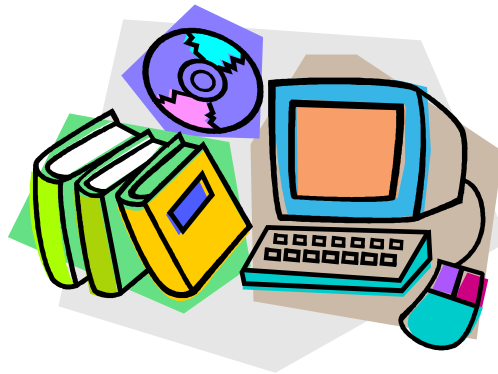


# **A Bibliography of Professional Military Education (PME)**



Compiled by

**Greta E. Marlatt**

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## DOCUMENTS, THESES & TECHNICAL REPORTS

*Although there are a number of very relevant reports issued with distribution limitations (e.g. DOD only) due to the public nature of this bibliography, this section includes unclassified/unlimited distribution references only. Abstracts were taken from the DTIC [Defense Technical Information Center] and NTIS [National Technical Information Service] databases and were written by the authors of the documents cited or by the abstracting service from which the citations were generated not by the author of this bibliography.*

Aitken, George G. **Air Force Noncommissioned Officer Professional Military Education - A Blueprint for the Future**. Research report. Maxwell AFB, AL: Air War College, May 1986. 42p.

**Abstract:** This report seeks to evaluate the evolution of Air Force Noncommissioned Officer professional military education. To do so, the report briefly examines officer professional education from the Prussian Kriegsakademie up to a description of the present Air Force officer professional military education system. The paper more fully reviews how noncommissioned military education has evolved--given this historical background. Finally, the author offers some thoughts on how Air Force noncommissioned officer professional military education could be modified to better serve its long term goal of educating men and women of the United States Air Force in the profession of arms.

**ACCESSION NUMBER: AD-A177740**

Alexander, Renita D. **A Joint Transformation Enabler**. Carlisle Barracks, PA: Army War College, 2003. 43p.

**Abstract:** Since mid-2001, the Department of Defense (DoD) has been actively, even urgently, engaged in a transformation designed to ensure it is postured to meet future security challenges while sustaining U.S. capability to defeat current threats. From a new capabilities-based defense strategy to the restructuring of the Unified Command Structure, the Secretary of Defense Donald Rumsfeld has led the implementation of significant changes in an organization not known for its adaptability. Underlying the pursuit of transformational concepts necessary to respond to 21st century challenges is an emphasis on joint operations and doctrine. This emphasis on jointness goes beyond mere service deconfliction or interoperability and mandates more cohesion and continuity to achieve the synergy from joint operations. A joint perspective from the services is crucial to the successful implementation of transformation goals. Unfortunately, a joint perspective within the military departments is currently missing. Almost since the creation of the Department of Defense (DoD), professional military education has been seen by some as a way to foster jointness. This paper looks at how a reformed education system, by encouraging a joint perspective in the military leadership, can help achieve DoD's transformation goals.

**ACCESSION NUMBER: AD-A414884**

<http://handle.dtic.mil/100.2/ADA414884>

Antenen, James L. **Effects of Attendance at Initial Professional Military Education on the Personal Values of United States Air Force Officers**.

Student report. Maxwell AFB, AL: Air Command and Staff College, April 1986. 122p.

**Abstract:** The primary purpose of this research study was to determine if initial professional military education has any effect on personal values. More specifically, it was to determine if attendance at Squadron Officer School changes the personal values of Junior Air Force officers to make them more congruent with the personal values of successful Air Force officers (students at Air War College). Two widely used instruments were used to obtain the data, the Allport, Vernon and Lindzey Study of Values, and the Rokeach Value Survey. Multivariate analyses of variance (MANOVAs) and one-way analyses of variance (ANOVAs) were used to analyze the data. The conclusions were that Junior Air Force officers' personal values were in fact different from the personal values of successful Air Force officers, and attendance at Squadron Officer School changes the personal values of Junior officers to make them more congruent with the personal values of successful officers.

**ACCESSION NUMBER: AD-A168435**

Arnold, Edwin J., Jr. **Professional Military Education: Its Historical Development and Future Challenges.** Study project. Carlisle Barracks, PA: Army War College, 3 April 1993. 53p.

**Abstract:** The United States Army's Professional Military Education System had its beginnings in the post-Civil War era. Using the great Prussian education system as a model, early military educators developed a system to meet the specific needs of the United States. Through the years the system has undergone repeated reforms to match the changing nature of warfare and increasing technology. The system reached its current state in the early 1990s when it incorporated changes to meet increased requirements for joint education. Pressures for change and other challenges continue to confront the system as the Army adjusts to the end of the Cold War. After a discussion of the system's historical development, this study addresses those pressures and challenges. It proposes five criteria which can be used to identify shortcomings or to establish the continued viability of the system in a time of significant change. The study concludes by offering possible adjustments that the system can make to prepare itself to meet the needs of the Army into the twenty-first century.

**ACCESSION NUMBER: AD-A263673**

<http://handle.dtic.mil/100.2/ADA263673>

Arnott, Gail L. **Senior Service School Teaching Methods.** Maxwell AFB, AL: Air War College, May 1989. 67p.

**Abstract:** The five senior service schools in the United States use a variety of teaching methods. This study reviews the teaching methods used at the war colleges, considers their method selection criteria, discusses the various techniques for evaluating instructional method, and reaches the following conclusion: teaching method is not an important variable in predicting subsequent student performance. More important predictors include instructor and student background and expertise, what worked well in the past, the content of the curriculum, and even the time of year. Quality presentations and the use of a variety of techniques are more important than the particular method used.

**ACCESSION NUMBER: AD-A217282**

Bangs, Daniel P. **Survey of Studies on Factors Affecting Air Force Professional Military Education.** Student report. Maxwell AFB, AL: Air Command and Staff College, April 1986. 32p.

**Abstract:** There have been many studies done on USAF Professional Military Education (PME) since its inception in the mid 1940s, and it is anticipated that many more studies will be done in the future. This report examines what studies have been done in four recurring areas of PME: structure, eligibility requirements, timing of attendance, and target audience. It is meant to be a reference source that can save many hours of research to people doing future studies. This report devotes a chapter to each of these areas and presents a brief chronological synopsis of studies from 1946 to 1985 that examined these areas.

**ACCESSION NUMBER: AD-A166675**

Barnett, Bradford R. **Teaching Joint Doctrine in the Non-Resident Professional Military Education Environment.** Maxwell AFB, AL: Air University, 1999. 44p.

**Abstract:** All services provide professional military education (PME) to both resident and non-resident students. The Goldwater-Nichols Act directs the Chairman of the Joint Chiefs of Staff (CJCS) to enhance the education and training of officers in joint matters. The CJCS established the Officer Professional Military Education Policy (OPMEP) requirements to direct service schools to teach joint doctrine and joint operations within the PME curricula. Service schools are meeting the minimum OPMEP requirements in an environment of continuous high paced operations (OPSTEMPO). Currently, non-resident joint training and education is limited to reading textbooks about jointness. What is required is an opportunity for interactive joint training and education. The Air Force's solution for the future is distance learning. Distance Learning is an excellent teaching method. However, it is deficient in providing the opportunity for students, enrolled in the non-resident correspondence and/or seminar program, to interact and learn from the other services. The other services provide this opportunity to their non-resident students to prepare them not only for joint assignment, but also to fill ad hoc Joint Task Force (JTF) staffs. This type of ad hoc staff is more prevalent in today's Department of Defense. As the Air Force moves toward the Air Expeditionary Force (AEF) concept its challenge is to provide qualified officers trained and educated through the non-resident program to work in joint staff positions and on ad hoc JTFs. The Air Force can provide this interaction through a short course for non-resident students.

**ACCESSION NUMBER: AD-A390757**

<http://handle.dtic.mil/100.2/ADA390757>

Barucky, Jerry M. **Enlisted Professional Military Education Curriculum Validation Project.**

Final report. Randolph AFB, TX: Air Force Occupational Measurement Center, March 1980. 44p.

**Abstract:** Three separate survey booklets were administered to separate random samples of enlisted personnel in all paygrades and career fields between November 1978 and March 1979. Survey results are based on data collected from 10,449 respondents. The survey data showed that enlisted personnel have relatively little involvement with leadership, management, or communicative tasks prior to paygrade E-5. A dramatic increase in performance of supervisory-oriented tasks occurs among E-5s, and general involvement with leadership, management, and communicative tasks increases greatly through paygrade E-8. Only a slight increase occurs from E-8 to E-9. The present enlisted PME (Professional Military Education) system, offering a greater amount of material in each PME phase, seems to fit this general pattern of involvement. In a series of curriculum workshops, PME representatives used survey data to identify the optimum PME phase point at which to introduce the particular skill or knowledge area relevant to each task. These data enabled them to validate or revise most of the PME curriculum goals and objectives outlined in AFR 50-39. The validation effort showed

that the leadership, management, and communicative tasks performed by each paygrade group are generally being addressed by the corresponding phase of PME.

**ACCESSION NUMBER: AD-A084 972**

Beddingfield, R.E., T.M. Imphong and K.L. Mcelvain. **Senior Service College Comparison**. Study project. Carlisle Barracks, PA: Army War College, 5 June 1985. 129p.

**Abstract:** A comparison of the five United States senior service colleges must be approached within an awareness that they all have as a common objective the preparation of senior military officers and civilian officials for future roles as responsible executives in the decision making bodies of the armed forces and other government agencies. In addition, the direction that each has taken over the past decade has been based to a large extent on the Clements Commission Report of Senior Service College Curriculum Study published in 1975. Against this background the differences between the schools can be seen primarily as ones of emphasis, focus, or structure rather than ones of significant content or directional divergence. This study presents analyses of those areas within the senior service colleges that the authors believed would best demonstrate both the similarities and differences between these five uniformly excellent institutions. Individual reports on each college have been included for the benefit of those readers who may have an interest in a more detailed description of the program at a particular school. If a conclusion is to be drawn from this study, it is that all five colleges are successfully meeting their objectives by providing the leadership cadre of the military services and many government agencies with a graduate level course of instruction with a major in national security, strategy and policy, and a minor in the preparation and execution of military activities in support of that policy.

**ACCESSION NUMBER: AD-A159935**

Benson, Lista M. **Leadership Behaviors at Air War College**. Maxwell AFB: Air University, Air Command and Staff College, 1998. 58p.

**Abstract:** As the level of job responsibility increases, leaders may need to emphasize different leadership behaviors (Jacobs and Jacques, 1987). These behaviors tend to be hierarchical, with different behaviors needed at the direct, organizational, and strategic levels (Yukl, 1992). Is the same true in the Air Force? The purpose of this investigation is to determine the critical hierarchical leadership behaviors required at the senior level of responsibility in the United States Air Force (USAF). A sample of Air War College Students were administered a survey based on Yukl's Managerial Practices Survey (MPS). Each officer was asked to rate the importance of 11 different behaviors to their most recent job. The behaviors included informing, consulting and delegating, planning and organizing, problem solving, clarifying roles and objectives, monitoring operations, motivating, recognizing and rewarding, supporting and mentoring, managing conflict and team building, and networking. The three most important behaviors identified for Air War College students reflecting on their most recent job were planning (M=4.2), informing (M=4.6), and problem solving (M=4.1). Least important was networking (M=3.6). With these behaviors identified, what to groom and mentor in future strategic leaders becomes evident. Additionally, professional military education can be tailored to focus on those critical behaviors for effective leadership.

**ACCESSION NUMBER: AD-A398300**

Bentley, Terry R. **Perceptions of Graduates and Their Sponsors Related to the Air and Space Basic Course**. Doctoral Thesis. Wright-Patterson AFB, OH: Air Force Institute of Technology., 2003. 192p.

