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APPENDIX A
MISSION STATEMENTS
OF SENIOR AND INTERMEDIATE LEVEL
PROFESSIONAL MILITARY SCHOOLS

Note: To facilitate identification of any official assignment of responsibility for teaching joint matters, wherever the word "**JOINT**" appears in a college mission statement it is in bold face type.

ARMY WAR COLLEGE

A. Mission.

(1) Prepare officers for senior leadership positions in the Army, Defense, and related departments and agencies.

(2) Conduct independent studies and analysis.

(3) Conduct general officer continuing education programs.

(4) Physical fitness research.

(5) Operate U.S. Army Military History Institute.

(6) Operate Worldwide Military Command and Control System (WWMCCS) in support of academic programs.

B. Senior Leader Development Mission—Provide the Army and the nation senior leaders who:

(1) Understand the role of an Army officer in a democratic society;

(2) Can advise our National Command Authorities on the use of military force to achieve national objectives; and

(3) Are adept at the use of military force to achieve these objectives.

C. This senior Leader Development Mission is currently accomplished by focusing on the following major objectives for the Academic Year 1988 curriculum. Prepare future leaders to:

(1) Lead other professionals;

(2) Work in strategic environment;

(3) Serve in **JOINT** and combined commands;

(4) Direct Army and DOD management systems;

(5) Command at the operational level; and

(6) Plan/operate theater/global forces.

Source: Army Regulation 10-44 and school catalog.

ARMY COMMAND AND GENERAL STAFF COLLEGE

A. Mission.

(1) Develop leaders who will train and fight units at the tactical and operational levels.

(2) Develop combined arms doctrine and assist in its promulgation.

B. Goals.

(1) Train and educate leaders who can apply combat power at the tactical and operational levels.

(2) Develop combined arms doctrine, assist in its integration throughout the Army, and stay on the leading edge of warfighting ideas.

(3) Develop leaders competent in **JOINT** and combined operations.

(4) Develop leaders who exemplify the highest professional standard.

(5) Develop leaders who will anticipate, manage, and exploit change.

(6) Develop the full potential of all personnel within the Command and General Staff College.

Source: Command and General Staff College catalog.

NAVAL WAR COLLEGE

Mission. The mission of the Naval War College is to enhance the professional capabilities of its students to make sound decisions in both command and management positions, and to conduct research leading to the development of advanced strategic and tactical concepts for the future employment of naval forces.

Source: OPNAVINST 5450.207, May 22, 1982.

COLLEGE OF NAVAL COMMAND AND STAFF

Same mission statement as for the Naval War College.

MARINE CORPS COMMAND AND STAFF COLLEGE

Mission. To provide intermediate level professional military education for field grade officers of the Marine Corps, other services, and foreign countries; to prepare them for command and staff duties with Marine Air-Ground Task Forces with emphasis in amphibious operations and for assignments with departmental, **JOINT**, combined, and high level service organizations.

Source: MC CSC Table of Organization/USMC Formal Schools Catalog.

AIR WAR COLLEGE

A. *Mission.* The mission of the Air War College is to prepare senior military officers to develop, maintain, and lead the aerospace component of national power to deter conflict and achieve victory in the event of war.

B. In addition to the above mission statement, the college quoted the PME *objectives* of the senior-level colleges from the "Joint Professional Military Education Policy Document," a JCS document.

(1) To provide an advanced level of knowledge of the mission-specific warfare doctrine and the capabilities of the sponsoring service or organization.

(2) To provide knowledge about and to enhance individual capability to participate in the planning and employment of **JOINT** and combined forces.

(3) To provide knowledge and understanding of the mission, tasks, and resources of other branches of the armed forces and of those agencies and branches of government and industry that contribute to national security.

(4) To provide knowledge and understanding of the DOD decisionmaking and implementation process at the executive level.

(5) To teach the art and science of formulation and implementation of national security policy.

(6) To enhance leadership and management skills and to provide executive-level knowledge of the analytical techniques used in the decisionmaking and implementation process.

(7) To enhance knowledge and advanced comprehension of the national and international security environment.

(8) To provide the opportunity, through research, to develop warfighting doctrine and to offer solutions to current national security issues.

Sources: Air University catalog for mission statement and JCS document SM-189-84 for PME *objectives*.

AIR COMMAND AND STAFF COLLEGE

A. *Mission*. The mission of the Air Command and Staff College is to enhance the professional knowledge, skills, and perspectives of mid-career officers for increased leadership roles in command and staff positions.

B. In addition to the above mission statement, the college quoted the PME objectives of the intermediate-level colleges from the "Joint Professional Military Education Policy Document," a JCS document.

(1) To provide a basic understanding of **JOINT** and combined warfare.

(2) To provide a thorough understanding of command, staff, and operational procedures.

(3) To further the development of leadership, management, analytical, and communication skills.

(4) To provide an understanding of the DOD decisionmaking and implementation processes, and of DOD budget development.

(5) To provide a basic understanding of the formulation and implementation of national security policy.

(6) To provide a basic understanding of the national and international politico-military environments.

Sources: Air University catalog (AFR 53-8) for mission statement and JCS document SM-189-84 for PME *objectives*.

NATIONAL WAR COLLEGE

A. Current Official *Mission* (1976). To conduct senior level courses of study and associated research in national security policy with emphasis on its formulation and future directions in order to enhance the preparation of selected personnel of the Armed Forces, the Department of State, and other U.S. Government departments and agencies for the exercise of **JOINT** and combined high level policy, command, and staff functions in the planning and implementation of national strategy.

Source: JCS 2484/96-13, April 8, 1976, which circulated the NWC charter approved by Deputy Secretary of Defense William Clements on January 16, 1976.

B. Original *Mission* (1947).

(1) To prepare selected personnel of the armed forces and the State Department for the exercise of **JOINT** high level policy, command and staff functions, and for the performance of strategic planning duties in their respective departments.

(2) To promote the development of understanding of those agencies of government and those factors of power potential which are an essential part of a national war effort.

Source: JCS 962/38, October 13, 1947, Directive for the National War College.

INDUSTRIAL COLLEGE OF THE ARMED FORCES

A. Current Official *Mission* (1976). 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 military officers and senior career civilian officials for positions of high trust in the Federal Government.

Source: JCS 2484/96-14, April 8, 1976, which circulated the ICAF charter approved by Deputy Secretary of Defense William Clements on January 16, 1976.

B. Original *Mission* (1948). To prepare selected officers of the Armed Forces for important command, staff, and planning assignments in the National Military Establishment and to prepare selected civilians for industrial mobilization planning assignments in any government agency, by:

(1) Conducting a course of study in all phases of our national economy and interrelating the economic factors with political, military, and psychological factors.

(2) Conducting a course of study in all aspects of **JOINT** logistic planning and interrelation of this planning to **JOINT** strategic planning and to the national policy planning.

(3) Conducting a course of study of peacetime and potential wartime governmental organizations and the most effective wartime controls.

Source: JCS Staff Memorandum SM-10831, September 3, 1948.

ARMED FORCES STAFF COLLEGE

Mission. The mission of the college is to prepare selected mid-career officers for **JOINT** and combined staff duty.

Source: JCS Staff Memorandum SM-672-78, August 21, 1978.

APPENDIX B PANEL VIEWS ON EXISTING PME SCHOOLS

PURPOSE OF THIS APPENDIX

The purpose of this appendix is to present material that did not fit into the basic analysis of the panel's three areas of inquiry—strategy, jointness, and quality—as covered in the chapters of this report. To get a complete picture of any school, one would need to read those chapters. This appendix covers material that the panel believed might be useful to those concerned with professional military education. The material in the appendix is of three types: descriptions of special background and arrangements at the schools, additional details on subjects discussed in the basic report, and brief discussions of some new subjects.

The appendix first expands the Chapter I discussion of the role and focus of PME schools, then turns to panel observations on specific schools.

ROLE OF PME SCHOOLS

The Chairman of the JCS, Admiral William Crowe, testified that professional military education cannot be accomplished in civilian schools. The panel agrees. The profession of arms requires its own schools because, like all other genuine education institutions, military schools develop as well as impart knowledge about the subjects they teach. Civilian universities often teach some of the subjects that professional officers should study, but none can offer the variety of courses needed. Nor can they provide the authoritative perspective of the various services and joint schools. Nor, finally and perhaps most importantly, can they fill the role PME schools, when they fulfill their potential, perform. PME schools should systematically analyze the continual influx of new information, much of it classified, on such matters as technological changes, characteristics of weapons systems, and the capabilities of potential adversaries and integrate the results of the analyses into the body of professional military knowledge.

Beyond that, PME schools offer other advantages to the services and joint system. They perform research on military subjects and develop doctrine for employing military forces. This is particularly true at Fort Leavenworth, Maxwell Air Force Base, and Quantico. These schools produce faculty members who become genuine experts in their fields of study and later return to operating forces to apply their expertise and become mentors to officers in their units. One witness, General William Richardson, USA (Ret.), former Com-

mander of the Army Training and Doctrine Command, claims this is the principal function of PME schools.

