

**GAO**

Report to the Chairman, Panel on  
Military Education, Committee on  
Armed Services, House of  
Representatives

September 1991

**MILITARY  
EDUCATION**

**Curriculum Changes at  
the Armed Forces  
Staff College**



144921

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National Security and  
International Affairs Division

B-245073

September 19, 1991

The Honorable Ike Skelton  
Chairman, Panel on Military Education  
Committee on Armed Services  
House of Representatives

Dear Mr. Chairman:

In response to your March 1991 request, we reviewed Phase II joint professional military education (JPME) at the Armed Forces Staff College's Joint and Combined Staff Officer School located in Norfolk, Virginia. This report continues the series of reports addressing the nature and extent of actions taken by the Department of Defense (DOD) in improving its officer education at the service and joint schools. (See Related GAO Reports.)

As agreed with your Office, we assessed the differences between the College's 12-week curriculum and the previous 9-week curriculum. In addition, we assessed whether the College's curriculum incorporates the Panel's guidance. We are also providing additional information on various faculty and student issues.

## Background

A primary objective of the Defense Reorganization Act of 1986 was to strengthen combined and joint operations of the various military services. To fulfill this objective, the House Armed Services Committee established the Panel on Military Education in November 1987 to report its findings and recommendations regarding DOD's ability to develop joint specialty officers through its professional military education systems.

The Panel's April 1989 report envisioned that JPME would be an integral part of professional military education and would be implemented in two phases. Phase I would be taught at the intermediate level schools attended by officers primarily at the rank of major/lieutenant commander. Phase I, taught at the senior level service schools, would be attended by officers at the rank of lieutenant colonel/commander and colonel/captain ranks. JPME at the service schools is taught from the host service perspective.

Phase II, taught at the College, would complement Phase I, and officers would usually attend it after completing Phase I. JPME is taught from a

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joint perspective and concentrates on combining all of the services in a joint arena. The College has programs for students from both intermediate and senior service schools. The intermediate program is 12 weeks in length while the senior program is 5 weeks. A separate senior program will be discontinued by the end of calendar year 1993. JPME schools—such as the College—are, by law, joint in their mission and orientation.

The Chairman, Joint Chiefs of Staff (JCS), established policies, programs, guidelines, and procedures for coordinating JPME of members of the U.S. Armed Forces. The Military Education Policy Document, issued in May 1990, contains this guidance. While the Panel's recommendations are advisory, military departments are required, at a minimum, to include the Chairman, JCS, guidance into their own education systems. The Chairman's guidance, as it relates to what to include in the Phase II JPME curriculum, is consistent with the Panel's report in many respects.

Since the College's inception of the Phase II program, 562 intermediate students and 164 senior students, with proportional representation from each military department, have attended the College. The College has about 50 faculty members with approximately equal representation from the Army, Navy/Marine Corps, and Air Force. The College is a temporary duty assignment for officers. The 1991-92 academic year started in August 1991 and will end in June 1992. During the next 10 months, the College plans to graduate three classes. The first 12-week intermediate program has 228 students, and the 5-week senior program starting in October 1991, is expected to have 56 students. Maximum enrollment at the College is 240 intermediate students and 60 senior students.

In addition to the Joint and Combined Staff Officer School that offers Phase II education, the College also manages the Joint Command, Control, and Electronic Warfare School.

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## Results in Brief

Overall, the College has incorporated the Panel's guidance for improving its new 12-week intermediate curriculum. The number of classroom hours in the 12-week program has increased while preparation hours have decreased compared to the 9-week program. According to the Commandant, the reduction in preparation hours allows greater opportunity for joint student interaction. The College sharpened the focus and contents of readings, case studies, practical exercises, and its wargame—areas emphasized by the Panel.

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The Commandant stated that the service headquarters have provided high quality military faculty members. However, based on our analysis, we noted that faculty promotion rates have lagged behind specialists and other line officers.

The College itself has little or no input in student selection, despite the Panel's support for such involvement. The Commandant is satisfied with the student selection processes already in place, and stated that educational issues should be the College's primary focus. In addition, the Commandant and other College officials stated that they are satisfied with the quality of the students sent by the services.

Direct entry—allowing intermediate and senior students to attend Phase II without first graduating from a Phase I in-resident program—is a continuing practice.

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## Principal Findings

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### Phase II Curricula Incorporate Panel Guidance

The Panel's report on professional military education outlined, in general terms, the composition of the Phase II JPME curriculum at the College. Both the 9- and 12-week curricula incorporate the Panel's criteria for Phase II.

The 12-week curriculum has eight courses—three of them are similar or identical to courses in the 9-week curriculum. The 12-week curriculum is longer than the 9-week curriculum in terms of classroom hours, 383 and 337, respectively. However, it has fewer preparation hours. Students spend an average of 6.6 hours per day in class in the 12-week program versus 7.3 hours spent in the 9-week program.

Differences between the curricula centered in several areas. Course content in the 12-week curriculum is more focused by including relevant topics that foster an increased awareness of joint matters; more practical exercises, case studies, and readings; less emphasis on processes, procedures, and passive learning (lectures, guest speakers); and more student-led discussion and participation. In addition to reflecting higher levels of learning, College officials stated that the 12-week curriculum also offers a better balance of issues such as joint deployment, employment, and sustainment.