**Abstract:** The Air and Space Basic Course (ASBC) was established as a basic- level Professional Military Education (PME) school for newly commissioned Air Force officers and selected civilians. Its purpose was to prepare graduates for their post-graduate roles as airmen leaders. This study was undertaken to ascertain the differences in perceptions of new ASBC graduates and their immediate supervisors related to the graduates' preparation for their roles as airmen leaders after completion of the Air and Space Basic Course. Therefore, this study (a) provided information related to the demographic characteristics of participants, (b) revealed the extent to which each content area of the ASBC program was perceived by graduates to be relevant to their roles as airmen leaders at their first duty assignment after graduation, (c) illustrated the extent to which each content area of the ASBC program was perceived by the ASBC graduates' immediate supervisors to be relevant to the graduates' roles as airmen leaders at their first duty assignment after graduation, (d) revealed the extent to which there were differences in perceptions of graduates and their supervisors regarding the relevance of the Air and Space Basic Course curriculum content to the role of airmen leaders, (e) established the extent to which a difference in perceptions existed between graduates who were rated and non-rated regarding the relevance of the ASBC curriculum content to the role of airmen leaders, and (f) acquired specific suggestions from the graduates and their supervisors regarding content changes in the Air and Space Basic Course. Three hundred and ninety subjects participated in the study. Two hundred and twenty- one of these subjects were from the graduating body of Class 02D (i.e. the fourth graduating class of 2002) of the Air and Space Basic Course. One hundred and sixty-nine of these subjects were the immediate supervisors of the graduates from ASBC Class 02D.

**ACCESSION NUMBER: AD-A416526**

<http://handle.dtic.mil/100.2/ADA416526>

**Berry, Warren D. Determining Effective Leadership Behaviors for USAF Company Grade Officers.** Maxwell AFB, AL: Air University, 1998. 69p.

**Abstract:** Leaders need to emphasize different behaviors as they advance through increasing levels of responsibility (Jacobs and Jaques, 1985). This same thesis can be applied to Air Force officers different behaviors are needed as an officer progresses from company grade to field grade to general officer (Yukl and Van Fleet, 1986). The purpose of this investigation is to determine the critical leadership behaviors required by junior officers at the direct level of responsibility in the USAF, and to determine differences in effective behaviors across major career tracks. A sample of 647 Squadron Officer School captains, who were between their fourth and seventh years of commissioned service, were administered Yukl's Managerial Practices Survey (MPS). The modified MPS asked each subject to rate the importance of 11 managerial behaviors in relation to their current job. The behaviors included informing, consulting and delegating, planning and organizing, problem solving, clarifying roles and objectives, monitoring operations, motivating, recognizing and rewarding, supporting and mentoring, managing conflict and team building, and networking. The three most important behaviors identified were informing (M=4.4), problem solving (M=4.2), and planning and organizing (M=4.1). Least important was networking (M=3.4). Significant differences were also found between operations and support personnel. With these behaviors identified, senior officers should be better able to mentor and develop junior officers, and professional military education can be tailored to focus on those critical behaviors for effective leadership.

**ACCESSION NUMBER: AD-A398463**

<http://handle.dtic.mil/100.2/ADA398463>

Bolinger, M., G.H. Bristol, K.M. Kelly and R.L. Kilroy. **Improving Officer Career and Intermediate Level Education**. Washington, DC: Marine Corps, 1 April 1991. 40p.

**Abstract:** Although career and intermediate level schools are adequately educating officers for future command and staff billets within a MAGTF, they are not modern professional educational institutions. The schools, as a whole, exhibit significant weaknesses in the areas of faculty and pedagogy - - cornerstones of a quality professional military education system.

**ACCESSION NUMBER: AD-A239883**

Boggs, Kevin G. et al. **The Goldwater-Nichols Department of Defense Reorganization Act of 1986: An Analysis of Air Force Implementation of Title IV and its Impact on The Air Force Officer Corps**. Maxwell AFB, AL: Air Command and Staff College, May 1995. 68p.

**Abstract:** In 1986, Congress enacted the Department of Defense Reorganization Act directing how Services manage joint officers, in an effort to improve the quality of joint officers and operations. This research paper analyzes AF legislation compliance in: promotions, assignments, education and joint specialty officer (JSO) designations for field grade officers. The research analyzes the initial law and subsequent amendments to establish a compliance baseline and examines AF, Joint Staff and Secretary of Defense records to assess conformity. After the compliance review, the research examines programs, policies and laws affecting compliance, followed by a study of the integration of Title IV concepts in the OPD Program. There were two non-compliance areas- promotions and JSO guidelines. First despite a multitude of initiatives involving promotion board processes and assignments, AF failed 41 or 46 promotion categories, although significant improvement was noted. Second, there were no established JSO career guidelines and there were negative perceptions regarding joint duty in OPD. To improve compliance, this paper recommends better integration of joint concepts in OPD; the establishment of JSO guidelines; and an aggressive media effort to enhance perceptions of joint. Further, it advocates the inclusion of OPD counseling during mandatory performance feedback, and the implementation of existing legislation affecting JPMIS outplacement. Last, it recommends revitalizing cross-flow' assignments between Air and Joint Staffs, and establishing a comprehensive data-base to enable more extensive analysis of joint management initiatives. Modifications or enhancements,' AF should be in full compliance.

**ACCESSION NUMBER: AD-A328040**

<http://handle.dtic.mil/100.2/ADA328040>

Brooks, Vincent K. **Knowledge is the Key: Educating, Training and Developing Operational Artists for the 21st Century**. Monograph AY 1991-1992. Fort Leavenworth, KS: Army Command and General Staff College, School of Advanced Military Studies, 12 May 1992. 76p.

**Abstract:** Warfare in the era will be joint. However, the Armed Forces have been slow to make requisite changes. The Goldwater-Nichols Department of Defense Reorganization Act of 1986 forced change by legislating reforms and ending the internecine quarrels which had impeded progress for decades. Joint warfare is the desired effect of the Goldwater-Nichols Act and the Armed Forces are making progress in the ability to conduct joint warfare. More progress is needed, however, before joint warfare becomes routine. Practicing joint warfare requires a new way of educating officers. The House of Representatives Committee on the Armed Services Panel on Military Education (known as the Skelton Panel after its chairman, Representative Ike Skelton) explored the professional military education system and

recommended ways of providing the type of education necessary to meet the spirit of the Goldwater-Nichols Act. The panel was particularly concerned with ensuring the education system provided the link between producing competent Service officers and competent joint officers.

**ACCESSION NUMBER: AD-A254124**

Brown, Kerk B. **A Study of Curriculum Development: Wing Squadron Officer Course**. Maxwell, AFB: Air University, Air Command and Staff College, 2001. 46p.

**Abstract:** There is a perception amongst senior military leaders that professional military education is a career-long educational process best executed progressively along a continuum of education. The purpose of this research project is to determine the appropriate curriculum to best address the gap currently existing within the Air Force officer Continuum of Education between the Aerospace Basic Course (ABC) and the Squadron Officer School (SOS). The Wing Squadron Officer Course is the title of the newly developed program. Careful analysis led to numerous conclusions and ultimately a curriculum that will bridge the existing gap and enhance each Air Force officer's professional military educational experience. Among the conclusions are (1) Air Force PME instruction could benefit from aspects of its sister services' PME programs; (2) Leadership emphasis is vital to the success or failure of the Wing Squadron Officer Course; (3) The curriculum at the core of the "experimental" CGOC is on-target to meet the needs of young officers and the Air Force, but it has several deficiencies; and (4) Young officers need a "tool kit for success" to gain understanding of concepts vital to the progression of their career. These conclusions lead to the following recommendations: (1) creation of a two-pronged Wing Squadron Officer Course curriculum consisting of the currently proposed 40-hour long program to teach Core curriculum aspects: Officership, Leadership, The Role of Air Power, Air Force Perspectives, and Tool Kit For Success and a secondary curriculum program, administered on a quarterly basis educating officers on: new ways of doing business (warfighting); important topics; and issues requiring redress from the Core program; (2) designation of a mechanism to ensure support by wing commanders. Such a means is an attention-getting YES- NO support compliance statement on a wing commander's OPR.

**ACCESSION NUMBER: AD-A407061**

<http://handle.dtic.mil/100.2/ADA407061>

Bruns, James W. and Lawrence A. Eichhorn. **Comparison of Non-Performance Characteristics with United States Air Force Officer Promotions**. Master's thesis. Wright-Patterson AFB, OH: Air Force Institute of Technology, School of Logistics and Acquisition Management, September 1993. 42p.

**Abstract:** The question of which non-performance factors influence the promotion of officers to major, lieutenant colonel, and colonel within the Air Force for Promotion Boards held in 1992 is the focus of this thesis. The thesis statistically examines the impact of the variables commissioning source, prior enlistment, age, aeronautical rating, graduate education level obtained and source of education, Professional Military Education courses taken and method of completion, distinguished graduate status from commissioning source and Professional Military Education courses for in-the-zone promotions. Multivariate logistics regression techniques are used to analyze and identify those variables significant to promotion. Odds-ratios are used to determine the sensitivity of each variable. Each of the variables is found to be significant in some of the promotion models.



**ACCESSION NUMBER: AD-A273967**

Bunn, Leslie and Richard J. Steppic. **A Study of the Methods by Which the United States Air Force Can Provide Professional Military Education for Senior Foreign Officers.** Master's thesis. Wright Patterson AFB: OH: Air Force Institute of Technology, School of Systems and Logistics, January 1974. 207p

**Abstract:** The study identifies methods that can be used by the United States Air Force to provide professional military education for senior officers from allied, friendly and nonaligned nations. Extensive interviews conducted with senior officials currently involved in professional military education provide the primary source of data. The study concludes that five methods are available to provide an increased program, and that the most feasible method is to establish a separate college for senior foreign officers co-located with other USAF professional colleges and schools at Maxwell AFB, Alabama.

**ACCESSION NUMBER: AD-776784**

Buikema, R. J. **Integration of Intelligence Into Professional Military Education.** Master's thesis. Quantico, VA: Marine Corps Combat Development Command, 1996. 58p.

**Abstract:** This study reviews the ongoing changes that are being implemented in the intelligence community of the United States Marine Corps, and examines the relevant implications for professional military education at Marine Corps University. One of the basic premises of the approved changes in intelligence doctrine, structure, and training was that Marines would understand the role that they played in the intelligence cycle. However, an instructional plan was never developed that was capable of accomplishing that end. After the analysis, recommendations are provided concerning what type of courses need to be taught, the best approach for the university to teach them effectively, other concerns that may have not been previously examined, and a recommendation for further review of enlisted and non-resident education. This fiscal year, Marine Corps University will be gaining additional intelligence instructors, assigned to each of the major professional military education schools. This research paper offers a starting point for their employment, as well as some concerns that should be addressed by directors of schools, deans of academics, Marine Corps University operations, and MCCDC. Headquarters Marine Corps has directed that intelligence instruction be integrated into our professional military education curriculums. This paper provides the first formal study of how to accomplish that directive.

<http://www.fas.org/irp/eprint/buikema.htm>

Callard, James R. **Changing Nature of American Democracy Consequences for the Military.** Final report. Newport, RI: Naval War College, 14 June 1996. 161p.

**Abstract:** This paper provides a philosophical and ethical framework to evaluate changes in democracy that affect the relationship between the public and the military profession. Changes in communication technology have allowed the media and public to play a more influential role in the information of national security strategy. Use of propaganda to market war in the past has been problematic and contrary to American democratic principles. Applying a strong professional military ethic grounded in institutional and constitutional values will insure that senior military leadership understand the ramifications of applying knowledge strategies in the future. Adding ethics and civil-military affairs courses to joint professional military education is major recommendation.