The colleges also help the socialization process of officers who are peers in rank, age, and quality. These students will meet again as they rise to positions in their service where friendship and trust are key factors in executing difficult policy decisions. Socialization between officers of different services, whether in service schools or joint schools, helps break down barriers of tradition, language, and culture. This greater understanding of other-service perspectives also acts as a counter to parochial service stands on issues of national importance and can lead to more objective thinking about the use of joint forces to attain specific military objectives.

PME SCHOOL FOCUS

Considering the fact that the majority of officers attending school at these levels already have at least a master's degree from a civilian university, the panel believes that PME schools should concentrate on the one subject that only they can teach—the use of the military to attain specified national objectives. The schools should have sufficient guidance provided to them by their service chief or the Chairman, JCS, so that they can teach from a specific perspective on the appropriate level of war—tactical, operational, or strategic.

Many witnesses and experts criticized the overly broad nature of PME. The panel agrees. However, the panel also recognizes that there is much to cover in the few years available for PME. Officers must understand warfighting, but also need to acquire some knowledge of how their service, the joint system, and DOD function in peacetime. These are complex management systems and deserve attention. However, beyond the management systems, specific methods and techniques of management and most other subjects should be learned in-depth in civilian universities or military schools like the Naval Postgraduate School or the Air Force Institute of Technology. PME schools cannot afford to spend too much time on less relevant subjects if officers are to learn the essence of their profession.

The origin of the overextended scope of PME curricula can be traced to the mission or purpose statements of the colleges (see Appendix A). In most cases, the stated purpose of the school is not fully articulated. In some, it is outdated. In others, it is too vague to serve as a guide for curriculum development.

Although several of the mission statements provided to the panel by the colleges refer to service regulations or joint documents, those for the Army Command and General Staff Officer Course and National War College were extracted from their catalog.¹ It appears that some colleges have determined their own missions or unilaterally changed previous ones to conform to the school's view of its role in officer education.

A recurring problem is that the mission statements lack specificity about the level at which the courses should be taught. In a joint

¹ Initially, the National War College provided a mission statement similar to the one in its catalog. Later, it provided a somewhat different statement that the JCS had sent to its commandant in 1976.

school, is it through the eyes of the Chairman, JCS, and commander in chief (CINC) of a unified command or the eyes of a three-star contingency joint task force commander? In a service school, is it through the eyes of the service chief, the commander of a service component in a unified command, or the three- or four-star level uni-service commander? Or is it as a staff officer on the Joint Staff, service headquarters staff, or CINC staff?

The foci of the curricula are not well defined either. At the intermediate schools, is the focus on tactics or the operational level of war or strategy? How does this focus change at the senior level, if at all? Is the school strictly for warfighters and war-supporters, or should the curriculum be tailored for professional, scientific, and technical officers as well?

As discussed in Chapter I, existing JCS guidance on PME is too broad to be useful. Currently under revision, JCS Staff Memorandum 189-84, "Joint Professional Military Education Policy Document," dated March 23, 1984, contains a laundry list of general and specific objectives by level of school, that, in the panel's opinion, is not achievable in the months allowed for intermediate and senior education. Included in the range of general objectives are:

. . . prepare military officers to meet the demands placed on them for the conduct of war, . . . promote understanding and teamwork within and among the services, . . . promote the planning for and conduct of joint and combined operations, . . . develop leadership, management, and executive skills and competencies, . . . enhance . . . knowledge, understanding, and proficiency in . . . art and science of war, military history, leadership, management, intelligence, geography, professional ethics, mobilization, national security strategy, the DOD decisionmaking and implementation processes, budget formulation, public relations, the impact of technology on war, the DOD planning system, and the international environment.

JCS specific objectives for intermediate- and senior-level schools are similarly broad (see Appendix A, Air War College and Air Command and Staff College objectives, which quote the JCS objectives). In a 10-month course, much of this, if attempted, can only be done superficially.

The panel supports the notion that military education should broaden officers during their field grade years. The question is, How much? The panel believes the central focus of the schools should be clearly identifiable in their curriculum: force employment (warfighting) and force development. The curricula contain many subjects that are unrelated to warfighting or force development. The panel questions the inclusion of such an extremely broad range of subjects as core material at this level of education. Examples include executive skills and management, foreign policy and foreign area orientation, writing workshops, and various leadership courses. The panel does not oppose these subjects per se, but objects to the weight they have been given in several colleges' core programs. Specifically, the Air Command and Staff College, Air War College, National War College, and Armed Forces Staff College devote a significant portion of their curricula to subjects such

as these. The panel believes they require a sharper focus on war-fighting.

OBSERVATIONS ON SPECIFIC SCHOOLS

ARMY SCHOOLS

General. The Army PME system includes an intermediate school—the Army Command and General Staff College (CGSC)—at Fort Leavenworth, Kansas, and a senior school—the Army War College—at Carlisle Barracks, Pennsylvania. This *geographic separation* places the schools at a disadvantage, especially in operating costs, compared to the Air Force and Navy schools, which are both located on single installations. Among the significant advantages of locating both schools together are shared libraries, printing plants, and installation support infrastructure. Although the Air Force, even with collocated colleges, does not share faculty between its intermediate and senior levels, shared faculties would appear to be the greatest potential advantage of collocation given the competing demands for quality and expert officers.

The Army is also unique among the services in having *separate command arrangements* for its intermediate- and senior-level schools. Fort Leavenworth operates under command of the Training and Doctrine Command (TRADOC), which has broad responsibility for Army officer training and education from pre-commissioning through intermediate-level schooling and develops doctrine for employing Army forces worldwide. Significantly, the Command and General Staff College develops much of the Army's doctrine for combined arms warfare at the tactical and operational levels, integrating branch-related doctrines developed in branch schools into combined arms concepts. Because all of the branch schools and CGSC are under TRADOC, the doctrine development system has unified command. There are advantages to having a close relationship between those who develop doctrine and those who teach it, and Leavenworth has officers who do both. The doctrine developers have an opportunity to test their ideas before bright student officers from all branches in an open academic environment and the students benefit from talking with faculty who are in the forefront of developing new doctrine.

The senior PME school, the Army War College at Carlisle, however, is under the Army Chief of Staff, not TRADOC, and has not in the past had doctrinal responsibilities. Faculty at both locations indicated during discussions that educational disconnects occur in instruction at intermediate and senior levels because of the difference in command lines. In the Navy and Air Force systems, both the intermediate and senior schools respond to the service chief, not the service training commands. The nature and level of instruction and the fact that the purpose of these schools is education, not training, recommend the other services' solution.

The dilemma is that putting CGSC under the Chief of Staff obviously decreases TRADOC's control of the doctrine developers at Leavenworth and may decrease the interaction between doctrine developers and teachers. The Army dilemma is compounded because the Leavenworth college also contains the Combined Arms

and Services Staff School—a training course that all Army captains attend.

The panel believes the Army should structure its school system to best suit its needs and assure high quality in its education. The Army should review the rationale for separate geographic locations and command chains to ensure that this arrangement best satisfies the educational needs of Army officers and is worth the high cost in funds, facilities, and faculty manpower.

Command and General Staff College. The CGSC at Fort Leavenworth consists of five schools: the Command and General Staff School, the School of Advanced Military Studies, the Combined Arms and Services Staff School, the School of Corresponding Studies, and the School for Professional Development. The panel review focused on the first two schools. The first, the Command and General Staff School, teaches the Army's intermediate PME course, which is called the Command and General Staff Officer's Course (CGSOC). The panel believes the CGSOC provides a sound education for officers progressing beyond the rank of major. CGSOC's focus is on the interface between the tactical and operational levels of war and on the operational level of war. This seems appropriate. It should be noted, however, that while the operational level of war is normally considered joint, the CGSOC is not a joint school. Courses concentrate on turning separate Army branch elements into integrated combined arms forces capable of conducting land warfare with the support of air power. In teaching about the higher echelons of command, the CGSOC's perspective appears to be that of an Army corps commander or of the Army component of a unified command.

The *student body* at CGSOC is the largest of all the service and joint intermediate schools and allows more Army officers in-residence intermediate education than any other service. The Army's target is for 50 percent of its officers to receive in-residence, intermediate-level schooling, and each year that goal is reached. About 40 percent of the Army majors attend Leavenworth and another 10 percent attend other intermediate schools. Recognizing the essential nature of the Leavenworth education to Army majors and lieutenant colonels, but lacking the resources to provide it in-residence, the Army requires all majors not selected to attend in-residence to complete the course by correspondence as a prerequisite for promotion to lieutenant colonel.

The Army, however, has difficulty justifying quantitatively through a position-by-position requirements process the large number of officers it sends to CGSOC in-residence. Numbers in school are apparently driven by tradition, size of the facility, and a general impression that more is better. It is expensive to educate over 900 students every year, but the Army is reluctant to be more selective because this schooling represents more than just an opportunity for education. Selection for in-residence schooling is a quality cut for Army officers. From this group will emerge battalion commanders and attendees at senior-level schooling. The Army's concern is that narrowing selection this early would equate to pre-selection of the future leadership of the Army.

