AERONAUTICAL SYSTEMS CENTER

MISSION

Aeronautical Systems Center is the largest of three product centers within Air Force Materiel Command. The center designs, develops and delivers dominant aerospace weapon systems and capabilities for U.S. Air Force, other U.S. military, allied and coalition-partner warfighters, in support of Air Force leadership priorities.

ASC has a workforce of close to 12,000 people, located at the base and 37 units worldwide, and is managing an FY06 budget of approximately $27 billion. The center is organized into wings, groups and squadrons designed to foster synergy in the acquisition process and speed delivery of war-winning capabilities. ASC's portfolio includes capabilities in fighter/attack, long-range strike, reconnaissance, mobility, agile combat support, special operations forces, training, unmanned aircraft systems, human systems integration and installation support.

By supporting development and acquisition for these capabilities, ASC contributes to achievement of Air Force, joint, allied and coalition partner priorities. The center focuses on speed and innovation in acquisition management, as well as on rapid transition of technology into systems and business practices, development and retention of a high performance work force and formation of strong partnerships with war-fighting operators in the field, industry and the local community.

To deliver war-winning capabilities, ASC manages a wide variety of aircraft and related equipment programs. These include the B-2 and F-117A; Global Hawk and Predator aircraft systems and a new Combat Search and Rescue helicopter program.

ASC also manages the C-17. In addition, the center manages upgrades to the C-5 and C-130. The center also manages the CV-22 and supports the AC-130U, MC-130, T-6A and T-1A.

The center develops and acquires simulator systems; propulsion systems; equipment to resolve aging aircraft issues and electronic systems for targeting, electronic warfare, reconnaissance and other combat functions. In addition, ASC's 311th Human Systems Wing, located at Brooks AFB, manages a variety of development and acquisition programs that focus on aircrew and ground support personnel. ASC also provides resource support for the F-22A, F-35 and Airborne Laser programs.

The center's acquisition experts interface daily with AFMC's Air Force Research Laboratory, also headquartered at Wright-Patterson. The two units maintain a strong, symbiotic relationship that helps set the laboratory's research agenda and ensures a continuous flow of critical, advanced technology for weapon systems developed by ASC.

ASC also operates a Major Shared Resource Center, one of four high-performance computing centers in the Department of Defense. The center is tackling large-scale problems previously beyond the reach of processing platforms and providing a vast array of services in a collaborative environment which includes government, industry and academia. In addition, ASC has access to the Simulation and Analysis Facility, a major hub connecting developers and researchers at Wright-Patterson with others across the Air Force, DoD and industry. These two facilities allow scientists and engineers who are wrestling with future weapon system integration and operational issues the opportunity to visualize, build, test and evaluate those systems in a virtual world before work is initiated and significant money is spent.

Capabilities provided by all of these units and facilities are part of ASC's multi-faceted support for the Global War on Terrorism. That support not only includes rapid development of urgently needed weapon systems, it also includes helping Air Force planners decide how best to train for and employ those new weapon systems. Center experts have networked training simulators for ASC- developed platforms into vast DoD war-gaming exercises, contributing a level of reality and detail which would have been impossible in previous decades. In addition, the center routinely deploys troops to Iraq, Afghanistan and other locations.

LINEAGE
Aeronautical Systems Division established and activated, 20 Mar 1961 Organized, 1 Apr 1961
Redesignated Aeronautical Systems Center, 1 Jul 1992

STATIONS
Wright Patterson AFB, OH, 1 Apr 1961

ASSIGNMENTS
Air Force Systems Command, 20 Mar 1961
Air Force Materiel Command, 1 Jul 1992

COMMANDERS
Maj Gen W. A. Davis, #1961

Maj Gen Harry E. Goldsworthy, #1967
Lt Gen James T. Stewart, #1971
Lt Gen William R. Looney III, 2005
Lt Gen John L. Hudson, #2009
Lt Gen Thomas J. Owen, #2010

HONORS
Service Streamers

Campaign Streamers

Armed Forces Expeditionary Streamers

Decorations
Air Force Organizational Excellence Awards
9 Jul 1974-31 Jul 1975
1 Nov 1974-1 Jul 1978
1 Oct 1983-30 Sep 1985
1 Jan-31 Dec 1995
1 Jan-31 Dec 1997
1 Jan 1999-31 Dec 2000