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**Faculty Members Less Competitive**

The Panel wanted teaching assignments at the College to increase promising officers' competitiveness in their rate of selection for promotion compared with that of officers without teaching assignments. It also expressed concern during its visit to the College to review professional military education issues that faculty members not be disadvantaged in the promotion process because of their teaching tour. Based on 1 year of promotion data since June 1990, 7 percent of the faculty members eligible for promotion were selected. By contrast, the service-wide promotion rate identified in the Panel report suggests that military faculty members may not be as competitive as officers in operational and functional areas.

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**College Not Involved in Student Selection**

The Panel wanted the College directly involved in selecting students. However, each service selects students to attend Phase I and Phase II institutions. The selections are made by senior military personnel who meet and review officer qualifications and recommend students to attend the schools. Although the College is not directly involved, the Commandant of the College is satisfied with current selection procedures and the overall quality of students. The Commandant does not want the College involved in the selection process and strongly maintains the position that student selection is a service function and that College involvement would encroach upon the services' prerogative.

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**Direct Entry Continues**

The Panel emphasized that education of joint specialty officers be rigorous and that waivers issued by the Secretary of Defense be kept to a minimum. These waivers would allow officers to attend Phase II without first completing Phase I in-residence. They are usually granted to permit promising officers who, due to various circumstances, do not have Phase I JPME. Approval of waivers provides officers the opportunity to attend Phase II. The Panel stated that students completing Phase I JPME requirements as in-residents appear to have had a more rigorous education than those who did not. However, about 33 percent of the students attending the College are direct entrants. Present trend data indicates that the number of waivers approved has been drastically reduced.

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Appendix I contains our scope and methodology and appendix II provides a more detail discussion of our work in the curricula, faculty, and student areas.

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We are sending copies of this report to other appropriate congressional committees; the Secretaries of Defense, Army, Navy, and Air Force; the Commandant of the Marine Corps; the Commandant of the College; and the intermediate and senior service schools. Copies will also be made available to other interested parties upon request.

Please contact me at (202) 275-3990 if you or your staff have any questions concerning this report. Major contributors to this report are George E. Breen, Jr., Assistant Director; Frank Bowers, Senior Evaluator; and Meeta Sharma, Staff Evaluator.

Sincerely yours,



Paul L. Jones  
Director, Defense Force Management  
Issues

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**Abbreviations**

DOD	Department of Defense
JCS	Joint Chiefs of Staff
JPME	joint professional military education

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# Scope and Methodology

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To assess the differences between the College's 12-week and the previous 9-week curricula, we reviewed documents, course materials, and curriculum analyses performed by College officials who developed the 9- and 12-week intermediate programs. We analyzed these materials and analyses, and prepared summaries of the differences and similarities, and discussed them with the appropriate College officials.

We gathered information on faculty and students, including selections, promotions, retirements, direct entry, and biographical data since June 1990. We obtained this information from the College, service headquarters, and Joint Chiefs of Staff (JCS). We supplemented the data by interviewing officials cognizant of faculty and student issues.

We performed this review from March through August 1991 in accordance with generally accepted government auditing standards.

As requested, we did not obtain formal comments on this report. However, the views of responsible officials were sought during the course of our work and are included in the report where appropriate.

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# Curriculum, Faculty, and Student Issues

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This appendix discusses the Armed Forces Staff College's Phase II activities in addressing the Panel's guidance and other issues related to curriculum, faculty, and students.

