

AN ABSTRACT OF THE THESIS OF

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The Community College of the Air Force (CCAF) was created in 1972 by the Air Force to serve Air Force enlisted personnel with educational opportunity. No study exists identifying and assessing the mission of this college. Various mission sources iterate the different goals of CCAF. These sources and other indicators are used to identify and assess fulfillment of the CCAF mission. The purpose of this study is to clearly identify the CCAF mission and determine to what extent the mission has been fulfilled.

The literature review presents background on education in America and the U.S. military and the American community college movement plus a summary of the works on CCAF to set the stage for the mission identification and assessment process.

The research questions were what is the mission of the Community College of the Air Force and to what extent has the mission been fulfilled? Case study methodology was used to both identify and assess the mission.

Study findings indicate the mission needs further clarification, but by the measures used the various missions identified have been fulfilled. The study concluded that enlisted members of the United States Air Force are improving their competence through the associate degree opportunity, that CCAF is recognized by peer institutions, and that this innovative approach to postsecondary education offers thousands of American service members educational opportunity.

Questions still unanswered include how can this approach be expanded to other branches of the military services and is another accreditation process appropriate for this special type of institution?

An Identification of the Mission of the Community
College of the Air Force and an Assessment of the Extent
to Which the Mission Has Been Fulfilled

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AN IDENTIFICATION OF THE MISSION OF THE COMMUNITY
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INTRODUCTION

Background

Community, technical, and junior colleges provide higher education for more Americans than any other collective group of institutions. These colleges make higher education accessible to whole new segments of the American population. The courses of study offered and pursued in community colleges are closely tied to student and community needs (Roueche, Baker, & Rose, 1989). As Gleazer (1980) emphasizes, the essence of community colleges is in developing missions that are adaptable in respect to the community's needs. Clarity of mission is a key ingredient to the success of any organization (Peters and Waterman, 1984).

The community college movement is called one of the most vital forces in American education (The College Blue Book, 1985). In support of community colleges, but using

paradoxical language, longshoreman and philosopher Eric Hoffer (1965) called community colleges a collection of lowbrows. The community college mission, according to Hoffer, entails teaching citizens not to waste their lives. Hoffer commended community colleges for using retirees, military training, and industrial/business experience as a means to gain respect for skilled workmanship.

The Community College of the Air Force (CCAF) is unique among federal degree-granting institutions, because it serves only enlisted personnel. The Air Force enlisted members have the opportunity to earn an associate in applied science degree through CCAF's occupationally oriented programs. Other federally chartered, degree-granting institutions include Annapolis-the Naval Academy, West Point-the Military Academy, the Air Force Academy, the Coast Guard Academy, the Merchant Marine Academy, the National War College, the Naval Post Graduate School, the Army Command and Staff College, the Defense Intelligence College, the Uniformed Services University of the Health Sciences, and the Air Force Institute of Technology. All of these schools grant degrees at the bachelor's and graduate levels and serve primarily officers. (Garin, 1989)

Several contemporary issues and specific armed service requirements led to the creation of CCAF in 1972. These issues and requirements concerned military recruitment, the equivalence of military training to college course work, and universal educational opportunity for enlisted service personnel. CCAF was developed around these issues (History CCAF, 1973).

Consistent with the 1973 History of CCAF, O'Connor (1974) reported how Air Force leaders in the early 1970's searched for ways to recruit in an all-volunteer setting. These leaders wanted to retain a technologically competent work force to accomplish its mission. In the midst of the controversial Vietnam conflict recruitment and retention were difficult. Milam (1975) reiterated what O'Connor and the early history reported of the need to recruit and retain high-quality and well-trained personnel to operate and maintain increasingly sophisticated technical systems.

A cooperative venture between higher education and the Air Force, called the Utah Project (1967), demonstrated the equivalence of Air Force training to college course work. Favorable academic comparison led

Air Force personnel to pursue accreditation of military education and training. Accreditation of Air Force training provided certification and licensing opportunity for both programs and personnel, particularly in medical and technical areas. Meeting state and national standards became an objective that provided evidence of the technical competence of Air Force instructors, programs, and operations (Phipps, personal communication, April 1987; History CCAF, 1973; O'Connor, 1974). For example, Federal Aviation Administration guidelines on operating and maintaining aircraft and federal Health and Human Services standards on administering medical facilities often required credentialed personnel along with program and facility approval to be certified by national agencies. Personnel receiving technical training from the Air Force also sought recognition of military education to further personal goals of career advancement both in and out of military service (History CCAF, 1973; Flanagan, 1986).

The national education philosophy of providing universal educational opportunity for all citizens gained prominence through the community college movement

beginning in the mid 1960s. Universal education formed the philosophical base for American community colleges (Monroe, 1972; Cohen and Brawer, 1982).

The first CCAF president, John Phipps, stated he saw an opportunity to meet the needs of the Air Force and enhance the educational opportunity of what he considered an underserved enlisted force (personal communication, April, 1987). Inadequate educational opportunity for enlisted members was evidenced in the American Council on Education's guides to awarding credit for military experience. Most enlisted member training was not deemed worthy of college credit (A Guide, 1972). Through the community college framework, Phipps envisioned that enlisted members would gain an opportunity for higher education to meet the demands of an increasingly technical world in the information age. Therefore, the Air Force could enhance the recruitment and retention of high-quality personnel (Flinn, 1985; Phipps, personal communication, April, 1987).

As the early leadership of CCAF became aware of the American community college movement, an opportunity to develop an institution with a mission similar to two-year colleges became a reality. Phipps' community college

concept served as a means to satisfy the needs of the Air Force to build a quality volunteer force and provide the heretofore underserved enlisted force with important educational opportunity. These issues and needs, combined with the national educational goal to provide low-cost, high-quality, and universal higher education opportunity, formed the initial philosophical basis for the creation of CCAF (personal communication, April, 1987).

Problem Statement

No study exists that identifies the CCAF mission. As an extension of that, no study assesses mission fulfillment. CCAF mission statements are multiple and varied (History CCAF, 1989). For example, the mission, purpose, and goals of CCAF are iterated differently in public law, Air Force and Air Training Command regulations, and CCAF General Catalogs, respectively (See Appendix 4). Self-studies and accreditation documents reiterate the mission and accompanying goals of CCAF from the various sources. Other sources used for identification and assessment of the mission of CCAF included CCAF institutional research; the college organizational structure, operation, and budget

documents; surveys of graduates and graduate supervisors; historical documents; CCAF students; persons knowledgeable of CCAF; and other institutions and agencies associated with the College.

Rationale/Purpose

The purpose of this study is to identify the CCAF mission and assess to what extent the mission has been fulfilled. The fact that no study specifically addresses the CCAF mission serves as a major rationale for this study. For example, a case study by Milam (1975) and an historical survey of CCAF by O'Connor (1974) make up the last major works on CCAF as an institution. Neither specifically addressed identification and fulfillment of the CCAF mission.

The Research Questions

To accomplish this research the following questions are addressed:

1. What is the mission of the Community College of the Air Force?

2. To what extent has the mission been fulfilled?

Significance

Leaders, researchers, and experts advocate study of institutional mission. Education and management literature stresses the importance of institutional mission (Fox, 1969; Best and Kahn, 1989). Examination of the mission of an institution, as described in definitions provided by Good (1941), shows the interrelatedness of philosophy, mission, purpose, goals, objectives, and activities. Monroe (1972) outlined the mission of community colleges as being locally controlled and community-based universal education in the American tradition. Cohen and Brawer (1982) added to Monroe's mission definition the concept of community colleges serving Americans who previously had little access to higher education. Gleazer (1980) described the importance of adaptability as part of the mission of community colleges. Parnell (1985) followed with a general mission statement outline for community colleges that includes community-based roots, cost-effective institutions, caring environment, competent faculty, and comprehensive programs. Roueche, Baker, and Rose (1989) stressed the critical need to have a well-defined

mission, to which the entire institution is dedicated, to establish the basic values that guide activities and determine prioritizing the varied demands put on community colleges. According to Roueche, Baker and Rose (1989) the mission focuses the philosophy into the primary task or tasks of the institution. Good (1941) articulates institutional purpose as the reason for the mission, which must be in concert with the philosophy; the goals define how the mission will be fulfilled; and the objectives describe how the goals relate to the mission and philosophy. The progressive development of philosophy, mission, purpose, goals, and objectives leads the institution to the activities that ultimately fulfill the mission consistent with the philosophical foundation. As the above authors stress, community colleges must have clear mission statements.

American community college leaders supported efforts to identify, assess, and publicize the mission of community colleges at Emory University's Carter Center in 1988. These leaders expressed the critical importance of publicizing the purposes and accomplishments of community colleges to garner and maintain public support. The community college presidents in attendance at the Carter Center identified the lack of public knowledge on the

mission and mission fulfillment of community colleges as a priority action item (The Carter Center, 1988).

A brief discussion after President Carter's keynote address at the Emory University Conference in 1988 provided an example of the deficit of knowledge on CCAF. Both President and Mrs. Carter indicated they did not know there was a Community College of the Air Force (personal communication, October 18, 1988). The college was granted legal authority to award associate degrees in 1976, began awarding degrees during President Carter's first year in office, and accounts for the largest number of student enrollments and graduations among all two-year schools (History CCAF, 1977; CCAF leads, 1988). The fact that President Carter knew little of this largest of all community colleges attests to the lack of public knowledge on CCAF. The two-year college presidents attending the conference similarly expressed a lack of knowledge by the general public about the mission of their institutions (The Carter Center, 1988).

Also, during the Carter Center Conference, national community college researchers Wattenbarger and Roueche encouraged research assessing outcomes of American community colleges (personal communication, October 16,

1988). Roueche pointed out the significance of CCAF for the other military services as well as American higher education. Roueche encouraged study of CCAF, having served on the original U.S. Department of Education team appointed to evaluate CCAF for degree-granting authority.

Rodney V. Cox Jr., CCAF president from 1983 to 1988, often briefed visitors on the CCAF mission. One of Cox's continuous priorities was to educate an uninformed Air Force leadership on the mission of CCAF (personnel communication, June 1987).

President Bush (1989) also advocated study of community colleges. Bush commented on the community college explosion across America in his speech before the April 1989 AACJC Convention. The President encouraged increased national attention on the two-year associate degree as a measure of educational, technical, and vocational competence and the relationship of community colleges to higher education.

Other American education leaders and associations have addressed the significance of studying institutions like CCAF. Tyler (1987 and personal communication, April 1987) endorsed exploring alternate learning concepts.

This included education and training provided in settings outside the formal collegiate schoolhouses. Tyler noted that traditional higher educational concepts in American academic circles often differ from many community college approaches. Ostar (personal communication, December 1987), president of the American Association of State Colleges and Universities, called for inclusion of institutions like the Community College of the Air Force as important contributors to American higher education along with the more traditional institutions.

The American Association of Community and Junior Colleges (AACJC) reported CCAF as an educational institution that skews all current reports on community college enrollment. Community colleges experienced great growth from 1986 to 1987 with enrollments increasing by 190,000 students for the 1,234 AACJC member institutions. CCAF accounted for 20 percent of that increase, enrolling and graduating more students than any other American community college. AACJC lists CCAF as the largest community college system among its members (CCAF leads, 1988).

Milam (1975) noted a lack of literature on CCAF and, with the college still in infancy, recommended further study of CCAF to increase knowledge of the college's mission. According to Milam, continuous examination would ensure CCAF a recognized place among the community colleges of America.

To facilitate study of the mission of CCAF, the following assumptions are made:

The mission of an institution can be identified and fulfillment of that mission can be described.

Institutional mission and goals are closely related. The goals of an institution describe the mission and outline activities to achieve mission fulfillment.

Definitions

The terms philosophy, mission, and goals are defined to ensure consistent use and interpretation in this study. Other additional militarily focused and education-specific technical terminology is also defined to increase understanding.

Definition of Terms

American Association of Community and Junior Colleges (AACJC). The Washington, DC-based association that provides information and serves as a national advocate for public and private community, technical, and junior colleges.

American Association of State Colleges and Universities (AASCU). The Washington, DC-based association that provides information and serves as an advocate for public state colleges and universities.

American Council on Education (ACE). The Washington, DC-based association serving as an umbrella coordinating organization for most Washington, DC-based higher education associations, and also advocates policies and

procedures on American higher education to federal, state, and local government and makes credit award recommendations on nontraditional course work.

Associate in Applied Science (AAS). A nationally recognized two-year degree awarded by most technically oriented community colleges (CCAF awards the AAS).

Board of Visitors (BOV). The civilians appointed by the Secretary of the Air Force to serve as advisors to the Air Training Command on operating the Community College of the Air Force. They are similar to civilian trustees.

Education Service Office (ESO). An organization at each Air Force Base that provides educational counseling and services to Air Force members.

Enlisted Personnel. Members of the Air Force from the rank of basic airman to chief master sergeant.

Requirements for enlistment include being of good moral character, of age, physically fit, and normally possessing a high school credential.

Goals. The objectives of an institution. Activities that lead to goal accomplishment equate to mission fulfillment.

Mission. The task, expressing institution philosophy, fulfilled by accomplishment of goals. The goals of an institution by definition closely follow the mission and are a subset of the mission.

Philosophy. The basic values or beliefs on which an institution is founded.

Servicemembers Opportunity Colleges (SOC). The Washington, DC-based organization sponsored by AACJC and AASCU that coordinates the formulation of degree programs for military members through a series of articulation agreements with numerous colleges and universities.

LITERATURE REVIEW

There are three divisions in this literature review. To put CCAF in context, the first area includes the history of the mission of higher education in America and relevance to the military. The second area, an extension of the first, puts CCAF into historical perspective by examining literature on the mission development of the American community college. The third covers the body of literature on CCAF.

Historical Background

Known as the birthplace of democracy, Greek culture demonstrated the importance of education in establishing democratic ideals. Scholars study the great thinkers such as Aristotle, Plato, and Socrates, who examined the Greek contributions to science, philosophy and the arts. Greek democracy was an age of enlightenment and greatly encouraged education. Yet, in several important areas, the United States exceeded some of the educational accomplishments of ancient Greece. For instance, Greece maintained slavery, indentured servanthood, ethnocentrism, racism, and an educational elitism that conflicted with democratic ideals. A work ethic,

professional trades, and universal education enabled a military formed from liberally educated citizen-soldiers; these are American traditions not found in the Greek model of democracy (McNeill, 1968).

Several founding fathers mention some of these American traditions, such as educating the masses and increasing thoughtful citizen participation in a government of democratic principles. Thomas Jefferson spoke of education as key to the survival of the nation and the protection of inalienable rights. On several occasions Jefferson wrote of an enlightened people as essential to freedom and to the deterrence of oppression and tyranny (Stevenson, 1967). Benjamin Franklin echoed the important value of a liberal education, sprinkled with tolerance of many different values as a unique American contribution in the history of mankind (Stevenson, 1967). Abraham Lincoln expressed the desire to see education improve morality, enterprise, and industry (Stevenson, 1967).

In more contemporary commentary connecting democracy and education for all citizens, Parnell (1964) examined voter participation in school elections of several small, rural communities in the State of Oregon. The small

numbers that voted were predominantly citizens who went beyond a high school education. Parnell concluded that higher education and involved citizenry tie closely together. Years later Parnell advocated in his work The Neglected Majority (1985) that the masses demand their right to higher education and take advantage of educational opportunity to avoid being ruled by a small majority of educated elite in society.

In the same vein, Toffler, in a futuristic sociological commentary, Future Shock (1970), said the pursuit of education supplies one of the key ingredients to keep the United States free from despotic rulers. Toffler related education and learning as crucial to the development of the United States as a world power, both economically and militarily.

American Military Education

Huntington (1957), Moskos (1970), and Janowitz (1960) examined the military in society. Huntington spoke of the current military of the United States as a product of society, representing all social strata. To Huntington, education played the key role for the military to assume its proper role in society. In a

sociological approach, Moskos depicted the nation's military history as filled with the stories of men and women who gained educational opportunity and brought themselves out of poverty. Moskos wrote about the indications of an erosion of the traditional education reward for military service. Moskos suggested that the country's encouragement of educational advancement in and through the military may stop the erosion. Supporting Moskos, Janowitz described the need for an educated military, but focused primarily on officers as opposed to enlisted personnel.

These writers described how U.S. military personnel historically escaped misuse of the great power inherent in possessing the might of the armed forces. Here, Moskos (1970) and Huntington (1957) agreed that the general education of servicemen and women in democratic principles, including rights and responsibilities of the governed, provides a noticeable difference between the U.S. military and armies of other nations. Additionally, Huntington noted greater ingenuity and better use of resources from liberally educated military personnel. This increased the ability of the military to defend the American democratic institutions. The U.S. citizen-soldiers repeatedly went off to war and returned

to receive educational opportunity as a reward for service. The educated war-fighting spirit that led common citizen-soldiers to victory on the battlefield often became the ingredient that led to success in the civilian sector. Servicemen applied military training to the betterment of their families and society.

As evidenced by Jefferson, Franklin, and Lincoln Americans historically demanded universal education. Huntington (1957), Janowitz (1960), and Moskos (1970) describe how military personnel have been given educational opportunity and pointed toward the need for increased educational opportunity in the military.

American Community College Movement

With literature on the mission of American and military education as background, Toffler (1970) offered a future view of community education that resembled both community colleges and CCAF. Toffler predicted transformation of the mission of the American education system in three ways: in organizational structure, in curriculum, and in future-oriented focus. Toffler's school organization would proceed from a factory-clock, classroom-lecture format to a more flexible student-need

atmosphere. The curriculum Toffler envisioned would change from lecture to shops with mentors from the community teaching in the schools to ensure relevancy and to keep up with rapidly changing technological advances. For Toffler, teaching skills would focus less on the past and present and more on how to prepare for the future. Toffler envisioned learning stretched over a lifetime with students plugging in and out of education depending on student and societal needs. Toffler's future education systems appear similar to the community college movement.

The American community college movement included the establishment of missions. A review of this movement focusing on mission will complete the background for studying the identification and assessment of the CCAF mission.

Cohen and Brawer (1982) stated that the American educational system goal of universal education started when the first Europeans began settling the New World. Many Europeans did in fact come with the hope of bettering themselves and increasing opportunities for their children through education. The combination of work ethic, the value of professional crafts, and

well-rounded general education evolved into the community college.

