AIR UNIVERSITY CATALOG

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KEY AIR UNIVERSITY EDUCATIONAL STAFF, COMMANDANTS, AND COMMANDERS

AIR UNIVERSITY HEADQUARTERS

Commander	Lt Gen Donald A. Lamontagne
Mobilization Asst to Commander	Brig Gen James W. Graves
Chief Academic Officer	Vacant
Information Technology	Col Terry L. Williams
Director of Staff	Col Mark D. Schultz
Plans and Programs	Col Mark H. Richardson III
Financial Management and Personnel	Col Michael E. Outten

COMMANDANTS

Air War College	Maj Gen Bentley B. Rayburn
Air Command and Staff College	Col (BG sel) Ronald R. Ladnier
School of Advanced Air and Space Studies	Col Thomas E. Griffith Jr.
Air Force Institute of Technology	Col (BG sel) David W. Eidsaune

COMMANDERS

Air Force Officer Accession and Training Schools	Brig Gen Paul M. Hankins
Squadron Officer College	Col Noel T. Jones
College for Enlisted Professional Military Education	Col Michael Gegg
College of Aerospace Doctrine, Research and Education	Col (BG sel) Bobby J. Wilkes
Community College of the Air Force	Col Eric A. Ash
Ira C. Eaker College for Professional Development	Col Aaron B. “Buck” Rogers
Air Force Institute for Advanced Distributed Learning	Col Kim A. Bowling
Headquarters Civil Air Patrol–US Air Force	Col George Vogt
42d Air Base Wing	Col John A. Neubauer

DIRECTORS

Air University Library & Press	Dr. Shirley B. Laseter

TENANT UNITS*

Headquarters Air Force Doctrine Center	Maj Gen David F. MacGhee Jr.
Air Force Historical Research Agency	Col Carol S. Sikes

* Tenant units not part of the Air University system

AIR UNIVERSITY COMMAND BOARD OF ADVISORS

PURPOSE: The purpose of the Air University Command Board of Advisors is to provide the commander of Air University feedback from the customer perspective of the major commands. Board members inform the Air University commander about the educational needs of their respective commands and their degree of satisfaction with Air University's products and programs.

MEETINGS: The board is advisory in nature and meets at least once a year at Maxwell Air Force Base (AFB).

MEMBERSHIP: The membership is comprised of all the vice commanders of the major commands, as well as the Air National Guard deputy director. They are advised by the Air Force deputy chief of staff, personnel, and the United States Air Force Academy vice commander.

MEMBERS

Vice Commander, Air Education and Training Command, Chair
Vice Commander, Air Combat Command
Vice Commander, Air Force Space Command
Vice Commander, Air Force Materiel Command
Vice Commander, Air Mobility Command
Vice Commander, United States Air Forces Europe
Vice Commander, Pacific Air Forces
Vice Commander, Air Force Special Operations Command
Vice Commander, Air Force Reserves
Deputy Director, Air National Guard

ADVISORS

Air Force Deputy Chief of Staff, Personnel
Vice Commander, United States Air Force Academy

AIR UNIVERSITY BOARD OF VISITORS

PURPOSE: The Board of Visitors is chartered to provide advice, views, and recommendations on the educational, doctrinal, and research policies and activities of Air University. The board meets with and advises the secretary of the Air Force on matters of policy regarding the mission of Air University.

MEMBERSHIP: The membership is selected from the fields of education, business, industry, the professions, and public service. Members normally serve annual renewable terms up to a maximum of nine years. Members are invited by the Air University commander in the name of the chief of staff, United States Air Force (USAF).

MEETINGS: The board meets at least twice a year—in April and November at Maxwell AFB, Alabama. The board presents a written report with its views and recommendations to the Air University commander. This report is then presented to the chief of staff, United States Air Force, and to the Secretary of the Air Force.

MEMBERS*

Ms. Ann C. Petersen, Chair
Attorney-at-Law
Chicago, Illinois

Gen Jimmie V. Adams, USAF, Retired
Vice President, Washington Operation
L-3 Communication Corporation
Arlington, Virginia

Mr. Charles B. Alling Jr.
Kennebunk, Maine

CMSAF James C. Binnicker, USAF, Retired
President and CEO, AF Enlisted Widows Home Foundation, Inc.
Shalimar, Florida

Dr. Michael Bragg
University of Illinois at Urbana-Champaign
Department of Aeronautical Engineering
Urbana, Illinois

Gen Michael P. C. Carns, USAF, Retired
Pebble Beach, California

Dr. Thomas E. Cooper
Vice President, General Electric Company
Washington, D.C.
(AFIT Committee)

*As of 15 July 2003

Dr. Ann Die
Vice President, A.T. Kearney
Executive Search Education Practice
Alexandria, Virginia

Dr. Earl H. Dowell
Dean, School of Engineering
Duke University
Durham, North Carolina
(AFIT Committee)

Dr. George Emert, Past Chair
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Logan, Utah

Dr. Horace W. Fleming Jr.
Executive Vice-President,
Mercer University
Macon, Georgia

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Nocagdoches, Texas

Lt Gen Bradley Hosmer, USAF, Retired
Cedar Crest, New Mexico

Dr. E. Jan Kehoe
Superintendent/President
Long Beach Community College
Long Beach, California
(SAASS Committee)

Dr. Diane Oblinger
Executive Director
of Higher Education
Microsoft Corporation
Apex, North Carolina

Mr. Charles W. Ritter Jr.
President and Chief Executive Officer
Attala Company
Kosciusko, Mississippi

Mr. Gordon P. Street
Chattanooga, Tennessee

Dr. Norman E. Thagard
Professor and Director of College Relations
Florida State University
Tallahassee, Florida
(AFIT Committee)

Maj Gen Lucius Theus, USAF, Retired
President, US Associates
Southfield, Michigan
(CCAF Liaison)

Dr. Kathryn C. Thornton
Professor in Technology
Communications, and Culture
University of Virginia
Charlottesville, Virginia
(SAASS Committee)

Rev. Dave T. Tyson, C.S.C.
President, University of Portland
Portland, Oregon

COMMUNITY COLLEGE OF THE AIR FORCE BOARD OF VISITORS

PURPOSE: The purpose of the Community College of the Air Force (CCAF) Board of Visitors is to serve as the CCAF governing board. The board reviews and endorses CCAF's policy decisions and provides guidance on all aspects of college operations. An annual report on the activities of the board is submitted to the secretary of the Air Force and the secretary of defense.

MEETINGS: The board meets twice a year.

MEMBERSHIP: The board consists of civilian leaders from business, industry, and education. These members are appointed by the secretary of defense and serve jointly with the commander of Air Education and Training Command.

MEMBERS

Mr. William Cato Cramer Jr., Chair
President, Tommy Thomas Chevrolet, Inc.
Panama City, Florida

Dr. James R. Anderson
Chancellor, Central Texas College
Killeen, Texas

Dr. Marilyn C. Beck
President, Calhoun Community College
Decatur, Alabama

Lt Col John R. Fergus, USAF, Retired
Dean, Instruction Affairs, Wallace Community College
Dothan, Alabama

Dr. Susan Graham
President, Aiken Technical College
Aiken, South Carolina

CMSAF James M. McCoy, USAF, Retired
Chairman, Air Force Retiree Council
Bellevue, Nebraska

Dr. David Sink Jr.
President, Blue Ridge Community College
Flat Rock, North Carolina

Maj Gen Lucius Theus, USAF,
Retired
President, US Associates
Southfield, Michigan

Mr. Robert K. Wood,
Vice President
Logistics Management Institute
McLean, Virginia

EX OFFICIO MEMBERS

Gen Donald G. Cook
Commander, Air Education and Training Command

Lt Gen Donald A. Lamontagne
Commander, Air University

Col Eric A. Ash
Commander, Community College of the Air Force

CMSAF Gerald R. Murray
Chief Master Sergeant of the Air Force

CMSgt Karl W. Meyers
Command Chief, Air Education and Training Command

Preface

The *Air University Catalog* is the official Air University publication for disseminating information on Air University educational programs, including professional military education. Other publications including information on Air University are the *Air Force Institute of Technology (AFIT) Catalog,* the *Community College of the Air Force (CCAF) Catalog,* the *School of Advanced Air and Space Studies (SAASS) Catalog,* and the *Air Force Institute for Advanced Distributed Learning (AFIADL) Catalog.*

The *Air University Catalog* serves as both a source document and a planning document for Air University schools and staff personnel. It serves as a public relations medium for Air Force, Department of Defense, and civilian audiences. The catalog also provides a brief description of the schools and professional organizations that make up Air University. Finally, it sets forth the educational opportunities available in each school, the work performed by each related organization in carrying out the educational objectives of Air University, and a brief description of all Air University educational support organizations. The *Air University Catalog* and other information about Air University organizations are available over the World Wide Web on the Air University Home Page (http://www.maxwell.af.mil/).

INTRODUCTION TO AIR UNIVERSITY

Air University plays a vital role in fulfilling the mission of the United States Air Force. To uphold the national purpose and to achieve the nation's objectives, the Air Force must maintain a corps of officers, enlisted personnel, and civilians dedicated to the nation's defense. They must have an in-depth knowledge of war and the military sciences to meet the challenges of today and tomorrow's world. Air University contributes to the development of this knowledge through its professional and specialized education programs, research and doctrinal studies, and degree programs at civilian educational institutions.

Before World War II, the only school in the armed services that emphasized the organization and employment of airpower was the Army Air Corps Tactical School (ACTS), located initially at Langley Field, Virginia, and later at Maxwell Field, Alabama. Although other military schools taught aerial warfare, it was only an incidental part of their curricula. The doctrine for the use of airpower—generally accepted by the Army Air Forces during World War II—grew out of the Air Corps Tactical School. At the end of the war, the graduates of this school were instrumental in convincing the nation's defense leaders of the need to create Air University.

Air University, in all of its endeavors, serves Air Force personnel—officers, enlisted members, and civilians—to ensure the nation continues its leadership during another crucial period of history. Air University also contributes to the defense of the free world by offering educational opportunities to foreign students. Its alumni are prepared to serve in Air Force assignments, in comparable foreign air forces, and in other governmental positions.

Vision

Air University will be the world's premier military educational institution offering comprehensive programs and preparing its graduates to develop, employ, command, and support air and space power contributions to our national military strategy.

Mission

Air University provides the full spectrum of Air Force education, from precommissioning to the highest levels of professional military education (PME), including degree granting and professional continuing education (PCE) for officers, enlisted, and civilian personnel throughout their careers.

The university's PME programs educate airmen on the capabilities of air and space power and its role in national security. These programs focus on the knowledge and abilities needed to develop, employ, command, and support air and space power at the highest levels. Specialized PCE programs provide scientific, technological, managerial, and other professional expertise to meet the needs of the Air Force. Air University conducts research in air and space power, education, leadership, and management. The university also provides citizenship programs and contributes to the development and testing of Air Force doctrine, concepts, and strategy.

Scope

Air University *educates Air Force people to develop and lead the world's best air and space force—inspiring commitment to a war-winning profession of arms.*

As part of Air Education and Training Command, Air University's educational programs range from precommissioning education through professional education. Its schools encompass enlisted and officer professional education, including professional military education, professional continuing education, and degree-granting education. Through the Civil Air Patrol and Air Force Junior Reserve Officer Training Corps, Air University plays a vital role in promoting citizenship awareness among today's youth.

Air University's schools include the College for Enlisted Professional Military Education; Squadron Officer College (comprised of the Squadron Officer School and Air and Space Basic Course); Air Command and Staff College; School of Advanced Air and Space Studies; Air War College; Air Force Officer Accession and Training Schools (comprised of the Officer Training School and the Air Force Reserve Officer Training Corps); the Air Force Institute of Technology; the College of Aerospace Doctrine, Research and Education; the Ira C. Eaker College for Professional Development; the Community College of the Air Force; and the Air Force Institute for Advanced Distributed Learning (AFIADL). The 42d Air Base Wing provides support for all Air University operations, as well as for the Maxwell Air Force Base–Gunter Annex complex.

Air University students are primarily Air Force officers, enlisted personnel, and professional civilians. A relatively small number of personnel from other services in the Department of Defense and from other government agencies attend Air University. International officers from more than 100 countries have studied in Air University schools. Air University includes all Air Force education programs except the United States Air Force Academy, which is a separate agency under Headquarters United States Air Force.

The precommissioning education and training organizations of Air University—the Air Force Officer Accession and Training Schools, including Officer Training School and Air Force Reserve Officer Training Corps—educate and commission highly qualified officer candidates for the United States Air Force.

The professional military education schools of Air University—Squadron Officer College (including the Air and Space Basic Course and the Squadron Officer School), Air Command and Staff College, Air War College, and the College for Enlisted Professional Military Education—prepare junior, midcareer, and senior commissioned and non-commissioned officers and civilians for progressively more responsible positions throughout the Air Force. Practically all commissioned officers who attend the professional schools of Air University possess academic degrees from civilian institutions. Their postgraduate studies in the Air University system emphasize the profession of arms.

Specialized organizations of Air University meet specific educational requirements of the Air Force. The School of Advanced Air and Space Studies is designed to produce tomorrow's air and space power strategists. Upon successful completion of 11 months of course work; production of a formal thesis that meets accepted standards of research, analysis, and expression; and successful completion of comprehensive examinations, graduates receive a Master of Airpower Art and Science degree. The College of Aerospace Doctrine, Research and Education assists Air University and Headquarters USAF in developing concepts, doctrine, and strategy; teaches the Joint Flag Officer Warfighting Course, the Joint Force Air Component Commander Course, the Joint Doctrine Air Campaign Course, and the Contingency Wartime Planning Course; and includes the Air Force Wargaming Institute. The Ira C. Eaker College for Professional Development provides professional continuing education for chaplains, judge advocates, comptrollers, personnel specialists, commanders, historians, first sergeants, and communication-computer systems managers. Schools operating within the college include the USAF Chaplain Service Institute, USAF First Sergeant Academy, Air Force Human Resource Management School, International Officers School, Air Force Judge Advocate General School, Commanders Professional Development School, Professional Military Comptroller School, and the USAF Historian Development School.

The Air Force Institute of Technology, located at Wright–Patterson AFB, Ohio, provides education to meet Air Force requirements in scientific, technological, logistical, managerial, and other designated professional areas as directed by Headquarters USAF. The institute consists of the Graduate School of Engineering and Management, the School of Systems and Logistics, the Civil Engineer and Services School, and the Civilian Institution Programs. Besides graduate degree programs, the institute also offers numerous professional continuing education courses in residence at Wright–Patterson AFB and at selected locations

within the continental United States. The Civilian Institution Programs are responsible for managing graduate, undergraduate, and continuing education programs at various civilian educational facilities and is responsible for Air Force health care education programs, education with industry, and numerous other programs.

Accreditation and Degree-Granting Authority

The Air Force Institute of Technology (AFIT) is accredited by the North Central Association of Colleges and Schools (30 North LaSalle Street, Suite 2400, Chicago, Illinois 60602-2504: Telephone number 800-621-7400) and, in appropriate engineering curricula, by the Engineering Accreditation Commission, Accreditation Board for Engineering and Technology, Inc.

The Community College of the Air Force is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097: Telephone number 404-679-4501) to award associate degrees.

The School of Advanced Air and Space Studies is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097: Telephone number 404-679-4501) to award the master's degree.

Air University is a Candidate for Accreditation with the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097: Telephone number 404-679-4501) to award associate and master's degrees.

In October 1994, the Air University commander received congressional authority to confer the master of airpower art and science degree upon graduates of the School of Advanced Airpower Studies (now School of Advanced Air and Space Studies). In October 1999, the Air University commander received congressional authority to confer the master of strategic studies degree upon graduates of the Air War College and to confer the master of military operational art and science degree upon graduates of the Air Command and Staff College.

The Air Force Institute for Advanced Distributed Learning (AFIADL) (previously known as the Extension Course Institute or ECI) is accredited by the Accrediting Commission of the Distance Education and Training Council (1601 18th Street, N.W., Washington, D.C.: Telephone number 202-234-5100).

The Center for Adult Learning and Educational Credentials of the American Council on Education (ACE) has evaluated several Air University programs and recommends some graduate credit as well as some undergraduate credit for various programs.

Enrollment and Admission

Air University schools and educational programs are designed to enhance the professional knowledge of members of the US armed forces (primarily Air Force personnel) including the Reserves and National Guard and selected civilian employees of the Department of Defense and other government agencies. Air University programs and schools are not open to the general public except through special programs. As part of the United States' military assistance programs, officers from other countries are eligible to attend several Air University schools and courses. Selection for the Air University schools and educational programs is made according to Air Force and other relevant government standards.

SECTION I

AIR UNIVERSITY DEGREE PROGRAMS

This section includes the degree programs offered by Air War College (AWC), the School of Advanced Air and Space Studies (SAASS), Air Command and Staff College (ACSC), Air Force Institute of Technology (AFIT), and the Community College of the Air Force (CCAF). It also addresses the nonresident programs of AWC and ACSC and other education programs conducted by AFIT.

AIR WAR COLLEGE

Maj Gen Bentley B. Rayburn, Commandant
Col Ben F. Young Jr., Vice Commandant

Internet address
http://www.maxwell.af.mil/au/awc/awchome.htm

Mission: *To educate senior officers to lead at the strategic level in the development and employment of air and space forces, including joint, combined, and coalition operations, in support of national security.*

The War Department established the Air War College (AWC) in 1946 at Maxwell Field, Alabama, and the college has operated continuously since that time except for a period of six months during the Korean conflict. The student body consists of a select group of senior military officers and civilians with diverse backgrounds who are brought together for 10 months of graduate-level study.

Goals: Conduct a rigorous educational program that emphasizes leadership of air, space, and information capabilities and their applications in joint, combined, and coalition military environments. Consequently, the program contributes to the professional development and motivation of senior officers. The AWC course of study broadens the graduates' understanding of and refines their ability to analyze and articulate

- the values, attitudes, and ethical factors essential to the professional officer;
- the functions, special requirements, and challenges of command, leadership, and management of large, complex organizations specific to senior leaders;
- current and future threats to the United States and its allies, and then develop alternative military employment concepts and capabilities appropriate to counter those threats;
- national and military strategies through the study of history, and then formulate and evaluate military strategies appropriate for current and anticipated situations;
- the command and control of air and space power across the full spectrum of conflict at the theater level of operations in support of US national security objectives;
- the role of national space power as derived from synergy among the four components of the US space program (civil, commercial, national security, and military);

- the evolutionary development and utility of the military doctrines of the United States and other major world powers;
- US national security strategy and the process of formulating and implementing that strategy; and,
- contemporary international and national security environments and their influence on US security interests and on the formulation of national security policy.

Fulfillment of the mission of AWC presents a dual challenge—academic and professional. To meet these challenges, the school develops the knowledge, skills, and attitudes significant to the profession of arms with emphasis on air and space power and its application in joint, combined, and coalition operations. The senior AF professional school, AWC annually educates approximately 265 resident and 3,800 nonresident students from all US military services, federal agencies, and 45 other nations.

AWC is comprised of a command section, two academic directorates (academic affairs and nonresident studies), and two support directorates (students operations and operational support). Within the academic affairs directorate, the resident program curriculum is developed and delivered through three academic departments—Leadership and Ethics, Warfighting, and Strategy and International Security. Additional support comes from two research centers, the USAF Counterproliferation Center and the Air University Center for Strategy and Technology, that are separate from but integral to AWC; they offer elective courses and provide enhanced research opportunities to resident students.

The college is authorized 75 faculty positions: 45 military and 30 civilian positions. Of the 45 military faculty positions, seven are full-time representatives of the other US military departments. In addition, seven Air University advisors assigned to AU are available to teach the core curriculum and advise at AWC. These advisors represent the US Army, US Navy, US Marine Corps, German Air Force, Royal Air Force, Central Intelligence Agency, and Department of State.

Resident Program

The AWC resident program consists of one class for each 10-month academic year. The class membership includes persons from each US military service, employees of selected civilian agencies of the federal government, and officers from the international community of nations.

Prerequisites and Selection

The Central Senior Service School Selection Board, Headquarters USAF, chooses AF officers who have demonstrated an outstanding potential for senior command and staff positions to attend AWC. Lieutenant colonels and colonels—or the equivalent in Navy rank or civil service grades—are eligible to attend AWC. Additionally, officers from the US Air Force Reserves (AFRES), Air National Guard (ANG), and other US military services, select international officers, and US federal civilians may attend. The *Air Force Education and Training Course Announcements (ETCA)*, formerly Air Force Catalog 36-2223, *USAF Formal Schools*, provides additional information.

Master's Degree Admission Requirements and Procedures

In 1999 Congress granted the AU commander the authority to confer the master of strategic studies degree upon graduates of AWC who fulfill the requirements for that degree. To be admitted to the master's degree program, an individual must be selected to attend the AWC resident program and either hold a qualifying undergraduate degree (US bachelor's degree or its equivalent) or meet admission requirements through the portfolio admission process.

Those interested in pursuing the master's degree must submit the following information to the AU Registrar to assess eligibility:

I. Proof of Academic Capability

Proof of academic capability may be established through the following:

A. Transcript(s)

Individuals with bachelor's/equivalent degree(s) and/or advanced degree(s) are responsible for the following:

i. Air Force active duty, Guard, and Reserve officers will have their degree status verified by the AU Registrar through AFIT without action on their part.

ii. Sister service and civilian students will have their official transcripts sent to the AU Registrar, 60 Shumacher Ave, Maxwell AFB, AL 36112.

iii. Other individuals selected to attend AWC must provide the following to the AU Registrar:

1. Transcripts of bachelor's/equivalent degree(s) and/or an advanced degree(s) in languages other than English that have undergone a document-by-document evaluation of the academic records by an independent foreign credentials evaluation service that is a member of the National

Association of Credentials Evaluation Services (NACES) or the Association of International Credential Evaluators (AICE) to determine if the records are equivalent to a US four-year bachelor's degree.

a. Applications for this process are available from the AU Registrar.
b. When requesting one of these services to evaluate one's transcript(s), the individual should state the reason as "further education" or "admissions requirement for master's degree program."
c. Individual's seeking admission to the master's degree program is responsible for the costs associated with the transcript evaluation.
d. A copy of the evaluation must be mailed to the AU Registrar.

B. Portfolio

Air War College provides a portfolio option to those, wishing to apply to the Master of Strategic Studies Degree Program, who do not possess a bachelor's or equivalent degree.

Those seeking to be admitted to the degree program using this option must submit their portfolios to the admissions committee through the AU Registrar. The committee will evaluate each applicant on his or her own merit to determine if the person's "preparation" is judged adequate for the rigors of the Master of Strategic Studies Degree Program.

Minimally, the portfolio should contain as much information as necessary to demonstrate one's professional and educational history to include:

i. Official evidence of all completed college, university and/or professional school coursework evaluated by an independent foreign credentials service (see transcripts above)

ii. Copies of certificates and diplomas evaluated by an independent foreign credentials service (see transcripts above)

iii. Detailed description of professional work including a current resume and, if appropriate, work relevant evaluations

iv. Letters of recommendation from at least (1) someone who holds a terminal degree, (2) a past or present supervisor, and (3) a personal reference attesting to your capacity to complete a graduate degree program

v. Program brochures, catalog pages and/or descriptions as necessary to support these accomplishments.

II. Proof of English Language Proficiency

A. Individuals applying for admission to the Master of Strategic Studies Degree from countries where the official language is English are not required to take the Test of English as a Foreign Language (TOEFL).

B. Individuals who have completed a degree in the US during the past three years are not required to take the TOEFL.

C. Individuals from countries where the official language is not English achieve an acceptable score on the TOEFL to be admitted to the master's degree program.

i. The individual is responsible for the cost of this test.

ii. When taking the TOEFL, an individual must select Air University as the Institution Code (9069) so the official score will be sent to the AU Registrar.

iii. The minimum acceptable score for unconditional admission to the master's degree program is 540 for the paper-based test or 207 for the computer-based test. The minimum acceptable score for conditional admission is 500 for the paper-based test or 173 for the computer-based test.

iv. Students admitted conditionally must retake the TOEFL after beginning AWC classes but before the end of the fall term.

v. A faculty committee must evaluate the academic progress of any student who does not achieve the minimum acceptable score for unconditional admission on the retest to determine whether or not he or she will be allowed to continue in the degree program.

Students not having a baccalaureate degree, not admitted through the portfolio process, not making the minimum TOEFL score, or not admitted at the end of the fall term by the faculty committee with a conditional score, will be allowed to attend AWC and will, upon graduation, receive the AWC diploma but will not be awarded the master's degree.

Graduation Requirements

1. In order to receive the AWC Master in Strategic Studies degree, a fully admitted student must complete the following with a cumulative GPA of at least 3.0:
   a. the core curriculum,
   b. four 6000 series electives, and
   c. the Professional Studies Paper

2. In order to receive the AWC Senior Service School credit and the Joint Professional Military Education (JPME) Phase 1 certification (the latter applicable to US military students only), a student must complete the following with a cumulative GPA of at least 3.0:

   a. the AWC Master of Strategic Studies degree curriculum,
   b. the Regional Studies Program (for US students) or the Field Studies Program (for international officers) with a minimum passing grade of B-, and
   c. participate in other scheduled AWC programs such as the culminating wargame, National Security Forum, Executive Wellness, and Commandant's Lecture Series.

3. Students not meeting the requirements stated above but meeting attendance standards for program attendance may receive a certificate of attendance that does not include a master's degree, senior service school credit, or JPME Phase I certification.

AWC Resident Curriculum Summary

Course Title	Semester Hours
DFL 6200, Leadership and Ethics	3
ISS 6300, International Security Studies	5
SDA 6400, Strategy, Doctrine, and Airpower	6
DFW 6500, Warfighting	7
EL 6100, Professional Studies Paper	3
Four EL series, Core Electives Program	8
TOTAL	**32**

NOTE: The Regional Studies Program or International Officer Field Studies, Executive Wellness, Solo Challenge Wargame, National Security

Forum (NSF), and Commandant's Lecture Series are required for those completing the degree or diploma program. Semester hours are associated with the Regional Studies course but those hours do not count toward the degree.

Grades. For designated courses or programs, students receive letter grades in each evaluated area. Grade point values are assigned to each letter grade for grade point average (GPA) determination based on the following scale:

A	4.0	B	3.0	C	2.0	F	0
A-	3.7	B-	2.7	C-	1.7	Pass	0
B+	3.3	C+	2.3	D	1.0	Fail	0

To pass a course in the master's degree program or the diploma program, students must receive a final course grade of B- or above in each course attempted.

Pass/Fail. Requirements not designated for letter grade assignment will receive a "Pass" or "Fail" designation upon completion of the evaluated requirement. Pass is considered fully satisfactory performance. Grades of Pass/Fail will not be used in computing the GPA.

Core Curriculum

The core curriculum consists of four major areas: leadership and ethics; international security studies; strategy, doctrine, and airpower; and war fighting.

Resident Program Course Descriptions

The AWC resident curriculum consists of the following course offerings by the Departments of Leadership and Ethics (DFL); Strategy and International Security (DFS); and War fighting (DFW).

DFL 6200, Leadership and Ethics **3 semester hours**

The Department of Leadership and Ethics educates students in the skills needed to move from tactical leadership levels to strategic leadership. The course is based on two key assumptions: first, students are already successful leaders, but the challenges they will face in the future will be significantly different from those they faced in the past; and second, students can significantly improve their development in areas vital to success as strategic leaders. The focus is on helping students develop the vision, conceptual

capacity, critical thinking, creativity, communication skills, command, and moral values to meet the challenges of a rapidly changing environment. The program includes a detailed assessment of each student's personal leadership development to help build a conceptual framework and plan for lifelong personal growth.

ISS 6300, International Security Studies 5 semester hours

International Security Studies analyzes the development and implementation of US national security. The purpose of the course is to educate senior officers on the development and implementation of national security strategy.

The first half of the course, *National Security and Decision Making*, analyzes alternative US strategies for achieving national security in today's world and the process by which such strategies are developed.

The second half of the course, *Global Security,* surveys the current international environment and examines the roles national, nonstate, and regional actors play in shaping the global environment.

This course prepares students to articulate the national, regional, and international security issues shaping the global environment. It also seeks to help them understand and be prepared to participate in the US government's policy process. Students should be able to develop strategies for coping with challenges in the international arena and to assess alternative approaches to national security considering all elements of state power, including political, economic, cultural, and military.

SDA 6400, Strategy, Doctrine, and Airpower 6 semester hours

The Strategy, Doctrine, and Airpower Course instills in students an understanding of the roles of strategy, doctrine, and the employment of aerospace power in national security. The course builds on the following assumptions. First, the writings of classical military thinkers provide a sound framework for the development of strategy. Second, strategy and doctrine are inextricably linked in the securing of national policy goals, and an understanding of both is critical for the senior leader. Finally, wars test the validity of specific strategies and doctrines with important lessons for the leaders of today and tomorrow. With these assumptions in mind, the course uses history—particularly the history of air and space power—as a vehicle for developing an understanding of air and

space forces employment in support of national security today and in the future.

DFW 6500, Warfighting **7 semester hours**

War fighting prepares senior officers to develop, lead, and employ the world's best air & space forces at the strategic and operational levels in joint, combined, or coalition environments in support of the National Military Strategy. Special emphasis is placed on command and control of theater-level operations; strategic implications of emerging technologies and capabilities; future threats, asymmetric to US experience and expectations; "Red Team" perspective. The purpose is to permit agile, proactive, and future-focused USAF strategic planning for Air, Space, and Information superiority. Specifically, DFW accomplishes the following objectives:

- Comprehend how to employ air & space power at the theater/combatant command level in a joint, combined, and coalition environment.
- Comprehend the issues associated with USAF future force structure, force employment, and Joint Vision 2020.
- Comprehend sister services' visions and capabilities.
- Comprehend the emerging opposition capabilities and concepts of operation.

Core Electives Program

The Core Electives Program has two major objectives:

1. Enhance and complement the core curriculum by providing students with opportunities to achieve greater depth and breadth of understanding in issues of special interest.
2. Provide the AWC curriculum with the flexibility to adapt quickly to changes in the international and domestic security environments.

Core Electives Requirements: All students must complete four electives (in addition to other requirements) in order to graduate. The three teaching departments of Leadership (6200-series), Strategy and International Security (6400-series), and Warfighting (6500-series) sponsor all electives.

"English as a Second Language" (EL 1710), taught by the International Officers School for selected international officers only, provides intensive work in the English language. Because EL

1710 is not a graduate-level course, it does not count as one of the four electives required for a master's degree.

EL 6121, 6122, 6123 Directed Study **2 semester hours**

Students interested in intensive work on a particular topic can develop, with a faculty member, a research proposal and reading list designed to give them an in-depth understanding of the subject. Enrollment is limited and requires approval of the Associate Dean of Academic Programs (DFX).

AY04 Leadership Electives

EL 6210 Art of Command **2 semester hours**

Many AWC students have served as squadron commanders. After graduation, command at the group level and higher will promise even greater challenges than those encountered at the unit level. What skills and attitudes are required to command at group level and above? How do personality, unit mission, situation, and other variables affect command? What can we learn from the lives and careers of previous great commanders? Are the qualities and skills required to be an effective air commander different from those required to be an effective ground or sea commander? What staff agencies are available to assist the commander? This course will address these questions.

EL 6211 Command and Conscience **2 semester hours**

The late S. L. A. Marshall contended, "respect for the reign of law, as that term is understood in the U.S., is expected to follow the flag wherever it goes." The main safeguard against lawlessness and hooliganism in any armed body is the integrity of its officers. In a prudent and practical manner, this course will examine a variety of topics of immediate professional concern to the commander. How does today's leader resolve the tension inherent in the occasional clash of command responsibility and ethical imperative? To whom or to what does the leader owe the highest loyalty—to his superior, the Constitution, or his religious and philosophical judgments? Which has priority—mission or men? If integrity is—as it must be—the heart of the officer corps, it must first be examined before it can be assimilated. This course, then, inquires into the nature of military integrity.

EL 6215 Leadership Case Studies **2 semester hours**

Students will examine actual leadership situations that have confronted senior leaders in today's military. Taken from real life,

the case studies review ethical, legal, managerial, organizational, and general leadership dilemmas that may challenge the modern military leader. The course is intended to help prepare students to command large organizations and to address the types of problems they may encounter as senior officers on a joint or service staff. Reading will consist of case studies and appropriate background material. Each student will be required to prepare a one-page introspective paper and a comprehensive case study.

EL 6216 Leadership in the 21st Century 2 semester hours

What is different about the future that leaders must prepare for? This course examines a wide variety of topics to help leaders develop the skills they need to succeed in the future. Lessons cover demographics of followers, trends in society, technology, innovation, leadership practices in industry, public affairs, leading change, and future organizations. Students will meet face-to-face with leaders serving at the group, wing, and general officer levels.

EL 6228 Inside the Heads of Friends and Foes: Cross-Cultural Competencies for Strategic Leaders 2 semester hours

This course is about human behavior. It is anchored in the behavioral sciences, particularly cultural anthropology, and is designed to allow students to see behavior—and the ideas that underlie that behavior—through the filters of other cultures. More specifically, this course is about cross-cultural leadership—about the competencies required to motivate (or compel) others in a peculiar kind of leadership—the kind that generally is required of senior leaders in large, relatively diverse organizations. The basic approach of the course emphasizes in-class discussion of presentations and assigned reading materials. The faculty instructor and other subject matter experts will offer presentations, including panel discussions. The course also requires students to conduct primary social science research and share their findings with the class.

EL 6230 Commander and the Law 2 semester hours

This course will examine legal issues that arise at the group and wing commander level with a focus on expeditionary operations.

EL 6231 Commander and the Media 2 semester hours

Because the mass media continues to have an ever-increasing influence in American society, you, as a senior military or civilian government leader, must have a grasp of today's news business and the interview process. The underlying premise of this course is that DOD stands to benefit from effective communication with its many audiences via the news media. We have two principal goals

to achieve: (1) to assist you in better understanding the sometimes difficult relationship between the military and the news media and (2) to develop specific tools and techniques to effectively engage the news media. We will strive to better understand today's news business and break down some of the mystique that often surrounds the news media. At AU Television you will learn a variety of practical methods to control interview situations and get your messages across to the public. Guest media representatives and visits to media outlets, to include CNN in Atlanta, are included in this course.

EL 6233 Morality and Contemporary Warfare 2 semester hours

This course examines the increasingly complex issues surrounding the application of military force in the twenty-first century. The GWOT, the proliferation of WMD, the asymmetric nature of war as it is waged in a world of failed states, rogue regimes, coalitions of terrorist organizations, and increasingly fuzzy borders among nations and economies all contribute to a need to reassess the justification of military action (jus ad bellum) and the inherent dangers associated with the application of force *(jus in bello)*. In addition, the growing concern over potential ethnic wars and the need for humanitarian intervention increase the need for careful reflection on the part of senior military leaders in preparation for their roles in leading the armed forces.

EL 6234 Leading Change 2 semester hours

Senior leaders in the twenty-first century will almost certainly be expected to manage significant change—both for themselves and their organizations. In fact, the entire concept of "transformation" is about change. Yet however attractively it is packaged, individuals tend to fear change and organizations tend to resist it, making management of change one of the most difficult leadership competencies. This course examines what goes on inside the heads of individuals and within the culture of organizations to accept or resist change. Using the best available scholarship and case studies, the course examines examples of successful change, allowing students to develop the intellectual tools necessary for the mediation of change.

AY04 Strategy and International Security Electives

EL 6410 Congress and the Military 2 semester hours

This course examines the organization of the Congress, the structure of the DOD in working with Congress, the legislative environment in which these two organizations operate, and the

practical situations in which they interface. It includes case studies of effective and ineffective ways the military has engaged with Congress, visits from Congressional staffers, a trip to Capitol Hill, and an examination of the President's Budget. The course schedule varies based on the Congressional calendar.

EL 6411 Negotiation Skills for Strategic Leaders 2 semester hours

This course will develop skills necessary to successfully negotiate conflict resolution, treaties between countries, coalitions of forces, budgets between services, and memorandums of understanding between agencies. Considerations will be given to cross cultural factors, time constraints, negotiation styles and strategies, and profiling of involved parties. Topics to be covered will include logical analysis, group problem solving, conflict management, and methods of persuasion.

EL 6412 Air War in the Pacific 2 semester hours

This course covers the development of the air war within the framework of the joint war-fighting effort across the vast expanse of the Pacific Ocean Areas. It begins with Japan's full-scale war of aggression in China in 1937 and continues through the attack on Pearl Harbor to the Trans-Pacific War. The focus of the course will be on the relationship between strategy and airpower in a series of joint theaters of war—the South Pacific, the Southwest Pacific, the Central Pacific, and the North Pacific—with some examination of the China and India–Burma theaters in the war against the Japanese Empire. We will examine the joint command structures, the relationship between carrier and naval land-based air assets, the Army Air Forces' role in this war, and the Japanese side of war to the extent possible. There is a requirement for students to look at original records in the Air Force Historical Research Agency.

EL 6415 Airpower Theory, Doctrine, and Strategy, 1910–1945 2 semester hours

This course will examine the development of the theories, doctrines, and associated strategies of the employment of airpower in war from the beginning of flight through the formative era and into the nuclear age. We will start with the advent of the airplane, but the focus will be upon the men and ideas that gave rise to the earliest theories about the use of aircraft in warfare. The course thus examines the development of the earliest strategic uses of airpower and moves into the origins and sources of doctrines for the employment of airpower.

EL 6416 Airpower Theory, Doctrine, and Strategy, 1945–Present **2 semester hours**

This course studies changes in theory and doctrine from 1945 to the present. It stresses the complex nature of strategic requirements and the strengths and limitations of doctrinal and technological adaptations to change.

EL 6417 American Civil War **2 semester hours**

Using the experience of the American Civil War, this course analyzes the relationship between national objectives and the implementation of national and theater military strategy. It highlights the causes of the war; the dynamics of crisis periods; escalation of national objectives; the level, scope, and intensity of violence from limited conflict to total war; and war termination.

EL 6418 Coalition Warfare **2 semester hours**

This course examines the history of coalitions and the evolution of coalition warfare during the past three centuries. The course starts with an overview of the importance of coalitions in modern warfare and proceeds to scrutinize several specific coalitions from different eras. These include the Triple Alliance of 1756 (formed to defeat Frederick the Great's Prussia), the numerous coalitions created between 1796 and 1815 to fight Napoléon's France, the Allied and Central Powers' coalitions of the First World War, the Axis Powers' coalition of the Second World War, and the American-led coalition during Operations Desert Shield/Desert Storm. The course concludes with a discussion of effective coalition building for the security of the United States in the twenty-first century.