**ACCESSION NUMBER: AD-A311167**

<http://handle.dtic.mil/100.2/ADA311167>

Carrell, Michael W. **Inculcating Jointness: Officer Joint Education and Training From Cradle to Grave**. Newport, RI: Naval War College, 2000. 31p.

**Abstract:** A joint culture exists in the U.S. military as a result of the Goldwater-Nichols legislation and Skelton Panel on education. This culture is not enough however, and a need exists to improve officer Joint Professional Military Education and Training in order to develop better joint officers. This paper proposes a comprehensive cradle to grave approach of educating and training officers both in their own services and in the joint arena. This approach synthesizes several existing recommendations with new ones to affect a radical change in joint officer production. The current existing PME and training structure is examined and shortfalls are noted. Next, a restructured PME process from pre-commissioning through the War colleges and Capstone is proposed. A new construct for changing the current Phased approach to JPME is proffered to not only help solve the military's joint manning problems, but also to address the large disparities between service beliefs and actions for PME. Lastly, joint training ideas are evaluated to enable more operational opportunities for both individuals and units. An effort here is made to reduce the operational impact of training on Unified commander's staffs and field units who feel the brunt of current operational and personnel tempo.

**ACCESSION NUMBER: AD-A378525**

<http://handle.dtic.mil/100.2/ADA378525>

Chapman, Gregory F. **Service Level Optimization For the Marine Corps Institute**. Master's thesis. Monterey, CA: Naval Postgraduate School, 2000. 85p.

**Abstract:** The Marine Corps Institute (MCI) is the distance learning center for the United States Marine Corps. MCI's mission is to develop, publish, distribute, and administer distance training and education materials to enhance, support, or develop required skills and knowledge of Marines. It also satisfies other training and education requirements as identified by the Commanding General, Marine Corps Combat Development Command. To meet this mission MCI develops and assembles course materials ranging from simple training courses to college level Professional Military Education (PME) programs. Each course or program consists of multiple components that must be printed, stocked, and distributed to all Marines. Currently MCI offers 151 courses comprised of 305 printed components. In 1999 MCI processed over 550,000 requests for course materials. In late 1998 MCI recognized the need to improve their inventory control processes. They desired a means of determining reorder points and reorder quantities for the Marine Corps Institute in order to improve service to Marines in the field. This thesis develops a non-linear program inventory model that minimizes the number of shortages per year, and returns reorder points and reorder quantities, thereby improving MCI's service to the Marine Corps.

**ACCESSION NUMBER: AD-A380243**

<http://handle.dtic.mil/100.2/ADA380243>

Clark, Edward S. **Comparative Analysis of Intermediate Service College (ISC). Phase 1. Joint Professional Military Education (JPME)**. Master's thesis. Monterey, CA: Naval Postgraduate School, March 1990. 120p.

**Abstract:** This thesis compares the four Intermediate Service Colleges (ISC) and the Defense Intelligence College (DIC) Phase I Joint Professional Military Education (JPME) curricula and student and faculty mixes. It asks the question, 'Is it feasible to offer a Phase I

JPME curriculum at the Naval Postgraduate School.' The results clearly show that a Phase I JPME program is feasible if established within the National Security Affairs/Intelligence (NSA/I) and the Joint Command, Control and Communications (C3) curricula. In these curricula, the student and faculty mixes can be easily attained and the curriculum can be established with minimum disruption to the graduate education mission of the Naval Postgraduate School. Additionally, with six core courses established as Phase I JPME, students from other curricula may be tracked into Phase I by detailers on a case-by-case basis. Ultimately, this would increase the number of Navy Phase I JPME graduates by 69 percent. These graduates would then be available for Phase II and further on Joint Duty Assignments (JDAs).

**ACCESSION NUMBER: AD-A220077**

Collins, James M., et al. **Safety, Security, and Stability: The Role of Nuclear Control Regimes in a Proliferated World.** Maxwell AFB, AL: Air University, Air Command and Staff College, 1995. 131p.

**Abstract:** The 103rd Congress directed professional military education schools to conduct a broad range of research related to policy issues concerning the proliferation of weapons of mass destruction. This paper comprises, in part, Air Command and Staff College's contribution to that effort. The policy issue we chose to research concerns the development of nuclear control regimes for emerging nuclear capable countries. Our team's collective experience in nuclear weapons acquisition, operations, maintenance, communications, intelligence, and arms negotiation reveals all too clearly the perils and pitfalls associated with developing and deploying nuclear weapons. The US, in the past, has refused to provide technical assistance to enhance the safety, security, and stability of proliferating countries' nuclear arsenals-we believe this policy should change. This research project is not without its heroes. We would like to acknowledge the unique experience and expertise our research advisor, Major Charles E. Costanzo, brought to this effort. His guidance and direction proved invaluable- without him, this paper could not have been accomplished. We would also like to thank our families who provided the moral support and encouragement to persevere.

**ACCESSION NUMBER: AD-A329554**

<http://handle.dtic.mil/100.2/ADA329554>

**Combined Arms Sufficiency Study (CASS) Update.** Fort Leavenworth, KS: Army Combined Arms Center, April 1983. 175p.

**Abstract:** The intent of the Combined Arms Sufficiency Study as originally conducted, was to obtain a snapshot of the status of Combined Arms instruction at the time and provide commandants comparative data with which they could make an educated estimate of the effectiveness of their combined arms instruction. The original intent is still applicable. The purpose of the current update is to build on the original study, refine the Combined Arms Sufficiency data, and through a systematic process, identify courses of action to continue to enhance Combined Arms instruction in company level professional development courses. This update is intended to develop Combined Arms Sufficiency data to a credible confidence level so that decisions can be made on tradeoffs and accommodations, with a clear understanding of what the costs are in terms of specialty and Combined Arms understanding. The objectives of the present Combined Arms Sufficiency update are to: identify all Combined Arms subjects and develop an updated list; identify Combined Arms subjects which should be taught in Officer Basic and Advanced Courses, and to what level of sufficiency; enhance Combined Arms instruction by better defining personnel and other resource requirements; and facilitate the infusion of Combined Arms subjects into the OJTA process.

**ACCESSION NUMBER: AD-A133316**

D'Angelo, Dennis L. **Developing Operational Leadership For the Future.** Newport, RI: Naval War College, Joint Military Operations Department, 1998. 22p.

**Abstract:** The post-Cold War force reductions and efforts to integrate regional perspectives into US national security and military strategies resulted in a renewed focus on operational art and the need for operational leaders. While the services foresee the need for operational art they have not taken the necessary steps to effectively develop the operational leader. The reason for the lack of an effective operational leadership development process stems from three impediments: a lack of service doctrine which reflects the need for operational art, a peacetime environment that focuses more on "square filling" rather than developing operational leaders, and a military education system which does not adequately prepare leaders for the operational environment. To overcome these impediments, the services must first develop operational doctrine that clearly reflects the need for operational art. The Joint Staff can assist in this effort through their influence in the military education system. Secondly, the services must carefully select their future operational leaders. This selection process must occur early enough in an officer's career to develop operational leadership skills but not so early as to limit the opportunities for the officer to develop a strong foundation at the tactical level of warfare. Next, the services must improve the academic process by making professional military education a continuous process, developing a curriculum that is specifically focused on developing operational leadership skills, and changing the means of instructing operational art from an analysis- to a synthesis-based process. Finally, the services must carefully manage the careers of those selected future operational leaders so that academic, staff and command positions complement each other during the operational leadership development process.

**ACCESSION NUMBER: AD-A351704**

<http://handle.dtic.mil/100.2/ADA351704>

Defense Manpower Commission Staff Studies and Supporting Papers. Volume IV. **Developing and Utilizing the Total Force and Shaping the Future Military Career Force.** Washington, DC: Defense Manpower Commission, May 1976. 1060p.

See also Volume 5, AD-A029 953.

**Abstract:** Contents: The Defense Officer Personnel Management System (DOPMS); Reserve Component Officer Career Force Grade Authorization; Pre-Commissioning Programs; The Uniformed services University of the Health Sciences and Alternative methods of Procuring and Retaining Military Physicians; Professional Military Education; Professional Military Education for the Reserve Components; Officer Graduate Education; Funding of Education Programs; Flight Training; Overseas Rotation and Tour Lengths; Minority Participation in the Department of Defense; Women in the Defense Establishment; The Development and Utilization of women in the Department of Defense; The role of the DOD Civilian in the Total Force Structure; Limitations on Managers Brought about by Restrictions of the Civil Service System; The Air Force Institute of Technology and the Naval Postgraduate School; The G.I. Bill today; and The Career Force of the Future.

**ACCESSION NUMBER: AD-A029952**

DeGraff, Dennis J., et al. **Senior Service School Timing for Air Force Officers: A Cultural Change.** Maxwell AFB, AL: Air Command and Staff College, April 1996. 64p.

**Abstract:** Initial study of the relationship of in-residence Air War College (AWC) completion to promotion success was accomplished in 1975, and subsequently updated in 1984. The focus of this study is to revalidate the promotion trend cited in the 1984 study and to examine the importance of attendance timing for Air forces officers to Senior Service School (SSS). Sources used in preparation of this study includes officer cohort and promotion files for 1984-1995, as well as a review of officer utilization policy from the Air force Personnel Center (AFPC), Headquarters USAF, the Office for Colonel Matters, and AWC. Personnel interviews and surveys were used to glean current issues, concerns, and recommendations from senior leaders and major command (MAJCOM) personnel officers throughout the Air Force. Analysis of promotion statistics concludes that while the promotion rates among the Senior Service schools are not at parity, they have leveled somewhat from the analysis done in the 1984 study. Additionally, this study discusses the current trend of sending more junior lieutenant colonels to SSS shortly after ISS completion and before they have had the opportunity to gain valuable leadership experience. These officers, their classmates, and the air force would be better served by modifying the SSS selection process to facilitate in-residence attendance later in an officer's career without negatively affecting promotion opportunities. The study recommends changes to the selection process and strives to foster a cultural change within the Air Force to ensure SSS is viewed as a tool for developing future leaders and not as a square to be filled for promotion to colonel. The study has a direct impact on the management of senior officer development and utilization in the Air Force for the remainder of the century.

**ACCESSION NUMBER: AD-A331576**

<http://handle.dtic.mil/100.2/ADA331576>

Dennis, Scott L. **Pursuing Brilliant Warriors: The First Step in Reforming ACSC.** Maxwell AFB, AL: Air University, Air Command and Staff College, 1998. 44p.

**Abstract:** Much has been written about the future direction of Professional Military Education (PME) (Kelly, 1996 & Ware, 1996). The advancement of technology combined with the drive towards Joint Operations has created new challenges for our PME institutions. Most of the discussion centers on the technology and curricular aspects of the problem, but very little study has gone into the personnel required to transform these institutions. The author proposes that both educational and operational experts are needed in all air and space disciplines to keep Air Command and Staff College (ACSC) at the forefront of academic excellence. In order to stay relevant, ACSC has to be present at creation, and the first step is to involve the right people. Personnel choices are the toughest to make in the shrinking Air Force, but the educational institutions are key to our core values. The study reviews ACSC's history of reform and compares it to other successful educational institutions that have maintained a crucial role in their professions. Using elements common to other successful institutions the author hopes to provide a road map the Air Force can use to keep ACSC vital in this changing environment.

**ACCESSION NUMBER: AD-A398360**

Dorr, Kirk C. **Developing Agents of Change.** Ft. Leavenworth, KS: Army Command and General Staff College, School of Advanced Military Studies, 2003. 59p.

