

## CHAPTER 7

### ICAF AND THE NATIONAL DEFENSE UNIVERSITY IN THE POST-COLD WAR AGE, 1974 - 1994

Throughout the early 1970s, post-Vietnam military expenditures continued to decline. Meanwhile, the country endured a major oil crisis in 1973 (that year's December was the 'Christmas without lights') and struggled with so-called economic 'stagflation' in 1974. In that same year, a discredited President Nixon resigned from office, and a continuing public cynicism toward government fueled yet further decreases in defense expenditures. Within the Department of Defense, the search for economies extended throughout the national security establishment to include its educational institutions, where calls for some form of money-saving consolidations soon surfaced.

#### THE CREATION OF NATIONAL DEFENSE UNIVERSITY

Moves to consolidate the Industrial College with other institutions into some sort of university structure pre-dated this period by nearly 30 years. In June 1944, the Baxter Board had proposed a national university of three colleges -- a State Department College, a Joint War College, and a Joint Industrial College (Scammell, 1946, p. 250). The Gerow Board, in December 1945, similarly proposed a National Security University which would consist of five colleges (Masland, 1957, p. 135). Ten years later, the Baxter Board, while arguing that ICAF and National War College should remain as separate entities, urged that the two institutions continue their efforts to collaborate (Baxter, 1955). Then, in 1959, the Secretary of Defense suggested that the National War College, the Industrial College, and the Armed Forces Staff College be combined in a university structure, although the Joint Chiefs of Staff successfully argued against any consolidation (Bauer, 1983, p. VII-2).

#### Consolidation Pressures

By 1973, interest in some form of consolidation was resurrected as part of post-Vietnam cuts in the defense budget and Congressional scrutiny of defense spending in general. In April of that year, subcommittee members from the House Armed Services Committee visited both National War College (NWC) and the Industrial College. Soon thereafter the Joint Chiefs of Staff embarked on a study aimed at somehow joining the two Colleges. Both institutions initially opposed any form of consolidation. On September 10, 1974, NWC Commandant, Vice Admiral Bayne charged that the Joint Staff plan "does not make a compelling case for consolidation either on financial or

educational grounds" (cited in Bauer, 1983, p. VII-3). That same day, General Woolwine, the ICAF Commandant, also wrote to the Joint Staff, arguing that the proposed consolidation "appears to be based on economics with little regard for the quality of the graduate" and pointing out the need to preserve ICAF's unique role, noting that "...of the five Senior Service Schools, only ICAF concentrates on management of resources" (Woolwine, 1974, p. 1).

### Clements Committee

By now, however, the forces for some form of consolidation, had become almost overpowering. In response to inquiries from both Congress and senior officials within the defense establishment itself, the Department of Defense in 1974 established a Committee on Excellence in Education to examine consolidation and other issues involving senior military education. The Committee, chaired by Deputy Secretary of Defense William Clements, became widely known as the Clements Committee. It consisted of the three Service Secretaries and the Assistant Secretary of Defense for Manpower and Reserve Affairs.

On June 5, 1975, the Clements Committee issued a memorandum outlining its findings. On the issue of consolidation, it concluded that the National War College and Industrial College "should continue to be colleges in their own right, but should be brought together in the form of a University of National Defense as soon as possible" (Clements, 1975, p. 18). The Committee tasked the Chairman of the Joint Chiefs of Staff to develop a consolidation plan by December 12, 1975.

In addition to the directed consolidation, the Clements Committee issued a number of other important findings which had direct implications for the Industrial College as well as the other senior military colleges. Among its conclusions:

1. The senior colleges' curricula should be restructured in the following manner: one third devoted to a common core curriculum similar at each institution; one third devoted to each institution's particular mission field (Army War College - land warfare, Navy War College - naval warfare, Air War College - aerospace warfare, Industrial College - defense management and materiel acquisition, and National War College - national security policy formulation); and one third devoted to a tailored electives program (pp. 3-6).
2. Field trips, particularly those involving all or large numbers of students, were judged as not providing sufficient educational return to provide continued funding. With the exception of foreign policy related field studies at the National War College, each of the senior colleges was directed to dramatically curtail its field studies, limiting them to individual students or small research teams (p. 14)

3. Cooperative degree programs (such as ICAF's George Washington University program) were questioned on the notion that they competed for students' time and attention, as well as on the basis of their overall propriety (p. 16).

4. In the long run, all five senior colleges should be brought together into a system...at least somewhat analogous in their relationship to that of individual colleges within a state university system (p.17)

This last provision, calling for some form of long-term consolidation of all the military war colleges, was resisted by the Services and never put fully into practice. The amalgamation of the National War College and Industrial College into a University structure, however, proceeded almost immediately.

### National Defense University

On July 29, 1975, the Commandant of the National War College, Vice Admiral Bayne, was designated as the President of National Defense University (NDU) by the Secretary of Defense with the approval of President Gerald Ford. One week later, on August 6, the Chairman of the Joint Chiefs of Staff directed Bayne to prepare a plan for joining the two colleges in a new university structure and to draft a charter for the new institution (Bauer, VII-8).