EL 6424 The American Aerospace Industry **2 semester hours**

This course examines the relationship between the U.S. military and the American aerospace industry, from its beginnings in World War I to the challenges posed by globalization, industry restructuring, and export control policy today. In the US the emergence of arms exports as "big business" has its origins in the 1969 Nixon Doctrine and the 1971 creation of the Defense Security Assistance Agency. The course considers military transports, commercial airliners, and space and missile systems, but its primary focus is on technological development of fighters and the politics behind military bomber development. Student case study presentations on such systems as the CV-22, F-16, and JDAM provide an opportunity for additional analysis and lessons learned.

EL 6428 Intelligence (Classified, US Personnel) 2 semester hours

Intelligence—accurate and timely information about unfolding world events and international concerns or threats—is crucial to the successful conduct of US foreign policy. In the post–Cold War period, the United States may exercise even greater influence in international affairs than it did previously. Yet the dynamics of international relations are more complex and the perception of threats to US interests may be less obvious. While US policy makers will continue to rely on intelligence to make judgments and decisions, the role of intelligence—with its need for secrecy and occasionally extra-legal activities—presents many dilemmas for a democratic society.

EL 6431 Security in the Americas 2 semester hours

This course focuses upon the post–Cold War security environment in the Americas and will explore the security challenges with which regional authorities are now grappling. Regional and subregional concerns and perspectives will be addressed. Specific issues to be examined include regional and subregional security architecture and proposals for change, narco-terrorism and narco-trafficking, insurgency, border tensions, crime, combined operations, confidence-building measures, peacekeeping, methods of conflict resolution, and mil-to-mil relations.

EL 6432 Challenges in Technology Management 2 semester hours

Can we get it faster or cheaper? The technological advantages that make American combat forces the world's best are no accident but are the result of leadership and military leaders—operators, logisticians, and technologists. This course examines the way that technology is injected into the military from research to application. Topics include the politics of acquisition and how the acquisition process can be streamlined to be more responsive to users. Students participate in several group case studies and write a short report on a special interest topic.

EL 6436 International Organizations and Peacekeeping Operations 2 semester hours

NATO, spearheaded by USAF, stopped Serbian forces from ethnically cleansing 1.8 million Kosovo Albanians. Could international organizations (IO), such as NATO or the UN, have stopped the genocidal killing of 800,000 Rwandans in 1994? In this course, you will examine the role of IOs, particularly as guarantors of peace and security, and come to understand what they can and cannot do. US armed forces have acted often within the framework of IOs (within NATO in Kosovo and Bosnia and the UN in Macedonia and Haiti), or with the endorsement of IOs (the

UN in Operation Desert Storm). Thus, a strategic military thinker must be cognizant of IOs and their functions. The course starts with the UN and recent cases of peacekeeping. It moves to regional organizations, including NATO and the European Union. Finally, we deal with international nongovernmental organizations (NGO) and their role in the prevention and resolution of conflict and relations with military peacekeepers.

EL 6444 Russian/Soviet Military History 2 semester hours

This course focuses on the development of the Russian/Soviet military establishment within the overall context of nineteenth and twentieth century political, economic, and international history. The course analyzes the patterns of change and continuity in the organization, leadership, doctrine, and capabilities of the Russian/Soviet military establishment; the dynamics of civil-military relations in Russia and the Soviet Union; and the evolution of the Russian/Soviet national security objectives, grand strategies, and military strategies. The emphasis is on the period since 1917.

EL 6447 Strategy and Technology 2 semester hours

Enrollment in this course is by instructor permission. This seminar focuses broadly on readings and discussions of strategy, technology, and national policy. Designed to support research and publication on strategy, technology, and national policy, this seminar is supported by the Center for Strategy and Technology (CSAT) at AWC. The intent of this seminar is to fit between strategy and technology in national policy decisions. It employs a variety of methodologies in investigating strategy and technology: guest lecturers, field trips, individual study, research, and seminar discussions, all of which are designed to generate topics for further study. The primary deliverable is a research proposal to include a problem statement, research design, bibliography, and a draft paper.

EL 6448 US Foreign Policy: Strategy, Execution, and the Use of Force 2 semester hours

For the United States to achieve or protect its national interests, its foreign policy needs to be strategically sensitive to the nature of the international system and to the interests of other actors. Foreign policy inevitably focuses much of its attention on conflict. The decision to become involved in conflict and to use military force is the most important decision policymakers must make. But foreign policy also embodies relationships that are cooperative or nonviolently competitive. The course examines the assumptions, ideas, and perceptions that influenced various strategy and policy

choices from World War II to the present day, analyzes the consequences of these choices, and debates the pros and cons of the alternatives chosen. What attitudes, concepts, and principles will be most useful for US foreign policy in the years ahead?

EL 6449 Directed Energy: Transformation or Hype? (Classified, US Personnel) **2 semester hours**

Since the demonstration of the Airborne Laser Laboratory in the early 1980s, Air Force technologists have been predicting that highly accurate, speed-of-light, dial-up-an-effect, weapons are "just around the corner." More than 20 years later, the promise is still on the horizon. This course introduces students to the state –of-the-art in directed energy (DE) technology and covers such topics as high power microwaves, high-energy lasers, advanced beam control technologies, and DE effects. The course examines both the promise of DE weapons concepts from the aspect of their technological availability, sustainability, and added warfighting capability as well as their viability on the battlefield of the future.

EL 6453 Technology and the History of Warfare **2 semester hours**

Since technological breakthroughs affect war fighting in both operational and doctrinal ways, understanding and coping with those effects is a daunting task and has often confounded warriors. This course examines, in an analytic framework, the approaches championed by I. B. Holley and Eugene Emme that have emerged from the study of these effects. Holley argues that every technological change affects either offense or defense and that an analysis of those effects can lead to a viable synthesis. Emme, however, argues that the multifaceted technology of the postindustrial age has befuddled the line between peace and war, thus making tasks of peacekeeping and war so difficult to discern that any synthesis is nearly impossible.

EL 6454 Technology in World War I **2 semester hours**

World War I illustrates how weapons improvements overwhelmed military intellectual comprehension and seriously retarded doctrinal acceptance. We rely on Michael Howard and Martin van Creveld to invigorate our analyses into a viable synthesis. Howard described war as mass, firepower, and shock, and said we must determine which of those three was most affected by technology in World War I. Van Creveld described warfare as being composed of initiation, escalation, and termination. He said the effects of technology in World War I have to be analyzed in that light.

EL 6460 Civil-Military Relations: Concepts & Issues **2 semester hours**

This course examines the roots of the concept of the professional soldier and the relationship of professionalism to civil-military relations. The course begins by defining professionalism and examining the theoretical concepts that have shaped the military community's self-concept as professionals. The course examines the most important recent study of civilian control of the military and concludes with the ongoing debate on the relationship of the military to American society. At the end of the course students should be able to articulate their own understanding of the nature, values, and dangers of reliance upon traditional definitions and norms of professionalism.

EL 6472 Strategic Security Issues **2 semester hours**

This elective is a policy-level course addressing a broad spectrum of related issues. Is traditional arms control dead? Is nuclear deterrence irrelevant? The course reexamines the nuclear threat in three phases: (1) a brief historical foundation—process of arriving at our current nuclear policy; (2) technologies of nuclear proliferation and programs the United States is undertaking to prevent it; and (3) future plans and how to achieve them. Discussions focus on current issues and challenges facing policy makers today: how low to go, how to pursue future reductions, the impact of policy decisions like national missile defense, and the implications of these issues on our strategy, force structure, and allies. Many of the guest discussion leaders currently participate in the US government decision process.

EL 6476 Visual Media: Propaganda and Strategic Image **2 semester hours**

This course will provide the students an overview of military image trends in American cinema and television from the early twentieth century to the present. Students will acquire a keen understanding of how image perceptions and realities influence public opinion, both for and against the military. They will learn how changes in political and social climates are reflected—or not reflected—by cinema and television and how those same reflections can foster changes in how the American military conducts itself. Finally, they will understand how cinema and television shape the public image of the US military and influence military strategy and doctrine.

EL 6481 European Security **2 semester hours**

This course analyzes US security interests and policy in regard to Europe from the Atlantic to the Urals and how those are affected by political, economic, social, and military trends across the

Continent. Specific topics include: the role of European countries and institutions in the War on Terrorism, the evolution and enlargement of NATO, the enlargement and deepening of integration within the European Union, the impacts of a common currency and efforts to construct a European Security and Defense Policy, violence and intervention in the former Yugoslavia, and problems and potential for partnership with Russia.

EL 6482 The Future of UAVs
(Classified, US Personnel) 2 semester hours

They're popping up everywhere from the skies over Iraq and Afghanistan to the PowerPoint slides in the Pentagon—unmanned aerial vehicles (UAVs). This course examines many facets of the growing presence of UAVs in a way that should be relevant to all future defense leaders. Topics include history, current technology, future trends in the state-of-the-art, doctrinal issues, and implications for the use of force and international relations. Students participate in class discussions and a field trip and share a short briefing on a UAV topic of special interest with the class.

EL 6483 Leadership in World War I 2 semester hours

Few conflicts offer as much apparent leadership failure as does World War I. To analyze this failure from the biographies and autobiographies of the participants is most useful to the current senior leader. Because much rich material is available, we have limited our study to the most relevant pieces of work.

EL 6485 Terrorism 2 semester hours

Terrorism is one of the oldest of military tactics and forms of warfare, historical evidence dating it at least to 5000 B.C. The root word for terrorism appears in ancient Greek, Roman, and Sanskrit languages. In more modern times, however, terrorism has become the most frequent form of conflict. In only 30 years, for example, recall the carnage at the 1972 Munich Olympics; the 1983 Beirut truck bomb attack that killed 241 Americans; the 1988 bombing of Pan Am Flight 103 that killed 259 passengers; the 1993 New York World Trade Center bombing that had 1,000 casualties; the 1995 attack on the federal building in Oklahoma City that killed 168 people; the 1996 Saudi Khobar Towers that took the lives of 19 US airmen; the use of chemical weapons in a Tokyo subway that resulted in 12 deaths and 5,500 injured; the 1998 bombing of two US embassies in East Africa, which killed 214 people; the 2000 attack on the USS *Cole* which killed 17 US sailors; the September 2001 attacks on the World Trade Center and the Pentagon, which killed more than 5,000; and the subsequent Anthrax attacks via

the US postal system. This course will examine why terrorism has reerupted; the implications for political, economic, military, cultural, and religious institutions; the increasing lethality of terrorist acts; and the prospects for resort to nuclear, biological, radiological, and chemical weapons. Capabilities and limitations of governmental authorities will be addressed and also what the future may hold for deterring and countering terrorism.

EL 6488 Heritage of South Asia 2 semester hours

This course explores the political, military, economic, and socio-cultural heritage and transformation of the societies of South Asia, with special emphasis on developments in the twentieth century. The course begins with an assessment of the medieval and early modern periods that culminates with an analysis of the eighteenth and nineteenth century struggles among the European powers for dominance enroute to and within South Asia against the context of the declining indigenous powers. It then examines the twentieth century efforts of the European powers to preserve their positions of political and economic dominance within South Asia and adjacent areas against the rising indigenous struggle for independence from the Europeans. The course concludes by highlighting the roots of contemporary conflicts among the powers in the region.

EL 6489 The Legacy of Pacific Asia 2 semester hours

This course examines national security policies of East Asian nations in the context of their history, culture, and present-day international and regional relationships. Given these perspectives, future policy players should be able to better determine the appropriate US defense policies for individual nations and the region as a whole. The emphasis is on political and economic events in China, Japan, Korea, Indonesia, and Vietnam and current Chinese, Japanese, and Korean military capabilities. The survey text *Pacific Century* is used to set the historical context and organizational framework for the course.

EL 6490 US Grand Strategy:
Alternatives for the 21st Century 2 semester hours

This course provides a solid grounding in the nature of the arguments that underlie the current policy debates on US grand strategy. In the past decade a series of important books have presented rival views of the nature of a post–Cold War world of the twenty-first century and the grand strategies appropriate for this new strategic environment. The course is divided into seven topical blocks, and students are required to read one of the two

books discussed in each block. All students are expected to read Robert Kagan's *Of Paradise and Power* and to draft guidance for preparation of the next US National Security Strategy.

EL 6492 The American Military Tradition 2 semester hours

This course examines the American "way of war" from the beginnings of the republic to the present-day.

AY04 Warfighting Electives

EL 6510 Warrior Cultures 2 semester hours

This elective will address the issues relating to societies in which violence appears to be endemic. Using examples from such diverse environments as El Salvador, Jamaica, Yemen, East Africa, and West Africa, we will study how groups such as the cattle raiders of Karimojong and the "gangsta warriors" of Liberia and Sierra Leone turn into chronically violent entities. We will also analyze the impact that weaponization had upon these groups, with particular emphasis on how light weapons proliferation helped to encourage the creation of "Kalashnikov cultures."

EL 6513 Air Mobility 2 semester hours

This elective provides students a better understanding of the current and evolving capabilities of air mobility and the critical role it plays and will continue to play during peace, war, and operations other than war. During the course, class members will draw from historical references, student presentations, classroom discussion, and guest speakers to gain a better understanding of how mobility resources and capabilities evolved, future directions in air mobility, and the resultant impact on our current and future national security and military strategies.

EL 6516 History of Joint Warfare 2 semester hours

The employment of joint warfare has been a challenge to US armed forces throughout the military history of this country. This course examines historical examples of joint operations in an effort to provide an understanding of the advantages and disadvantages of employing more than one service in a military operation. An evaluation of joint operations conducted throughout the military history of this country will be used as the method of inquiry.

EL 6517 Command & Control of Aerospace Power: Warfighter's Perspective (Classified, US Personnel) 2 semester hours

Enrollment in this course is by instructor permission. This is an advanced course specifically targeted towards those who may be given the opportunity to command in an air operations center (AOC), its sister-service equivalent, or to integrate their units' efforts in the application of aerospace power. Its content will, by its nature, complement the JLASS electives. Initially, the student will be challenged with analyzing the requirements for the proper development of future aerospace leaders. The bulk of the course will then analyze and synthesize the critical elements in the command and control of aerospace power, planning, execution, assessment, and identification as well as surmounting obstacles while preparing for future challenges. The course will include a field trip to observe either a Blue Flag or Fleetex, or both, from the perspective of the command and control of aerospace power. A blue ribbon panel of retired general officers whose expertise is in command and control and the application of aerospace power will mentor students in this course. Nominations of students for this elective will be taken from the seminar directors.

EL 6518 Command and Control of Air and Space Power in Joint and Coalition Operations 2 semester hours

This course is designed as a base-level introduction of past, current, and future issues concerning the JFACC. It is specifically intended for operators who may be assigned to a JFACC or Joint Air Operations Center (JAOC) staff. This course addresses the roles, operations, command relationships, and responsibilities of the JFACC in support of a joint force commander (JFC). It is not intended for experienced JFACC or JAOC staff officers. A blue ribbon panel of retired general officers whose expertise is in command and control and the application of aerospace power will mentor students in this course. Nominations of students for this elective will be taken from the seminar directors.

EL 6519 JLASS-I (Classified, US Personnel)
EL 6520 JLASS-II (Classified, US Personnel) 2 semester hours

JLASS is a wargame that focuses on the strategic and operational levels. Selected students play the wargame from all of the Senior Service Schools (SSS). AWC plays as the JFACC. In JLASS-I students develop options in response to multiple regional crises and prepare air campaign plans (in coordination with the other SSSs) to support regional combatant commander objectives in the event of a major theater war. JLASS-II is a six-day war-fighting

exercise that brings the SSS students together here at Maxwell and allows them to execute their plans in a dynamic environment at the AFWI. JLASS-I consists of 30 contact hours over 15 instructional periods. JLASS-II involves 30 hours during the six-day exercise. Enrollment in this course is through seminar director or service chairs only.

EL 6523 America's Army **2 semester hours**

This course is specifically designed for non-Army students who want to gain greater understanding about the Army. The Army is thoroughly explored, with a strong emphasis on how history and heritage influence current force and doctrine. Students will gain a comprehensive awareness of Army culture and develop an appreciation for what the Army can provide to a regional combatant commander or joint task force commander. This course will build a solid foundation of knowledge about the Army, including the US Army's force structure and capabilities, doctrine, terminologies, and idiosyncrasies. Students will analyze and evaluate Army doctrine relative to their own service and the joint community. The goal is to ensure students understand what it looks, feels, and smells like to be a soldier. Class culminates with a three-day practical exercise (MAPEX) to validate course classroom instruction.

EL 6524 Space Fundamentals
(Classified, US Personnel) **2 semester hours**

This course focuses on the elements of space power, military applications of space systems, distribution of space-based information, and availability of commercial systems. It is primarily oriented toward current systems and those that will be available in the next few years. This course is intended for US students with little or no space background. Background information on space characteristics; limits imposed on use of space; and space organizations, missions, and functions will be provided in readings and in the first few lessons. The remaining lessons will focus on specific types of space systems and how they contribute to war fighting. Each lesson comprises a briefing and a discussion, with guest speakers supplementing the faculty. Students lacking a practical background in space operations should take this course before attempting the Term 2 Command and Control of Spacepower elective.

EL 6529 Special Operations—Then & Now
(Classified, US Personnel) **2 semester hours**

This course provides an understanding of the organization, capabilities, and missions of US Special Operations Forces (SOF) with

particular focus on their support to the combatant commanders. It will provide an awareness of the roles of the Assistant Secretary of Defense for Special Operations and Low-Intensity Conflict and the Joint Staff J-3 Special Operations Division (J-3 SOD). The course analyzes the integration of joint SOF capabilities with conventional forces and takes a brief look at SOF equipment, training, and support. Considerations for mission employment and insights into civil affairs and psychological operations will also be covered.

EL 6530 Chemical and Biological Warfare Issues for the USAF (Classified, US Personnel) 2 semester hours

This course examines chemical and biological warfare issues and addresses challenges posed by adversaries employing chemical and biological weapons to the successful execution of USAF roles and missions. The course analyzes threats posed by state and terrorist actions and alternative USAF responses to each in various scenarios.

EL 6532 World Space Issues (IOs Only) 2 semester hours

As a result of Operation Desert Storm, the importance of space force to the war fighters has grown significantly. To ensure the continued success of space forces, the United States must continue to educate our future leaders as well as those international officers who will lead the coalition forces in future conflicts. The main theme of this course will be to examine the basics of space operations: policies, law, and doctrine—and the capabilities and limitations of current space forces. Existing issues associated with the use of space forces will be identified throughout the course.

EL 6533 International Rivals: Leaders & Strategic Cultures in Potential Adversary States (Classified, US Personnel) 2 semester hours

This course will look at the leaders and strategic cultures of countries and groups of concern to US national security. Addressed will be the political-psychological profiles of the leaders of Iran, Iraq, Libya, Syria, China, Russia, North Korea, and various terrorist or revolutionary organizations like the PKK, Islamic Jihad, Hezbollah, and Osama bin Laden's organization. Who are these leaders and what formed their worldview? What values and ideas do they espouse and how can they be influenced? Who in their regime or group makes what kinds of national security decisions and why? How can they be deterred from war or escalation? What is their military doctrine and what are their military capabilities? How have they used force in the past and what is their relationship

to other states in their region and to the United States? What are the internal power divisions within their country, group, or region?

EL 6534 Intelligence Operations (Classified, US Personnel) 2 semester hours

JV 2020 calls for decision superiority—making and implementing better decisions faster than the adversary can react. Decision superiority is only achieved through the full integration of intelligence, surveillance, and reconnaissance (ISR) operations into the military campaign. This course addresses ISR as a weapon system for strategic and operational campaign planning and execution: the intelligence mission, organization, activities, and processes; how ISR operations are integrated into aerospace operations; capabilities and limitations of the seven intelligence disciplines; and challenges of meeting the increasing information needs of military commanders, planners, and operators.

EL 6537 Navy and Marine Corps Expeditionary Forces 2 semester hours

This course is designed to provide students a comprehensive introduction into Naval Expeditionary Warfare. It will cover current Navy and Marine Corps strategy and doctrine, emphasizing Navy/Marine Corps force planning, forces and capabilities, and military operations. Students will be given comprehensive briefings on US Navy and Marine Corps operations in support of joint strategy, will participate in panel discussions and case studies, and will travel on field trips for hands-on reinforcement of lessons.

EL 6545 Securing the Peace 2 semester hours

This elective examines national security through the lens of domestic policy, both at home and abroad. The underlying premise is that the long-term health and perhaps even survival of the U.S. (or any nation) may depend upon how it resolves its internal problems. Commanders in "nation building" circumstances would be well served to understand these issues, and the range of options (i.e., policy choices, national resources, NGOs, etc.) that are available as they set out to achieve post-hostility stability. The course evaluates American public policy choices in the areas of health care, education, criminal justice, and social welfare and then extrapolates this evaluation to the arena of failed-failing states. Rather than suggesting that US approaches are exportable or preferred, this methodology is employed to provide students the advantage of proximity and familiarity.

EL 6546 Future Total Force Issues 2 semester hours

From the initial vantage point of a historical review of the ANG and AFRES, students will engage the compelling issues affecting the Total Force today and through the next decade. This is not a course on the rudiments of the Air Reserve components; rather it is a forum for debating strategic issues facing aerospace leaders as the twenty-first century closes in on the Total Forces. Some suggest that we will transition to a militia nation once again. Do you agree? Just exactly what is the right force mix for the active and reserve components? The course will include a sprinkling of outside speakers, two field visits, video teleconferences, with the top leaders of the Air Reserve components, and more. Strategic leaders of tomorrow will influence the makeup of the Total Forces of the next millennium. The course will give you the opportunity to establish multidimensional views on the issues at hand and pave the way for you to influence the Total Force beyond 2004.

EL 6547 Logistics of Waging War: Issues and Answers 2 semester hours

Air and space power is based on high technology weapons and support systems developed and sustained by an industrial base. Today acquisitions and logistics products and services command approximately 70 percent of the annual Air Force Total Obligation Authority (TOA). Consequently, considerable attention is focused on making these processes as efficient as possible to secure adequate funding for force modernization. For future leaders this course creates an awareness of the logistics issues that impact military power. It examines the political, socio-economic, and military dimensions of acquisition and logistics processes from a strategic, macro perspective.

EL 6548 Homeland Security Issues 2 semester hours

The purpose of this course is to look at the threats to the United States homeland and the actors, organizational structures, plans, policies, programs, and resources required to defend the country against such threats. We are now in an era when mass casualty weapons make it possible for single individuals or small groups to inflict the kind of damage on societies that were within the capabilities of countries and governments. So, homeland security or homeland defense is necessary against the terrorist armed with mass casualty capabilities.

EL 6553 Information Age Warfare 2 semester hours

This course examines a broad range of information age warfare issues and their implications for military operations. It begins by analyzing the impact of the Internet on national security and the

conduct of warfare in the information age. The emphasis is on network-centric warfare and effects-based operations. The course concludes by looking at information warfare from the PRC's perspective. This course is unclassified and open to all students.

EL 6554 Command and Control of Spacepower (Classified TS/SCI, US Personnel) 2 semester hours

This course gives selected students an opportunity to analyze issues confronting the employment of spacepower. It also provides a forum to explore and synthesize how space capabilities and space command and control decision support tools are integrated into campaign planning and execution. Students should increase their understanding of the roles, operations, command relationships, and responsibilities of a senior space leader assigned to a joint air operation. For students without space experience, Space Fundamentals in Term 1 is a prerequisite for this course.

EL 6555 Medical Support for the AEF 2 semester hours

This elective examines medical readiness and Expeditionary Medical Support (EMEDS) for today's expeditionary military missions. In the last decade medical service doctrine has been completely revised and medical assets have been modularized to be deployable in small packages while retaining their surgical capabilities. Air Force medics have participated in multiple humanitarian relief operations. Medics are integral in preparation for and response to biological and chemical attacks, both for warfighting and homeland security. These topics and other aspects of medical support will be covered in depth in this course.

EL 6556 Service Culture and Its Implications 2 semester hours

Is there such a thing as service culture? How about a military mind? This course argues "yes"—emphatically—to all. In fact, how organizations indoctrinate/acculturate/subsume their members and how these members then apply their culturally driven perspectives to problems can be vitally important. It is even more acute for the military because lives literally hang in the balance. The last half of the twentieth century saw the emergence of a rich literature on the study of organizational cultures and processes. This course uses some of the more seminal and provocative works of the recent past to give students a deeper analytical quiver when they return to the real world.

EL 6557 Airpower in the Post–Gulf War Era 2 semester hours

The allied coalition's lopsided victory over Iraq in 1991 led many observers to declare that the Persian Gulf War heralded a new form of air-centric, high technology warfare. Since 1991 the US has

waged several major air campaigns under physical and political conditions vastly different from those of the 1991 Gulf War. As the 1990s progressed, American airpower acquired a certain "mystique" as a military tool capable of successfully coercing America's foes with little or no participation from US ground forces, resulting in minimal casualties and collateral damage. Sufficient evidence now exists to evaluate the efficacy of airpower as an instrument of coercion in a casualty-averse environment. This course examines the performance of American airpower in the post-Gulf War era in the context of current technological and political parameters.

Additional Core Courses and Programs

EL 6100 Professional Studies Paper 3 semester hours

Completion of the Professional Studies Paper (PSP) is a requirement for all AWC students. Students may choose to research and write on a topic of their own interest or they may select a topic from the lists of research interests provided by major commands and other military and civilian organizations. The PSP should be around 25 pages long. With the author's permission, Air University places some papers on the Internet via the AU Web site and provides copies to the Defense Technical Information Center and the Air University and Air Force Academy libraries. The PSP has the following objectives:

1. To provide students the opportunity to conduct research on a topic of their choice,
2. To assist students to conduct thoughtful, logical, and critical research and analysis,
3. To share the results of student research, writing, and analysis with key decision makers, and
4. To assist students, if they desire, in submitting papers for publication in Air Force, sister service, and other professional journals and periodicals.

EL 6110 Professional Studies Paper CSAT 3 semester hours

This course, a follow-on to EL 6447 Strategy and Technology, designates the research paper completed by students selected for that course in Term 1. It is essentially a research seminar devoted to the research, writing, and defense of the student papers begun in EL 6447. Individual TDYs may be arranged as part of a student's research. Some papers will be published by CSAT, while others will be published in other venues.

WG 6550 Solo Challenge **AWC diploma credit**

The culminating event of the year is an eight-day wargame in which students are expected to synthesize and apply the knowledge gained during the academic year in a complex global scenario. Students are confronted with international and US homeland security challenges which must be dealt with through diplomatic, economic and the full range of military operations from humanitarian to full scale war. Scenarios and issues are drawn from Global Engagement and other service Title X wargames. Students play the roles of key decision makers on the National Security Council, the Joint Staff, and regional Combatant Commanders. The game is directed and adjudicated by AWC faculty members and supported by the Air Force Wargaming Institute. Student participation is graded pass/fail.

NSF 6250 National Security Forum **AWC diploma credit**

The National Security Forum (NSF) is an event sponsored by the Secretary of the Air Force and hosted by AWC during the week before graduation. It is the capstone event of AWC's academic year. NSF brings together approximately 130 civilian leaders with diverse backgrounds from locations around the United States to join with the AWC class.

The primary objective of the NSF is a frank and candid exchange of views on national security matters among our invited guests, AWC students, and senior military and civilian leaders. The week is devoted to exploring the many issues that affect the current and future security of our country, focusing heavily on the role of aerospace power as an instrument of national security. The forum's distinguished speakers, seminars, and social functions serve to broaden and solidify the participants' understanding of air and space power and national security issues.

RS 8600 Regional Studies **3 semester hours**

The Air War College Regional Studies (RS) program is an integral part of the curriculum that prepares senior leaders to apply their knowledge at the strategic and operational levels anywhere in the world in support of US national security policy. To meet the challenges of the Air and Space Expeditionary Force, the Regional Studies Course provides each US student the opportunity to evaluate an area of the world where a unified combatant commander must implement the national military strategy in support of US security policy. Understanding this implementation process requires an appreciation of the complex international environment in which it takes place and familiarity with the nations affected by US policies.

The Regional Studies Course provides the opportunity for US students to gain unique perspectives by studying and visiting one of 14 groups of countries in different regions of the world. During the third term, each student completes 30 classroom hours of focused academic preparation and begins work on a research paper dealing with security in the region. The research paper is completed following about a two-week field study trip to that region. The field study portion allows students to discuss security policy issues with senior political, military, and academic leaders in other nations. Logistic and administrative preparation and travel planning for the field study seminars is accomplished throughout the academic year. A post-trip seminar provides a cross talk and the opportunity to wrap up the course. At the end of the course, students prepare a detailed analytical trip report and continuity book.

RS 4650 International Officer Field Studies AWC diploma credit

This course is structured to enhance the educational and cultural experience of IOs, and to support Department of Defense Informational Program (DODIP) objectives for international military students by assisting AWC international officers in gaining a balanced understanding of US society, institutions, and goals. The course builds on the AWC curriculum by exposing IOs to US military operations, training, organization, equipment, and facilities during five major field studies trips. Trip duration is typically four to 12 days. The Field Studies Program introduces IOs to leadership and management techniques and concepts used in military, government, and industrial environments. It provides the opportunity for IOs to interact with senior-level commanders, managers, and executives within and outside the government.

Commandant's Lecture Series AWC diploma credit

The Commandant and Dean of Academic Affairs invite approximately 25 distinguished speakers to address the class throughout the academic year. Speakers are drawn from the highest levels of the US and foreign governments, military services, members of the press, non-governmental organizations, and industry leaders. They are also selected based on their stature (former POWs, Medal of Honor recipients) or for their expertise on a fast breaking issue. The speakers integrate leadership themes or issues with which senior leaders should be familiar. Student preparation is limited to critical listening, questioning the speaker and applying lessons learned in seminar discussions. The Department of Leadership and Ethics administers this program.

Executive Wellness Program **AWC diploma credit**

The Air War College Executive Wellness Center (EWC) offers an extensive health and fitness program designed to educate and assist AWC students, faculty, staff, and their families in making healthy life-style choices to enhance personal performance, longevity, and quality of life.

The key objective of the EWC is to instill an awareness for health promotion and disease prevention resulting in improved military readiness and personal health through an integrated, coordinated, and comprehensive program involving health assessment, nutritional guidance, physical activities, and educational programs.

Spouses Program

The AWC Spouses Program is an inclusive term for numerous activities that provide opportunities for spouse participation throughout the resident program academic year. To the greatest extent possible, spouses are included in the academic program at AWC, other programs at AU, and programs provided through the base chapel and the Family Support Center.

Opportunities to participate in the AWC academic program include orientation, academic lectures, and core elective studies (on a space-available basis). Also, a special health and fitness assessment program is offered for spouses—spouses can participate along with the class members to obtain a psychological and physiological health assessment. The goal of the program is to increase personal awareness, provide motivation to make necessary changes in personal lifestyle, and enhance quality of life. Numerous presentations on a wide variety of topics are offered through the base chaplain's office and at the Family Support Center. AWC spouses are invited and encouraged to attend.

Nonresident Programs

The Air War College Nonresident Program combines our resident program's core curriculum with selected electives and a research paper to create a professional military experience for those senior officers and civilians unable to attend AWC in residence. The mission, objectives, and philosophy of the resident program apply equally to the nonresident program.

The nonresident program can be completed in various ways. Students may complete their requirements in a seminar study group, as independent learners, or some combination of these two. Examinations and writing requirements, as well as course materials, are identical

regardless of the completion method. Students may transfer from one study mode to the other.

Seminar study groups are comprised of eight to 20 students who meet weekly beginning in August of each year through June of the following year, completing the course in approximately 10 months. About 900 students participate in a seminar study group at one of 50 locations worldwide.

Independent study is an excellent alternative for those students either not near a seminar study group, or who desire a great deal of flexibility due to a heavy TDY or work schedule. Eighty percent of AWC nonresident students are independent learners. The average student completes this self-paced program in 18 months.

For enrollment information, contact your base education services officer or visit our Web site at http://www.au.af.mil/au/awc/awc-ns.htm. Inquiries may be addressed to AWC Nonresident Studies Directorate, 325 Chennault Circle, Maxwell AFB, AL 36112-6427; commercial phone number (334) 953-6093 or DSN 493-6093.

Air War College Faculty

Ben F. Young Jr., Col, Vice Commandant and Adjunct Professor; BA, Valdosta State College; MA, Central Michigan University.
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Air University Advisors

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Dean of Academic Affairs

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John A. Shaud, General, USAF, Retired, Distinguished Professor; BS, US Military Academy; MS, George Washington University; PhD, Ohio State University.

Dean of Students

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David Lawton, Col, Chief, International Officer Affairs; BS, US Air Force Academy; MA, Air Force Institute of Technology; MNSS, National War College.

Leadership and Ethics

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David S. Johnson, Col; MS, Air Force Institute of Technology; MSS, Air University.

Steven R. Jones, Col; BS, University of Washington; MBA, University of Washington.
Harry LeBoeuf Jr., Col; BS, Louisiana State University; MS, University of Arkansas.
Catherine Lee, Col; BS, Purdue University; MS, AFIT.
Michael Payne, Visiting Professor; BS, Georgia State University; MA, Westminster Theological Seminary; ThM, Westminster Theological Seminary; PhD, Westminster Theological Seminary.
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Strategy and International Security Studies

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James Mowbray, Professor; PhB, Montieth College, Wayne State University; MA, Wayne State University; PhD, Duke University.
Jeffrey Record, Professor; BA, Occidental College; MA, Johns Hopkins University; PhD, Johns Hopkins University.
Matthew A. Rhodes, Assistant Professor; BA, Lawrence University; MA, University of Wisconsin-Madison; PhD, University of Wisconsin-Madison.
Denise Schultz, Col; BA, Northern Kentucky University; MS, Florida State University; MSS, Air University.

Stephen Schwalbe, Col; BS, US Air Force Academy; MPA, Golden State University; MA, Naval Postgraduate School; MA, Naval War College.
Robert Wendzel, Adjunct Professor; BA, Kalamazoo College; PhD, University of Florida.
Guy Wills III, Col; BS, US Air Force Academy; MS, Oklahoma State University.
James E. Winkates, Professor; BA, Beloit College; MA, University of Virginia; PhD, University of Virginia.

Warfighting

Thomas J. Danielson, Col, Department Chair; BS, Houghton College; MA, Central Michigan University.
Michael Ainscough, Col, SG Chair; BS, St Louis College; MSS, Air University; MS, Troy State University; MA, Pepperdine University; MD, Southern Illinois University.
James B. Campbell, Capt, USN; BSS, US Naval Academy; MSS, Air University.
Christopher D. Carr, Associate Professor; BA, University of Lancaster; PhD, London School of Economics.
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Karen Currie, Col; BA, Duquesne University; MA, University of Kentucky; MS, Air Force Institute of Technology; PhD, Texas A&M University.
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Stephen E. Wright, Col; MNSS, Naval War College; MAAS, School of Advanced Airpower Studies.

SCHOOL OF ADVANCED AIR AND SPACE STUDIES

Col Thomas E. Griffith Jr., Commandant and Dean

Internet Address
http://www.maxwell.af.mil/au/SAASS

Mission: *To educate strategists in the art and science of air and space warfare, thus enhancing the Air Force's capacity to defend the United States through the control and exploitation of air and space.*

A revolution in AF PME began in the late 1970s. As it continued in the 1980s, the revolution led Air Force chief of staff Gen Larry D. Welch to charter a new graduate school, the School of Advanced Airpower Studies (SAAS), at AU in 1988. The first class convened in the summer of 1991 and graduated in June 1992. Beginning with the graduation of the first class, SAAS has produced many of USAF's most influential and innovative airpower strategists and leaders. In November 2002, SAAS was redesignated the School of Advanced Air and Space Studies (SAASS).

SAASS is an 11-month, follow-on school for selected graduates of intermediate-level DOD PME schools. SAASS creates warrior-scholars who have a superior ability to develop, evaluate, and employ airpower. Upon completion of all requirements and with faculty recommendation, graduates receive a master of airpower art and science degree.

SAASS faculty members hold a doctorate or equivalent in their fields of academic expertise. The breadth, depth, and diversity of their expertise are enhanced by the fact that the SAASS faculty is about equally split between field grade or higher officers and civilian scholars.

Resident Curriculum

The SAASS curriculum is designed to accomplish two major objectives:

1. Enhance the student's ability to *think critically* about airpower and warfare resulting from
    a. a thorough evaluation of military and airpower theories, and
    b. a thorough evaluation of the reality of the airpower experience, and resulting in
    c. a reasoned synthesis of theory and experience the articulation of which informs the question of how modern airpower can best be applied across the spectrum of conflict.

2. Enhance the student's ability to *argue effectively and responsibly* about airpower using evidence and logic resulting from
   a. experience introducing and defending propositions in a graduate colloquium environment,
   b. experience composing interpretive arguments in prose that meets accepted publication standards, and
   c. experience reducing complex formal arguments to comprehensible briefings.

The primary instructional forum is the graduate colloquium which facilitates maximum interaction between students and the expert faculty.

Graduation and Degree Requirements

To graduate, a student must

1. achieve a weighted grade point average for all letter-graded courses of 3.0 or higher;
2. achieve a "pass" grade for all courses graded "pass/fail";
3. prepare a thesis based on research in original source materials that meets generally accepted standards of research, analysis, and expression at the master's degree level; and
4. successfully complete an oral comprehensive examination conducted by a faculty board.

Duration and Quota

The SAASS curriculum is an intensive 51-week program. Class size is limited to 37 AF officers plus two Army officers and one officer representing the sea services.

Admission Requirements and Procedures

Admission to SAASS is highly competitive. Those wishing to be admitted must formally apply while attending an intermediate service school in residence. The application process includes a requirement to write an essay on a subject selected by the dean. Applicants must either already have a master's degree from an accredited institution or a bachelor's degree with an overall grade point average of 2.75 or higher on a 4.0 point scale. AFIT verifies all academic qualifications. A central selection board convened at the Air Force Personnel Center (AFPC) makes the final admission selections among qualified applicants.

Curriculum Summary

(Not listed in order of presentation)

Course Title	Quarter Hours
SAASS 600, Foundations of Military Theory	6
SAASS 601, Decision Making: A Primer for Strategists	6
SAASS 626, The History of Aerospace Power	9
SAASS 631, The Evolution of Airpower Theory	3
SAASS 632, Strategic Airpower and National Security	6
SAASS 641, Small Wars: Airpower Against Insurgents and Terrorists	3
SAASS 643, Joint Wargame	1
SAASS 660, Technology and Military Innovation	3
SAASS 665, Space and Information Power	3
SAASS 670, Innovation, Policy, and Future Security	3
SAASS 680, Formulating Airpower Theory	3
SAASS 690, Thesis	10
SAASS 699, Comprehensive Examination	1
TOTAL	**57**

SAASS 600, Foundations of Military Theory — 6 quarter hours

This course analyzes the writings of military theorists who significantly influenced thought about the art and science of war. Through this analysis, students gain a broad background in the development of military thought and develop critical thinking skills as they test theoretical propositions against the criteria of logic and evidence.