**Abstract:** This monograph discusses the challenges of maintaining the Army's effectiveness through the process of change. As conditions of warfare change, the methods and techniques of our doctrine must evolve with them. Knowing what to change will be more difficult and risk-laden as the rapid rate of technology and the relative brevity of future operations across the spectrum of conflict combine to create a situation where the consequences of peacetime

choices become irretrievable in war. This study addresses the role of professional military education in creating cultural change within the military. The tendency of an overburdened American military emphasizes action, not thoughtful reflection; yet never was thinking more necessary. The infusion of the Army with officers from SAMS with a common cultural base with similar mental references serves as a collective that can institutionalize military excellence and cope with complex problems at an educated level. The self-regenerating nature of SAMS removes any reliance upon the appearance of one or more military geniuses in the force because it consistently produces outstanding, competent officers. Over time, the common cultural bias established through advanced education can affect changes in service culture

**ACCESSION NUMBER: AD-A415969**

<http://handle.dtic.mil/100.2/ADA415969>

DuPerier, Michael S. **Vietnam: Incorporating Lessons Learned Into the Curriculum of USAF PME.** Maxwell AFB, AL: Air University, 1999. 46p.

**Abstract:** A well-known criticism of the United States military, and of other militaries around the world, is that they are always preparing to fight the last war. One way military organizations attempt to keep this from occurring is through a comprehensive system of military education. An objective of the professional military education (PME) system of the United States Air Force (USAF) is to teach its officers how to use air power more effectively in future conflicts. It can therefore be assumed that to apply air power effectively in future wars, the institution must learn the lessons of previous conflicts. The question this paper asks is whether the USAF, and specifically Air University (AU), put forth the necessary effort to teach the lessons of the Vietnam War. It will focus on the five years from 1973 to 1978. Although the purpose of this research paper is not to determine whether or not air power was successful in Vietnam, it must examine to some degree what the USAF as an institution believed it learned from the war. Only then can the PME curriculum be examined to determine how effectively those lessons were passed to future leaders. After evaluating the curriculum, the paper will try to answer the question of whether the USAF chose to emphasize only positive examples of air power's success versus examples of its failures and limitations. These questions are significant because of the crucial role air power continues to play in our nation's defense. If the USAF does not take a critical look at its performance in past conflicts, it will enter future conflicts ill suited to fulfill its role successfully.

**ACCESSION NUMBER: AD-A396488**

<http://handle.dtic.mil/100.2/ADA396488>

Emilio, George A. **Promoting Critical Thinking in Professional Military Education.** Maxwell AFB, AL: Air University, Air Command and Staff College, 2000. 41p.

**Abstract:** Critical thinking (CT) is important to professional military education (PME) because it provides a powerful tool to operate in a complex, changing world. Unfortunately, the teaching of such skills has been woefully ignored in American education. This paper examines common elements of successful nation-wide CT programs to develop a simple academic assessment checklist. The checklist is used to assess the CT curriculum of the United States Air Force's Air Command and Staff College (ACSC)-a PME program for mid-level officers. The Air Force's ACSC CT curriculum has made great strides in improving the cognitive skills of its student body but is still in its infancy. Assessment of the school's program showed that, while some skills and behaviors are taught, the list is far from complete when compared to other nation-wide programs. Furthermore, CT standards, testing, and faculty development efforts are still incomplete.

**ACCESSION NUMBER: AD-A394086**

<http://handle.dtic.mil/100.2/ADA394086>

Endres, Michael T. **Preparing Officers for Joint Duty: An Analysis of U.S. Joint Professional Military Education.** Newport RI: Naval War College, Joint Military Operations Department, 2000. 22p.

Abstract: Joint Professional Military Education (JPME) is more important to the U.S. Armed Forces today than it has ever been. It is imperative that far more of the officer corps, active and reserve, understand joint operational art and doctrine to face the challenges that the 21st Century will present. Currently, the JPME system is meeting the intent of the Goldwater-Nichols Act. It has been effective in making the officer corps more educated, aware of, and concerned about joint warfare than ever before. Yet, today's JPME is not adequate to prepare officers to make JPME2010 and JV2010 a reality, particularly in the areas of JTF operational effectiveness, the on-going challenges associated with the Armed Forces Staff College, and educating a majority of both active and reserve officers in JPME Phases I & II. The answer lies in new, non-traditional, visionary educational approaches that leverage technology in order that more officers receive joint education when and how they need it.

**ACCESSION NUMBER: AD-A378433**

<http://handle.dtic.mil/100.2/ADA378433>

Enriquez, Arnel B. **A Comparison of Air Force Field Grade and Company Grade Officer Leadership.** Maxwell AFB, AL: Air University, Air Command and Staff College, 1998. 66p.

Abstract: Although leadership development is important, the Air Force does not appear to have a comprehensive, empirical model for leadership development. For several years the US Army has had a service-specific leadership model (DAP 600- 80), derived from empirical studies on hierarchical leadership (Harris, 1994), indicating that empirical development of a similar model for the USAF should be feasible. The purpose of this study was to determine differences in importance of leadership behaviors between AF company grade officers (CGOs), majors (O-4s), and lieutenant colonels (O-5s), thereby contributing to the establishment of an empirical leadership development model for USAF officers. The Managerial Practices Survey (Yukl, 1990) was administered to over 1000 officers at the USAF Air University. Analysis indicated the survey's eleven leadership behaviors are relevant to all officers, but become even more important as officers rise in rank. It also supported that the USAF can be divided into domains levels containing several ranks having only minor differences in leadership requirements and that CGOs, O-4s, and O-5s are in the same domain. In addition, domains appeared to be further divided into strata : sub-levels containing ranks with the same leadership requirements. O-4s and O-5s seemed to belong to the same strata and CGOs to another. Based on these findings, recommendations were made to ensure the leadership curricula at the USAF officer Professional Military Education schools are formed around this core of leadership behaviors, with increasing emphasis on the behaviors that become more important to officers as they rise through the ranks.

**ACCESSION NUMBER AD-A398361**

Faller, Craig S. **The Navy and Jointness: No Longer Reluctant Partners?** Master's thesis. Monterey, CA: Naval Postgraduate School, December 1991. 189p.

Abstract: This thesis examines the intention and effectiveness of the changes initiated by the Goldwater-Nichols Department of Defense Reorganization Act of 1986 (GNA) with emphasis on the United States Navy. This assessment considers the implications for future

national security of present trends in the balance of power between the joint and service institutions within the Department of Defense (DOD). Interviews conducted by the author with key individuals involved in the writing and implementation of GNA legislation, coupled with a review of the literature, provide the basis for understanding the intent behind the GNA and its provisions. In assessing the effectiveness of GNA this thesis focuses on three areas: operations, plans, and people and how the key change mechanisms implemented by GNA are impacting these areas. The author forwards policy recommendations, for both DOD and the Navy aimed at making jointness more relevant and meaningful.

**ACCESSION NUMBER: AD-A246441**

Flaningam, M.R. and J.N. Joyner. **Feasibility of Individualized Instruction for USMC Professional Military Education Programs. Phase I. Implementation at Instructional Management School.** Interim report. February-June 81. Alexandria, VA: Human Resources Research Organization, March 1983. 23p.

**Abstract:** This report describes the implementation of individualized instruction at a USMC Instructional Management School (IMS), which trains instructors of professional military education courses. The IMS instructor course was converted from fixed-entry, lock-step and lecture-base to variable-entry, self-paced, application-base. Course materials were modularized so that training could be tailored to individual needs.

**NPRDC-SR-83-19**

**ACCESSION NUMBER: AD-A126455**

Fox, Daniel B. **Conceptual Design for a Model to Meet the War-Gaming Needs of the Major Commands of the United States Air Force.** Maxwell AFB, AL: Air University, Airpower Research Institute, July 1985. 77p.

**Abstract:** The 1975 Clements Blue Ribbon Panel Report on Excellence in Professional Military Education (PME) and the August 1976 Air Force chief of staff constant readiness tasking called for the development of intensive courses and innovative methods to instruct students in war fighting. In response, the United States Air Force has embarked upon a multiphase project to establish a comprehensive, computerized, war-gaming capability. This project, known as the Command Readiness Exercise System (CRES), is located at Maxwell Air Force Base, Alabama. The CRES development is under the operational control of Air University's Center for Aerospace Doctrine, Research, and Education (CADRE) and will be housed in the newly created Air Force Wargaming Center (AFWC). The purpose of this research is to explore the positive and negative features of war games and to examine how these features relate to potential applications of phase three of the CRES.

**AU-ARI-848**

**ACCESSION NUMBER: AD-A215909**

Gebert, Stephen E. **PME, Lessons Learned, and the Joint Operational Commander.** Newport, RI: Naval War College, Joint Military Operations Department, 1998. 25p.

**Abstract:** This paper purposes, that for any operational commander to be truly successful, he or she must be able to draw on the full spectrum of lessons learned available. This spectrum consists of both lessons learned from the study of military history and theory, and of lessons learned from modern operations. The paper discusses the great benefit of studying military history and theory for both the direct lessons learned to be gained, and for training



the mind to think operationally. This mental agility is critical to the success of the operational commander during a campaign or crisis when faced with unexpected events. Then the paper examines the current officer professional Military Education programs of each of the armed services. The Marine Corps has the most in-depth program, followed closely by that of the Army. The Air Force program is on track, but lacks the frequency and depth of the first two. The Navy's program is found to be severely lacking in this critical area of officer professional development. Shortcomings of the war colleges are also examined. It is then recommended that all of the services reevaluate their PME programs with respect to the importance and focus placed on the study of military history and theory. The paper shows how difficult it is for current operational commanders to draw on modern lessons learned using the current Joint Universal Lessons Learned System (JULLS) database. The final section discusses the merits of establishing a National Lessons Learned Support Team (NLLST) to directly support the Joint Force Commander (JFC) in overcoming these difficulties during times of crisis.

**ACCESSION NUMBER: AD-A348754**

<http://handle.dtic.mil/100.2/ADA348754>

Goehring, Scott E. **Wargaming and Operational Art - How Do We Increase Our Practical Experience Level?** Newport, RI: Naval War College, Joint Military Operations Department, 2003. 23p.

**Abstract:** Are we losing our expertise in operational art? The seeming ease with which we have dispatched our last few opponents, coupled with the near-mythical capabilities associated with the still evolving Net Centric Warfare concept should be cause for concern. In our rush to transform we must be careful not to throw the baby out with the bath water. From a purely military perspective, our challenge is to retain our dominance, not just in technology and training, but more importantly in our ability to employ those forces successfully in combat through the proper application of operational art. Future U.S. military leaders must possess both a thorough understanding of, and adequate experience in employing, operational art. This paper contends that the U.S. is losing its practical experience in operational art. It explores the current lack of operational art in some commissioning programs. It goes on to illustrate how some Professional Military Education (PME) curriculums address operational art in classroom settings, but have all but removed the practical application phases due to the constraints of accreditation processes. The paper then asserts that shortfall could be mitigated through more war gaming and then illustrates how war games have been used historically to address operational art issues. The paper also illustrates the significant decline in the amount of war gaming in modern day. The paper concludes with a proposal on how the amount of war gaming could be increased in the future through the use of distributed, or networked games. These would allow students doing PME by correspondence to participate in war games as well and would offer the added ability to have students continue to play war games from their follow-on duty locations, thus allowing them to practice operational art every year.

**ACCESSION NUMBER: AD-A419815**

<http://handle.dtic.mil/100.2/ADA419815>

Gorrie, Robert G. **Joint Battle Staff Training.** Newport, RI: Naval War College, Department of Operations, 11 February 1991. 28p.

**Abstract:** History shows that the success of modern military operations is directly dependent on the effectiveness of the commander and battle staff team. Crises in the new world environment requiring the use of military force will see the employment of multi-service Joint Task Forces (JTF). Trained command and joint battle staff teams will be needed to lead them. Impromptu staffs for JTFs are not cohesive teams. They are not as adept as trained and drilled staffs at time-sensitive planning and execution. Current training and exercises for joint battle

staffs is deficient. A training program, based on the Army's Battle Command Training Program, is needed to fill the void.