In an apparent endeavor to address the Clements Committee's desire to forge some consolidation across all the senior colleges, the new NDU President was also designated Permanent Chairman of the Military Education Coordinating Committee (MECC) which included the heads of the five Colleges. The MECC, however, was given no directive authority (U.S. House, 1989, p. 193).

One other military educational institution, the Defense Systems Management School (later renamed Defense Systems Management College) at Fort Belvoir was not specifically included in any of these consolidation moves. Although Clements favored incorporating it in the NDU structure, he never forced the issue (Bauer, 1983, VII-10).

The Clements Committee approved the plans for the new National Defense University on January 16, 1976 and designated that date as its official establishment. In acknowledging his hopes that considerable added value would come from this move, Clements cautioned that "we cannot allow the final result to be merely the addition of another administrative layer on top of ICAF and NWC" (cited in Bauer, 1983, VII-10).

### A New ICAF Mission

Major General Antonelli, U.S. Army, Commandant of the Industrial College since July 1975, continued to preside over ICAF throughout this period of transition.

With the formation of the National Defense University, an NDU charter was issued by the Joint Chiefs of Staff in 1976 which also included a new mission statement for the Industrial College. Designating ICAF as "the only senior Service College in the military educational system dedicated to the study of management of resources for national security," it re-stated the College's mission in largely traditional terms:

To conduct senior level courses of study and associated research in the management of resources in the interest of national security in order to enhance the preparation of selected senior military officers and senior career civilian officials for positions of high trust in the Federal government. (National, 1978, p. A-1)

While research had long been part of the implied mission of the College, this was the first time it had been explicitly included in the institution's mission statement. Ironically, apart from student studies, most non-student research was eventually consolidated in groups located outside ICAF and placed under the National Defense University.

#### ICAF's DEVELOPMENT AS PART OF NDU

Lieutenant General Robert Gard, U.S. Army, assumed command of the new National Defense University on February 1, 1977, following Vice Admiral Bayne's retirement in January. Gard forwarded the University's first report to the Joint Chiefs of Staff in 1978 (National Defense, 1978). In it, he outlined his assessment of the advantages which had accrued from organizing the National War College and ICAF into a university structure. The new configuration, he argued, allowed economies by consolidating the separate support functions and libraries of the two Colleges. He said the consolidation would also permit "substantial increases in the student bodies of the colleges simultaneously with a small reduction in supporting staff" (p.1). More importantly, however, Gard argued that students from the two Colleges would benefit from joint lectures, joint exercises, and access to the electives courses of both institutions. Moreover, he said he envisioned employing the expertise of the faculties of the Colleges to best advantage in *all* University programs. One other challenge which Gard told the Joint Staff he intended to address would involve "restructuring our programs, and particularly our teaching methodologies, to overcome the tendency to replicate traditional academic courses designed for graduate students in civilian institutions" (p. 2).

The University President and his staff set up offices in ICAF's Eisenhower Hall.

The presence of the new University staff in Eisenhower Hall, was however, only one visible manifestation of the new organization's effect on the Industrial College. The institution would also change in a number of more substantive ways under this new structure.

### Mission

The first annual report of the National Defense University to the Joint Chiefs of Staff observed that the new ICAF mission, which was included in the 1976 NDU Charter, "reaffirmed in substance the College's existing mission" (National, 1978, p. A-1). The new ICAF mission also updated a list of major subject areas for which the College was responsible:

1. human and material resources, both domestic and international.
2. the American economy and its management.
3. comparative economic capabilities and potential of other nations and regions.
4. management of the DOD, particularly acquisition and distribution of material.
5. emergency and industrial preparedness and mobilization potential.

While most of these areas were familiar topics for the College, the NDU report indicated that a switch to more active student learning methodologies and increased curriculum emphasis on defense industries would likely involve a transition effort spanning several years.

The 1976 mission statement continued to guide the College without formal revision throughout the 1980s. Any changes in direction were transmitted to the College only in the form of recommendations for increased emphasis on some particular topic. In 1979, for instance, the College acknowledged receipt of a "JCS recommendation for increased attention to mobilization planning and coalition warfare" (National, 1979, p. A-3). Mobilization, in fact, became an important focus of ICAF's mission throughout much of the 1980s. As then NDU President Lieutenant General Pustay, USAF, reported to the Joint Staff in 1982, "ICAF is increasingly recognized as a center of excellence in mobilization preparedness and deployment planning" (National, 1982, p. 3). Many of the College's courses, he said, "have been refocused to give primary emphasis to mobilization" (p. 3).

### External Programs

Many of the external educational programs begun at ICAF following World War II continued after the creation of National Defense University, although most were moved out of the College and brought under the purview of the University staff.

The Correspondence Course continued well after the creation of NDU, although responsibility was transferred to the University on January 1, 1977, and the course was renamed National Security Management (National, 1978, p. A-9).