Community college researchers and leaders such as Jesse Bogue (1961), James Thornton (1972), Charles Monroe (1972), and Arthur Cohen and Florence Brawer (1982) described the development of junior and community colleges including the missions of these institutions.

In its memorial edition of 1961 for Jesse Bogue, The Junior College Journal called the community college movement a manifesto where, for the first time in history, a large group of a nation's citizens, not born affluent or from highly educated family backgrounds, demanded the opportunity for a quality education beyond high school. Ralph Besse (Monroe, 1972) provided a summation of the philosophy behind the community college movement, noting people can't experience the benefits of democracy until the people are able to participate in democratic education. Besse believed no segment of the population could fully share the advantages of democratic living unless individuals first shared in the advantages of democratic education. Bogue called community colleges part of a new era and strongly supported fellow educator Besse's citizenship goals for the American people.

According to Bogue, education was also a way for society to keep up with the rapidly changing technological world, not only in the business and industry marketplace, but also in national defense.

Thornton (1972) and Monroe (1972) described how community and junior colleges in American education were preceded by the Land Grant colleges and the 1862 Morrill Act. This legislation represented significant legal and fiscal government efforts to provide universal higher education for all citizens. Cohen and Brawer (1982) reported how many community colleges evolved out of the on going American traditions of public education. These colleges operated under the following generalized missions: universal opportunity for education; establishment of a relevant curriculum; and control maintained by the local community.

In 1920, at the first annual meeting of the American Association of Junior Colleges, the then 450 junior colleges with student enrollments of 70,000 discussed the mission of the movement. Their reported mission included organization of the schools, articulation with high schools and universities, and curriculum development. At the meeting, Secretary of the Interior Ray Lyman Wilbur

linked expanded educational opportunity to citizenship and democracy when he said:

The growing complexity of a human society which is being remolded by scientific discovery of all sorts has in itself compelled more understanding on the part of men and women of their environment, and the need of democracy for a better contributing citizenship has become of paramount significance (Junior College Journal, 1930, p.150).

The Regents of the State of New York declared a universal education mission (Junior College Journal, 1961) that mandated two-year comprehensive community colleges offer geographically available, low-cost education to students directly responding to community needs for both technical education and university transfer course work. The Regents viewed this as the best single means of accommodating future demands of higher education, that is, serving varied student abilities and providing both semiprofessional and general education instruction for citizens.

In a slightly contrasting view, Colvert (1961) described community colleges as two-year institutions providing terminal degrees. This agreed with the general mission of the community and junior college movement but took the focus off the traditional collegiate transfer program. He called the junior college movement, soon to become the community college movement, the only one which could truly be stamped as made in the U.S.A. Bogue (1961) concurred, calling it the greatest democratic movement in education.

Showing how the mission of a community college education is closely tied to legislative action, Monroe (1972) chronicled the Smith-Hughes Acts of 1917 onwards and the Vocational Education Act in 1963. This legislation provided the capital that fostered the rapid growth of community colleges affording many previously unserved citizens opportunity for universal education.

With the availability of money from the GI Bill, the demands of civilian and military personnel for education (Cohen and Brawer, 1982), and the above mentioned legislative action, the junior college movement became the community college movement. Creation of these institutions, starting primarily in the 1960s and 70s,

took place predominantly in the public sector, as opposed to private sector, with institutional mission often dictated by public officials and lawmakers. This highlighted a turn of events in education. At the turn of the century, the two-year colleges were primarily private, while in 1948 that reversed to 78 percent public. In 1970, 85 percent of the two-year colleges were public and the number of two-year schools mushroomed to over 1,000, a tenfold increase from the turn of the century (Monroe, 1972).

In Values, Vision, and Vitality (1980), Gleazer offered another perspective on mission development. Here Gleazer wrote that the purpose of community colleges is tied closely to learners and that purpose needs to adapt to the students. Gleazer said the question of mission is not so much what the community colleges should do, but what they should be. Gleazer calls for community colleges to continue serving students and not necessarily develop a set curriculum that cannot change to meet educational needs.

Thornton outlined the historical development of the community junior college, describing the purpose of community colleges in this way:

... such then are the principles underlying the community junior college: to make higher education available to qualified students of all ages, all social classes, all varieties of ability; to develop a sufficient variety of curriculums to meet the educational needs at this level, of the community and of the individual students; to provide counseling and guidance services to help students choose appropriately from the available offerings; to devote concerted attention to effective teaching; and to encourage the highest levels of achievement of its students (The Community Junior College, 1972, p.10).

The literature indicates long-term leadership as a facet in maintaining consistent mission focus in the community college movement. In Thornton's bibliography of 1972, authors and researchers such as Gleazer, then AACJC president; Knoell; O'Banion of the League for Innovation in the Community College; and Roueche were noted for their contributions of the 1960s and 1970s. These authors helped maintain mission continuity in community college circles by serving as sources almost two decades ago, and they continue to publish on

community colleges and the mission of these institutions today.

Another input to the process of mission development of community colleges included local civic leaders. In most states community colleges have a locally controlled and elected board from the nearby constituency. The elected board hires and fires the president or chief executive officer (Cohen and Brawer, 1982). The development of the community college mission often had the students, faculty, and curriculum preceding the legal college establishment and campus construction, as well as official recognition by accrediting bodies (Thornton, 1972). Wattenbarger (1972) stated that in a number of instances legal authorization for the very existence of many community colleges came sometime after they were established.

The community college mission developed as national educators articulated goals and local civic leaders expressed community needs. Colleges formed with students and faculty before buildings and a campus and without mission statements. To describe the mission of community colleges, AACJC lists six general goals summed up in the 1989 Public Policy Agenda:

1. Educational opportunity for everyone.
2. Curriculum relevant to the needs of the community and the technology of the day.
3. Credentialing through use of the associate degree, which society sees as valuable.
4. Teaching focused on student skills and citizenship to enhance democracy.
5. Legislative support from federal, state, and local government.
6. A long-term committed group of innovative and experienced leaders.

Not all writers on the community college expressed positive opinions about the role these institutions were playing in fulfilling these missions. Cohen and Brawer (1982) discussed some fears that community colleges would be just another way to keep some people in the class to which they were born. Zwerling in Second Best (1976), from the perspective of a New York community

college, described how he believed community colleges were failing to elevate students and reflected the destruction of hope and self esteem for students. Brint and Karabel (1989) concur to a lesser degree with Zwerling in respect to some failings of the community college movement. Minority and disadvantaged students, according to Brint and Karabel, can be legally excluded or diverted from four-year schools because of the community colleges, and also can be programmed into vocational, as opposed to transfer, programs. Zwerling, Brint and Karabel, in opposition to Thornton, Monroe, Gleazer, Parnell and the AACJC Public Policy Agenda view community colleges as on the bottom of the higher education ladder and as offering an inferior quality of education, especially that designed for transfer to four-year institutions.

It was in this environment, with these traditions, some controversy and in the community college movement's search for mission that the development of CCAF began.

Community College of the Air Force

On March 14, 1972 the headquarters of the United States Air Force Air Training Command, under the leadership of General George Simler, created the Community College of the Air Force (CCAF). A small group of Air Force officers were assigned shortly thereafter to the Air Training Command to activate the college effective April 1, 1972 (History CCAF, 1973).

Studies like the Utah Project (1967) persuaded Air Force leaders and eventually Congress to establish CCAF. In the catalogs published by CCAF, the college is referred to as a multicampus, transregional community college. The catalogs describe the curriculum as based on the verified technical teaching excellence of the Air Force. The Air Force training is accepted in numerous fields from computer operators to jet mechanics to hospital technicians as equivalent to civilian sector training found in civilian community colleges. Hundreds of colleges and universities provide the liberal general education components required for associate degrees. Students attend these institutions' courses either on their own time or in Air Force sponsored programs and complete the CCAF degree requirements through submission

of transcripts which are evaluated by program administrators for appropriateness (CCAF Catalog, 1989). National legislative support provides in public law for the awarding of the associate degree for enlisted Air Force members (CCAF, USC 10, 94-361, 1976).

O'Connor (1974) wrote a history of CCAF's first year. O'Connor described how CCAF's creation met the need to recruit and retain enlisted personnel in the face of the all-volunteer force. O'Connor made the case that CCAF is a college, and the enlisted personnel make up the college's community. His historical approach included interviews with CCAF staff members, founding fathers, opponents who fought CCAF's establishment, and an evaluation of the documents on CCAF's conception and development. O'Connor predicted that leaders and federal legislative support would play key roles in CCAF's development.

O'Connor described significant differences between the bureaucratic CCAF administration and the more traditional political administration of other colleges. However, O'Connor noted CCAF philosophically had a general mission similar to those of other community colleges. This mission provided for increased

educational opportunity through practical and technically oriented curriculum and expert teaching. In 1974 O'Connor noted a dearth of information on the college.

A year later Milam (1975) studied the college using an organizational model developed by Thompson as a comparative reference. His work outlined CCAF's organizational structure and compared it with other institutions. Milam referred to CCAF as nontraditional and atypical. Even in its nontypicalness, Milam talked about the technically relevant curriculum and the potential community of 500,000 service members gaining educational opportunity not offered previously. He recommended that follow-up studies be conducted on CCAF every three years to assess the college and analyze the results for future direction.

Testerman (1979) analyzed CCAF graduate perceptions of student services. Concurring with Milam (1975) that CCAF was organized nontraditionally, Testerman nevertheless reaffirmed the school's general mission of providing universal education geared toward a specific community of inadequately served people. Testerman's work, using student input, concluded that CCAF provided unique educational opportunity. An annual survey,

modeled after this study, continues as the basis of CCAF's major institutional assessment tool (Appendix 3). Annual CCAF graduate surveys with a return rate of 50 percent statistically supported the survey findings. The stable return rate since 1977 provided a long-term base from which to evaluate fulfillment of CCAF's mission according to graduates. When Testerman conducted the first survey, 15 percent of the Air Force enlisted members were enrolled in CCAF, and Testerman predicted this number could be doubled to 150,000 students. In fact, 67 percent of the eligible enlisted members were enrolled in 1989, and the enrolled student population increased to 380,000 (History CCAF, 1989).

Several works examined CCAF student performance (Booth, 1975; Newton, 1978; Jones, 1986; Niemiec, 1987; and Webb, 1988) Newton found NCO graduates performed better on promotion exams than nongraduates, thereby fulfilling one of CCAF's goals of providing promotion opportunity. Booth examined specific Air Force occupational specialties reporting the effects of an enlisted person's enrollment in CCAF with differences between technically oriented and maintenance oriented personnel. Booth concluded that technically oriented airman were more likely to enroll. Several Air Command

and Staff College studies, i.e. those of Jones, Niemiec, and Webb, replicated Booth's work and found the effects of enrolling in CCAF to be of actual and perceived benefit to students in their military career.

Corder (1983) examined factors that may cause participation or nonparticipation in the college by airmen at Tinker AFB, Oklahoma. According to this study, effective counseling by the education service component of the Air Force played an important role in educational success. Steinkirchner (1987) replicated Corder but focused on the education counseling provided to the Air Force Reserves and found similar participation patterns. Corder and Steinkirchner described CCAF's development with little focus on mission, but these findings demonstrate a link between counseling that knows the mission and student success. Consistent with Testerman's survey, students in the Corder and Steinkirchner studies indicated the college enabled enlisted personnel to achieve educational goals and improve promotion opportunity.

Allen (1982) surveyed the effectiveness of the college as perceived by the Air Force's Education Services personnel. A lack of knowledge about CCAF by

Air Force counselors caused Allen to conclude counselor training needed to be accomplished. As a result of his findings, specific training workshops on the operation of CCAF began for the Air Force personnel providing counseling services.

The Air Force requires development of regular histories on all units. Since its creation in 1972, CCAF has documented its history. This served as a source on the development and maintenance of CCAF. Additionally, Flinn (1985) conducted an oral history on CCAF. Oral histories consist of taped interviews with experts or eye witnesses to an event that are transcribed and edited. Flinn served then as CCAF's vice president. This transcription included interviews with each of the respective presidents of the college and other early influential people detailing a personalized version of CCAF's mission formation, organization, and development.

A frequent writer on CCAF, Wojciechowski (1976, 1977) served on the staff in its early developmental stages. Wojciechowski pointed to the philosophical agreement of the CCAF mission with other community colleges, concluding that the enlisted members composed a previously underserved and even nonserved community that

deserved higher educational opportunities. Wojciechowski summarized the purposes described for American community colleges as parallel to CCAF. Wojciechowski formed the following goal list, which closely resembles the AACJC Public Policy Agenda:

1. CCAF offers, like other community colleges, a more equitable opportunity to higher education for several hundred thousand Americans.
2. Air Force education and training is of the highest quality and comparable to other American institutions of higher education.
3. CCAF focused, much like other community colleges, on the teaching of practical, technically oriented skills.
4. CCAF's curriculum relates directly to the skills required for maintaining the Air Force's fighting and national defense force, which is its community.
5. National legislative support, as in Public Law 94-361, gives legitimacy and fiscal aid to the college.

6. Creative and committed leadership was instrumental to CCAF development.

Other published and unpublished, but less extensive, literature on CCAF was found in institutional documents and journal articles. Phipps (1972), CCAF's first president, wrote of CCAF as his innovative creation that used quality Air Force training and the community college framework to provide enlisted personnel new educational opportunities. Fergus (1986) authored much of the legislative proposals and Self-Study to gain and reaffirm accreditation. The Self-Study (1986) lists the mission and goals of CCAF. These goals were identical to AFR 53-29 (see Appendix 4). Cox, fourth president of CCAF (1985), described the same traditions of universal education opportunity for a distinct and underserved sector of the population, the Air Force enlisted person. Fergus, Cox, and Garin (personal communication, December, 1986) all reiterate the high quality of Air Force instruction, the service to students, and the superior Air Force technical instruction coupled with university transfer education from civilian colleges and

universities, as essential parts of the CCAF associate degree. These leaders described how the programs were designed to suit Air Force community needs.

An examination of nonmilitary versus military education in the United States by Easterling (1980) strongly supported the concept of the Community College of the Air Force as important not only to individuals but to the country. The Handbook on Adult and Continuing Education (Veeman and Singer, 1989) quotes Easterling and describes CCAF as a unique institution that offers no courses of its own, but combines military training with off-duty civilian college course work to award degrees. This view differs from Phipps (1972) and Cox (1985), who call CCAF a legitimate institution with collegiate course work from selected Air Force training as its core curriculum. This difference of opinion has never really been resolved and is one of the factors to consider when examining the CCAF mission.

Adamo, Connolly, and Richardson (1977) debated whether there should be a CCAF. Against CCAF, as a militarily controlled college, Adamo and Connolly said CCAF might develop into a four-year institution of possibly 300,000 students, that had no civilian board and

no faculty per se. Without civilian controls, especially for the transfer portion of degrees Adamo and Connolly expressed fears like Zwerling (1976), and Brint and Karabel (1989), where inferior higher education would be offered students that previously had little access to this schooling. Adamo and Connolly (1977) pointed out the Servicemembers Opportunity College was a preferred alternative already serving as a collegiate link for the servicemen of the U.S. military. Other literature critical of CCAF included comments from Washington, DC-based education associations in unpublished historical works, briefly addressed in the history and study of CCAF by O'Connor and Milam respectively. The American Council on Education (Spille and Sullivan, personal communication, December, 1987) and the American Association of State Colleges and Universities (Ostar, personal communication, December, 1987) expressed feelings that the federal government should not be involved in delivering higher education unless it could be proven that civilian institutions could not deliver the education needed.

A summary of the literature on the college shows most of the literature about CCAF was written by students and staff directly connected by employment and geography

to CCAF. A lack of research by outside agents on CCAF exists (O'Connor, 1974). The history of CCAF's earliest beginnings speaks of several challenges centered on the federal government's role in higher education. However, CCAF now exists as an accepted institution of higher education which grants associate in applied science degrees. There is a lack of research and data on CCAF and its mission by individuals or organizations external to the institution.

Literature on the general mission of American community colleges compared to CCAF paints similar word pictures of their philosophical reasons for existing. However, the mission of CCAF appears nebulous and varies from document to document and writer to writer. No studies exist that identify and assess fulfillment of the CCAF mission.

DESIGN OF THE STUDY

Research design developed around two critical issues: to identify the mission of CCAF and to assess mission fulfillment. This study's development included examining the rationale for using qualitative versus quantitative methodology and various data gathering and presentation approaches.

Rationale for Case Study Methodology

Yin (1984) advocated use of case study methodology when the investigator controls few of the behavioral events examined and the investigation focuses on a contemporary as opposed to historical phenomenon. Case study by definition includes a close and detailed analysis of a single unit stressing developmental factors and the relationship of the unit and its environment (Webster, 1976). Yin argued for use of a case study where empirical inquiry investigates a contemporary phenomenon, there are no clear boundaries between the system components, and there are many sources of evidence that form the components. Guier (1983) described the case study as an objective, nonjudgemental presentation of events and key players.

Other literature supports use of formative and qualitative case study research methodology. Guier (1983) pointed to the use of the case method as ancient practice and the sine qua non of the legal profession. Fox, in The Research Process in Education (1969), described the case study as most useful when examining a single unit in which one wants to develop a deep understanding. Case studies appear to be especially effective to Fox when accomplished by students that have some expertise in the area under investigation. Best and Kahn (1989), supporting Fox and Guier, described case studies as a time-honored procedure focusing attention on a single unit. Best and Kahn said case study data gathered from a wide variety of sources can focus on depth of analysis in not only education, but also medicine, social science, and psychology. However, Best and Kahn cautioned that post hoc fallacy threatened the case study, therefore, cause and effect relationships should not be attributed to simply associative factors. As early as 1941, in The Methodology of Educational Research, Good described case study methods as useful in medicine, social science, and business research.

Yin (1984) and Linstone and Turoff (1975) outlined several approaches to use when doing case study research. Yin, in agreement with Fox, explained that a case study gathers data from various sources which describe the unit under investigation, and familiarity of the investigator with the unit enhances appropriate collection of descriptive data. Yin, Linstone and Turoff advocate evaluation of written sources as an important contribution to case study research and interviews of experts as primary information sources. According to Yin, other sources that complement study of a particular unit include demographic, summative, and statistical data. Yin's work, Case Method (1984), showed that an important part of the case study process is the structured, but open-ended, interview directed to people with knowledge of the unit being examined. Linstone and Turoff similarly supported use of personal interviews of experts as essential to case study research. They demonstrated the value of interviewing a small but uniquely qualified group of experts on a particular case to be studied. An expert panel served as a desired method for Linstone and Turoff, since the familiarity of experts with an issue, as Fox also advocated, likely provided more reliable information. Linstone and Turoff chronicled use of a panel of experts and effectively

demonstrated this approach in several case studies. They referred to the use of questioning experts as a process of structuring human communications that can be designed precisely to the researcher's unique needs in case study methodology.