A problem at Leavenworth is the *rapid turnover of the deputy commandants* and senior leadership. The three-star commandant is

the overall Fort Leavenworth Combined Arms Center commander; the two-star deputy commandant heads the CGSOC on a day-to-day basis. There have been four deputy commandants in the past 6 years. Many of the faculty and staff considered the frequent changes of leadership counter-productive. They expressed frustration with constant changes in policies, focus, and educational approach. The lack of tenured faculty exacerbates this problem. There are no deans, department heads, or professors with sufficient stature and longevity to temper new deputy commandants' desires for change or to protect their faculty from the turbulence. The last three-star commander of Fort Leavenworth disapproved the school's request for tenured positions, preferring to deal with tenure on a case-by-case basis.

School of Advanced Military Studies (SAMS). Under CGSC the Army also conducts an advanced program of military studies for about 60 officers each year at Fort Leavenworth. The program is made up of two courses—the Advanced Military Studies Program (AMSP) and the Advanced Operational Studies Fellowship (AOSF).

AMSP is a 1-year course in the tactical and operational levels of war for new graduates of the Command and General Staff College who have competed for admission to the program through entrance examinations, interviews, past records of performance, and demonstrated motivation. They are selected in the fall of each year by the CGSC commandant. For academic year 1988-89, 46 Army, 4 Air Force, and 2 Marine majors were chosen to attend. Once selected, students participate in specific electives in the last half of their year at the Command and General Staff Officers Course, complete the intensive AMSP course, and, after graduation, serve an internship as a division or corps general staff officer.

Each year the AOSF program accepts eight Army lieutenant colonels who have been selected to attend a war college and, instead, assigns them to the School of Advanced Military Studies for 2 years. During their first year they study the operational and strategic levels of war, participate in AMSP seminars, and travel to U.S. and allied commands. Like students in AMSP, the AOSF officers have extensive written requirements that are graded. Upon completion of their first year, the fellows become the faculty for the next session of AMSP. They are then assigned as general staff officers to a division, corps, or higher headquarters.

Initiated in 1983, SAMS fulfills the Army's need for officers possessing advanced education in the art and science of war at the tactical and operational levels. In this respect it parallels the 2-year courses conducted at Fort Leavenworth in the 1920s and 1930s from which many of the prominent leaders of World War II graduated, including J. Lawton Collins, Matthew Ridgway, Mark W. Clark, and Maxwell D. Taylor. In the long term, the school will provide:

A pool of tactically and operationally expert general staff officers and potential commanders of major Army formations and joint headquarters, and

A group of highly qualified military educators and developers of doctrine.

The panel was impressed with the caliber of the SAMS students, the quality of the faculty, and the sharp focus of the curriculum on warfighting issues. However, one limitation caused concern. The course is primarily Army-oriented even though the subject matter of its curriculum—the operational and strategic levels of war—is, by definition, joint. As structured, the course lacks sufficient other-service faculty, students, and focus to provide true joint education.

Army War College. The panel is concerned that the Army War College lacks a clearly defined focus. During testimony, the Commandant explained that he had been tasked by the Army Chief of Staff to review and recommend changes to the mission and curricula of the college. He was directed to: (1) build on the diverse backgrounds and previous education of the college's students; (2) concentrate on the operational art and the strategic context within which the Army, other services, and allies operate in peace and war; and (3) become a center for "development of strategic thought for the Army."

If the study results in the college focusing more on national military strategy, that will help dispel some of the panel concerns. How the college implements the Chief of Staff's decisions to sharpen the focus of the curriculum on strategy, however, will be the final determinant of how successful this effort is.

War at the theater level occupies a large part of the college's core curriculum, leaving little room for treatment of national military strategy. The strategy instruction is concentrated in two blocks—Course 2, War, National Policy, and Strategy; and Course 7, U.S. Global Military Strategy. In Course 7, a summary course, students pull together the year's study and develop a national military strategy. The college discusses strategy in other courses and teaches courses related to strategy, like regional appraisals. In the future as the Army Command and General Staff College focuses more on the operational level of war, the Army War College will also have to adapt its focus by shifting the curriculum to greater treatment of national military strategy.

Overall, the panel believes that the faculty at Carlisle is adequate in numbers and quality. The Commandant would prefer a broad mix of military faculty, consisting mainly of mature, experienced officers, primarily colonels, and a smaller number of young "front-runners" with potential as future Army leaders. He has the former, many of whom are genuine experts in their field, but he lacks the latter. For many reasons, among them time available in very busy careers, faculty duty is not seen as desirable or beneficial by officers with potential for high rank. As in all service colleges, this attitude can only be changed by the service chief attaching greater importance to faculty duty to ensure it has a positive impact on promotion and command selection boards at all ranks. Beginning in academic year 1988-89, three additional former brigade commanders—front-runners in General Graves' definition—have been assigned to the faculty at Carlisle, and the total will be maintained at seven.

Although 25 of its 115 (22 percent) faculty members have doctorates, with a few exceptions, the college does not have a "magnet" faculty, a core of nationally recognized experts in their fields who can attract other faculty, both civilian and military. The college

also lacks the resources and flexibility to offer substantial faculty development opportunities or time for selected faculty to conduct independent research. Both opportunities are viewed by educators as important incentives in recruiting quality faculty.

The Army has chosen to increase the *tour length for the commandants* at Carlisle. Past commandants have stayed for only 1 or 2 years; the present Commandant, General Howard Graves, believes he will stay for 4 to 6. In part, this is because of the ongoing review of Carlisle and the need for stability while implementing what appears to be significant change to the college. It also results from a need for stability in the academic environment. Rapid turnover in leadership creates turbulence and distracts from the primary mission—education. Although Carlisle has had “revolving door” commandants in the recent past, some degree of continuity has been maintained through longer tours for the dean and some department heads.

Carlisle educates more than just in-residence students. The *Corresponding Studies Program* provides a senior-level education to about 200 officers selected each year by an Army board. This course is reputedly more rigorous than the resident course because of extensive reading and writing requirements. It lacks only the instructor interface and the exchange between students to be comparable to the resident course.

NAVY SCHOOLS

Naval War College. The Army War College is the senior Army PME school. The “Naval War College,” however, refers to both the intermediate and senior Navy PME schools. The Naval War College collocates at Newport, Rhode Island, both the intermediate-level college—the College of Naval Command and Staff—and the senior-level college—the College of Naval Warfare. Unlike the other services, whose officers successively attend intermediate and senior PME, only about 8 percent of Navy officers attend both an intermediate- and a senior-level school. Consequently, the curricula at the two Navy colleges are basically the same, except for the operations course, which has a different focus at each level.

According to the Naval War College staff and as reflected in OP-NAVINST 5450.207, the *mission* of both the intermediate- and senior-level schools is the same (see Appendix A). This mission statement is vague and provides little guidance to the college in curriculum development. The college continues to operate according to the restructuring effected by its President, Vice Admiral Stansfield Turner, in 1972. This three-part curriculum concentrates on strategy, resource management, and military operations. This would seem appropriate to Navy purposes.

College of Naval Warfare. The senior Navy college was founded at Newport in 1884 by Rear Admiral Stephen B. Luce and in its early years its faculty included Captain Alfred Thayer Mahan—one of the country’s most famous strategists—and Army Captain Tasker Bliss, who later became the first Commandant of the Army War College and ultimately Army Chief of Staff. At the college almost all of the students’ time is spent on core courses, with only one elective offered each semester. The elective may be replaced with a research project should a student be so motivated. This ac-

cords with the philosophy expressed by Admiral Turner that there is so much to learn that there isn't enough time available to offer a more individually tailored curriculum.

The program at the College of Naval Warfare is *intense* with 600 to 700 pages of reading each week, frequent writing requirements, and testing on core courses. Newport is the only senior school that tests. The Newport view, shared by the civilian educators the panel heard, is that testing adds rigor to student efforts, challenges faculty to attain a higher level of excellence because of the demands of grading, and forces students to synthesize course material as they grapple with complex issues for which there are no definitive answers. It has experienced none of the "unhealthy competition" among students that other PME colleges alleged would exist if they tested.

The Naval War College *strategy course*, like the entire curriculum, is more sharply focused than in other PME schools. The Strategy and Policy Course is the shortest of the three parts of the core curriculum, comprising about 115 of the 475 core hours. Military strategy is the single focus of this course. It does not deal with non-military instruments of national power, the national security bureaucracy, or the decision-making process. In addition to the strategy block, several lessons in the Joint Operations Course also deal with military strategy.² As at the Army War College, the panel believes the College of Naval Warfare should emphasize national military strategy more than operations and resource management and that operations should be treated at lower levels of schooling.

Although the *faculty* is used by both the senior college and the junior college, its size is large, with about 85 members, which allows time for research and for professional development. About one-third of the faculty is civilian, all but four of whom have doctorates. Many have taught at highly respected civilian universities prior to instructing at Newport.

