

AEDC tested. . . American victory

A reflection of Operation Desert Storm 1991

It was 1991 and Americans were not perched on the edge of their seats. Instead, they were glued to their television sets. CNN set a new precedent by bringing live coverage of the Persian Gulf home to each American. Unlike news reels of World War II and the evening news footage of the Vietnam War, the unrest in the Gulf was live and unfolding before the world's eyes.

Bernard Shaw and Peter Arnett broadcast live coverage of the bombing in Bagdad. Bright, shining, flashing images across millions of television sets brought new meaning to the National Anthem's haunting

tune, "the bombs bursting in air." And, yes, there was proof that America's flag was "still there" and emerging victorious.

United States Air Force Airmen, planes, missiles, U.S. Navy missiles and ships along with friendly allies brought a freedom-threatening Saddam Hussein to his knees.

Technology broadcast the war and technology won the war. Americans began the last decade of the 20th century with the knowledge that defense technology, not just might, aided the aversion of world war.

And, it all began here, at AEDC. . .



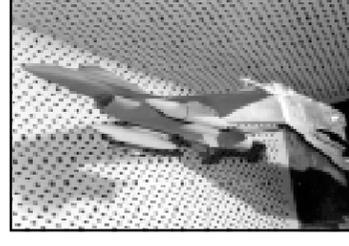
In the 1960s and 1970s, AEDC evaluated F-15 airframe and engine inlet designs in the wind tunnels and jet engine test cells. This 1972 photo shows a full-scale variable geometry inlet with operating engine in PWT. Other tests on the F-15E Strike Eagle include store compatibility and separation evaluation.



The C-5 underwent extensive aerodynamic testing in AEDC's 16-foot transonic wind tunnel in this 1965 photo.



A C-141 Starlifter wind tunnel model undergoes preparation for testing in AEDC 16-foot transonic wind tunnel in 1978.



Scale model of an F-16 aircraft and several stores undergo wind tunnel testing in an AEDC transonic wind tunnel in 1977.



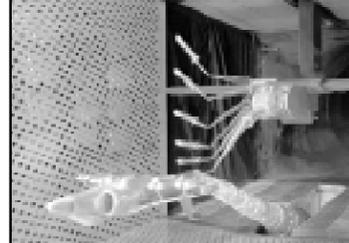
An F-14 aircraft model is being readied in 1989 for a store separation test in the four-foot transonic wind tunnel.



A F/A-18 wind tunnel model undergoes store testing in AEDC's four-foot transonic wind tunnel.



In this 1971 photo an F-4 Phantom model undergoes a store separation test with a "smart" bomb in PWT's four foot transonic wind tunnel.



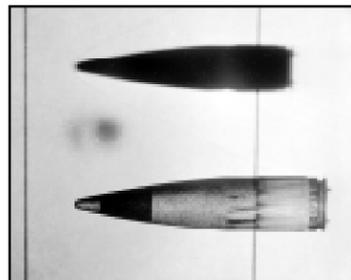
A McDonnell Douglas AV-8A Harrier model undergoes a store separation test in AEDC's four-foot wind tunnel in 1981.



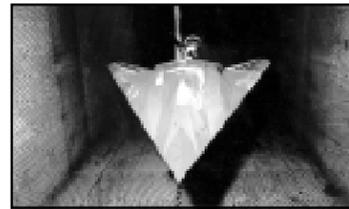
A-10 Stores Separation Tests Run- This five percent scale model of the Fairchild-Republic A-10 close support aircraft and several types of stores were conducted in 1974. Aerodynamic forces were measured as the stores, mounted on the upper support system, were separated at varying distances from the aircraft.



An F-111 wind tunnel model undergoes basic aerodynamic testing and evaluation in AEDC's 16-foot transonic wind tunnel in 1966.



Left, one of the major projects for the G-Range in 1973 was aerodynamic evaluation of the 30mm ammunition to be used in the GAU-8 rapid-fire cannon for the A-10 close support aircraft. Tests were part of the process that resulted in General Electric's being selected as prime contractor for development of the GAU-8



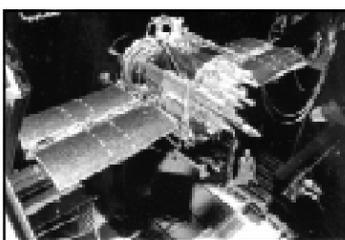
The F-117A Stealth Fighter underwent development testing in the center's wind tunnels, like all high-performance aircraft in service with the U.S. military.



A model of the Boeing E-3A Sentry in a 1969 wind tunnel test at AEDC. Its primary function is airborne surveillance, command, control and communications.



The AGM-86C conventional air-launched cruise missile, or CALCM, was tested at AEDC prior to its first flight. The full-scale weapon is shown installed in the center's 16-foot transonic wind tunnel in 1976. (file photo)



Navstar Global Positioning System (GPS) — The U.S. military services are making major strides in expanding the use of the GPS, spurred in part by the successful performance of the highly accurate satellite-based navigator system in the Persian Gulf War.



Engineers at AEDC provide testing and analysis to the Navy for the initial development and continued improvement programs for the Tomahawk Missile. AEDC tested a full-scale model of the Tomahawk in the 16-foot transonic wind tunnel in support of the Navy Cruise Missile Program.



The Patriot Missile underwent aerodynamic testing in AEDC's von Karman Gas Dynamics Facility wind tunnel A.