In summary, descriptive research, specifically the case study methodology, has been used in law, medicine, business, and education to explain phenomena, validate hypotheses, and increase understanding. For Best and Kahn (1989) the value of using case studies comes as they set precedence and offer guidance for decision-makers and allow for the examination of varied sources relating to the unit and topic under consideration. Interviews provide important data, and as Linstone and Turoff (1975) showed, the value of systematic inquiry of a panel of experts using a questioning methodology can be a specifically tailored component in such study. Thus these authors and researchers advocated case study methodology to meet the criteria required when examining a single unit of a contemporary nature.

Justification for CCAF Case Study

CCAF enrolls significantly larger numbers of students than any other community college (CCAF leads, 1988), which makes it a singularly unique institution. The college possesses a contemporary history and a somewhat nebulous and unassessed mission, which further justifies the outlined criteria as worthy of a detailed case study. Limited but varied sources identify and assess mission fulfillment of CCAF as a "one-of-a-kind" federally chartered community college (O'Connor, 1974). The current size of CCAF enrollments and graduates puts it in a class by itself compared to other two-year institutions (CCAF leads, 1988).

CCAF creation in 1972 denotes the contemporary nature of the college. The short but developing history of CCAF outlines various formative sources that determined the college's mission (O'Connor, 1974). Formal documents governing the school, historical works, financial analyses, self-study reports, accreditation reports, as well as records from CCAF institutional research, comprise the research sources. CCAF, therefore, constitutes a single case for study.

Critical Issues to be Addressed

The two research questions to be addressed are:

What is the identified mission of CCAF?

To what extent has CCAF fulfilled its mission?

Research Design

The investigator used several case study research methods to identify the mission and to determine the extent to which the mission was fulfilled. These methods included: examination of the literature on the mission of CCAF and an analysis of mission statements; a review of institutional research and reports such as institutional and historical documents, publicity releases, and other unpublished works, budgetary information, accrediting reports and graduate and supervisor surveys (Appendix 3); and interviews of a panel of experts (Appendices 1 and 2) including selected successful graduates.

The research process first identified the mission with the assessment of mission fulfillment then evolving from the initial identification, uncovered primarily through examination of legal and regulatory sources available.

Mission Identification

The initial analysis to identify the mission of CCAF consisted of an examination of the written sources that described the college's mission (Appendix 4). This first step in the identification process involved listing the formal written mission statements that govern the college. Mission statement comparison and categorization followed considering chronology and precedence of source. The identified mission is then summarized for use in the assessment process.

To ensure the examination included all institutional mission sources, the study considered internal and external institutional sources relating to mission, that is, student surveys of graduates and supervisors, published and unpublished studies, college histories, budgetary submissions, self-study reports/accreditation reports, reports from other institutions and agencies,

and interviews of a panel of experts on CCAF which included successful graduates. The sources are briefly described to validate connection to the mission and then analyzed for commentary on mission identification or mission fulfillment. The mission-related source categorization came from the literature review and consultation with the college's institutional research office.

The interview technique used for the experts was a single-round, questionnaire developed specifically for this study in consultation with the CCAF Vice President for Academic Affairs and the Academic Programs Director (Linstone and Turoff, 1975).

To accomplish this type of evaluation, Cook and Reichardt (1979), in their collection comparing qualitative and quantitative methodologies, describe how evaluations of organizations can be accomplished qualitatively. An unfolding process initially examines source data that are used later in a developmental process. According to Cook and Reichardt, the notion of assessing mission fulfillment utilizing a descriptive and formative organizing methodology ensures significant paths of investigations are not closed and aids in

understanding events from perspectives of people closely related to the subject being studied. The design keeps the study on track when many other directions of study are presented as the free flow of data surfaces. In this type of research one step follows another, and the next step and exact path are not known until the prior step is completed.

The following general areas from the literature review outline the sources from which the study of the CCAF mission begins. As the mission statements were clarified, they provided the basis for mission assessment.

Mission Literature

Organizational information demonstrating legal and regulatory institutional emphasis examined included public law, regulations, and the college catalog, which each describe the CCAF mission and goals (Appendix 4).

Institutional Research and Reports

Internal and external research and reports included: statements on college effectiveness, planning and budgetary materials, historical data such as the college histories, publicity releases, and other unpublished works with content on the CCAF mission, determinations of accreditation and credit value of the institution's course work, and other data indicators that addressed mission.

Expert Panel

Interviews were conducted with a panel of experts identifying the CCAF mission and assessing the extent of mission fulfillment. These education and professional experts provided an input external to the current institution staff on the mission and mission fulfillment.

Selection of the panel of experts began by reviewing the literature on CCAF. In order to qualify as experts for this study, individuals needed to have either educational expertise or enough contact with the college to form creditable opinions on the CCAF mission (Linstone and Turoff, 1975). Those selected came from the review

of the literature and interviews with current and past personnel with knowledge of the beginnings of CCAF and its purpose. Interviews of some selected panel members led to referrals of other panel members. Leaders such as former presidents and board members comprised experts along with individuals representing institutions which had reservations about the establishment of CCAF, that is, the American Council on Education, the American Association of Community and Junior Colleges, the American Association of State Colleges and Universities, and the Servicemembers Opportunity Colleges. American educators, known as experts in education and community colleges, were interviewed as were Air Force leaders in education and counseling along with several students selected because of their status as successful graduates of CCAF and accessibility to the researcher. These students were also selected from varied racial, ethnic, socio-economic and gender backgrounds to provide expanded perspectives for the case study. Brief biographical sketches (Appendix 1) describe in more detail the background and qualifications of the panel of experts.

The panel of experts, selected from influential personnel in the literature review, was identified and interviewed either in writing or orally when permitted by

time and money. These experts were asked to comment on the mission of CCAF and fulfillment of that mission. For the audio-taped interviews or written responses, releases and notification of the nature of the study were appropriately obtained. Panel member responses to either oral or written questions were transcribed by external sources. The questionnaire for both written or oral interviews was developed in cooperation with the CCAF academic program director and used for all panel members as the guide for the conduct of all interviews (Appendix 2).

Assessing Mission Fulfillment

Assessing the extent of mission fulfillment used the same descriptive data sources validated in the mission identification process. Each component of the identified and summarized mission was descriptively assessed using mission sources developed in the identification stage. The sources included mission literature, institutional research and reports, and the expert panel.

Limitations

Case study research offers little control over the data collected (Yin, 1984). The strength of case study methodology is to report objectively and descriptively on the events observed. Since data are not controlled, cause-and-effect conclusions cannot be made, but this does not diminish the lessons to be learned from case studies. This cautions users of the case study data about making inappropriate conclusions from the findings.

Another limitation, but also a strength in utilizing the case study, is the familiarity of the researcher with the unit. Fox (1969) recommends a case study as particularly appropriate when the investigator has knowledge of the case to examine. This familiarity aids the research process in both the collection and analysis of data. The research is limited to the depth of understanding that this researcher possesses on the subject, in this case CCAF, in both the gathering and presentation of data.

Gathering descriptive data is a never-ending process since the data are being created in the day-to-day operations of the institution. Collecting qualitative

data on CCAF is particularly complicated because of its geographical diversity of branch campuses around the world and the location of national leaders who influenced mission development. Therefore, both time and resources constrain the data collection process.

A scarcity of published literature existed on CCAF according to O'Connor (1974) and Milam (1975). The lack of information and research on CCAF, as noted in the literature review, continues as a limitation.

Summarizing the research design, the mission identification proceeds through examination of written and other various sources. Then the study uses data gathered from those same sources in a developmental process as they unfold to assess fulfillment of CCAF's mission.

RESULTS AND FINDINGS

The research design has been structured to identify and assess the mission of CCAF. The first research task was to identify the mission. The second research task was to assess mission fulfillment measured against identified mission statements. The literature and case study design outlined the general source categories to be examined. These sources included literature on the mission, institutional research and reports such as accreditation documents, cost comparisons, enrollment/graduation records, graduate and graduate supervisor surveys, and interviews of a panel of experts supplemented with selected graduate interviews.

Mission Identification

Mission Literature

This investigation uncovered four official and primary source documents that contain mission statements. These documents include CCAF catalogs, Air Force regulations, and federal law stating the mission of the college (Appendix 4 contains these mission source statements verbatim). An examination and analysis of these governing documents serves to describe the CCAF

mission. Primary mission sources are USC 10 Public Law 94-361, Air Training Command Regulation (ATCR) 23-26, Air Force Regulation (AFR) 53-29, and the college catalogs (Appendix 4). The legal and regulatory nature of these governing documents, describing the CCAF mission, classify them as primary.

The following process synthesizes these written mission statements. Sources are listed in chronological order to show historical development. This gives a sense of when, in the college development, these governing documents dictated the goal setting of the college. Next, these primary sources are listed in order of legal and military precedence. Finally, the mission statements are analyzed to show similarities and differences of content and form.

The college came into existence April 1, 1972 by an Air Force special order that did not specify institutional goals or purpose. The Air Force published two regulations, ATCR 23-10 and AFR 53-29, soon after on April 14, 1972 describing the mission of the college.

Every United States Air Force unit possesses a mission statement. CCAF explained its mission in Air Training Command Regulation (ATCR) 23-10, now published

as ATCR 23-26. In a short paragraph devoted solely to CCAF, ATCR 23-26 outlined the organization, responsibilities, and functions of the college, including its stated goals. Later in 1972, the Air Force outlined in more detail in Air Force Regulation (AFR) 53-29 the organization and functions of CCAF, which contained statements on mission and goals.

In 1976, with the passing of United States Code 10, Public Law 94-361, a third source of written goals was enacted giving CCAF associate-degree-granting authority and outlining the mission of CCAF.

Finally, the college's published catalogs since 1973 outline programs of study for CCAF students, counselors, and peer institutions of higher education. The catalogs always begin with statements on the college mission, purpose, and goals.

The legal and regulatory precedence of these documents is in nearly the reverse order in which they were created with exception of the catalogs. The federal law, although the most recent legal/regulatory document, is the most binding, followed by the Air Force and Air Training Command regulations respectively. The college catalogs are governed by those three documents. The

catalogs, in practice, guide the day-to-day operations of the college. The law has been constant since 1976 as have the two regulations. The catalogs, reviewed by the CCAF civilian Board of Visitors, are recommended to the ATC Commander for publication/approval approximately every two years. They have periodically been modified. In the 1987 edition, the personal and professional growth of the enlisted corps was added as part of the mission, and in the 1990 edition an impact on Air Force readiness was stated. Catalogs are distributed to students, counselors, other schools, and interested agencies.

Review of these primary documents reveals different language used to describe the institutional mission. Use of various verbs demonstrates the different mission statements. Additionally, the sources list institution goals in different order.

The law enacted in 1976 says that CCAF exists to prescribe programs of higher education for enlisted members to improve technical, managerial, and related skills and prepare members for military jobs that require utilization of such skills. AFR 53-29, published April 14, 1972, says CCAF is to offer enlisted personnel educational opportunities that provide increased competency evidenced by promotion, increased

responsibility, and societal recognition. Specifically CCAF is to improve the enlisted leadership role in the technological Air Force, integrate military instruction and voluntary education in a career-relevant path, have Air Force instruction recognized for educational excellence, and improve educational career incentives for recruitment and retention.

The USC Public Law never mentions leadership, while AFR 53-29 doesn't mention managerial skills and only indirectly implies technical improvement. The law doesn't specify military versus voluntary education. AFR 53-29 outlines the organizational functions of the college but does not address the law's requirements for the Air Training Command/Commander to confer degrees, or for certification by the Commissioner of Education that standards have been met. AFR 53-29 does have as a goal to have CCAF recognized for its full value by organizations that set standards. The law does not mention recruitment and retention. The law uses the verbs prescribe, improve, monitor, confer, and meet, while AFR 53-29 uses offer, improve, integrate, and meet. Both the law and AFR 53-29 say CCAF is for enlisted personnel, is a program of higher education, and must meet standards.

ATCR 23-26 lists the first goal of CCAF as to integrate on/off-duty education. This constitutes the third goal of AFR 53-29 while not specifically addressed in the enacting law. ATCR 23-26 clearly directs the integration of military or non-military instruction into a meaningful pattern of career growth helping to shape career patterns of enlisted members toward acquisition of certificates, degrees, licenses, and other recognition. This comprises a new, previously unstated goal. The law mentions only programs of higher education and conferring of degrees. ATCR 23-26 also describes two of the law's goals in different words, that is, to document progress of airmen and provide a permanent accredited institution. ATCR 23-26 adds another goal to the enacting law to develop education incentives for recruitment and retention.

The CCAF catalogs have attempted to combine the intent of the enacting law with the Air Force regulations, stating the primary purpose as to provide degree programs that enhance enlisted members technological, managerial, and leadership responsibilities. This synthesis makes some interpretations of the law and regulations and adds the goal to prepare enlisted personnel for increased responsibilities. As an example of interpretation,

instead of listing the goal to meet HEW standards, as in the law, the catalog says it is the goal of CCAF to enhance Air Force and civilian recognition of educational accomplishments by individuals through CCAF and to recognize Air Force education and training for its full value by accrediting agencies and civilian institutions of higher education and industry. The 1987 CCAF catalog also added a new goal which was not in previous catalogs to meet the professional and personal enlisted members' education objectives. In 1991 the catalog added the component of service member readiness to the CCAF mission. A verb check of the catalog again shows similarity, but with new synonyms used, that is, provide, enhance, ensure, meet, and facilitate. Table 1 charts a summary of primary source similarities and differences.

For purpose of analysis, the CCAF mission has been divided into three parts: offer Air Force enlisted personnel accredited higher education opportunities leading to an associate degree; improve the technical competence of Air Force enlisted personnel; and gain civilian recognition for Air Force education, training, and student accomplishments. The following summaries support these divisions to identify the mission.

Table 1
Mission Described by Primary Source

PRIMARY SOURCES: Public Law AFR 53-29 ATCR 23-26 Catalog

MISSION STATEMENTS

Offer higher education	X	X		X
Improve technical management skills	X			X
Prepare for jobs	X			X
Document progress	X		X	
Confer degrees	X	X		X
Provide personal recognition		X		X
Improve leadership		X		X
Integrate education into career pattern		X	X	
Gain civilian recognition		X		X
Improve recruitment and retention		X	X	X
Shape enlisted careers			X	X
Meet standards for accreditation	X		X	X

This chart depicts summarized CCAF mission statements described by primary legal and regulatory sources as indicated in Appendix 4. They include Public Law U.S.C. 94-361, Air Force Regulation (AFR) 53-29, Air Training Command Regulation (ATCR) 23-26, and CCAF General Catalog.

Associate Degree Opportunities

The enacting public law directs the college to prescribe programs of higher education, confer associate degrees, and meet education standards. According to AFR 53-29 CCAF exists to offer educational opportunity. This education focuses on the award of associate in applied science degrees for Air Force enlisted personnel which are recognized in society. ATCR 23-26 says CCAF must provide an accredited institutional context where a career education may be shaped. The various catalogs indicate that it is an institutional goal to provide high-quality associate degree programs which are recognized for their full value by accrediting agencies, civilian institutions of higher education, and industry.

Technical Competence

The second purpose of CCAF is to improve the technical competence of Air Force enlisted personnel. The enacting law prescribes programs of higher education designed for improving enlisted personnel's technical management and related skills. AFR 53-29 states this purpose as providing greater occupational competency and personal educational opportunity and by providing personal recognition within the Air Force evidenced by

promotion and responsibilities. ATCR 23-26 describes an integration of on/off-duty education of Air Force enlisted members into a documented and consistent meaningful pattern of career progression. The various catalogs of the college sum it up as preparing enlisted members for increased technical, managerial, and leadership responsibilities by providing degree programs that enhance Air Force and civilian recognition of skills and educational accomplishments of its enlisted force.

Gain Civilian Recognition

The final element of the CCAF mission consists of directing the college to work toward gaining civilian recognition for Air Force education and training and student accomplishment. Public law gives the Air Force the right and responsibility to confer associate degrees through CCAF and meet the U.S. Department of Education's standards in cooperation with civilian colleges and universities. AFR 53-29 describes the CCAF mission to offer Air Force enlisted personnel educational opportunities that improve education and career-related incentives to help recruit and retain high-quality personnel for the Air Force which is evidenced by promotion, increased responsibility, and civilian recognition of CCAF and its associate degree. AFR 23-26

says CCAF provides incentives for the Air Force to recruit and retain high-quality enlisted personnel and shapes career education to acquire certificates, licensures, degrees, and other recognition. The college catalog goals reiterate AFR 53-29 and ATCR 23-26, but the catalog also advises CCAF gain recognition for the Air Force for its education and training programs.

In summary, CCAF was established and organized to be maintained as an accredited, associate-degree-granting, limited purpose community college designed to improve the competence of Air Force enlisted members through its programs and gain civilian national education recognition for Air Force training, personnel, and CCAF. Public law, Air Force regulations, and the college's catalog state the mission of the college in different ways using different terms. Table 2 outlines the four primary written sources, the different descriptions of the CCAF mission, and how they support the summarized mission statements. Institutional documents, accreditation reports, school budgets, graduate survey responses, and a panel of experts confirm these summarized mission statements.

Table 2
Summarized Mission by Source

	SOURCE: Public Law	AFR 53-29	ATCR 23-26	Catalog
SUMMARIZED MISSION STATEMENTS				
ASSOCIATE DEGREE OPPORTUNITY	Prescribe programs/ confer degrees	Offer associate degree	Provide accredited context	Provide associate degree programs
TECHNICAL COMPETENCE	Improve enlisted tech/mgt skills	Provide occupation competency	Shape career education	improve tech/mgt/ leader skills
GAIN CIVILIAN RECOGNITION	Meet standards	Recognize excellence	Provide accredited context	Increase civilian recognition

This table depicts how the primary legal and regulatory mission sources (U.S.C. 10 Public Law 94-361, Air Force Regulation (AFR) 53-29, Air Training Command Regulation (ATCR) 23- 26, and CCAF catalogs) support the summarized mission statements.

Institutional Research and Reports

Historical Documents

Research and reports on the college referenced in the review of literature with input on mission will be addressed.