SAASS 601, Decision-Making: A Primer for Strategists — 6 quarter hours

A foundation "tools" course that provides a background and understanding of decision-making theories. These tools allow the student to better analyze airpower theories, ideas, issues, and concepts. Defense planning issues are discussed to illustrate decision-making challenges and issues pertinent to future airpower strategists.

SAASS 626, The History of Aerospace Power — 9 quarter hours

This extensive course examines the historical development of aerospace power in terms of organizations, technology, doctrine, and application. It provides the experiential database required for students to evaluate the theories presented in SAASS 631 and to develop their personal theory of aerospace power in SAASS 680.

SAASS 631, The Evolution of Airpower Theory 3 quarter hours

This course analyzes the development of airpower theory through the writings of the great theorists including Douhet, Trenchard, Mitchell, de Seversky, Slessor, the ACTS faculty, and Warden.

SAASS 632, Strategic Airpower and National Security 6 quarter hours

This course analyzes modern theory and contemporary thought regarding strategic deterrence and coercion; crisis stability; strategic nuclear offense, defense, and proliferation; conventional strategic air attack; force projection; and the adaptation of US grand strategy to changes in the international distribution of power, focusing on the use of airpower to pursue and support these national security objectives.

SAASS 641, Small Wars: Airpower Against Insurgents and Terrorists 3 quarter hours

This course, using a definition of small wars popular before World War II, examines the use of airpower in nonstate warfare with a particular emphasis on revolutionary and counterrevolutionary insurgent warfare.

SAASS 643, Joint Wargame 1 quarter hour

This wargame, conducted in conjunction with the Advanced Studies Group schools of the sister services, provides the opportunity for students to synthesize the curriculum and experiment with their ideas about the application of airpower.

SAASS 660, Technology and Military Innovation 3 quarter hours

This course focuses on the history of technological development and its impact on innovation in military affairs.

SAASS 665, Space and Information Power 3 quarter hours

This course examines the development of military space and information operations, organizations, strategy, and the contentious issues surrounding space and information operations in modern warfare.

SAASS 670, Innovation, Policy, and Future Security 3 quarter hours

This course focuses on the nexus of technological innovation and defense policy and then examines topical areas of current and potential US defense concerns.

SAASS 680, Formulating Airpower Theory **3 quarter hours**

This course helps students comprehend the entire SAASS curriculum. Colloquia throughout the academic year summarize and synthesize the various courses. Late in the school year, instruction focuses on developing a personal theory of airpower. Students must defend their theory during their comprehensive examination (SAASS 699).

SAASS 690, Thesis **10 quarter hours**

The students develop and present to the faculty a research proposal. Once their proposal is approved, the students, with the advice and assistance of a faculty research advisor, prepare a 40- to 60-page thesis based on primary sources. In writing their theses, the students must demonstrate sound scholarship and conform to generally accepted stylistic and methodological canons.

SAASS 699, Comprehensive Examination **1 quarter hour**

A two-hour oral examination by a board of three SAASS faculty members designed to determine if the student has satisfactorily synthesized the entire SAASS curriculum. Inquiry into a student's personal theory of airpower developed in SAASS 680 is often a prominent feature of the examination.

Degree-Granting Authority and Accreditation

Public Law 103-337, passed by the Congress of the United States on 5 October 1994, authorized SAAS to confer the degree "Master of Airpower Art and Science" upon graduates who fulfill the requirements for the degree.

SAASS is accredited by the Commission of Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, GA 30033-4097: Telephone number [404] 679-4501) to award a master's degree.

School of Advanced Air and Space Studies Faculty

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AIR COMMAND AND STAFF COLLEGE

Brig Gen (S) Ronald R. Ladnier, Commandant
Col Stephen C. German, Vice Commandant

Internet Address
http://www.acsc.maxwell.af.mil/

Mission: *A world-class team educating midcareer officers to lead in developing, employing, commanding, and supporting air and space power across the spectrum of service, joint, and combined operations.*

Air Command and Staff College (ACSC), the Air Force's intermediate professional military education (PME) school, prepares field grade officers of all services (primarily majors and major selects), international officers, and US civilians to assume positions of higher responsibility within the military and other government arenas. Geared toward teaching the skills necessary to conduct air and space operations in support of a joint campaign, ACSC focuses on shaping and molding tomorrow's leaders and commanders. The college's academic environment stimulates and encourages free expression of ideas as well as independent, analytical, and creative thinking.

ACSC traces its roots to the Air Corps Tactical School (ACTS) located at Maxwell Field from 1931 to 1942. After World War II, as the independent Air Force was formed, grew, and developed, the requirements and expectations of the school evolved to fulfill the service's educational needs. The vision of pre–World War II leaders has withstood the test of time. Although six decades have passed since the founding of ACTS, the present 10-month curriculum still focuses on expanding understanding of air and space power and on the growth of midcareer officers. In 1962 the school became known by its current name, Air Command and Staff College.

During academic year (AY) 1994, ACSC undertook the most significant change to its educational program since the school's inception. The school transitioned from a traditional lecture-based program to a seminar-centered environment with an integrated curriculum geared to problem solving across the continuum from peace to war. In AY 1999, ACSC began efforts to align its curriculum under the AU commander's Strategic Guidance for the Continuum of Education. The ACSC program now functions as a portion of a comprehensive and integrated career-long PME program.

Goals: The ACSC curriculum encourages the development of higher order thinking by challenging students to think critically and exercise a combination of analytical and practical tools required as leaders charged

with the nation's defense. ACSC graduates are well educated in the profession of arms with emphasis on the use of air and space power in joint campaign planning and the operational art of war. The ACSC curriculum

- facilitates the air and space minded thinking of students,
- develops and enhances abilities for higher-level command and staff responsibilities,
- enhances students' abilities to think critically about operational air and space concepts in a dynamic international environment,
- broadens students' understanding of the nature of conflict and current and future threats to the United States and its allies, and
- develops and enhances students' abilities to plan and execute the joint campaign planning process and air and space operations to support the joint force commander.

ACSC's three deans—education and curriculum, students and support, and distance learning—provide academic leadership to the school's faculty and student body. The dean of education and curriculum, assisted by the vice dean for academic affairs and vice dean for operations, coordinates the integration of the final curriculum content and directs the planning and implementation of the academic programs of five curriculum departments: International Security and Military Studies; Joint Warfare Studies; Leadership, Command, and Communication Studies; Joint Education; and Specialized Studies. The dean of distance learning is responsible for planning, organizing, and delivering the nonresident program of instruction through the departments of curriculum and operations. The dean of students and support coordinates student activities and is responsible for student services. The dean and the commander and staff of the 21st Student Squadron are responsible for the health, morale, and welfare of 600 resident students and their families.

Resident Program

The primary form of instruction in the resident curriculum is seminars held in specially designed rooms featuring closed-circuit television, an array of multimedia equipment, and student access to a school-wide computer network and the Internet. Students are issued more than 80 books to expand their professional capabilities and a personal laptop computer to use to keep track of the academic schedules, on-line reading assignments, and for use in examinations throughout the academic year.

Duration and Quota

The resident program consists of 10 months of instruction. Approximately 500 officers from the USAF, Army, Navy, and Marine Corps; 80 international officers; and 20 civilian employees of selected agencies of the federal government attend this course.

Prerequisites and Selection

Air Force candidates to attend ACSC are selected in conjunction with O-4 promotion boards. A central PME selection board, with major command input, selects the actual ACSC class from these candidates based on their demonstrated potential for assignment to key field grade command and staff positions. Majors, major selects (or equivalent rank), GS-12, and GS-13 government civilians are eligible to attend ACSC. Reference AFI 36-2301, *Professional Military Education* and the ETCA Web site at (http://etca.keesler.af.mil/), for additional information.

Master's Degree Admission Requirements and Procedures

In 1999 Congress granted the AU commander the authority to confer the Master of Military Operational Art and Science degree upon graduates of ACSC who fulfill the requirements for that degree. To be admitted to the master's degree program, an individual must be selected to attend the ACSC resident program and either hold a qualifying undergraduate degree (US bachelor's degree or its equivalent) or meet admission requirements through the portfolio admission process.

Those interested in pursuing the master's degree must submit the following information to the AU Registrar to assess eligibility:

II. Proof of Academic Capability

Proof of academic capability may be established through the following:

A. Transcript(s)

Individuals with bachelor's/equivalent degree(s) and/or advanced degree(s) are responsible for the following:

i. Air Force active duty, Guard, and Reserve officers will have their degree status verified by the AU Registrar through AFIT without action on their part.

ii. Sister service and civilian students will have their official transcripts sent to the AU Registrar, 60 Shumacher Ave, Maxwell AFB, AL 36112.

iii. Other individuals selected to attend ACSC must provide the following to the AU Registrar:

1. Transcripts of bachelor's/equivalent degree(s) and/or an advanced degree(s) with certified English translations if applicable
2. Transcripts of bachelor's/equivalent degree(s) and/or an advanced degree(s) in languages other than English that have undergone a document-by-document evaluation of the academic records by an independent foreign credentials evaluation service that is a member of the National Association of Credentials Evaluation Services (NACES) or the Association of International Credential Evaluators (AICE) to determine if the records are equivalent to a US four-year bachelor's degree.
    a. Applications for this process are available from the AU Registrar.
    b. When requesting one of these services to evaluate one's transcript(s), the individual should state the reason as "further education" or "admissions requirement for master's degree program."
    c. Individual's seeking admission to the master's degree program is responsible for the costs associated with the transcript evaluation.
    d. A copy of the evaluation must be mailed to the AU Registrar.

B. Portfolio

Air Command and Staff College provides a portfolio option to those, wishing to apply to the Master of Military Operational Art and Science Degree Program, who do not possess a bachelor's or equivalent degree.

Those seeking to be admitted to the degree program using this option must submit their portfolios to the admissions committee through the AU Registrar. The committee will evaluate each applicant on his or her own merit to determine if the person's "preparation" is judged adequate for the rigors of the Master of Military Operational Art and Science Degree Program.

Minimally, the portfolio should contain as much information as necessary to demonstrate one's professional and educational history to include:

i. Official evidence of all completed college, university and/or professional school coursework evaluated by an independent foreign credentials service (see transcripts above)

ii. Copies of certificates and diplomas evaluated by an independent foreign credentials service (see transcripts above)

iii. Detailed description of professional work including a current resume and, if appropriate, work relevant evaluations

iv. Letters of recommendation from at least (1) someone who holds a terminal degree, (2) a past or present supervisor, and (3) a personal reference attesting to your capacity to complete a graduate degree program

v. Program brochures, catalog pages and/or descriptions as necessary to support these accomplishments.

II. Proof of English Language Proficiency

A. Individuals applying for admission to the Master of Military Operational Art and Science Degree from countries where the official language is English are not required to take the Test of English as a Foreign Language (TOEFL).

B. Individuals who have completed a degree in the US during the past three years are not required to take the TOEFL.

C. Individuals from countries where the official language is not English achieve an acceptable score on the TOEFL to be admitted to the master's degree program.

i. The individual is responsible for the cost of this test.

ii. When taking the TOEFL, an individual must select Air University as the Institution Code (9069) so the official score will be sent to the AU Registrar.

iii. The minimum acceptable score for unconditional admission to the master's degree program is 540 for the paper-based test or 207 for the computer-based test. The minimum acceptable score for conditional admission is 500 for the paper-based test or 173 for the computer-based test.

iv. Students admitted conditionally must retake the TOEFL after beginning ACSC classes but before the published

v. A faculty committee must evaluate the academic progress of any student who does not achieve the minimum acceptable score for unconditional admission

on the retest to determine whether or not he or she will be allowed to continue in the degree program.

Students not having a baccalaureate degree, not admitted through the portfolio process, not making the minimum TOEFL score, or not admitted by the faculty committee with a conditional score will be allowed to attend ACSC and will, upon graduation, receive the ACSC diploma but will not be awarded the master's degree.

Minimum Grade Point Average. Students fully admitted must complete the 34-semester-hour ACSC resident program with an overall grade point average of 3.00 on a 4.00 scale to earn award of the master's degree.

Resident Curriculum

OC 5500, Orientation Program **noncredit**

The orientation program provides an overview of the ACSC Program for Joint Education; USAF educational learning theory, policies, curriculum, and research; and the principles students will encounter throughout the academic year. The program includes an introduction to small group dynamics, communication skills, available technology, research requirements, student responsibilities, and available services to enhance learning.

LC 5500, The Military Leader **5 semester hours**

The Leadership, Command, and Communications Studies Program enhances students' understanding and application of leadership, critical thinking, and communication skills as they personalize their approach to leadership and command. This course establishes a foundation for leadership studies and introduces effective writing and critical thinking concepts and principles that will be used throughout the academic year. This course also addresses both historical and contemporary leadership challenges, and provides structured opportunities for students to exercise leadership and communications skills in an experiential learning environment.

LE 5500, Commander's Course **2 semester hours**

The Commander's Course challenges students to consider many complexities of leadership with a focus on command. The course exposes students to combat and crisis scenarios, legal, civilian, and enlisted personnel issues through case study, student interaction, and guest experts. The course provides structured opportunities for students to evaluate situations, apply critical thinking, analyze

potential courses of action, and develop and refine their communication skills.

NS 5500, National and International Security Studies **3 semester hours**

The National and International Security Studies course provides perspectives for understanding the complex and dynamic national and international security environment in which military operations are planned and implemented. Students apply their understanding of course perspectives as they examine real-world national and international security concerns. Specific focus areas include national security strategy, the use of the national instruments of power to fulfill that strategy and the roles of major national security actors. Students concentrate upon the development of national military strategy through study of the Defense Planning System.

ST 5500, Strategy **3 semester hours**

The course defines military strategy, analyzes how contextual factors influence the selection of military strategies, how operational factors affect its execution, and how different types of military strategies have developed historically develop in response to one another. The course framework—analysis of context, dominant strategy, alternative strategies, and impact/legacy—provides tools for understanding strategy as a dynamic, responsive process that reacts to contextual influences, operational factors, and the strategies of one's opponents.

AP 5500, Air and Space Power Studies **3 semester hours**

The Air and Space Power Studies course analyzes efforts to find and execute the most effective strategies for employing air and space power at the operational level of war. The course emphasizes the US Air Force perspective and examines the origins of current USAF basic doctrine. The course examines airpower in the Age of Total War, American Air and Space Power in the Cold War, and the Transformation of American Air and Space Power since the Vietnam War. The course highlights air and space power tenets and functions as generalized in Air Force Doctrine Directive 1, *Air Force Basic Doctrine*.

AE 5500, Air and Space Expeditionary Force Operations **2 semester hours**

The Air and Space Expeditionary Force Operations course analyzes how the Air Force organizes, deploys, and employs air and space power today; looks at current and emerging issues; and evaluates them in relation to current and emerging doctrine.

JF 5500, Joint Forces **3 semester hours**

The Joint Forces course presents joint and service doctrinal principles that provide basic guidelines for Joint Force Commanders as they employ joint forces at the operational level. It also presents an overview of joint force organizations, capabilities, functions and service-specific limitations.

JP 5500, Joint Campaign Planning **3 semester hours**

The Joint Campaign Planning course provides students an application level understanding of campaign-planning principles. The course provides exposure to doctrinal concepts and the tools used in Joint Campaign planning, and compares and contrasts the Deliberate Planning and Crisis Action Planning processes. Students apply their understanding of these concepts and processes during realistic planning exercises.

JA 5500, Joint Air Operations **3 semester hours**

The Joint Air Operations course prepares students to command joint air operations. The course specifically emphasizes Joint Force Air Component Commander responsibilities and culminates in a comprehensive wargame that allows the students to apply their knowledge and skills. The wargame recreates the stresses involved in planning and executing an air operations plan. Students are tasked to build a theater-wide plan for joint air operations from which several air tasking orders will be derived.

SS 5500, Specialized Studies **5 semester hours**

The Specialized Studies Program provides students with career broadening education tailored to meet the US Air Force's force development goals. This educational opportunity covers a broad spectrum of functional areas and operational disciplines. Students are assigned to study areas based on the developmental pattern established for them by either their service, agency, or by an appropriate US Air Force development team. The following is a list of AY04 specialized study areas.

SS5501, Air and Space Power Employment
SS5502, Acquisition Management
SS5503, Space Operations
SS5504, Political-Military Strategist
SS5505, Agile Combat Support
SS5506, Mobility Operations
SS5507, Information Operations
SS5508, Plans and Programs
SS5509, Tailored Specialized Studies

GE 5500, Gathering of Eagles **noncredit**

The Gathering of Eagles (GOE) is a unique program that stimulates the study of air and space history. Numerous historically significant air and space figures have participated in this program. While at ACSC the "Eagles" spend time with students and participate in teaching interviews. These interviews allow the students to better understand their heritage and learn lessons about air and space leadership from those who shaped it. GOE activities conclude with a special presentation at the graduation ball. Research conducted by students in EL 5680, Gathering of Eagles, forms the basis for the content of this course.

EL 5600, Research Seminars **2 semester hours**

Students satisfy the two credit-hour research requirement by accomplishing a research paper through one of the Research Seminars. The Research Seminars complement ACSC's core resident curriculum. They also enable students to investigate topics in a rigorous fashion, in a seminar setting, and under the direction and guidance of a subject matter expert. These seminars provide students the opportunity to develop their ability to define an issue succinctly; to conduct thoughtful, logical, and critical research and analysis; and elicit from students well-developed and supported conclusions and recommendations. This program provides the results of student research, writing, and analysis to interested parties, including key decision makers at the highest levels of command, on relevant national security topics at the operational and strategic levels. The quality of student projects parallels the quality of projects in graduate-level education and is competitive for publication in professional journals or distribution to other comparable sources, agencies, or institutions. The college currently offers the following Research Seminar courses.

EL 5601, The War for Public Opinion: Propaganda, Public Affairs, and the Military-Media Relationship. This course focuses on public opinion and support as a strategic center of gravity, and helps potential operational commanders understand how the global information environment affects the battlefield of the twenty-first century. The course includes extensive analysis of historical and contemporary roles that propaganda, public affairs operations, and the media have played in conflicts.

EL 5609, Special Studies in Communication. This seminar is available to uniquely tailor a course for students to pursue study of topic(s) related to the broad field of communication.

EL 5610, Teams and Their Organizational Realities. This course examines factors influencing how teams function and perform. Concepts such as organizational practices, performance awards, and cultural factors and their influence on team behavior and performance are analyzed. Students critically examine situations where teams have failed to perform as expected and the consequences of these failures for the organization and mission goals.

EL 5619, Special Studies in Leadership and Management. This seminar is available to uniquely tailor a course for students to pursue study of topic(s) related to military leadership and management.

EL 5620, Advanced Space Studies: Policy and Applications. This course is designed for students who already have a strong understanding of space policy and systems. The course reinforces baseline understanding of space systems and issues associated with developing and employing space capabilities for the future and leverages the collective experiences of the class to create a collaborative learning environment for discussion on all areas of space.

EL 5621, Air Logistics: Key Enabler and Operational Art Element. This course is designed for students with a limited background in logistics. The course provides students an appreciation for the capabilities and limitations that the disciplines of aircraft maintenance and munitions, logistics plans, transportation, supply, and contracting brings to the fight. The course includes a review, historical perspectives, and prospectus pertinent to each logistical function.

EL 5622, Air Mobility. This course provides an understanding of the current and evolving capabilities of air mobility. The course addresses the critical role air mobility plays during peace, war, and operations other than war. It enhances students' understanding of how the unique characteristics of air mobility—speed, range, flexibility, and responsiveness—support US national security and military strategies.

EL 5623, Future Trends and Their Impact on the Military. This course previews the strategic environment and commercial and military technologies anticipated in the 2010–30 time frame to help students explore capabilities and operational concepts that could be used by the military to support US national security. The course familiarizes

students with the driving forces and key factors that affect planning, the importance of planning for multiple futures, and how to identify signposts and indicators that given scenarios are coming to pass. Various predictive and nonpredictive planning models, with emphasis on scenario-based planning, are presented as viable tools for configuring the military of the future.

EL 5624, Intelligence Operations. In this course students gain an appreciation that decision superiority is only achieved through the full integration of intelligence, surveillance, and reconnaissance (ISR) operations into the military campaign. This course treats intelligence as a product, a process, and a weapon. Students study seven intelligence disciplines, focusing on their capabilities and limitations. Students also discuss the future of intelligence operations and the challenges it faces in meeting the needs of decision makers.

EL 5625, Measuring Airpower Effectiveness. This course examines the criteria and methods used to measure airpower effectiveness from World War I to the present. Emphasis is on techniques used during campaign planning and execution to decide how well airpower is accomplishing its objectives. Students gain an appreciation of the difficulties of assessment while campaigns are in progress.

EL 5626, Space Applications for Military and Commercial Uses of Space. This course is designed for students who have a limited understanding of space systems and policy. It examines current and future space capabilities of the United States and the world. Topics include such items as: orbits, space law, space doctrine, access to space, space operations, communication, navigation, warning, weather, multispectral imaging, theater missile defense, and space policy.

EL 5627, Modeling, Simulation, & Wargaming—Theory and Practice. This course provides an overview of theoretical foundations of modeling, simulation, and wargaming. The course includes a study of the historical uses of these tools in planning, manning, resource-allocation, education, and strategy development and explores the state –of –the art in wargaming. Finally, the course researches how to better exploit wargames and simulations in the future.

EL 5628, Peace Operations and Peace Enforcement—US and International Perspectives. This course examines lessons learned from past peace operations and analyzes whether the US is prepared to use those lessons in improving the chances for success in the future. The course focuses upon the future role of peace enforcement

and the United States' readiness to participate in future scenarios. The course facilitates students' understanding of peace operations in preparation for future command positions and staff roles.

EL 5629, Introduction to Artificial Intelligence. This course provides an introduction to some of the fundamental issues in Artificial Intelligence (AI) and how these issues affect military systems where they are applied. The course examines the key role AI has played in military operations to include such delegated tasks as error recovery, navigation, targeting, and electronic warfare.

EL 5631, Defense Product Development. This course provides an understanding of the entire Defense Product Development System to include developing and fielding new and modified systems from need and requirement identification, research and technology development, and operational test and evaluation. Discussion includes all aspects of modernization planning; the requirements generation system; the planning, programming, and budgeting systems; and the acquisition system.

EL 5632, The Military Commander and the Law. This course covers a broad range of issues including areas such as: maintenance of good order and discipline, the law of armed conflict, contracts and fiscal law in a deployed environment, homosexual policy, civilian personnel issues, free speech on military installations, environmental regulations, the Joint Ethics Regulation (JER), computer crimes, and dealing with private organizations. The course provides students an overview of current legal issues that commanders and senior leaders are likely to confront in their efforts to accomplish mission requirements.

EL 5633, The Total Force: Yesterday, Today and Beyond. This course examines the Total Force policy and the changing role of the Reserve Component forces. Analysis of current US policy will highlight the debate over positive and negative aspects of Reserve and Guard utilization in the different services. Students explore the continuing evolution of the Total Force and develop ideas about alternative future force structures.

EL 5634, Morality and War: Implications for the Warfighter. This course presents the moral, ethical, and legal issues surrounding warfighting duties that could conceivably involve confrontation with an enemy for the attainment of a political objective. The course examines the "just war" tradition and explores moral and legal considerations, proportionality, necessity, reprisals, and other issues

relating to the use of force as an instrument of politics among nation-state and nonstate actors. Also, students examine their own personal views as decision makers, views that implicitly transcend their particular individual feelings about causing casualties in warfare.

EL 5635, Information Operations. This course examines Information Operations as an umbrella concept for several disciplines, which include electronic warfare, psychological operations, military deception, operations security, physical destruction, and computer network operations. The course provides an appreciation for the capabilities and limitations that information operations bring to the joint force. Students assess the interrelationship between air, space, and information operations, and the integration of information operations within joint air and space operations planning.

EL 5636, Strategy and Technology. This course is designed to broaden students' understanding of the relationship between technology and strategy. Students gain an appreciation for the current state of the art in a variety of fields to include: directed energy (lasers and high-powered microwaves), sensors, communications, space systems, propulsion systems, computers, and micromechanical devices. Students develop an understanding of how these technologies impact military operations at the operational and strategic level.

EL 5638, The Evolution and Application of Special Operations Forces (SOF). This course enhances students' understanding of US special operations organizations, missions, and capabilities for application at the operational level of war. The course covers the history of SOF, organization, and mission and the unique aspects of US Special Operations Command, such as involvement in the planning, programming, and budgeting system.

EL 5639, Special Studies in Profession of Arms. This seminar is available to uniquely tailor a course for students to pursue study of topic(s) related to the profession of arms.

EL 5640, The Great War in the Air. This course broadens the students' understanding of industrial mobilization and aircraft production during the Great War, and examines the triumphs and failures in fielding aviation units by the major and minor powers engaged in the conflict. The course emphasizes differences in industrial methods and obstacles to efficient aircraft production as the war grew in intensity and the United States' obsession with sending an air arm to fight "over there" after April 1917.

EL 5641, A History of Mutiny, Desertion, and Insubordination. This course will investigate the underlying and immediate causes of mutiny, desertion, and insubordination in armies, navies, and air forces from a historical perspective. It will analyze the various avenues and levels of resistance to military authority, investigate both underlying causes of discontent and immediate triggers of insubordination, and examine the methods adopted to deter, crush, or alleviate unrest in the ranks.

EL 5642, Unmanned Aerial Vehicle (UAV) Employment and Future Concepts. This course provides an understanding of UAVs and unmanned combat aerial vehicles (UCAV). Discussion includes all aspects of UAV/UCAV technology and concepts that involve the study of current UAV operational capabilities and issues. The course provides an understanding of the processes used to develop and field new and modified systems and to identify opportunities for improvement.

EL 5643, From Algeria to Afghanistan: Colonial Conflict and Counterinsurgency from 1830–1989. This course explores basic problems of military strategy, tactics, and logistics, with specific application to French, British, and American experiences in colonialism. Military planners often focus on large-scale, conventional warfare. However, much of the conflict of the last two centuries has been smaller scale warfare and counterinsurgency. Western colonialism and imperialism in Africa and Asia were important phenomena of the nineteenth and the twentieth centuries.

EL 5644, The Making of Strategy. A variety of issues are addressed in this course including problems that arise in the translation of strategic assessment into action (e.g., unanticipated events, unintended consequences, policy "blowback"), the relationship between ends and means, friction in war, the critical importance of leadership, and the necessity of innovation. This course addresses questions dealing with the future of US national security policy, formulation of strategy, and historical lessons that can be applied to modern strategy.

EL 5645, The American Way of War: US Army from Appomattox to Desert Storm. This course examines the development of the modern US Army since 1865 through a critical analysis of its organization, doctrine, and performance in various wars. The course analyzes the debate that is taking place over basic concepts of current US Army

organization and future requirements and examines the antecedents of this debate.

EL 5646, The American Civil War: Ordeal of the Union. This course is designed to broaden understanding of the American Civil War by focusing on two major areas. First, the politics, military strategies, operational art, and tactics employed during the Civil War are studied to increase the students' understanding of warfare. Second, the challenges faced by commanders in this conflict are analyzed to determine relative successes and failures in leadership on both sides.

EL 5647, The Second World War and the Operational Art. This course is constructed around an examination of important campaigns of the Second World War. World War II was a watershed in the evolution of modern roles and missions and offers many important lessons dealing with operational innovation, the integration of new technology, effective interservice cooperation, and other topics of current interest. Issues facing today's warfighters will be examined from a historical perspective. Students will conduct an in-depth examination of selected campaigns and develop an understanding of the impact of those campaigns on the development of modern operational doctrine.

EL 5648, A History of Airborne Operations. This course provides the student with an in-depth operational analysis of parachute forces in the twentieth century. A comparison of the development of airborne forces and their application in combat assist the student in understanding the role that airborne forces have played in major combat operations and campaigns. Factors affecting the success of airborne operations, including transportation, timing, weather, opposing forces, leadership experience, and mission planning are analyzed.

EL 5649, War and Society: Exploring the Connections. The course examines the interrelationship of time, culture and society in molding the nature of military institutions, doctrines, and tactics. The course addresses the questions that recur in military history, such as "how does a political culture affect battlefield performance?" "How do people in occupied areas experience war?" and "How has the pursuit of military power influenced the development of the nation-state?" The course also examines how warfare and military institutions exert decisive influences beyond what happens on battlefields.

EL 5650, The American Civil War and the Birth of Modern Warfare. Students analyze how the American Civil War marked a transition in warfare in which political and military leaders adapted traditional

doctrine, organizations, and command practices to new social, ideological, geographical, and technological realities. The course considers the challenges faced by commanders of the North and South in supplying, moving, and controlling mass armies fighting across half a continent. The focus of the course is the military art in transition, and the origins of modern doctrine, organization, command practices, and strategic thinking.

EL 5659, Special Studies in Military History, Theory, Doctrine and Strategy. This seminar is available to uniquely tailor a course for students to pursue study of topic(s) related to military history and doctrinal/strategy issues.

EL 5660, Causes and Prevention of War. This course challenges conventional interpretations of "Why do states fight?" by fusing together a wide variety of thought-provoking literature and films. Students analyze the great issues that societies struggle with—war, power, honor, justice, and peace. The dominant theoretical, philosophical, and historical accounts of war and its causes are examined and practical solutions to the "war problem" discussed.

EL 5661, Dirty Politics: Dictators, Terrorists and Godfathers. This course explores the growing link between human rights and international security in a globalized world. Ethnic cleansing, suicide bombings, and illegal trafficking of narcotics create conditions that encourage civil distress. Students will examine broad trends in the international geopolitical system as well as subnational phenomena for methods of developing sound strategies to counter these conditions.

EL 5662, Islam and Islamism. This course treats Islamism as a radical political religion with specific historical and political determinants. Students will examine concepts presented in this course and extrapolate attributes that can be applied to similar non-Islamist movements. A comparative approach of study will provide the student with working hypotheses by which tensions between states and societies may be evaluated. This course will help prepare students to comprehend the way radical political religion can shape the geopolitics of the twenty-first century.

EL 5663, Great Power Warfare in the 19th and 20th Centuries. Students explore the political and military history of Europe over the last 200 years through the examination of four significant Great Power conflicts: the Napoleonic wars, the wars of German Unification, World War I, and World War II. The course traces the causes of war, the development of the conflicts, and the ultimate

impact these wars had in creating both the states of the institutions that rule the modern world. Implicit to this orientation is a concern with the theory and conduct of war and its historical development. The course devotes particular attention to the relationships between why and how wars are fought.

EL 5664, Weapons of Mass Destruction (WMD): Challenge and Response. This course introduces students to the challenges posed by the spread of WMD and to understand responses to reduce this threat. The course analyzes the challenges and impact of the spread of chemical, biological, and nuclear weapons on national security policy and military operations.

EL 5665, The United States as a Great Power. This course is an examination of US foreign relations from the emergence of the nation as a major world power to the present. The course explores what it means to be a "great power" in the international system; why Americans sought such status for their nation; and how the United States combined diplomatic, military, economic, and other instruments of national policy to achieve and maintain this objective.

EL 5666, War and Society in 20th Century Central Europe. This course is constructed around an examination of war and conflict in Central Europe from 1900 to 1999; from the Balkan wars to the Balkan wars. It is not primarily a catalogue of campaigns and battles but an attempt to consider the broader patterns of war and conflict in this volatile region. As such, it is a study of politics and society as well as military affairs. Also, the course considers the relation of conflict in the region to European and international affairs, both from the standpoint of small states caught up in world events and outside intervention. The focus of the course is scholarly inquiry and historical scholarship as opposed to policy and operational considerations

EL 5667, The Arab–Israeli Conflict. This course will introduce students to the history and current dynamics of the Arab–Israeli conflict, and discusses US interests and participation in the conflict and possible future involvement.

EL 5668, Regional Security Studies Survey (International Officers—Non-master's). This course involves an analysis of current regional security issues from the perspective of the nations in those regions. International officers conduct an analysis of the global security issues of their particular region of the world and prepare a collective summary research report of their findings. Students present their perspectives on these issues during regional forums conducted

throughout the year. Notional regional grouping for the forums are: Africa, Asia/Pacific, the Americas, European Union States, Non-European Union States, and Middle East. The course is graded pass/fail.

EL 5669, Regional Security Studies Analysis (International Officers—Master's). This course involves an analysis of current regional security issues from the perspective of the nations in those regions. International officers conduct an analysis of the global security issues of their particular region of the world and work with students in EL 5668 to present their perspectives on these issues during regional forums conducted throughout the year. In addition to the requirement for participation in the security forums, this seminar provides international officers an opportunity to pursue special research projects with selected faculty members on a wide range of topics dealing with the interaction of US policy with sociopolitical developments in their respective regions. Grade for the course is based on 50 percent assessment for participation in the forums and 50 percent for the individual research paper.

EL 5679, Special Studies in the Nature and Functioning of the International System and Strategic Environment. This seminar is available to uniquely tailor a course for students to pursue study of topic(s) related to international relations and global security issues.

EL 5680, Gathering of Eagles (GOE). Gathering of Eagles (GOE) is both a group research project as well as an opportunity for ACSC students, faculty, Air University, and community leaders to meet noted air and space pioneers. Started in 1982 to stimulate interest in aviation history, GOE is an annual series of events hosted by ACSC. Individuals who have made significant contributions to air and space heritage are invited to spend several days with ACSC students to share their experiences and lessons learned. Forums include face-to-face meetings, on-stage interviews, panel discussions, and social events. GOE culminates with a presentation of the Eagles at the ACSC graduation ball.

EL 5681, Special Air and Space Power Topics. This course is a directed research seminar that is available for students to uniquely tailor studies and analyses focused on air and space operational questions, problems, and issues of interest to senior Air Force leadership. Students will be grouped according to issue(s).

ACSC Resident Curriculum Summary

Course Title	Semester Hours
OC 5500, Orientation Program	0
LC 5500, The Military Leader	5
LE 5500, Commander's Course	2
NS 5500, National and International Security Studies	3
ST 5500, Strategy	3
AP 5500, Air and Space Power Studies	3
AE 5500, Air and Space Expeditionary Force Operations	2
JF 5500, Joint Forces	3
JP 5500, Joint Campaign Planning	3
JA, Joint Air Operations	3
SS 5500, Specialized Studies	5
GE 5500, Gathering of Eagles	0
EL 5600, Research Seminars	2
TOTAL	**34**

Other Programs and Activities

ACSC conducts several activities that support the resident core curriculum and enrich the experience of its students and their families during the academic year.

Commandant's Specials. These special presentations enhance the resident curriculum by giving students and faculty the opportunity to interact with distinguished leaders and experts from across political, economic, and military environments. Speakers, past and present, include members of Congress, ambassadors, and top civilian and military leaders in DOD.

Air and Space Power Demonstration. The entire student body visits Eglin AFB, Florida, for an airpower demonstration. Students view static display aircraft, current and future weapons, and air operations center equipment demonstrations. The visit culminates with a live-fire demonstration of the full spectrum of airpower capabilities.

International Officer Program

International officers have attended ACSC every year since 1946. During its 54-year history, the college has graduated more than 2,500 international officers from 92 nations. Before attending ACSC, inter-

national officers attend a six-week preparatory course conducted jointly by the International Officer School (IOS) and ACSC. This course increases the officers' ability to speak and understand the English language while familiarizing them with the USAF organization and mission. In the past, international officers graduated after completing seven months of the ten-month course. Beginning with the 1994 class, international officers attend ACSC the entire academic year, further enhancing their ACSC learning experience. During the year, these officers participate in field trips that supplement the curriculum objectives. As part of the DOD information program, they tour Washington, D.C., and military and air and space facilities in Alabama, Florida, and Georgia.

Athletic Programs

The ACSC athletic program is designed to improve the quality of life for students and faculty by creating and sustaining an environment that promotes personal health, fitness, and professional growth. With that in mind, the objectives of the program are to help all personnel pass the fitness test on the first attempt and to put in place a program that fosters social interaction and team building in conjunction with healthy competition. The athletic program includes competitive seminar and intramural sports. It also includes mandatory participation in school scheduled sports activities by all 44 seminars and a faculty team in three sports during the scheduled sports days. The ACSC sports activities are softball, bowling, and volleyball. Students and faculty also compete in base intramural activities as well. Finally, students and faculty members are afforded the opportunity and are encouraged to engage in personal fitness/aerobic activities at least three times per week. ACSC conducts annual fitness testing in accordance with AFI 40-501, *The Air Force Fitness Program*.

Spouse Program

The Spouse Program helps integrate resident students' spouses into the ACSC experience. It offers many opportunities for spouses to learn, grow, and share the ACSC experience with students and faculty. This program acquaints spouses with the college's academic requirements, increases their awareness of current events and DOD issues, and provides opportunities for personal growth and development. Participation is completely voluntary, and the spouses determine the program's scope and direction.

Nonresident Program

Established in 1948, the ACSC nonresident program provides intermediate-level PME to officers unable to attend in residence. In 1969, ACSC expanded the scope of the program by implementing a seminar program to provide for the sharing of opinions, expertise, and experiences among the seminar members. Both the seminar and correspondence programs achieved Phase I Joint PME accreditation in 1992 and were reaccredited in 1997 and 2002. In 1999 the nonresident program was placed under the dean of distance learning (DL). The nonresident program provides PME to about 85 percent of all AF majors and major selects.

Today, technology offers opportunities to improve traditional seminar and correspondence programs. The DL staff continually explores new and better ways to meet the demand for PME of midcareer officers stationed throughout the world. By using computer-based education and the World Wide Web, the nonresident course is narrowing the gap between resident and nonresident education. These advances clearly identify ACSC as a pacesetter in AU and the educational community.

Eligibility. ACSC nonresident programs are offered to US active duty, Reserve, and National Guard major selects and above from all services. DOD civilian employees in the grade of GS-11 or above, or equivalent, may also enroll. Civil Air Patrol officers serving in the grade of major or above may enroll in the correspondence program only. International applicants for nonresident ACSC programs must be a major selectee or higher or equivalent grade civilian employees of the military department of a country or international organization assigned to a DOD billet. International officers may also enroll through the Foreign Military Sales (FMS) training sponsorship program. Reference AFI 36-2301, *Professional Military Education*, the ACSC public Web site: http://www.acsc.maxwell.af.mil, and the Education and Training Course Announcements Web site at http://etca.keesler.af.mil, for further information.

Program Description. The ACSC nonresident curriculum is designed to support ACSC's mission statement "…to lead in developing, employing, commanding, and supporting air and space power across the spectrum of service, joint, and combined operations." The course of study is an integrated process. It begins with the studies designed to enhance the students' leadership and command skills and concludes with an AF exercise and lessons on strategy and commander's perspective. In between, the course explores international relations, why nations go to war, and what the Air Force and other services bring to the fight for the joint forces commander.