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## Curriculum Issues

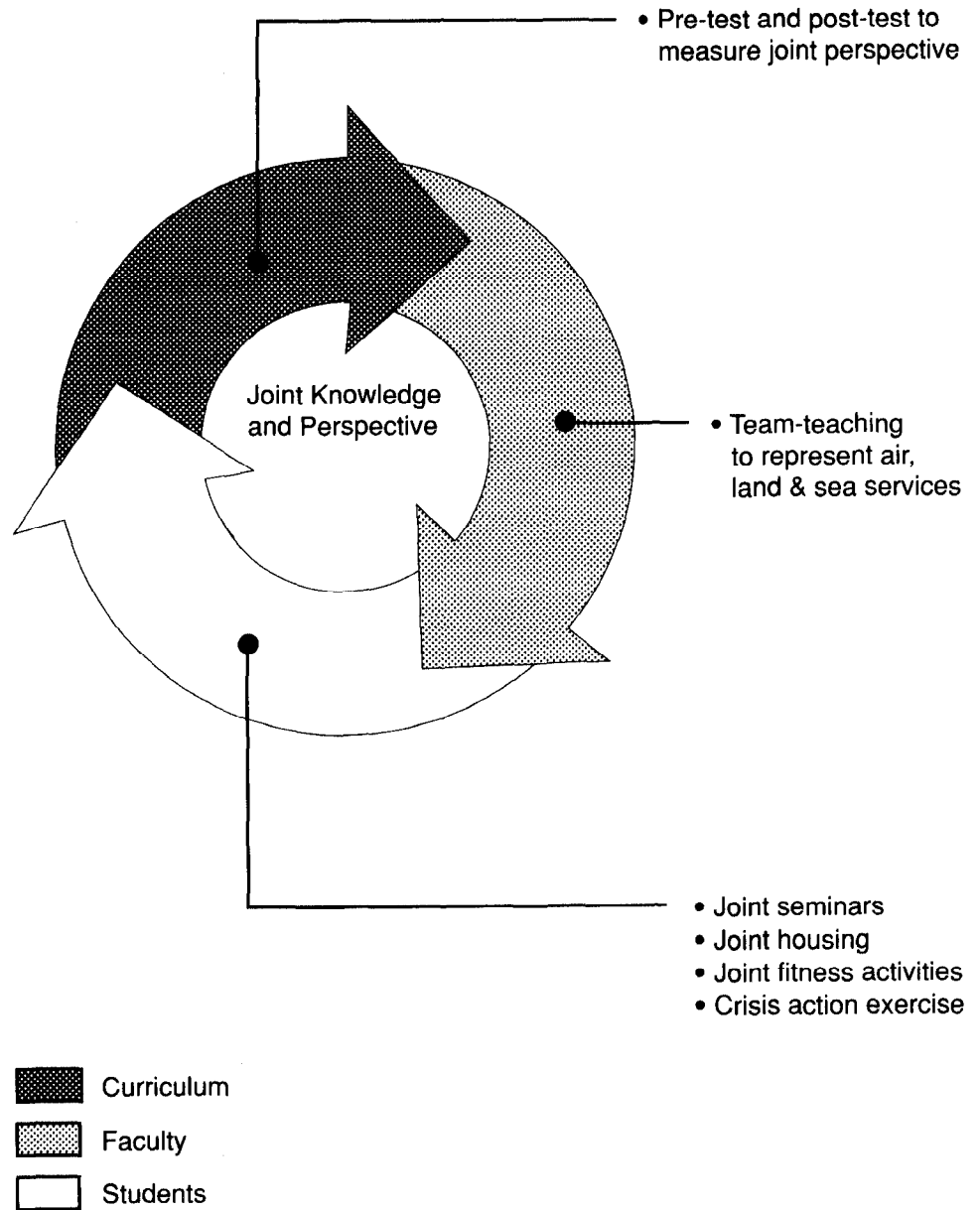
In its report on professional military education, the Panel outlined in general terms the composition of the curriculum for joint professional military education (JPME) at the College. In addition, the National Defense Authorization Act for Fiscal Years 1990 and 1991 required the Department of Defense (DOD) to extend the curriculum to 12 weeks before November 1991.<sup>1</sup> The College implemented its new curriculum in August 1991. The curriculum had been 9 weeks long since Phase II was established. Before then, DOD had no phased approach for JPME.

Figure II.1 shows some of the different ways the College encourages jointness. The curriculum, faculty teaching teams, and student seminars are all set up with jointness in mind.

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<sup>1</sup>According to this law, the curriculum at the College is not to be less than 3 months. DOD has interpreted this to mean 12 weeks.

Figure II.1: The College Encourages  
Joint Interaction



When students enter the College, they are tested on their knowledge and perceptions of jointness. They are tested again during the last week of the program, on the same issues using the same testing instruments, to help gauge the amount of jointness gained. In addition, during the first week, students participate in a crisis planning exercise. The success of this exercise requires joint interaction, an explicit exercise objective.

Jointness in faculty is achieved through a team of teachers representing land, sea, and air services. In addition, the students are jointly housed by seminar.<sup>2</sup> That is, the College is the only professional military education institution housing its students to ensure that land, sea, and air forces are represented in each housing billet. According to College officials, students residing in close proximity to each other fosters joint interaction. Moreover, student seminar teams participate in joint physical fitness activities.

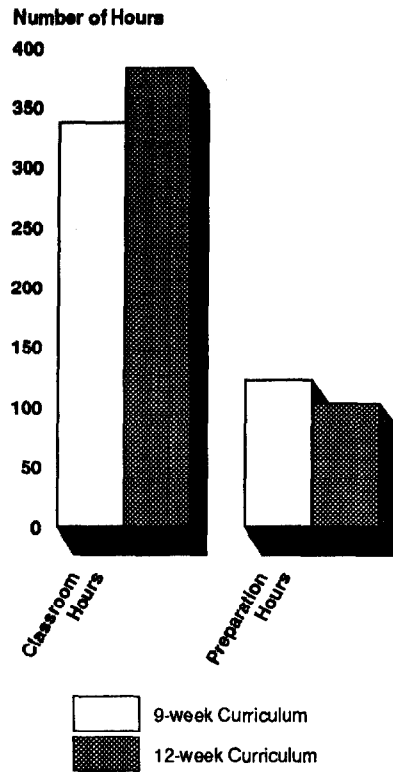
**Total Classroom Hours  
Increased While  
Preparation Hours  
Decreased**

As of September 1991, the 12-week program had about 383 classroom hours and the 9-week program had about 337 hours in the most recently completed session ending June 1991. (See fig. II.2.) Student preparation hours are lower in the 12-week program—about 103 versus 122 in the 9-week program. Students in the 12-week program average 1 hour less in class each day—6.6 hours versus 7.3 hours in the 9-week program.

The Commandant of the College stated that the shorter classroom day and the decrease in preparation hours was a conscientious effort to allow students more time for absorption, study, and reflection. In addition, the Commandant said this provides time—not always available in the 9-week program—for students to interact with each other at the end of the academic day, thereby increasing the service bonding and joint team building that the College was chartered to create.

<sup>2</sup>A seminar is a group of students studying under an instructor with each student doing research and then exchanging the results through reports and discussions. Both intermediate and senior seminars have a programmed mix of 20 students.