Annually the college reviews a master plan that summarizes much of its organizational and operational purpose, including philosophy, mission, goal and budget statements. The 1989 CCAF Master Plan repeated the mission statements as previously covered in the CCAF 1989-1990 catalog. The 1990 Master Plan indicates several differences in the mission statements. The mission statement to provide high-quality associate degree programs current and relevant to Air Force requirements has been replaced by a statement stressing programs which enhance Air Force readiness. Ensuring career degree programs has been replaced by a statement stressing that collegiate programs are being offered. The words "career-relevant" were dropped and replaced with the words "recruiting and retaining high-quality personnel." The 1989 Master Plan indicates it is the CCAF purpose to facilitate enlisted members' pursuit of personal and professional objectives through education.

The 1990 Master Plan replaces this statement with "facilitate individual enlisted members' efforts." Facilitating the recognition of Air Force education and training has been changed to increasing accrediting agency, college/university, and business/industry recognition of Air Force education and training. A 1990 strategic goal was added to "sustain CCAF's regional accreditation," and CCAF administrative center objectives were developed. The new 1990 Master Plan wording changes focus the college on accrediting concerns and operating the college in an environment of cutting military programs not related to readiness.

Published and unpublished works on CCAF form a body of historical data about the college. The college writes a history every six months. These histories formed much of the information provided in works as noted by Milam (1975) and O'Connor (1974). Reviewing these histories showed no mission statements other than those described earlier in the mission literature section, including catalogs, regulations, and the law.

Most published works cited in the review of the literature and listed in the bibliography were of the editorial/advocacy magazine and newspaper variety. Formal research as noted in the review of the literature

did not specifically address mission identification, but only reiterated the mission noted in the college catalog. The short articles of the editorial/advocacy type again reiterated goals spelled out in the regulations and the catalog. These publications stressed the opportunities afforded by the college, the success of graduates and students, and the growth of the college. The remainder of articles by personnel internal to the Air Force touted the successes of the college in meeting student needs and gaining recognition. A few of these early articles by Phipps and Wojciechowski addressed the mission of associate degree accreditation legitimacy for the college with organizational and maintenance functions, but no other mission surfaced in any of these writings.

Four articles/studies written externally about CCAF were uncovered in this research. A General Accounting Office (GAO) report to Congressional Committees on Department of Defense on voluntary education in Europe (1987) determined that the Air Force used much different contracting approaches than the other services. The Air Force required each base education center to offer courses that meet CCAF associate in applied science requirements. The report did not mention institutional

mission and although CCAF was addressed only peripherally, the implication is that the CCAF course work is directed toward achieving an associate degree.

In an American Council on Education (ACE) publication that studied the military's impact on college enrollments (Hexter and El-Khawas, 1988), officials contended CCAF generated more postsecondary involvement because of its required general education course work from sources outside CCAF. Here the mission of gaining civilian recognition and cooperation is indicated.

An article by Walker (1986) compared the Army apprenticeship program with CCAF with no mention of purpose only inference that CCAF articulates the equivalence of military training to civilian academic studies.

A point-counterpoint discussion between Adamo, Connolly and Richardson in Change magazine (1977) debated the degree-granting authority of CCAF. Those in favor of degree-granting agreed with a civilian Site Review Team (Oct 1976) as it answered some mission-related questions. This Site Review Team concluded the CCAF degree was

essential to accomplish program objectives, could not be obtained through other means satisfactorily, and met national standards set for similar programs.

No writings by high Air Force leadership were found relating to CCAF or its mission. The Air Training Command Commander is directed by law to be the chairman of the Board of Visitors and is briefed semi-annually on the college. No known briefings on the mission of CCAF to personnel above that level were identified. The college does not cause problems to warrant such attention, it is not a significant budget item, and generates less interest in comparison with other defense-related issues.

Budget

Budget requests are included in the master plan, but are difficult to analyze in comparison to mission priorities. The CCAF administrative center's budget includes the operational costs for the civilian work force, the maintenance of a building, and the administrative needs to advise the 380,000 students and issue transcripts around the world to students, other colleges, and employers. The actual classroom and laboratory costs of education and training are

distributed throughout the Air Force toward defense preparedness and readiness with mission-oriented education and training. This expense is measured in billions of dollars using up-to-date methods and equipment. The minimal administrative center operating costs of less than \$2 million for 380,000 students is deceiving and not easily compared with other colleges. The Air Force training budget, measured in billions of dollars, would be done regardless of CCAF's existence. This does indicate far more is spent on the mission of providing quality practical, defense/career-oriented specialty education and training for competency than on either goals of associate degree granting or gaining civilian recognition (AF/DPPE, personal communication, October, 1990).

Graduate and Graduate Supervisor Surveys

Surveys of CCAF graduates and graduate supervisors conducted by the school's institutional research office contained a few questions gauging student perceptions of the college mission. For instance more than two-thirds of those surveyed over a 10 year period indicate a positive or strong effect of CCAF on job performance, and 60 percent reported increased job satisfaction. These same graduates expressed the main benefits of CCAF to the

Air Force were first, enhancing enlisted personnel education opportunity (36 percent); second, building a quality force (26 percent); and thirdly, improving technical competence (21 percent). About 10 percent saw the main benefit as pertaining to improving recruitment and retention. These surveys' primary focus was on the satisfaction of those surveyed with the college. The student surveys, which the college has conducted for over 10 years, and supervisor surveys recently conducted do not specifically address whether the respondents know the mission of the college. However, the surveys are useful in that they measure fulfillment of several of the stated goals on student competence and civilian recognition, which will be covered in the mission fulfillment section of this study.

Accrediting Reports

The Southern Association of Colleges and Schools/ Commission on Colleges (SACS/COC) report of accreditation summarizes the mission using the words from the Air Force regulations. The college's Report of Self-Study for Reaffirmation of Accreditation (1986) noted some ambiguity in the statement of purpose for the college in the preliminary mission identification phase. Initially CCAF was accredited in SACS/Commission on Occupational

Education Institutions (COEI) in May 1973. After Congress gave degree-granting authority in 1976, the college received full accreditation under COC in December 1980. The SACS/COC Visiting Committee examined the mission statements of the master plan and the college catalog and found them to be consistent and adequate. They mentioned that the self-study process had resulted in refined and clearer philosophy, purpose, and goal statements as part of the mission. The self-study committee from CCAF focused primarily on the College catalog statements. There appeared to be no comparison between the enacting law, the Air Force regulations, and the catalog. The major challenge for the College according to the Southern Association was for CCAF to obtain a higher percentage of appropriately credentialed faculty, but reaffirmation was still granted for 10 years (Report of Visiting Committee, 1986).

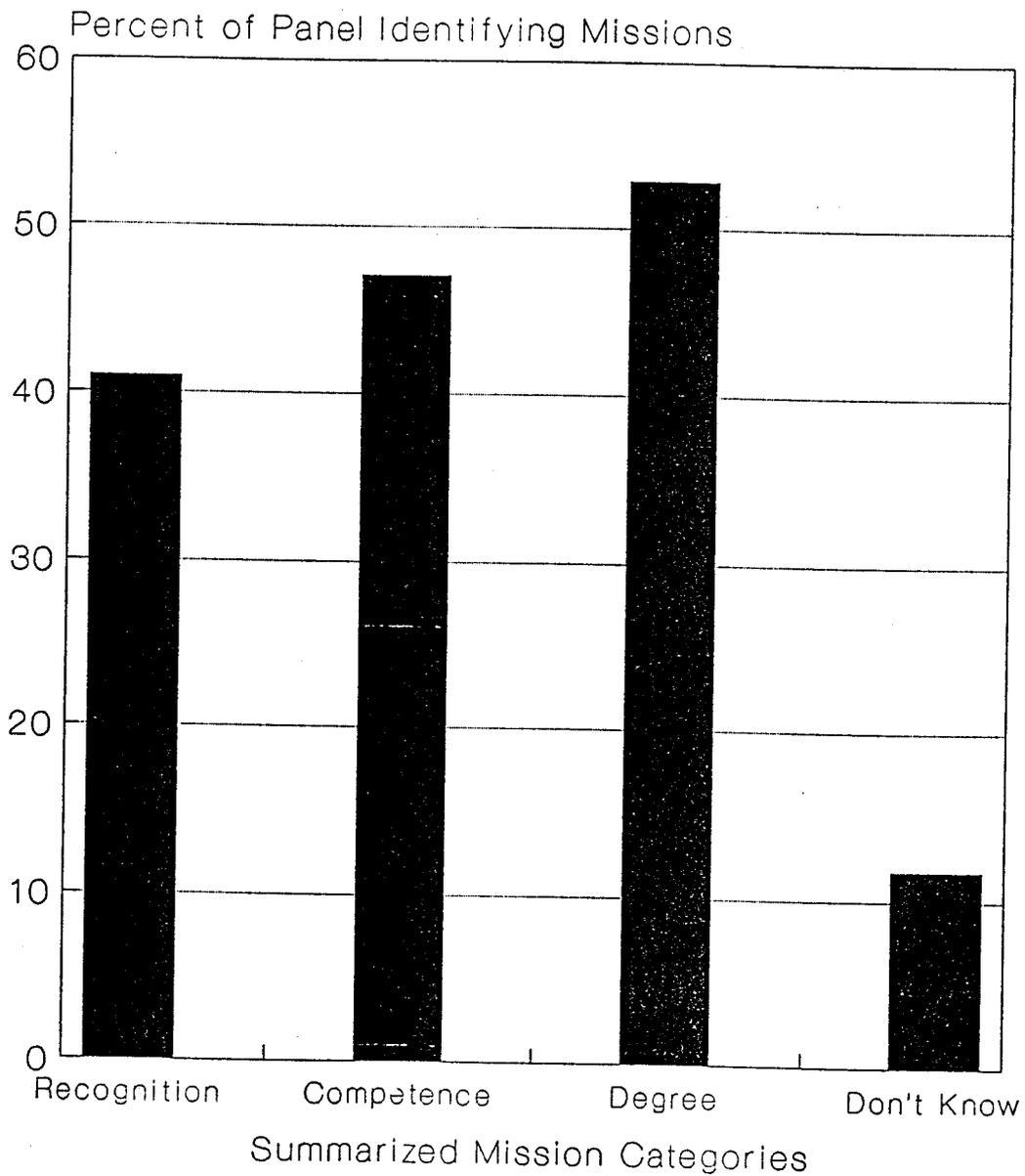
Panel of Experts

The interview data collected from the panel of experts covers both responses to mission identification and mission fulfillment. Panel members were asked to respond to questions about mission clarity and about mission fulfillment. They had difficulty separating identification and fulfillment. The panel's summarized

responses on both mission identification and fulfillment follow after the mission fulfillment section. A summary of the panel comments on mission identification are presented at this point.

Analyzing the responses of the panel of experts indicated that the college had been created and was in fact a legitimate institution. Organizing a college accredited to award the associate degree was determined by nine of the panel members to be the CCAF mission. All of the panel acknowledged CCAF's establishment as an accomplished fact. Of the 17 experts, eight stated the primary purpose was to improve the professional performance or competence of the Air Force's enlisted personnel. The panel generally had a high regard for military and especially Air Force training programs. An additional five expressed multiple purposes to improve the enlisted force's competence and to gain civilian recognition for Air Force education and training as equivalent to college course work. Seven of the panel members saw the primary mission of the college as gaining civilian recognition through the credit credentialing of Air Force education and training. Five of the panel members listed two or more of the identified missions (Table 3).

Table 3
Identification of Mission by Panel



Panel members could identify more than one mission, bringing totals over 100%

The four student-graduates interviewed verified the mission as gaining an associates degree to further both their Air Force and post Air Force career opportunities through CCAF's civilian recognition. Secondly all of the student-graduates expressed gaining technical competence as a result of participation in CCAF. These interviews are presented at the end of this chapter.

In summary, institutional research and reports, and the expert panel did not produce new or different missions not already identified in the primary sources. The absence of writings/studies by those outside the Air Force or even senior leadership within the Air Force leads to speculation that CCAF has not gained the civilian recognition for Air Force education and training that it potentially could.

Mission Fulfillment

The mission statements that emerged from the identification process are: to offer Air Force enlisted personnel an associate degree; to improve technical competence of Air Force enlisted personnel; and to gain civilian recognition for Air Force education and training. Documentation with respect to mission fulfillment included the mission literature, accreditation documents, cost-effectiveness comparison, enrollment/graduation records, graduate and graduate supervisor surveys, interviews of students, and comments from a panel of experts.

Mission Literature

The CCAF catalog used for mission identification was the only primary source which also could be used to gauge mission fulfillment. The catalog, by its publication, shows evidence of a recognized, competent college with programs of study in an accredited context. A summary of the CCAF catalog indicates the institutional setting that CCAF has established for other civilian schools to use when evaluating transfer of course work. A summary of the catalog with its background, academic system, degree programs, and course descriptions for credit transfer

shows how the mission of providing an accredited degree-granting community college for the Air Force's enlisted corps has been accomplished.

In its 1989-90 catalog CCAF provided 70 degrees that were occupationally relevant to the specialty duties of Air Force members. Air Force NCOs attained associate degrees in programs such as Allied Health, Aircraft Maintenance, Administrative Security, Avionics, and Logistics. These degrees were not offered in every community college and seldom in colleges or universities near the base where the students were stationed. However, these associate degree programs were in the same tradition of other American community colleges since they were low-cost, technically geared to the needs of the community, controlled by the community they represent, and open to anyone in the community. To satisfy the requirements the student completed 64 semester hours (96 quarter hours) of collegiate course work in several areas (CCAF Catalog, 1989).

Students must complete a minimum of 24 semester hours in their technical specialty (CCAF Catalog, 1989). Based on an internal study (CCAF Academic Program Report, 1988), 85 percent of the technical credit came from Air Force accredited schools. The remaining credits came

from course work transferred from civilian colleges and universities with a small portion coming from testing.

Six semester hours were required in the area of leadership, management, and military studies. Over 60 percent of this course work was obtained through the CCAF accredited and affiliated Air Force noncommissioned officer professional military schools (CCAF Catalog, 1989). Just under 40 percent of the rest of this credit was taken from college and university management courses and testing (CCAF Academic Program Report, 1988).

The general education portion of the degree consisted of 21 semester hours. Course work was required in written communication, math, natural and social sciences, and humanities (CCAF Catalog, 1989). Almost 88 percent of this work was earned at colleges and universities across the United States, while 10 percent was gained through testing (CCAF Academic Program Report, 1988).

Nine semester hours were program electives whereby a student could complete the degree by course work and testing from any of the other areas (CCAF Catalog, 1989).

The Air Force does not require any enlisted member to pursue an associate degree. However, since the Air Force believes the degree enhances technical competence and the ability to lead, manage, and function with others, over 389,000 enlisted members were enrolled in 1988, and the Air Force had awarded 68,140 degrees to enlisted members as of September 1988 (CCAF Academic Program Report, 1988).

Institutional Research and Reports

Historical Documents

The college histories referenced in the mission identification process report the same data as listed in the Master Plan and college institutional research and reports. Other historical data examined include 61 newspaper, magazine, and professional journal publications. Numerous routine press releases reported the number of CCAF graduates and graduation ceremonies. Since these publicity releases were predominately within Air Force publications, the gaining of recognition is confined to the Air Force community.

Research Studies

A study by Newton (1978) demonstrated the identified mission of students gaining technical competence was fulfilled with students performing better on promotion exams. Corder's (1983) work examined why students found college credit and self-improvement to be the motivating factors and proper counseling as instrumental. Booth (1975) examined student enrollment and found that the more technically oriented students enrolled at higher rates. These studies show students improve competency as they are involved with CCAF but did not address directly the missions of gaining civilian recognition or awarding associate degrees.

Accreditation Documents

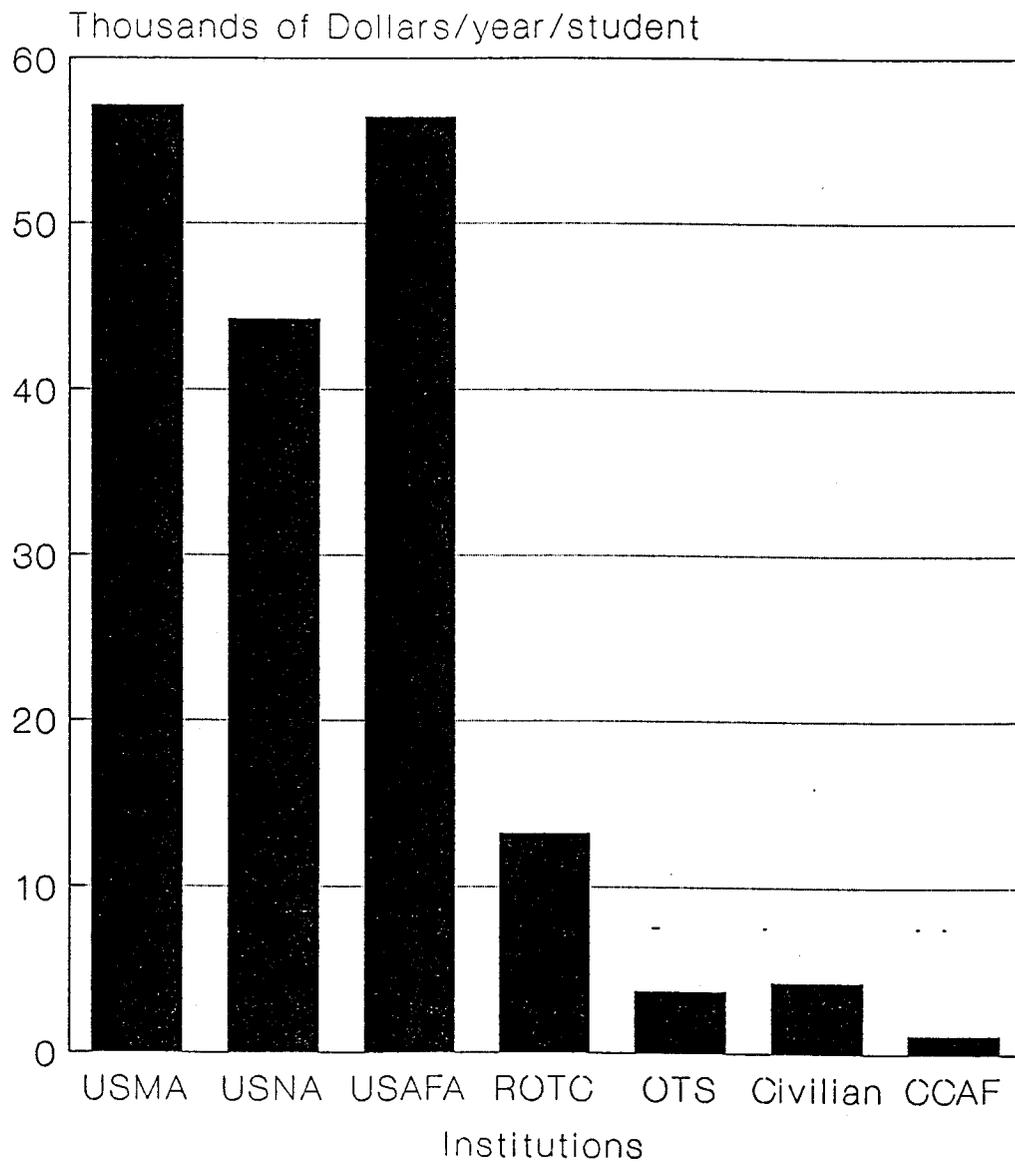
Several comprehensive external reports indicate CCAF mission accomplishment. The 1976 Site Review Team appointed by the Commissioner of Education recommended: CCAF be given degree-granting authority, that the degrees cannot be obtained on satisfactory terms through non-federal institutions, and that the degrees meet the same standards as those of similar institutions. In 1986 the Southern Association of Colleges and Schools/Commission on Colleges reaffirmed CCAF for accreditation

for 10 years. This demonstrated significant confidence from a regional accrediting association supporting the CCAF concept. The school's self-study examined the institution's organization and provided supportive data that the school was improving NCO competence. As a result of reaccreditation, CCAF was recognized by the civilian academic community as an established peer institution.