ICAF's Seminar Program which had been conducted in various cities around the country also continued for a time, but it too was transferred to the University on March 1, 1976 and eventually was replaced with a Reserve Component National Security Course (RCNSC) offered to reserve officers for two weeks in only a few locations each year (National, 1978, p. A-9).

Notwithstanding the criticism of external degree programs by the Clements Committee, the Industrial College maintained its affiliation with George Washington University throughout most of this period. From the later 1970s onward, typically 25 to 30 students participated in the Master's degree program (National, 1978, p. A-8)

### Curriculum

The ICAF curriculum provided coverage of the various subject areas outlined in the 1976 charter through most of the 1980s. While curricular organization, packaging, and emphases changed periodically, overall topical coverage actually remained relatively stable. The breadth of this topical coverage, however, occasionally surfaced as an issue.

General Gard, in his 1981 report to the Joint Staff alluded to this area as one problem which long plagued the modern ICAF curriculum -- "the inclination to cover too much material" (National, 1981, p. iii). The tendency to replicate graduate school survey courses, he argued, too often sacrificed depth in favor of breadth.

International field studies, which had been the subject of some controversy earlier in the College's history under General Schomberg, also resurfaced as an issue at the same time the National Defense University was created. Bowing to criticism by the Clements Committee, ICAF eliminated its traditional overseas field studies program in academic year 1975-1976 (National, 1978, p. A-2). Over the next several years, international travel was partially restored, limited both geographically and in the numbers of students involved. That situation continued until academic year 1981 - 1982, when NDU President Lieutenant General Pustay, USAF, announced to the Joint Chiefs of Staff that "the reinstatement of the ICAF international field trips added a significant dimension to their field study program and research efforts" (Annual, 1982, p. 9). The domestic and international field studies programs continue to the present day.

The electives program at the College grew considerably throughout this period with upwards of 20 courses offered each semester. In keeping with the new University concept, courses offered by both National War College and ICAF were opened to both student bodies, although as then Commandant Major General Antonelli observed in 1978, "fewer NWC students took ICAF courses" (National, 1978, p. A-7). Interestingly, in the judgement of at least one NDU President, General Gard, "students generally have found the electives more valuable than the core program" (National, 1981, p. iii).

Throughout this period, students periodically were also offered the option of conducting a major research project in lieu of taking some number of electives courses. Periodically, however, a major research project became a mandatory requirement for all students. Policies prescribing mandatory or optional research have shifted back and forth at least a half dozen times in the College's history.

Finally, the hoped for benefit of increased joint lectures between the two senior colleges in the new NDU structure at Fort McNair never fully materialized. A joint Distinguished Lecture Program put in place throughout the 1980s indeed continues to the present in bringing the Chairman of the Joint Chiefs of Staff and the military four-star service chiefs before the combined audiences of the National War College and ICAF. The relatively large number of joint lectures which the two Colleges shared in the years following World War II, however, has never been duplicated in modern times.

### Leadership

One of the most significant issues concerning leadership at the Industrial College early in this period involved the frequent turnover of Commandants. In the first six years of ICAF's existence under the National Defense University, the College was presided over by eight different Commandants. NDU President, General Gard, in his final report to the Joint Chiefs of Staff prior to retiring from active duty, admitted, in a phrase rarely used in the American military culture, "I failed to accomplish my objective to improve the resident academic programs of the two component colleges" (National, 1981, p.ii). The primary cause for this failure, he said, was the lack of stability in the position of the college commandants:

...each new commandant conducts a complete review of the academic program, resulting inevitably not only in interruption of the evolution set in motion by his predecessor but also in varying amounts of change and redirection. The faculty is continuously diverted from its principal responsibility to prepare for and conduct the academic program. The unique nature of professional educational institutions requires a greater degree of stability in leadership positions than more standard military organizations. (p. ii)

Since that time, the length of tenure among ICAF Commandants improved only

somewhat. In the 10 year period from 1984 to 1994, five Commandants headed the institution.

Also symptomatic of the creation of NDU with its President at the three-star rank, the position of the ICAF Commandant became a two-star billet in the 1970s and has remained so since that time. Moreover, the practice of past ICAF Commandants communicating directly with the Chairman of the Joint Chiefs of Staff, and occasionally with the President of the United States, has ended.

### Faculty

The second NDU President, General Gard, repeatedly voiced his expectation to the Joint Chiefs of Staff that the new University structure would enable "better utilization of the faculties for the benefit of all students" (National, 1979, p. v). By the last year of his tenure, however, he bemoaned the fact that "excessive administrative requirements interfere with the ability of the faculties to concentrate on their primary academic duties" (National, 1981, p. iii). Moreover, the use of faculties across college boundaries has been extremely limited. One NDU President, Vice Admiral James Baldwin, U.S. Navy, tried to renew this initiative in 1990, but only a few Professors of Economics from ICAF taught some course material at the National War College for a few years. Today, both senior Colleges at Fort McNair maintain separate cadres of professors in common disciplines such as political science and military strategy.