Figure II.2: Comparison of 9- and 12-Week Intermediate Curricula at the College



### Content of Courses Has Changed

The degree of change that resulted from extending the 9-week curriculum to 12 weeks has both quantitative and qualitative aspects.

The shaded area in Figure II.3 indicates that five courses have undergone some change in content. Within these courses, about 19 percent of the individual lessons are different. The difference is due to deleting and consolidating some lessons as well as other more substantive changes. The balance of the curriculum is either similar or identical.

Figure II.3: Areas of Study Where the Majority of Changes Have Occurred in the Intermediate Curriculum

Course Number <sup>a</sup>	Curriculum for 9-Week Program	Curriculum for 12-Week Program
1S00	Orientation and Admin. } Joint Perspectives	Joint Perspectives
1S10	Preliminary Joint Exercise	Preliminary Joint Exercise
1S20	Services, Cmd. Rel. & Fce. Sync.	Strategic Synchronization
1S30	Defense Resources Management <sup>b</sup>	Joint Theater Org. & Cmd. Rel.
1S40	Deliberate Planning	Action Officer Reg. Contin. Plan.
1S50	Time-Sensitive Planning	Action Officer Crisis Act. Plan.
1S60	Joint Planning Exercise	Joint Planning Exercise
1S70	War Game	War Game

Courses that have undergone changes in content

<sup>a</sup>A one-to-one comparison between all courses in the 9- and 12-week curricula could not be made because course numbers and content are not uniform.

<sup>b</sup>This course has been subsumed within the 12-week curriculum.

### Quantitative Changes

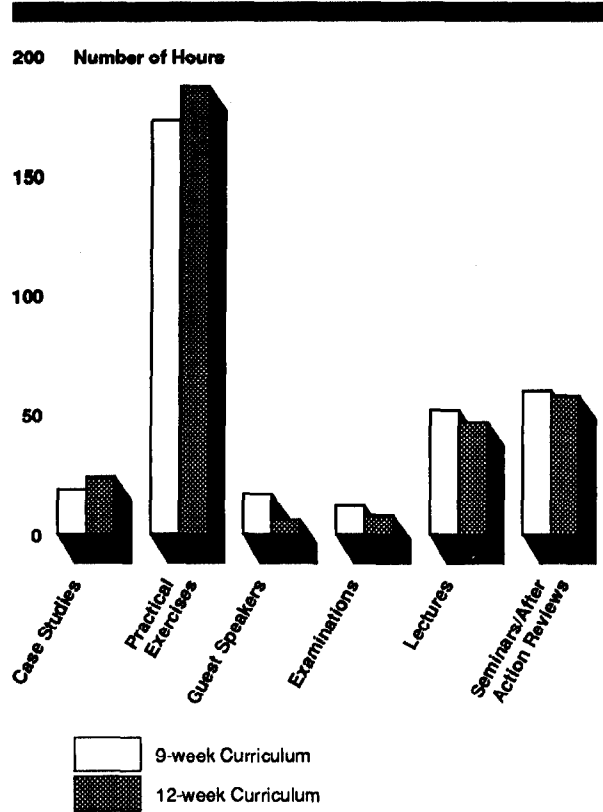
Figure II.4 shows some quantitative changes, in hours, in the 12-week curriculum. Specifically, the changes identified include the number of hours devoted to practical exercises and case studies. The figure also shows a decrease in passive learning (guest speakers and lectures), supporting the Panel's recommendation.

In addition, the total number of readings has increased. The content of the readings and case studies also differs from the 9-week curriculum. Moreover, College officials told us that they used the Panel report as a guide for both the 9- and 12-week curricula in developing course objectives to be achieved.

### Qualitative Changes

We also identified a number of qualitative changes that were incorporated into the new curriculum. Many of these changes are not apparent when quantifying the degree of change in individual courses. For

Figure II.4: Comparison of Selected Changes Between the 9- and 12-Week Intermediate Curricula<sup>a</sup>



<sup>a</sup>Judgments on the effectiveness of the curricula should not be made based solely on this graphic. This graphic is intended to supplement additional discussions of the changes in the program.

example, our analyses showed that the 12-week curriculum is taught, for the most part, at the application level of learning. The 9-week curriculum focused primarily at the knowledge level of learning. The application level of learning is that level which surpasses the knowledge and comprehension levels and deals with the use of learned material in specific instances. The Panel indicated that the application level should be used at the College.

The curriculum also incorporates another Panel criterion by de-emphasizing processes. Processes such as defense resource allocation; planning, programming, and budgeting; joint strategic planning systems; and procedures governing joint staff operations are now more appropriately taught during Phase I.



The new curriculum also sharpens the focus of a number of practical exercises, case studies, and readings. As a result, the curriculum is more responsive to course objectives and permits more thorough analysis of specific course topics.

Other qualitative changes made to the 12-week intermediate curriculum are summarized below:

- Increased use of computer applications resulting from more sophisticated hardware/software.
- Comprehensive midterm and final essay examinations requiring students to synthesize and apply their knowledge of the material.
- Increased emphasis on low intensity conflict.
- Greater coverage of operational synchronization.<sup>3</sup>

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## Other Curriculum Issues

Items that are of particular interest to the Panel are shown in the following three figures. Figure II.5 shows the amount of active instruction, an area that the Panel wanted emphasized over passive instruction. The Panel goal is for professional military education institutions to achieve 90 percent active instruction. Active instruction emphasizes the use of seminars, readings, writings, and other activities that require student participation while de-emphasizing passive activities such as lectures, panel discussions, and films.