The military faculty are of high quality. Most are captains, post-command Navy officers; and their promotion rates from commander to captain are higher than the Navy average. The reputation of Newport and its civilian faculty acts as a magnet to attract other civilian and military faculty, particularly in the National Security Decisionmaking and Policy and Strategy Departments of the college. Recruiting quality faculty is also enhanced at Newport by its location, by the attractive pay scale, and by an outstanding physical plant. As with similar departments in other colleges, the panel found that the Joint Military Operations Department has not achieved the level of excellence attained in other parts of the college, and its reputation is lower.

Despite the rapid *turnover of its presidents* in the past 20 years—their tours have averaged 2 years—the Naval War College retains its continuity by having long-term faculty and department heads and by maintaining, at least since 1972, consensus on the curriculum. The last several commandants have been promoted upon reas-

² A caution is warranted. For example, what the syllabi describe as "Strategy for the Pacific," is really theater-level warfare, the CINC's view of how he will employ military force to achieve the political objectives in his theater. Consequently, the panel did not count these course hours in its assessment of strategy.

signment, clearly establishing the positive career aspects of this post.

College of Naval Command and Staff. Since its mission, faculty, and physical plant are the same as the senior college's, the College of Naval Command and Staff shares the observations of the preceding section. However, the panel believes the real question for the Navy is whether this college should provide an intermediate education for naval officers or just continue to serve as a surrogate for those officers who will not attend a senior college (see Chapter IV).

Although the *curriculum* of the intermediate college is similar to the senior course, it is not identical. The Staff College has fewer hours in the core program and is more heavily service-oriented, as one would expect in an intermediate school. The portion devoted to maritime operations (approximately one-third) focuses on integration and planning of naval warfare at the battle group rather than the senior course's fleet and theater level.

Like Army colleges, the Naval War College has a *College of Continuing Education*. Last year this college graduated 470 students from its correspondence course program and 640 from its non-resident seminar program conducted at nine locations in the continental United States.

AIR FORCE SCHOOLS

Air University. The Air Force has consolidated all of its officer PME at the Air University at Maxwell Air Force Base, Alabama. The panel focused on the intermediate and senior schools there—the Air Command and Staff College and the Air War College. The Air University enjoys the same benefits of collocation as Newport. The physical plant is excellent. Several witnesses and interviewees cited a problem with the geographic location of Maxwell, but other problems contribute to the colleges' inability to recruit and retain high-quality faculty and to attract the best Air Force officers to the school. Air Force studies, corroborated during discussions with students and faculty, indicate that many come to the Air University reluctantly, having preferred to be assigned to other PME schools. One result is a faculty that is not generally of the same caliber as other service schools.

The panel recognizes that dissatisfaction with the Air Force colleges may, in fact, result in a vicious cycle. According to former officials interviewed by the panel, the reputation of the Air University has always suffered in comparison with most of the other PME schools. That reputation, whether fair or not, may cause officers to believe that Air University schools are second-rate and explains their clear bias toward being assigned to another PME school. The reputation becomes self-fulfilling for both the student body and faculty—there is no "magnet" to attract the best to the Air University.

The commandants of the colleges testified that the situation has been recognized since the publication of the 1985 Blue Ribbon Committee on Air University Faculty Improvement report prepared for Secretary of the Air Force Verne Orr and is being remedied. Statistics provided to the panel reflect an improving promotion rate for

instructors, but improvement in quality was not reflected in student or faculty comments during the panel's visit.

The panel is convinced that the Air Force should redouble its efforts to improve the Air University schools. With its outstanding physical plant, centered on the best airpower library in the world, Maxwell should regain the eminence it once enjoyed as the fountain of innovative thinking and study on the use of air forces.

Air War College. The Air War College *mission statement* is broad and vague and gives the commandant and faculty little direction in developing the curriculum. The broad mission statement may explain the high percentage of hours in the curriculum that do not contribute to the warfighting education of the students.

Even though the Air War College has no tests, its Commandant, Major General Harold Todd, testified that the school has a *rigorous* academic program. Students complete frequent written and oral requirements that are evaluated by instructors. Students also present their papers to their peers who critique their ideas. The Commandant does not believe testing is necessary or useful at this level. He stated that the current evaluation system functions satisfactorily to motivate students, validate the curriculum, and provide feedback to faculty on their performance. In contrast, the panel's curriculum review indicated that roughly 60 percent of the core program is passive learning. This is far higher than other senior colleges and would seem to indicate less rigor than at other schools.

Faculty quality at the Air War College is a key panel concern. Students described instructors as "discussion leaders" who had little real subject matter expertise. Many are recruited directly from the graduating class, a practice criticized in the 1985 Blue Ribbon Committee report for Air Force Secretary Verne Orr. These officers lack experience and seasoning, a disadvantage recognized by officials of other PME schools. On the other hand, the Air War College Commandant may have no other choice. He acknowledged that it was difficult to recruit the military faculty he wanted despite the high priority he placed on this effort. Maxwell similarly has had problems recruiting civilian faculty, although the Commandant stated that the situation has been improving. The panel believes the Air Force leadership should place renewed emphasis on resolving the faculty problem at the Air War College.

Air Command and Staff College. The *mission statement* for Air Command and Staff College (ACSC) is, like that of the Air War College, broad and vague. Its lack of precision supports comments heard from several officials who have visited or lectured at ACSC that the Air Force has issued no clear, detailed mission statement for the intermediate-level course. The course has a reputation for poor quality and lack of focus.

In the panel's estimate roughly one-third of the ACSC *curriculum* is devoted to joint matters, about 10 percent to strictly Air Force operational matters, and over half to a profusion of other subjects, primarily staff and communications skills. This diffusion of focus causes the panel to question whether the Air Force has thought through the purpose of its intermediate school. The emphasis is clearly not on warfighting and supporting. This failure to impart the Air Force *raison d'être* is doubly unfortunate because, as the Commandant reminded the panel, for many officers this will

be the last PME of their careers. Unlike the Army and Marine Corps intermediate colleges, the Air Command and Staff College devotes little time to Air Force doctrine. Because the Air Force responsibility for doctrine development is now assigned to the Center for Aerospace Research, Doctrine, and Education (CADRE) at Maxwell, the school may be missing a magnificent opportunity to teach the use of air power in the full range of possible contingencies from the tactical to the strategic levels.

Although the quality of officers on the ACSC *faculty* has improved compared to that reported by Secretary Orr's 1985 Blue Ribbon Committee, the preponderance of faculty members are majors recruited from the graduating class and function as "seminar leaders." They have little or no more experience than their students and are, in general, not subject matter experts. Consequently, their teaching abilities are limited to facilitating discussion of each lesson, and they may be only a day or so ahead of their students. The panel believes that the Air Force will have to institute significant changes in faculty recruitment and assignment policies at ACSC to make it as productive as other service schools.

The most outstanding feature of ACSC is the obvious quality of the *students*. According to information from the Air Force, there is a strong correlation between those promoted to lieutenant colonel and those who have been to ACSC, indicating that the Air Force selects well-qualified officers with strong potential for future service as students.

Unfortunately, the students at ACSC, as a group, expressed the same preference as their seniors at the Air War College to attend another service college or the Armed Forces Staff College. The panel believes the Air Force should improve ACSC to match the caliber of its students, redeem the reputation of the school, and thus make ACSC a desirable assignment.

It appears from discussions at Maxwell Air Force Base and from the testimony of General Larry Welch, the Air Force Chief of Staff, that the Air Force will begin an *advanced military studies course* in the near future. Although details have not been fully worked out, the panel expects that the new program, designated the Advanced Defense Studies Course, will resemble the Army's School of Advanced Military Studies (SAMS) 1-year course that follows its Command and General Staff Officer's Course. The panel encourages the Air Force to establish this course in the near future. It also hopes that the course may help the Air Force recognize there is useful material to be studied in a year-long Air Command and Staff College course.

MARINE CORPS COMMAND AND STAFF COLLEGE

The Marine Corps PME system at Quantico, Virginia, has evolved significantly over the past 25 years. From 1947 until 1964, the system included a school for "career field grade officers"—the Amphibious Warfare School, Senior Course—and a junior or intermediate-level course—the Amphibious Warfare School, Junior Course. By 1954 the Senior Course was given only to lieutenant colonels and colonels with the objective of training them for command of regiments and groups and staff duties at division, wing, and landing force level. This was considered the Marine Corps

senior-level school and it clearly focused on military operations. Although broadening the educational background of the Marine officer corps was an objective, it played a minor role.

In 1964 major changes occurred at Quantico. The Senior Course was renamed the Command and Staff College, and the Junior Course became the Amphibious Warfare School. The Command and Staff College was restructured to teach less senior officers—majors and lieutenant colonels—a curriculum similar to the old Senior Course. By 1983, the student body was all majors, paralleling other intermediate schools.