The ACSC distance-learning curriculum is delivered via printed books, CD-ROM, and the Internet. Students receive an integrated multi-media curriculum that includes textbook readings, video, and interactive applications. Students have 18 months to complete this program and must achieve a minimum score of 70 percent on each of six examinations and complete four on-line exercises. Students may choose one of two methods to complete the program. The same personnel record entry (nonresident) is made for both forms of enrollment upon successful course completion.

Correspondence (self-study). This method affords students the opportunity to choose the time and place of study. ACSC provides the framework for completing this program by providing a recommended schedule for students to follow. Students may enroll at any time throughout the year.

Seminar. In this 10½-month program students meet weekly (on base) in a forum designed for the free exchange of ideas and opinions on vital issues facing the USAF, DOD, and the nation. Seminar participants share unique background experiences and technical expertise. ACSC provides the framework for conducting the seminar program by providing a schedule for the seminars to follow. The seminars are composed of 5 to 18 members and begin in August of each year.

Internet. ACSC has a Distance Learning Electronic Campus on the Internet. Any student enrolled in the ACSC program may have access to the campus. The campus contains a library with lesson plans, audio/video files, readings, and interactive computer simulations. Additionally, students can post messages on the bulletin boards. For additional information or to obtain access to the campus, contact ACSC Distance Learning Department at DSN 493-7901, (334) 953-7901, 1-800-316-7042 or E-mail: acscdl@maxwell.af.mil.

Curriculum. The ACSC nonresident program is organized into the following seven curriculum blocks.

00030A: Lessons include Defining Military Leadership, Military Leadership in the New Millennium, The Role of Values in Military Leaders, The Role of a Leader in the Development and Maintenance of Organizational Culture, Developing US National Security in a Changing Strategic Environment, The Realist Perspective in the International System, Liberalism and Communitarianism Perspectives in the International System, United States National Security Strategy and the National Instruments of Power, The Armed Services in National Security Policy, China: A State of Concern to the Security and Interests of the United States and Weapons of Mass Destruction Proliferation, and The

Threats of International Terrorism and Failed States to US National Security.

00030B: Lessons include The Early Western Perspectives on the Nature of War, The Modern Western Perspectives on the Nature of War, The Non-Western Perspectives on the Nature of War: Islam, The Non-Western Perspectives on the Nature of War: Chinese, Revolutionary, Revolution in Military Affairs, and Asymmetrical Warfare; Actors, Defining and Classifying War, and Morality of War; Why People and States Fight and How States Should Fight; and War Termination and Conflict Resolution.

00030C: Lessons include The Inquiry Process and Airpower in World War I, The Interwar Airpower Theorists, Airpower in World War II, Airpower in Korea and Dawning of the Nuclear Age, Airpower in Vietnam and the Cold War Era, Air and Space Power in DESERT STORM and the Post-Cold War, Air and Space Power Today and Tomorrow, Developing a Personal Leadership Philosophy, The Role of a Leader in the Development and Maintenance of an Effective Air Force Team, and The Leader's Role in Mentoring and Stress Management.

00030D: Lessons include Joint Doctrine and Policy; National Leadership and Unified Action Armed Forces; Defense Planning Systems, Part I; Defense Planning Systems, Part II; Course Introduction/Campaign Planning; Campaign Planning Principles, Part I; Campaign Planning Principles, Part II; Deliberate Planning; Deliberate Planning Application; Crisis Action Planning; Crisis Action Planning Application; Planning for Military Operations Other Than War (MOOTW); Non-Governmental Organizations (NGO) and Multinational Planning Considerations.

00030E: Lessons include Joint Force Employment; Organizations, Staffs, and the Functional Components; AFFOR Doctrine and Capabilities; MARFOR Doctrine and Capabilities; NAVFOR Doctrine and Capabilities; ARFOR Doctrine and Capabilities; SOFFOR Doctrine and Capabilities; Coast Guard Roles and Functions and Capabilities; Space; Logistics; Intelligence; Communication; and Information Operations.

00030F: Lessons include The Joint Force Air Component Commander (JFACC) and the Expeditionary Air Force, Tenets and Core Competencies, Air and Space Component Forces, Counterair and Strategic Attack, Counterland and Countersea, Counterspace and ISR, Counterinformation, Airlift and Air Refueling, The Joint Air Operations Center, Methods of Analysis and Targeting, Counterland and Strategic Attack, Counterair, Air and Space Component Forces, Transforming Objectives to Air and Space Strategy, The Joint Air Operations Plan (JAOP) Part I, The JAOP Part II, Command Challenges and Resources

Available to the Leader, and Preparing for Tomorrow While Leading in Today's Air Force.

00030G: Lessons include an Air Force Exercise, Strategy, and The Commander's Perspective.

Academic Credit

The American Council on Education (ACE) is in the process of evaluating the ACSC nonresident curricula for possible credit recommendation. Previous ACE credit recommendations covered ACSC curricula through 1999. Those credit recommendations were

- 9 semester hours in military history and evolution of strategic thought,
- 6 hours in regional studies,
- 6 hours in defense resource management, and
- 6 hours in defense policy and national and international security.

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Kimberly A. Olson, Lt Col, USAF; BS, Rensselaer Polytechnic Institute; MAEd, University of Phoenix; Master of Operational Art and Science, Air University; PhD Candidate, Capella University.

Anthony P. Ring, Maj, USAF; BS, University of Florida; MA, Naval Post Graduate School.

Andrew J. Schlachter, Maj, USAF; BS, East Texas State University; MA, Webster University.

Christopher P. Walker, Maj, USAF; BS, University of Southern Mississippi; Master of Information Resources Management, Webster University; Master of Military Operational Art and Science, Air University.

AIR FORCE INSTITUTE OF TECHNOLOGY

Col David W. Eidsaune, Commandant
CAPT (S) Randolph L. Mahr, USN, Vice Commandant

Internet Address
http://www.afit.edu

Mission: *Provide responsive, defense-focused graduate and continuing education, research, and consultation to improve Air Force and joint operational capability.*

The Air Force Institute of Technology (AFIT) supports the Air Force and national defense through responsive degree-granting graduate and professional continuing education (PCE), research, and consulting services to AF and DOD agencies. Graduate-level work offers carefully selected officers, AF civilians, and international officers the broad educational experience necessary for understanding the role of technology in national defense and in analyzing and solving defense-related problems. PCE programs support AF and DOD needs for immediately applicable knowledge and help prevent scientific and technical obsolescence.

Through integrated teaching and research, AFIT meets the challenges of advances in defense-related technologies. The effective relationships between the institute and other AF and DOD organizations create a unique environment in which education and research provide faculty and students a variety of programs in which to participate. The faculty members—highly qualified military and civilian professionals—stay abreast of ongoing and projected AF operations. Continuous updates of the academic program offer students the latest available technical knowledge and applications. The institute's flexibility enables it to respond quickly to changing AF requirements.

AFIT provides graduate education programs through the Graduate School of Engineering and Management. The School of Systems and Logistics and the Civil Engineer and Services School provide many PCE short courses to assist AF and DOD military and civilian members who wish to become more proficient in their technical and support tasks. The Civilian Institution Programs office manages specialized graduate school and professional continuing education assignments required by a variety of AF needs, including medical and instructional assignments. The Academic Library and the Directorates of Admissions/Registrar, Resources, Mission Support, Public Affairs, and Communications and

Information support the educational and research programs of the institute.

Specific information about AFIT, its component schools, directorates, research and consultation services, as well as the Graduate School of Engineering Management Catalog, are available on line at http://www.afit.edu.

AFIT History

AFIT traces its roots to the early days of powered flight when it was apparent that the progress of military aviation depended upon special education in this new science. In 1919 the Air School of Application was established at McCook Field in Dayton, Ohio, the home of Orville and Wilbur Wright.

When Congress authorized creation of the Air Corps in 1926, the school was renamed the Air Corps Engineering School and moved to Wright Field in 1927. Shortly after Pearl Harbor, the school suspended classes, but it reopened as the Army Air Forces Engineering School in 1944 to conduct a series of accelerated courses to meet emergency requirements.

After World War II, in 1946, the Army Air Force Institute of Technology was established as part of the Air Materiel Command (AMC). The institute was composed of two colleges: Engineering and Maintenance, and Logistics and Procurement. These colleges were later redesignated the College of Engineering Sciences and the College of Industrial Administration.

When the Air Force became a separate service in 1947, the institute was renamed the Air Force Institute of Technology. That same year, the School of Civil Engineering Special Staff Officer's Course began. In 1948 civilian institution programs were transferred to AFIT.

In 1950, command jurisdiction of AFIT shifted from AMC to AU with headquarters at Maxwell AFB, Alabama. The institute, however, remained at what was now known as Wright–Patterson AFB. In 1951 the two AFIT colleges were combined into the Resident College.

The institute established a logistics education program at Wright–Patterson AFB in 1955, and Ohio State University conducted the first courses on a contract basis. In 1958 AFIT began a series of short courses in logistics as part of the Air Force Logistics Command (AFLC) Education Center. Later that year the School of Logistics became a permanent part of AFIT.

In 1954 the 83d Congress authorized the commander of AU to confer degrees upon students in the AFIT Resident College. The college was later divided into the School of Engineering, the School of Logistics, and the School of Business. The first undergraduate engineering degrees

were granted in 1956, and the first graduate degrees in business in 1958. The School of Business programs were transferred to civilian universities in 1960.

In 1963 the School of Logistics was redesignated the School of Systems and Logistics. The Civil Engineering Center was also redesignated as the Civil Engineering School.

In 1967 AFIT became a member of the Dayton–Miami Valley Consortium (DMVC), which later changed its name to the Southwestern Ohio Council for Higher Education (SOCHE). The council is an association of colleges, universities, and industrial organizations in the Dayton area that are united to promote educational advancement. AFIT has traditionally been active in both the council and in other community and interinstitutional programs.

As AFIT begins its ninth decade of operation, the staff and faculty reflect with pride on the contributions its graduates of resident schools and civilian institutions have made to engineering, science, technology, medicine, logistics, and management throughout the Air Force. These immeasurable contributions have been vital to our national security.

AFIT's flexibility allows it to adjust quickly to changing AF requirements. The faculty, comprised of highly qualified military and civilian personnel, stays abreast of projected AF operations; and the programs are continually updated to offer its students the latest available material. For example, an *Air Force Software Review* in 1989 led to AFIT programs in software engineering and software systems management barely a year later. When environmental concerns culminated in the *Pollution Prevention Act of 1990*, AFIT designed and implemented both graduate and professional continuing education programs in environmental engineering management. In 2000–01, working with Air Force Space Command, AFIT developed a new master's degree program in Aerospace and Information Operations. The first students for this program enrolled in the fall of 2001.

During the past 80 years, AFIT has granted over 15,000 degrees and more than 266,000 DOD personnel—including 30 US astronauts—have attended AFIT programs.

On 1 October 1999, AFIT's two graduate schools were combined to become the Graduate School of Engineering and Management.

In the fall of 2000, AFIT completed construction on an $8.9 million engineering laboratory. The lab is used for experimental research in aerospace engineering, electrical engineering, applied physics, and environmental science.

The future promises to be challenging, but AFIT will continue to provide the environment and the opportunity for AF personnel to develop the professional and technological skills needed to master this dynamic challenge.

AFIT Campus

The institute's campus at Wright–Patterson AFB, Ohio, consists of Bane Hall, which houses the Graduate School of Engineering and Management; Twining Hall, home of the School of Systems and Logistics; and Kenney Hall, which houses the command section and main auditorium and connects Bane and Twining Halls. A fourth building is connected to Twining Hall and is the home of the Civil Engineer and Services School. A fifth building, the 30,000-square-foot graduate engineering research laboratory, was officially opened in January 2001. Pending completion of expansion projects, the Civilian Institution Programs offices are collocated with the Aeronautical Systems Center in a building off the main AFIT campus.

Admission

AFIT's graduate education programs are designed to meet specific AF and DOD needs. Eligibility criteria for admission vary from program to program and are targeted for officers and DOD civilians. Academic qualification for admission to the institute's graduate programs, either in residence or at civilian institutions, is comparable to that of any quality graduate institution. In addition, the military accomplishments and potential of the candidate are considered before assignment to any program. Specific admission information as well as applications are available from the Admissions link on the AFIT home page at http://www.afit.edu.

Attendance at AFIT's PCE courses is determined by functional duty requirements. The level of the course and the educational background and professional experience of the candidate are considered to ensure that the participant will be able to benefit from the learning experience.

International Affairs

Annett D. Robb, M.S., Director
Internet Address
http://www.ia.afit.edu

The International Affairs (IA) Directorate is responsible for assisting international military officers and international government civilian employees with the procedures of application for admittance to the graduate and PCE programs at AFIT. The Directorate arranges Informational Programs to ensure international students return home

with an understanding of the responsibility of governments to protect, preserve, and respect the rights of all individuals. Prospective foreign students apply to AFIT through the US Security Assistance Officer (SAO) at the US Embassy in their home countries. Application packages for evaluation for eligibility should arrive at the International Affairs Directorate (AFIT/IA) by the end of April each year in preparation for entrance the following September. Application packages should include undergraduate transcripts reflecting the undergraduate degree; graduate transcripts, if applying for a PhD; Graduate Record Examination (GRE) or Graduate Management Admission Test (GMAT) score reports, as applicable for the program requested; and Test of English as a Foreign Language (TOEFL) scores. Packages should be mailed to

AFIT/IA
Bldg 641
2950 P Hobson Way
Wright–Patterson AFB, OH 45433-7765

Or, applicants may call (937) 255-6800, send a fax to (937) 255-9981, or send electronic mail to AFIT.IA@afit.edu.

Graduate School of Engineering and Management

Dr. Robert A. Calico Jr., Dean

Internet Address
http://en.afit.edu

The Graduate School of Engineering and Management offers advanced scientific, engineering, and management education to qualified AF officers and civilians. Graduates are assigned a wide range of positions in a rapidly changing technological environment. They become not only practicing engineers and managers but also broadly educated leaders capable of directing AF research, support, and development programs. The school is comprised of the Departments of Mathematics and Statistics, Electrical and Computer Engineering, Engineering Physics, Systems and Engineering Management, Operational Sciences, and Aeronautical and Astronautical Engineering. The school also houses centers of excellence in Directed Energy, Measurement and Signals Intelligence, Modeling and Simulation, and Information Assurance. In fact, the school's Center for Information Assurance has been recognized by the National Security Agency (NSA) as a NSA Center of Academic Excellence in Information Assurance Education.

Resident Degree Programs

AFIT's Graduate School of Engineering and Management offers resident graduate degree programs in which students can earn a master's or doctorate degree. The resident master's degree program is 18 months in length, while the PhD program generally requires three years. These programs prepare AF officers primarily for specially designated advanced assignments in areas of science, engineering, and management. In addition to providing quality academic instruction in a relevant discipline, the institute customizes degree programs to specific needs of the AF and the DOD, as suggested by users and technological advancements.

The Graduate School of Engineering and Management currently offers master's degree programs in aeronautical engineering, aerospace and information operations, applied mathematics, applied physics, astronautical engineering, computer engineering, computer systems, electrical engineering, electro-optics, engineering management, environmental engineering and science, materials science, nuclear engineering, operations research, space operations, and systems engineering. Other master's degree areas include programs in logistics management, cost analysis, strategic purchasing, and information resource management. Programs leading to the PhD degree offer areas of specialization in aeronautical engineering, applied mathematics, applied physics, astronautical engineering, computer engineering, computer systems, electrical engineering, electro-optics, materials science, nuclear engineering, and operations research. All programs meet educational requirements common to a wide range of AF assignments.

Accreditation

AFIT is accredited by the Higher Learning Commission and is a member of the North Central Association. The North Central Association can be contacted at

The Higher Learning Commission
NCA
30 North LaSalle Street, Suite 2400
Chicago, IL 60602-2504
Phone: (800) 621-7400

In addition to institutional accreditation, the Accreditation Board for Engineering and Technology accredits selected programs within the Graduate School of Engineering and Management. Their address is

Accreditation Board for Engineering and Technology, Inc.
111 Market Place, Suite 1050
Baltimore, MD 21202
Phone: (410) 347-7700
Fax: (410) 625-2238

Facilities

The Graduate School of Engineering and Management is located at Wright–Patterson AFB, near the headquarters of the Air Force Research Laboratory (AFRL) and five of its directorates—the largest aerospace research facility in the Air Force. The academic programs offered at the school take advantage of the facilities and expertise available at these AFRL facilities. Students are able to interact directly with researchers and engineers working on AF projects. The full spectra of research, development, and acquisition facilities at Wright–Patterson AFB are used by a cadre of AF scientists, engineers, and management specialists, who assist AFIT as adjunct professors and lecturers through their association and aid to course work, development, and instruction.

The school includes extensive laboratories in the Departments of Aeronautics and Astronautics, Electrical and Computer Engineering, and Engineering Physics. The Department of Aeronautics and Astronautics laboratories include facilities for the study of internal and external aerodynamics, system dynamics and control, propulsion, combustion, heat transfer, fatigue, fracture, experimental stress analysis, task automation, and space systems.

The Department of Electrical and Computer Engineering operates facilities for the design and test of flight control and avionics concepts, integrated circuit fabrication and testing, low observables and electronic warfare support, and a full range of computer systems. The Department of Engineering Physics laboratories support research in laser spectroscopy, nonlinear optics, solid-state physics, nuclear radiation detection, nuclear effects, and environmental monitoring. The AFIT's Center for Directed Energy is housed within the Engineering Physics Department. The Center for Directed Energy supports AF and DOD agencies in transitioning high-energy lasers and high-power microwaves to the battlefield through vigorous scientific and engineering research, graduate education programs, and diverse consulting activities. A new center was established during the 2001–02 school year in Measurement and Signals Intelligence (MASINT). This center, also housed within the Department of Engineering Physics, provides both MASINT education and research to a wide variety of DOD personnel.

A mixture of workstations and personal computers networked throughout the facility supports education and research. The Department of Operational Sciences operates the AFIT Center for Modeling, Simulation, and Analysis. This center provides computing and

technological capability for research that applies state-of-the-art mathematical and computing technologies to the solution of operational problems to support better decision making, planning, and scheduling in complex command, control, and war-fighting systems.

Faculty

The faculty of the Graduate School of Engineering and Management consists of 100 members; one-half are military officers. All faculty members hold PhD degrees in their areas of specialty. Faculty members teach approximately 440 graduate-level courses per year and are heavily involved in research. In FY 2002, AFIT graduate faculty produced 130 refereed journal articles, 183 other publications, and 305 contributions to proceedings at national and international symposia. Faculty members were also involved in 143 funded research projects during this period.

Research and Consulting

Research and consultation activities are integral elements of the work of any university. AFIT requires a dissertation or a thesis in all resident graduate degree programs. AF organizations sponsor research performed by students who complete thesis requirements on topics of interest to the AF and DOD. AFIT's consultation services offer DOD organizations and other government agencies the expertise of the faculty in their professional disciplines. Consulting activities also provide the faculty an opportunity for professional development and growth and exposure to the latest in defense-related concepts and concerns, which are incorporated into instruction.

In FY 2002, AFIT graduate students completed 177 master's theses and 22 PhD dissertations. Of these, over 95 percent contributed to an Air Force, DOD, or government agency project. Over 46 percent of AFIT theses were in direct support of Air Force Materiel Command, headquartered at Wright–Patterson AFB. AFIT graduate student research efforts in FY 2002 resulted in approximately $19.4 million in cost avoidance savings for sponsors, and faculty research efforts produced over $5.0 million in research grants.

The school's collocation with the AFRL, the Air Force's largest center of research, development, and materiel activity, produces a synergistic relationship resulting in an atmosphere that balances the theoretical and practical aspects of research and instruction. Close association with engineers and scientists actively engaged in AF research and development keeps research focused on AF technology needs.

Further Information

The Graduate School of Engineering and Management publishes several documents annually that provide detailed information about the graduate school's programs, degree requirements, and research activities.

Detailed information about the graduate school's programs is found in the *Graduate School of Engineering and Management Catalog*. The catalog is located on AFIT's Web site at http://en.afit.edu. Paper or CD-ROM copies of the catalog can also be requested by contacting the Registrar's Office at

AFIT/RRD
2950 Hobson Way
Wright–Patterson AFB, OH 45433-7765
(937) 255-6234, ext. 3137/3122

The Office of Research and Consulting publishes a research report documenting student and faculty research activity, sponsored program support, and research assessment questionnaire results. This report is routinely distributed to research sponsors and potential collaborates. Copies can be obtained upon request by contacting the ENR via any of the following ways:

Mailing address:
AFIT/ENR
2950 Hobson Way, Bldg. 640
Wright–Patterson AFB, OH 45433-7765

E-mail address:
afit.enrsta@afit.edu

Internet address:
http://en.afit.edu/enr

School of Systems and Logistics

Col Kenneth P. Knapp, Dean

Internet Address
http://ls.afit.edu

The School of Systems and Logistics is the Air Force's professional continuing education (PCE) school for technical management disciplines. The school's mission is to plan, develop, and conduct courses and programs to satisfy technical management educational needs in the areas of logistics, systems, and acquisition for the Air Force, Department of Defense, and other federal agencies. Classes were presented to over 7,900 students in 2002. In addition to teaching formal courses, the school presented tailored workshops and seminars to over 1,250 students in 2002 in response to immediate requirements, provided consulting services in its areas of expertise, and conducted relevant research activities.

Traditional resident and on-site courses range in length from three days to three weeks. An extensive set of live and asynchronous web-based courses vary in length based on mode of presentation and curriculum requirements. Some 4,000 students took advantage of the various distance learning courses offered by the school in 2002.

Professional Continuing Education

LS PCE Equals:

- Highest quality PCE available anywhere
- Fully-funded classes for AF activities
- The AF leader in Web-based education for the acquisition and logistics workforce
- Professional growth and development opportunities
- The tools, skills, and abilities to manage the entire spectrum of a system's life cycle

Disciplines

LS offers over 60 courses, executive seminars, and tailored workshops. Some of the courses available include the areas of

- Systems Engineering
- Reliability Centered Maintenance
- Data Management
- Operational Requirements
- Configuration Management
- Life-Cycle Costing
- Purchasing and Supply Chain Management
- Acquisition Management
- Risk Management
- Product Support
- Software Engineering
- Reliability and Maintainability
- Production Management
- Maintenance
- Test and Evaluation
- Transportation
- Combat Logistics
- Team Building
- Acquisition and Logistics Reform
- Financial Management
- Earned Value Management

Faculty

The LS faculty is a unique combination of over 50 AF, Army, and Navy officers and DOD civilians who combine extensive practical field experience with academic expertise and a driving desire to provide whatever education, consulting, and other support our customers need.

Delivery Modes and Funding Information

Resident Course Offerings. LS normally pays for travel and per diem for USAF students.

On-Site Course Offering. LS pays for faculty travel and per diem for all scheduled course offerings. Additional offerings may be negotiated with the school.

Web-Based Course Offerings. LS pays for all costs associated with our Internet courses.

Tailored Courses, Seminars, and Workshops

Resident and on-site presentations are both available. Individualized courses, seminars, and workshops designed to meet unique or recurring needs are LS's specialty.

Management and Technical Consulting

The LS faculty provides individualized consulting services to AF and DOD customers. This includes consultation in their areas of management and technical expertise and small group and team facilitation. They have a long and proven record of providing premier consulting services to such activities as acquisition program offices, depot maintenance organizations, other DOD and federal agencies, and friendly and allied nations, to highlight a few.

Civil Engineer and Services School

Col Jared A. Astin, Dean

Internet Address
http://cess.afit.edu

The Civil Engineer and Services School (CESS) provides PCE for selected individuals in the civil engineer and services career fields. In its capacity as a center of professional education and development, the school has established integrated programs including resident continuing education, nonresident courses and seminars, and consultation services.

Professional Continuing Education

Each of the school's PCE programs satisfies a specific career need of the students. The resident program provides the education that an officer or civilian needs over a lengthy career in AF civil engineering or services. The school offers primarily management-oriented courses. The technical offerings update and broaden the professional and technical knowledge of architects and civil, electrical, mechanical, industrial, and general engineers. These courses provide both management doctrine and applications for development of career professionals as they rise in the management structure. The fundamental objective is to return the students to their assignments better prepared to do their jobs. Specific courses offered vary from year to year depending on the needs of the career fields served by the school.

In addition to resident classes provided at Wright-Patterson AFB, the school offers PCE courses at or near the student's normal duty location through a nonresident program consisting of on-site courses, seminars, and satellite instruction. Some on-site seminars are conducted on a regional basis and focus on a specific function or field problem common to several bases in the area. For these seminars, faculty members conduct the educational program at a centrally located base. In FY 2002, CESS used the Air Technology Network (ATN) to deliver education to 4,727 students, while 943 students received education through on-sites, and 1,209 students attended resident classes at the school.

Faculty

CESS is organized into the Departments of Engineering Management, Environmental Management, Services Management, and the Academic Support Division. The faculty is composed mainly of AF officers with advanced degrees and recent field experience in civil engineering and services, as well as professional competence in a related professional discipline. Highly qualified civilian experts in specific management areas complement the military faculty. Guest lecturers further enhance the program of instruction.

Consultation

Faculty members provide consultation services to customers worldwide. Their research and consultation provide assistance to the Air Force through advice on and analysis of current problems. CESS is a source of knowledge and expertise tailored to support the technical and management needs of the AF and the DOD.

Civilian Institution Programs

Col Randall N. Paschall, Dean

Internet Address
http://ci.afit.edu

The Civilian Institution Programs manage AF officers pursuing educational programs needed to meet specific AF requirements. They provide this advanced education through civilian universities, research centers, hospitals, industrial and business organizations, and governmental agencies. This education covers a broad spectrum of academic disciplines at all degree levels, including postgraduate

programs, continuing education programs, and programs jointly sponsored by the Air Force, other governmental agencies, and industrial and business organizations. The Civilian Institution Programs administers the F. Edward Herbert Armed Forces Health Professions Scholarship and Financial Assistance Program. This program is the largest source of physician and dental accessions annually.

Officers selected for extended programs are assigned to AFIT with duty stations at a university, research center, medical institution, industrial firm, or governmental agency. Those selected for continuing education courses attend in a temporary-duty status. Program managers provide administrative support to students and monitor each educational program to ensure that AF requirements are met in the shortest feasible time.

Regular Degree Programs

Regular degree programs qualify selected officers for validated advanced academic degree positions. Annual requirements are established by Headquarters USAF and include the following fields:

Humanities
Command, Control, and Communication
Mass Communication
Computer Technology
Chemistry
Engineering
Finance
International Relations
Meteorology
Management
Foreign Area Studies
Natural Science
Physical Science
Social Science

Graduate School Program

The Graduate School Program places selected US Air Force Academy (USAFA) graduates in 12-month graduate degree programs immediately following their commissioning. Many of these officers proceed to operational assignments requiring an advanced academic degree and then perform follow-on duty as a USAFA faculty member. Degree disciplines mirror and supplement USAFA instructor preparatory requirements.

Instructor Preparatory Education Program

Instructor preparatory education programs prepare selected officers for faculty or staff assignments at the USAFA, AU, or the resident

schools of AFIT. Programs in a variety of academic disciplines are determined by the needs of each organization.

Fellowships, Scholarships, and Grants Program

This program offers advanced degree and postgraduate research opportunities to officers who win scholarships in public competition. Opportunities are available in several academic disciplines.

Legal Education Degree Programs

There are three different categories of opportunities for legal education through AFIT. The first of these is the Funded Legal Education Program (FLEP). FLEP provides officers up to 36 months to obtain a juris doctorate (JD) degree from a civilian law school and to pass the bar exam.

In the second category is the Excess Leave Legal Education Program. During this program, students receive no pay or allowances, do not accrue annual leave, and pay their own tuition and fees. Students are allowed up to 36 months to obtain their JD degree and to pass the bar exam.

Finally, graduate-level education is available that enables judge advocate general officers to obtain a master of laws degree through a civilian institution. This program lasts nine to 12 months.

Education Delay Program

The Education Delay Program allows selected college graduates in AFROTC to defer entry to active duty to pursue further education at their own expense. Major fields of advanced study are medicine, law, engineering, and physical science.

Education with Industry Program

The Education with Industry (EWI) Program is a 10-month, nondegree internship program sponsored jointly by AFIT, leading industries, and government agencies throughout the country. EWI programs are designed to develop qualities and abilities in selected officers and civilians necessary for effective acquisition management and professional or technical leadership.

Industrial Development Education in Acquisition Program

The Industrial Development Education in Acquisition Program is a short-term program designed to improve acquisition relationships between the government and defense contractors. The program places highly experienced officers and civilians with various defense contractors for five to six months. These selected AF personnel are provided an opportunity to experience the rewards and pitfalls of a defense contractor in an era of declining budgets and layoffs.

Health Care Education Division

The Health Care Education Division offers graduate and postgraduate programs for Air Force Medical Service officers in response to the requirements of the AF Surgeon General. They include residency and fellowship programs for active duty AF medical and dental officers, graduate and fellowship programs for Biomedical Science Corps officers, graduate programs for Nurse Corps and Medical Service Corps officers, and the F. Edward Hebert Armed Forces Health Professions Scholarship and Financial Assistance Program (HPSP/FAP). In addition, it manages the medical PCE program, satisfying the continuing education needs of AF Medical Service officers.

Medical/Dental Residencies and Fellowships Branch

Under this AF program, active duty Medical Corps and Dental Corps officers are sponsored in civilian, DOD, Army, and Navy institutions in advanced medical/dental programs. These residents and fellows are selected each year to maintain adequate numbers of specialty-trained physicians and dentists for clinical practice in the future. The selection process is very competitive. Once an officer has been selected for advanced education and assigned to AFIT, fellows and residents are closely monitored to ensure successful completion of their demanding programs.

Allied Health Education Branch

This program places Nurse Corps, Biomedical Sciences Corps, and Medical Service Corps students in AFIT-funded graduate and postgraduate degree programs at over 65 institutions nationwide. Candidates for these programs are selected each year by the AF Personnel Center to fulfill specific requirements identified by the Integrated Forecasting Board (IFB). Once placed, students are monitored

to ensure their curricula align with IFB requirements and that they maintain a satisfactory academic performance and graduate in the shortest time possible.

Armed Forces Health Professions Scholarship and Financial Assistance Program Branch

HPSP/FAP scholarships are available to military and civilian applicants. The HPSP provides two-, three-, and four-year scholarships (including a monthly stipend) to qualifying students attending accredited medical, osteopathic, dental, and optometry schools. A scholarship leading to a master of science in nursing is also available. Scholarships of variable length are available for third- and fourth-year dental students. While in the HPSP, students serve as inactive Reserve officers.

The FAP provides an annual grant and monthly stipend to qualifying physicians completing residency requirements in selected specialties needed by the AF. While in the FAP, students serve as inactive Reserve officers. Qualifications and application procedures for these programs are published in AFI 41-110, *Applying to Medical School and Medical Programs*, and for the HPSP/FAP in AFITI 36-101, *Armed Forces Health Professions Scholarship and Financial Assistance Program*. Both regulations can be found on-line at http://ci.afit.edu.

Medical PCE Branch

This program randomly selects and funds active duty medical service officers (all corps) to maintain currency and accreditation in their area of specialization through short-course attendance at civilian-sponsored programs. Medical service officers select individual courses that are most appropriate for their professional specialty and meet AF criteria (e.g., appropriate sponsorship, continuing medical education credits). These courses are usually two to seven days in length. Qualifications and application procedures are outlined in the fact sheet located on-line at http://ci.afit.edu. The fact sheet also contains a link to *The Education and Training Course Announcements Catalog.*

HPSP

HPSP/FAP includes both academic scholarships for students and sponsorship for residents pursuing specialty residencies in medicine and dentistry.

HPSP Scholarships are available to military and civilian applicants. Qualifications and application procedures for this program are published

in AFI 41-110, *Applying to Medical School and Medical Programs,* and can be found on-line at http://ci.afit.edu. Additionally, interested individuals should access http://www.Airforce.com for their local Air Force recruiter. Active duty individuals should access http://www.afpc.randolph.af.mil.

The HPSP provides scholarships, which include educational expenses and a monthly stipend, to qualifying students attending accredited schools of medicine, dentistry, and other health care disciplines. Available academic disciplines and scholarship lengths are modified annually to meet staffing requirements in critical specialties as determined by the Surgeon General of the Air Force. Students selected for this program are appointed as inactive obligated reserve officers.

The Financial Assistance Program (FAP) provides an annual grant and a monthly stipend to qualifying physicians and dentists completing residency requirements in selected critical specialties as determined by the Surgeon General of the Air Force. Residents selected for this program are appointed as inactive obligated reserve officers.

COMMUNITY COLLEGE OF THE AIR FORCE

Col Eric A. Ash, Commander/President
Lt Col Marshell G. Cobb, Vice Commander/Executive Vice President

Internet Address
http://www.maxwell.af.mil/au/ccaf/

Mission: *Offer and award job-related associate in applied science degrees and other academic credentials that enhance mission readiness, contribute to recruiting, assist in retention, and support the career transitions of Air Force enlisted members.*

The Community College of the Air Force (CCAF) serves the educational needs of the AF enlisted community by offering associate in applied science degrees and other credentialing programs that enhance mission readiness, contribute to recruiting, assist in retention, and support the career transitions of AF enlisted members. It is the only federally chartered institution in the United States that awards college degrees solely to USAF enlisted personnel.

The college was established in April 1972 at Randolph AFB, Texas; relocated to its present location, Maxwell AFB, Alabama, in April 1979; and realigned under Air University in July 1993. The college mailed its first official transcript in November 1972 and issued its first career education certificate in August 1973.

The college received degree-granting authority in July 1976 and awarded its first associate in applied science degree in April 1977. The CCAF is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, GA 30033-4097: telephone number [404] 679-4501) to award the associate in applied science degree.

With more than 375,000 registered students, the college is the largest multicampus community college in the world. Its affiliated schools are located in 36 states, the District of Columbia, and six foreign locations. More than 7,000 CCAF faculty members provide quality instruction for the professional development of enlisted personnel. The college has awarded more than 235,000 associate in applied science degrees to enlisted members of the active duty Air Force; ANG; Air Force Reserve Command (AFRC); and enlisted members of the Army, Navy, and Marine Corps teaching in CCAF-affiliated schools.

Associate in Applied Science Degree

CCAF awards an associate in applied science degrees in the following areas.

Aircraft and Missile Maintenance
Allied Health
Electronics and Telecommunications
Logistics and Resources
Public and Support Services

CCAF degree programs consist of a minimum of 64 semester hours. To graduate, students must hold the journeyman (five) level in the appropriate Air Force specialty code (AFSC) at the time of program completion and have a minimum of 16 semester hours of CCAF credit applied to their degree program. Students must complete all degree requirements before separating, retiring, or becoming commissioned officers.

Academic Requirements	**Semester Hours**
Technical Education	24
Leadership, Management, and Military Studies	6
Physical Education	4
General Education (3 hours in each of following)	15
Oral Communication	3
Written Communication	3
Mathematics	3
Social Science	3
Humanities	3
Program Elective	15
TOTAL	**79**

CCAF System

The college functions as a single institution with respect to credit documentation, records, and educational program management. The system is supported by the Air Force Recruiting Service, USAF Occupational Measurement Squadron, Airman Classification Squadron, and Headquarters AETC. These agencies provide the recruitment, job analysis, and staff support required for successful operation of the system.

Affiliated Schools

The instructional programs of the college are conducted by the Air Force in traditional learning environments. Even when advanced instructional technology and individualized instruction are used, students attend regularly scheduled classes and complete specified course work under assigned faculty in much the same manner as students in the classrooms of most traditional civilian colleges, except that students typically attend one course at a time, eight hours each day, five days a week, until satisfactorily completing the course.

What is often perceived as nontraditional about the college is its form of organization and administration. AF schools provide instruction at numerous locations because of the geographic mobility of the students as they pursue their AF occupations. Accordingly, each of these separate education and training organizations, called affiliated schools, is a component of a worldwide educational system.

Education Services Centers

The general education component of every degree program must be completed in civilian colleges and/or through nationally recognized testing programs, during off-duty time, with the Air Force paying all or a portion of the tuition costs. Counseling of students is accomplished by trained education counselors located on all major AF installations and CCAF advisors at each ANG and AFRC installation.

The education services centers administer the College-Level Examination Program, Defense Activity for Non-Traditional Education Support Subject Standardized Tests, and Excelsior College Examinations. They also conduct formal graduations worldwide at least once each year, usually during the months of April and October.

Advisory Bodies

The college uses several advisory bodies composed of members from the CCAF administrative staff, CCAF system, and appointed civilian members. These advisory bodies provide the college with direction and customer feedback, set policies and procedures, and facilitate communication throughout the system.

Board of Visitors. The CCAF Board of Visitors is a federal advisory committee consisting of up to 12 appointed members from education, business, and industry. The appointed members represent the public interest and serve with ex officio members who represent the interests of the Air Force, the institution, faculty, and student body.

Affiliated Schools Advisory Panel. Members represent categories of technical training, field training, enlisted professional military education, and command-sponsored schools affiliated with the college. The panel provides a forum for reaffirming CCAF's commitment to providing job-relevant educational opportunities to all enlisted personnel.

Education Services Advisory Panel. The panel includes the CCAF dean of academic affairs and education services advisor, Headquarters USAF and MAJCOM personnel, base-level education services personnel, and ANG/AFRC counterparts. The panel provides an interface between the college and the education services system.

CCAF Policy Council. Twenty-two representatives from all elements of the CCAF system make up the Policy Council. The council, chaired by the CCAF dean of academic affairs, meets twice a year and submits recommendations concerning academic policies, degree programs, award of credit, academic standards, affiliation of AF schools with the college, and other policy matters to the commander/president.

SECTION II

OTHER AIR UNIVERSITY SCHOOLS AND PROGRAMS

Professional Military Education for officers includes the Air War College and Air Command and Staff College, both addressed in the previous section. This section includes the remainder of officer PME conducted by Squadron Officer College and enlisted PME programs under the College of Enlisted PME. Officer accession and training schools, professional continuing education, advanced distributed learning, and citizenship education programs are also addressed in this section.

PROFESSIONAL MILITARY EDUCATION PROGRAMS AND SCHOOLS

Air University's professional military education schools prepare junior, midcareer, and senior noncommissioned and commissioned officers and selected civilians for progressively more responsible positions throughout the Air Force and DOD. All colleges, schools, and programs operate within the framework of the Air Force continuum of education, a coordinated and integrated educational system that links curricula across Air University so that each college, school, and program builds on the education provided at the previous level. This continuum includes five core areas: the profession of arms, military studies, international security studies, communication studies, and leadership and management studies.