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<sup>3</sup>Operational synchronization refers to coordinating land, sea, and air forces and military actions. At the operational level of war, campaigns and major operations are planned and executed within a theater of war or operations to attain strategic goals.

Figure II.5: Amount of Active Versus Passive Learning in the 12-Week Intermediate Phase II Curriculum

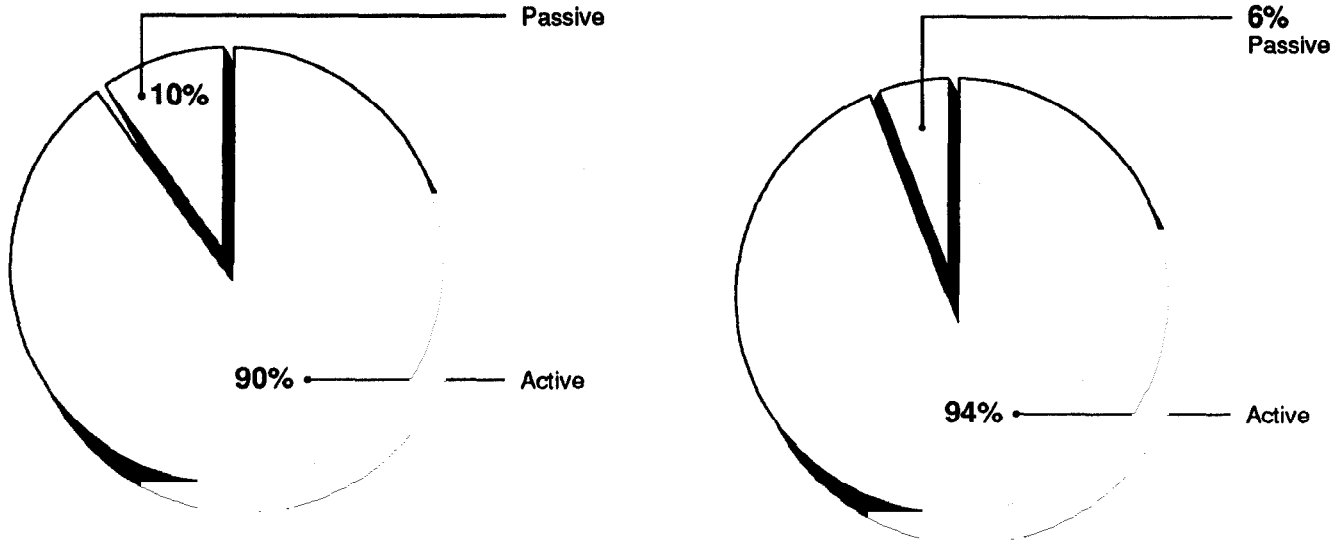


Figure II.6 displays that portion of the curriculum devoted to operational art which, according to the Panel, should be a focus at the College.<sup>4</sup> Figure II.7 displays the portion of the curriculum devoted to jointness, another area emphasized by the Panel.

<sup>4</sup>Operational art is the employment of military forces to attain strategic goals in a theater of war or theater of operations through the design, organization, and conduct of campaigns and major operations.

Figure II.6: Amount of Operational Art in the 12-Week Intermediate Phase II Curriculum

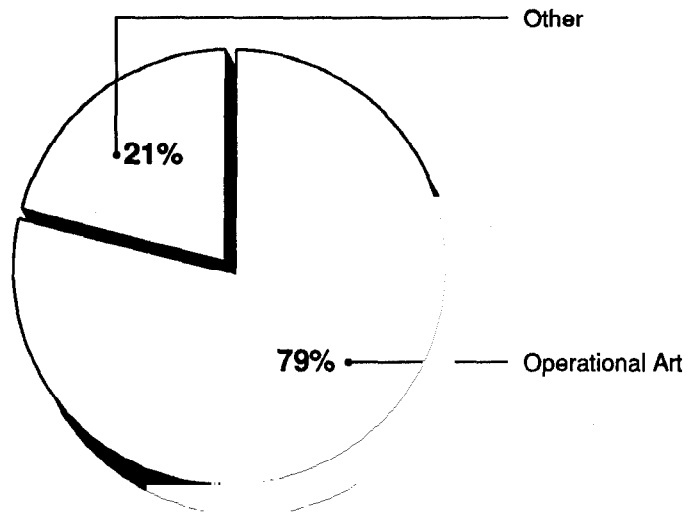
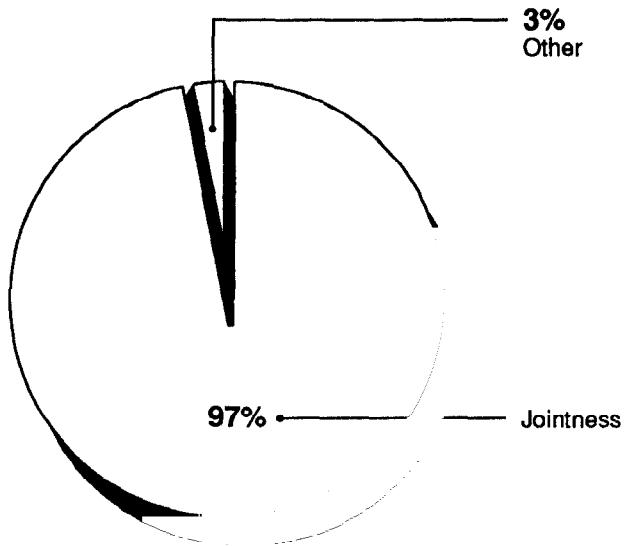