### Students

Student enrollment in ICAF's resident course numbered 199 during the first year NDU was in existence. In subsequent years, and for most of the decade of the 1980s, enrollment stabilized at just under 220 students per year (National, 1978). In the past decade and a half, the class composition has included more civilians, women, and members of various minority groups than at any other time in the College's history.

Beginning in academic year 1984 - 1985, international military students were invited to the National Defense University as part of a new International Fellows program (Gest, 1990, p. 217). International students have participated in ICAF classes every year since.

### New NDU Facility

In 1991, the National Defense University moved out of Eisenhower Hall and into a new facility constructed at Fort McNair. Dedicated by President George Bush as Marshall Hall, the structure was named after General George C. Marshall, Army Chief of Staff during World War II and later Secretary of State. The new building houses the

NDU staff, the research arm of the University and the Information Resources Management College, and a large library which contains the archives of the Industrial College.

## JOINT SERVICE CULTURE AND EDUCATION

In addition to becoming part of the National Defense University, one other major development has defined this most recent period in the history of the Industrial College. This was a major shift throughout the defense establishment and its educational institutions, beginning in the mid-1980s, toward a new culture of reform and joint cooperation across the military services.

A series of events in the late 1970s and early 1980s gave impetus to a growing number of critics who called for major reforms in the U.S. military and the inability of its individual services to work 'jointly' with one another as an effective, integrated combat team. Iran's seizure and detainment of American hostages in 1979 and a subsequent failed attempt to rescue them embarrassed the nation as well as its armed forces. A series of headline-making defense procurement scandals also caught the public eye in this period. Then in 1982, General David Jones, Chairman of the Joint Chiefs of Staff, charged that the senior military hierarchy system was not functioning well and that in trying to reconcile the individual Services' interests into a meaningful joint position, the Chairman had no real authority. While the House held hearings on Jones' charges, legislation to revamp the Joint Chiefs of Staff system died in the Senate. A year later, however, in October 1983, the American military suffered a tragic loss when a truck bomb exploded at the U.S. Marine Barracks in Beirut, Lebanon, killing nearly 250 Marines and wounding hundreds. A subsequent investigation cited an ambiguous chain of command among the factors surrounding this terrible event. That same month, as U.S. forces helped evacuate American citizens in Grenada, an otherwise successful operation was marred by revelations over failed communications between American forces of the various military services.

### Goldwater-Nichols Defense Reorganization Act

In January 1985, Senators Barry Goldwater and Sam Nunn initiated a study of defense reform and perceived weaknesses in the Joint Chiefs of Staff organization. Congressman Bill Nichols of Arkansas initiated a similar study in the House of Representatives. Ultimately, these legislators joined forces in passing what has since been regarded as a hallmark piece of legislation in modern American military history -- the Goldwater-Nichols Defense Reorganization Act, enacted into law in October 1986 (Locker, 1996).

The Goldwater-Nichols Act created a number of major changes in the structure and operation of the nation's military establishment. It may well be the single most influential piece of defense reform legislation since the creation of the Department of Defense in 1947. It designated the Chairman of the Joint Chiefs of Staff as the principal military adviser to the President, the National Security Council, and the Secretary of Defense. Heretofore, the Joint Chiefs of Staff acted in this advisory capacity as a corporate body. The act also created a powerful new Vice Chairman of the Joint Chiefs of Staff, expanded the size of the Joint Staff, and placed the staff directly under the control of the Chairman. The law also strengthened the authority of senior joint commanders, giving them the ability to direct all subordinate commands in their areas of military operations (Locker, 1996).

The Goldwater-Nichols Act also created the basis for change in the field of joint education. In assigning new responsibilities to the Chairman of the Joint Chiefs of Staff, the law specified that the Chairman was to craft new policies for educating and training the armed forces, particularly with regard to joint matters and to support the creation of a new cadre of joint specialist officers. It directed the Chairman to form a committee to review senior military education. Not surprisingly, National Defense University and its joint colleges had already involved themselves in this area. As the NDU President, Lieutenant General Pustay, USAF, reported to the Joint Staff in 1982, both National War College and ICAF were placing "increased emphasis on joint and combined military operations" (National, 1982, p. 4).

### Dougherty Board

In response to the educational provision of the law, the Chairman chartered a Senior Military Schools Review Board under the auspices of General Russell Dougherty, USAF (Retired), the former Commander in Chief of the Strategic Air Command. The group, which became known as the Dougherty Board, consisted of three other retired general and flag officers, to include Vice Admiral Bayne, who had been the first President of the National Defense University.

The Dougherty Board issued its report on May 7, 1987, outlining a number of recommendations "for improving the quality of education in joint matters" (Dougherty, 1987, p. ii). The Board noted that many in Congress perceived the Services to be "parochial" in their outlooks, and the military education systems to consist largely of "gentlemen's schools." This perception, it argued, "is not without basis, but it is not entirely correct" (p. v). Thus, the Board recommended that the Chairman of the Joint Chiefs of Staff establish standards for joint education that would occupy 25% of the curricula at all the intermediate and senior military colleges in the defense establishment. On the basis of those standards, it argued that the various colleges

should then be "accredited" using audits to insure compliance. While it recommended the President of the National Defense University as the reviewing authority for conferring joint accreditation, it also recommended creating a primary force for monitoring joint education within the Joint Staff. That authority subsequently went to the J-7 division of the Joint Staff, not to the President of NDU.