SQUADRON OFFICER COLLEGE

Col Noel T. Jones, Commander

Internet Address
http://www.maxwell.af.mil/au/soc/

Vision: *Squadron Officer College will produce company grade officers with the heart and mind of a warrior and a passion for commanding air and space power.*

Mission: *To develop twenty-first century airmen who can advocate the unique value of air and space capabilities, who value team achievement over individual success, and who are committed to the profession of arms.*

The Squadron Officer College (SOC) is designed to educate company grade officers on the basic concepts of modern-day air and space warfare and essentials of military leadership. Commissioned as an AU college in February 2000, SOC is composed of two educational schools: the Air and Space Basic Course (ASBC) and Squadron Officer School (SOS).

ASBC is a six-week program organized to teach second lieutenants the essential concepts of how the Air Force prosecutes aerial wars. The course begins with a survey of key AF weapon systems and includes descriptions of how these weapons are employed in combat. Other lessons include an introduction to war theory, historical airpower principles, strategic concepts, and the basics of air and space doctrine. A new addition to the program is a five-day combined operations period with the Senior Noncommissioned Officer Academy. This integrated curriculum includes a focus on hands-on leadership skills, improved communication abilities, and a better appreciation of both officer and enlisted force development issues. During the entire ASBC program, students are required to act as military teams, using what they have learned in the ASBC curriculum to solve complex problems. After learning these fundamental concepts, students work as a combat team in a simulated Air and Space Operational Center and report to a joint force air component commander (JFACC). They develop and execute an aerial campaign plan in a complex wargame. Through these efforts, ASBC provides the fundamental concepts and motivation for lieutenants to begin learning and inculcating the skills, values, and ethos of a professional airman.

SOS was originally commissioned in the 1950s during the Korean War. Initially, it was organized as a war leadership school, teaching USAF captains the salient concepts of aerial warfare and the command responsibilities involved in combat situations. Col Russell V. Ritchey,

USAF, the school's founder, stated that SOS's primary purpose was to study war. "I wanted no off-shoots," explained Colonel Ritchey, "which would distract the student from his primary aim or compromise the purity of the profession."

Following these guidelines, today's SOS is designed to teach the essence of military leadership, air and space doctrine, international security issues, and communication skills. Students are not only exposed to these new concepts, they are required to apply these lessons in a variety of complex experiential learning exercises which involve the human emotions of fatigue, frustration, and esprit. Physical fitness, team problem solving, and proper military decorum are critical aspects of the school's offerings. Over the years, Medal of Honor recipients, astronauts, and principal military commanders—both in the United States and from various international countries—have graduated from this institution. SOS is a premier military leadership school.

SOC command support divisions include a Curriculum Directorate; Plans, Programs, and Evaluations Directorate; Personnel Directorate; and Directorate of Mission Support. The Director of Curriculum develops and maintains educational lessons, readings, and a distinguished speaker program for both ASBC and SOS. The Plans, Programs, and Evaluations Directorate manages the day-to-day classroom schedules, evaluation procedures, and course surveys, and conducts a long-range planning cycle. The Director of Personnel oversees the manning of faculty and works on student personnel issues. The Directorate of Mission Support ensures maintenance of all facilities, including extensive athletic playing fields, physical fitness courses, equipment, and military leadership obstacle courses.

Air and Space Basic Course

Col Richard L. Anderson II, Commandant

Internet Address
http://www.maxwell.af.mil/au/soc/asbc

Mission: *Inspire new USAF officers to comprehend their roles as airmen who understand and live by USAF core values, can articulate and demonstrate USAF core competencies, and are dedicated as warriors in the world's most respected air and space force.*

Goal: Through a shared dynamic experience, ASBC commissioned officers and civilians will comprehend how the unique capabilities of air and space power support our national security objectives and value the

importance of personal ownership of, and commitment to, their Air Force and the profession of arms.

ASBC is an educational program for newly commissioned second lieutenants and for selected civilians. It was originally created as a test program in 1997 and was commissioned as a formal AU educational program in January 1999. On 8 February 2001, it became one of the key schools within SOC.

In April of 2003, the Chief of Staff of the Air Force directed an "order of magnitude" increase in officer and enlisted interaction in professional military education. From this guidance evolved ASBC's new combined operations with the Senior Noncommissioned Officer Academy. This revolutionary change increases the ASBC course length from four weeks to six weeks, and includes new curriculum topics focusing on hands-on leadership, communications, and enlisted force development issues. Test classes will be conducted in August and October 2003 with full-scale implementation scheduled for January 2004.

ASBC's curriculum explores the foundations of air and space doctrine, the core competencies, and examines how air and space power is employed in combat. In all these lessons, the importance of the Air Force's core values are continually reemphasized. Students attending ASBC are encouraged to comprehend and value their roles as airmen in the world's most respected air and space force. They are required to articulate how the USAF core competencies were forged in the fires of aerial combat in the skies over Europe, Japan, Korea, Vietnam, Iraq, and Serbia. They are required to demonstrate how the AF plans to fight and operate in wars as a key part of a joint or coalition force.

In this post-cold-war era, where the military threats are complex and illusive, ASBC was created to provide young officers with the logic and the grammar of their unique Air Force profession. "To prepare for an uncertain future," stated Carl Builder, "the Air Force needed to readdress its fundamental 'sense of identity and purpose.'" Because of its emphasis on heritage and on the study of air and space operational planning, ASBC is very different from the traditional curriculum used in most precommissioning programs.

The course is built around indoor and outdoor classroom activities. The pinnacle of the curriculum is "Blue Thunder," a wargame executed in bare-base conditions where students are thrust into key roles in an AOC. Students exercise a theater air and space campaign, including development of a master air attack plan. This capstone wargame demonstrates to the student that teamwork is required to successfully plan a joint air and space campaign. Wargames and application-level exercises are used throughout the course to maximize student learning level and comprehension.

Curriculum

The ASBC curriculum consists of two interconnected methods of study. The first method is linear, in which each lesson is built upon the preceding one and addresses the achievement of the designated cognitive educational goal. The second method is nonlinear, which strives to create the affective changes to motivate students to consider themselves AF officers above all else.

To maximize the learning level of entry-level students into this intense six and one-half week curriculum, ASBC employs state-of-the-art educational technologies in the classroom and in various exercises. To help students learn and instructors teach, the learning material includes the following:

- DOD Digital Versatile Disk (DVD) classroom application "What Now, Lieutenant?" for presenting core values and ethics case studies for random access and full-screen, full-motion professional video segments.

- Multiplayer networked wargames, AFEX and AIRGAP, are played to reinforce application-level learning, with an emphasis on the AF core competencies, joint service teamwork, integration of theory and doctrine concepts, crisis-action planning under stress, and decentralized execution. Flights are broken up into two teams, with each team playing against its sister flight.

- An exported version of Air Force Wargaming Institute's (AFWI) Air Force Command Exercise System (ACES) theater campaign simulation, which allows student flights to conduct an air and space campaign against an opposition force comprised of other students. This exercise, called Blue Thunder, is a capstone wargame fought from an austere forward deployment site, which includes a simulated AOC.

Duration and Quota

ASBC will conduct six classes during academic year 2003-04 for a total of 4,987 students. Each class lasts six weeks. The following curriculum summary hours are based on the test class which had 33 training days. These hours will be adjusted as appropriate for the six-week course.

Curriculum Summary

Curriculum Area	Academic Hours
Profession of Arms	99.75
Leadership/Management	47.50
Military Studies	14.75
Communication Studies	18.50
International Studies	4.50
TOTAL INSTRUCTION	**185.00**
Other (Admin and Testing)	24.75
Course Total	**209.75**

Academic Credit

The previous four-week version of the ASBC program was recommended for academic credit by the American Council on Education. They recommended four semester hours credit at the baccalaureate level. Recommendation on the newly revised program is to be determined.

Squadron Officer School

Col Jonathan Klaaren, Commandant

Internet Address
http://www.maxwell.af.mil/au/soc/sos/

Mission: *Develop dynamic airmen ready to lead air and space power in an expeditionary warfighting environment.*

Goals: Educated students will value their unique role as AF officers by

- applying air and space leadership to effectively execute military missions, and
- valuing the warrior-leader ethos and its impact on air and space power development.

SOS is an AU educational institution designed to teach USAF company grade officers the skills of command leadership. The institution originated in 1946 at Tyndall Field, Florida, and was called the Air Tactical School. In 1950 the Air Tactical School closed and the faculty transferred to Maxwell Field, Alabama. Here, under the leadership of Col Russell V. Ritchey, they developed a new educational program called "Squadron Officer Course." The first company grade officers began

attending this institution on 23 October 1950. From 1950 to 1959, Squadron Officer Course was an organizational unit within ACSC. Above all, noted Colonel Ritchey, the course was developed primarily to educate officers within the expertise of the profession of arms. In 1959, this course was renamed Squadron Officer School (SOS) and began reporting directly to the AU commander.

SOS teaches all the key command and leadership concepts of being able to analyze situations, develop plans, train followers, perform as a team, and critique the effort. While attending SOS, students step away from their special technical skills and broaden their focus on the Air Force as an institutional fighting force. They prepare for command responsibilities, study the significance of the core values, and learn about air and space doctrine. After studying various military leadership concepts, they are required to apply these lessons in various experiential learning exercises.

SOS not only provides students with an opportunity to understand how leadership skills influence team achievement but also provides these officers the opportunity to experience the responsibilities of being an effective follower. This focus on followership includes such functions as taking risks, working with others, and constructively dissenting when the team or leader is headed in the wrong direction. In addition, the SOS experience helps students refine their written and oral communication skills as well as establishes a foundation of knowledge on how the Air Force fights wars.

Resident Curriculum

SOS presents air and space history, doctrine, and employment concepts to the students throughout the course. The students improve their knowledge of the Air Force and its mission through multiple readings, seminar discussions, and lectures presented by air and space power experts. In the Operation Atlantis wargame, students organize and operate an air and space operations center. They get an opportunity to build and execute an air campaign plan while further applying the principles of leadership, communication skills, and team building.

To emphasize team building, leadership, and followership, the SOS curriculum lessons are sequenced concurrently, rather than sequentially. Students, therefore, are required to study a lesson, work as a team, and then apply the ideas in a complex exercise afterward. This approach to learning helps officers improve professionally and promotes the inculcation of the warrior-leader ethos.

Duration and Quota

SOS will conduct seven classes during academic year 2003-04 for a total of 2,964 students. Each class lasts five weeks.

Prerequisites and Selection

Captains with at least four and less than seven years of total active federal commissioned service, who are not in a failed or deferred promotion status, are eligible to attend SOS. DOD civilians in the grade of GS-9 and above with at least four years of continuous civil service are eligible. See Air Force Catalog 36-2223, *USAF Formal Schools,* for additional information.

Curriculum Summary

Curriculum Area	Academic Hours
Profession of Arms	33.00
Leadership/Management	77.25
Military Studies	11.75
Communication Studies	17.75
International Studies	6.00
TOTAL INSTRUCTION	**145.75**
Other	39.75
Course Total	**185.50**

Nonresident Program

The SOS Nonresident Program 26 (book version) and Program 27 (CD-ROM version) consist of five courses: 26A/27A, Profession of Arms; 26B/27B, Military Studies; 26C/27C, International Studies; 26D/27D, Communication Studies; and 26E/27E, Leadership and Management Studies. Under normal circumstances, students must complete the entire program within 18 months.

The SOS Nonresident Program presents similar, but not parallel, material to the resident curriculum and is administered by AFIADL at Maxwell AFB (Gunter Annex). Captains or above and selected DOD civilians in the grade of GS-9 or above are eligible to enroll in the program. See the Squadron Officer College Advanced Distributed Learning web site (http://sos.maxwell.af.mil/socadl/course_info.htm) for detailed course description and enrollment information.

Curriculum Summary

Curriculum Area	Academic Hours
Profession of Arms	12
Military Studies	21
International Studies	18
Communication Studies	18
Leadership/Management	27
TOTAL	**96**

Academic Credit

Resident Program. The American Council on Education recommends six semester hours credit at the baccalaureate level, and six semester hours at the graduate level for the resident course.

Nonresident Program. The American Council on Education recommends six semester hours credit at the baccalaureate level for the nonresident course.

COLLEGE FOR ENLISTED PROFESSIONAL MILITARY EDUCATION

Col Michael Gegg, Commander
CMSgt Sharon Turk, Vice Commandant

Internet Address
http://www.maxwell.af.mil/au/cepme/college.htm

Mission: *Provide the continuum of education necessary for the Air Force to develop the best enlisted leaders in the world.*

The College for Enlisted Professional Military Education (CEPME) was activated 15 December 1993. The college is responsible for the instructional programs and faculty development for the airman leadership schools (ALS), noncommissioned officer academies (NCOA), and the Air Force Senior Noncommissioned Officer Academy (AFSNCOA). These schools graduate approximately 27,500 students annually. The college conducts studies of enlisted professional military education (EPME) issues and advises Air Force leadership on EPME matters.

Goal: Expand the leadership ability of enlisted leaders and strengthen their commitment to the profession of arms by integrating sound leadership, communication skills, and military studies principles and concepts throughout the ALS, NCOA, and AFSNCOA curricula.

CEPME implements its missions and goals through its resident programs and distance learning programs. The major components of CEPME are the Educational Programs Cadre (EPC), the Air Force Enlisted Heritage Research Institute (AFEHRI), the AFSNCOA, and nine NCOAs located in the continental United States (CONUS).

Educational Programs Cadre

Dr. Doug Savell, Dean

Internet Address
http://www.maxwell.af.mil/au/cepme/epc/cadre.htm

EPC was created in 1993 by reorganizing the USAF Enlisted PME Support Center at Maxwell AFB, Alabama, and the USAF Senior NCO

Academy Curriculum and Evaluation Directorates. EPC provides educational programs supported by the Continuum of Education to prepare enlisted personnel for increased responsibilities. EPC is comprised of the dean; the Educational Directorate, consisting of three instructional design teams; Profession of Arms, Leadership, and Communication Skills; and the Operations Directorate consisting of Data Analysis, Operations and Training, Interactive Courseware Development, and Plans and Programs. Additionally, an Air National Guard (ANG) liaison, a training NCO, and an administrative staff are assigned to EPC. EPC develops, validates, and evaluates the curriculum for resident and distance learning programs and formulates policies and procedures governing operations at all EPME schools located worldwide. EPC is responsible for developing, standardizing, and assuring the effectiveness of all EPME programs for the USAF. EPC is the office of chief responsibility for the 8T000 Career Field Education and Training Plan (CFETP) as well as the Community College of the Air Force (CCAF) point of contact for all CEPME schools. The EPC staff provides technology assistance and password protected Web access for all EPME schools to ensure rapid updates of policies, procedures, and curriculum. The EPC develops and manages distance learning courses for each level of EPME and designs and teaches orientation and training for new instructors assigned to ALS, NCOA, and AFSNCOA programs.

Air Force Enlisted Heritage Research Institute

CMSgt David L. Hamel, Director

Internet Address
http://www.maxwell.af.mil/au/cepme/heritage/homepage.htm

The Air Force Enlisted Heritage Research Institute (AFEHRI) was established on 23 May 1997 as a component of CEPME. It is comprised of a director, director of operations, and a curator. The AFEHRI provides curriculum and student support to all facets of CEPME and Airman Leadership Schools. It also provides secondary student support to the USAF First Sergeant Academy, USAF Historian Development Course, and 18 Air National Guard leadership schools. It captures, preserves, and archives, enlisted history and heritage, and assists in developing the Air Force Promotion Fitness Examination.

The Institute is comprised of two elements. The Research and Archives Element consists of a research center, archives storage, and a student computer lab. The Historical Holding Element consists of the Enlisted Heritage Hall with many student teaching exhibits. It is also a city and state tourist attraction and serves a military museum to civilian visitors.

The AFEHRI preserves the rich and dramatic heritage and tradition of the enlisted corps of the USAF and its antecedents: Aeronautical Division, Army Air Service; Army Air Corps; and Army Air Forces in the development of airpower to defend the United States. AFEHRI achieves its mission by featuring artifacts, art collections, pictorial exhibits, written and oral documentation, audiovisuals, equipment, and selected aircraft parts. Additionally, students use the in-house and on-line research capabilities to enhance learning and complete enlisted heritage research projects. A significant archival holding is also available, and efforts are systematically made to ensure its growth and availability to researchers and the public.

Air Force Senior Noncommissioned Officer Academy

CMSgt David Andrews,Commandant

Internet Address
http://www.maxwell.af.mil/au/cepme/sncoa/sncoa.htm

The Air Force established the AFSNCOA in 1972 to fill a void in professional military education (PME) for AF senior NCOs. In January 1973, the academy began its first class with 120 senior NCOs and a curriculum divided into two major areas: military environment and military management. Presently, the academy has an annual enrollment of over 1,800 senior NCOs, chief petty officers, and international senior NCOs. Offering instruction in three major areas, the AFSNCOA is the capstone of enlisted PME.

In 2003, the secretary and chief of staff of the Air Force approved the testing of an initiative designed to improve interaction between officers and enlisted members in the professional military education environment. The initiative calls for students attending the Air and Space Basic Course (ASBC) and Air Force Senior NCO Academy merging together in teams for a week of instruction with the goal of increasing understanding and appreciation of the talents officers and enlisted bring in projecting airpower.

The instruction provided by the AFSNCOA makes a positive impact on the careers of its graduates. Eight academy graduates have served as the chief master sergeant of the Air Force—Thomas N. Barnes, James M. McCoy, Arthur L. Andrews, Sam E. Parish, James C. Binnicker, David J. Campanale, Eric Benken, and Frederick J. Finch. Most command chief master sergeants are also academy alumni.

Mission: *Expand the leadership capabilities of senior enlisted leaders and reinforce a commitment to the profession of arms.*

Goal: Conduct a relevant and rigorous educational program contributing to the professional development and motivation of senior NCOs.

Eligibility: Air Force and selected AFRes and ANG senior NCOs attend the academy in residence. Selected Army, Navy, Coast Guard, and international military personnel also attend on a limited basis. Active duty AF personnel must have at least one-year retainability following graduation, and this course must be completed before they can be promoted to chief master sergeant.

Resident Curriculum

The academy's philosophy is that senior enlisted leaders have the need and desire for advanced PME to assist them in fulfilling their expanding leadership and management roles. The senior EPME program is based on sound educational principles with high academic standards. It strives to satisfy student needs with individualized instruction where possible.

Curriculum Summary

Instructional Area	Academic Hours
Profession of Arms	99
Communication Skills	36
Leadership and Management	95
Collateral Curriculum	21
Commandant's Time	11
TOTAL	**262**

Duration and Quota. The AFSNCOA conducts six, 33 academic-day resident classes each year with a student quota of 360 per class.

Selection. The Air Force Military Personnel Center identifies and notifies active duty students for attendance. AF students must meet all AF standards. Students from other services must meet their service's standards. Complete eligibility and selection criteria can be found in AFI 36-2301, *Professional Military Education* and on-line at the Air Force Education and Training Course Announcements (ETCA) (https://etca.keesler.af.mil).

Academic Credit. The AFSNCOA is affiliated through CEPME to CCAF, which is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools. Graduates of the resident

course are currently awarded nine semester hours of undergraduate credit from the CCAF.

Noncommissioned Officer Academies

In October 1993, a Headquarters USAF program action directive ordered the transfer of the 10 CONUS NCO academies from AF major air commands (MAJCOM) to Air Education and Training Command (AETC). In November 1993, AETC assigned these academies to the newly formed CEPME. Currently, nine NCO academies aligned under CEPME operate in CONUS at Goodfellow, Gunter, Keesler, Kirtland, Lackland, McGuire, Peterson, Robins, and Tyndall Air Force bases. An NCO academy, located at McGhee Tyson Airport, Knoxville, Tennessee, is under the functional control of the ANG. Air Force MAJCOMs overseas operate their own academies. Pacific Air Forces (PACAF) has three academies located at Elmendorf AFB, Alaska; Kadena AB, Okinawa, Japan; and Hickam AFB, Hawaii. US Air Forces, Europe, has one academy at Kapaun AS, Germany.

Mission: *Provide PME to prepare NCOs for positions of greater responsibility by broadening their leadership and supervisory skills and expanding their perspective of the military profession.*

Goal: Furnish an environment for students to gain an understanding of their positions in the military structure and develop the skills necessary for effectiveness in those supervisory positions.

Eligibility: Students are technical sergeants and technical sergeant selects with six months of retainability upon completion of the NCOA. Students must complete the NCOA before they assume the grade of master sergeant.

Resident Curriculum

The NCO Academy 223-hour curriculum consists of three academic areas—profession of arms, communication skills, and leadership. The principal method of instruction used at this level of EPME is the guided discussion.

Curriculum Summary

Instructional Area	Academic Hours
Profession of Arms	48
Communication Skills	50
Leadership and Management	103
Collateral Curriculum	13
Commandant's Time	9
TOTAL	**223**

Duration and Quota. The NCOA is conducted at 14 locations worldwide and most NCOAs operated seven classes per year. This is a 28-academic-day course, and quotas are distributed by each MAJCOM annually.

Selection. Students are selected based on the eligibility criteria outlined in the ETCA and AFI 36-2301, *Professional Military Education*. Local MPFs manage this process for each base.

Academic Credit. The nine CONUS NCO academies are affiliated through CEPME to the CCAF, which is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools. Overseas NCOAs and the ANG NCOA located at McGhee Tyson Airport are affiliated directly with CCAF. All graduates of the resident course currently receive 11 semester hours of undergraduate credit with CCAF.

Airman Leadership School

In April 1991, the AF directed that Headquarters AU establish the Airman Leadership School (ALS) program. On 1 October 1991, a new and standardized program came on-line to teach senior airmen PME. The stand up of the new ALS discontinued the Noncommissioned Officer Preparatory Course (NCOPC) and the Noncommissioned Officer Leadership School (NCOLS) programs. ALS became the first of three PME programs that enlisted professionals attend during their AF careers. Functional responsibility for each ALS rests with the local Mission Support Squadron.

Mission: *Prepare AF personnel in the rank of senior airmen for supervisory duties and foster a commitment to the profession of arms.*

Goal: Provide senior airmen an opportunity to more fully understand their position in the USAF organizational structure and the continued need for professional development to be effective NCOs.

Eligibility: Students are senior airmen or staff sergeant selects with 48 months time in service and six months retainability in the Air Force upon graduation. ALS completion is required before attaining the rank of staff sergeant.

Resident Curriculum

ALS consists of 192 curriculum hours conducted over 24 academic days at 72 locations worldwide. The primary instructional methodology is the guided discussion. Instruction covers three broad academic areas including profession of arms, communication skills, and leadership. Flight Chief's Time and Collateral Curriculum round out the course.

Curriculum Summary

Instructional Area	Academic Hours
Profession of Arms	46
Communication Skills	43
Leadership and Management	85
Collateral Curriculum	12
Flight Chief's Time	6
TOTAL	**192**

Duration and Quota. The ALS is conducted at 69 active duty AF bases worldwide and three ANG bases located in the CONUS. This is a 24-academic-day course, and most ALS's operate eight classes per year. Quotas are locally assigned based on the eligible population.

Selection. Students are selected based on the eligibility criteria outlined in the ETCA and AFI 36-2301, *Professional Military Education*. Once selected, attendance is mandatory. Local MPFs work directly with each ALS to ensure eligible students are selected.

Academic Credit

All ALSs are individually affiliated with the CCAF, which is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools. Graduates of the resident course currently receive nine semester hours of undergraduate college credit with CCAF. CCAF is

automatically notified of class graduations for update of CCAF records and transcripts.

CEPME Distance Learning

The College for Enlisted Professional Military Education provides distance or distributed learning opportunities to the AF enlisted corps.

AFSNCOA Distance-Learning Courses

AFIADL Course 00012. The AFSNCOA distance learning (DL) course on CD-ROM consists of five modules: Profession of Arms, Behavior Analysis, Human Resource Development, Organizational Management, and Communication Skills. There are five objective, multiple-choice tests.

NCO Academy Distance Learning Course

AFIADL Course 00006. The curriculum of the NCO Academy DL course consists of four volumes addressing communication skills, military studies, leadership and management principles, and quality of life.

Airman Leadership School Distance Learning Course

AFIADL Course 00001. The curriculum of the ALS DL course covers the profession of arms, leadership and communication skills/principles for first-line supervisors.

Eligibility

Eligibility criteria, course responsibilities, and academic credit are outlined in the on-line *Air Force Institute for Advanced Distributed Learning Catalog* (http://www.maxwell.af.mil/au/afiadl/curriculum/catalog/html/contents04-01.htm).

OFFICER ACCESSIONS

Air University's Officer Accession and Training Schools provide centralized leadership and coordinate policies and curriculum for two of the Air Force's three commissioning programs. The third program is the United States Air Force Academy—a direct reporting unit under the chief of staff of the Air Force.

AIR FORCE OFFICER ACCESSION AND TRAINING SCHOOLS

Brig Gen Paul M. Hankins, Commander

Internet Address
http://www.afoats.af.mil

Mission: *Produce leaders for the Air Force and build better citizens for America.*

In 1995 the Air University Board of Visitors—an advisory board to the AU commander consisting of educators, business leaders, and retired Air Force (AF) personnel—recommended that AU bring together officer accession sources to streamline the organizational structure and reduce the commander's span of control. Air Force Officer Accession and Training Schools (AFOATS) was activated on 14 February 1997, merging Officer Training School (OTS) and the Air Force Reserve Officer Training Corps (AFROTC). AFOATS also directs the AF's high school citizenship training program, AF Junior ROTC (JROTC).

AFOATS furnishes coordinated leadership and policy direction for the AF's officer recruiting, training, and commissioning programs at OTS and at AFROTC detachments at 144 host universities. AFOATS staff manages support and develops curriculum to train tomorrow's AF officers. The merger of AFROTC and OTS provides

- a single focal point for AETC's officer accessions,
- centralized support and curriculum areas,
- one organization to commission and train over 80 percent of AF line officers and more than 95 percent of nonline officers, and
- a method to smooth production flow between AFROTC and OTS.

Air Force Reserve Officer Training Corps

Col Alan E. Thompson, Commander

Internet Address
http://www.AFROTC.com

The Air Force Reserve Officer Training Corps is the Air Force's largest and oldest commissioning program. Initially based on the Morrill Act of 1862 and the National Defense Act of 1916, the ROTC program underwent a major change with the ROTC Vitalization Act of 1964. This act, which eliminated compulsory ROTC at state land-grant colleges and universities, offered 2- and 4-year scholarships with a focus on academics and leadership. The Vitalization Act established the Junior ROTC program and paved the way for today's AFROTC program. AFROTC currently operates at 144 colleges and universities and has nearly 900 crosstown agreements with other institutions. As of October 2002, cadet enrollment was over 17,000 college students. AFROTC's scholarship program includes more than 8,300 cadets and a scholarship budget of $51.7 million in fiscal year 2003.

Programs and Operations

AFROTC offers three primary routes to an Air Force commission for college students: the four-year program, the two-year program, and the one-year program for critical-need majors. Students attend Air Force ROTC classes along with other college courses. The four-year program is divided into two phases: the General Military Course (GMC) and the Professional Officer Course (POC). The GMC, which encompasses the freshman and sophomore years, consists of one hour of classroom work and two hours of leadership laboratory each week. Upon completion of GMC requirements, cadets who wish to compete for entry into the last two years of the program, the POC, must do so under the requirements of the POC selection system. After POC selection, students must complete a four-week summer field training at an assigned Air Force base to assess their potential as officers. Cadets enrolled in the POC attend class three times a week and participate in a weekly leadership laboratory lasting two hours. Once enrolled in the Professional Officer Course, all cadets are enlisted in the Air Force Reserve and assigned to the Obligated Reserve Section. This entitles them to a monthly nontaxable subsistence allowance.

Cadets not enrolled in ROTC as freshmen or sophomores attend a five-week summer field training. These two-year applicants must

successfully complete an extended field training. This five-week field training allows extra time for these cadets to gain the leadership skills GMC cadets acquire in leadership laboratories (LLAB) during the first two years of ROTC. Students entering the two-year ROTC program also complete entry-level classroom work during this field training. Two-year applicants are not committed to the Air Force until they return to school in the fall and make a decision to enlist through AFROTC.

The one-year program was designed to meet AF production shortfalls in certain fields. Students attend a seven-week ROTC field training during the summer. After contracting, these cadets also receive a monthly non-taxable subsistence allowance during the academic year. This program is only used in certain situations and may not be available at all times. After successfully completing requirements, the cadet is commissioned as an AF officer.

AFROTC continues to institute initiatives to improve its program, retain students and conserve resources.

Special Programs

There are many AFROTC optional programs that provide cadets with specialized off-campus learning experiences. These include professional development training, base visits, and introductory flight training for senior cadets categorized as pilot or navigator candidates.

Professional Development Training (PDT)

The Professional Development Training Program provides cadets with specialized and individual professional development. The learning experience is similar to an intern program. Cadets are placed at AF bases to acquaint them with life, duties and responsibilities of AF personnel. This is a voluntary program that provides an important transition for a cadet between training conducted at field training, and commissioning as a second lieutenant.

Cadets are assigned to AF bases normally for two or three weeks. Limited opportunities are also available in parachuting, glider and survival training courses.

Base Visits

Base visits give cadets a firsthand look at operational AF bases. They are normally conducted during the academic year. An AFROTC instructor accompanies each visit to add personal knowledge of the AForce mission to the cadets' base visit experience. This program shows cadets the AF professional environment.

Scholarships

Current emphasis in the AFROTC College Scholarship Program (CSP) is to award scholarships to candidates pursuing undergraduate engineering or other scientific and technical disciplines. More than half of AFROTC scholarships are awarded to students in these disciplines. However, students in every degree program enjoy scholarship opportunities, as the AF seeks to engage students who excel both academically and militarily.

AFROTC awards scholarships in increments of four, three, and two years. AFROTC offers several types of scholarships. Type 1 covers full tuition and most required fees. Type 2 covers tuition and fees but is capped at $15,000 annually. Type 7 scholarships pay full college tuition and most lab fees at a college/university where the tuition is less than $9,000 per year. All scholarships provide an allowance for books and a monthly nontaxable subsistence allowance.

All scholarship cadets are required to meet certain academic, military, and physical fitness standards to earn and maintain scholarship benefits. Also, scholarship recipients must be younger than 31 as of December 31 of the calendar year during which commissioning is scheduled.

Extracurricular Activities

AFROTC cadets participate in a variety of extracurricular activities. Several units have special drill teams, color guards, and honor guards. Many students enrolled in AFROTC also participate in unit-sponsored intramural sports and social functions.

Enrollment Criteria

The first two years of the AFROTC college program, the General Military Course, are open to all students who are at least 14 years old. Second-year scholarship cadets and all cadets entering the last two years of the college program—the Professional Officer Course—must be at least 17. These contract cadets must meet AFROTC and Department of Defense eligibility standards ranging from physical fitness to US citizenship.

Faculty

The teaching staff of AFROTC units is composed of experienced AF officers. Selection is determined by professional experience, academic background, and qualifications as instructors. Officers complete faculty development at Maxwell AFB, AL, to enhance their teaching skills and

learn more about their jobs before reporting for their teaching assignments.

Curriculum

The main curriculum areas are leadership studies, field leadership, profession of arms, military studies, and communications skills. Teaching methods include informal lecture, guided discussion, case studies, readings, and practical exercises (athletics, group leadership problems, and the leadership reaction course). The table below summarizes the AFROTC curriculum.

Curriculum Summary

Instructional Area	Academic Hours
Leadership Studies	64
Communication Skills	49
Profession of Arms	30
Military Studies	63
Admin/Testing	30
LLAB	240
Field Training	286
TOTAL	**762**

Officer Training School

Col Lawrence E. Pitts, Commander

Internet Address
http://ots.afoats.af.mil/

Air Training Command activated Officer Training School (OTS) at Lackland Air Force Base (AFB), Texas, on 1 July 1959. OTS moved to the Lackland Training Annex in 1961. In November 1971, the Air Staff launched an extensive curriculum review that produced a core curriculum common to the Air Force Academy, AFROTC, and OTS. On 25 September 1993, OTS relocated to Maxwell AFB and began a new era when it became a part of Air University. From inception, OTS has been committed to providing top quality officers.

Throughout its history, OTS has adapted to a challenging training environment. After graduating 12 women and 78 men in its first class, OTS successfully commissioned more than 500 second lieutenants its

first year. By 1964 more than 10,000 individuals had graduated, and to date more than 101,000 officers have entered the AF through OTS. Over the years, OTS has functioned as a "flexible partner" to the other accessions sources to meet AF changing manning requirements. Additionally, the school began to train commissioned medical students, chaplains, and judge advocates in 1981 and medical service officers in 1991. In 1996 the Commissioned Officer Training School combined training programs for chaplains, judge advocates, and medical service officers and has trained over 7,600 newly commissioned officers.

OTS commissioning and training programs

- instill a commitment to the profession of arms,
- inspire internalization of AF core values,
- enhance officership skills,
- provide a relevant, up-to-date curriculum, and
- meet USAF production goals.

Courses

OTS consists of two programs: Basic Officer Training (BOT) and Commissioned Officer Training (COT). BOT leads to a line officer commission as a second lieutenant. COT provides initial officership training for AF judge advocates, chaplains, and medical officers.

Basic Officer Training

BOT is a challenging program that imparts to its graduates the importance of discipline, attention to detail, dedication to service, and leadership. It stresses commitment to the profession of arms and motivates graduates to achieve the highest standards of integrity, excellence in all they do, and service before self. This challenging environment provides numerous tests for leadership skills through classroom and field training exercises and operation of the officer trainee wing. A four-day, three-night Aerospace Expeditionary Force (AEF) exercise is the capstone event for BOT.

Commissioned Officer Training

COT was developed in 1996. It provides the fundamentals of officership and the initial leadership training required for newly commissioned AF officers (active duty, Air National Guard, and Air Force Reserve). It stresses commitment to the profession of arms and motivates graduates to achieve AF core values. The rank of COT

students ranges from second lieutenant to lieutenant colonel depending on the newly commissioned officers' professional qualifications. A three-day, two-night AEF exercise is the capstone event for COT. The Medical Readiness Indoctrination Course (MRIC) is incorporated into the AEF exercise for medical service officers.

The Reserve Commissioned Officer Training (RCOT) course was developed in 1999. This course was designed to train (hard to recruit) Guard and Reserve medical professionals. It combines pre-attendance correspondence work and a Web-based pretest with a demanding 14-day in-residence course.

Programs and Operations

OTS conducts training for BOT and COT at Maxwell AFB. The AEF exercise for both programs is conducted at the Blue Thunder training site and confidence course located at the north end of the runway at Maxwell AFB.

The OTS program is continually assessed with survey data, and course content is reviewed to improve program effectiveness. Construction to build a single OTS campus is nearly complete. The campus consists of two academic buildings, three dormitories, a dining facility and fitness center. A fourth dormitory is under construction with an estimated completion date in FY04.

OTS makes every effort to furnish incoming officer candidates with information to facilitate their transition to commissioned officer status. The OTS home page (http://ots.afoats.af.mil/), gives prospective trainees access to current information on OTS. The home page assists students with preparing mentally and physically for OTS.

Curriculum

The major areas of instruction are leadership studies, military training and application, profession of arms, military studies/international security studies, and communications skills. OTS teaching methods include auditorium lectures, readings, flight room classes (informal lecture, guided discussion, and case studies), and practical exercises (sports campaigns, a Leadership Reaction Course, and an end-of-course exercise called Vigilant Warrior).

Duration and Quota

OTS currently conducts eight BOT classes, nine COT classes, and two RCOT classes each year. The BOT program is 12 weeks long (60 training days), the COT program is four weeks long (23 training days), and the RCOT program is two weeks long (14 training days) plus the correspondence portion. In fiscal year 2001 BOT graduated

approximately 1,850 students, and COT graduated nearly 1,400 students—total yearly production over 3,200. In fiscal year 2001, BOT averaged about 250 officer trainees per class. COT had an average of 125 students per class. In fiscal year 2002, it is generally expected that these numbers will remain the same.

Prerequisites and Selection

Students attending BOT must have a bachelor's degree, be less than 30 years of age (waiverable to the age of 35), and meet minimum physical requirements for becoming an officer. Competition for entry into this program is quite rigorous. The tables below summarize BOT, COT, and RCOT curriculum.

Curriculum Summaries

Basic Officer Training

Instructional Area	Academic Hours
Leadership Studies	39.75
Communication Skills	47.00
Profession of Arms	41.50
Military Studies	31.75
Military Training and Application	113.25
Admin/Processing/Testing/Orientation	171.25
TOTAL	**444.50**

Commissioned Officer Training

Instructional Area	Academic Hours
Leadership Studies	32.50
Communication Skills	9.25
Profession of Arms	31.25
Military Studies	16.25
Military Training and Application	19.75
Admin/Testing	44.50
AEF Exercise	29.75
TOTAL	**183.25**

Reserve Commissioned Officer Training
(In-Residence Portion)

Instructional Area	Academic Hours
Leadership Studies	18.00
Communication Skills	9.00
Profession of Arms	23.50
Military Studies	13.25
Military Training and Application	12.75
Admin/Testing	25.00
AEF Exercise	29.75
TOTAL	**131.25**

PROFESSIONAL CONTINUING EDUCATION

Resident and distance-learning professional continuing education remains an important part of the careers of Air Force enlisted, officer, and civilian personnel. Air University offers short courses of continuing education in different Air Force specialty areas through the Air Force Institute of Technology (included in Section I), the College of Aerospace Doctrine, Research and Education, and the Ira C. Eaker College for Professional Development. Note: The Academic Instructor School (AIS) was discontinued as a separate school effective 1 October 2003. As a result, each AU school assumed responsibility for faculty education and training.

COLLEGE OF AEROSPACE DOCTRINE, RESEARCH AND EDUCATION

Col Bobby J. Wilkes, Commander
Col Barrett S. Elliott, Vice Commander

Internet Address
http://www.cadre.maxwell.af.mil/

Mission: *Develop, examine, teach, and wargame concepts of air and space power, doctrine and strategy . . . provide research and publishing expertise . . . educate war fighters in the art of air and space power.*

The College of Aerospace Doctrine, Research and Education (CADRE) carries on the traditions of the Air Corps Tactical School where, in the 1930s, future leaders of the USAF were trained and the basic doctrine and concepts of US airpower for World War II were formulated. As much as ACTS instructors such as Generals Harold L. George, Haywood S. Hansell Jr., Claire L. Chennault, and George C. Kenney shaped doctrine and strategy in World War II, the college's staff is committed to providing the Air Staff and the major commands with original thought and applications of aerospace power in the modern world. CADRE is located in Walker Hall—named for Brig Gen Kenneth N. Walker, an ACTS instructor and Medal of Honor winner in the Pacific during World War II.