Figure II.7: Amount of Jointness<sup>a</sup> in the 12-Week Intermediate Phase II Curriculum



<sup>a</sup>College officials estimated the number of hours individual course lessons dealt with joint matters. We then aggregated these estimates to determine the percent of jointness for the entire curriculum.

## Faculty Issues

### Faculty Members Less Competitive

The Panel wanted teaching assignments at the College to increase the competitiveness of promising officers by ensuring that their selection for promotion paralleled the selection rate of officers who did not have teaching assignments. After completing their teaching tour, officers would move on to greater responsibilities and other challenging assignments.

At the College, faculty members are chosen from among a pool of officers nominated by their respective service for an average tour of 3 years. The Commandant is authorized to approve or disapprove any nominations. The College has made a serious effort to select the best qualified officers, as evidenced by a faculty nomination disapproval rate of 30 percent. In addition, the Commandant stated that he is well pleased with the qualifications and performance of the present faculty. However, recent promotion and retirement data indicate that the Panel's vision for College faculty is being met with limited success.

College officials stated that since the establishment of Phase II in June 1990, 82 faculty members were eligible for selection for promotion. Six faculty members (7 percent) have been selected for promotion during their tour at the College. In addition, 12 faculty members retired after completing their tour at the College. (See table II.1.) College officials do not track faculty members after their tour is completed.

Table II.1: Promotions at the College  
From June 1990 to September 1991

Service	Promotions	
	Eligible	Selected <sup>a</sup>
Army	30	1
Navy	22	1
Air Force	27	4
Marines Corps	3	0
<b>Total</b>	<b>82</b>	<b>6</b>

<sup>a</sup>Different services have different promotion selection procedures, which may account for the variable promotion rates among the services.

While praising the high quality of the faculty, College officials told us faculty members are not as competitive as their counterparts in operational and functional assignments. The Panel expressed a similar concern during its visit to the College in academic year 1987-88. The Panel

noted that the average service-wide promotion rate was between 35 and 50 percent, over a 5-year period.

The Commandant stated that although the best qualified officers are selected as faculty, their tour at the College makes them less competitive than officers with continued operational and functional assignments.

In addition, during the same period, one Army and seven Navy faculty members retired. The numbers are four and zero, respectively, in the Air Force and Marine Corps.

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## Student Issues

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### Student Selection

A central theme in the Panel's report was that joint specialty officers represent the services' best officers. Therefore, the Panel recommended that the services establish formal boards to select candidates for Phase II education at the College. The Panel also endorsed a more active role for the College regarding the selection process.

Each service has a formal selection process to identify candidates for intermediate and senior service schools. The specifics of how they operate vary from service to service. Generally, however, senior military personnel meet and review officer qualifications and designate candidates as appropriate. For attendance at intermediate service schools, about 20 to 50 percent of the officers are identified, and for senior service schools, approximately 6 to 7 percent are designated.

In addition, during the selection of officers for service schools, some of these boards also identify officers to attend Phase II after completing their professional military education, including Phase I requirements. For example, the Air Force designates Phase II students during the service school selection process. In the Navy, students are identified after the board process based on their eligibility to attend service schools. These recommendations are not final and must be approved by higher levels within the respective service.

The Commandant does not want the College involved in selecting its students. The Commandant believes that the College should concentrate on educational matters, describing it as a full-time activity. Furthermore,

he is satisfied with the current selection procedures as well as with the overall quality of students attending the College.

## Direct Entry Admission Continues

The Panel recommended that, except for a select few, students attending Phase II should be graduates of in-residence Phase I programs.<sup>5</sup> The Military Education Policy Document, which sets the overall policy for DOD joint education, differs with the Panel in this respect. It allows graduates of certified non-resident or correspondence Phase I programs to also attend Phase II. According to an official in the Joint Staff office, this provides a larger pool of officers for selection for joint and educational assignments. It also helps prevent conflicts with operational missions when select eligible officers cannot attend as in-residence students.

The Panel emphasized that education of joint specialty officers be rigorous and that waivers issued by the Secretary of Defense be kept to a minimum. These waivers, which allow officers to attend Phase II without first completing Phase I in-residence, continued in academic year 1990-91. As stated earlier, about 33 percent of the students at the College attended as direct entrants.

In September 1991, officials of the Joint Staff stated that the number of waivers declined steadily after January 1991. For the 12-week intermediate class, waivers were granted for four students. This represents about 1 percent of the total class.

## Number and Type of Direct Entrants

For the present, the Panel and DOD have a similar definition. The Panel broadly defines a direct entrant as a student who was not either of the following:

- graduate of an in-residence professional military education service school during academic years 1985-89 or
- graduate of an in-residence Phase I JPME program at a service school in academic year 1988-89 or beyond.