Noting further that the Goldwater-Nichols legislation had defined joint matters in a somewhat limited sense, primarily embracing joint warfare and operations, the Dougherty Board recommended a more expansive definition to include the "mobilization of forces/resources, joint logistics, communications, and intelligence, and the joint aspects of the planning, programming and budgeting process" (p. v). This provision was a clear reference to including the kinds of joint matters traditionally within the province of the Industrial College. In fact, the Board explicitly stressed the importance of "preserving the basic missions" of each of the military colleges, noting the following about the Industrial College in particular:

The focus of the Industrial College of the Armed Forces on mobilization and defense resource management is as clearly a requirement for PME [professional military education] today as it was when the college was established. To require the ICAF to alter its focus would be to deprive the PME system and the DOD of its one senior level inquiry into industrial mobilization and resource management. In fact, the Goldwater-Nichols Act calls for increased attention to defense resource management. (p. 8)

While the Dougherty Board's deliberations were still underway, yet another review was commissioned to investigate senior military education.

### Rostow-Endicott Report

On February 13, 1986, The Under Secretary of Defense for Policy, Fred Ikle, asked Eugene V. Rostow, then a Distinguished Visiting Professor at National Defense University, to "assess the teaching of strategy and foreign policy at the senior war colleges (Rostow, 1987, p. 3). Rostow formerly headed the Yale Law School and had served as director of the Arms Control and Disarmament Agency. Enlisting the assistance of Dr. John Endicott, Director of the Institute for National Strategic Studies at National Defense University, Rostow embarked upon an expansive study that lasted some 17 months.

The Rostow-Endicott Report was issued on June 11, 1987, just one month after publication of the Dougherty Board's report. In general, it praised the senior colleges, concluding that "senior war colleges of genuine intellectual distinction are extremely important to the formation of flag officers, career ambassadors, and other senior officers, military and civilian" (p. 3). At the same time, while it judged that instruction

ranged from "adequate to outstanding," it noted military education "is everywhere being vigorously reconsidered and reformed" (p. 4). It charged further, however, that "the Department of Defense, the Joint Chiefs of Staff, and the military services are not taking the senior war colleges seriously enough as resources of primary significance to the national security." To fully remedy the situation, Rostow and Endicott argued, would require "increases in faculty size and certain other increases in costs" (p. 4).

Rostow and Endicott pointed out a number of problems within the senior military colleges. While not singling out the Industrial College by name, they pointedly charged that the shortcomings they described were present "at all the colleges except the Naval War College, and to a lesser extent, the National War College" (p. 7).

Among the problems they outlined:

1. Turnover in leadership. Noting that neither quality education nor a quality faculty can thrive in the absence of leadership, they cited "far too much turnover" among the President of NDU and the commandants of the various colleges. In an unmistakable reference to ICAF, their report observed that "one school has had six commandants in seven years" (p. 7).

2. Faculty development. Citing inadequate faculty development, Rostow and Endicott argued that deliberate steps needed to be taken "to assure the development of war college faculties as professional bodies which have collegial functions, a collegial identity, and collegial pride" (p. 6). Noting that "we looked in vain for such a living concept in our senior service schools," they found instead "enthusiasm amidst turmoil" (p. 26). Citing faculty turnover which sometimes exceeded 40% a year, they argued for far greater stability along with semesters off for faculty to conduct meaningful research and occasionally participate in short rotational assignments at the Pentagon.

3. Curricula. Rostow and Endicott also charged that the senior colleges required too many classroom contact hours and had become pre-occupied with 'covering' a wide variety of subjects rather than studying them in depth. Noting too that "student writing is the ultimate educational tool," they argued for requiring a series of shorter student papers in lieu of a long research paper. On the controversial matter of grades, they argued that "grading should not be modelled on that in the service academies," where it has a far different purpose, but rather should be a private and "normal aspect of the evaluation and feedback procedures of the services" (p. 8).

Rostow and Endicott concluded that the senior military colleges should be viewed as "critically important parts of the central nervous system of the military

establishment, institutions whose contribution to the intellectual development of senior officers could make the difference between success and failure for our national security policy" (p. 20). Citing Admiral Nimitz' remark that the naval war in the Pacific after Pearl Harbor was won in the war gaming studies at the Naval War College in the 1930s, and the Duke of Wellington's pronouncement that the Battle of Waterloo was won on the playing fields of Eton, they argued that "the future of our military and politico-military policy will be decisively influenced by the educational programs of our senior war colleges" (p. 20).

