

**Jacobs Sverdrup**

**Test Operations Support for Arnold Engineering Development Center (AEDC), Arnold AFB, TN**  
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As a shared command between the U.S. Navy and the U.S. Air Force, JS has supported both services in the T&E of most modern weapons systems including aircraft, missiles, sensor/seeker packages, and space-based platforms. Planning, conducting, analyzing, and reporting on test programs that subject critical defense systems to the limits of operational envelopes has led JS to develop a comprehensive approach to project and program management that is supported by disciplined system engineering approaches, technical excellence, and a commitment to quality and customer service – consistently achieving virtually 100% of customer test objectives on more than 1,000 diverse and demanding projects. Working in partnership with our customer – and the users of the AEDC test facilities – JS has led the development of state-of-the-art test processes, techniques and systems that have established AEDC as the world's leading ground test facility. Our utilization of modeling and simulation techniques for managing both test and facility processes has helped to reduce test costs at AEDC by more than 30% in the last seven years while increasing customer satisfaction, delivering more data, and improving information accuracy, reliability, and availability. For example, we have designed and tested full-scale LEAP (light exoatmospheric projectile) vehicles for the Navy Standard Missile 3, now part of the Seabased Midcourse Defense system, assessing lethality of the kill vehicle against various intercept target. We recently supported aerodynamic test activities of the Navy's Enhanced Effectiveness (E2) system. Tests were performed at Mach 6-10 to develop an aerodynamic database for Navy E2 demonstrator. The demonstration was flown on the Trident II D5 FBM. Our engineers worked closely with Lockheed Martin and the Naval Surface Warfare Center to successfully plan and execute the wind tunnel test program.

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