Cost Comparison

Comparison of institutional cost with other community colleges and other federally chartered degree-granting institutions such as the U.S. Air Force Academy points to CCAFs cost-economy (Table 4). An Academy education per student per year exceeds \$50,000 (AF/DPPE, personal communication, October, 1990). Other four-year schools' average cost totals \$12,050, while the average public community college spends almost \$4,300 per student (Parnell, 1990). CCAF's average cost of \$1,100 demonstrates the cost benefits. This figure resulted from totalling and averaging the CCAF administrative center costs and headquarters Air Force fiscal year 1990 costs per credit hour figures (AF/DPPE, personal communication, October, 1990).

Table 4
Institutional Cost Comparison



USMA-West Point, USNA-Annapolis, USAFA-Air Force Academy, ROTC-Reserve Officer
OTS-Officer Training School

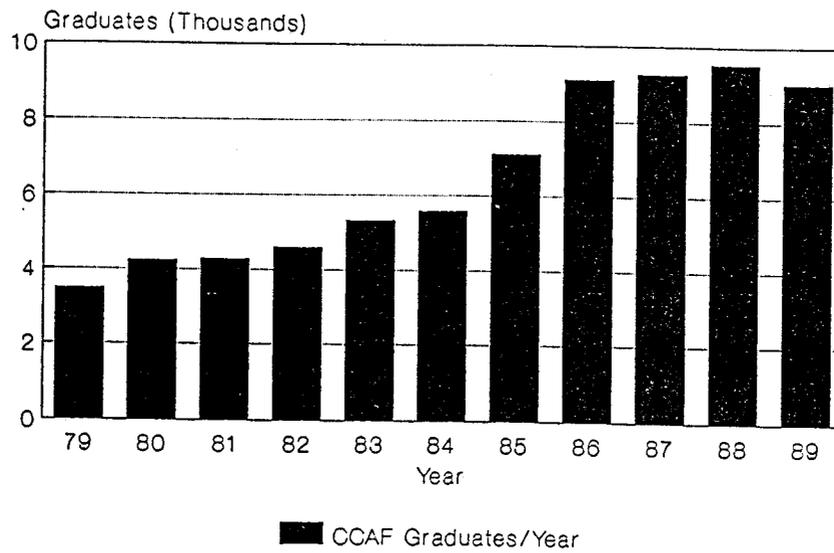
Enrollment/Graduation Data

The 1990 Master Plan is a document that outlines the organization of CCAF with information on history and current system structure. Both enrollment and numbers of graduates were used by CCAF to show growth. Enrollments of enlisted personnel grew from 109,505 to 362,611 from 1979 to 1989. Likewise, graduates climbed from 3,486 in 1979 to 9,036 in 1989 (Table 5). The Master Plan data indicate CCAF shows a fulfillment of the mission of providing an accredited associate degree by the numbers of Air Force enlisted members enrolled and the number graduating. CCAF also believes this indicates a technically more competent enlisted corps, especially when accompanied with data from graduates and graduate supervisors.

Graduate Surveys

The college's graduate survey showed consistency over the period 1980 to 1985. During this period 100 percent of the graduates were sent surveys with annual response rates ranging from 39 percent in 1980 to 55 percent in 1985 (Tables 6A, 6B, and 6C). No follow up studies have been conducted to collect data on the non-respondents. A study was conducted in 1986 by the

Table 5
CCAF Graduates



Enrolled Students

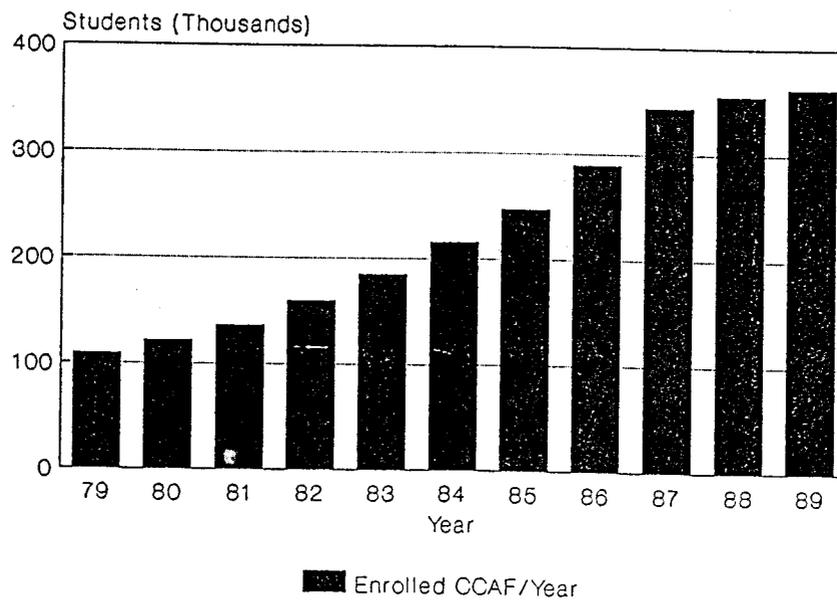
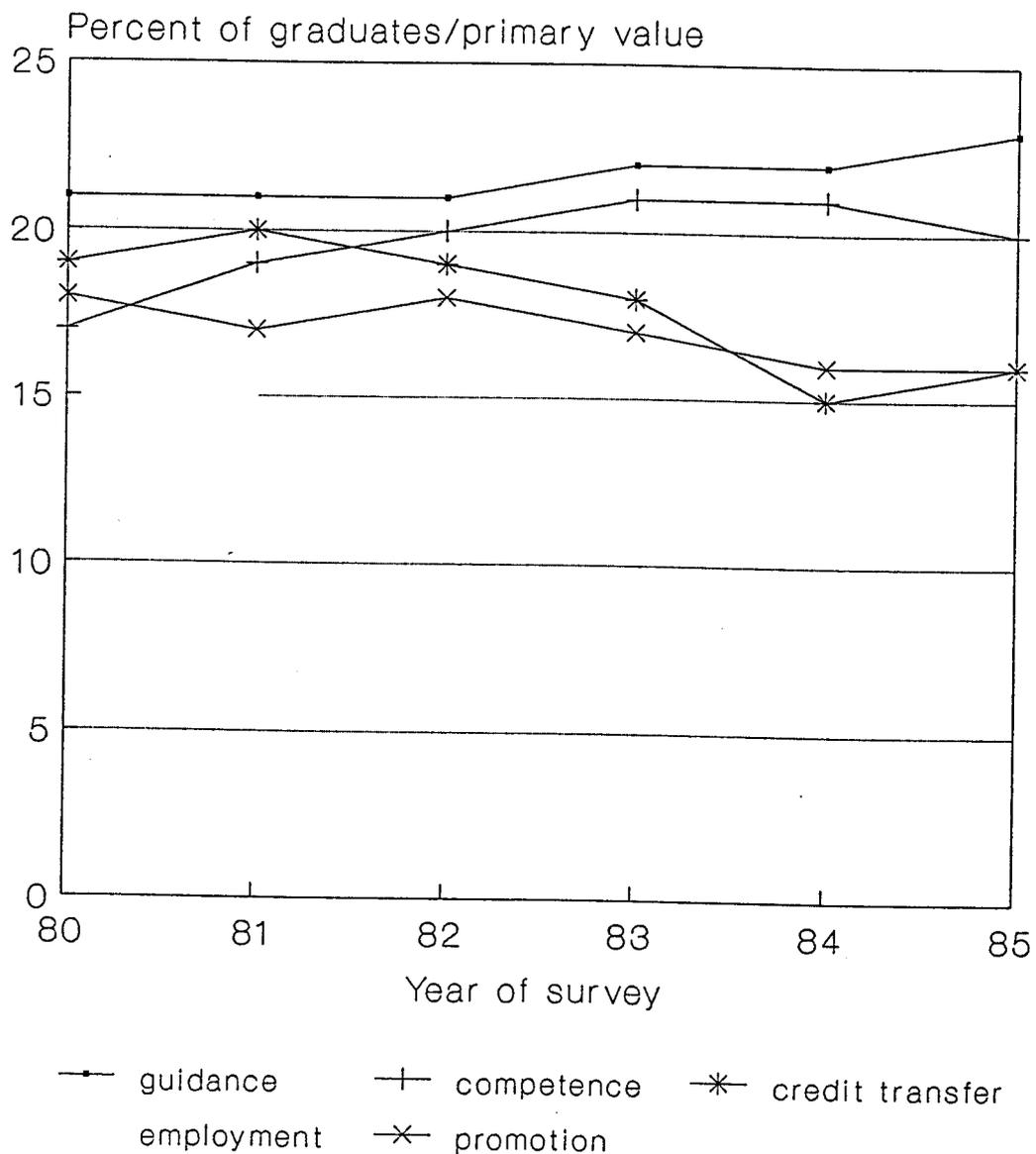
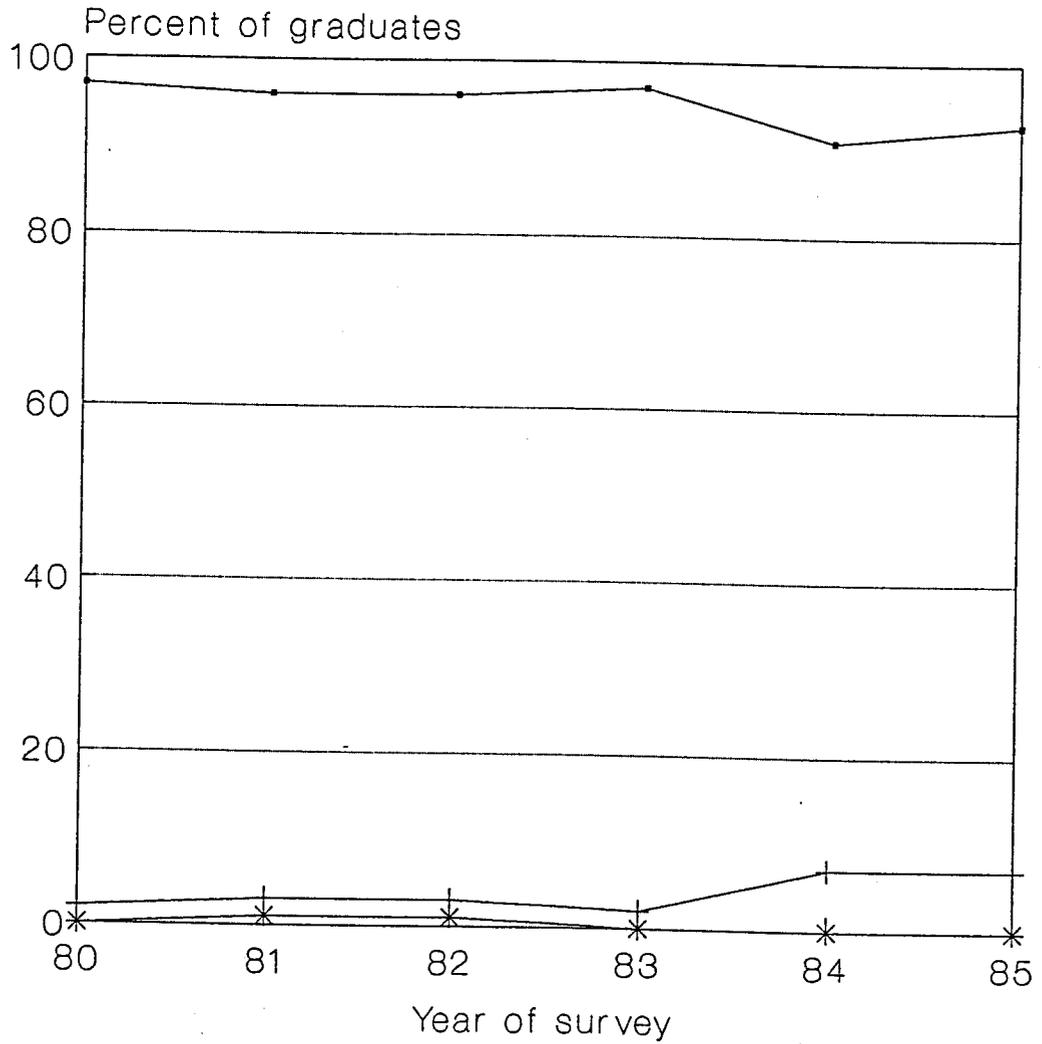


Table 6A
 Graduate Surveys 1980-1985



What is the primary value of CCAF?

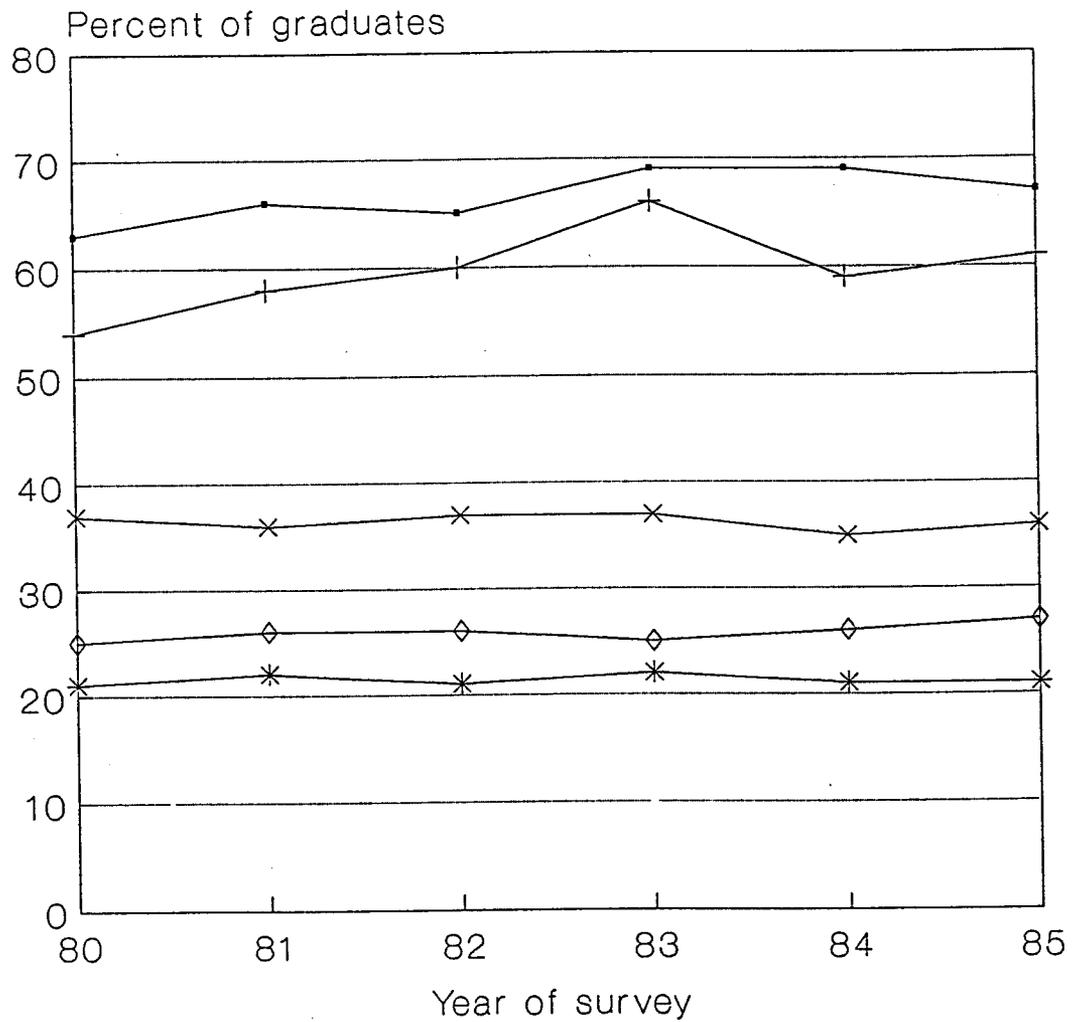
Table 6B
 Graduate Surveys 1980-1985



—•— Would recommend —+— Undecided
 —*— Would not recommend

Would you recommend CCAF to others?

Table 6C
 Graduate Surveys 1980-1985



—•— performance —+— satisfaction —*— skills
 —◇— recruitment —x— education —◇— quality force

How does CCAF add to the mission?

CCAF Institutional Research Office on the 14 percent who responded that CCAF was not very helpful. The report on these negative responders, which could be concluded would represent the worst case scenario for the non-responders found these graduates would have succeeded in their educational pursuits with or without CCAF.