Despite changes in the name of the school and the rank of the student body, the original *mission and curriculum* of the Amphibious Warfare School, Senior Course, changed only slightly. The college has been, and remains, focused on teaching landing force operations, primarily the amphibious phases. Thus, the Marine Corps intermediate school, though named a “command and staff college,” is very different from, and much more narrow in focus than, any other intermediate PME school. Despite emphasizing the educational nature of the college program, school officials agreed that the Command and Landing Force Operations portions of the curriculum are essentially training for that 75 percent of the Marine students en route back to Fleet Marine Forces on graduation. Some students claim the course is 90 percent training, with little real education.

The result is that in some respects Marine Corps PME consists of two schools that focus mainly on amphibious warfare—the Amphibious Warfare School for captains and the Command and Staff College for majors. The Deputy for Education described the content and techniques of the two schools as similar, but conducted at different levels—“The doctrine is the same, only the levels differ.” The panel was told that 20 to 30 percent of the Marine officer corps attends the Amphibious Warfare School, while about 30 percent attend Command and Staff College. Only 14 percent attend both. Because of the similarity between the schools, a relatively large proportion of Marine officers learn higher level amphibious operations in-residence.

The heavy Marine emphasis on force employment partially parallels the curriculum at Leavenworth where most of the time is spent teaching combined arms operations. For the Marine Corps, the integrated warfare concept involves the air-ground team and coordination with naval forces supporting amphibious landings. Quantico, however, concentrates on the regimental or tactical level, with some teaching at the division level. Leavenworth progresses beyond the tactical to deal with the operational level of war. In this respect, Quantico is not comparable to other service and joint intermediate schools. Its level of focus is on a lower level of warfare and it is narrower in scope.

This characteristic can also be seen in the small part of the curriculum devoted to joint matters. Although Quantico may argue that joint content is high, they include the study of the Navy-Marine interface in calculating a high joint curriculum content. Considering they are all one department, the panel did not support this contention.

Although the Marine Corps Command and Staff College may be well suited in some respects for educating Marine officers, it ill serves the 36 officers annually who come from other services and do not receive the broad military education provided at other intermediate colleges. Nor does the school broaden Marine officers who will require a more comprehensive education in later years. The panel believes that broadening at the intermediate level is important.

Quantico has almost 1,000 hours of *classroom instruction* in the core program, far more than other schools. The impact of this number of hours in class is reduced time for reading, writing, and thinking. It contributes to a training camp mentality. The panel believes that this level of classroom intensity undermines creative thought and innovation.

The *attitude* of some staff and faculty reflected minimal concern for education at Quantico. Their view was that developing officers for future command and staff positions was not a high priority and that education at the college was of little consequence in improving the performance of graduates in follow-on operational assignments. Many students shared this attitude; they saw the college primarily as either a "ticket" back to a field assignment or a reindoctrination course for those who had been in staff positions ashore. They acknowledged that attendance distinguished them as among the higher quality officers. But they indicated that selection and non-attendance would also provide the same distinction, particularly if the officer had already attended the Amphibious Warfare School as a captain.

The panel notes that one way to increase the importance of Marine PME and to change this view of attendance would be to make completion of the staff college by either residence or correspondence a prerequisite for promotion, as the Army does.

The panel recognizes the unique combat mission of the Marine Corps, but also notes the prominent role played by Marine officers at high levels in the Defense establishment and the concomitant need for a professional military education broader than amphibious operations. The Marine Corps should review its overall PME structure to determine whether it appropriately serves the needs of the officers who aspire to higher command and staff positions or whether an education more similar to that of other services would serve the Corps better. Moreover, since the education given at the Marine Command and Staff College is not equivalent to that of other schools, the panel questions whether other-service students should attend in lieu of going to their own service college.

The Marine Corps has no need to run a *joint track* at Quantico to meet its own requirements for joint PME qualified officers. However, to qualify those 36 students from other services who attend the college, the school established a joint track program in academic year 1988-89. College officials dislike this solution to joint specialist education because Marine Corps students in the joint track will miss important parts of the instruction that trains them specifically for their next assignment with Fleet Marine Forces. They expressed a preference for a "finishing school" solution at AFSC for joint specialist PME.

The *faculty* at Command and Staff College is austere. Of the 18 Marine Corps officers filling instructional and administrative positions, there are only 13 instructors—1 faculty adviser per each of the 12 seminars and 1 historian—who teach most of the curriculum. Even with an additional four civilian instructors, Quantico has by far the highest student/faculty ratio of any college the panel visited (see Chapter V for additional discussion). The instructors are, however, assisted in their teaching role by the faculty of the Amphibious Instruction Department of the Marine Corps Education Center at Quantico, by adjunct faculty, by 12 enlisted Marine classroom aides, and by the Armed Forces Staff College, which teaches the Joint Operations Planning System to the college each year. For academic year 1988-89 the college adds four Marine instructors and one officer each from the Army, Navy, and Air Force to its the faculty. This will allow greater flexibility, provide more expertise in joint matters, and add depth to the faculty. Nevertheless, the Quantico faculty—with 29 members—will remain small for 170 students and over 1,000 hours of classroom instruction.

The educational portion of the Marine curriculum is unique in its use of 12 “adjunct” professors, members of the Marine Corps Reserve who also hold doctorates and have an active association with civilian universities. They teach a broad range of electives in which they have particular expertise. Each student must take one of these 27-hour electives during the academic year. In this unique and commendable manner, the adjunct professors serve their annual Marine Corps Reserve commitment through teaching.

Although military faculty quality had been a problem in past years, that has recently changed. The 12 seminar advisors are outstanding officers with recent experience in units and demonstrated potential for higher rank. They serve a multitude of functions—advisor, instructor, role model. Their focus is Marine operations, not broader academic matters.

The *Director* of the Command and Staff College, reflecting the relative size of the Marine Corps, is a colonel who reports to the Deputy for Education of the Marine Corps Combat Development Command, a brigadier general. The length of the Director’s tour does not appear to be a problem at Quantico, judging from the evolutionary changes to the curriculum over the past 30 years.

The Marines have not had a *senior-level* college since they restructured their PME system in 1964. They do, however, send about 65 officers each year to other service or joint senior colleges. These officers are centrally selected based on past performance and potential for future service. At senior schools the panel visited, comments about the quality and motivation of Marine students were always favorable.

NATIONAL DEFENSE UNIVERSITY (NDU)

General. Since 1976, the National Defense University, headquartered at Fort McNair, Washington, D.C., has functioned as a higher level institution to promote constructive dialogue and a mutual sharing of facilities between its subordinate colleges and institutes. The university has expanded far beyond its original scope and today includes not only the National War College and Industrial

College of the Armed Forces, but the Armed Forces Staff College at Norfolk, Virginia, the DOD Computer Institute, the Institute of Higher Defense Studies, and the Institute for National and Strategic Studies.

The DOD Computer Institute (DODCI) located in Washington, D.C., provides information resources management education to DOD executives. Approximately 3,400 students annually attend its classes in-residence, as electives offered to other NDU schools, or in on-site courses tailored for organizations requiring special assistance. DODCI also provides advisory services to DOD activities. Although the institute has existed since 1964, NDU did not assume responsibility for DODCI until 1982.

The Institute for Higher Defense Studies (IHDS) was established in 1982 to support the Capstone course for new general and flag officers. IHDS also assumed responsibility for the NDU International Fellows Program, the 2-week long NATO Staff Officer Orientation Course taught 9 or 10 times a year for U.S. officers en route to NATO staff duties, the National Security Management Correspondence Course with its annual enrollment of 2,000 students, the Reserve Components National Security Course taught at sites around the country, and various defense-related symposiums.

The Institute for National Strategic Studies (INSS) was created in 1984 to support requirements of the Secretary of Defense and the Chairman, JCS, for research and studies. Originally configured with a Strategic Concepts Development Center (SCDC) and Mobilization Concepts Development Center (MCDC) (recently redesignated the Strategic Capabilities Assessment Center or SCAC), the institute now includes a Wargaming and Simulation Center and the Research and Publication Directorate, which consolidates the research efforts of about 24 senior fellows doing independent studies each year.

The National Defense University expansion, some critics believe, has over time resulted in a diffusion of effort and a *reshuffling of priorities* detrimental to the three PME colleges that are, after all, the *raison d'être* for the university. Three areas that tend to substantiate the critics' charges are research, facilities utilization, and personnel.

Civilian educators, in testimony and interviews, emphasized that graduate-level schools need a robust research program. Research allows faculty to develop expertise in their fields and contributes to the quality of education in a school. Theoretically, the Strategic Concepts Development Center and the Strategic Capabilities Assessment Center provide that capability. But these research activities and the college faculties rarely exchange personnel, ideas, or concepts. Moreover, neither SCDC nor SCAC currently contribute much to the defense policy and strategy process in DOD, according to several witnesses and other high Defense Department officials. The large number of personnel assigned to the centers contributes to the perception that the colleges are adequately staffed. In fact, however, center personnel have not been available to support faculties or to allow faculty members to conduct research that could contribute to the colleges.