The college educates AF and joint communities on warfighting at the operational and strategic level through research, wargaming, fellowships, and professional continuing education courses and publication. CADRE provides

- doctrinal research and analysis and development of employment concepts for air and space power;
- education of the Air Force in air and space doctrine and the doctrinal application of air and space power;
- study and analysis of dynamics of warfare through modeling, simulation, and wargaming; and
- intelligence support to AU and its subordinate units.

Also CADRE conducts

- research on public affairs and mass media issues and assists schools and organizations in developing military news media curricula, and
- research on air and space power topics of interest to senior leaders, research support for all AU schools, and publication of

the AF's only professional journal, the *Air and Space Power Journal (ASPJ).*

The college creates an interface between research and concept development, testing, and publication. It gives AU the capability to fulfill its mission of assisting in the development of AF doctrine, concepts, and strategy.

CADRE's resident curriculum offerings consist of eight specialized courses: the Joint Flag Officer Warfighting Course (JFOWC), the Joint Force Air Component Commander Course (JFACC), the Combined Force Air Component Commander Course (CFACC), the Senior Information Warfare Applications Course (SIWAC), the Senior Executive Services (SES) Seminar, the Joint Doctrine Air Campaign Course (JDACC), the Contingency Wartime Planning Course (CWPC), and the Information Warfare Applications Course (IWAC). These resident courses

- provide flag officer attendees the opportunity to participate in joint combat operation exercises;
- provide training to active duty captains through colonels of all services for air campaign planning in conjunction with assignment to joint, combined, and air component command staffs;
- provide USAF staff planners an understanding of DOD planning relationships from a joint deployment perspective;
- instruct future war planners in the art and science of contingency planning; and
- apply and value the principles of information warfare to enhance war-fighting capabilities.

Airpower Research Institute

Col Dale Hayden, Director

Internet Address
http://www.research.maxwell.af.mil/default.htm (select organization)

The Airpower Research Institute (ARI) advances the theory and application of air and space power through research, analysis, and publication. The institute focuses on a single, overriding objective: contributing as warrior-scholars to an improved combat capability for the USAF.

In support of that objective, AR performs a number of missions. First, AR produces books and original research pamphlets, papers, and briefings related to air and space. Second, the institute facilitates the research of students and faculty throughout the Air University school system by managing various research databases and electronically

publishing faculty/student research papers and making them available on the Internet. Third, ARI publishes the *Air and Space Power Journal,* the Air Force's professional quarterly and primary institutional forum for exchanging ideas about airpower and other matters relating to national defense. In addition, the institute publishes *Air and Space Power Chronicles,* an electronic Internet version. Fourth, AR is home to the administration of the Air Force Fellows program, which sends nearly 50 highly select field grade officers to civilian universities and "think tanks" throughout the United States and Canada to serve as Air Force "ambassadors" and researchers.

The institute is composed of four divisions.

Research Division: The Research Division, composed of civilians and part-time Reserve defense analysts, conducts independent and professional research on topics of interests to USAF leaders and policy makers. The division produces original research papers and briefings that address USAF and air and space power doctrine, strategy, and operations, in an effort to assist and guide the senior leadership of the Air Force. Topics include analyses of Air Force Task Force CONOPS, such as Air Combat Operations (air superiority, strategic attack, interdiction, and close air support); Air Mobility Operations (airlift and air refueling); Command and Control; Space Operations; Information Operations; Intelligence, Surveillance, and Reconnaissance; and Homeland Security/Defense. The Division writes and distributes materials of importance to the Air Force leadership as well as to students at the Air University and throughout the Air Force and Department of Defense community.

Research Support Division: The Research Support Division supports research efforts in the institute and throughout Air University schools with computer databases, web server support, and electronic publishing, and facilitates collaboration with external research institutions—DOD laboratories, military service schools, and civilian universities—worldwide. The Database Branch maintains databases of proposed research topics, faculty expertise, ongoing research, and completed research papers. The Electronic Publishing Branch publishes several hundred student papers annually from Air War College, Air Command and Staff College, Air Force Institute of Technology, and Air Force Fellows Program for delivery via the World Wide Web. The Division helps set standards for the conduct of research throughout Air University by providing research education, tools, and resources—along with technical support—to Air University faculty and students.

Professional Journals Division: The Professional Journals Division accomplishes the management oversight and editorial development functions of the Air Force's professional Journal—the *Air*

and Space Power Journal—in English, Spanish, and Portuguese quarterly editions. The English edition of *Air and Space Power Journal* is an internal Air Force professional development instrument designed to serve as an open forum for the presentation and stimulation of innovative thinking on air and space power doctrine, strategy, tactics, force structure, readiness, and other matters of national defense. The two foreign language editions are Air Force Chief of Staff-directed foreign policy arms are used to disseminate core USAF doctrine, strategy, policy, operation art, and current issues that relate to the Western Hemisphere. They serve as military-to-military foreign policy instruments of the United States. The division also produces *Air and Space Power Chronicles,* an on-line publication, which uses all three versions of *Air and Space Power Journal* as a springboard to publish continuously updated dialogue, thought pieces, and book reviews on the World Wide Web. Division personnel include both military and civilian editors.

AF Fellows Division: The AF Fellows Division provides research guidance and administrative support to nearly 50 field grade officers assigned for one year to civilian universities and think tanks that study national security strategy. The dual objectives of the program are to provide highly proficient officers to serve as visiting military ambassadors to prestigious institutions and to secure highly relevant and timely research products to meet Air Force needs. The Fellows Division develops a Fellows orientation program, approves research topics, provides computer support, processes travel orders and per diem vouchers, manages leave, writes training reports, and holds an end-of-tour conference.

Warfare Studies Institute

Col Ernest G. Howard, Director

Internet Address
http://www.cadre.maxwell.af.mil/default.htm (select organization)

The Warfare Studies Institute (WSI) conducts eight professional continuing education courses designed to develop the judgment and skills required to employ airpower effectively in combat. The courses offered and supported through the resources of the institute have significantly contributed to the war fighting capabilities of all US military forces.

The institute conducts the JFOWC, JFACC, CFACC, and SIWAC courses. These premier, executive-level courses prepare officers at the one- and two-star rank from all four services for combat leadership responsibilities in joint and combined arenas. The institute also conducts the SES Seminar designed to expose key senior civilian leaders to air and space power concepts and USAF and joint doctrinal issues affecting the

conduct of warfare in the twenty-first century. The Flag Officer Division staff develops, plans and manages PCE courses for senior officers from all branches of the US armed forces and SES members from the Department of the Air Force. This select staff has a wide range of expertise needed to meet the special requirements of senior flag officers and civilians attending these courses.

The faculty and staff of WSI also conduct courses that contribute significantly to the war-fighting preparedness of US military forces. These courses include the Contingency Wartime Planning, Joint Doctrine Air Campaign, and Information Warfare Applications courses.

***MAAFNJ 007*, Joint Flag Officer Warfighting Course (JFOWC)**

JFOWC is the senior PCE course in the DOD. The chiefs of staff of all four branches of the US armed forces own and control the course. They delegate course development and execution to their executive agents: commandant, Army War College; president, Naval War College; president, Marine Corps University; and commander, Air University.

The course prepares two-star officers of all four services for the responsibilities of theater-level combat leadership. It is tailored to provide our future theater combatant commanders, service component and joint task force (JTF) commanders with a broad perspective of the strategic and operational levels of war. Instruction for the course comes from senior national civilian and military representatives, flag officers serving as combatant commanders, and retired, battle-tested officers. Retired warrior generals draw from their combatant and component commander experience to lead war-gaming scenarios focused in various parts of the world, across the continuum of conflict.

Through the study of war fighting, military doctrine and application of unified, joint and combined combat forces, the attendees will be better prepared to face future crises. JFOWC is a two-week course offered twice a year. Each class is limited to 18 flag officers who represent all military services.

***MCADRE 004*, Joint Force Air Component Commander Course (JFACC)**

The JFACC is a senior-officer-level PCE course hosted by the USAF and sponsored by all four branches of the US military services. The course is designed to prepare potential JFACCs for responsibilities of theater-level combat leadership. The attendees study war fighting, military doctrine, and the application of unified, joint, and combined combat forces, with particular emphasis on airpower employment in theater-level operations.

The one-week long course is conducted annually in the February timeframe. The first three days are conducted at Maxwell Air Force Base, Alabama and the last two days are held at an exercise location. The course is limited to 17 active duty one-star (or one-star select) attendees. The desired attendee mix is eight US Air Force, four US Navy, three US Marine, and two US Army flag officers.

***MCADRE 007*, Combined Forces Air Component Commander Course (CFACC)**

The CFACC Course is hosted by the US Air Force and sponsored by all Services, attended by Service Chief-selected flag officers and international air force officers. The attendees study operational-level warfighting, military doctrine and the application of joint and combined combat forces with particular emphasis on air power employment in theater-level operations.

The Air Force hosts and conducts a one-week CFACC course annually in the August timeframe. The first three to four days are held at Maxwell AFB, Alabama, and the last two days are held at an operational exercise location. Eighteen active duty officers—one-star, one-star select, or equivalent rank—are selected to attend. The desired attendee mix is five USAF, two US Navy, two US Marine, one US Army and eight allied flag officers.

***MCADRE 006*, Senior Information Warfare Applications Course (SIWAC)**

The four-day SIWAC, is an interagency course and an innovative step in the continuing education of flag officers from all branches of the US armed forces and senior executive service (SES) members. It is designed to bridge the public and private sectors and enhance senior leaders understanding of how current and emerging technologies are impacting human decision-making and operations in the information age.

Attendees study *war fighting* and doctrine as related to information warfare (IW) concepts and principles. Course objectives are to understand current DOD and joint doctrinal concepts for IW, understand the integration of weapons systems and IW capabilities from different services or nations to provide effective theater- and national-level IW capabilities, understand and respond to service perspectives on IW employment concepts, and understand IW's role in campaign development. Attendees should be able to execute theater IW strategy and understand IW capabilities and limitations. Attendance is limited to 16 US flag officers in the grade of brigadier general or major general and *equivalent* members of the SES.

Senior Executive Service (SES) Seminar

The SES Seminar is designed to provide senior civilian leadership with in-depth knowledge of key air and space concepts and an

integrated view of warfare in the twenty-first century. The Seminar is a 3-day course taught twice per year. Enrollment is limited to 12 attendees in the grades of SES-1 through SES-4.

***MCADRE 002*, Contingency Wartime Planning Course (CWPC)**

The two-week CWPC educates airmen in grades E-5 through O-5 in the art and science of contingency war planning. The CWPC graduates approximately 700 students each year during their 10 courses.

Curriculum Summary

Area of Instruction	Academic Hours
Orientation and Testing	12.5
Foundations of Planning	7.0
Systems	4.0
Planning	16.0
Exercises	25.5
TOTAL	**65.0**

***MCADRE 003*, Joint Doctrine Air Campaign Course (JDACC)**

The JDACC prepares personnel from all services who have been designated, or may be designated, to serve on the staff of a JFACC. Participants gain in-depth familiarity with the fundamental concepts, principles, and doctrine required to develop and execute a joint or combined air campaign plan. Student focus on the campaign planning process at the operational level of war. Attendees are normally captains through colonels. Classes are offered 10 times per year, with an enrollment of 25 to 35 students per class.

Curriculum Summary

Instructional Area	Academic Hours
Course Administration	3.5
Air Campaign Planning Fundamentals	16.0
Air Campaign Planning Process	3.5
Historical Campaign Plan Case Studies	3.5
Air Campaign Planning Exercise	38.0
Crisis Action Planning Exercise	7.5
TOTAL	**72.0**

***MCADRE 005*, Information Warfare Applications Course (IWAC)**

The IWAC is a one-week course that teaches students to apply and value the principles of Information Operations to enhance war-

fighting capabilities. The course is taught at the college level and is divided into three blocks of material: the Definition and Components of IW, the IW Operational Environment, and the Applications of IW. Through lectures, seminars, practical exercises, readings, and computer-based lessons, students gain a better understanding of how current and emerging technologies are affecting decision-making. Classes are offered eight times per year, with an enrollment of 70 to 80 students per class.

Curriculum Summary

Instructional Area	Academic Hours
Course Administration	1.0
Fundamentals of IW	27.0
Exercises	12.0
TOTAL	**40.0**

Warfighter Planning Course (WPC)

The Warfighter Planning Course (WPC) is a combination of three requisites: the *WPC On-line*, the respective in-residence course tracks (Contingency Wartime Planning Course {CWPC} or Joint Doctrine Air Campaign Course {JDACC}) and the combined (CWPC & JDACC) Crisis Action Planning Exercise. *WPC On-line* is the web-based prep course for all students attending the resident Contingency Wartime Planning Course (CWPC) or Joint Doctrine Air Campaign Course (JDACC) at the College of Aerospace Doctrine, Research and Education (CADRE). All students attending either CWPC or JDACC must complete *WPC On-line* prior to their arrival at Maxwell AFB. *WPC On-line* covers the basics that military planners need to know before beginning an in-depth study of planning. Topics include the development of national level strategy, the organizations that develop national level strategy, the organization of joint military forces, and the broad capabilities the services provide to joint force commanders. After arrival, students take one of two tracks: CWPC or JDACC. Each course provides eight days of specific planning education. Upon completion of each course track, students combine to perform the Warfighter Crisis Action Planning Exercise.

Air and Space Power Course

The Air and Space Power Course (ASPC) is available on-line for users with high-speed Internet connections. The ASPC is a self-paced, interactive course consisting of 12 separate lessons. The course helps students develop a broader comprehension of air and space power principles, concepts and applications. Although the course is primarily designed to help prepare AF officers in joint duty

assignments to articulate and advocate air and space power principles and beliefs, it can benefit all air and space power enthusiasts. As the course progresses through the history of airpower, lessons learned from past applications, and discussions of how air and space power contributes to attaining national security and theater objectives, the student is exposed to many of the air and space power doctrinal tools necessary to perform joint staff duties. A CD-ROM version of the course is also available for those without the necessary high-speed Internet connection. For more information, contact the Air and Space Power Course development team at apchelp@maxwell.af.mil.

Air Force Wargaming Institute

Col Craig C. Goodbrake, Director

Internet Address
http://www.cadre.maxwell.af.mil/wargame/afwihome.htm

In 1975 the Clements Blue Ribbon Panel on Excellence in Professional Military Education cited a need for service schools to stress war fighting and decision making in combat. In 1976, the AF Chief of Staff's Constant Readiness Tasking directed AU to "put more war in the War College." The concept for the Air Force Wargaming Institute (AFWI) evolved from these two initiatives. The facility was opened in 1986 at Maxwell AFB, Alabama. The institute supports a broad range of wargames and exercises to meet the needs of AF, DOD, and international sponsors.

Operations and Wargame Support

AFWI is housed in a special-purpose, 56,000-square-foot facility. It can operate in whole or in part as a secure, classified working area. The building contains 22 seminar or game rooms and two conference rooms—all with audio and video capabilities.

The Wargaming Operations Division is responsible for the entire wargaming lifecycle process, to include definition, design, development, testing/pre-play, preparation, execution and post-wargame analysis. With a $2M annual budget, WGO provides wargame support to a variety of customers from around the world. The professional men and women assigned to the two branches within WGO provide full-spectrum wargaming to accomplish the AFWI Director's mission.

The Division maintains the communications-computer infrastructure supporting war-gaming operations as well as the rest of CADRE. The division designed and implemented state-of-the-art local

area networks (LAN)—unclassified and classified—that can be modified to accommodate a wide spectrum of war-gaming scenarios. The division maintains these LANs and evaluates emerging technologies to ensure that AFWI's computing environment remains on the cutting edge.

The Wargaming Technology Division develops, maintains, and operates models to support wargames. AFWI is currently using the following models and tools:

1. Air Force Command Exercise System (ACES)—a joint, theater campaign-level, combat simulation model;
2. Rapid Scenario Generator (RSG)—a scenario building tool capable of rapidly building real-terrain and infrastructure-based scenario's for use in the ACES model;
3. Joint Educational Mobility Model (JEMM)—a theater mobility model used to generate time-phased force and deployment data (TPFDD) for wargames;
4. Atlantis model—a real-time, tactical air and space employment model;
5. Bottom Line model, which simulates the impact of national budget decisions on the state of the nation;
6. Accelerated Combat Timeline (ACT)—an operational-level graphical user interface to the ACES model; and
7. ForceView—an automated map display tool that allows one to view and move forces. This tool is capable of interfacing with ACT, ACES, and JEMM.

The division also provides technical advice and critical analyses on all aspects of modeling and simulation (M&S) and wargaming. The division's staff members hold advanced degrees in operational sciences and have experience in weapons employment, mobility, space operations, and information operations. These operations analysts provide course management and platform instruction for M&S-supported activities (wargames, exercises, and analyses). Teamed with the Air Force Doctrine Center, the division analyzes the logic, mathematics, and algorithms of combat models to ensure doctrinally sound outcomes at joint exercises.

Wargames and Simulation Exercises

In a typical year, AFWI plans, develops, and conducts more than 30 wargames and exercises for more than 9,000 participants. AFWI provides a "laboratory environment" in which current and future commanders and staffs study warfare to identify problems before they face them in combat.

Air and Space Exercise (AEX). AEX is Air Command and Staff College's (ACSC) capstone wargame. It helps ACSC students to understand and appreciate the complex and time-critical operational control processes that occur within the Combined/Joint Air Operations Center (C/JAOC) and between the air component and other functional components during execution of air and space operations. AEX demonstrates what air and space power, forces and concepts bring to the fight at the operational level of war. It emphasizes the complexities of warfare through simulated combined and joint Forces, air component commander activities and air tasking order execution. Students apply basic concepts of air campaign planning and execution in a simulated air operations center environment and continually assess the effectiveness of their joint air operations plans.

Blue Thunder II (BT). Air and Space Basic Course (ASBC) is the first level of professional military education (PME) instruction for commissioned officers. ASBC inspires new USAF officers to comprehend their roles as airmen who understand and live by USAF core values, and articulate and demonstrate USAF core competencies. Blue Thunder, the pinnacle of the four-week course, challenges officers to demonstrate lessons learned about basic air operational and tactical warfare. Blue Thunder focuses on the employment of air forces at the operational and tactical levels of war. The officers apply basic concepts in planning the air portion of a campaign plan in an austere and dynamic educational environment. They continually assess the effectiveness of their plan and make changes as required.

Exercise in National Budget Priorities (XNBP). XNBP suports the Professional Military Comptroller School. It is an unclassified, stand-alone, computerized executive planning exercise addressing national budget priorities as impacted by presidential and cabinet-level decisions. This strategic-level exercise utilizes the "Bottom Line" model, which analyzes presidential, economic, political and military budget decisions and their impact on the state of the nation by combining the allocations of 17 key areas of a proposed budget with accepted economic analytical tools such as the Phillip's Curve and Okun's Law. The "Resulting Model" projects the effect of a presidential administration's policies upon the state of the nation. Its product, a Projected State of the Nation Report, is a compilation of social and economic indices including voter support, unemployment, gross national product, war risk and inflation. XNBP stimulates participants to actively test their understanding of budgetary and economic relationships in a realistic and enjoyable environment. It reinforces the relationships between foreign and domestic policy decisions and how allocation of scarce resources to support those decisions affects the state of the nation.

Joint Land, Aerospace, and Sea Simulation (JLASS). JLASS is a joint-sponsored wargame by the following US military senior-level colleges: Air War College, Naval War College, Army War College, Marine War College, and Industrial College of the Armed Forces. The wargame focuses on joint and combined warfare at the operational and strategic level with the goal of enhancing joint PME by examining potential US military responses to regional crises.

Joint Warrior/Cold Roof. Joint Warrior and Cold Roof are theater-level seminar wargames conducted in conjunction with the Joint Flag Officer Warfighting Course. They focus on issues associated with joint and coalition warfare from the perspective of the theater CINC and component commanders. Joint Warrior involves senior Air Force, Army, Marine, and Navy officers in deliberate planning. Cold Roof is a crisis action planning exercise.

Operation Atlantis. Operation Atlantis is Squadron Officer School's capstone exercise. The exercise reinforces teachings of the principles of war, fundamentals of military force application, and basic concepts of tactical air operations. Students simulate operations from an air operations center. They conduct battle staff planning for an air campaign in the combat plans section and then execute their plan in an interactive computer exercise.

Pegasus–Australia. Pegasus–Australia is a computer-assisted theater-level wargame used by the Australian Defense Forces Command and Staff College. Participants assume the role of the combined command staffs of two opposing alliances.

Pegasus–Canada. Pegasus–Canada is a computer-assisted theater-level wargame used by the Canadian Forces College (CFC). Participants assume the role of the combined command staffs of two opposing alliances.

Pegasus–UK. Pegasus–UK is a computer-assisted theater wargame for the United Kingdom's Joint Services Command and Staff College. The exercise models a war between two fictional alliances. The participants assume the role of the staffs of the opposing alliances.

Solo Challenge (SC). SC is the capstone wargame of the Air War College (AWC) academic year and includes the themes of leadership, doctrine, strategy, political/military affairs, joint/combined warfare, air and space power and technology. It provides AWC students the opportunity to translate national-level decisions into operational-level action. During SC, participants manage ongoing global crises and a

homeland security scenario, while confronting limited force structure and overseas basing.

Theater Campaign Warfare (TCW). TCW is the capstone wargame for the School of Advanced Air and Space Studies. This seminar-based educational wargame provides students an opportunity to synthesize concepts about the nature and employment of military forces they have developed during the past year. The game consists of four parallel but independent seminars and includes planning, execution and analysis phases, lasting five days. Educational objectives are facilitated by game moves covering periods varying from a few days to several weeks. Students from the Army's School of Advanced Military Studies at Fort Leavenworth, Kansas; Naval War College at Newport, Rhode Island; and the USMC's School of Advanced Warfighting at Quantico, Virginia augment the game.

Intelligence Directorate

Col James R. Miller, Director

Internet Address
http://www.cadre.maxwell.af.mil/default.htm (select organization)

As AU's only intelligence organization, the Intelligence Directorate (IN) supports the AU commander, AU schools' commandants, staffs and students, the Air Force Doctrine Center (AFDC), CADRE, and 42d Air Base Wing by providing ISR expertise. Products include curriculum development, platform lectures/instruction, current intelligence presentations and analysis, as well as scenario development, opposing force, and ISR play in support of wargames.

The directorate's personnel provide current and projected force structures of nations (scenario development) represented in wargames. These games simulate the capabilities and tactics of opposing forces and represent the role intelligence plays in national- and operational-level decision making. The directorate provides intelligence research assistance and resources to more than 7,000 students and 200 faculty members at AU, many of whom participate in special studies directed by the Air Force Chief of Staff and the Air Staff. The directorate supports AWC, ACSC, CPD, SOC, ABC, and OTS through intelligence briefings and academic course work (intelligence education).

The directorate reviews and critiques joint and AF doctrine documents to ensure intelligence capabilities are accurately represented. IN also provides intelligence instruction to CADRE's JDACC, IWAC, JFOWC, and JFACC. As senior intelligence officer (SIO) for AU, the director maintains regular liaison with Air Force Director of Intelligence,

Surveillance and Reconnaissance (AF/XOI) and fellow AF senior intelligence officers and chairs the AU Intelligence Curriculum Committee.

The AU Special Security Office (AU/SSO) controls, safeguards, and ensures proper use of sensitive compartmented information (SCI). The SSO manages more than 900 SCI billets, operates AU's only SCI communications center, and provides physical security for the AU SCI facilities.

US Air Force Public Affairs Center of Excellence

Lt Col Matthew J. Durham, Director

Internet Address
http://www.cadre.maxwell.af.mil/

The US Air Force Public Affairs Center of Excellence (PACE) provides media/military education throughout the Air Force's educational system. Having played a key role with Air Staff Public Affairs and the Air Force Doctrine Center in publishing public affairs doctrine for the Air Force, PACE infuses doctrine into all of its teaching.

PACE offers media and public affairs doctrinal education to the warfighter by:

- Teaching electives in Air War College and Air Command and Staff College, facilitating and providing lectures and case studies for core curriculum, at conducting hands-on media training during wargames at ACSC.
- Being scheduled in 2003 to conduct lectures at Squadron Officer College in both Squadron Officer School and Air and Space Basic Course and to provide media training during wargames.
- Presenting blocks of study at the CPD, including lectures and on-camera training at the Wing and Group Commanders Courses, the On-Scene Commanders Course, Human Resource Management School, Judge Advocate General School, and First Sergeants Academy.
- On the enlisted side, supporting the College of Enlisted Professional Military Education, teaching at the US Air Force Senior NCO Academy, and providing readings for curricula in NCO Academies and Leadership Schools Air Force-wide.
- Within CADRE, providing platform instruction in the Information Warfare Applications Course, the Contingency Wartime Planning

Course, and the Joint Doctrine Air Campaign Course. Enhances doctrinal awareness by introducing a newly-developed video-based PA/IO wargame into the IWAC curriculum.

- Infusing media play into wargames hosted by CADRE's Air Force Wargaming Institute, preparing participants to consider the "battle space" of public opinion, as impacted by the news media during the course of a military campaign.
- Beyond the classroom, assisting students in conducting research on public affairs and mass communications issues, analyzing case studies, and promulgating information operations and public affairs doctrine throughout the AF. PACE has developed a video-based PA/IO wargame as a distributive educational tool to enhance this effort.
- Reaching beyond Air University, PACE's expertise supports courses taught at the Joint Special Operations University.

IRA C. EAKER
COLLEGE FOR PROFESSIONAL DEVELOPMENT

Col Aaron B. "Buck" Rogers, Commander

Internet Address
http://www.maxwell.af.mil/au/cpd/

Mission: *Provide quality professional continuing education and technical training to US Air Force, DOD, and International students.*

The Air University Center for Professional Development was activated on 1 August 1986. In October 1993, the center was redesignated the Ira C. Eaker College for Professional Development (CPD) to honor General Eaker's significant contributions to the advancement of aviation, to the Air Force and to the continuing professional development of its members.

The CPD umbrella spans eight schools: Commanders Professional Development School, Air Force Human Resource Management School, International Officers School, Air Force Judge Advocate General School, DOD Professional Military Comptroller School, USAF Chaplain Service Institute, USAF First Sergeant Academy and USAF Historian Development School.

Goals

- At least 90 percent of students, graduates and graduates' supervisors state CPD courses accomplished their stated mission.
- At least 90 percent of students, graduates and graduates' supervisors state the quality of instruction, course effectiveness and overall value of each course are "Excellent" or higher.
- Foster unit teamwork through information sharing, promoting cooperation to get the job done and respect for one another.
- Foster an environment that consistently encourages top performance by faculty and students.
- Continuously strive to improve facilities, equipment and resources.
- Ensure each member understands and practices Operational Risk Management in their personal and family lives.
- Encourage each member has a personal health and wellness program.

Academic Credit

The Ira C. Eaker College for Professional Development is affiliated with the CCAF. Through this relationship, CPD is—for accreditation and degree purposes—a CCAF educational associate. CPD course offerings for enlisted personnel result in the award of academic credit by CCAF. Enlisted graduates may apply for course credit through the Registrar, CCAF/RRR, 130 W. Maxwell Blvd., Maxwell AFB, AL 36112-6613. The Commission on Educational Credit of the American Council on Education endorses several CPD courses for college-level credit recommendations.

Commanders Professional Development School

Col Christine D. Prewitt, Director

Internet address
http://www.maxwell.af.mil/au/cpd/

The Commanders School conducts six courses—the USAF Wing Commanders' Seminar, the USAF Mission Support Group Commanders' Course, the USAF Maintenance Group Commanders' Course, the USAF Medical Group Commanders' Course, the USAF Operations Group Commanders' Course, and the USAF On-Scene Commanders' Course.

Attendance at the wing and group commanders' courses is determined by the Air Force Senior Leader Management Office (AFSLMO). These courses are tailored to provide attendees current information on DOD and AF leadership and management issues. The Chief of Staff of the Air Force approves the curriculum. Adjunct faculty and senior subject matter experts from DOD, Air Staff, MAJCOMs and field operating agencies present the course material.

The four group commanders' courses are two weeks in duration and are held concurrently. The first week the courses are combined and students receive a core curriculum that applies to all group commanders. The second week the four courses are divided into discipline-specific seminars.

Attendance at the On-Scene Commanders Course is mandatory for all USAF personnel designated as on-scene commanders and senior installation fire officials. The course is optional for security forces commanders/operations officers/flight chiefs, command inspector general team chiefs, and installation exercise evaluation team chiefs/members. Resident and adjunct faculty teach personnel how to properly conduct disaster responses (aircraft accidents, hazardous

material incidents, tornadoes, etc.), save lives and resources, and limit damage to the environment.

Mission: Prepare Air Force members for duty as wing, group, and emergency response on-scene commanders; develop, schedule, and conduct tailored courses that help attendees deal with critical leadership and management.

Goals: Provide AF wing, group and on-scene commanders with a better understanding of the environment, responsibilities and resources required to enhance their effectiveness as commanders.

Through executive-level short courses, the school provides AF officers selected for command with

- updates on critical issues affecting themselves, their people, and their mission;
- specific training concerning command responsibility, accountability and discipline; and
- practical skills that may be used to enhance their immediate effectiveness as new commanders.

Duration and Quota

The courses convene up to five times each year with 15–25 attendees. The On-Scene Commanders Course is the exception, convening 15 times each year at Maxwell and 13 times each year at other selected locations.

Prerequisites and Selection

The courses are open to individuals selected to serve in the positions described by the courses. The AFSLMO manages attendance at the wing and group commanders' courses.

Curriculum Summary

Course Title	Academic Hours
Wing Commanders' Seminar	42.5
Support Group Commanders' Course	79.0
Logistics Group Commanders' Course	77.5
Medical Group Commanders' Course	80.5
Operations Group Commanders' Course	75.0
On-Scene Commanders' Course	32.0

Initiatives Summary

The Commanders Professional Development School collaborates with the Air Staff, major air commands and other AF organizations to further customize its curricula for commanders. This effort enables the school to better serve as a lever for implementing current AF policy.

Air Force Human Resource Management School

Col Abraham Morrall Jr., Director

Internet address
http://www.maxwell.af.mil/au/cpd/

The Air Force Human Resource Management School (AFHRMS) was established at Maxwell AFB in 1965 as the Air Force Professional Personnel Management School. The school began with one course, the Professional Personnel Management Course. In July 1977, the AFHRMS absorbed the former Civilian Personnel School located at what was then Gunter AFB. The Civilian Personnel School, originally established in 1948 at Kelly AFB, Texas, was moved to Gunter in 1957 where it remains today and is known as the Civilian Personnel Management Division of the AFHRMS. It is one of only two training facilities devoted to teaching personnel management philosophies policies and techniques.

In 1983 the school was renamed the Air Force Professional Manpower and Personnel Management School to reflect more closely the merger of manpower and personnel functions at Headquarters USAF, the Air Force Manpower and Personnel Center (as it was then designated) and the major air commands. While the close organizational links between manpower and personnel functions were severed at most headquarters levels in 1985, the school nonetheless retained a manpower element in both name and curriculum.

In 1988 the school expanded the curriculum to address professional continuing education (PCE) requirements in the Air Force Family Matters Program. The Family Support Center (ESC) Readiness Qualification Course educates and equips Family Readiness NCOs and Coordinators with the skills and knowledge to manage the Family Support Center Family Readiness Program. Additionally, the FSC Manager Qualification Course was initiated to educate FSC Directors and select managers. In 1993, recognizing the broad range of human resource activities represented in its curriculum, the school adopted its current name. Also, in concert with the Office of the Chief of Staff's 1992 Year of Training initiatives and requirements, the Air Force Professional Manpower and Personnel Management Course name was changed to the Advanced Personnel Officer Course (APOC).

In 1996 the Professional Manpower Staff Officer Course was added to the school's PCE course inventory. However, the course was revised in 1997 as the Manpower and Quality Staff Officer Course to reflect the merging of the manpower and quality communities. In 1999 the course was renamed the Manpower Staff Officer Course. Also in 1999 the school activated the Wing Manpower and Organization (MO) Chief Course in an effort to provide knowledge and skills to help wing MO chiefs effectively execute their roles and responsibilities. This course filled a crucial void as there was previously no AF training program specifically targeted to this important segment of the manpower career field.

In 2001 APOC was discontinued and replaced with the Mission Support Squadron (MSS) Leadership Course and the Military Personnel Flight (MPF) Leadership Course. These two courses are designed to focus on the unique challenges of MSS and MPF leaders with an understanding that many crossover commanders have limited MSS or MPF experience.

Mission: Provide world-class continuing education for the development and competence of Air Force personnel.

Goals:

- Provide students with the tools to operate and successfully contribute to organizational effectiveness.
- Provide an optimal learning environment.
- Foster an environment that encourages professional and personal development.

Initiatives Summary

The Civilian Personnel Management Division has developed several new civilian personnel courses to support the concept of "multiskilling" (competency in two or more of the traditional subdisciplines of the profession). These courses were developed through close cooperation with the Air Staff civilian personnel managers in anticipation of the direction toward smaller staffs and more integrated operations in local civilian personnel flights; single subdiscipline courses were also retained in curriculum to meet customer needs. The AFHRMS has initiated a joint project with the Air Force Institute for Advanced Distributed Learning to transfer its fundamental civilian personnel courses to CBI format. Five courses have been transferred to CBI. This endeavor will result in significant cost savings when compared to resident courses. Adding significantly to this effort is the conversion of the USAF Supervisors Course from hard copy to CD-ROM in interactive format. Also programmed for CD-ROM availability is the Military Personnel Management Course.

A significant endeavor for the AFHRMS in 2002 was the design, development and implementation of the Air Force GS-15 Leadership Seminar. The seminar was developed on the basis of needs created by the accelerating pace of change confronting leaders at the GS-15 level, with the mission "to provide executive professional development education to newly promoted GS-15 and equivalent civil service employees by emphasizing the Air Force vision, core values and competencies, guiding principles, strategic goals and operational objectives."

Through these initiatives the school has better postured itself to meet the needs of customers to have training immediately available on an "as needed/when needed" basis, rather than having to wait for a resident course. In response to a secretary of the Air Force direction to expand the education of AF officials on alternate dispute resolution methods, the school has developed Basic and Advanced Mediation Courses.

The school will continue to be heavily involved in the effort to educate and train family matters specialists to assist in taking care of AF people and their families. The FSC Managers' Qualification Course has been extensively revised to educate and equip attendees on how to implement and utilize the Work Life Consultant Service Delivery Model in their community.

Duration and Quota

Courses vary in length from five days to three weeks.

Prerequisites and Selection

Requirements for participants vary for each course.

Course Summaries

Course Title	**Academic Hours**
Civilian Personnel Officer Course	60.0
*Position Classification Course	**30.0
Intermediate Position Classification Course	67.0
Position Classification Advanced Course	62.0
*Affirmative Employment Course (Basic)	Part I **39 Part II **18
Principles of Affirmative Employment Course	67.0
Affirmative Employment Advanced Course	62.0
Employee Development Specialist Course	47.0
Employee Development Advanced Course	52.0

Employee-Management Relations Course	67.0
Employee-Management Relations Advanced Course	67.0
Systems Manager Course	40.0
System Administrator Manager Course	40.0
Resource Management Course	38.0
Competitive Sourcing and Privatization Course	38.0
EEO Manager Course	40.0
Equal Employment Opportunity Counselor Course	36.0
Business Objects Course	32.0
Advanced Business Objects Course	32.0
Basic Mediation Course	36.0
Advanced Mediation Course	36.0
*Labor Management Relations Course	**141.0
Labor-Management Relations Course	58.0
*Civilian Personnel Management Course	**39.0
Military Personnel Flight Leadership Course	40.0
Mission Support Squadron Leadership Course	40.0
Family Support Center Managers' Qualification Course	40.0
Family Support Center Readiness Qualification Course	40.0
Manpower Staff Officer Course	121.0
Wing Manpower Officer Course	37.0
Air Force GS-15 Leadership Seminar	44.75
*USAF Supervisor's Course	40.0
*Military Personnel Management Course	16.0

* Course is offered via computer-based instruction.
** Hours are applicable to Air Force Reserve and National Guard personnel only. Academic hours do not count toward continuing education for active duty or civilians.

Academic Credit

The Center for Adult Learning and Educational Credentials of the American Council on Education recommends three-semester hours graduate credit for the Manpower Staff Officer Course. Students desiring credit should contact the Registrar, Air University, AU/CFRR, 60 W. Shumacher Ave., Maxwell AFB, AL 36112-6337, and have the registrar send a course transcript to the college or university where they are enrolled.

Through affiliation of the Ira C. Eaker College for Professional Development with the CCAF, graduates of the Family Support Manager Qualification Course and the Family Support Center Readiness Qualification Course, who are enrolled in CCAF, receive two hours of credit, respectively, toward an associate degree. Course graduates may apply for credit through the Registrar, CCAF/RRR, 130 W. Maxwell Blvd., Maxwell AFB, AL 36112-6613. For further information see the CCAF catalog available in your base education services office.

International Officer School

Col Ronald C. Kennedy, Director

Internet address
www.au.af.mil/au/cpd/ios/ios.htm

The International Officer School was established in 1954 as the Allied Officer Preparatory School. Since then 9,394 international military students from 131 countries have completed the program. The school conducts five classes each year. These classes are six-week courses to prepare international officers for attendance at AWC, ACSC or SOS.

The preparatory courses improve the ability of students to express their ideas clearly (in both speaking and writing) and to read and comprehend written and spoken materials used in AU classes. A program of planned classroom activities, informational trips and a civilian sponsorship program (called Alabama Goodwill Ambassadors) introduces students to the political, military, and socioeconomic aspects of American culture. This orientation enables students to adjust more readily to the USAF and civilian communities. Academic requirements for each course are geared specifically to the PME school the students will attend.

The IOS Operations Division functions as the International Student Military Office and provides administrative support to all international students attending any AU School.

Mission: Educate and support international officers and their families. Manage international programs enabling Air University to accomplish US security assistance objectives, support USAF international involvement and build lasting international military relationships.

Goals: Expand the capacity of international officers to participate more effectively in military education and duty assignments.

Objectives: The three IOS preparatory courses develop an

- appreciation of American society, institutions and ideals;
- awareness of the mission and organization of US military forces and US military terminology;
- ability to speak and understand American English;
- awareness of the organizational structure, curriculum content and instructional methods employed in AU schools; and
- ability to participate in physical training activities (SOS, ACSC and AWC only).