The following data reflect the lowest percentage of graduate responses recorded during the years 1980 to 1985. Above 93 percent of the graduates recommended or intended to recommend CCAF to others (Table 6B), over 63 percent said they were able to transfer 16 or more semester credit hours to a baccalaureate program, while 30 percent indicated they were able to transfer 15 or less. Sixty-three percent felt the degree had a strong positive effect on their job performance, and 50 percent expressed increased job satisfaction as a result of the degree (Table 6C). Ninety-eight percent intended to go on to further higher education. These results were repeated in 1986, and additionally 86 percent of the respondents reported the degree as helpful in improving their competency in the Air Force.

Given the following choices, graduate perceptions of the main benefits of the degree to the Air Force in 1985 ranged from 21 percent perceiving that it improved

technical skills, 10 percent saying it contributed to recruitment and retention, 36 percent feeling it enhanced their educational opportunities, and 27 percent indicating it built a quality force (Table 6A). In 1987 the college altered the survey instrument and expanded the survey audience to include those most impacted by graduate performance, immediate supervisors.

Graduate Supervisor Surveys

In 1988-89 the college surveyed graduates and graduate supervisors. Graduate perceptions that CCAF achieved the mission of improving them technically and giving them an associate degree that was valued in society remained high, consistent with the findings of the previous graduate surveys. The new survey of graduate supervisor perceptions supported the graduate self reports. In 1988 supervisors (79 percent) thought the quality of work of graduates was better than that of non-graduates. Seventy-two percent also reported that the quantity of work graduates accomplished increased over non-graduates. Seventy-eight percent of supervisors reported seeing better writing skills, 78 percent felt graduates were more professional and 76 percent indicated they were more technically competent. Eighty percent of supervisors surveyed viewed the overall job performance

of graduates to be better than non-graduates. Table 7 displays the data of supervisors comparing graduates to non-graduates and graduates comparing themselves to non-graduates in work and competence areas.

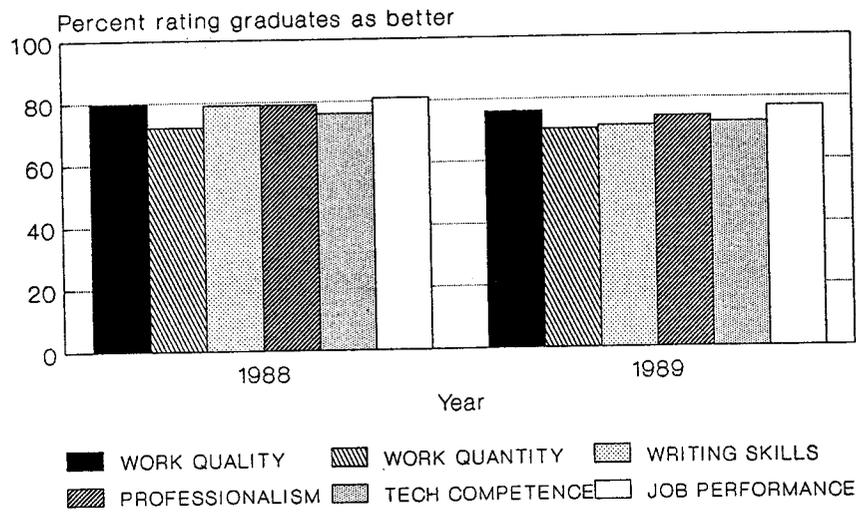
The CCAF survey data indicate the institution improves Air Force enlisted member competence and gains recognition for the college among its peer institutions, according to graduates and their immediate supervisors.

Expert Panel

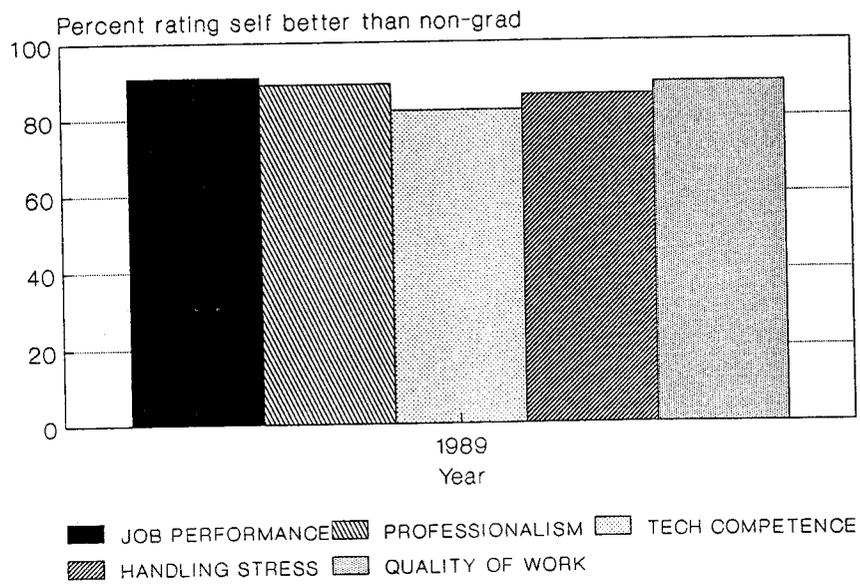
Comments by a panel of experts on both mission identification and fulfillment offer the final data on whether CCAF has achieved its mission. Each of the panelists' comments on the two research questions are summarized, with their collective responses reported as well. Additionally four student-graduate interviews and comments by a community college researcher complete the data on CCAF.

William Gill, director of education services for the Air Force, Sept. 1988:

Table 7
Supervisors Comparing Grads to Non-Grads



Graduate Comparison to Non-Graduate



The CCAF mission was probably partially understood in the beginning...that is where we first started seeing the three words recruitment, retention, and professional development, or, (as) your boss is now using, readiness...it is the same thing; I prefer professional development.

Has the mission been fulfilled? That is interesting...I don't know how else to say it...Yes, it has. It has been very effectively done. I have commented that the biggest problem is that CCAF is operating very well and if we didn't be careful, we could get lulled into a false sense of security and go to sleep at the wheel....

Allan Ostar, president of AASCU, Sept. 1988:

Even though CCAF is accredited...that is not the whole story. Being accredited does not guarantee credit transferability. There is some confusion on this issue. The Community College of the Air Force is really not a college. It is a mechanism by which servicemembers put together college courses. It is a credentialing system.

I was talking with an airman and he was concerned not only about the transferability of credits, but also about whether employers would give the same recognition to these credits...I don't know the answer to that...he was raising a good question. I told him what we had done with Servicemembers Opportunity Colleges and that sounded to him like a good idea...The fact is that the CCAF exists...it is doing an excellent job; it has been accredited. I don't have any information or data to suggest one way or another as to whether the degree is any better or any worse than other degrees awarded...I have no evidence as to its marketability, whether employers regard it as better, worse, or the same, and I have no evidence about the acceptability of the credits....

Arden Pratt, executive director of the
Servicemembers Opportunity Colleges, Sept. 1988:

The primary mission Of CCAF has clearly been to deal with the enlisted airmen and NCOs and assist in getting or packaging degrees for those people in technical areas primarily because of nontraditional education problems with traditional academia. In a sense it is exactly the same mission of SOC. I

think probably from what I understood in the early days of CCAF, and I am talking about really in the early middle '70s, if SOC had been around and doing what they wanted, what they should have been doing, that CCAF would have had less of a reason to exist. There is no question in my mind that the mission has been fulfilled. I have friends, as a matter of fact the son of a friend who is in the Air Force...has been there about four years now and CCAF was one of the main reasons this young man joined the Air Force, rather than Navy or something else.

Henry Spille and Eugene Sullivan, American Council
on Education, Sept. 1988:

Sullivan: I don't know that I have ever read about the primary mission of CCAF.

Spille: The primary mission of CCAF is to provide an opportunity for airmen and -women to earn an associate degree in technical areas...We deal with CCAF as we would other accredited institutions...There have been some problems with transfer of credit stemming, I think primarily, from the fact that CCAF's accreditation is from the occupational division of the Southern Accrediting

Association [CCAF was accredited under the Southern Association's Commission on Colleges in 1986].

Ralph Tyler, director emeritus of the Center for Advanced Study in the Behavioral Sciences, Palo Alto, California, May, 1987:

About 1970, when the CCAF idea was being developed, James Shelburne, a former student of mine, was educational advisor to the commanding general of the Air University and asked my advice to upgrade the performance of NCOs and enable them to increase their level of employment. I thought CCAF was a good idea and it has fulfilled its mission far more fully than I had expected.

Richard Hagemeyer, former president of Central Piedmont Community College in North Carolina and former CCAF board member, May, 1987:

I first became aware of CCAF as a member of the AACJC Board when Lyle Kaapke appeared before us on several occasions regarding CCAF membership in the association. He explained the mission of CCAF, and the mission as he explained it is the same today. I think CCAF has progressed further in fulfilling its

mission than even its most enthusiastic supporters envisioned.

John Phipps, founding president of CCAF, April 1987:

I "invented" it and sold the idea to General George Simler -- the first time the concept is recorded is in my paper prepared for a meeting at Sheppard AFB in 1970-71. The CCAF mission was to provide a credible pattern of career-relevant education, combining technical, general, and other education into an associate degree pattern (we were originally denied access to the degree, but we set that pattern from the start). CCAF still has not been fully integrated into the Air Force pattern of NCO career development. My original vision has been about 60 percent fulfilled -- there's more to go. Most of the recent progress has been growth of student numbers plus some "settling in" of existing concepts. That's appropriate for this phase of development.

Barbara Knudson, director, Women and International Development Research and Information Center, University of Minnesota, and former CCAF board member, May, 1987:

As a member of the United States Commission on Education team to evaluate CCAF for degree authority, I concluded that CCAF was providing an appropriate credential for persons who were receiving an excellent postsecondary education important for civilian recognition, further education, and personal esteem. Yes, I think it is fulfilling its mission.

Chief Master Sergeant William Rushing, first CCAF graduate, April 1987:

In late 1971 or early 1972, I was assigned to Headquarters Air Training Command in student officer procurement. I saw CCAF as a means of documenting nontraditional credits for better evaluation by other colleges and universities, thereby aiding my completing degree requirements. CCAF is fulfilling its mission and then some. Achieving accreditation for awarding the associate degree is more than many of us at the "by-stander" level could ever hope for.

Lyle Darrow, third president of CCAF, May 1987:

My vision of the CCAF mission is that it is an institution to provide a transcript service for service members and to provide a method of verification of technical education that meets regional accrediting standards. Yes, CCAF is meeting that mission.

General Charles Cleveland, former commander of Air University, June 1987:

The mission of CCAF is to educate the enlisted force with fully accredited, directly job-related courses culminating in a two-year degree. That mission has been fulfilled beyond my wildest dreams.

Jerry Lysaught, former CCAF board chairman, June 1987:

I was contacted in the early spring of 1973 by Colonel Phipps, then president of CCAF, and asked to serve on the Advisory Committee. I was appointed on August 20, 1973. At the time, the mission was to provide academic recognition for college-level courses completed by enlisted personnel. Over the 11 years of my service on the Advisory Committee, the mission has been fulfilled, expanded and

updated. For example, degree-granting authority and collegiate accreditation were not in the original statement of mission, but soon became priority items.

Georgia Flanagan, education services officer,
Sheppard AFB, Texas, February 1989:

I was chief of the counseling section of the Education Services Center at Sheppard AFB at the time CCAF began. We saw CCAF's primary mission as providing a career-related associate degree program for our enlisted members. We understood another important goal of CCAF was to enhance the professionalism of the enlisted force by strongly encouraging life-long learning. Since CCAF's programs combined military and off-duty civilian education courses, military members were strongly encouraged to become involved in off-duty education. The CCAF mission has been fulfilled and is the best thing to have happened educationally during the almost 30 years I have been affiliated with AF education services. Education and training are now the primary reason given by recruits for choosing the Air Force over other service branches. Through CCAF and off-duty education programs, education

services have become a "mission essential" element in today's Air Force. Today's demands for an increasingly better educated force make CCAF one of the most important tools in the Air Force arsenal.

Lois Barnes, education services counselor, Sheppard AFB, Texas, February, 1989:

I have been a staff member of the Education Services Center at Sheppard since the inception of CCAF. Therefore, I have been in contact with CCAF since its beginning. My understanding of CCAF's primary mission at its inception was to provide an education program directly related to the student's AFSC which would combine the best in technical training and civilian college courses. Providing such an education program for enlisted members dramatically upgrades the professionalism of AF enlisted members. Yes, the CCAF mission is being fulfilled. Further, the AF has become more and more dependent upon life-long career-related learning for its members as the AF mission has become more complex and more demanding of advanced knowledge by both the officer and enlisted corps. To stay abreast of the continually changing job knowledge required of career people, it is necessary to continue to grow

educationally throughout the career. Completion of CCAF degrees provides some excellent stepping stones for more advanced study.

Connie Odems, vice president, AACJC and former CCAF board member, December, 1989:

I became a member of the CCAF Advisory Board in 1983-84, and...the primary goal of CCAF was to provide post-high school education for enlisted men or women in the USAF...providing and upgrading technical fields that the AF needed. I saw the first part of the mission directly related to defense needs of the AF. I don't think the CCAF would have existed if Congress could have proved that the CCAF establishment was not related to defense...the second aspect of the mission for which I really applauded the Air Force was to make it possible for enlisted personnel to get an associate degree while pursuing their training. I have been amazed at the up-to-date equipment...the low student/teacher ratio, where you really had hands-on instruction, and the patience and methodology...I came away thinking that other institutions of higher education could learn a lot from CCAF-type instruction...CCAF has attempted to look at

textbooks, levels of reading, and... supplemented with materials that were developed. A whole staff development department has been initiated to work with the faculty, and we don't have that in a lot of our colleges. The other thing that I see as a strength of the college is the motivation of the student to take advantage of the opportunity in terms of working for a degree and the relationships that the CCAF had as a unit with nearby colleges to provide the general education....

Jerry Miller, formerly vice president of the American Council on Education and initially opposed to CCAF until accredited, December, 1989:

The ACE Commission on Accreditation of Service Experiences had served the function of translating formal military education into credit recommendations for use by civilian colleges and universities. CCAF proposed to do essentially the same thing for the Air Force formal training. At issue in the establishment of CCAF was whether that should continue to be a civilian function or whether the military ought to in effect establish its own institution. One of the interesting aspects was the difference in approach that was being taken by the

military services. The Air Force favored that approach and the Army and Navy did not. The major objective of the Air Force was to enhance credit transfer through the establishment of an institutional process and a transcribing process. The secondary objective was probably awarding of degrees. We (ACE) took the position early on that if the Air Force was going to establish an institution, then they had to get it properly accredited as an institution. Once they became accredited by Southern Association of Colleges and Schools/ Commission on Colleges then the council changed its position. I just don't know if the CCAF mission is being fulfilled. If the transfer acceptance is approximately equal that of what the ACE process does or exceeds, then you would have to say, yes; if it is lower than that, then I doubt it. Our people would never recommend nearly as much credit as the CCAF probably would transcript.

Thirteen of the panel members answered affirmatively that the mission had been achieved. Four answered they didn't know or didn't answer. These four indicated initial opposition to CCAF. Involvement with the institution in a professional capacity was a common thread among those panel members who most positively

supported mission fulfillment. None of the panel members indicated the mission had not been accomplished, although Phipps said he had a much wider vision for the college as a Community College of the Armed Forces with a general officer or civilian equivalent as its president. Two of the panel members identified mission as improving the enlisted force's competence, gaining civilian recognition of course work through credentialing, and establishing an accredited associate degree program, and both expressed the mission had been fulfilled. Fourteen panel members felt the college had gained recognition for CCAF credits as college-level and from an accredited associate degree institution, while eight members perceived the Air Force enlisted members participating in CCAF to be more competent in their Air Force careers.

Graduate Interviews

Four graduates were additionally interviewed. To insure a varied perspective from these student-graduates these selected were a white female with children, a male African-American, a male Hispanic and a white male. Their personal stories augment the mission fulfillment assessment of graduate surveys and the comments provided by an expert panel that addressed whether CCAF improves NCO competence and has gained civilian recognition for its associate degree programs. Summaries of the interviews follow.

First CCAF selected its 50,000th graduate, Technical Sergeant Barbara Curry, to honor at its fifteenth-year anniversary. Curry served the Air Force as an air traffic controller at Luke Air Force Base in Arizona in 1987. Prior to that she worked overseas as a noncommissioned officer in charge of a life-support section that keeps the parachutes, oxygen masks, suits, and helmets working for flyers. As is typical for many Air Force women and men, she described how her interests and the Air Force needs caused her to retrain into the air traffic control specialist career field. She valued degree completion enough to invest off-duty time and effort toward completion while working full-time and

raising a family. She saw the degree as a stepping stone for her career.

Master Sergeant Jim Turner grew up in Pensacola as the oldest member of a lower-middle-income African-American family. He talked about his parents stressing education as a way to improve one's standard of living. As did many American males in the mid-1960s, he joined the service and served in Southeast Asia. He got out and began pursuing his educational goals, but found a depressed job market with such high costs for schooling that he couldn't afford to continue. He had an opportunity to get back into the Air Force and came back in 1971, continuing with night school in his off-duty time. He cites 1977 as a turning point in his life when, thinking about pursuing his educational goals, he "turned the fire on," and CCAF became the vehicle to accomplish his goals. In his electronic career specialty, he received a CCAF degree in Ground Radar Technology in 1980, followed by a degree in Electronics in 1982. This enhanced the Air Force mission, since he was in a technical training center as an instructor. He went on in 1986 to get a CCAF degree in Instructional Technology as well. He served as a program administrator at the

Administrative Center of CCAF and encouraged countless students to pursue associate degrees. He is now retired and is teaching electronics in a local technical college.

Before Senior Master Sergeant Daniel Ramos started the first grade in San Antonio, Texas, his parents moved from the farm to the city with his 11 brothers and sisters to better their way of life. Although neither parent had completed school past the eighth grade, they were industrious and stressed education to their children. He remembers starting the first grade knowing only the English word "look," hoping the teacher who spoke only English would say that word so he could raise his hand when she said it. He became an avid reader and was soon bilingual. He remembers the wisdom of his father who bought him a dictionary to answer his constant questions on the meanings of English words. He joined the Air Force in 1967 and served around the world in the civil engineering career field. In 1979, while serving as a technical training center instructor at Sheppard AFB, he decided he needed to get on with his education. Armed with his Air Force training, he received associate degrees in Construction Technology and Industrial Technology. He credits the CCAF degree program with

improving his communicative skills as well as managerial expertise as he served as a part of the Air Force elite senior enlisted corps.