The increase in the number and size of NDU organizations at Fort McNair has resulted in a severe constriction of facility space

at the National War College and the Industrial College. NDU plans to address a long-identified shortfall in facilities through construction of an Academic Operations Center adjacent to Fort McNair at a cost of \$31 million.

NDU has a total manpower strength of 407, an increase of 51 percent since 1976. The faculties at the three colleges, however, total only 132 military and civilian, a number that has remained relatively stable since 1976. Moreover, each college commandant stated that he lacks sufficient faculty to teach the curriculum properly. Recent requests to increase manpower for the faculties of NDU colleges were denied, and only four spaces were identified in existing NDU manpower allocations to increase faculty at ICAF.

The President of NDU, in addition to his responsibilities for the joint colleges and institutes, serves as Chairman of the *Military Education Coordinating Committee* (MECC). Another product of the Clements Committee on Excellence in Education, the MECC includes the commandants of all intermediate and senior colleges and is designed to coordinate curricula and other education matters among the colleges. However, the MECC has no directive authority and functions primarily to address education issues raised by the Joint Chiefs of Staff and as a forum for airing problems in education. The Chairman of the MECC, even though he reports directly to the Chairman of the Joint Chiefs of Staff, lacks the ability to direct change in any service school, even when that change may affect education in joint matters. The Clements Committee envisioned that the MECC chairman would chair an annual review of the Clements recommended core curriculum to refine and update it as necessary. This imputed authority never materialized, and the situation makes the MECC chairman unsuited now to enforce a common joint curriculum in all schools. Without that authority, only the Chairman, JCS, can establish and demand compliance with a common joint curriculum in all schools.

National War College. The faculty at National contains an appropriate mix of service officers for joint education, but it is small in comparison with service colleges. The academic qualifications of the faculty are excellent. Among the 34 faculty members, there are 8 military and 7 civilian doctorates, 13 military and 4 civilian master's, and 2 civilian bachelor's degrees (see Chapter V). The National War College has only a few faculty members of national stature and consequently does not attract the quality faculty needed in a prestigious institution of this nature. In comparison with other senior service colleges, National, like its sister college, the Industrial College of the Armed Forces, has a high student/faculty ratio. This places more demand on instructors, decreasing time available for preparation, research, and curriculum development. In short, the faculty workload is not conducive to graduate-level education; it precludes faculty from attaining and maintaining expertise in all the fields they teach. Although National has access to national-level civilian scholars in the Washington area as adjunct faculty to teach electives, it also needs more such individuals as permanent faculty. See Chapters III and V for additional discussion.

Industrial College of the Armed Forces. Based on recommendations from two wartime boards studying future military education requirements, the Industrial College of the Armed Forces emerged

from World War II as one of two joint senior colleges. From 1924 until 1946, the Army Industrial College had evolved even during this early period into a joint school. In 1946 it was officially placed under joint control of the Departments of the Army and the Navy, and in 1948 it was transferred to the JCS.

The panel found the academic qualifications of the Industrial College *faculty* to be satisfactory. Of 43 teaching faculty, 15 civilian and 1 military officer have doctorates and 1 civilian and 23 military officers have master's degrees. All but seven of the military officers appear to have experience, in addition to education, that is relevant to the mission of ICAF. The practice of granting tenure for civilian professors at ICAF has not always functioned well. The current Commandant described an effort over the past few years to reduce the number of tenured civilian faculty and to replace them with civilian professors on 2- to 3-year contracts. This policy parallels that used in most other senior military schools.

Students at ICAF have qualifications similar to those in most other senior colleges. The college actively seeks a balance of both warfighters (operators) and war-supporters (logisticians, communicators, etc.). This permits the war-supporters to learn firsthand about the needs of the warfighters and, conversely, for the warfighters to hear directly about logistical complexities. The Commandant has expressed concern that Goldwater-Nichols Act requirements for joint specialist education and for assignment of greater than 50 percent of ICAF students to joint duty billets upon graduation may eventually alter the balance. Because there are few professional, scientific, and technical positions on the joint duty assignment list, he believes that the services will be unwilling to send officers with these specialities to ICAF where they would fill joint education billets that are in short supply and needed by combat arms or line officers. The panel supports the Commandant's position that the "warfighter/war-supporter" balance should not be allowed to change as a result of Goldwater-Nichols Act considerations.

Armed Forces Staff College. AFSC has an *evaluation system* for course examinations, staff papers, case studies and exercises, oral presentations, and formal papers; however, it has no distinguished-graduate or order-of-merit programs. Students receive numerical grades on their "performance" examinations. On their communicative arts assignments, they get a descriptive summary of their work stating that it "failed to meet standards," "met standards," or "exceeded standards." Objective examinations require a minimum passing score of 75 percent. Students must pass all exams and evaluated work to complete the school. Failed areas are retested or reevaluated until a satisfactory score is attained. Although not as rigorous as some other intermediate colleges, the AFSC system provides feedback to the student and faculty and can be annotated on an officer's academic or fitness report upon graduation. Thus, it is both a measure of performance and a motivator.

Students indicated satisfaction with the AFSC course, particularly the "affective"³ learning aspects of the school which are enhanced by an extensive athletic and social program and an exceptionally high number of classroom contact hours.

³ The AFSC faculty distinguishes cognitive and affective learning. They describe cognitive learning as gaining an understanding of concepts, principles, and skills. They describe affective learning at AFSC as developing a joint perspective and an appreciation of what it takes to work effectively in a joint environment.

APPENDIX C
HEARINGS
BY MILITARY EDUCATION PANEL (1987-88)

DECEMBER 9—FORMER PRESIDENT, NAVAL WAR COLLEGE

Adm. Stansfield Turner, USN (Ret.).

JANUARY 20—ARMY COMMAND AND GENERAL STAFF COLLEGE, FORT
LEAVENWORTH, KS

Maj. Gen. Gordon R. Sullivan, USA, Deputy Commandant.

Col. Creighton W. Abrams, Jr., USA, Director, Combined Arms and
Services Staff School (CAS3).

Col. Leonard D. Holder, USA, Director, School of Advanced Military
Studies (SAMS).

Col. Lewis I. Jeffries, USA, Director, Academic Operations.

JANUARY 29—ARMY WAR COLLEGE, CARLISLE, PA

Maj. Gen. Howard D. Graves, USA, Commandant.

FEBRUARY 2—FORMER SERVICE CHIEFS

Gen. David C. Jones, USAF (Ret.). Also former Chairman, Joint
Chiefs of Staff.

Gen. E. C. Meyer, USA (Ret.).

Adm. James L. Holloway, USN (Ret.).

FEBRUARY 25—CHAIRMAN, SENIOR MILITARY SCHOOLS REVIEW
BOARD

Gen. Russell E. Dougherty, USAF (Ret.), former Commander in
Chief, Strategic Air Command.

MARCH 18—AIR UNIVERSITY, MONTGOMERY, AL

Lt. Gen. Truman Spangrud, USAF, Commander, Air University.

Maj. Gen. Harold W. Todd, USAF, Commandant, Air War College.

Brig. Gen. Frank E. Willis, USAF, Commandant, Air Command
and Staff College.

MARCH 25—ARMED FORCES STAFF COLLEGE, NORFOLK, VA

Maj. Gen. J.R. Dailey, USMC, Commandant.

APRIL 15—MARINE CORPS COMMAND AND STAFF COLLEGE, QUANTICO,
VA

Brig. Gen. John P. Brickley, USMC, Deputy for Education, Marine
Corps Combat Development Command.

APRIL 21—JOHN M. COLLINS, SENIOR SPECIALIST IN NATIONAL
DEFENSE, CONGRESSIONAL RESEARCH SERVICE

MAY 5—FORMER COMMANDERS

Gen. Charles L. Donnelly, Jr., USAF (Ret.), former Commander in
Chief, U.S. Air Forces Europe.

Gen. Frederick J. Kroesen, USA (Ret.), former Commander in
Chief, U.S. Army Europe.

Adm. Harry D. Train, II, USN (Ret.), former Commander in Chief,
U.S. Atlantic Command.

MAY 10—CIVILIAN EDUCATORS WITH DOD EXPERIENCE

Hon. Lawrence J. Korb, University of Pittsburgh, former Assistant
Secretary of Defense for Manpower, Reserve Affairs and Logis-
tics.

Hon. Robert J. Murray, Harvard University, former Under Secre-
tary of the Navy.

MAY 12—FORMER COMMANDERS

Gen. Paul F. Gorman, USA (Ret.), former Commander in Chief,
U.S. Southern Command.

Gen. William Y. Smith, USAF (Ret.), former Deputy Commander in
Chief, U.S. European Command.

MAY 16—NAVAL WAR COLLEGE, NEWPORT, RI

Rear Adm. Ronald J. Kurth, USN, President.

MAY 17—FORMER PRESIDENTS, NATIONAL DEFENSE UNIVERSITY

Vice Adm. Marmaduke G. Bayne, USN (Ret.).