Further, DOD places direct entrants into three categories depending on when and where they received their education. (See table II.2.) The

<sup>5</sup>That portion of professional military education received at an intermediate or senior service school and not through a non-resident or correspondence program.

figures are cumulative since June 1990 and cover the four 9-week sessions taught at the College for both intermediate and senior students. In academic years after 1990-91, DOD will permit graduates of accredited non-resident Phase I programs to attend the College without receiving a waiver.

**Table II.2: Number of Direct Entrants Attending Phase II From June 1990 to June 1991**

Direct entry category	Intermediate entrants	Senior entrants
None/other <sup>a</sup>	75	16
Non-resident <sup>b</sup>	111	13
1984 or before <sup>c</sup>	27	0
<b>Total</b>	<b>213</b>	<b>29</b>

<sup>a</sup>Students with no intermediate or senior service school Phase I JPME.

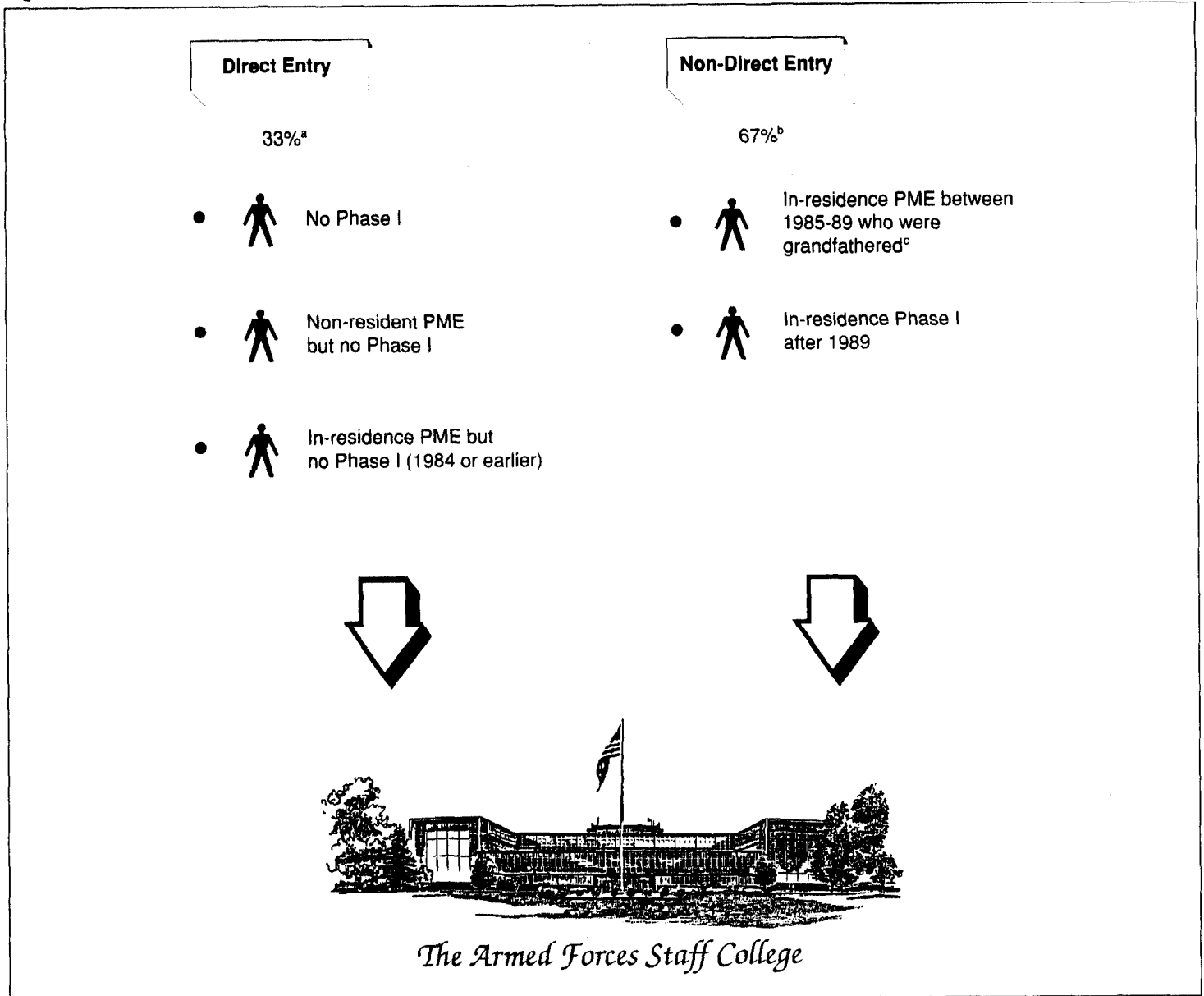
<sup>b</sup>Students who completed professional military education as non-residents or by correspondence, but did not receive Phase I JPME.

<sup>c</sup>Students who completed professional military education as residents (in 1984 or earlier), but did not receive Phase I JPME. Phase I JPME was established in 1989.

In the four Phase II programs since June 1990, 41 percent graduated from in-residence Phase I programs. Another 26 percent were graduates from in-residence programs during academic years 1985-89. The remaining 33 percent were direct entrants.

Figure II.8 shows the percentage composition of direct entry students compared with non-direct entry students.