Master Sergeant Dan Lookadoo grew up in a family of six children at the foothills of the Blue Ridge Mountains in Appalachia. He calls himself a mediocre high school student who enjoyed math and science but never thought he was "college material". Although neither of his parents completed high school, he did and joined the Air Force to avoid working in the textile or furniture mills. Because of his high math entrance scores, he was placed in the electronics technology area of the Air Force. He served from Mississippi to California, Alaska, Southeast Asia, Guam, and Korea, but says his life changed in 1977 when he was assigned to the technical training center at Keesler AFB, Mississippi. Another member of his unit was involved enthusiastically in the CCAF program, and he encouraged Lookadoo to give it a try. Lookadoo took his first civilian college course, psychology, at Mississippi Gulf Coast Community College. With his Air Force technical training under his belt, he discovered he was in fact college material. He not only got an "A" in psychology, but also went on to earn two CCAF degrees in 1981-82 in Avionics and Instructional Technology. A bachelor's degree in Industrial and Vocational Education

followed in 1983. And in 1986 he completed his master of science degree in Adult Education. All this was accomplished in his off-duty time with the acknowledged support of his wife. He has been a valuable technical resource to the Air Force. He is now retired and working as an associate professor in a community college in Virginia and pursuing a doctorate.

These interviews address the missions of CCAF as an accredited associate-degree-granting college that has gained civilian recognition through credit acceptance and improved student competence. These students indicate they would likely have found it difficult to achieve their associate degrees without such a structure and accredited institution. Since the Air Force draws from all of America's socioeconomic backgrounds, it provides opportunities to thousands of Americans who would not otherwise have been able to improve their standard of living.

At the Emory University Carter Library, John Roueche of the University of Texas summed up the general views of the panel and the students on whether CCAF has fulfilled its mission. He indicated he had been on the initial evaluation team of the Community College of the Air Force for the U.S. Commissioner of Education before degree-

granting authority was awarded. He highly praised CCAF for the Air Force training and the established system. He was impressed with the amazing number of students who were now receiving college credit in the CCAF system. He definitely felt CCAF fulfilled its mission and earned a right to be included in the American community college system (personal communication, October, 1988).

CONCLUSIONS, RECOMMENDATIONS, FUTURE RESEARCH

Conclusions

The developmental, unfolding nature of case study research leads to interesting and unpredictable results. In this study, with the second research question dependent on answers to the first, the researcher anticipated the identification of mission to be a routine process. An initial surprise in the study was the difficulty developing consensus on the identified mission of CCAF from the primary sources.

Unclear mission statements exist

The written goals of CCAF were developed by knowledgeable Air Force and civic leaders and reflect the goals for the institution. Review of these goals and mission statements shows some confusion as to the primary focus of the college. The mission statement lacks clarity. The priority and essentiality of its various stated goals is left to interpretation. As a result, it appears there are problems gaining Air Force leadership support and the mission focus changes to suit challenges of the moment. This adaptability of mission to changing Air Force and external institutional needs leaves the mission somewhat unclear.

For example, upon creation CCAF was sold to Congress as an important recruiting tool for the experimental all-volunteer force. As greater and greater numbers of qualified mid-level NCOs left the service, the college was touted as a good retention incentive. Recently, CCAF's need for high-level leadership support to address accreditation issues is causing the mission to be linked closely to readiness. As great numbers exit the Air Force as the defense budgets are drawn down, it is highly likely CCAF credits will become a reward to those being transitioned out of the service.

As indicated in the literature, educational leaders do not know the mission of CCAF because they often do not know the college exists. Different versions of the mission statement that are somewhat different in orientation serve to obfuscate the college purpose. This lack of clearly defined goals showed up again in interviews with key personnel and experts where the mission of the college was decided through interpretation of the various documents. The panel of experts, selected because of their knowledge of CCAF, had trouble clearly articulating the CCAF mission. It is predictable that both civilian and military leaders have difficulty determining the primary CCAF mission. The goal of

maintaining a collegiate institution to serve the enlisted personnel within an accredited context is at stake. If the college is to survive and thrive, support of leaders and constituents is vital. That support is best won by a clearly defined and articulated mission.

CCAF fulfills a service to students with the associates degree and civilian recognition of Air Force education and training

The college has far exceeded the expectations of its founders and has not, as predicted by some of the original opponents, become an academic monster swallowing up academic freedom and denigrating the value of the associate degree. The sheer number of over 68,000 associate degrees awarded since degree-granting authority was granted by congress demonstrates success. CCAF's ever-increasing student enrollment of 385,000 students from among many Americans normally not included in postsecondary education is proof that the system is producing. The graduates are technically competent and socially aware, as indicated by the graduate surveys, graduate interviews, and graduate supervisor interviews. They add to the effectiveness, efficiency, and democratic nature of the powerful United States Air Force. Of all the people who need this type of liberal education on the

rights of their fellow citizens, technical skills, leadership, and management, it is the military who possess the most powerful weapons of the age.

A common theme of the panel of experts was that CCAF assisted Air Force enlisted personnel use Air Force training to develop meaningful career patterns with readily transferable and acceptable credits in both technical and general education areas in an accredited institution context. In this sense there definitely was consensus that the college had fulfilled the mission for which it was created.

Personal success stories of CCAF's helping people improve the Air Force's technical competence for the past 16 years can be repeated 68,000 times over for each graduate. This practical and comprehensive education not only meets the Air Force community's needs to fulfill the defense readiness mission, but also returns to the nation a valuable human resource, better educated, more motivated, self-confident, and self-reliant. Since the Air Force draws from all of America's socioeconomic backgrounds, it provides opportunities to thousands of Americans who would not otherwise have been able to improve their standard of living. Over 380,000 students are now pursuing dreams to improve their opportunities in

a land of opportunity regardless of gender, race, religion, or ethnic background.

CCAF established itself in higher education

CCAF is a unique model of adult higher education based on the synthesis of a tightly controlled military education and training system and the liberal broadening experience of the American college and university system. It is an innovative delivery system providing hundreds of thousands of people with an opportunity for higher education appropriately recognized by civilian and industrial institutions. CCAF has developed a high-quality curriculum and up-to-date programs that guarantee student competence. Other military services have a comparative model worth examining to emulate or join. Civilian educational institutions have an example of practical, applied academics within a clearly articulated outcome-oriented credit system.

Recommendations

Recommendation 1

The CCAF mission requires refinement.

The CCAF mission statements require refinement so they are congruent and prioritized with more connectivity to each other. This will ensure that decision makers know what CCAF is all about when they allocate time, energy, and resources.

Recommendation 2

If the CCAF concept works as well as this study reveals, why not establish a Community College of the Armed Forces for the Department of Defense?

Although the findings bring the obvious conclusion that the Community College of the Air Force has fulfilled its mission as perceived by graduates, graduate supervisors, and a panel of experts, this recommendation may not be so easy. If the CCAF is good for the Air Force, then why shouldn't it serve the non-commissioned officers of the other services? Why can't a Community College of the Armed Forces be created? The answers to those questions could be found in further study and research. Answers could also be found in a spirit of cooperation among the interested parties. Representatives of the Servicemembers Opportunity Colleges, the American Council on Education, the American Association of Community and Junior Colleges, the

American Association of State Colleges and Universities, the Department of Defense, and CCAF must be willing to meet together to examine what is in the best interests of enlisted personnel in all the services.

The recommendation that this model be pursued for use by all the military departments is the next logical step. Paradoxically it may not happen because there is too much at stake. The people and agencies that could cooperate and find a way to make it happen may perceive too many losses in terms of influence, prestige, and money to allow the concept to grow much beyond the CCAF. It will require vision and dedication from a host of people within and without the military.

Recommendation 3

Develop a new national accrediting process for federally chartered institutions.

If a Community College of the Armed Forces were created, it would require an examination of the regional accrediting model for higher education and perhaps development of a new accrediting paradigm. A national accrediting body under the auspices of an organization like the American Council on Education or the Council on

Postsecondary Accreditation could develop accreditation standards for national institutions that do not fit into the regional accreditation concept.

Recommendation 4

Conduct a "Delphi" panel of experts to clarify and specify the CCAF mission and develop the appraisal and outcome framework for a national body to accredit postsecondary military institutions.

Several rounds of comments from a blue-ribbon panel of experts, a "Delphi" approach, could provide valuable inputs on making the CCAF mission clear and establishing a more appropriate accrediting process. The Delphi panel would be an appropriate methodology, and a replication of similar panel members as used in this study's panel is suggested, with particular use of non-commissioned officers and their supervisors.

Future Research

The first finding of a cloudy mission statement warrants a future study of the CCAF mission. A

blue-ribbon panel including some of the same members of the expert panel of this study could solidify, prioritize and clarify the CCAF mission.

Research questions that could be addressed in separate studies concerning development of a Community College of the Armed Forces are:

Since faculty credentials are critical to accreditation, how do the qualifications, preparation and performance of CCAF faculty compare to other institutions?

How do CCAF students that do not successfully complete a degree feel about the school and its services?

Does CCAF offer an approach that SOC doesn't and vice versa?

Do the respective services have such differing needs and missions that the CCAF concept, although right for the Air Force, is not right for the Army, Navy, Marine Corps, Coast Guard, and other government schools?

Who should be the controlling governing body over an institution of such enormous magnitude?

How do the military and civilian educational environments compare in content and quality?

With a wide geographically separated system of schools and faculty who are experts technically, but not necessarily credentialed, are the credential standards of regional accrediting bodies applied equitably to CCAF and the other institutions in the associations?

Do CCAF and other federally chartered schools of higher education warrant another accrediting method than the regional approach?

Studies on equivalence of education and training provided in the context of the military and other than traditional classroom settings need to be accomplished. This would ensure opportunity for people to receive credit when deserved, but protect the quality of acceptable course work in higher education.

Final Summary

If CCAF is in fact a resource providing several hundred thousand enlisted military members the fulfillment of the uniquely American dream of equal educational opportunity as indicated in the review of the literature for community colleges, then it must be acknowledged by leaders and the public as such. If the college gives the military services publicly acknowledged and credentialed education and training enhancing the competence of enlisted members, then it deserves national support and possible emulation. Or if it is a danger, an encroachment on the democratic educational institutions in existence and not appropriate for the government to operate, then it should be discontinued and replaced by something like the Servicemembers Opportunity College. There is an important caution if the latter decision were to be made. CCAF currently has a proven record of enrolling students and producing more graduates than any other system. Changing something that is not broken would indeed be unwise.

Creation of a Community College of the Armed Forces is an enormous undertaking, but the way for this to come to pass could be in the same traditions that created many American community colleges. In spite of opposition, the

people demanded the opportunity to participate in higher education so essential for the new learning age. If they do again, the country will not only educate, train, and certify thousands of Americans from all walks of life for the technical challenges of the learning age as members of the military, but they will return to civilian life as competent citizens who have a broad education, knowing for what and whom they are fighting and voting. The more we provide military personnel, who all subsequently return to take their place in civilian life, with technical skills and a broadbased general education, we may in fact be making a key contribution to the health of democratic society.

People really do hunger for knowledge; they want to improve themselves. The competitive spirit of children is evidence of this. They love to learn if the setting is right. Community colleges have developed a non-threatening educational environment of purposeful rather than elitist learning that helps people develop confidence and build self-esteem. At the same time people are afraid of losing face and self-respect, of not being as good as others rather than being the best they can be. It is difficult to accept not being as smart or talented as others, but the Air Force and the community college settings both help remove some of those fears by

their practical approach to learning and by demonstrating the value of each individual. Community colleges help people maximize their potential. The translatable, transferable, marketable national resource the CCAF degree offers is a phenomenon that has indeed fulfilled its purpose.

An associate in applied science degree from CCAF is a two-year degree that signifies completion of a comprehensive program of study. It enhances USAF mission readiness by furthering the enlisted person's technical competence and managerial skills and increasing the adaptability of this work force to the challenges of the Information Age. Because an associate degree from the CCAF is focused on an occupational specialty that has a practical measure of competence included in its award, it is a guarantee of quality for the Air Force.

CCAF is an innovative American community college accredited by the Southern Association of Colleges and Schools, Commission on College. An AAS degree from CCAF ensures the Air Force the student has satisfactorily attained the knowledge and skills required for increased technological, managerial, and leadership responsibilities.

Air Force education and training has always had a reputation for excellence. Its quality is high because it is focused on national defense concerns with human lives often at stake. Air Force and Department of Defense schools and training centers teach personnel to operate technically sophisticated systems. The schools include courses in aircraft and missile maintenance, avionics and electronics, aerospace medicine, logistics, security, support services, and professional military education that train noncommissioned officers to better utilize and manage the resources under their area of responsibility.

The CCAF system -- made up of schools that respond to Air Force needs, an education counseling service, and a small administrative center -- provides quality education opportunity for approximately 630,000 enlisted members in the Air Force. The worldwide education service system is crucial to students' keeping specified program requirements in focus since students can be transferred literally around the world. The schools use state-of-the-art technology and high-tech equipment in their results-oriented training. The affiliated schools provide most of the course work for the technical core

and leadership and management components of the degree. The civilian colleges of America are the primary sources for the general education portion of the degree.

The Community College of the Air Force was established and organized by federal legislation to be maintained as a community college. The CCAF mission is designed to improve the competence of Air Force enlisted members in their Air Force occupations through its programs, to gain civilian national education recognition for Air Force education and training, and to grant accredited associate in applied science degrees as a mark of quality education. For personnel and CCAF the mission is broad and important. The mission has been fulfilled, but could be better clarified and emulated.

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APPENDICES

APPENDIX 1

Expert Panel Biographical Sketches

The panel of experts represents a broad group of educationally oriented personnel. They include distinguished American educators from both community college circles and higher education, that is, Ralph Tyler, Barbara Knudson, and Richard Hagemeyer. Over the college's existence, these educators served on the U.S. Commissioner of Education Evaluation Team and then as trustees on the college's Board of Visitors. The Washington, DC based educational associations were represented by the respective presidents of the American Association of State Colleges and Universities and the Servicemembers Opportunity Colleges, Allan Ostar and Arden Pratt. The American Council on Education representatives were Jerry Miller, Eugene Sullivan, and Henry Spille. The American Association of Community and Junior Colleges was represented by Connie Odems, vice president for professional services; Air Force leadership was represented by General Charles Cleveland and several past presidents of the college, John Phipps, the first president, and Lyle Darrow. The Air Force education services community was represented by William Gill formerly at the Pentagon, and Jerry Lysaught represented a civilian medical school. Inputs also came from two

longtime Air Force education counselors--Georgia Flanagan and Lois Barnes from Sheppard Air Force Base in Texas, where some of the important initial plans and concepts of the college began, along with input from the first graduate. Four successful student/graduates representing different career specialities and socioethnic backgrounds supplemented the experts. This included the 50,000th graduate, and several graduates who served as Air Force instructors and program administrators at the college's Administrative Center.

Experts

Lois Barnes, education counselor, Sheppard AFB, TX.

Charles Cleveland, Air University commander and Air Training Command vice commander during CCAF developmental years.

Lyle Darrow, third CCAF president.

Georgia Flanagan, education counselor, Sheppard AFB, TX. Served several years on CCAF Policy Council representing education services.

William Gill, Headquarters United States Air Force Education Services, The Pentagon, Washington, DC.

Richard Hagemeyer, CCAF board member and AACJC chair; President, Central Piedmont Community College; Who's Who in the South and Southwest 1986.

Barbara Knudson, CCAF board member and member of initial evaluation team; professor, Quigley Center of International Studies, University of Minnesota.

Jerome Lysaught, CCAF board chair, University of Rochester, NY; Who's Who in America 1987.

Jerry Miller, American Council on Education, Washington, DC.

Connie Odems, vice president for professional services, AACJC; board member, CCAF.

Allen Ostar, president, AASCU, Washington, DC; Who's Who in America 1986.

John Phipps, first CCAF president; Who's Who in America 1986.

Arden Pratt, president, Servicemembers Opportunity Colleges, Washington, DC.

William Rushing, first CCAF graduate.

Henry Spille, American Council on Education, Washington, DC.

Eugene Sullivan, American Council on Education, Who's Who in America 1986.

Ralph Tyler, CCAF board member; president, Systems Development Foundation, Palo Alto, CA.

Graduates

Barbara Curry, 50,000th graduate of CCAF, Luke AFB, AZ.

Daniel Lookadoo, student, graduate, and program administrator of electronics, CCAF.

Daniel Ramos, student, graduate, and program administrator for civil engineering programs, CCAF.

James Turner, student, graduate, and program administrator of electronics, CCAF.

APPENDIX 2

Questionnaire

Influential personnel have been given a standard interview on their perceptions of the college. They were selected for interview because they represent people who were mentioned in the history of CCAF, were recommended by CCAF staff members, or who served in leadership positions in the college's history. The questionnaire used was the same for all interviewees. It was designed in consultation with the dean and academic programs director of the college. The questions were designed to be opened and asked both orally and in writing depending availability of the interviewee. The questions were as follows:

1. When did you first come in contact with the college, and what did you see as its primary mission at that time?
2. Has that mission been fulfilled?
3. What does the current institution focus need to be?
4. What is your major concern for the College's future?
5. Any other comments?

APPENDIX 3

CCAF Graduate Surveys

A sample survey mailed to graduates of CCAF since 1979 is attached as part of this appendix. Along with these surveys, an internal CCAF document, A Longitudinal Look at Selected Graduate Survey Items, served as sources for this case study. The Institutional Research Office of the Community College of the Air Force formed the questions for these surveys. The questions that pertained to mission and mission fulfillment from graduates and graduate supervisors were analyzed to respond to those same questions of the case study as to what the mission of CCAF was and whether that mission has been fulfilled.

COMMUNITY COLLEGE
OF THE
AIR FORCE

1988 APRIL GRADUATE SURVEY

USAF SCN 87-100
Expires 31 Dec 88

1. WAS YOUR INTEREST IN PURSUING A BACHELOR'S DEGREE OR A HIGHER DEGREE INCREASED BY YOUR GRADUATION FROM CCAF?

- (1) YES.
- (2) NO.
- (3) NOT SURE.

2. WHAT IS THE HIGHEST ACADEMIC DEGREE YOU PLAN TO COMPLETE?

- (1) ASSOCIATE DEGREE.
- (2) BACHELOR'S DEGREE.
- (3) MASTERS DEGREE.
- (4) DOCTORAL DEGREE.
- (5) OTHER.