**ACCESSION NUMBER: AD-A236279**

Gottlieb, Aryea. **The Role of SOF Across the Range of Military Operations**. Washington, DC: Department of the Air Force, 16 October 1996. 5 p.

**Abstract:** Since the creation of the United States Special Operations Command (USSOCOM), Special Operations Forces (SOF) personnel have been working hard to tear down the walls of secrecy which have led to years of misunderstanding between conventional and special operations forces. Both USSOCOM and the Services are actively integrating SOF curriculum into the Service's professional military education schools to educate future military leaders on the role of SOF across the range of military operations (war and military operations other than war). The end of the Cold War has dramatically changed the international security environment. The US now faces a world marked by numerous regional and transnational uncertainties. The opportunity to employ SOF to meet these challenges is as great today as it has ever been. With its unique capabilities and specialized equipment, SOF can support a wide range of operations from humanitarian assistance in a benign environment, to combat operations during war. The purpose of this article is to explain how SOF can be integrated into joint operations across the range of military operations. Just as each Service team brings certain capabilities to the theater of operations, SOF similarly offer unique capabilities to the Joint Force Commander (JFC). In addition to their primary special operations missions, (direct action, special reconnaissance, unconventional warfare, foreign internal defense, counterterrorist operations, psychological operations, and support to counterproliferation operations), SOF are also suited to conduct certain collateral activities. Some of their more common collateral activities include humanitarian assistance, counterdrug operations, combat search and rescue (CSAR), and coalition warfare.

**ACCESSION NUMBER: AD-A332474**

<http://handle.dtic.mil/100.2/ADA332474>

Grissett, J.M. **China's Military Professionalism**. Student report. Maxwell AFB, AL: Air Command and Staff College, April 1985. 59p.

**Abstract:** The People's Liberation Army (PLA) in the People's Republic of China (PRC) modernized its forces from 1949-1984 and developed its military professionalism. Since 1978 tremendous progress has been made in this professionalization. The PLA supports and maintains an extensive professional military education program to train its officer corps. The current leadership of the PRC supports the professionalism of the PLA officer corps will continue into the 1990's.

**ACCESSION NUMBER: AD-A156120**

Handy, Gurnie H., Jr. and Ronald L. McCool. **An Educational Methodology for Enhancing Familiarity with United States Air Force Combat Logistics**. Master's thesis. Wright-Patterson AFB, OH: Air Force Institute of Technology, School of Systems and Logistics, September 1983. 303p

**Abstract:** Certain developments since the end of the Vietnam War have given Air Force leaders cause for concern over a potential weakening of the war-fighting ability of the service. The authors offer evidence of that problem, then focus specifically on logistics war-fighting issues. After substantiating dual needs to continually relate logistics to war-fighting and also to avoid functional specialization, the authors suggest creating a combat logistics body of

knowledge to address those needs. The primary research objectives include establishing a system for determining relevant combat logistics topics and proposing a Professional Continuing Education course syllabus on the subject. HQ USAF and AFLC provided over 80 suggested topics which the authors analyze with a matrix system. The matrix results show that qualifying topics are distributed fairly evenly among five major logistics functions, except for acquisition. Consequently, the authors recommend further research on that area, and in transportation. The authors conclude by reviewing problems with peacetime analytical thinking and by recommending the combat logistics course as a positive step toward building a war-fighting and readiness orientation.

**ACCESSION NUMBER: AD-A134 402**

Hardesty, Michael J. **Training for Peace: The U.S. Army's Post-Cold War Strategy**. Research paper. Carlisle Barracks, PA: Army War College, 4 April 1996. 74p.

**Abstract:** With the collapse of the Soviet Union, the U.S. national military strategy had to go through dramatic change. This paper traces the policy and doctrinal evolution of this change and the corresponding adjustments to the Army's training strategy. A case is made that because operations other than war are significantly different from war itself, an expanded training approach is necessary. How the U.S. Army has responded to this need is examined in detail by evaluating the innovations occurring within the professional military education system as well as pre-deployment unit training. Considerable attention is devoted to documenting training enhancements made over the past several years. Where shortfalls exist, recommendations for improvement are made. The paper concludes with a problematic question resulting from an increasing operational tempo and a decline in real defense expenditures.

**ACCESSION NUMBER: AD-A311157**

<http://handle.dtic.mil/100.2/ADA311157>

Harrold, James A. **Historical Analysis of Basic Air Force Doctrine Education Within the United States Air Force Air Command and Staff College, 1947-1987**. Master's thesis. Wright-Patterson AFB, OH: Air Force Institute of Technology, School of Systems and Logistics, September 1987. 161p.

**Abstract:** The purpose of this study was to examine the historical treatment of Air Force basic doctrine within the Air Force Professional Military Education System. The curricula of one specific component of this system, namely the Air Command and Staff College, was located and analyzed. The reason this research was undertaken was to answer the criticisms of several authors who have contended that the Air Force has historically not conducted education in its basic doctrine. This failure has led, maintain the critics, to poor performance in war. The study had three objectives. The first was to determine if the Air Force had conducted doctrinal education. The second was to examine the context in which this education had taken place. The third objective was to determine the existence of historical trends in the area of doctrinal.

**ACCESSION NUMBER: AD-A187184**

Hester, Paul V. **Does CGSC Prepare the Air Force Officer For His Follow on Assignment?** Master's thesis. Fort Leavenworth, KS: Army Command and General Staff College, June 1980. 59p.

**Abstract:** This study attempts to determine if CGSC prepares the Air Force officer for the responsibilities and tasks he will encounter in his next assignment. The investigation focuses on an analysis of the curriculums of CGSC and ACSC; impressions of the 1979-80 Air Force students; and a survey of the experiences of the two previous classes of the Air Force students. The investigation revealed that the answer is not a clear cut yes or no. But instead one that is dependent upon a variety of factors. The officers surveyed offered numerous suggestions for curriculum changes to improve the Air Force officer's education at CGSC. These were consolidated and presented as recommendations.

**ACCESSION NUMBER: AD-A093086**

Hollingsworth, Stephen L. **The War Colleges: The Joint Alternative.** Maxwell AFB, AL: Air War College, April 1990. 62p.

**Abstract:** This paper examines the recommendations of the Skelton Panel as they apply to joint education at the senior service colleges. It reviews the historical basis and development of the senior service colleges to determine the impact previous studies and proposed changes have had on the education of senior American military leaders. It also reviews the recent reaction of senior military leaders and civilian writers to the Skelton Panel findings. The paper concludes that the Skelton Panel's recommendations are a step in the right direction. It contends that the Panel did not go far enough in correcting the historical impediment to a functional joint education system – individual service prerogatives. The paper recommends the formation of a strengthened National Defense University system under the control of the Joint Chiefs of Staff. All senior service college students would initially attend either an air, land or sea senior service college composed of a balanced faculty and student body (e.g. equal service representation). The curriculum would be developed and overseen by the Joint Chiefs of Staff rather than the individual services. Selected students would attend a second year at the National Defense University to address issues of national military strategy.

**ACCESSION NUMBER: AD-A241056**

Jehart, Alojz. **Impact of the Revolution in Military Affairs on Education and Training Professional Structures in Land Forces.** Washington, DC: Industrial College of the Armed Forces (ICAF), 1997. 93p.

**Abstract:** The bipolar order had its myths and meanings, imparted to it by the reality of power, both: within the blocs and between them. With the collapse of these blocs regionalism has triumphed over globalism but without bringing any order. Consequences of the collapse of the bipolar system for power and meaning are less studied. During the Cold War the superpowers kept in form by training against each other. When the opposition has been dead the current power was in inappropriate form for the new tasks. The powerful West is a winner in the long Cold War against communism. On other side the Great Powers of Europe are powerless to handle the rebellions on their own continent. In the countries of the Third World, where clearly told to people who were their friends and enemies, there they have lost now not only that insurance but also the certainty that there are friends and constant enemies at all.

**ACCESSION NUMBER: AD-A331479**

<http://handle.dtic.mil/100.2/ADA331479>

Johnson, William C. **Analysis of Current Attitudes of Company Grade and Field Grade Air Force Officers Regarding Air Force Officer Professional Development Initiatives.** Master's thesis. Wright-Patterson AFB, OH: Air Force Institute of Technology, School of Systems and Logistics, September 1989. 132p.

**Abstract:** The OPD survey was designed to obtain responses from participating officers regarding several OPD initiatives and policy changes including: Professional Military Education (PME), the AF Form 90, commander involvement in the assignment process, the Officer Evaluation System (OES), Join Spouse progress, ASTRA, Regular Appointment, below-the-zone promotions (BPZ), captains' service commitment, and senior officer involvement in 'by name' assignment requests. Analysis of the survey found that officers generally agree with the various issues and initiatives. However, some disagreement was noted in officer attitudes regarding PME, the Join Spouse program, and the OES evaluation and promotion system.

**ACCESSION NUMBER: AD-A215833**

Jones, Frank E., et al. **Assessing the Communication Skills Curricula of Air Force Professional Military Education Programs.** Maxwell AFB, AL: Air University, Air Command and Staff College, 1996. 154p.

**Abstract:** A perception exists among mid level career Air Force members that communication skills are important job skills for all ranks and that some individuals lack the necessary skills. The purpose of this research is to provide recommendations to improve the teaching of communication skills. The challenge of this study was meeting the expectations of the intended user, examining a complex, multidimensional issue in a real world setting, and integrating the values and experiences of the researchers and intended users. This effort applies a multi-dimensional methodology: (1) an extensive literature search, (2) a survey instrument, (3) key personnel interviews, and (4) archival records search. Careful analysis of the resulting data lead to numerous conclusions including: (1) communication skills instruction must be based on the needs of its users; (2) communication is a process and communication skills should be taught and evaluated accordingly; (3) communication skills instruction is more effective when based on the contextual needs of its students; (4) individual communication skills should be developed commensurate with professional growth; (5) communication skills instruction is more effective when taught as an across the curriculum approach; (6) although relatively less expertise is needed to evaluate communication skills, a great deal of expertise is required to teach communication skills. These conclusions lead to the following recommendations: (1) establish a tiger team to develop a communication skills assessment methodology to determine the needs of Air Force personnel; (2) integrate feedback to students throughout the communication process; (3) teach communication skills in a context-based format across the entire curriculum; and (4) place a high priority on increasing faculty training for teaching and evaluating communication skills.

**ACCESSION NUMBER: AD-A336098**

<http://handle.dtic.mil/100.2/ADA336098>

Joyner, John N., et al. **Instruction Systems For USMC Professional Military Education: Exploratory Development.** Final report. March 1980-August 1984. Alexandria, VA: Human Resources Research Organization, September 1984. 60p.

**Abstract:** Phases I and II of this effort to increase the efficiency and effectiveness of Marine Corps professional military education (PME) addressed resident PME; and Phase III, nonresident PME. An individualized instruction and evaluation system implemented in Phase I at the Instructional and Management school trained students faster and more effectively than the previous lock-step course. Evaluation of an individualized portion of a subcourse at the Command Staff College in Phase II suggests that the quality of the instructional segment may affect students more than the presentation mode. Phase III compared several delivery media for nonresident PME and tested one medium, teleconferencing. The official participants reacted favorably to teleconferencing, considered it to be a good instructional technique, liked its

ability to bring diverse groups together without having to travel to a central location, but preferred the interactions possible in a face-to-face group discussion.

**ACCESSION NUMBER: AD-A174897**

Joyner, John N., R. Vineberg and M.R. Flaningam. **Handbook For Individualized Instruction**. Interim report no. 2. Alexandria, VA: Human Resources Research Organization, July 1983. 181p.

See also Report no. NPRDC-SR-83-19, AD-A126 455.