Initiatives Summary

Believing that the school's vitality demands change and innovation, ongoing research is an integral part of the faculty's responsibility. Research—ranging from instructional methodology to cross-cultural communications—identifies academic subject areas, lesson formats and instructional techniques required for the curricula. Such research and the resulting innovations enhance student learning and the achievement of school objectives. Examples of improvements are the continuing expansion of the core curriculum, computer-assisted instruction laboratory and the formalization of language training to provide integrated American English instruction with other curriculum topics.

Curriculum

The school's curriculum consists essentially of preparatory courses that have three basic functions. First, they provide curriculum orientations to follow-on school topics and methodologies. Second, they serve as periods of cultural adjustment for international officers and their families. Third, they accomplish the administrative requirements and informational program objectives outlined in international military training management directives. Attendance at IOS is a prerequisite for international officers attending SOS, ACSC and AWC. International students coming to AU for the ACSC and AWC should preview *Air University Catalog* for the relevant master's degree, accreditation, degree-granting authority and eligibility requirements spelled out in the descriptions of each school in this catalog.

Duration and Quota

Course titles, duration and student quotas for classes are

Course Title	Duration	Quota
IOS/SOS (3 classes)	6 weeks	32
IOS/ACSC	6 weeks	80
IOS/AWC	6 weeks	45

Prerequisites and Selection

IOS/SOS and IOS/ACSC require an English comprehension-level (ECL) test score of 70 while IOS/AWC requires an ECL test score of 80. Students are also expected to meet certain physical standards outlined in the *Air Force Education and Training Course Announcements*, formerly AFCAT 36-2223, *USAF Formal Schools.*

Course Areas

Each course includes the following phases:

Student Administration. During this phase of the course, international officers in-processed receive tours and briefings about Maxwell AFB and Montgomery. They receive orientations in various aspects of the individual IOS courses. This area includes welcome and graduation ceremonies, curriculum and schedule briefings and a tour of the AU Library. Students participate in formal, structured feedback conferences with instructors; informal conferences take place throughout the courses as needed.

Informational Program. The Informational Program provides opportunities for students to gain a better understanding of US ideals, institutions, and culture. Some of the topics included are the American way of life, education in the United States, US government institutions and the US news media. A significant portion of this program is devoted to human rights and related training in keeping with State and Defense Department objectives for security assistance training. Field trips and tours are conducted in the Montgomery area, Southeast Region and to Washington, D.C.

Communications Development. Communications Development constitutes a significant portion of the instruction at IOS. It includes English enhancement instruction designed to increase the student's ability to speak and understand American English and communicate ideas both orally and in writing.

In addition, basic writing and briefing instruction, with application exercises, is provided based on the PME follow-on school's communication techniques. This area also includes computer instruction with hands-on training in applications appropriate to the specific follow-on PME school.

Military Studies. The Military Studies area introduces the students to the mission, organization, policies, concepts and terminology of the US military.

Leadership. Students are provided an introduction to various leadership concepts and models. Again, the instruction is geared at a level appropriate to the follow-on PME school. This area also introduces the physical training requirements of the follow-on PME school with emphasis on field leadership and teamwork—particularly important for students preparing to attend SOS.

Curriculum Summaries

Squadron Officer School Course

Instructional Area	Academic Hours
Student Administration	18.5
Informational Program	69.5
Communication Development	60.0
Military Studies	9.0
Leadership	42.0
TOTAL	**199.0**

Air Command and Staff College Course

Instructional Area	Academic Hours
Student Administration	17.0
Informational Program	71.0
Communication Development	70.5
Military Studies	34.0
Leadership	4.0
TOTAL	**196.5**

Air War College Course

Instructional Area	Academic Hours
Student Administration	22.5
Informational Program	76.0
Communication Development	68.0
Military Studies	32.0
Leadership	4.0
TOTAL	**202.5**

Other Programs

IOS conducts several nonacademic programs to enhance the experience and education of international officers and their families.

Alabama Goodwill Ambassadors. Alabama Goodwill Ambassadors is the AU official sponsorship program for international students and their families. This program makes the international students and their families feel welcome and acquaints them with aspects of American culture that they may not otherwise be exposed to through their formal AU courses and activities.

International Family Loan Program. This program lends international students and their families (for a nominal fee) such essential household items as dishes and utensils. This service relieves students of the need to spend large sums of money on items they would discard before leaving AU.

International Family Orientation Program. This two-week family orientation course is conducted each summer for the wives and children of the international officers who will attend ACSC and AWC. The course provides an orientation to American culture and to the Montgomery public school system. When possible, limited English language instruction is provided. Many recreational activities are also conducted for the children.

Air University International Honor Roll. This honor roll recognizes international graduates of AU PME courses who have gone on to become heads of service, ministers of defense, heads of state, or other high-level officials within their own countries.

International Dependents English Course (IDEC). This six-week course, conducted each fall or winter, provides conversational English skills that spouses and adult children of international officer students will need in their day-to-day activities. The course is taught entirely by volunteers from the on- and off-base local community.

Air Force Judge Advocate General School

Col Thomas L. Strand, Commandant

Internet address
http://www.maxwell.af.mil/au/cpd/jagschool

The Air Force Judge Advocate General (AFJAG) School was established in 1950 at Maxwell AFB. The school went through an inactive period in the 1960s before becoming part of the Institute of Professional Development, the predecessor of the Ira C. Eaker College for Professional Development, in 1969. The initial charter of the AFJAG School was to teach military law to new AF judge advocates. That charter has expanded substantially as the school now conducts many advanced and specialized courses. The school currently offers 30 different resident and nonresident courses in 42 offerings.

The annual student body of some 4,000 consists of a selected group of active duty, AFRes and ANG judge advocates, paralegals and

civilian attorneys from the Air Force, the other armed services and many federal agencies.

The AFJAG School faculty also provides instruction on legal subjects to students attending AWC, ACSC, SOS, AFSNCOA, IOS, ABC, other CPD schools and other AU colleges and schools.

The AFJAG School performs several other educational functions including administering the Judge Advocate General Department's continuing legal education (CLE) program for AF attorneys; publishing *The Air Force Law Review* (semiannually), the Air Force legal magazine *The Reporter* (quarterly) and *The Military Commander and the Law* (biannually); and teaching principles of American constitutional democracy, military justice and human rights to foreign military officers and civilians through the Expanded International Military Education and Training Program.

Mission and Goals: The AFJAG School provides high-quality legal education and training to judge advocates, civilian attorneys and paralegals to meet Air Force and DOD needs. The school's formal and CLE courses contribute to the professional development of judge advocates, civilian attorneys and paralegals. Courses of study broaden and refine the students' understanding of the complexities of military legal practice. Graduates will have the ability to analyze and comprehend the

- foundations of military law and basic advocacy skills;
- management and leadership skills necessary to supervise a base legal office;
- methods and techniques used in courtroom advocacy and specialized handling of expert witnesses, forensic evidence, complex evidentiary issues and demonstrative evidence;
- principles of civilian personnel management and litigation;
- principles and concepts of federal and state environmental law and DOD procedures for compliance;
- principles of international military operations, the law of armed conflict and rules of engagement;
- principles and concepts of claims and tort litigation;
- basic information on federal tax laws, estate planning and the administration of a full-service tax program; and
- technical issues encountered in dealing with the systems acquisition process.

Initiatives Summary

The AFJAG School has adopted several initiatives based on research studies, technological innovations and other creative curriculum developments to enhance the ability of graduates to perform their professional duties. These initiatives include

- integrating more hands-on practical procedure exercises into each course,
- creating mentoring opportunities for faculty and students in resident courses,
- integrating distance learning methodologies and the latest information technology advances into all courses and publications, and
- adding specialized and updated courses to meet the increasing needs of new AF missions and of attorneys and paralegals in the field.

The AFJAG School Symposium Program hosts two symposia each year to strengthen the bonds and mutual understanding between the American military and civilian society and enhance the education of AF legal practitioners about cutting-edge legal, social and policy issues affecting both American society and the armed forces.

Resident Curriculum

The academic environment of the AFJAG School encourages free expression of ideas and an opportunity for independent and analytical thinking. The resident curriculum fosters advanced learning in the areas of advocacy, environmental law, labor law and law office leadership and management so that judge advocates and paralegals can ensure that the best legal service and advice are provided to AF commanders, staff agencies and personnel.

Duration and Quota

Frequency of presentation, length and number of students varies for each course. Contact the AFJAG School or its Internet home page for specific information.

Prerequisites and Selection

Requirements vary for each course.

Curriculum Summary

Course Title	Academic Hours
Judge Advocate Staff Officer Course	337.50
Judge Advocate Staff Officer Course	337.50
Staff Judge Advocate Course	85.00
Reserve Forces Judge Advocate Course	35.75
Air Force Reserve Annual Survey of the Law	24.00
Air National Guard Annual Survey of the Law	24.00
Deployed Air Reserve Components Operations and Law Course	20.00
Military Judges Seminar	32.00
Law Office Managers Course	81.90
Claims and Tort Litigation Course	56.00
Federal Employee Labor Law Course	35.00
Advanced Labor and Employment Law Course	20.00
Environmental Law Course	33.70
Trial and Defense Advocacy Course	44.00
Advanced Trial Advocacy Course	38.00
Operations Law Course	69.75
Advanced Environmental Law Course	19.00
Environmental Law Update Course	19.50
International Law Course	18.50
Federal Income Tax Law Course	41.00
Legal Aspects of Information Operations Course	24.00
Accident Investigation Board Legal Advisor Course	24.00
Military Justice Administration Workshop	36.00
Paralegal Apprentice Course	248.00
Paralegal Craftsman Course	240.00
Reserve Forces Paralegal Course	80.00
Fiscal and Appropriations Law Course (teleseminar)	28.00
Air Force Systems and Logistics Contracting Course (teleseminar)	32.50
Deployed Fiscal Law and Contingency Contracting Course	24.00
Information Operations Law Course	36.00
Negotiation and Appropriate Dispute Resolution Course	32.50

Enrichment Offerings

These programs are designed to help AF attorneys and paralegals update and refresh their skills in several areas. State CLE credit is not offered for these tapes. They give attorneys and paralegals who are unable to attend resident courses the opportunity to benefit from some of the AFJAG School's best presentations. The enrichment tapes may be ordered by contacting the CLE director.

These tapes include discussions, presentations and lectures on specific subjects in the areas of criminal law, trial advocacy, environmental law, labor law and federal claims and tort litigation. Paralegal enrichment offerings include subjects in the areas of claims and tort litigation and in the law officer managers' course.

Nonresident Curriculum

The AFJAG School utilizes a number of distance learning methodologies to provide nonresident students with advanced training and education in specialized legal areas. The school currently has the following nonresident courses and tapes available for CLE credit. Note that the specific number of credit hours allowed for each course sometimes varies with each state. You should contact the AFJAG School CLE director (CPD/JAG, 150 Chennault Circle, Maxwell AFB, AL 36112-6418, DSN 493-2802, or see the school's Internet home page) to determine how many hours each state allows and also to order any of the courses or tapes.

Curriculum Summary

Course Title	Academic Hours
Professional Responsibility (Ethics) for Air Force Lawyers	3

Academic Credit

The AFJAG School offers two types of CLE: credit and enrichment. CLE credit can be earned by participating in programs counting toward state minimum CLE requirements. The school obtains state approval for three categories of CLE credit: resident courses taught at the AFJAG School; nonresident teleseminar or video courses prepared by the AFJAG School and broadcast or distributed on request; and conferences, workshops and seminars conducted by various offices in the Air Force

Judge Advocate General Department. The nonresident video courses consist of reading materials (syllabus), a videotape presentation and seminar questions. This format is designed to take advantage of local expertise by using those individuals as discussion leaders. Credit can be obtained for conferences, workshops and seminars on a case-by-case basis. You should contact the CLE director at least 30 days in advance of the date of the session.

Although the AFJAG School serves as a liaison with state bars in obtaining approval for CLE credit programs, the main goal remains that of providing meaningful legal education to judge advocates who need an update in a certain area or are moving to a new position and are unable to attend the appropriate resident course. With this goal in mind, the AFJAG School offers enrichment programs that do not include any written materials. These offerings are designed to provide a wide variety of information, from particulars for the practitioner to advanced discussions on recent legal issues. The nucleus of these noncredit enrichment programs is a collection of lectures from various resident specialized courses.

Through this dual system of credit and enrichment programs, the AFJAG School is committed to providing the Judge Advocate General's Department with advanced legal education that responds to the department's training and educational needs. This CLE ensures that judge advocates and paralegals have the tools to do their jobs professionally.

For formal nonresident CLE credit, the senior installation staff judge advocate certifies course completion in writing to the AFJAG School CLE administrator and the administrator then certifies course completion with the appropriate state.

Through affiliation of the Ira C. Eaker College for Professional Development with the CCAF, graduates of the Paralegal Craftsman Course (15 hours), Paralegal Apprentice Course (12 hours) and the Law Office Managers Course (four hours) who are enrolled in CCAF may receive the annotated number of semester hours of credit toward an associate degree. Course graduates may apply for credit through the Registrar, CCAF/RRR, 130 W. Maxwell Blvd., Maxwell AFB, AL 36112-6613. For further information, see the CCAF catalog in your base education services office.

DOD Professional Military Comptroller School

Col Donna M. Taylor, Director

Internet Address
http://www.au.af.mil/au/cpd/

In 1966 the assistant secretary of the Air Force (financial management) established a joint service task group to study financial management education in the Department of Defense (MEDOD). This group issued its report, called the MEDOD study, in March 1967.

In 1968 the Professional Military Comptroller Course (PMCC) was developed in response to this study. In 1973, financial managers from Army, Navy and other DOD agencies began participating in PMCC and, the Army and Navy began assigning highly qualified officers to the faculty. Then in 1977, the PMCC became the DOD Professional Military Comptroller School (PMCS).

Mission: To improve accountability and fiscal readiness of DOD personnel by providing world-class financial management education.

Goals:

- Develop students' ability to adapt to changing economic, political and technical environments
- Promote an understanding of issues affecting financial management and military organizations
- Expand awareness of diverse financial management disciplines within DOD
- Encourage personal interaction and growth in areas of wellness, communication and leadership
- Continuous focus on primary mission of supporting the commander and warfighter

Initiatives Summary

The DOD Professional Military Comptroller School has expanded several curriculum initiatives to enhance the ability and productivity of its graduates. These initiatives include student research and writing programs, a wellness emphasis and personal computer support.

Student Research Programs

A prerequisite for graduation is one essay paper and one research paper. The first must address the following question: "What are three immediate actions senior leaders can take to improve financial management." The second must address a current Army, Navy, Air Force, Marine Corps, DOD or other federal agency comptroller or resource management issue—specific topics will be given once a student is selected to attend. The papers provide students with opportunities to examine current topics and to convey their ideas to others for action. The research papers often go directly to service headquarters or other top organizational levels for review.

Students conduct individual research under the guidance of a faculty research advisor. Through their research efforts, students have the opportunity to enhance their professional competence and to make meaningful contributions to subjects relevant to DOD resource management.

Total Personal Wellness

The DOD Professional Military Comptroller School provides a total personal wellness program for the benefit of its students. This program covers nutrition, stress management, type A behavior and exercise. It focuses on having students identify potentially unhealthy lifestyle habits in order to effect changes in their lifestyle and improve their overall wellness.

Personal Computer Support

Students have access to laptop computers for use both inside and outside the schoolhouse. The laptops allow students to work at their own pace and in the comfort of their seminar or individual rooms. Students also have the capability to print from the seminar rooms, as well as correspond by E-mail with their home stations. PMCS students receive considerable exposure to application software programs. Beginning students can advance their expertise in using graphics software by attending elective computer labs.

Each of the five seminar rooms has computers. Computers are used for data automation assignments, computer-based resource management exercises and seminar support.

Curriculum

The curriculum consists of two courses. The DOD Professional Military Comptroller Course provides mid and senior-level comptrollers,

resource managers and other financial staff with information concerning the tasks, environments and skills associated with military comptrollership. The Reserve Forces Professional Military Comptroller Course develops (in selected Guard and Reserve officers) an understanding of the role of the comptroller as a staff officer and head of a management service organization.

Duration and Quota

The DOD Professional Military Comptroller Course is held five times each year meeting for 30 class days. The quota for each class is 60 students.

The Reserve Forces DOD Professional Military Comptroller Course is held once each year and meets for 10 class days. It also has a quota of 60 students.

Prerequisites and Selection

The target grades for attendance at PMCS are Major through Colonel (and Navy equivalents), GS-12 through GM-15 and CMSgt/SGM assigned as a MAJCOM functional manager/comparable Army equivalent. Captain and GS-11 selections are made on an exception basis only—with time-in-grade, experience and strong endorsements the determining factors. With few exceptions, Air Force Captains should have completed FMSOC and should have a graduate-level degree. Nominating commands may provide any additional facts that support an exception-basis selection.

Attendance is authorized for personnel outside the comptroller career area when the training requirement is assessed against positions and responsibilities in resource and associated fund management. Non-comptroller personnel packets must include a statement, endorsed by the MAJCOM/agency comptroller, highlighting the benefits of attendance.

Curriculum Summary

Course Title	Academic Hours
Professional Military Comptroller Course	240.0
Reserve Forces Professional Military Comptroller Course	82.5

Academic Credit

The Center for Adult Learning and Educational Credentials of the American Council on Education recommends three graduate semester hours in managerial accounting or public finance and three graduate semester hours in organizational management or managerial economics credit for the DOD Professional Military Comptroller Course.

Students desiring credit for attendance should request that the Registrar, Air University, AU/CFR, 60 W. Shumacher Ave, Maxwell AFB AL 36112-6337, send a transcript to the college or university where they are enrolled.

USAF Chaplain Service Institute

Chaplain (Col) Cecil Richardson, Director

Internet Address
www.usafhc.af.mil

On 1 July 1953, when the Air Force was given responsibility of training its own chaplains, the United States Air Force Chaplains Course was established at Lackland AFB, Texas and placed under the Officer Basic Military Course. The chaplains course became part of Officer Military Schools (OMS) in June 1955. Based on a Department of the Air Force authorization, the USAF Chaplain School was established in June 1960; however, it remained under OMS. From 1958 to 1965, judge advocates also reported to the Chaplain School for training. OMS was discontinued in July 1962 and was assigned to OTS. The Chaplain School was made a separate unit and was placed directly under the commandant, Lackland Military Training Center, in February 1965. USAF Chaplain School was established at Maxwell AFB and assigned to Headquarters Air University on 20 May 1966.

The chaplain service has a rich and varied legacy of supplying resources in support of ministry. The USAF Chaplain Service Resource Board was formed in July 1959 under the AU Command Chaplain. Initially called the USAF Chaplain Writers Board, it prepared written lectures and identified audiovisual resources for the Air Force Moral Leadership Program.

In 1976 the board's name was changed to USAF Chaplain Resource Board to reflect its central role and mission in developing a variety of ministry support resources. In January 1989 the word *service* was added to the board's name—USAF Chaplain Service Resource Board—to reflect the mission of providing resources to *all* chaplain service professionals: chaplain assistants, religious education coordinators, laity and chaplains.

It is now known as the Chaplain Service Institute Resource Division. Its members assess the needs of chaplain service personnel and provide support to the varied ministries of the service. This support facilitates the free exercise of diverse religious practices and beliefs worldwide.

The USAF Chaplain Service Institute (CSI) was activated under the Ira C. Eaker Center for Professional Development on 31 October 1992. It provides the chief of the AF chaplain service with a centrally managed, centrally located complex for all education, technical training, research and resourcing activities of the USAF chaplain service. The new organization consolidated and functionally integrated four separate organizations. Two elements of the institute, the USAF Chaplain School and the USAF Chaplain Service Resource Board, were already located at Maxwell AFB. The USAF Chaplain Service Film Library, previously located at Norton AFB, California, as an operating detachment of the Center for Professional Development, collocated with the institute at Maxwell AFB in December 1992. Technical training for enlisted chaplain assistants was transferred to Maxwell in September 1993 from Keesler AFB, Mississippi, under Air Force Year of Training initiatives.

The creation of the USAF CSI was a hallmark in the tradition of the USAF chaplain service profession. Its goals are to more effectively enable the ministries of the USAF chaplain services and thus enrich the lives of AF members and their families.

The USAF CSI is staffed to facilitate education and training of active duty, Reserve and ANG chaplains and chaplain assistants. This composition lends itself to a close collegial relationship with students and staffs worldwide and ensures curriculum and resources are designed and organized to solve and explore practical issues concerning today's AF chaplain service members.

The Education Division designs, develops and manages the PCE of all AF chaplains. The division conducts one Air Force accession course and two supervisory leadership courses. The division offers three-day issue- and subject-specific courses as well as subject-specific courses to ensure that chaplain and chaplain assistants maintain vocational excellence throughout their careers. The division further offers a chaplain candidate course for seminarians who are USAF Reservists, as they explore career ministry opportunities in the USAF chaplain service.

The Technical Training Division designs, develops and manages technical training for all AF chaplain assistants. The division offers one AF specialty code awarding course and one supervisory leadership course. Specific readiness training for entry-level chaplain assistants is integrated with chaplains to ensure maximum effectiveness of team readiness ministry during deployments, contingency operations and wartime.

The Resource Division is charged with staying abreast with the best tools and information in support of ministry for the AF community.

It assesses needs and delivers resources, primarily through the AF chaplain service Web site (http://www.usafhc.af.mil) and the Chief of the Chaplain Service bi-monthly electronic publication called the *Leading Edge*. The Resource Division communication tools serve two primary purposes. They furnish resources and information that directly support and inform ministry in the field, ranging from suicide prevention to balancing the chapel's books. The chaplain service home page also provides an opportunity and channel for chaplains and chaplain assistants to submit ideas, critiques, or any other input that might further the purposes of the ministry.

The Resource Division also presents resources to the field by developing and distributing on-demand, interactive training CD-ROMs such as the Chaplain Service Mentoring CD. It also facilitates Air Force-wide conferences such as the Marriage and Family Ministry Conference.

Mission: Provide education, training and resources that promote professional excellence and enhance the free exercise of religion for the USAF family.

Goals: Achieve vocational excellence, professional integrity and service to others by

- providing relevant knowledge, skills and resources for students to better perform their duties;
- attracting, mentoring and recognizing quality people;
- ensuring that faculty and course directors properly apply instructional system development principles;
- securing resources to support mission requirements;
- improving information flow and ensuring effective communication; and
- monitoring the quality of support services and seeking necessary improvements.

Curriculum

The USAF CSI encourages an academic environment that recognizes the value of each student's prior education and experience. Through free expression of ideas and immediate application of knowledge gained, the atmosphere of the institute remains progressive as it strives to prepare students for the AF chaplain service of the future. The faculty and staff of the institute advocate top-quality ministry and support of ministry.

Curriculum Summary

Course Title	Academic Hours
Basic Chaplain Course	180.0
Intermediate Chaplain Course	80.0
Wing Chaplain Course	80.0
Chaplain Candidate Course	80.0
PCE-Three-Day Courses for Professional Development	24.0
Chaplain Assistant Apprentice Course	247.0
Chaplain Assistant Craftsman Course	74.0

Academic Credit

Through affiliation of the Ira C. Eaker College for Professional Development with the CCAF, graduates of enlisted apprentice and craftsman courses may receive 11 and four semester hours of credit respectively toward an associate degree. Course graduates may apply for credit through the Registrar, CCAF/RRR, 130 W. Maxwell Blvd., Maxwell AFB, AL 36112-6613. For further information, contact a base education office or see the CCAF catalog.

For further information, contact the Chief, Education Division or Chief, Technical Training Division, USAF Chaplain Service Institute, 155 N. Twining Street, Maxwell AFB, AL 36112-6429.

The institute's Education, Technical Training and Resource Divisions are investigating ways to further develop learning opportunities through video home system (VHS) format video, CD-ROM integrated technology and text-based projects. The Resource Division's primary objectives currently include improving the quality of service and delivery of materials through automation technology and targeting needs assessments to fill resource "vacuums."

Initiatives Summary

Instruction of enlisted students in crisis intervention skills, trauma pastoral care and pluralism and faith group support requirements will further their professional abilities to support chaplains in peacetime and contingency operations. State-of-the-art integrated technology mediums have enhanced world-wide chaplain service training efforts in readiness, mentoring and global ministry efforts. Officer and enlisted evaluation systems have been added to all levels of instruction, ensuring that chaplain and senior enlisted support personnel will use evaluation and supervisory skills appropriately.

USAF First Sergeant Academy

CMSgt Sandra J. Williams, Commandant

Internet Address
www.maxwell.af.mil/au/cpd/fsa

The importance of the position of first sergeant has long been recognized in American military ranks. In 1778, at Valley Forge, Baron Von Steuben wrote in the *Regulation for the Order and Discipline of the Troops of the United States*, "The soldier having acquired that degree of confidence of his officers as to be appointed first sergeant of the company, should consider the importance of his officers; that the discipline of the company, the conduct of the men, their exactness in obeying orders and the regularity of their manners, will in great measure depend on his vigilance. The first sergeant . . . is to be always in camp or quarters, to answer any call that may be made."

Through the years, persons selected for first sergeant duty primarily trained themselves in their duties and responsibilities, taking over where their predecessors left off. With increases in technology, advances in the complexity of administrative and legal procedures and the need for improved human relations, the USAF saw that first sergeants needed to receive formal training.

The First Sergeant Course was established at Keesler AFB, Mississippi, in October 1973 and was renamed the USAF First Sergeant Academy in 1982. The academy remained at Keesler until July 1993 when it was moved to Maxwell AFB under the authority of order G-65 and aligned with the Ira C. Eaker College for Professional Development.

Mission: Provide education and training to selected active duty, Air Force Reserve and Air National Guard senior noncommissioned officers to become the best first sergeants in the world.

Goals: Educate and train first sergeants in the diverse areas of responsibility, accountability and discipline in which they will serve America's dynamic Air Force well into the next century.

Initiatives Summary

The USAF First Sergeant Academy has put forth several initiatives that will increase the efficiency and effectiveness of the academy and improve the quality of instruction.

Based on surveys from field-experienced first sergeants, graduates and commanders, the academic curriculum has been revised. This revision allowed the academy to adjust the curriculum to meet current needs of Air Force First Sergeants. This survey will be used on a two-year cycle to allow the academy curriculum to be updated as necessary.

Web-based training has been initiated to provide continuation training on demand using technologies such as interactive training and digitized role playing.

The school's Web page has been upgraded to provide a one-stop service for first sergeants to access critical reference material they use on a daily basis as well as information for continuity purposes.

Curriculum

The academy's curriculum is divided into five major areas: unit administration, human resources preventive intervention, quality force management, military justice, and deployment issues.

Duration and Quota

The USAF First Sergeant Academy Course is 20 academic days and can train up to 56 students per class. The First Sergeant Academy Air National Guard Course is a 10-day course that can train up to 32 students per class. Both courses have six offerings each fiscal year. The Air Force Reserve Course is 10 academic days and is offered four times per year.

Prerequisites and Selection

Resident students must be volunteers for the special duty of first sergeant. They must be recommended by their commander and personally meet a selection board consisting of one field grade commander, two first sergeants of equal or higher grade who have at least one year of experience as a first sergeant, and the wing command chief master sergeant. Final selection rests with the major command chief master sergeant.

Curriculum Summary

Course Title	Academic Hours
USAF First Sergeant Academy Course	160
First Sergeant Academy Air National Guard Course	86
First Sergeant Academy Air Reserve Command Course	80

Academic Credit

Through affiliation of the Ira C. Eaker College for Professional Development with the CCAF, graduates of the USAF First Sergeant Academy Course who are enrolled in CCAF may receive seven semester hours of credit. Graduates of the First Sergeant Academy Air National Guard Course receive three semester hours and the Additional Duty First Sergeant Symposium receive two semester hours.

Course graduates may apply for credit through the Registrar, CCAF/RRR, 130 W. Maxwell Blvd., Maxwell AFB, AL 36112-6613. For further information, see the CCAF catalog and consult with your education service officer.

USAF Historian Development School

MSgt Dennis W. Pinner, Director

Internet Address
www.maxwell.af.mil/au/cpd/

The USAF Historian Development School became operational in January 1995. The school is responsible for technical training in the historian career field. It conducts two in-residence courses—Historian Apprentice and Historian Craftsman—and develops and maintains one distance-learning course—Historian Journeyman.

The Historian Apprentice Course is 18 academic days long and is designed for new enlisted historians entering the AF history program. The curriculum provides a foundation in the principles and methods of preparing periodic histories and managing a wing history program.

The Historian Journeyman Course capitalizes on technology and is built for the midlevel, enlisted historian. This distance-learning course expands on the areas of the historian career field, security, periodic history, reference services, contingency and administration. The state-

of-the-art course on CD-ROM approaches technical training via an interactive, multimedia, computer-based format. The course is available through the Air Force Institute for Advanced Distributed Learning (AFIADL).

The Historian Craftsman Course is 10 academic days long and places the experienced historian in a dynamic environment similar to what is experienced in the field. Following an intense, practicum-based curriculum, the prospective craftsman historian will research and write a historical special study, conduct an oral history interview, evaluate actual periodic histories and conduct an analytical oral briefing during a mock commander's stand-up.

All three courses cited above prepare enlisted and selected civilian historians to assist today's commanders in the decision-making process and capture the Air Force's corporate memory for the senior leaders of tomorrow.

Mission: Provide skill-level awarding courses to train active duty, ANG, and AFRes enlisted and selected civilian historians on basic, intermediate, and advanced responsibilities concerning the principles, methods, and techniques for conducting a comprehensive unit history program.

Goals: Provide historian trainees with a strategic framework for acquiring three-, five- and seven-skill level competencies in the enlisted historian career field. The objectives are to

- develop curriculum and conduct resident and distance-learning historian instruction including a correspondence course distributed through AFIADL,
- represent the historian career field in forums involving training issues,
- provide consultation to the Headquarters USAF Office of History (USAF/HO) and other organizations, and
- assist in developing and revising promotion tests, training standards and related materials.

Initiatives Summary

The USAF Historian Development School is testing and revising the Historian Journeyman Course. This is an interactive, multimedia software, CD-ROM course.

Curriculum

The school curriculum enables historians to prepare organizational histories more effectively.

Duration and Quota

The apprentice course is held four times each year for 18 academic days with an average of 13 students per class. The craftsman course is held four times annually for two weeks with an average of eleven students per class.

Prerequisites and Selection

The prerequisites for selection and attendance differ for each skill level in the historian career field specialty.

Three-level Course Prerequisites. AF enlisted personnel (active duty, Reserve, or Guard) approved for retraining into the historian AFSC 3H0X1 will be given priority for class seats. With approval of the major command history office and the course director, the following individuals may attend on a space-available basis: enlisted personnel assigned additional or part-time duties as unit historians, civilian personnel with collateral or part-time duties as unit historians and civilians interning as historians. All attendees must be proficient typists and familiar with computers and word processing software.

Five-level Course Prerequisites. Must complete in-residence Historian Apprentice Course.

Seven-level Course Prerequisites. Must complete Historian Journeyman Course through correspondence. The student must be a staff sergeant or higher, be enrolled in seven-skill level upgrade training and have met the minimum time requirement in upgrade training. The student must also be familiar with Microsoft Word and Microsoft PowerPoint.

Curriculum Summary

Course Title	Academic Hours
Historian Apprentice Course	144
Historian Journeyman Course	*
Historian Craftsman Course	80

*20–30 hours to accomplish 959 individual on-screen modules.

Academic Credit

Through affiliation with CCAF, graduates of the Historian Apprentice Course who enroll in the CCAF receive six hours of credit on their transcripts. Graduates of the Craftsman Course earn three semester hours of CCAF credit toward an associate degree.

All graduates may receive a transcript reflecting these credit hours by contacting the Registrar, CCAF/RRR, 130 W. Maxwell Blvd., Maxwell AFB, AL 36112-6613. Interested students are encouraged to contact their base education office.

EXTENDED STUDIES
AND ADVANCED DISTRIBUTED LEARNING

The Air University, through the Air Force Institute for Advanced Distributed Learning, supports the Air Force extension course programs and the Air Force distance learning mission, and exercises operational control of the Air Technology Network.

AIR FORCE INSTITUTE FOR ADVANCED DISTRIBUTED LEARNING

Col Kim A. Bowling, Commander

Internet address
http://www.maxwell.af.mil/au/afiadl

Mission: *Promote, deliver, and manage advanced distributed learning for our air and space forces.*

The Air Force Institute for Advanced Distributed Learning, located at Maxwell AFB–Gunter Annex, formally came into being on 1 February 2000. The institute was established by the merger of three distinct organizations: the Air Force Distance Learning Office (AFDLO) and the Extension Course Institute (ECI). At that time, the AFDLO had operational control of the Air Technology Network Program Management Office (ATN PMO). AFDLO was established 7 November 1995 to serve as the focal point for all AF distance learning (DL) matters. ECI was established in 1950 as one of AU's professional specialized schools. As the Air Force's only correspondence school, ECI's original mission was to provide voluntary nonresident courses for both active duty and reserve AF personnel. The ATN PMO was created in February 1996 as an outgrowth of AFIT's Center for Distance Education and served as the focal point for the management of the Air Force's DL satellite network, ATN. On 2 July 2001, ATN was realigned as AFIADL operating location "A." Today AFIADL supports formal training and educational programs of the AF, ANG, and AFRes by providing career-broadening advanced distributed learning courses to people throughout the DOD and to civil service employees in all federal agencies.

Advanced distributed learning is an evolution of distributed learning (distance learning) that emphasizes collaboration on standards-based versions of reusable objects, networks, and learning management systems, yet may include some legacy methods and media. DL media include interactive television (ITV), interactive multimedia instruction (IMI), Internet-based instruction (IBI), paper-based instruction, and other instructional technologies. Advanced distributed learning (ADL) includes all DL media. In the future distance learning will also consist of instructional modules comprised of "sharable content objects" delivered though several technologies.

The ADL initiative (ADLI) is a structured, adaptive, and collaborative effort between the public and private sectors to develop the standards, tools, and learning content to provide "anytime, anywhere"

instruction to US Forces. AETC is the lead command for ADL within the Air Force. AFIADL serves as the focal point and executive staff agent on these efforts under the guidance of AETC's directorate of education.

AFIADL promotes, delivers, and manages advanced distributed learning for our aerospace forces. Over the years the mission has undergone several major changes. In 1963 when ECI started providing self-study materials for the Air Force's official upgrade training program, the institute became an essential and mandatory part of the dual-channel concept for the enlisted training program. In 1969 ECI was given the additional mission of providing study reference materials to AF enlisted personnel to use in preparing for specialty knowledge testing under the weighted airman promotion system (WAPS).

AFIADL operates in a fully automated environment. Course development, production, distribution, and student administration functions are managed on a sophisticated system of personal computers and a mini-mainframe. The data is accessible worldwide to AFIADL, ACSC, SOS, SNCOA, course authors, education service offices, and unit/base-level training sections. To profit from rapidly growing technological capabilities, AFIADL has departed from entirely paper-based curricula to include interactive television and computer-based courseware. AFIADL is, with the rest of DOD, exploring the standards required for Internet delivery and management of courses. In print-based curricula, AFIADL enhanced its efficiency and productivity by moving to a print-on-demand process for course examinations and is planning for use of new learning technology for courseware delivery.

The Air Force delivers many of its courses via ATN, an interactive television (ITV) network. ATN (http://atn.afit.edul) reaches 207 classrooms at 133 AF bases within the United States (including Alaska and Hawaii) and nine locations in Europe (five locations are currently being installed in Japan and Korea), with education and training programs broadcast from uplinks at Wright–Patterson (the first uplink on ATN), Maxwell, Sheppard, Fairchild, and Keesler AFBs. The connection to Europe is being made through the *Global Broadcast Service* with a gateway uplink at Norfolk, Virgina. Since its development in 1991, ATN has been used to provide continuing education and training to over 40,000 students.

AFIADL conducts a one-week course for authors to provide new writers of CDCs with the basic knowledge and experience needed to produce effective extension course materials. The course, which is offered three times a year, is a practicum in the use of instructional systems development to write and revise CDCs. During the week, new writers work under the tutelage of institute educators and gain hands-on experience in every phase of course development: writing topical statements, developing tests and text, and processing and evaluating a course. New writers also become familiar with AFIADL's procedures and become acquainted with staff members with whom they will be working.

AFIADL administers and distributes more than 450 courses. They fall into four categories: PME, PCE and training courses via ATN, specialized courses, and CDCs. The institute distributes the following nonresident courses:

PME Courses

Both commissioned and noncommissioned officers take PME courses. These courses teach leadership, management principles, techniques of effective communication, problem solving, analysis of professional reading materials, international relations, national decision making, and defense management. They also cover the psychology of learning, individual differences, and the techniques of teaching. The courses give students the broad skills and knowledge needed to be effective at various stages in their careers.

AFIADL distributes nonresident PME through distance learning products ranging from paper-based through CD-ROM. PME is also available by seminar or in residence through the schools.

PCE and Training Courses

AFIT and the various schools within Second AF use AFIADL's satellite network, ATN, to reach thousands of students every year to fulfill their PCE and training needs.

Specialized Courses

Specialized courses focus on technical and special subjects that are useful in many career fields. Examples are contracting, finance, and logistics courses. These courses also provide career broadening to individuals as they progress to higher levels and are required to become more knowledgeable in career fields other than their own.

Career Development Courses

CDCs constitute the largest portion of AFIADL's curricula. These self-study courses help airmen complete the task-knowledge portion of the dual-channel concept for the enlisted training program. The dual-channel concept is an on-the-job training program that requires the completion of CDC courses for skill-level upgrade—a requirement for

promotion. Airmen must complete CDCs successfully at various stages to advance in their careers. CDCs are also available on a voluntary basis for career broadening.

Air Force members can obtain further information about the institute's courses and enrollment through their base education or training office. The *AFIADL Catalog* provides up-to-date information on courses, programs, and policy and procedures. You can access the catalog on-line at: http://www.maxwell.af.mil/au/afiadl/curriculum/catalog/cattoc_fr.htm. The institute's Web page provides information about CDCs required by AFSC, available test control facilities, names and phone numbers of staff members to assist with student inquiries, and other useful information available to students all over the world. The catalog also provides information on academic credit recommendations for these courses. A list of credit recommendations for AFIADL courses also can be found in the current *Guide to the Evaluation of Educational Experiences in the Armed Services*. AFIADL also publishes *Curriculum Update* as a forum to discuss updates in the area of curriculum development.

CITIZENSHIP EDUCATION

Besides its professional military and continuing education, Air University supports two nationwide programs—the Civil Air Patrol and Junior Reserve Officer Training Corps—that instill citizenship values among our nation's youth.