3. WHICH OF THE FOLLOWING STATEMENTS BEST DESCRIBES YOUR STATUS?

- (1) I ALREADY HAVE A BACHELOR'S DEGREE.
- (2) I HAVE ENROLLED IN A BACHELOR'S DEGREE PROGRAM.
- (3) I PLAN TO ENROLL IN A BACHELOR'S DEGREE PROGRAM.
- (4) I CURRENTLY DO NOT INTEND TO ENROLL IN A BACHELOR'S DEGREE PROGRAM.

4. IF YOU HAVE A BACHELOR'S DEGREE OR ARE PURSUING ONE, IS YOUR DEGREE IN AN AREA RELATED TO YOUR AIR FORCE JOB?

- (1) YES.
- (2) NO.
- (3) I'M NOT PURSUING A DEGREE.

5. WHICH OF THE FOLLOWING BEST DESCRIBES YOUR STATUS REGARDING THE TRANSFER OF CCAF CREDITS TO OTHER COLLEGES.

- (1) NOT APPLICABLE, I AM (HAVE) NOT ENROLLED IN ANOTHER DEGREE PROGRAM.
- (2) NOT APPLICABLE, I AM (HAVE) ENROLLED BUT DID NOT ATTEMPT TO TRANSFER ANY CREDITS.
- (3) I AM (HAVE) ENROLLED BUT WAS NOT ABLE TO TRANSFER ANY CREDITS.
- (4) I AM (HAVE) ENROLLED AND WAS ABLE TO TRANSFER SOME CREDITS.

6. IF CCAF CREDIT WAS NOT ACCEPTED IN TRANSFER, INDICATE THE REASON(S) THE INSTITUTION GAVE YOU FOR NONACCEPTANCE OF CREDIT.

- (1) NO REASON WAS GIVEN.
- (2) COURSE CREDITS SOUGHT WERE NOT RELATED TO MY INTENDED FIELD OF STUDY.
- (3) CREDITS WERE CONSIDERED NON-COLLEGIATE.
- (4) THE INSTITUTION DOES NOT ACCEPT MILITARY CREDITS.
- (5) NONE OF THE ABOVE.

7. HAS CCAF BEEN HELPFUL IN ASSISTING YOU IN TRANSFERRING CREDIT FOR AIR FORCE COURSES TO OTHER COLLEGES OR UNIVERSITIES?

- (1) VERY HELPFUL.
- (2) HELPFUL.
- (3) NOT VERY HELPFUL.
- (4) OF NO HELP AT ALL.

8. WOULD YOU RECOMMEND THE CCAF DEGREE PROGRAM TO OTHER AIRMEN AND NCOS?

- (1) YES.
- (2) NO.
- (3) NOT SURE.

9. HOW HAS YOUR DAY-TO-DAY JOB PERFORMANCE BEEN AFFECTED BY HAVING EARNED A CCAF DEGREE?

- (1) VERY POSITIVELY AFFECTED.
- (2) SOMEWHAT POSITIVELY AFFECTED.
- (3) NOT AFFECTED.
- (4) SOMEWHAT NEGATIVELY AFFECTED.
- (5) VERY NEGATIVELY AFFECTED.

10. DID COMPLETING A CCAF DEGREE PROGRAM AFFECT YOUR SATISFACTION WITH YOUR AIR FORCE JOB?

- (1) IT INCREASED MY SATISFACTION VERY MUCH.
- (2) IT INCREASED MY SATISFACTION SOMEWHAT.
- (3) IT MADE NO DIFFERENCE.
- (4) IT DECREASED MY SATISFACTION SOMEWHAT.
- (5) IT DECREASED MY SATISFACTION VERY MUCH.

11. HOW HELPFUL HAS EARNING A CCAF DEGREE BEEN IN IMPROVING YOUR SUPERVISORY SKILLS?

- (1) VERY HELPFUL.
- (2) HELPFUL.
- (3) NOT VERY HELPFUL.
- (4) OF NO HELP AT ALL.

12. DID THE POSSIBILITY OF EARNING A CCAF DEGREE INFLUENCE YOUR DECISION TO ENTER THE AIR FORCE?

- (1) YES.

- (2) NO.
 - (3) THERE WAS NO CCAF WHEN I ENTERED THE AIR FORCE.
13. DID/WILL THE CCAF DEGREE OPPORTUNITY INFLUENCE YOUR DECISION TO RE-ENLIST?
- (1) YES.
 - (2) NO.
 - (3) NO OPINION.
14. IN YOUR OPINION, HAS CCAF BEEN HELPFUL IN ENHANCING THE OVERALL EDUCATION OF ENLISTED PERSONNEL?
- (1) YES.
 - (2) NO.
 - (3) NOT CERTAIN.
- HOW HELPFUL IN PROVIDING YOU WITH USEFUL INFORMATION ABOUT CCAF HAVE THE FOLLOWING SOURCES BEEN: (QUESTIONS 15-22)
- (1) VERY HELPFUL.
 - (2) HELPFUL.
 - (3) NOT VERY HELPFUL.
 - (4) OF NO HELP AT ALL.
15. EDUCATION SERVICES CENTER STAFF MEMBERS.
16. AIR FORCE SCHOOL STAFF MEMBERS.
17. THE CCAF ADMINISTRATIVE CENTER STAFF.
18. COMMANDERS CALL.
19. CCAF CATALOG.
20. CCAF STUDENT GUIDEBOOK.
21. CCAF PROGRAM PROGRESS REPORT.
22. NEWSPAPER, MAGAZINE OR OTHER PUBLICATIONS.
23. DID YOUR EDUCATION SERVICES CENTER PROVIDE YOU WITH ADEQUATE COUNSELING?
- (1) YES.
 - (2) NO.
 - (3) I DID NOT USE COUNSELING SERVICES.
24. HOW MANY YEARS OF MILITARY SERVICE HAVE YOU COMPLETED?
- (1) LESS THAN 4 YEARS.
 - (2) 4 BUT LESS THAN 8.
 - (3) 8 BUT LESS THAN 12.
 - (4) 12 BUT LESS THAN 20.
 - (5) 20 OR MORE YEARS.
25. HOW MANY YEARS OF MILITARY SERVICE DO YOU INTEND TO COMPLETE BEFORE YOU SEPARATE OR RETIRE FROM THE AIR FORCE?
- (1) LESS THAN 4 YEARS.

- (2) 4 BUT LESS THAN 8.
- (3) 8 BUT LESS THAN 12.
- (4) 12 BUT LESS THAN 20.
- (5) 20 OR MORE YEARS.

26. WHICH OR THE FOLLOWING APPLIES TO YOU?
- (1) ACTIVE DUTY REGULAR AIR FORCE.
 - (2) AIR FORCE RESERVE.
 - (3) AIR NATIONAL GUARD.

27. WHAT IS YOUR SEX?
- (1) MALE.
 - (2) FEMALE.

IN ITEMS 28 OR 29 INDICATE YOUR PRESENT AGE GROUP.

- | | | | | | |
|-----|-----|-------------------|-----|-----|-----------------|
| 28. | (1) | 20 YEARS OR LESS. | 29. | (1) | 37 TO 40 YEARS. |
| | (2) | 21 TO 24 YEARS. | | (2) | 41 TO 44 YEARS. |
| | (3) | 25 TO 28 YEARS. | | (3) | 45 TO 48 YEARS. |
| | (4) | 29 TO 32 YEARS. | | (4) | 49 TO 52 YEARS. |
| | (5) | 33 TO 35 YEARS. | | (5) | OVER 52 YEARS. |

30. WHICH OF THE FOLLOWING IS YOUR RACIAL/ETHNIC ORIGIN?
- (1) AMERICAN INDIAN OR ALASKAN NATIVE.
 - (2) ASIAN (CHINESE, JAPANESE, KOREAN, FILIPINO OR ASIAN AMERICAN).
 - (3) BLACK.
 - (4) SPANISH SPEAKING (CUBAN, PUERTO RICAN OR MEXICAN AMERICAN).
 - (5) WHITE (OTHER THAN SPANISH SPEAKING).

31. WHICH OF THE FOLLOWING BEST DESCRIBES YOUR DUTY LOCATION(S) WHILE PURSUING YOUR CCAF DEGREE?
- (1) STATIONED IN CONUS ALL THE TIME.
 - (2) STATIONED IN CONUS MOST OF THE TIME.
 - (3) STATIONED IN CONUS AND OVERSEAS ABOUT THE SAME AMOUNT OF TIME.
 - (4) STATIONED OVERSEAS MOST OF THE TIME.
 - (5) STATIONED OVERSEAS ALL THE TIME.

32. DID YOU HAVE DIFFICULTY SCHEDULING CIVILIAN COURSES FOR THE GENERAL EDUCATION REQUIREMENTS OF YOUR CCAF PROGRAM?
- (1) YES.
 - (2) NO.

33. IF YES, IN WHAT AREA(S) OF GENERAL EDUCATION?
- (1) COMMUNICATION SKILLS.
 - (2) NATURAL SCIENCE.
 - (3) MATH.
 - (4) SOCIAL SCIENCE/HUMANITIES.

(5) MANAGEMENT.

34. DID YOU HAVE TO REQUEST A PROGRAM WAIVER IN TECHNICAL EDUCATION?

- (1) YES.
- (2) NO.
- (3) UNCERTAIN.

35. DID YOU HAVE TO REQUEST A PROGRAM WAIVER IN GENERAL EDUCATION?

- (1) YES.
- (2) NO.
- (3) UNCERTAIN.

IN ITEM 36 OR 37 MARK THE RESPONSE SHOWING YOUR ENLISTED RANK WHEN YOU COMPLETED YOUR CCAF DEGREE REQUIREMENTS.

- | | | | |
|-----|----------|-----|----------|
| 36. | (1) E-1. | 37. | (1) E-6. |
| | (2) E-2. | | (2) E-7. |
| | (3) E-3. | | (3) E-8. |
| | (4) E-4. | | (4) E-9. |
| | (5) E-5. | | |

IN ITEM 38 OR 39 OR 40 MARK THE RESPONSE SHOWING THE MAJCOM YOU WERE ASSIGNED TO WHEN YOU COMPLETED YOUR DEGREE.

- | | | | | | |
|-----|-----------|-----|--------------|-----|------------|
| 38. | (1) AFCC. | 39. | (1) AAC. | 40. | (1) SAC. |
| | (2) AFLC. | | (2) ESC. | | (2) TAC. |
| | (3) AFSC. | | (3) MAC. | | (3) USAFE. |
| | (4) ATC. | | (4) PACAF. | | (4) USAFA. |
| | (5) AU. | | (5) SPACECMD | | (5) OTHER. |

IN ITEM 41 OR 42 MARK THE RESPONSE SHOWING THE NUMBER OF PCS MOVES YOU MADE WHILE PURSUING YOUR CCAF DEGREE.

- | | | | |
|-----|------------|-----|-------------------|
| 41. | (1) NONE. | 42. | (1) FIVE. |
| | (2) ONE. | | (2) SIX. |
| | (3) TWO. | | (3) SEVEN. |
| | (4) THREE. | | (4) EIGHT. |
| | (5) FOUR. | | (5) NINE OR MORE. |

PLEASE FIND YOUR PROGRAM OF STUDY IN ITEMS 43-57. MARK THE APPROPRIATE RESPONSE OPTION BESIDE THE APPROPRIATE QUESTION NUMBER.

43. (1) ADMINISTRATIVE MANAGEMENT.
 (2) AEROSPACE CONTROL SYS TECH.
 (3) AEROSPACE GROUND EQUIPMENT TECH.
 (4) AEROSPACE ACCESSORY SYSTEM TECH.
 (5) AIRCRAFT ACCESSORY SYSTEMS TECH.

44. (1) AIRCRAFT ARMAMENT SYS TECH.
 (2) AIRCRAFT MAINTENANCE TECH.

- (3) AIRCRAFT POWER PLANT TECH.
 - (4) AIRPORT OPERATIONS TECH.
 - (5) AIR TRAFFIC CONTROL.
45. (1) AUDIOVISUAL PRODUCTION SERVICES.
(2) AUTOMOTIVE MAINTENANCE.
(3) AVIONICS SYSTEMS TECH.
(4) BIOENVIRONMENTAL ENGINEERING.
(5) BIOMEDICAL EQUIPMENT TECH.
46. (1) CARDIOPULMONARY LAB TECH.
(2) COMMUNICATIONS OPERATIONS TECH.
(3) COMMUNICATIONS PROCESSING MGT.
(4) COMMUNICATION TECH.
(5) CONSTRUCTION TECH.
47. (1) CONTRACTS MANAGEMENT.
(2) CRIMINAL JUSTICE.
(3) CYTOTECHNOLOGY.
(4) DATA PROCESSING.
(5) DENTAL ASSISTING.
48. (1) DENTAL LAB TECH.
(2) DISASTER PREPAREDNESS.
(3) EDUCATION AND TRAINING MGT.
(4) ELECTRIC POWER SYSTEMS.
(5) ELECTRONIC ENGINEER TECH.
49. (1) ELECTRONIC SYS TECH.
(2) EMERGENCY MEDICAL TECH.
(3) ENGINEERING ASSISTANT.
(4) ENVIRONMENTAL MED TECH.
(5) ENVIRONMENTAL TECH.
50. (1) FUELS MANAGEMENT.
(2) FIRE SCIENCE.
(3) FLIGHT ENGINEERING.
(4) FOOD & NUTRITIONAL SCI.
(5) FOOD SERVICE MGT.
51. (1) FUELS MANAGEMENT.
(2) HEALTH CARE MANAGEMENT.
(3) HEALTH SCIENCES.
(4) HEATING, A/C, & REFRIG.
(5) HISTOLOGICAL TECH.
52. (1) INDUSTRIAL SECURITY.
(2) INSTRUCTOR IN TECHNOLOGY.
(3) INTEL & IMAGERY ANALYSIS.
(4) INTERPRETING & TRANSLATING.

- (5) LODGING MANAGEMENT.
- 53. (1) LOGISTIC MANAGEMENT.
(2) MAINTENANCE PROD. MGT.
(3) MEDICAL LABORATORY.
(4) METALS TECH.
(5) MISSILE MAINTENANCE TECH.
- 54. (1) MUNITIONS SYSTEMS TECH.
(2) MUSIC.
(3) NUCLEAR MEDICINE TECH.
(4) OPTOMETRIC TECH.
(5) PARALEGAL.
- 55. (1) PHARMACY TECH.
(2) PHYSICAL THERAPIST ASSISTANT.
(3) PRINTING TECH.
(4) PUBLIC AFFAIRS.
(5) RADIOLOGIC TECH.
- 56. (1) RECREATION MANAGEMENT.
(2) RESOURCE MANAGEMENT.
(3) SAFETY TECH.
(4) SOCIAL SERVICE TECH.
(5) SURGICAL SERVICES.
- 57. (1) SURVEYING TECH.
(2) SURVIVAL AND RESCUE OPERATIONS.
(3) WEATHER TECH.
(4) PROGRAM'S NOT LISTED.

APPENDIX 4

Written Mission Sources

Following is a verbatim listing of CCAF's mission and goals from the four primary sources identified in the literature in order of legal and regulatory precedence:

1. Public Law 94-361 Sec.602, Chapter 901 of Title 10, United States Code, S 9315 (signed 14 July 1976 by President Ford) Community College of the Air Force: associate degrees

(a) There is in the Air Force a Community College of the Air Force. Such college, in cooperation with civilian colleges and universities, shall--

(1) prescribe programs of higher education for enlisted members of the armed forces designed to improve the technical, managerial, and related skills of such members and to prepare such members for military jobs which require the utilization of such skills; and

(2) monitor on a continuing basis the progress of members pursuing such programs.

(b) Subject to subsection (c) The commander of the Air Training Command of the Air Force may confer an academic degree at the level of associate upon any enlisted member who has completed the program prescribed by the Community College of the Air Force.

(c) No degree may be conferred upon any enlisted member under this section unless (1) the Community College of the Air Force certifies to the commander of the Air Training Command that such member has satisfied all the requirements prescribed for such degree, and (2) the Commissioner of Education of the Department of Health, Education, and Welfare determines that the standards for the award of academic degrees in agencies of the United State have been met.

2. AFR 53-29 Community College of the Air Force

Mission and Goals:

Mission of the CCAF. The mission is to offer Air Force enlisted personnel educational opportunities that provide increased occupational competency; personal recognition within the Air Force, as evidenced by promotions and increased responsibilities; and recognition by society of those educational accomplishments represented by the associate degree.

Goals of the CCAF. They are to:

Assist noncommissioned officers (NCO) to improve their leadership role within the increasingly sophisticated and complex technology of the Air Force.

Integrate military instruction and voluntary education of airmen into consistent, meaningful career-relevant patterns of growth.

Have Air Force instruction recognized for its full value by those organizations which set standards for individual qualifications and institutional excellence.

Improve the educational and career-related incentives for recruitment and retention of high-quality Air Force personnel.

3. ATCR 23-26 Community College of the Air Force

Mission:

a. Integrate the on- and off-duty education of Air Force enlisted personnel into consistent, meaningful patterns of career progression.

b. Shape career education patterns which result in the acquisition of certificates, licences, degrees, and other recognitions.

c. Document progress of airmen toward career goals.

d. Provide a permanent, accredited institutional context in which career education patterns may be shaped and documented.

e. Develop educational and career related incentives for recruitment and retention of quality Air Force personnel.

4. CCAF Catalog 1989-90, page 1

PURPOSE

The primary purpose of the Community College of the Air Force is to provide degree programs that enhance Air Force skills of enlisted members and prepare them for increased technological, managerial, and leadership responsibilities. The secondary purpose of the college is to enhance the Air Force and civilian recognition of educational accomplishments by individuals through the Community College of the Air Force.

GOALS

Provide high-quality associate degree programs current and relevant to Air Force requirements.

Ensure a career-relevant degree program is available to every Air Force enlisted person.

Provide career-relevant incentives to recruit and retain high-quality Air Force enlisted personnel.

Facilitate the recognition of Air Force education and training for its full value by accrediting agencies, civilian institutions of higher education, and industry.

Facilitate enlisted members' efforts to meet professional and personal education objectives.

Under CCAF's philosophy and purpose and in pursuit of its institutional goals, CCAF degree programs provide incentives and opportunities for enlisted personnel to perform as effective supervisors and sustain personal

growth and well-being in a rapidly changing technological society. Thus, through educational opportunities, CCAF students are able to realize their maximum potential.