Lt. Gen. Richard Lawrence, USA (Ret.).

Lt. Gen. John S. Pustay, USAF (Ret.).

MAY 19—COMMANDER IN CHIEF, U.S. ATLANTIC COMMAND

Adm. Lee Baggett, Jr., USN.

MAY 24—NATIONAL DEFENSE UNIVERSITY, FT. MCNAIR, DC

Lt. Gen. Bradley C. Hosmer, USAF, President, National Defense
University.

Maj. Gen. Albin G. Wheeler, USA, Commandant, Industrial College
of the Armed Forces.

Rear Adm. John F. Addams, USN, Commandant, National War
College.

JUNE 2—CIVILIAN EDUCATORS WITH MILITARY SCHOOL EXPERIENCE

Prof. Allan R. Millett, Ohio State University.

Prof. Williamson Murray (statement only), Ohio State University.

JUNE 7—CHIEF OF STAFF, U.S. AIR FORCE

Gen. Larry D. Welch.

JUNE 7—COMMANDER, U.S. ARMY TRAINING AND DOCTRINE
COMMAND

Gen. Maxwell R. Thurman.

JUNE 15—COMMANDERS IN CHIEF

Gen. John T. Chain, Jr., USAF, Commander in Chief, Strategic Air
Command.

Adm. Ronald J. Hays, USN, Commander in Chief, U.S. Pacific
Command.

JUNE 17—SUPREME ALLIED COMMANDER, EUROPE

Gen. John R. Galvin, USA. Also Commander in Chief, U.S. Europe-
an Command.

JUNE 21—FORMER SUPREME ALLIED COMMANDER, EUROPE

Gen. Andrew J. Goodpaster, USA (Ret.). Also former Commander
in Chief, U.S. European Command.

JUNE 23—CHIEF OF NAVAL OPERATIONS

Adm. Carlisle A. H. Trost.

JUNE 28—FORMER COMMANDERS

Adm. Robert L. J. Long, USN (Ret.), former Commander in Chief,
U.S. Pacific Command.

Gen. William R. Richardson, USA (Ret.), former Commander, U.S.
Training and Doctrine Command.

Gen. Donn A. Starry, USA (Ret.), former Commander in Chief, U.S.
Readiness Command.

JULY 12—COMMANDANT, U.S. MARINE CORPS

Gen. A. M. Gray, USMC.

JULY 28—CHIEF OF STAFF, U.S. ARMY

Gen. Carl E. Vuono, USA.

AUGUST 11—CHAIRMAN, JOINT CHIEFS OF STAFF

Adm. William J. Crowe, Jr., USN.

SEPTEMBER 22—DEPUTY SECRETARY OF DEFENSE

Hon. William H. Taft IV. Accompanied by Vice Chairman, Joint
Chiefs of Staff, Gen. Robert T. Herres, USAF.

APPENDIX D
INTERVIEWS/DISCUSSIONS
BY MILITARY EDUCATION PANEL

- Rear Adm. Robert C. Austin, USN, Superintendent, Naval Postgraduate School.
- Adm. Lee Baggett, Jr., USN, Commander in Chief, U.S. Atlantic Command.
- Captain Andrew Beck, USN, Navy Military Personnel Command.
- Gen. Charles L. Bolte, USA (Ret.), former Vice Chief of Staff, U.S. Army
- Col. Garnett C. Brown, Director, Institute for Higher Defense Studies, National Defense University.
- Gen. John T. Chain, USAF, Commander in Chief, Strategic Air Command.
- Col. Robert D. Childs, National Defense University.
- John M. Collins, Senior Specialist in National Defense, Congressional Research Service.
- Mr. Seth Cropsey, Deputy Under Secretary of the Navy (Special Review and Analysis).
- Adm. William J. Crowe, Jr., USN, Chairman, Joint Chiefs of Staff.
- Lt. Gen. John H. Cushman, USA (Ret.), former Commander I Corps, Republic of Korea.
- Capt. Richard D. DeBobes, USN, Office of the Joint Chiefs of Staff/Legal Adviser and Legislative Assistant to the Chairman, Joint Chiefs of Staff.
- Gen. William Depuy, USA (Ret.), former Commanding General, Continental Army Command.
- Gen. Charles L. Donnelly, USAF (Ret.), former Commander in Chief, U.S. Air Forces Europe.
- Gen. Russell E. Dougherty, USAF (Ret.), former Commander in Chief, Strategic Air Command.
- Dr. John E. Endicott, Director, Institute for National Strategic Studies, National Defense University.
- Dr. Gregory D. Foster, Professor of Sociology, Industrial College of the Armed Forces.
- Lt. Col. Stephen O. Fought, USAF (Ret.), faculty, Naval War College.
- Maj. Gen. Fred M. Franks, USA, Director, Operational Plans and Interoperability (J-7), Office of the Joint Chiefs of Staff.
- Dr. Michael Freney, Secretary of the Navy Senior Research Fellow, Naval War College.
- Gen. John R. Galvin, USA, Supreme Allied Commander, Europe.
- Congressman Newt Gingrich, (R-Ga.).
- Gen. Andrew J. Goodpaster, USA (Ret.), former Supreme Allied Commander, Europe.

- Gen. Paul F. Gorman, USA (Ret.), former Commander in Chief, U.S. Southern Command.
- Gen. A. M. Gray, USMC, Commandant, U.S. Marine Corps.
- Mr. Bruce I. Gudmundsson, Harvard University.
- Professor Paul Hammond, Pittsburgh University.
- Dr. Steve Hanser, West Georgia State College.
- Col. William L. Hart, USA, Total Army Personnel Agency.
- Maj. Gen. Ralph Havens, USAF, Director, Military Personnel Center.
- Adm. Ronald J. Hays, USN, Commander in Chief, U.S. Pacific Command.
- Gen. Robert T. Herres, Vice Chairman, Joint Chiefs of Staff.
- Adm. James L. Holloway, USN (Ret.), former Chief of Naval Operations.
- Col. C. Powell Hutton, Director, Academic Affairs, National Defense University.
- Adm. Bobby Inman, USN (Ret.), former Director, National Security Agency.
- Gen. Samuel Jaskilka, USMC (Ret.), former Vice Commandant, U.S. Marine Corps.
- Gen. David C. Jones, USAF (Ret.), former Chairman, Joint Chiefs of Staff.
- Dr. Amos Jordan, Center for Strategic and International Studies.
- Adm. Isaac Kidd, USN (Ret.), former Commander in Chief, U.S. Atlantic Command.
- Gen. Robert Kingston, USA (Ret.), former Commander, Rapid Deployment Joint Task Force.
- Honorable Lawrence J. Korb, University of Pittsburgh and former Assistant Secretary of Defense for Manpower, Reserve Affairs and Logistics.
- Gen. Frederick J. Kroesen, USA (Ret.), former Commander in Chief, U.S. Army Europe.
- Lt. Gen. Richard Lawrence, USA (Ret.), former President, National Defense University.
- Gen. Richard Lawson, USAF (Ret.), former Deputy Commander in Chief, U.S. European Command.
- Mr. Bill Lind, author.
- Honorable Jim Lloyd, former Congressman.
- Mr. Jim Locher, Senate Armed Services Committee staff.
- Adm. Robert L. J. Long, USN (Ret.), former Commander in Chief, U.S. Pacific Command.
- Gen. E. C. Meyer, USA (Ret.), former Chief of Staff, U.S. Army.
- Capt. William Miller, USN.
- Professor Allan R. Millet, Ohio State University.
- Honorable Robert J. Murray, Harvard University, and former Under Secretary of the Navy.
- Professor Williamson Murray, Ohio State University.
- Col. H. L. Parris, USAF, National Defense University.
- Mr. John Petersen, President, Petersen and Associates.
- Dr. Elizabeth Pickering, Air University.
- Lt. Gen. John S. Pustay, USAF (Ret.), former President, National Defense University.
- Gen. William R. Richardson, USA (Ret.), former Commander, U.S. Army Training and Doctrine Command.