**Abstract:** A handbook and associated study guide and test forms were developed to assist instructors in individualizing courses. The handbook is designed primarily for use at formal school settings and for professional military education courses, but may have potential applications to other training settings.

**NPRDC-SR-83-45**

**ACCESSION NUMBER: AD-A139146**

Jubeck, Cornelius Neil. **Test and Evaluation and Graduate Education Needs**. Master's thesis. Monterey, CA: Naval Postgraduate School, June 1981. 75p.

**Abstract:** The hypothesis is advanced that testing and evaluation (T and E) of complex weapons systems requires unique skills, that testing and evaluation of weapons systems has evolved into a recognizable engineering discipline, and that professional technical personnel in the Department of Defense Test and Evaluation community should be considered as unique assets and supported by the establishment of a postgraduate curriculum in T and E engineering. The evolution of DOD T and E is traced and analyzed with particular attention to capability requirements of personnel. The general conclusion is reached that the hypothesis can not now be universally supported. Reasons for this position are given and recommendations made for improving capabilities of T and E personnel.

**ACCESSION NUMBER: AD-A105879**

Karschnia, P.T. **Education, The War Colleges and Professional Military Development**. Washington, DC: National War College, Strategic Research Group, May 1975. 16p.

**Abstract:** Professional military education resides in difficult circumstances. While external challenges from the Congress and the administration appear to constitute the most serious problems, the gravest concerns emanate from within the military establishment. Military education tends to vocationalize and specialize professional development rather than convey broad understanding. The political environment faced by the military generalist is not adequately confronted in the educational system nor is the indeterminacy of future strategic design.

**ACCESSION NUMBER: AD-A008 945**

Kelley, Jay W. **SPACECAST 2020, Volume 1**. Final report. Maxwell AFB, AL: Air University, June 1992. 486p.

**Abstract:** SPACECAST 2020 was a Chief of Staff of the Air Force (CSAF)-directed space study, challenged to identify and conceptually develop high-leverage space technologies and systems that will best support the warfighter in the twenty-first century. The study produced a series of white papers which have been assembled into clusters of concern for future space capabilities. Volume I consists of 11 unclassified white papers: Leveraging the Infosphere:

Surveillance and Reconnaissance in 2020; Space Traffic Control: The Culmination of Improved Spave Operations; 21st Century Weather Support Architecture; Space-Based Solar Monitoring and Alert Satellite System; Space Weather Support for Communications; Spacelift: Suborbital, Earth to Orbit, and On Orbit; Unconventional Spacelift; Rapid Space Force Reconstitution (RASEOR); Space Modular Systems; Professional Military Education (PME) in 2020; and Preparing for Planetary Defense: Detection and Interception of Asteroids on Collision Course with Earth. The Volume also contains an Operational Analysis and listings of Project Contributors and Project Participants.

**ACCESSION NUMBER: AD-A295142**

<http://handle.dtic.mil/100.2/ADA295142>

Kelly, James P. **Theater Strategy Training For Senior Leaders.** Maxwell AFB, AL" Air War College, April 1987. 47p.

**Abstract:** Remarks on the declining combat experience of the active military force introduce a discussion on the importance of capturing the lessons of previous wars in training and education programs for future senior Air Force leaders. A discussion follows comparing Air Force and Army terminology concerning the operational level of war and operational art to set the basis for a look at current training and education programs. The author presents his views on the need for emphasis in training and educating future senior combat leaders for the operational level of war, that area where national strategy is focused into theater and campaign strategy and linked to battlefield tactics. This need for training and education goes beyond the study of history and procedural knowledge into the area of enhancing intuition, instinct and judgement in the face of uncertain knowledge of the enemy. The senior service schools are offered as the forum for developing a foundation for these mental skills.

**ACCESSION NUMBER: AD-A186663**

Kobylski, Gerald C. **Relevant Joint Education at the Intermediate Level Colleges.** Newport, RI: Naval War College, 2002. 50p.

**Abstract:** The leaders of our Armed Services continuously emphasize the importance of Joint Professional Military Education (JPME) for officers at all levels. Joint Vision 2020 states that the key to interoperability amongst the Services is joint education. Despite all of this emphasis, many leaders strongly believe that our JPME programs are inadequate. This paper analyzes the joint education officers receive at the Intermediate Level Colleges. The findings indicate that O4s are not receiving sufficient joint education from the Intermediate Level Colleges in all of the areas that will make them successful in joint assignments. The analysis began with a survey in order to find out what skills are important in the joint operational environment. Then the analysis determined if the four Intermediate Level Colleges give appropriate coverage to these areas. The paper concludes with recommendations about what areas each College should add more emphasis on and with recommendations for further research that might be done similar studies.

**ACCESSION NUMBER: AD-A401840**

<http://handle.dtic.mil/100.2/ADA401840>

Koran, John G., III. **Manpower Management For Joint Specialty Officers: A Comparative Analysis.** Master's thesis. Monterey, CA: Naval Postgraduate School, December 1990. 148p.

**Abstract:** This thesis investigates the development of Title IV of the Goldwater-Nichols Department of Defense Reorganization Act of 1986 and the Joint Specialty Officer (JSO) management policies mandated by the law. Individual service manpower management

procedures for the nomination/selection for Joint Professional Military Education (JPME) and Joint Specialty Officer designation are presented and analyzed. The size and composition of the Joint Duty Assignment List (JDAL) is also presented and analyzed. The results indicate significant progress has been made towards fulfilling the Title IV requirements regarding JPME, JSO designation, and improving the quality and stability of officers assigned to Joint Duty Assignments.

**ACCESSION NUMBER: AD-A246209**

Lacki, Michael J. **Soviet Officer: A Credible Adversary**. Research report. Maxwell AFB, AL: Air War College, April 1986. 47p.

**Abstract:** The intent of this report is to present a review of the training and indoctrination of Soviet officers. The report traces the elements of the communist system which influence the officers' beliefs. Aspects of civilian and professional military education are reviewed. Some elements of the officer's life-style serve to provide another perspective of his life. A summary of the strengths and weaknesses of the Soviet officer corps concludes the remarks.

**ACCESSION NUMBER: AD-A177736**

Leidich, R.G. **The Marine Corps Professional Military Education Selection System**. Student essay. Carlisle Barracks, PA: Army War College, April 1982. 31p.

**Abstract:** The essay describes the Marine Corps method of selecting officers to attend Professional Military Education courses of instruction prior to 1977. It then researches the new selection technique that developed into a 'system' and describes the reasons for change and gives the details of the revised system.

**ACCESSION NUMBER: AD-A116230**

Lianez, Raul and Luis R. Zamarripa. **The Effects of U.S. Marine Corps Officer Graduate Education Programs on Officer Performance: A Comparative Analysis of Professional Military Education and Graduate Education**. Master's thesis. Monterey, CA: Naval Postgraduate School, 2003. 104p.

**Abstract:** This thesis compares the effects of Marine Corps graduate education programs, categorized as either Professional Military Education (PME) or Non-PME, on officer performance. The intent of the thesis is to provide empirical evidence to support or refute Marine Corps cultural perceptions that PME improves officer performance more than Non-PME graduate education. A performance index (PI) is derived from the current Marine Corps fitness report system and averaged before and after graduate education for PME and Non-PME graduates and for a group of officers without graduate education (NOS). Data from the Marine Corps Total Force Data Warehouse are used to assess the marginal effect of graduate education in models that also included demographic, affective and cognitive traits. ANOVA results for O4s show significant improvement in performance over time for all groups (PME, Non-PME and NOS), with the largest improvement for PME and the smallest for NOS, although differences between groups are not significant. Multivariate regressions indicate that, after accounting for other influences, the post-education performance of those with graduate education is not significantly different from those without (NOS). The change in performance between before and after receiving graduate education is not significantly different for PME and NOS, while it is slightly lower for Non-PME than for NOS (significant at .10 level). A limitation of the study is that the data only covered four years of fitness reports. Thus, we were not able to assess the long-run effects of graduate education on officer performance.



**ACCESSION NUMBER: AD-A415090**

<http://library.nps.navy.mil/uhtbin/hyperion-image/03Mar%5FLianez.pdf> (1.81 MB)

<http://handle.dtic.mil/100.2/ADA415090>

Lopez, Kevin W. **Impact of AFSC Regulation 36-5 on the 27XX Career Field.** Master's thesis.

Wright-Patterson AFB, OH: Air Force Institute of Technology, School of Systems and Logistics, September 1987. 99p.

**Abstract:** The objective of this research study was to assess the potential implications of AFSC Regulation 36-5 on the 27XX career field. This analysis was accomplished by comparing the attitudes of Junior (AFSC 2724) and senior (AFSC 2716) officers in relation to the requirements outlined in the regulation. Using this approach, this study established that both test samples of officers proposed a positive relationship between career development and the following variables: 1) specialty training, 2) professional military education, 3) academic background, 4) operational special experience, and 5) different acquisition-related experiences. In addition to these findings, this study determined that the attitudes of both Junior and senior officers relative to career development are very similar. With the exception of those individual training, and professional military education programs oriented towards either Junior or senior officers, the general attitudes of these test samples of officers were comparable.

**ACCESSION NUMBER: AD-A186913**

Mansfield, M. **Air Force Lieutenants: An Analysis of Perceptions Surveyed During the Lieutenants Professional Development Program.**

Final report. Maxwell AFB, AL: Leadership and Management Development Center, January 1984. 66p.

**Abstract:** It is essential that Air Force lieutenants develop proper leadership and management skills early on in their careers so that they may meet the greater challenge inherent in their progression in rank and responsibility, This paper attempts to paint a picture of today's Air Force lieutenants using information and data derived from two sources: the Leadership and Management Development Center's Lieutenants' Professional Development Program and Organizational Assessment Package survey. The information and data show primarily that, among other things, lieutenants are perceived to be lacking good supervisory and managerial skills. Subordinates of lieutenants are experiencing many of the same problems as lieutenants themselves. Herein lies the valuable potential of the LPDP. This problem is designed to help lieutenants, especially managerial skills and supervisory role. Since professional military education is generally offered at about the three year point, and then only to a small percentage, a program such as the LPDP is needed for this large segment of Air Force leadership. The data clearly indicate the need for additional training.

**ACCESSION NUMBER: AD-A138786**

Mansfield, M. **Air Force Lieutenants: An Analysis of Perceptions Surveyed During the Lieutenants Professional Development Program.**

Final report. Maxwell AFB, AL: Leadership and Management Development Center, January 1984. 66p. Supersedes AD-A138 786.

**Abstract:** It is essential that Air Force lieutenants develop proper leadership and management skills early on in their careers so that they may meet the greater challenge inherent in their progression in rank and responsibility. This paper attempts to paint a picture

of today's Air Force lieutenants using information and data derived from two sources: the Leadership and Management Development Center's Lieutenants' Professional Development Program and Organizational Assessment Package survey. The information and data show primarily that, among other things, lieutenants are perceived to be lacking good supervisory and managerial skills. Subordinates of lieutenants are experiencing many of the same problems as lieutenants themselves. Herein lies the valuable potential of the LPDP. This program is designed to help lieutenants, especially those who are supervisors, gain pragmatic insight into how to develop and fulfill their managerial skills and supervisory role. Since professional military education is generally offered at about the three year point, and then only to a small percentage, a program such as the LPDP is needed for this large segment of Air Force leadership. The data clearly indicate the need for additional training.

**ACCESSION NUMBER: AD-A142529**

Mansfield, M. **Impact of Various Levels of Professional Military Education and Formal Education on Selected Supervisory Dimensions.** Final report. Maxwell AFB, AL: Leadership and Management Development Center, August 1983. 64p.