Figure II.8: Percent of Direct Entry Students Attending Phase II From June 1990 to June 1991



<sup>a</sup>Of the 33 percent direct entry students, 88 percent are intermediate students and 12 percent are senior students.

<sup>b</sup>Of the 67 percent non-direct entry students, 73 percent are intermediate students and 27 percent are senior students. After June 1991, graduates of certified non-resident Phase I programs will also be included.

<sup>c</sup>Students that were grandfathered refer to graduates of an in-residence professional military education school during academic years 1985-89, before the establishment of Phase I JPME in 1989.



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# Glossary

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Active Instruction	Teaching method that incorporates such things as reading, writing, researching, and attending seminars, thereby requiring the student's participation. This is in contrast to passive instruction, which refers to auditorium lectures, panels, symposia, and films.
Application Level of Learning	In the educational taxonomy, that level which surpasses the levels of knowledge and comprehension, and deals with the use of learned material in specific instances.
Deployment	The relocation of forces to the desired area of operation.
Employment	The strategic or tactical use of forces and materiel within the area of operations.
Faculty	Those members of an educational institution who conduct research, or who teach, prepare, or design curricula.
In-Residence Education	That portion of professional military education received at an intermediate or senior service school and not through a non-resident or correspondence program.
Intermediate Service School	This is generally the third level of an officer's formal professional military education and officers with about 10 to 15 years of military experience who attend one of the four intermediate schools. (These schools are the U.S. Army Command and General Staff College at Fort Leavenworth, Kansas; the College of Naval Command and Staff in Newport, Rhode Island; the U.S. Air Command and Staff College, Montgomery, Alabama; and the U.S. Marine Corps Command and Staff College in Quantico, Virginia.) An officer is usually at the major rank in the Army, Air Force, and Marine Corps, or lieutenant commander in the Navy. At the intermediate level, the focus is on several branches of the same service as well as on the operations of other services.

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**Joint Professional Military Education (JPME)**

This education encompasses an officer's knowledge of the use of land, sea, and air forces to achieve a military objective. It also includes different aspects of strategic operations and planning, command and control of combat operations under a combined command, communications, intelligence, and campaign planning. Joint education emphasizes the study of these areas and others from the perspectives of the Army, Navy, Air Force, and Marine Corps services.

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**Joint School**

JPME from a joint perspective is taught at the schools of the National Defense University located at Fort McNair in Washington, D.C., and another location in Norfolk, Virginia. For the most part, officers attending a joint school will have already attended an intermediate and/or senior service school.

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**Joint Specialty Officer**

An officer who is educated and experienced in the formulation of strategy and combined military operations to achieve national security objectives.

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**Operational Art**

The employment of military forces to attain strategic goals in a theater of war or theater of operations through the design, organization, and conduct of campaigns and major operations.

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**Phase I**

That portion of joint education that is incorporated into the curricula of intermediate and senior level service colleges. Phase I joint education is taught from the perspective of the four services: Army, Navy, Air Force, and Marine Corps. The Phase I program is 10 months long with the academic year usually starting in August and ending in June of the following year.

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**Phase II**

That portion of joint education that complements Phase I and is taught at the Armed Forces Staff College. Phase II joint education is taught from a joint perspective in terms of integrating employment and support of all services in the pursuit of national objectives.

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**Senior Service School**

This level is normally attended by lieutenant colonels and colonels in the Army, Air Force, and Marine Corps and by Navy commanders and captains with about 16 to 23 years of military service. The senior service

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schools generally offer an education in strategy. (The four senior level schools are the Army War College at Carlisle Barracks, Pennsylvania; the College of Naval Warfare in Newport, Rhode Island; the Air War College in Montgomery, Alabama; and the Marine Corps Art of War Studies Program in Quantico, Virginia.)

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**Service School**

One of the individual Army, Navy, Air Force, or Marine Corps intermediate or senior professional military education institutions.

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**Strategy**

National military strategy is the art and science of employing the armed forces of a nation to secure the objectives of national policy by applying force or the threat of force. National security strategy is the art and science of developing and using the political, economic, and psychological powers of a nation, together with its armed forces, during peace and war, to secure national objectives.

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**Synchronization**

The arrangement of military actions in time, space, and purpose to produce maximum relative combat power at a decisive place and time. It may and usually will require explicit coordination among the various units and activities participating in any operation. More specifically, it refers to the coordination of land, sea, and air forces in joint operations. Synchronization occurs at either the operational or strategic level of war.





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# Related GAO Reports

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Professional Military Education (GAO/T-NSIAD-91-4, Feb. 5, 1991).

Marine Corps: Status of Recommendations on Officers' Professional Military Education (GAO/NSIAD-91-88FS, Feb. 12, 1991).

Air Force: Status of Recommendations on Officers' Professional Military Education (GAO/NSIAD-91-122BR, Mar. 13, 1991).

Army: Status of Recommendations on Officers' Professional Military Education (GAO/NSIAD-91-121BR, Mar. 21, 1991).

Navy: Status of Recommendations on Officers' Professional Military Education (GAO/NSIAD-91-124BR, Mar. 25, 1991).

Department of Defense: Professional Military Education at the Four Intermediate Service Schools (GAO/NSIAD-91-182, June 13, 1991).

Department of Defense: Professional Military Education at the Three Senior Service Schools (GAO/NSIAD-91-202, June 20, 1991).

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