### Skelton Panel

By now, the study of senior joint education within the defense establishment had become a virtual cottage industry. On November 13, 1987, less than 6 months after the issuance of the Dougherty Report and the Rostow-Endicott Report, Congressman Les Aspin, Chairman of the House Armed Services Committee, asked Congressman Ike Skelton to Chair a Professional Military Education Panel to "review the Department of Defense plans for implementing the joint professional military education requirements of the Goldwater-Nichols Act" (U.S. House, 1989, p. v).

Over the course of some 18 months, the Skelton Panel heard testimony from a wide variety of senior military and civilian leaders and educators. Among those providing testimony was the then Commandant of the Industrial College, Major General Albin Wheeler, who appeared before the Panel on May 24, 1988 (Gest, 1990, p. 239)

The Skelton Panel issued its findings on April 21, 1989. While it basically concluded that "the DOD military education system is sound," the panel insisted that "significant improvements can and should be made" (U.S. House, 1989, p. 2). It argued for more specific joint educational objectives at the intermediate and senior levels with a greater focus on national military strategy within the senior colleges. It also called for more emphasis on active learning methodologies (discussion seminars) as opposed to passive learning modes (guest lectures) and more rigorous evaluations of student performance (graded essay examinations).

### Long Committee

During the course of its deliberations, the Skelton Panel heard testimony from then Chairman of the Joint Chiefs of Staff, Admiral William Crowe, Jr. Crowe, in his testimony, mentioned an idea about establishing a National Center for Strategic Studies as a think tank and educational center for national security strategy. As it became clear that the Skelton Panel would endorse this idea, Admiral Crowe asked Admiral Robert L. J. Long, U.S. Navy (Retired) on March 24, 1989 to form a committee to explore the desirability and feasibility of creating such an organization. In response,

Long convened what was formally called the National Defense University Transition Planning Committee. The group submitted its report on August 25, 1989 (Long, 1989, p. 1).

Admiral Long was assisted by two vice-chairmen, Dr. Graham Allison of Harvard University and Dr. Jacques Gansler, Senior Vice President of The Analytical Sciences Corporation and an adjunct professor at Harvard University, along with nine other military and civilian members. In their final report, the group called for creating a University of National Strategy to replace National Defense University and "to serve as a source of both original thought and education on national security strategy" (p. 4). In retrospect, the group's recommendations seem more symbolic than substantive. The proposed new University name was possibly in deference to the Skelton Panel's desire to place "national security strategy" at top of the professional military education hierarchy. Moreover, the three primary components proposed for the new University were the existing National War College and Industrial College along with a new National Center for Strategic Studies which would likely have been created out of two research centers already in being at NDU. In later years, these two centers were, in fact, eventually replaced by an Institute for National Strategic Studies.

The Long Committee also made a number of specific recommendations about senior military education in general and the Industrial College in particular. The group concluded that "ICAF should be retained as a unique senior-level college dedicated to the study of the resource component of national power and its integration into national security strategy" (p. 12). The Committee suggested that ICAF's general focus on national security resources should be "supplemented by major programs in acquisition, mobilization, joint logistics, and general resource studies" (p. 12). The group envisioned these four areas being available to students as majors or "tracks," noting that over the years "the ICAF program has continued to grow in breadth at the expense of depth" (pp. 70-71).

The Committee also recommended improving the length of tenure of ICAF Commandants, hiring more faculty, and improving opportunities for faculty development and research. Noting too some parallel interests with the Defense Systems Management College (DSMC), the group recommended a series of improvements at DSMC and eventually a long-term re-examination of the advisability of placing it and ICAF under a single organization (pp. 12-13).

The Long Committee's report was submitted to Admiral Crowe, who had commissioned the study, on August 25, 1989. Later that year, however, Crowe retired and was replaced by General Colin Powell, the first African-American officer to serve as Chairman of the Joint Chiefs of Staff. The Long Committee's recommendations were never formally adopted.

## THE INDUSTRIAL COLLEGE IN THE 1990s

As the Industrial College entered the decade of the 1990s, the world and the United States role in international affairs was changing significantly. Following the build-up of American military forces under President Reagan in the mid 1980s, the Berlin wall was torn down in 1989 and the Soviet Union was subsequently dismantled. For the national security community and the Industrial College, the Cold War was a thing of the past, and the institution, along with the rest of the country, would begin to define itself in several new ways.

### Rigor

When Gest (1990) completed his study of curriculum development at the Industrial College in 1990, he concluded that the institution's long quest for more scholarly rigor "has been largely unachieved" (p. 270). Moreover, he argued that academic rigor would likely remain illusive in the absence of such elements as examinations, graduate-level readings, exacting evaluation standards, class rankings, and an honors program (p. 288).

Shortly after Gest's study, many of those features were indeed put into place. By December 1989, a new Commandant, Major General David Goodrich, U.S. Air Force, clearly cognizant of the findings of the Skelton Panel, ordered a major restructuring of the curriculum at the College. He directed the faculty to base the new program on the use of graduate level textbooks, increased written essays, an evaluation system which would identify the upper 10 % and upper 25% of the students, and a recognition of distinguished graduates (Goodrich, 1989). Although Goodrich retired from active duty in the summer of 1991, many of these apparent trappings of rigor were put into place and remain fixtures of the College to the present day. Their existence was confirmed by an audit of the General Accounting Office in 1992.

