DARPA, AFRL, Lockheed Martin And Aerojet Rocketdyne Team's Second Hypersonic Air-Breathing Weapon Concept Launched From B-52 Accomplishes All Test Objectives

DARPA's Latest HAWC Flight Test Demonstrates Mature, Affordable Hypersonic Systems Design and Manufacturing Techniques

PALMDALE, Calif., Jan. 30, 2023 /PRNewswire/ -- The Defense Advanced Research Projects Agency (DARPA), Air Force Research Lab (AFRL), Lockheed Martin (NYSE: LMT) and Aerojet Rocketdyne (NYSE: AJRD) team accomplished their primary objectives during its second Hypersonic Air-breathing Weapon Concept (HAWC) flight test doubling the amount of scramjet powered vehicle data.

Launching from a B-52, the HAWC system's first stage boosted it to the targeted engine ignition envelope, where the Aerojet Rocketdyne scramjet engine fired and accelerated the system to speeds in excess of Mach 5. The system performed as predicted travelling more than 300 nautical miles and reaching altitudes above 60,000 feet.

"Affordability and reliability are essential as we work to develop operational hypersonic solutions," said John Clark, vice president and general manager Lockheed Martin Skunk Works®. "Both of our HAWC flight tests launched from an operational aircraft and matched performance models and predictions to aid affordable, rapid development of future hypersonic weapons."

The Lockheed Martin Skunk Works and Aerojet Rocketdyne team worked together to progress low-cost advanced manufacturing technologies, prioritizing extreme durability to vastly reduce piece and part cost. Through the purposeful integration of digital technologies throughout the design, test, and manufacturing process, the team validated that hypersonic systems can be produced affordably at the rates required to meet the urgent national need.

Lockheed Martin's Background in Hypersonic Systems
Lockheed Martin's played a significant role in the research, development and demonstration of hypersonic technologies for close to 60 years. The corporation made significant investments in the development of critical hypersonic technologies needed to enable operational systems to help the U.S. and its allies counter rapidly emerging threats.

About Lockheed Martin

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