- Professor Eugene Rostow, National Defense University.
 Capt. Paul Schratz, USN (Ret.).
 Mrs. Harriet Fast Scott.
 Col. William Scott, USAF (Ret.).
 Gen. Robert Sennewald, USA (Ret.), former Commander in Chief, United Nations Command, Republic of Korea.
 Lt. Gen. Philip D. Shutler, USMC (Ret.), former Director of Operations (J-3), Office of the Joint Chiefs of Staff.
 Lt. Gen. Dewitt C. Smith, USA (Ret.), former Commandant, Army War College.
 Maj. Gen. Perry M. Smith, USAF (Ret.), former Commandant, National War College.
 Gen. William Y. Smith, USAF (Ret.), former Deputy Commander in Chief, U.S. European Command.
 Col. Roy W. Stafford, Jr., Dean of Faculty, National War College.
 Gen. Donn A. Starry, USA (Ret.), former Commander in Chief, U.S. Readiness Command.
 Col. Harry G. Summers, USA (Ret.).
 Dr. William J. Taylor, Center for Strategic and International Studies.
 Adm. Harry D. Train, II, USN (Ret.) former Commander in Chief, U.S. Atlantic Command.
 Lt. Gen. Richard G. Trefry, USA (Ret.), former U.S. Army Inspector General.
 Adm. Carlisle A. H. Trost, USN, Chief of Naval Operations.
 Adm. Stansfield Turner, USN (Ret.), former President, Naval War College.
 Lt. Col. Dale Vande Hey, USAF, Air Force Military Personnel Center.
 Gen. Carl E. Vuono, USA, Chief of Staff, U.S. Army.
 Adm. James Watkins, USN (Ret.), former Chief of Naval Operations.
 Gen. Larry D. Welch, USAF, Chief of Staff, U.S. Air Force.
 Dr. Tom J. Welch, Deputy Assistant to the Secretary of Defense (Atomic Energy).
 Gen. John A. Wickham, Jr., USA (Ret.), former Chief of Staff, U.S. Army.
 Honorable R. James Woolsey, former Under Secretary of the Navy.
 Col. David W. Wozniak, USAF, Personnel Plans and Policy Division (J-1), Office of the Joint Chiefs of Staff.

SERVICE HISTORIANS

- Army—Brig. Gen. William A. Stofft, USA.
 Navy—Dr. Ronald H. Spector.
 Air Force—Dr. Richard H. Kohn.
 USMC—Brig. Gen. E. H. Simmons, USMC (Ret.).

U.S. MILITARY SCHOOLS: VISITED AND INDIVIDUALS INTERVIEWED

- Army War College. Maj. Gen. Howard D. Graves, USA, Commandant.
 Army Command and General Staff College. Maj. Gen. Gordon R. Sullivan, USA, Deputy Commandant.

Combined Arms and Services Staff School (CAS3). Col. Creighton W. Abrams, Jr., USA, Director.
 School of Advanced Military Studies. Col. Leonard D. Holder, USA, Director.
 Army Command and General Staff College. Col. Lewis I. Jeffries, USA.
 Naval War College. Rear Adm. Ronald J. Kurth, USN, President.
 Naval War College. Dr. Robert S. Wood, Special Academic Advisor.
 Marine Corps Combat Development Command. Brig. Gen. John P. Brickley, USMC, Deputy for Education.
 Air University. Lt. Gen. Truman Spangrud, USAF, Commander.
 Maj. Gen. Harold W. Todd, USAF, Commandant, Air War College.
 Air Command and Staff College. Brig. Gen. Frank E. Willis, USAF, Commandant.
 National Defense University. Lt. Gen. Bradley C. Hosmer, USAF, President.
 National War College. Rear Adm. John F. Addams, USN, Commandant.
 Industrial College of the Armed Forces. Maj. Gen. Albin G. Wheeler, USA, Commandant.
 Armed Forces Staff College. Maj. Gen. John R. Dailey, USMC, Commandant.

FOREIGN MILITARY SCHOOLS: VISITED AND/OR RECEIVED BRIEFS

United Kingdom:

Royal College of Defence Studies, London.
 Joint Service Defence College, Greenwich.
 Army Staff College, Camberley.
 Higher Command and Staff College, Camberley.
 Royal Navy Staff Course, Greenwich.
 RAF Staff College, Bracknell.

France:

Center for Higher Military Studies, Paris.
 Army/Navy/Air Force/Joint Senior Staff Colleges, Paris.
 Allied Staff College, Paris.

West Germany:

Führungsakademie (General/Admiral Staff College), Hamburg.

APPENDIX E

DETAILED CHARTS

ON FACULTY COMPOSITION

The following five charts present details on the faculty composition and the student/faculty ratios at the joint schools and the schools of the four services. Unless otherwise noted, student numbers include all U.S. officers, civilians, and international students taught in each school in academic year 1987-88. Student and faculty data were provided by each school. Because of significant differences in faculty utilization at the various schools, the charts are presented with detailed footnotes.

CHART E-1—FACULTY COMPOSITION AT NATIONAL DEFENSE UNIVERSITY SCHOOLS

	Civilian	Military	Total	Students	Student/ Faculty Ratio
National War College (NWC) ¹	13	21	34	² 173	³ 5.1:1
Industrial College of the Armed Forces (ICAF) ⁴	15	28	43	⁵ 227	⁶ 5.3:1
Armed Forces Staff College (AFSC) ⁷	4	51	55	285	⁸ 5.2:1

¹ One military officer and two civilian instructors have been given tenure.

² Includes an additional student loading figure of 6 for the 12 international officers who attend NDU and divide their time between class attendance at NWC and ICAF and travel.

³ Ratios based on actual faculty of 34; ratio is 5.6:1 if authorized faculty of 31 is used. Additional faculty have been provided by the services and agencies on an overstrength and temporary basis, resulting in an average of four additional faculty per year over the past 10 years.

⁴ One military officer and three civilian instructors have been given tenure.

⁵ Includes an additional figure of 6 for the 12 international officers who attend NDU and divide their time between class attendance at NWC and ICAF and travel.

⁶ Ratio is based on actual faculty of 43; ratio is 5.4:1 if authorized faculty of 42 is used.

⁷ No tenured faculty.

⁸ Faculty members are assigned to each seminar of 19-20 students.

CHART E-2—FACULTY COMPOSITION AT ARMY PME SCHOOLS

	Civilian	Military	Total	Students	Student/Faculty Ratio
Army War College (AWC) ¹	² 31	² 84	115	³ 288	2.5:1
Command and General Staff College (CGSC) ⁴	35	383 (221)	⁵ 418 (256)	⁶ 975	2.3:1 (3.8:1)

¹ No tenured faculty; military faculty normally serve a 4-year tour; civilian faculty, on a selected basis, remain in excess of 6 years. Military faculty move from correspondence and other positions to and from on-campus teaching positions during the year.

² As of August 1988, an additional 2 civilian and 15 military faculty positions are authorized but vacant.

³ Includes 18 international officers and 18 reserve officers.

⁴ No tenure; four leadership positions are staffed for 6-7 years, others for 3 years.

⁵ These numbers include instructors, curriculum and course developers, doctrine writers, and their supervisors. Numbers in parentheses include classroom instructors only.

⁶ Includes 123 international officers who attend about three-fourths of the course.

CHART E-3—FACULTY COMPOSITION AT NAVY PME SCHOOLS

	Civilian	Military	Total	Students	Student/Faculty Ratio
College of Naval Warfare (CNW) ¹	29	51	80	² 230	³ 2.9:1 (5.0:1)
College of Naval Command and Staff (CNCS) ¹	29	51	80	168	³ 2.1:1 (5.0:1)

¹ No tenure. Civilian faculty are hired under contractual terms: 1 year to indefinite. Currently, 6 civilians serve on indefinite contracts. The faculty teach an additional 45 international officers annually at the intermediate level in the Naval Staff College and U.S. Navy reserve officers in separate courses. The faculty also provide teaching support to the Senior Enlisted Academy, the Chaplains School, Surface Warfare Officers School, and the Naval Justice School (these numbers are not included in data above).

² Includes 40 international officers who are combined with the senior U.S. students for two-thirds of the course and travel during the operations trimester.

³ Naval War College faculty are assigned to one of three departments. Faculty in each department teach in the CNW during one trimester and in the CNCS during a second trimester. The third trimester is used for course development and study. The student-to-faculty ratio for the Naval War College as a whole is 5.0:1 (398 students to 80 faculty).

CHART E-4—FACULTY COMPOSITION AT AIR FORCE PME SCHOOLS

	Civilian	Military	Total	Students	Student/Faculty Ratio
Air War College (AWC) ¹	14	47	² 61	³ 243	4.0:1
Air Command and Staff College (ACSC) ¹	0	121	121	⁴ 565	4.7:1

¹ No tenured faculty.

² This total does not include an additional 2 civilian and 17 additional military faculty members as of October 1, 1988; the new student/faculty ratio is 3.0.

³ Includes 36 international officers who attend the entire course.

⁴ Includes 71 international officers who attend about one-half of the course.

CHART E-5—FACULTY COMPOSITION AT MARINE CORPS PME SCHOOLS

	Civilian	Military	Total	Students	Student/Faculty Ratio
Marine Corps Command and Staff College (MCCSC) ¹	4	² 18 (12)	³ 22	170	⁴ 7.7:1 (14.2:1)

¹ No tenured faculty.

² The staff and faculty include 18 military officers and 4 civilians (the 4 civilians teach writing communication to 80 percent of the students). These 22 core staff and faculty are augmented by adjunct faculty (17 Marine Corps Reserve officers who each teach a 27-hour elective), instructors from other schools, and faculty from the Amphibious Instruction Department (31 officers) of the Education Center at Quantico. The Amphibious Instruction Department faculty teach specific functional areas associated with Amphibious Operations (about one-half of the curriculum).

³ Numbers in parentheses include classroom faculty advisors only.