**Abstract:** Officers need training and education in order to perform assigned duties.  
**Problem:** How much of what type of education and/or training does an Air Force officer need. This paper analyzes how an officer's level of professional military and academic education influence subordinate perceptions of managerial/supervisory issues. An analysis of covariance (ANCOVA) is performed using 2x4 factorial design (level of college degree x level of PME). The data show that officer professional military and graduate education positively influence the perceptions of subordinates on key supervisory measures. To determine how the Air Force compares to industry, information was collected from four defense related corporations. These industries place as much or more emphasis on the professional education of employees than the Air Force. In the area of advanced education, what may appear costly in the present should reap enormous benefits in the future.

**ACCESSION NUMBER: AD-A133076**

McConnell, Reed J. **Impact of Air Force Systems Command Regulation 36-5 on the 27XX Career Field.** Master's thesis. Wright-Patterson AFB, OH: Air Force Institute of Technology, September 1988. 98p.

**Abstract:** The purpose of this research was to determine if the attitudes of acquisition managers have changed over the past year, with respect to the Acquisition Manager Career Development Program, set forth by Air Force Systems Command Regulation (AFSCR) 36-5. A survey approach was used to compare the attitudes of Juneior (Air Force Specialty Code 2724) and senior (Air Force Specialty Code 2716) officers in relation to the criteria specified in the regulation. The results were then compared to the results of a previous survey to measure changes over time. Both surveys found generally a positive relationship between the attitudes of acquisition management personnel and career development in all areas investigated. These areas include: 1) specialty training, 2) academic background, 3) professional military education, 4) operational experience, and 5) different types of acquisition management experience. Not only were the responses from the previous survey to the current survey similar, the attitudes of Juneior and senior personnel were also comparable.

**ACCESSION NUMBER: AD-A201516**

Miller, Roger M. **Air National Guard Full-Time Support.** Student report. Maxwell AFB, AL: Air Command and Staff College, 1988. 31p.

**Abstract:** Full-time support for the Air National Guard is federally funded and subject to federal law and rules for its administration. Retirement benefits are a positive motivator for a career force, but also require clear rules for members to believe they can reach retirement. The purpose of this report is to establish the need to revise Air National Guard (ANG) regulations controlling Active Guard Reserve (AGR) members and to provide a history of full-time support in the National Guard. ANGR 35-03 Military Personnel Management needs to be revised to conform to federal laws concerning reservists on active duty. Promotion, professional military education, and active mission support should be centrally managed to use military duty members.

**ACCESSION NUMBER: AD-A192520**

Miller, Stephen J. **Joint Education: Where It Really Should Begin.** Study project report. Carlisle Barracks, PA: Army War College, 5 April 1993. 38p.

**Abstract:** The 1986 Goldwater-Nichols Department of Defense Reorganization Act mandated sweeping reforms to the professional military education system. In particular, the law called for the creation of joint specialty officers, and gave the Chairman, Joint Chiefs of Staff, authority to formulate policy in the military education system in order to produce officers competent in joint matters. Thus far, the focus of the changes have been at the intermediate and senior service schools. The Chairman has issued clear objectives for joint education curricula, and each of the programs must be periodically accredited. However, very little guidance has been given to the precommissioning schools, and their joint programs are not formally reviewed by the JCS. As a result, the variety and depth of joint curricula varies considerably between the service academies and ROTC units. In the author's opinion, officers are graduating with differing perspectives and levels of understanding about joint matters. However, the military is changing and young officers are being exposed to the joint environment earlier in their careers through consolidation of DoD organizations, training exercises and real world contingencies. This paper presents several arguments why joint education should be improved for officer candidates, and recommends that precommissioning schools become full fledged partners in the joint education process by implementing common learning objectives and submitting their curricula to periodic JCS review.

**ACCESSION NUMBER: AD-A264041**

Morsh, Joseph E. **Survey of Air Force Officer Management Activities and Evaluation of Professional Military Education Requirements.** Lackland AFB, TX: Air Force Human Resources Laboratory, Personnel Research Division, December 1969. 93p.

**Abstract:** The main purpose of the officer management survey was to identify functions which all officers perform as distinct from work specific to a particular specialty and to determine the relationships of managerial responsibility to grade, career area, or other variables. A further aim was to obtain an evaluation of topics of professional military education requirements in terms of job performance or as contributory to an effective Air Force career.

**AFHRL-TR-69-38**

**ACCESSION NUMBER: AD-705574**

Moskos, Charles C. **Sociology of the Army Reserves: A Comparative Assessment.** Interim report. December 1987-November 1988. Evanston, IL: Northwestern University, Dept. of Sociology, July 1990. 32p.

**Abstract:** This report highlights the core characteristics of the American Reserve System with a comparative analysis of reserve forces in the Federal Republic of Germany, the United Kingdom, and Israel. The analysis adopts a case-based approach and uses qualitative binary methodology. The following are the core elements of the social organization of American reserve components: (1) No other reserve system requires as much training time for its members; (2) no other reserve system relies on reservists for basic full-time support; (3) no other reserve system has a well developed career path (with a corresponding professional military education system) leading to senior command and staff positions; and (4) in no other reserve system do reservists have such limited real vacation time. The effect of these conditions is that the American reserves, in comparison with those in other Western countries, are characterized by greater conflict between reserve duties and family obligations and, most especially, between reserve duties and civilian employment responsibilities. Long-term policy changes to improve reserve force must take this into account.

**ACCESSION NUMBER: AD-A226717**

Mullen, David P. **Joint Training at the Junior Level: Are We Doing the Right Thing For Our Future?** Maxwell AFB, AL: Air University, Air Command and Staff College, 1999. 47p.

**Abstract:** This research examines joint education at the primary education levels (pay grades 01-03) within our four military services by using the CJCS's OPMEP as the baseline document. It first provides an understanding of the CJCS's joint education requirements at the primary education level and then reviews the actual need for that education by examining related studies, position papers or articles from key leaders within the upper echelon of the military education community. The research uncovered few comments that failed to support the need for some type of joint education at the primary/junior officer education level. Finally, the research discusses if or how the services are providing Joint Professional Military Education (JPME) at their primary level schools and whether that joint education supports the requirements of the OPMEP and the proposals provided in a recent JPME 2010 Study-Requirements Team Report. Based on the research provided in this study, the United States Army and Marine Corps are the only services that are either in the developmental phase or possess an existing JPME program for the primary education level. Based on sources within Air University and the Naval Education and Training Command, the United States Air Force and Navy are not providing their junior officers with formal joint education that is either in accordance with the OPMEP or preparing junior officers for JTF duties. While minimum joint matters are discussed throughout their curricula, no formal joint education programs exist at their primary level institutions. Based on the findings in this study, the author recommends that J7 reemphasize joint education at the primary level and continue to require each service to review and report on their existing programs and develop corrective actions as deemed necessary by each service chief.

**ACCESSION NUMBER: AD-A397165**

<http://handle.dtic.mil/100.2/ADA397165>

Nicklen, Violet M. **Incorporating Phase II – JPME Into Air War College.** Maxwell AFB, AL: Air University, Air War College, 1998. 44p.

**Abstract:** This research paper examines the feasibility of incorporating Phase II of Joint Professional Military Education (JPME) into the Air War College (AWC) curriculum. The research begins with a future look at how the AWC would be organized if it were teaching JPME Phases I and II. The supportive portion of the paper looks at the history and evolution of joint education within joint and combined schools. The overriding reason for JPME is the creation of the Joint Specialty Officer by the Goldwater-Nichols Reorganization Act of 1986. The

management of joint officers has promulgated the necessity for joint education policy requirements and reporting. In exploring these policies and reports, extrapolations and comparisons are made between the joint education policy requirements and the Senior-Level Colleges that provide JPME. How well are National Defense University schools able to support the joint duty assignment requirements now and in the future? The main arguments against the Service colleges teaching Phase II are raised and requirements for adapting are recommended through organization structure, faculty and student mix changes. Finally, the benefits and obstacles concerning resistance, economics, and accreditation are discussed. Recommendations are extrapolated to include other Senior Service Schools and the effect on the Joint and Combined Warfighting School at the Armed Forces Staff College, Norfolk, Virginia.

**ACCESSION NUMBER: AD-A397149**

<http://handle.dtic.mil/100.2/ADA397149>

**Noncommissioned Officer Education and Professional Development Study.** Fort Monroe, VA: Continental Army Command, 1971. 62p.

**Abstract:** The following are among this study's recommendations: Retain the present Noncommissioned Officer Education System (NCOES) as the Army's program for noncommissioned officer education and professional development and implement it fully as rapidly as possible; Examine the NCOES and make modification to insure that every soldier in every military occupational specialty has a career path through NCOES to noncommissioned officer rank; Develop, insofar as possible, programs of instruction within NCOES which will include all MOS, consolidating instruction to insure flexibility in accommodating all MOS within programmed classes at each service school regardless of variations in ACMF and MOS training; Continue to analyze service school courses to eliminate duplication between NCOES and specialized and functional courses; Terminate the Skill Development Base Program as rapidly as possible, by 30 June 1972, or earlier, in favor of earlier expansion of NCOES; Retain the present organization of noncommissioned officer academies for the foreseeable future; and Develop on NCOES student procurement system to replace current solicitation procedures for procurement of best-qualified students, by establishment of mandatory quota requirements, which must be met, based on distribution of personnel within major organizations by MOS and rank.

**ACCESSION NUMBER: AD-A089270**

**Olson, Kimberly A. Technology and the Air Force Nonresident Intermediate Professional Military Education: A Successful Marriage.**

Maxwell AFB, AL: Air University, Air Command and Staff College, 2000. 39p.

**Abstract:** Throughout history, state leaders, military leaders, and military theorists have recognized the important role that the military plays in achieving national objectives. To ensure success, military members must be adequately educated and trained. Current legislation, policies, and documents reflect those same views. Air Command and Staff College develops and administers intermediate level professional military education for the Air Force. Given the importance of professional military education for accomplishment of military and national objectives, the resident and nonresident curriculums should be equivalent. Yet, when compared, a significant difference exists between them. Increasing the use of and correctly integrating technology into the nonresident program is one option that can narrow the gap between curriculums. But should the Air Force integrate more technology into the nonresident intermediate professional military education program? To answer the overall question, two hypotheses were developed and explored. First, Air Force majors must be pre-disposed to be successful at distance learning programs. Second, the curriculum must be enhanced by the

correct integration of technology. Both were found to be true. Overall, Air Command and Staff College should continue efforts to integrate technology into the distance learning curriculums. Further research is needed in the areas of organizational change, resources, and security implications to explore possible disadvantages on the mechanics of integration.

**ACCESSION NUMBER: AD-A394921**

<http://handle.dtic.mil/100.2/ADA394921>

Orlansky, Jesse, et al. **Joint Warfare Analysis Program**. Final report. October 1994-June 1996. Alexandria, VA: Institute for Defense Analyses, June 1996. 54p.

**Abstract:** This paper examines the need for a program of Joint Warfare Analysis as an option in Joint Professional Military Education, Phase I, for intermediate level officers. The findings are based on structured interviews with 50 senior flag officers on whose staffs graduates would serve. Graduates of such a program are considered important on Joint and Service Command staffs, and half the respondents consider them essential and would trade off a current billet for such a graduate. The curriculum should include studies campaign analysis, simulation and joint exercise evaluation. It is estimated that 30 to 40 graduates would be needed each year to fill 90 to 130 billets on Joint and major Service command staffs.

**ACCESSION NUMBER: AD-A311927**

<http://handle.dtic.mil/100.2/ADA311927>

Orzell, Michael S. **The Impact of Fully-Funded Graduate Education and Resident JPME on Aviator Promotion and Command Selection**. Master's thesis. Monterey, CA: Naval Postgraduate School, 1998. 71p.