### U.S. General Accounting Office

By 1992, Congressman Skelton initiated a series of follow-up assessments to ascertain the extent of improvements the Department of Defense had undertaken to improve professional military education. As part of those inquiries, the General Accounting Office (GAO), at Skelton's behest, reviewed progress in improving joint education at the Industrial College. In its report (U.S. General, 1992), the GAO concluded that ICAF had fully or partially implemented all 41 of the recommendations of the Skelton Panel which pertained to it. Among its findings:

1. While not employing letter grades, the College had a multi-category evaluation system which discriminated student performance and "can be equated to Honors, A, B, and C" (p.44).
2. The College's "distinguished graduate program was formally initiated during academic year 1989-1990" (p. 45).
3. An extensive program of student writing and required papers were "equivalent to take-home examinations" (p. 12).
4. The College "has established a curriculum that focuses on joint matters" (p. 26).

### Joint Accreditation

In the aftermath of the Goldwater-Nichols Defense Reorganization Act and the Skelton panel, the Chairman of the Joint Chiefs of Staff, in May 1990, issued a Military Education Policy Document (MEPD), outlining policies and requirements for improved joint education. Among other things, the MEPD prescribed an audit system -- known officially as the Program for Accreditation for Joint Education (PAJE) -- whereby the major educational institutions would be periodically "accredited" to continue providing a quality joint education.

In 1992, then Commandant of the Industrial College, Rear Admiral Smith, U.S. Navy, became concerned that the College's traditional requirements for education related to resources management and the competing demands of prescribed requirements for joint education (joint warfare, joint campaign planning, etc.) might be creating an untenable situation for the institution. Following a preliminary PAJE visit in April 1993 which indeed confirmed a "mismatch" (National, 1993, p. 1), the NDU President met with the Chairman of the Joint Chiefs of Staff on July 2 to discuss the matter. Subsequent to that meeting, ICAF and the Joint Staff worked together to integrate the requirements for joint education and ICAF's primary resource mission, and the College successfully earned its joint military accreditation in 1994.

### Master's Degrees and Civilian Accreditation

In the fall of 1993 Congress enacted into law the fiscal year 1994 Defense Authorization Bill. In addition to its normal function of providing funding for military programs, operations, and personnel, the legislation also contained a key provision which would affect the educational program at the Industrial College. The law authorized the two senior colleges at National Defense University to begin awarding Master's degrees to students successfully completing these programs. With this

degree-granting authority, the Industrial College began awarding a Master's degree in National Resource Strategy, beginning with graduates of the class of 1994 -- an historic first in the year of the 70th anniversary of the institution's founding (National, 1993, p. i).

Subsequently the College, along with National War College and the National Defense University, have embarked on the roughly three year process of securing formal accreditation under the auspices of the Middle States Association.

In a related development, the class of 1994 also was the last to include ICAF students who completed Master's degrees under the cooperative program with George Washington University. Senior management at the College withdrew its support and the 34 year collaborative venture ended abruptly and unceremoniously.

### A New Mission in Acquisition

In addition to changing its focus somewhat toward that of a graduate degree-granting institution, the Industrial College also received a new mission in the 1990s -- acquisition. Actually, defense acquisition was not really a new field of interest for the College. In fact, it had been explicitly cited as one of the institution's primary fields of interest over seven decades. Even the original 1924 mission statement tasked the College to provide training in "procurement of all military supplies" (War Department, 1924). The resident curriculum has included studies in defense acquisition ever since. Interestingly, the Skelton Panel in 1989 expressed concern that perhaps not enough time was being spent on this important area (U.S. General, 1992, p. 29).

In November 1990, Congress, through the National Defense Authorization Act for fiscal year 1991, directed the establishment of a new Defense Acquisition University (DAU). Not intended as a new "brick and mortar" university, the DAU was instead structured as a consortium of existing institutions providing education and training in defense acquisition. On July 1, 1991, the Under Secretary of Defense for Acquisition selected the Industrial College to conduct a new senior course in acquisition -- the highest level such course in the Department of Defense -- on an equivalent level with that of the senior military war college programs. (U.S. General, 1992, p. 30). Beginning with a pilot offering in academic year 1992 - 1993, ICAF put in place the new Senior Acquisition Course, fully integrating its students into the regular resident ICAF program, in addition to concentrating its students' electives, writing, and some field studies in this topical area. The first regular class of the Senior Acquisition Course graduated as part of the class of 1994 -- another historic milestone in ICAF's 70th year anniversary.

The new senior acquisition mission was reflected in a slight amendment to the

College's formal mission. Beginning in 1992, the College inserted the phrase "with special emphasis on materiel acquisition" in its mission statement (National, 1993, p. 15). The new mission has brought increased student enrollment, with classes by the mid-1990s reaching an all time high of some 270 students -- the largest ever for the College. Moreover, for the first time in its history, the classes have begun to include one or two students from private industry.