AIR FORCE JUNIOR RESERVE OFFICER TRAINING CORPS

Col Samuel J. Barr, Director

Internet Address
http://www.afoats.af.mil/AFJROTC/default.htm

The Air Force Junior Reserve Officer Training Corps (JROTC) can track its heritage to a program founded in 1911 in Cheyenne, Wyoming, by Army Lt Edgar R. Steevers. Lieutenant Steevers was assigned as an inspector-instructor of the organized military of Wyoming. During his assignment, he envisioned a noncompulsory cadet corps comprised of high school students. His program was aimed toward making better citizens.

The National Defense Act of 1916 authorized a junior course for noncollege military schools, high schools, and other nonpreparatory schools. The Army implemented JROTC in 1916. Public Law 88-647, commonly known as the ROTC Vitalization Act of 1964, directed the secretaries of each military service to establish and maintain JROTC units for their respective services. The first Air Force JROTC programs were opened in 1966.

"(The) purpose of Junior Reserve Officers' Training Corps [is] to instill in students in United States secondary educational institutions the value of citizenship, service to the United States, personal responsibility, and a sense of accomplishment." (10 USC Sec 2031)

Air Force JROTC (AFJROTC) is a continuing success story. From a modest beginning of 20 units in 1966, AFJROTC has grown to 744 units throughout the world, with 103,000 cadets. The AFJROTC program positively influences our country by helping one student at a time. Comprised solely of active duty Air Force retirees, the AFJROTC instructor force is helping to form tomorrow's nation by educating proud and patriotic cadets—tomorrow's leaders.

Mission: *The mission of Air Force Junior Reserve Officer Training Corps is "Building better citizens for America."*

The objectives of JROTC are to educate and train high school cadets in citizenship; promote community service; instill responsibility, character, and self-discipline; and provide instruction in air and space fundamentals.

The AFJROTC program is grounded in Air Force core. The curriculum emphasizes Air Force heritage and traditions, the development of flight, applied flight sciences, military aerospace policies, and space exploration.

Curriculum opportunities include:

- Academic studies
- Character education
- Life skills education
- Leadership opportunities
- Team-building experiences
- Intramural competition
- Field trips/training opportunities

Programs and Operations

The AFJROTC program enrolled approximately 103,000 cadets, employed more than 1,600 instructors and operates units in 48 states, the District of Columbia, Puerto Rico, Italy, Germany, Belgium, Netherlands, United Kingdom, Japan, Korea, and Guam in 2002. AFJROTC units are located in host high schools, public and private, and, by law, the program is limited to students in grades 9–12. AFJROTC instructors are employees of the host school.

There are two branches within the AFJROTC Headquarters at AFOATS: Instructor Management and Operations.

Instructor Management. This branch recruits, certifies eligibility to teach AFJROTC, monitors performance of AFJROTC instructors, and recommends de-certification of AFJROTC instructors as necessary. It provides assistance and authoritative guidance to instructors and school officials, including assistance in the selection and hiring of instructors. Additionally, it processes instructor applications and administers the instructor evaluation system.

Operations. This branch provides staff initiatives and policy to implement the aerospace science and leadership education curriculum. It ensures the program is conducted pursuant to DOD and Air Force instructions; develops policies and procedures for the day-to-day operation of the program; and establishes standards for unit operations, instructor qualifications, and cadet performance.

Curriculum

The success of the AFJROTC program lies in its progressive and academically sound curriculum and the numerous extra-curricular activities AFJROTC offers students. The curriculum is two part: aerospace studies and leadership/life skills education. Host schools may elect to emphasize either portion of this curriculum based upon the needs of the students.

Aerospace Studies. The first year covers the heritage and development of flight and military aerospace policies. The second year includes the environment in which aircraft and spacecraft operate. Flight and navigational principles and the requirements for human flight are also included. Rocketry, space vehicles, and the exploration of space are covered in the third year. The fourth year offers three options: Option 1, Management of the Cadet Corps; Option 2, Honors Program-Ground School; and Option 3, Laboratory Manual, Geography, and Survival. The table below shows a typical AFJROTC curriculum emphasizing aerospace studies.

Curriculum Summary
Emphasizing Aerospace Studies

Year	Aerospace Science	Hrs	Leadership Education	Hrs	Total Hrs
1	Frontiers of Aviation History	108	Introduction to Air Force JROTC	72	180
2	The Science of Flight	108	Intercommunication Skills	72	180
3	The Exploration of Space	108	Life-Skills	72	180
4	Options	108	Principles of Management	72	180

Leadership/Life-Skills Education. AFJROTC emphasizes leadership education with emphasis on development of life-skills while exposing cadets to opportunities to learn and practice basic leadership. The leadership/life-skills course work helps prepare cadets for positions in any career. Classes provide cadets with a basic knowledge of military customs and courtesies, military organization and principles of leadership, flag etiquette, drill and ceremony. The table below shows a typical AFJROTC curriculum emphasizing leadership and life-skills education.

Curriculum Summary
Emphasizing Leadership and Life-Skills

Year	Aerospace Science	Hrs	Leadership Education	Hrs	Total Hrs
1	Frontiers of Aviation History	72	Introduction to Air Force JROTC	108	180
2	The Science of Flight	72	Intercommunication Skills	108	180
3	The Exploration of Space	72	Life-Skills	108	180
4	Options	72	Principles of Management	108	180

Extracurricular Activities. Extracurricular activities and opportunities are important parts of AFJROTC. Cadets can participate in summer leadership camps, drill meets, orienteering, debates, and discussion forums. AFJROTC does not engage in marksmanship training or teach individual combat skills.

CIVIL AIR PATROL—US AIR FORCE

Col George Vogt, Commander

Internet Address
http:// www.maxwell.af.mil/au/cap

The Civil Air Patrol–US Air Force (CAP–USAF) provides advice, liaison, and oversight to America's volunteer auxiliary of the Air Force, the Civil Patrol (CAP), a private corporation, chartered by Congress. CAP–USAF headquarters at Maxwell AFB, along with eight CAP–USAF regional commands, provides training, policy guidance, and assistance to more than 64,000 CAP members throughout the United States, in Puerto Rico, and on many overseas Air Force installations. CAP–USAF, including its Reservists, plays a key role in helping CAP meet its congressionally mandated missions.

Civil Air Patrol

Internet address
http://www.capnhq.gov

CAP was created on 1 December 1941 as a part of the Office of Civilian Defense. During World War II, CAP was an integral part of North American defense, patrolling the 1,200 miles of coastline from Halifax, Nova Scotia, to the Florida Keys searching for enemy submarines and other signs of enemy activity. In 1943 CAP transferred to the Army Air Forces. In 1946 CAP was chartered by congressional act as a nonprofit, benevolent organization devoted to humanitarian activities. By another act of Congress in 1948, CAP became the official auxiliary of the USAF.

Today's CAP has more than 36,000 senior members and more than 27,000 cadets in 1,700 units nationwide. CAP units have an organizational pattern and rank structure similar to that of AF units.

CAP's congressional charter mandates the organization to furnish the American public with emergency services, aerospace education, and administration of a CAP cadet program. Headquarters CAP–USAF provides advice, liaison, and oversight to the more than 64,000 CAP members throughout the United States and Puerto Rico and on many Air Force installations overseas. CAP–USAF provides training and direction to the auxiliary in its three congressionally mandated missions.

CAP furnishes trained volunteers who support noncombat AF missions throughout the United States. CAP conducts more than 85 percent of the inland search and rescue missions authorized by the Air

Force Rescue Coordination Center at Langley AFB, Virginia. Daily operations include aerial reconnaissance missions for the US Customs Service, the Drug Enforcement Administration (DEA), and the US Forestry Service to support counterdrug operations. CAP maintains an extensive, survivable radio network providing emergency communications when disasters strike.

CAP provides aerospace education for CAP members and the nation at large through its comprehensive outreach program, including the annual National Congress of Aviation and Space Education (NCASE). CAP aerospace education reaches the classrooms of more than 300,000 students each year, encouraging an interest in aviation and the sciences. The cadet program fosters personal discipline, patriotism, and leadership in young people across the nation and on AF installations worldwide.

Through its cadet program, CAP

- provides an organization to encourage and aid US citizens in contributing their efforts, services, and resources in developing aviation and in maintaining aerospace supremacy;
- provides aerospace education and training, especially to its senior and cadet members;
- encourages and develops, by example, the voluntary contribution of private citizens to the public welfare;
- encourages and fosters civil aviation in local communities; and
- provides an organization of private citizens with adequate facilities to assist in meeting local, state, and national emergencies.

CAP has adopted several initiatives to furnish better service to the public. These efforts include an ongoing recruiting drive to attract new members, modernizing and improving its aircraft fleet and equipment, and a screening program of all senior members associated with the cadet program.

CAP has eight geographical regions composed of 52 wings—one for each state, Puerto Rico, and the District of Columbia. Wings are divided into groups, squadrons, and flights. A liaison staff of active duty, Reserve and civil service employees works with each of the 52 wings in the eight CAP regions in the United States. Headquarters CAP–USAF is collocated with CAP's National Headquarters at Maxwell AFB, Alabama.

Emergency Services

CAP's primary operational missions include air and ground search and rescue (SAR) and disaster relief (DR)—whether in response to man-made events, as in civil defense or natural disasters. CAP has access to

some 550 corporate-owned general aviation aircraft, plus vast amounts of ground rescue equipment and radios. CAP operates national, regional, and local high frequency (HF) and very high frequency (VHF) radio networks with more than 12,000 radio devices, including VHF-FM repeater systems. These networks provide valuable connectivity during a national emergency or major disaster.

SAR operations are carried out primarily under USAF authority at the request of the Air Force Rescue Coordination Center and other DOD joint rescue coordination centers.

DR operations during peacetime are coordinated by local and state emergency management authorities and authorized by the Air Force National Security Emergency Preparedness Office. During a national emergency, CAP DR tasking comes from the federalized state adjutant general.

In 2002 CAP aircrews flew 121,956 total flying hours and saved 88 lives.

Homeland Security

CAP has continued to support recovery efforts from the terrorist attacks of September 11, 2001. More than 8,700 volunteer CAP members were mobilized nationwide after the attacks, flying a total of 564 hours in transportation, reconnaissance and airborne imagery missions. More than 450 of these members assisted their state or federal emergency management agencies.

CAP also flew 57.5 hours in support of Operation Noble Eagle for the Air Force. As this assignment continues, CAP planes fly as target aircraft to simulate terrorist activities and train air defense forces to detect, monitor and intercept suspicious aircraft.

CAP also flew security missions above the launch site for the Space Shuttle Columbia in 2003, and assisted in its later recovery effort.

In May 2003, CAP wings in Illinois and Washington assisted in the TOPOFF 2 exercise, a national simulated exercise to evaluate the nation's ability to respond effectively to a massive terrorist attack.

Olympics and Paralympics Support

At the request of the Department of Defense, more than 250 CAP members provided security and traffic observation for the 2002 Winter Olympic and Paralympic Games. Prior to the Games, CAP took airborne digital photographs of various Olympic sites as baseline photos for comparison in the event of a terrorist attack. CAP flew 179 sorties and 534.1 hours in reconnaissance from sunrise to sunset each day.

CAP took 2,232 aerial photos, using high-resolution digital cameras and single-frame video downlink systems. Uploaded on a limited

access Web site for security agencies, the photos resulted in at least one law enforcement action per day.

Future Support

CAP has submitted a Concept of Operations (CONOPS) for homeland security to both the Secretary and the Chief of Staff of the Air Force. The document demonstrates how CAP can provide civil support for homeland security today and in the future. The plan also supports all six critical mission areas in President Bush's National Strategy for Homeland Security.

To speed up and centralize mission support, CAP opened a National Operations Center (NOC) at its headquarters on Maxwell AFB, Alabama. In September 2002, USAF Chief of Homeland Security Brig Gen David Clary visited CAP headquarters for a capabilities briefing and a tour of the new NOC.

Congress has appropriated $6 million for CAP to acquire hyperspectral imaging technology and training. CAP has also already begun inflight testing for the new night vision and thermal imaging equipment.

Counterdrug Operations

Since the mid-80s, CAP has been an integral player in counterdrug operations. Many federal agencies, such as the Drug Enforcement Administration, US Customs Service, the US Forest Service, and numerous state and local law enforcement agencies routinely call on CAP for aerial reconnaissance and communications support for their counterdrug missions. A key element of this program is the single-frame video equipment CAP uses to transmit near-real-time still photos via computer to law enforcement agencies Additionally, CAP provides intercept training and radar monitoring support to the Department of Defense.

Drug Demand Reduction

CAP's Drug Demand Reduction (DDR) program began in 1994 to support the Air Force family within 30 miles of active duty Air Force bases, reserve bases or stations and Air National Guard bases. The mission of the program is to reduce the use of illegal drugs through a comprehensive program of education, prevention, and awareness. One of the highlights of the DDR program is the Middle School Initiative, which allows CAP participation either during or after school. Schools throughout the US sponsor the programs.

Cadet Programs

The CAP cadet program is open to young men and women between the ages of 12 and 21. CAP cadets are involved in a leadership training program based on activity and achievement. The cadet program includes 16 achievements in four phases with five milestones. Accomplishments in each phase and achievement lead to progression in rank from cadet basic to cadet colonel. Cadets may also take part in other activities such as the International Air Cadet Exchange program. CAP offers the cadets opportunities to receive training in gliders and powered aircraft, radio communications, and various emergency service specialties. The cadet program also provides study and involvement in five program elements—aerospace education, leadership laboratory, moral leadership, physical fitness, and aerospace related activities.

Aerospace Education. This portion of the cadet curriculum orients the cadets to the diversity of the aerospace community. It develops an understanding of flight; aircraft and space vehicle power plants; navigation; weather; air traffic control; and the social, political, and economic impact of aerospace endeavors. Career exploration is inherent in all aspects of the aerospace education element of the cadet program.

Leadership Laboratory. This area exposes the cadet to opportunities to learn and practice basic leadership, administration, and management techniques. Cadets are trained in leadership theories and concepts as well as practical hands-on applications.

Moral Leadership. This portion of the cadet curriculum furnishes cadets with a forum to discuss contemporary issues under the leadership of specially trained adult leaders and ordained clerics. The purpose is not to espouse any religious doctrine or teachings but to allow cadets to draw their own moral conclusions based on these discussions.

Physical Fitness. Scaled to the cadet's age group and gender, the physical fitness program is tied directly to the President's Council on Physical Fitness and Sports which provides an early exposure to physical fitness as a lifetime requirement.

Activities. Cadets may complete aerospace related activities at all levels of CAP: local, wing, regional, and national. These activities are grouped into three categories: flying related, career exploratory, and professional development. Samples of these activities include Cadet Officer School, National Cadet Competition, Engineering and Technology Academies, glider and powered flight training, and eight USAF career-field familiarization courses.

International Programs. The cadet program also includes international opportunities. Each summer since 1948, CAP cadets and senior-member escorts, with AF assistance, participate overseas as US representatives in the International Air Cadet Exchange—a program that promotes international understanding, goodwill, and friendship among young people who have a common interest in aviation. The Civil Air Patrol cadets go through a structured curriculum in Washington, D.C., before departing for their host country.

Likewise, a 16-day exchange to the United States provides international cadets with sight-seeing trips, tours of aerospace industries and museums, visits to airports and AF installations, orientation and training flights in gliders and powered aircraft, and visits in the homes of host CAP families. The program exchanges approximately 100 people with 17 other nations.

Aerospace Education

CAP's aerospace education effort works, both internally (with its membership) and externally (with the general public), toward developing an understanding and appreciation of the importance of aerospace power for our country. Cadets and senior members take part in a structured aerospace education program and have access to current aerospace events.

The program's purpose is to develop a membership that can provide grassroots understanding and leadership in aerospace education in local communities. Through its outreach programs, CAP provides aerospace education to the American citizenry through professional educators. These outreach efforts include teacher workshops, curricular materials, educational liaison, and cooperative programs.

Teacher Workshops. Each year over 100 colleges, universities, and school systems offer CAP-sponsored aerospace education workshops for approximately 3,000 teachers. These projects provide teachers and school administrators with a basic understanding of aerospace activities and prepare them to include aerospace education in their curricula at all levels.

Curricular Materials. CAP produces courses of study, textbooks, instructor guides, audiovisual materials, and other supplementary materials. Many schools (private, public, and parochial) use this material to present aerospace education to their students.

Educational Liaison. CAP maintains a close liaison with state school officials, college and university administrators, and private, public, and parochial school systems to promote aerospace education through out the country.

Cooperative Programs. CAP maintains a close working relationship with other aerospace education groups to develop cooperative aerospace education programs. These groups include the

Federal Aviation Administration (FAA), the National Aeronautics and Space Administration (NASA), the National Air and Space Museum, state aeronautical commissions, the General Aviation Manufacturers Association, the Air Transport Association, the Aircraft Owners and Pilots Association, the Young Astronaut Council, and the Air Force Association. An example of this cooperation is the annual NCASE, the only national-level convention for aerospace education held in our nation.

This annual event is sponsored by CAP and plays a significant role in fulfilling its congressional charter to educate the American public about aerospace topics. About 1,000 educators attend the national congress for the three-day symposium. They return to their classrooms to teach students and parents using educational materials and techniques learned during their NCASE experience.

SECTION III

ACADEMIC SUPPORT AND TENANT UNITS

ACADEMIC SUPPORT

The Air University resident and distance education programs are supported by several supporting organizations that provide essential research facilities—some not equaled at any other academic institution. Air University has top-notch broadcasting and multimedia capabilities that allow its schools and organizations to provide worldwide educational opportunities to Air Force and Department of Defense personnel. These agencies enable the Air University to furnish essential mission support to a wide range of Air Force units and commands, including Headquarters Air Force.

AIR UNIVERSITY REGISTRAR

Dr. Irene Pearson-Morrow

Internet Address
http://www.maxwell.af.mil/au/oas/rrwebpg.htm

The Air University Registrar oversees three branches: Services and Student Records, Officer PME, and Central Scheduling and Requirements Analysis. Through its Services and Student Records Branch, the registrar provides a 30-year archival data trail for AU schools, produces transcripts for graduates of those schools, and serves as admissions officer for AWC and ACSC master's degree programs. The registrar enrolls distance education students, monitors their progress, and produces their completion certificates and diplomas. The Officer PME Branch functions as the single input source for updating USAF records with PME course completions and supports promotion boards by screening graduate records to provide PME graduate data. The Central Scheduling and Requirements Analysis Branch manages course requirements, allocations, schedules, and program changes. Additionally, this branch supports the Air Force Education Requirements Board (AFERB) through data tracking and analysis for AF advanced academic degree programs and professional continuing education requirements.

Transcript Requests

Individuals must request transcripts in writing from the Services and Records Branch, Air University Registrar (AU/CFRR), 60 W. Shumacher Ave., Maxwell AFB, AL 36112-6337. All requests must include the student's name, any previous names used, social security number, dates of attendance, school or course completed, complete address where the transcript is to be mailed, the student's signature, current address, and phone number. The above information may also be faxed to (334) 953-8127. For additional information call DSN 493-8128/1240 or (334) 953-8128/1240.

AIR UNIVERSITY LIBRARY

Dr. Shirley B. Laseter, Director

Internet Address
http://aulibrary.au.af.mil/lane.htm

The Air University Library (AUL), founded in 1946, is the premier library in the DOD. It houses well-balanced collections especially strong in the fields of war fighting, aeronautics, AF and DOD operations, military sciences, international relations, education, leadership, and management. AUL improves AF education by providing access to the world of information through quality library services.

The library holds more than 2.6 million items, including 419,000 military documents; 460,000 monographs and bound periodical volumes; 462,500 maps and charts; 150,000 current regulations and manuals; and 900,000 microforms.

AUL sits at the center of Chennault Circle. The library building, Fairchild Library, is named after the founder and first commander of AU, Gen Muir Stephen "Santy" Fairchild. Air University Library also operates the Henry "Red" Erwin library at Maxwell AFB–Gunter Annex. This branch provides tailored information collections and services for the NCO Academy and the Senior NCO Academy.

An active program of bibliographic publications and indexes facilitates access to the library's holdings and information. Special subject bibliographies are published throughout the year and posted contemporaneously on the library's Web page. AUL publishes the quarterly *Air University Library Index to Military Periodicals* (now in publication for more than 50 years). The index is in CD-ROM format and is accessible from the AUL Web page.

Electronic information technologies are critical to the delivery of library resources and services. A third-generation integrated library system automates identifying, locating, and circulating library-owned materials. A robust website provides Internet access to the Special Bibliography Series, other PME curriculum support materials, map and image sites, full-text journals, newspapers, on-line databases, and links to key Web sites.

AIR UNIVERSITY PRESS

Dr. Shirley B. Laseter, Director
Ms. Bessie E. Varner, Deputy Director

Internet Address
http://aupress.maxwell.af.mil

The Air University Press, a division of AUL, is the professional publishing arm of AU. Its products help promote creative thought on and appreciation of the value of air and space power. The Air University Publication Review Board, composed of senior officials from AU's officer PME schools, helps set direction for the press by advising and assisting the press in acquiring and evaluating manuscripts.

The press seeks to establish itself as a university press and a leading not-for-profit publisher on air and space power and national security. To achieve this goal, the press engages in an active marketing and acquisitions program to attract manuscripts on relevant topics from a wide range of authors, including active duty military, civilian scholars, and independent researchers.

Through its unique design and in-house editorial capabilities, the press staff provides a complete range of publication services. It offers creative assistance in prepress production functions (design, layout, typesetting, and creation and use of illustrations and photographs) for all AU Press publications, including the *Air and Space Power Journal,* which is published in three languages—English, Spanish, and Portuguese.

Information on press publications is available through the *Air University Press Publications* catalog—in hard copy and on the Internet (http://aupress.maxwell.af.mil). To inquire further about obtaining publications or submitting manuscripts, contact the Air University Press, 131 W. Shumacher Ave., Maxwell AFB, AL, 36112-6615 or visit the website.

AIR UNIVERSITY TELEVISION

Maj Craig L. Hendrix, Director

Air University Television (AUTV) is AU's dedicated television facility, the AF's southeastern regional television production center, and one of five Air Force distance learning uplink (broadcast) sites. From a full-service, $5 million physical plant, AUTV provides video production and editing, cable distribution, satellite uplink and downlink (receive)

services, and television engineering consultation to support AU's professional military and continuing education courses locally and Air Force-wide.

As a part of the ATN, AUTV provides satellite uplink and downlink services. Courses are transmitted from the broadcast studio to downlink sites throughout DOD and the federal government. Downlink signals are distributed through Air University Cable Network (AUCN). AUTV also provides digitized video clips for inclusion in interactive courseware.

Production personnel produce broadcast quality videotape programs for a wide range of applications, from short video supplements to faculty lesson plans to full-length programs for widespread distribution. Video programming to support daily classroom needs is aired over the AUCN. The AUCN signal is received in all AU classrooms on Maxwell AFB and Gunter Annex. Presentations in each school's main auditorium are distributed live or recorded for delayed playback and entry into the video archive.

Engineering personnel provide the technical services required to install, maintain, and repair the more than 1,400 pieces of video equipment in the AUTV facility and its subsystems throughout the Maxwell–Gunter community. AUTV engineers also provide consultations to customers planning new requirements or modifications of existing multimedia presentation systems. They provide comprehensive product research, procurement planning, system description, schematic preparation, custom installation, acceptance testing, and emergency repairs.

AIR UNIVERSITY BOOKSTORE

The AU Bookstore, operated by the Army and Air Force Exchange Service, is collocated with the AUL. The bookstore stocks a large inventory of books to support educational curricula of the schools located on Maxwell AFB and Gunter Annex, as well as other exchange customers. The bookstore handles special orders for numerous books. Its hours of operation are Monday–Friday, 0830–1630. Personnel eligible to use the AU Bookstore include military personnel and their dependents, military retirees and their dependents, Guard and Reserve members, and DOD civilians.

TENANT UNITS

Maxwell AFB is host to two tenant units: the Air Force Doctrine Center is a direct reporting unit (DRU) and the USAF Historical Research Agency is a field operating agency (FOA). These organizations pursue joint ventures with AU faculty, staff, and students to research and develop solutions to and an understanding of vexing problems relating to future doctrine and war fighting.

HEADQUARTERS AIR FORCE DOCTRINE CENTER

Maj Gen David F. MacGhee Jr., Commander
Col Stephen G. Cullen, Vice Commander

Internet Address
http://www.doctrine.af.mil

In August 1996, Gen Ronald R. Fogleman, Air Force chief of staff (CSAF), decided to reorganize Air Force doctrine institutions. He based this decision on the growing importance of joint war fighting and the perceived need to increase the Air Force's understanding of air and space power doctrine. He realized that the other service's had well-staffed organizations dedicated to writing doctrine, and that their members were better educated in their services' doctrine practices.

Established in February 1997, Headquarters Air Force Doctrine Center (AFDC), a DRU to the Air Force Chief of Staff, became the US Air Force's main doctrine service center. The unit's location at Maxwell AFB, Alabama, gives its members immediate access to the resources of AU, including AU Library, Air War College, Air Command and Staff College, Squadron Officer College, and College of Aerospace Doctrine Research and Education.

Headquarters AFDC serves as the "single voice" for all doctrinal matters within the Air Force and to the joint community. The center researches, develops, and produces Air Force basic and operational doctrine, as well as joint and multinational doctrine. In addition, the center coordinates with the major commands on their development of tactical doctrine and assists other services' with their doctrinal development efforts.

Approximately 100 individuals, military and civilian, are assigned to Headquarters AFDC. The commander's office, Doctrine Development, Doctrine Applications, and Doctrine Deployment Directorates are located within the headquarters building at Maxwell. The Joint Integration Directorate is located at Langley AFB, Virginia. In addition to these locations, Headquarters AFDC also maintains a liaison office within the Pentagon, and six operating locations, five of which are located at major Army training centers and one located at Nellis AFB, Nevada.

The Doctrine Development Directorate researches, develops, and produces Air Force basic and operational doctrine, as well as joint and multinational doctrine, spanning the full range of military operations. The Doctrine Applications Directorate is responsible for affecting the accurate representation of air and space power in service, joint and multinational events of doctrinal significance. In addition, the Applications Directorate participates in Air Force and other services' joint

wargames and key exercises to ensure scenarios provide a realistic depiction of the uses and impacts of air and space power. Since autumn 1997, Doctrine Applications staff members have participated in numerous exercises, experiments, and war-games events. They have also briefed and advised MAJCOM and numbered Air Force (NAF) commanders, their staff, and planners on air and space doctrine applications, current issues, and initiatives. The Doctrine Deployment Directorate advocates and deploys timely and focused air and space doctrine, and provides support to the CSAF Mentor Program. This directorate also develops and implements doctrine specific instruction for Air Force senior officers and senior mentors, and prepares selected war fighters in preparation for participation in wargames and exercises. This support is provided through the Aerospace Doctrine Applications Exercise (ADAX), a CSAF-directed requirement for all new NAF commanders; and the Air and Space Doctrine Outreach (ASDO) program, which provides tailored doctrinal briefings to war-fighting staff and other AF organizations upon request. The Joint Integration Directorate at Langley (Detachment 1) represents the AFDC in the joint arena, providing Air Force doctrinal advocacy in the Tidewater area and the National Capital Region.

The six operating locations maintained by Headquarters AFDC, are military sites where air and space power is an integral part of Army training. These locations are: National Training Center, Nellis AFB, Nevada; air defense training, Fort Bliss, Texas; armor training, Fort Knox, Kentucky; combined arms training, Fort Leavenworth, Kansas; aviation training, Fort Rucker, Alabama; and artillery training, Fort Sill, Oklahoma. At each site, Headquarters AFDC personnel serve as AF representatives to the Army. The operating locations provide USAF representation to the activity assigned or attached to, on air and space power doctrine, organization, mission, equipment and capabilities, tactics, techniques and procedures, as well as providing advice to the installation commander on all doctrinal issues pertaining to the Air Force.

AFDC staff has worked diligently to refine the AF doctrine development process. Today, AF doctrine is codified in a series of 34 AF doctrine documents (AFDD), most of which are entirely new publications. A few of the publications are revisions of previously existing doctrinal publications, notably, AFDD 1, *Air Force Basic Doctrine.* As part of a two-year review process, several AFDDs can be found in various stages of revision at any given time. Changes to an existing AFDD, or a proposal for a new AFDD, can be proposed through the Air Force Doctrine Working Group (AFDWG). The typical AFDD takes about one year for writing, staffing, coordinating, and publishing. Each AFDD is assigned to an action officer within Headquarters AFDC, who shepherds the document through the development process. Headquarters AFDC has taken advantage of available technology to publicize and disseminate

doctrinal issues. All AFDDs, including those published and those under development, are available for review and comment through the Headquarters AFDC Web page. This comprehensive Web site also includes lessons learned and doctrinal initiatives for review and comment.

Headquarters AFDC hosts an AFDWG semiannually to provide Air Force-wide involvement in doctrine development. The major commands and Air Staff agencies send senior officers to this conference to provide recommendations on doctrine to the Headquarters AFDC commander. Any Air Force organization may introduce issues before the AFDWG. Official recommendations require majority approval by senior officer representatives. Air Force Doctrine Working Committees (AFDWC) were established to supplement the AFDWG process, and to ensure that doctrine is written by the Air Force. AFDWC's include subject matter experts from all Air Force agencies with an interest or link to the proposed doctrine document, to participate in the formulation or revision process of doctrine documents. After a series of checks and balances, and approval by the commander, the final products are released to the military public. However, the doctrine development/revision process will not stop here. As new experiences and advances in technology pave the way for creating the force of the future, doctrine development will continue to evolve and provide Air Force leaders the tools needed to effectively win wars.

AIR FORCE HISTORICAL RESEARCH AGENCY

Col Carol S. Sikes, Commander

Internet address
http://www.maxwell.af.mil/au/afhra/

The Air Force Historical Research Agency (AFHRA), collocated with AUL, is the repository for AF historical documents. The agency's collection, begun in Washington, D.C., during World War II, moved to Maxwell in 1949 to support AU. The AFHRA is a field operating agency under the policy guidance of the Air Force Historian at Headquarters USAF.

AFHRA's current holdings exceed 100 million pages and represent the world's largest and most valuable organized collection of historical documents on US military aviation. Materials cover subjects ranging from the use of balloons in the Civil War through AF activities in World War II, Korea, Vietnam, Operation Desert Storm, air war over Serbia, and

Operations Noble Eagle and Enduring Freedom. About three-fourths of the documents are USAF unit histories. The entire collection is open to the public except for classified or otherwise restricted documents (approximately 25 percent of the holdings). The agency's finding aids include a computerized database and bibliographies for identifying and locating individual documents on specific topics of interest to the researcher.

Special collections, some dating back to the early 1900s, complement the unit histories. Among the collections are historical monographs and studies; more than 2,000 oral history interviews; end-of-tour reports of major overseas commanders; course materials of the Air Corps Tactical School from the 1930s; and working papers of key Army Air Forces staff offices, the British Air Ministry, and the Luftwaffe during World War II. Extensive Gulf War documentation (approximately 2,000,000 pages) and an electronic database (nearly 85 gigabytes) on the air war over Serbia have been added to the agency's holdings. The Gulf War holdings include chronologies, working papers, message traffic, and oral history transcripts, as well as unit histories and contingency historical reports. Collections of the personal papers of more than 500 key AF civilian and military officials including Secretaries of the Air Force John L. McLucas, Robert C. Seamans Jr., and Eugene M. Zuckert, as well as Generals George S. Brown, George C. Kenney, Curtis E. LeMay, John D. Ryan, and Thomas D. White are available to researchers. Currently, the agency is receiving historical reports from Operations Noble Eagle and Enduring Freedom.

In addition to being the Air Force's primary archive for historical documents, the Historical Research Agency performs research and other historical services. The agency's historical collection is readily available to AU students, faculty, and staff. Agency staff members provide research and advisory services to AU students to assist them in preparing papers and theses. Beyond its support to AU, the agency's staff answers requests for historical information from Congress, the DOD, the Joint Chiefs of Staff, the Air Staff, MAJCOM, and the general public. Other key functions include publishing historical reference works, conducting the AF's oral history program, and maintaining records showing the status of AF organizations and aircraft. As the AF authority on unit lineage and honors, the agency provides research assistance on heraldic emblems, prepares lineage and honors histories for AF units, and verifies the lineage and honors of AF units.

The agency conducts annual oral history and archival training courses for professional staff members of the Air Force History and Museums program. The agency deploys contingency historical information preservation (CHIP) teams during war and other contingencies to capture and archive documentation of AF activities.

ACRONYMS AND ABBREVIATIONS

ACE	American Council on Education
ACES	Air Force Command Exercise System
ACSC	Air Command and Staff College
ACTS	Air Corps Tactical School
ADL	advanced distributed learning
ADR	alternate dispute resolution
AECP	Airman Education and Commissioning Program
AEF	Aerospace Expeditionary Forces
AETC	Air Education and Training Command
AF	Air Force
AFB	Air Force Base
AFCAT	Air Force Catalog
AFDC	Air Force Doctrine Center
AFDD	Air Force Doctrine Document
AFDLO	Air Force Distance Learning Office
AFDWG	Air Force Doctrine Working Group
AFEHRI	Air Force Enlisted Heritage Research Institute
AFHRA	Air Force Historical Research Agency
AFHRMS	Air Force Human Resource Management School
AFI	Air Force Instruction
AFIADL	Air Force Institute for Advanced Distributed Learning
AFIT	Air Force Institute of Technology
AFJAG	Air Force Judge Advocate General
AFJROTC	Air Force Junior Reserve Officer Training Corps
AFM	Air Force Manual
AFM&S	Air Force Modeling & Simulation
AFOATS	Air Force Officer Accession and Training Schools
AFPC	Air Force Personnel Center
AFPD	Air Force Policy Directive
AFRC	Air Force Reserve Command
AFRes	Air Force Reserves
AFRL	Air Force Research Laboratory
AFROTC	Air Force Reserve Officer Training Corps
AFSC	Air Force specialty code
AFSNCOA	Air Force Senior Noncommissioned Officer Academy
AFWI	Air Force Wargaming Institute
AIS	Academic Instructor School
ALS	Airman Leadership School
ANG	Air National Guard
AOC	air operations center
ARI	Airpower Research Institute
ASBC	Air and Space Basic Course

ATN PMO	Air Technology Network Program Management Office
ATN	Air Technology Network
AU/CC	Air University Commander
AU/CF	Air University Academic Office
AU/CFR	Air University Registrar
AU/FM	Air University Financial Management and Personnel
AU/SC	Air University Information Technology
AUI	Air University Instruction
AUL	Air University Library
AUTV	Air University Television
AWC	Air War College
BDU	battle-dress uniform
BOT	Basic Officer Training
BOV	Board of Visitors
CADRE	College of Aerospace Doctrine, Research and Education
CAO	Chief Academic Officer
CAP	Civil Air Patrol
CAPS	counterproliferation and planning system
CBI	computer based instruction
CBW	chemical biological warfare
CCAF	Community College of the Air Force
CCM	Office of the Command Chief Master Sergeant
CDC	career development courses
CDX	crises decision exercise
CEP	core electives program
CEPME	College for Enlisted Professional Military Education
CESS	Civil Engineer and Services School
CFACC	combined forces air component commander
CFC	Canadian Forces College
CFETP	career field education and training plan
CHIP	contingency historical information program
CINC	commander in chief
CLE	continuing legal education
COA	courses of action
COMPUSEC	computer security
CONUS	continental United States
COT	Commissioned Officer Training
CP	counterproliferation
CPC	Counterproliferation Center
CPD	[Ira C. Eaker] College for Professional Development
CPSP	commandant's professional studies paper
CS&P	competitive sourcing and privatization
CSAF	Chief of Staff of the Air Force
CSAT	Center for Strategy and Technology

CSI	Chaplain Service Institute
CV	vice commandant
CWPC	Contingency Wartime Planning Course
DEA	Drug Enforcement Administration
DL	distance learning
DOD	Department of Defense
DODD	Department of Defense Directive
DODIP	Department of Defense Informational Program
DR	disaster relief
DSN	Defense Switching Network
ECI	Extension Course Institute
ECL	English comprehension-level
EEW	experiments, wargames
EPC	Educational Programs Cadre
EPME	enlisted professional military education
EPMEI	Enlisted Professional Military Education Instructor
ETCA	Education and Training Course Announcements
EWI	education with industry
EWI	education and industry
FLEP	Funded Legal Education Program
GRE	graduate record examination
HPSP/FAP	Health Professions Scholarship and Financial
HQ AFDC	Headquarters Air Force Doctrine Center
HQ/AETC	Headquarters Air Education and Training Command
HQ/AU	Headquarters Air University
HQ USAF/CVA	Headquarters US Air Force/Assistant Vice Chief of Staff
IA	International Affairs
IFB	Integrated Forecasting Board
IO	international officer
IOS	International Officer School
ISD	instructional systems design
ISR	intelligence, surveillance, and reconnaissance
ITV	interactive television
IW	information warfare
IWAC	Information Warfare Applications Course
JAOC	Joint Air Operations Center
JDACC	Joint Doctrine Air Campaign Course
JEMM	Joint Educational Mobility Model
JFACC	joint force air component commander

JFC	joint force commander
JFOWC	Joint Flag Officer Warfighting Course
JLASS	joint land aerospace and sea simulation
JPME	joint professional military education
JTF	joint task force
LAN	local area network
LLAB	leadership laboratories
M&S	modeling and simulation
MAJCOM	major command
MEDOD	management education Department of Defense
NACES	National Association of Credential Evaluation Services
NAVWARCOL	Naval War College
NCA	National Command Authorities
NCASE	National Congress of Aviation and Space Education
NCOA	Noncommissioned Officer Academy
NCOIC	noncommissioned officer in charge
NCOPC	Noncommissioned Officer Preparatory Course
NGO	nongovernmental agencies
NMD	National Missile Defense
NSF	National Security Forum
OI	operating instruction
OMS	officer military schools
OTS	Officer Training School
PACE	Public Affairs Center of Excellence
PCE	Professional Continuing Education
PMCC	Professional Military Comptroller Course
PMCS	Professional Military Comptroller School
PME	Professional Military Education
RCOT	Reserve Commissioned Officer Training
ROTC	Reserve Officer Training Corps
SAASS	School of Advanced Air and Space Studies
SAO	security assistance officer
SAR	search and rescue
SCI	Sensitive Compartmented Information
SCI	sensitive compartmented information
SES	senior executive service
SIO	senior intelligence officer
SIWAC	Senior Information Warfare Applications Course
SNCOA	Senior Noncommissioned Officer Academy

SOC	Squadron Officer College
SOF	Special Operations Forces
SOS	Squadron Officer School
SSS	Senior Services School
TCW	theater campaign warfare
TDY	temporary duty
TOEFL	test of English as a foreign language
USAFA	US Air Force Academy
USG	United States government
USSOCOM	United States Special Operations Command
WMD	weapons of mass destruction
WSI	Warfare Studies Institute