlington, VA

Lockheed Martin Space (Sunnyvale, CA)

- demonstrate technologies re: hypersonic intermediate range capability through booster design, fabrication, and validation testing → Magna, HT (51.03%); Elma, NY (14.08%); Sunnyvale, CA (14.03%); Denver, CO (10.52%); Titusville, (7.53%), Cape Canaveral (0.52%), FL; Huntsville, AL (1.08%); Mooresville, NC (1%); Valley Forge, PA (0.21%); 30 Nov 2018
 - o Strategic Systems Programs, Washington, D.C.

L3Harris (Fort Wayne, IN)

- MDA's Hypersonic & Ballistic Tracking Space Sensor Program: prototype payload design and signal-chain processing risk reduction demonstration; issued 29 Oct 2019 via other transaction agreement
 - o MDA Schriever AFB, CO (HQ0857-20-9-0001)

Leidos Inc. (Reston, VA)

- MDA's Hypersonic & Ballistic Tracking Space Sensor Program: prototype payload design and signal-chain processing risk reduction demonstration; 29 Oct 2019 via other transaction agreement
 - o MDA Schriever AFB, CO (HQ0857-20-9-0002)

Northrop Grumman Systems Corp. (Azusa, CA)

- MDA's Hypersonic & Ballistic Tracking Space Sensor Program: prototype payload design and signal-chain processing risk reduction demonstration; 29 Oct 2019 via other transaction agreement
 - o MDA Schriever AFB, CO (HQ0857-20-9-0003)

Raytheon (El Segundo, CA)

- MDA's Hypersonic & Ballistic Tracking Space Sensor Program: prototype payload design and signal-chain processing risk reduction demonstration; 29 Oct 2019 via other transaction agreement
 - o MDA Schriever AFB, CO (HQ0857-20-9-0004)

Northrop Grumman Systems Corp. (Baltimore, MD)

- research project for hypersonic boost glide systems; 10 July 2020
 - o DARPA Arlington, VA (HR0011-20-CO-0054)

Northrop Grumman Systems Corp. (Redondo Beach, CA)

- the Glide Breaker program, base period; R&D and demonstrate a technology to enable an advanced interceptor capable of engaging maneuvering hypersonic threats in the upper atmosphere → Redondo Beach, CA (73%); Mesa, AZ (21%); Sacramento, CA (4%); Huntsville, AL (2%); HR0011-19-S-0008; 24 Jan 2020
 - o DARPA Arlington, VA (HR001120C0025)