Coincidentally, ICAF's new acquisition mission also brought increased funding to the College. In 1994, then Commandant, Rear Admiral Jerome Smith, directed this funding into several important channels. The salary of the Dean of Faculty and Academic Program, heretofore similar to that of any of the teaching faculty, was raised to a level commensurate with those in the Senior Executive Service of the federal government. Several new civilian faculty and support staff members were also hired. Finally, the Commandant embarked on a major new program to bring modern computers more fully into the curriculum and student learning experience. Nearly 300 notebook computers were purchased and loaned to every student and faculty member beginning in 1994. The National War College and NDU soon joined this effort, and turned the initiative into a university-wide endeavor. Meanwhile, with the increased funding to the College from Defense Acquisition University, the National Defense University has reduced its funding support to ICAF, permitting funding to its other institutions to remain fairly level through what have become increasingly tight budget times.

### Mission Statement

The official mission statement of the Industrial College, reflected in the 1976 charter issued by the Joint Chiefs of Staff in conjunction with the formation of the National Defense University, remained in effect throughout the 1980s. Late in that period, however, the College itself attempted to tailored its mission statement to reflect its ever changing environment and directions.

In 1989, then Commandant Major General Goodrich, U.S. Air Force, inserted this mission statement in the College's Strategic Plan:

The mission of the ICAF is to prepare selected military officers and civilians for senior leadership and staff positions by conducting postgraduate, executive-level courses of study and associated research dealing with the resources component of national power and its integration into national security strategy for peace and war. (Goodrich, 1989, p. 1)

The statement was subsequently adopted by the Joint Chiefs of Staff and incorporated in their Military Education Policy Document issued May 1, 1990 (Joint Chiefs, 1990, p. IV-C-1).

Then, on March 23, 1993, the Joint Chiefs issued a minor update to the mission statement, adding of a few words about acquisition and joint logistics:

The ICAF mission is to prepare selected military officers and civilians for senior leadership and staff positions by conducting postgraduate, executive-level courses of study and associated research dealing with the resource component of national power, *with special emphasis on materiel acquisition and joint logistics* [italics added] and their integration into national security strategy for peace and war. (Joint Chiefs, 1993, p. IV-C-1)

Each of these most recent statements reflected the College's continued movement toward postgraduate education and its continuing unique mission and special interests in acquisition and joint logistics.

## CONCLUSIONS

The Industrial College underwent a series of significant changes in the 20 year period between 1974 and 1994. In that time, it became part of a newly created National Defense University, re-focused its educational programs internally, and became part of a defense-wide move toward increased emphasis on joint military education. Each of these changes was directly related to the institution's evolving mission. In fact, by the end of this period, the College had acquired yet another new mission in defense acquisition and had begun the process of securing civilian academic accreditation in conjunction with its new Master's degree program.

The establishment of National Defense University in 1976 was the culmination of both near-term initiatives and other more long-standing pressures. It is clear that defense budgetary pressures in the aftermath of Vietnam and the recommendations of the Clements Committee provided the immediate impetus for creating the University. Proposals to form some kind of university structure, however, were made as early as 1945 by the Gerow Board, and were subsequently reinforced by the Baxter Board in 1955 and the Secretary of defense in 1959.

While the Industrial College maintained its distinct identity as part of National Defense University, both its mission and the focus of its activities changed under the new structure. The University took over the ICAF correspondence course and seminar programs, thus ending the College's more than 25 years in conducting external education programs and making the College's internal resident course its almost exclusive concern. The College also lost its international field studies -- part of the centerpiece of its industrial analysis program -- in the aftermath of pressures exerted by the Clements Committee. The frequent turnover among the institution's Commandants

and concomitant absence of long-tenured senior leadership in this period may have contributed to the lack of success in resuming this activity for a number of years. Not until 1982, under NDU President Pustay was this hallmark educational program finally restored.

Not long thereafter, both the Industrial College and the National Defense University became part of a defense-wide move toward enhanced joint military planning, operations, and education. Following the passage of the Goldwater-Nichols Defense Reorganization Act of 1986, a series of review boards re-defined the nature of joint military education and the roles institutions such as the Industrial College would play in it. Several of the College's major constituencies and stakeholders are illustrated by the chartering authorities which convened three of the review groups in this period: the Dougherty Board by the Joint Chiefs of Staff; the Rostow-Endicott Report by the Office of the Secretary of Defense; and the Skelton Panel by the U.S. Congress.

Finally, the College's most recent series of developments in the 1990s clearly illustrate how the institution's mission continues to evolve in new directions. The College's added new mission in conducting the Defense Department's new Senior Acquisition Course is in many ways a logical outgrowth of an historic special area of interest which dates back to the institution's original 1924 charter. Joint military accreditation and civilian academic accreditation following the inception of the College's Master's degree program, on the other hand, are products of very recent developments and their full implications are still unfolding.