EMBLEM

Approved, 4 Jan 1961; modified, 7 Aug 2008

MOTTO

OPERATIONS
Aeronautical Systems Division (ASD), Wright-Patterson AFB, Ohio, directs the design, development, and acquisition of major aerospace systems. Priorities under ASD's management and technical umbrella include strengthening strategic nuclear forces, expanding airlift

capabilities, and modernizing tactical air forces. These include manned bombers, fighters, trainers, transports, utility and test aircraft, aircraft engines, unmanned vehicles, long- and short-range air-to-surface missiles, simulators, reconnaissance and electronic warfare equipment, offensive and defensive avionics subsystems, ground support, and test equipment. A current ASD program manages the test, production, and deployment of the B-lB strategic bomber. The bomber, powered by four 30,000-pound thrust turbofan engines, carries a crew of four. The division also has upgraded the B-52 bomber by improving its navigation and weapons delivery systems. The air launched cruise missile (ALCM) is being fitted to the B-52 to add to its strike capability. Other major efforts include development of an advanced cruise missile, advanced technology bomber, advanced tactical fighter, F-15E (dual-role fighter), imaging infrared tactical Maverick missile, X-29 forward-swept wing Advanced Technology Demonstrator, and the C-17 transport and acquisition of C-5B and KC-10 transports, T-46A pilot trainer, HH-60A combat rescue helicopter, and an advanced Wild Weasel electronic warfare system.

The division's 4950th Test Wing flight tests and evaluates military systems, subsystems, and components. The 4950th Test Wing operates a test fleet of 44 aircraft, including the advanced range instrumentation aircraft (ARIA), that provides telemetry support for NASA and DOD space and missile launches. The wing also modifies aircraft and installs parts, equipment and systems to perform flight test and test support.

Four Air Force Wright aeronautical laboratories (AFW AL) also are part of ASD. They are Aero Propulsion, Avionics, Flight Dynamics, and Materials Laboratories. Though the AFWAL staff combines common laboratory overhead, management, and support functions, each laboratory conducts its own basic and applied research and development programs to provide technology for future aerospace systems.

Aero Propulsion Laboratory conducts research and development efforts in turbine engines, ramjets, fuels, lubricants, aircraft fire protection, synthetic fuels, and vehicle power. Avionics Laboratory is responsible for research on reconnaissance, weapons delivery, electronic warfare systems, and microelectronics technology. Materials Laboratory conducts all Air Force research on materials for airframes and engines and also sponsors programs in manufacturing science and technology. Flight Dynamics Laboratory has a varied technical emphasis, ranging from airframe structural design and survivability, crew station design, and flight simulation, to computational aerodynamics. The laboratory makes wide use of flying testbeds in demonstrating new technology.

The Electronic Systems Division (ESD), Hanscom AFB, Massachusetts, manages the development, test, acquisition, and deployment of command, control, communications, and intelligence (C3I) systems for the Air Force and other DOD agencies. Division personnel work closely with operating and support agencies to assure that maintenance, training, and logistics services are available to each deployed system.

Programs are organized by mission area. Tactical systems are those used primarily at theater

and sub theater levels and include such missions as secure voice communications system, air-battle management, and tactical radars. Strategic systems include ballistic missile warning, surveillance, satellite communications, the E-4 flying command post, and the worldwide military command control system (WWMCCS). Mission systems provide physical security systems for DOD bases and installations worldwide, air traffic control systems, environmental surveillance, and C3 countermeasures. The Electronic Systems Division is the DOD focal point for the application of computer technology to defense problems.

The division is currently involved in a number of joint service programs. Joint Surveillance Target Attack Radar System (Joint STARS) is an Air Force and Army project to develop a radar that will detect and target stationary and slow-moving enemy armor such as tanks and armored personnel carriers. The Joint Tactical Information Distribution System (JTIDS) gives ground and air combat units direct access to intelligence and information from a constantly updated base. The Speakeasy program provides secure voice terminals for tri service use over normal AUTOVON lines, and aerial target systems, range instrumentation systems, and electronic warfare threat simulators. It also tests and evaluates electronic warfare systems, inertial guidance systems and base installation intrusion and detection systems; determines target radar cross-section measurements; and assesses and recommends certification of aircraft and stores compatibility.

The division provides a focal point for combining, under a single manager, the elements of basic research and exploratory development; conception, validation, and engineering development; production and deployment; and integrated logistics support of conventional air armaments to arm the Air Force.

USAF Unit Histories
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Sources

Air Force Historical Research Agency. U.S. Air Force. Maxwell AFB, AL.