**Abstract:** The purpose of this thesis is to examine the impact that FFGE and JPME have on aviator promotion to the ranks of Commander and Captain and on selection for command. This thesis accurately measures their impact by incorporating new measures of performance, namely good jobs. These two proxies for performance were developed to help capture those unmeasurable characteristics that do not show up on officer Fitness Reports. This study examines officers appearing before the 1988-1994 Commander and Captain promotion boards. Two separate Logit models are used to estimate the effects of these educational opportunities on promotion both before and after the start of the drawdown. Separate Logit regression models for command screen are also specified for these two time periods. Model results indicate that FFGE had a significant positive impact on Commander selection and a significant negative impact on command selection in the pre-FY90 period. The impact of JPME was significant and positive for promotion to Commander in both periods and for command screen in the pre-FY90 period. Joint Duty Assignment had a significant and negative impact on command selection in both periods. The results of these models may reflect changes in the policies of the aviation community toward FFGE and JPME as well as differences in the officers who choose the educational opportunities. This thesis provides evidence of difficulties in combining FFGE, JPME and JDA in an aviation career.

**ACCESSION NUMBER: AD-A343642.**

<http://handle.dtic.mil/100.2/ADA343642>

Owens, Patrick J. **United States Air Force Company Grade Officer PME and Leader Development: Establishing a Glide Path for Future Success**. Ft. Leavenworth, KS: Army Command and General Staff College, School of Advanced Military Studies, 2002. 60p.

**Abstract:** Leadership and the attributes of great leaders have long been topics of study within the professional military education system, yet the subject of sustained, integrated and systemic leader development has only recently received substantive treatment within the United States Air Force. Unlike the United States Army, the Air Force lacks a doctrinal foundation on which to base the leader development process. This monograph addresses the role of PME at the company grade level in the development of Air Force officers in light of ongoing Army and Air Force leader development initiatives as well as recent leader development literature.

**ACCESSION NUMBER: AD-A403395**

<http://handle.dtic.mil/100.2/ADA403395>

Page, Christopher L. and Scott H. Miller. **A Comparative Analysis of Leadership Skills Development in Marine Corps Training and Education Programs.** Master's thesis. Monterey, CA: Naval Postgraduate School, 2002. 95p.

**Abstract:** This thesis analyzes the perceptions of a non-random sample of 210 officers and enlisted Marines in two locations. A researcher-developed survey and semi-structured interviews were administered to ascertain opinions of Marines concerning leadership development. An analysis of the content of leadership training and education courses was also conducted. This information was compared to contemporary leadership theory and relevant models of leadership. In general, leadership development provided is adequate, but is lacking in some areas of skill development, application of skills and values, and relevancy to contemporary leadership issues. Professional Military Education (PME) generally provides relevant leadership training and education to enlisted personnel, but falls short of meeting the expectations of many officers.

**ACCESSION NUMBER: AD-A411042**

<http://library.nps.navy.mil/uhtbin/hyperion-image/02Dec%5FPage%5FMiller.pdf> (412 KB)

Palmer, George E. **A Discriminative Study of the Senior Service College Selection System as it Relates to the Army War College.** Research paper. Carlisle Barracks, PA: Army War College, January 1972. 40p.

**Abstract:** The major thrust of this study is to analyze the Army Senior Service College Selection System with a view of determining the merits of the system and its relationship to the US Army War College (AWC). The basic question is whether or not the student body of the Army War College has been and remains a reputable product of the selection system. In addition, have any noticeable trends been established in using this selection system over an extended period and is the formulation of a War College student profile feasible. Data was gathered using a literature research of appropriate civilian publications and statistical information compiled at the AWC and Department of the Army. A twenty-two year survey of the student body attending the AWC was conducted. The analysis of the student body at the AWC indicates that the Senior Service College Selection System is accomplishing its goal of selecting the best qualified for attendance to the Senior Service Colleges. The students nominated appear to meet the selection criteria as related to rank, professional skills, educational standards, and time in service. Minor variations in each class composition are noted. These variations may be prevalent in each of the Senior Service Schools due to the random selection of students and the suspected desire to more closely integrate the educational process of the senior officers from all services.

**ACCESSION NUMBER: AD-A026935**

Payne, Rodney M. **Common Sense Approach to Strategy**. Research report. Maxwell AFB, AL: Air War College, May 1987. 41p.

**Abstract:** Professional military education at all levels emphasizes the necessity for military commanders to study, understand and, in turn, properly apply the classic strategies and principles of war. Using the Civil War career of Lieutenant General Nathan Bedford Forrest as a case study, this paper points out that even though he was uneducated and had no prior military experience, Forrest was a genius in the strategies and principles of war. An analytical discussion of several of Forrest's campaigns is used to support this thesis. Given the fact that Forrest could not have read or been taught the classic strategies and principles, he undoubtedly adhered to some form of strategy formulation framework which intuitively led him to make the correct military decisions. The author postulates that framework as a basis for the analysis of Forrest's achievements and suggests that the same framework could prove beneficial at all levels of command and a quick reference back-up for contemporary battlefield strategy decisions.

**ACCESSION NUMBER: AD-A187008**

Peacock, W.R., Jr. **Soviets - How Much Do We Know**. Research report. Maxwell AFB, AL: Air War College, April 1985. 55p.

**Abstract:** Initial discussion of both the historical and current reasons for knowing the United States' primary adversary, the Union of Soviet Socialist Republics (USSR), leads to further examination of the specific categories of knowledge the professional military officer should have regarding his enemy. History, society, economy, political system and geography are discussed along with the implications each has in contributing to the senior professional's required knowledge. Next, the results of a questionnaire on the Soviet system administered to the Air War College USAF students in the class of 1985 lead to the conclusion that lieutenant colonels and colonels in the Air Force have only superficial knowledge of the USSR in the five categories of knowledge previously mentioned. General observations on the American educational system, media, and professional military education programs at Squadron Officer School, Air Command and Staff College, and Air War College point to a need to start the Soviet education process earlier in the individual's career, increase the exposure at all USAF professional military education schools and establish some type of additional mandatory training. Suggestions as to the specifics of implementing such a program are offered with the hope of providing a starting point for fixing the problem.

**ACCESSION NUMBER: AD-A159277**

Perez, Debra J. **Are We Meeting the Intent of the Skelton and Cheney Panels as It Relates to Joint Proficiency Training For Our Strategic Leaders in the 21st Century?** Carlisle Barracks, PA: Army War College, 2003. 43p.

**Abstract:** Secretary of Defense Rumsfeld has directed a transformation of the Armed Services. He has stated that a transformation requires a changed mindset as much as it requires innovation and technology. Since the end of World War II, when the National Security Act of 1947 created the Secretary and Department of Defense and established the Joint Staff, the services have been obligated to train more joint-minded officers. Thus the establishment of several schools to provide this Joint Professional Military Education (JPME) was created. The Goldwater-Nichols Act of 1986 established the selection, education, assignment, and promotion criteria for a Joint Officer Personnel Policy. The Skelton Panel of 1988 conducted the first Congressional review afterwards of the Professional Military Education System and



recommended several areas for needed improvement. Additionally, the 1997 Cheney Panel determined that the joint instruction should begin earlier in the JPME process at the point of pre-commissioning and that the curriculum should be deepened and expanded at each consecutive level. The panel also determined that the Senior Service College should focus joint operations and multinational warfare. This paper seeks to determine if the senior level colleges, as they exist today, are meeting the recommendations of the Skelton and Cheney panels. The first section of this paper will identify the colleges charged to educate the senior leaders and examine the composition of the student body and its faculty followed by an examination of the curriculum of each school. And finally, the paper will also look into possible areas where efficiencies can be gained, specifically as associated with costs savings and potential duplication reduction efforts. Are these colleges truly focusing on the "joint" aspect sufficiently enough to shape and modify individual service biases?

**ACCESSION NUMBER: AD-A415731**

<http://handle.dtic.mil/100.2/ADA415731>

Peterson, James R. **Tactical Deception--Vital Then, Vital Now**. Student report. Maxwell AFB, AL: Air Command and Staff College, April 1987. 30p.

**Abstract:** Tactical Deception is the force multiplier that can be the difference between victory and defeat. Since Biblical times, Deception has played a vital role in warfare. The advances in technology, change in our society, and expanded military role have not reduced Deception's value. In addition, Soviet's reliance on Deception throughout its military dictates increased United States military emphasis in the study and use of Deceptive measures. The study examines the types of Deception, key factors for success, and examples throughout history on how Deception, has been vital. By increasing the emphasis of Deception in routine exercises, evaluations, and Professional Military Education, the United States military can fully utilize this vital tool.

**ACCESSION NUMBER: AD-A200583**

Pickett, Dayton S., David A. Smith and Elizabeth B. Dial. **Joint Professional Military Education for Reserve Component Officers. A Review of the Need For JPME For RC Officers Assigned to Joint Organizations.**

McLean, VA: Logistics Management Institute, 1998. 142p.

**Abstract:** This study identifies the need for joint professional military education (JPME) for the approximately 4,400 Reserve Component (RC) officers now working in the joint organizations of DoD. Specifically, it identifies the type and amount of JPME needed by a large minority of these officers if they are to be prepared properly to do joint work effectively. The study involved identifying the individual jobs performed by all RC officers, followed by a survey of the supervisors of all those positions. The survey responses outlined the need for specific kinds of job activities, and those activities were then linked to the learning objectives that characterize the JPME programs now offered. The ensuing analysis revealed the need for approximately 2,000 RC officers to complete basic (or Phase I) JPME, with over 1,200 of those officers requiring additional - or advanced - JPME. Workshops of military educators and Reserve Component leaders then developed an RC-oriented advanced JPME curriculum, and this curriculum was endorsed in the study's final report.

**ACCESSION NUMBER: AD-A357506**

<http://handle.dtic.mil/100.2/ADA357506>

Powers, James F., Jr. **National Assistance and Civil-Military Operations: The Gap in Professional Military Education.** Research report. Carlisle Barracks, PA: Army War College, March 1996. 35p.

**Abstract:** The Department of Defense (DoD) is not properly preparing the U.S. Armed Forces to execute Civil-Military Operations (CMO) as a supporting, mission activity of Nation Assistance. Furthermore, the DoD appears to be unaware of this shortcoming and thus incapable of solving the problem due to a general lack of education and awareness regarding Nation Assistance and its component activities. This argumentative paper evaluates the national security policy area of Nation Assistance and one of the stated component activities, CMO. It traces the genesis of CMO from the President's National Security Strategy through the Secretary of Defense (SECDEF) and Chairman, Joint Chiefs of Staff (CJCS) National Military Strategy to a break in the linkage at Service level. Civil-Military Operations are defined as the complex of activities in support of military operations embracing the interaction between the military force and civilian authorities fostering the development of favorable emotions, attitudes, and behavior in neutral, friendly, or hostile groups. The methodology used in this evaluation is the U.S. Army War College (USAWC) Ends, Ways, and Means model for developing National Strategy; i.e., Ends being the objectives, Ways the concepts, and Means the resources available. The term CMO comprises five mission activities: populace and resources control, foreign nation support, humanitarian assistance, military civic action, and civil defense.

**ACCESSION NUMBER: AD-A309111**

<http://handle.dtic.mil/100.2/ADA309111>

Powers, Marcella V. **Survey of Studies Addressing Graduate Education in the United States Air Force.** Research report. Maxwell AFB, AL: Air War College, April 1987. 63p.

**Abstract:** The purpose of this report is to establish the basic structure for the education of Army (including Army Air Forces) officers. The charter of the board covered commissioned officers only. The military leadership emerging from World War II recognized that the United States would play a major role in world affairs. The military officers of the United States needed to be educated to assume military leadership under more complex situations and using more sophisticated technology than had been the case before that time. The bulk of this study, chaired by Lieutenant General Leonard T. Gerow, deals with professional military education. Annex 10 (which addresses Army Air Forces) includes the requirement for the Air Institute of Technology. At this early stage of the development of modern-day military education, no specific reference is made to graduate education. The board established the mission of the Air Institute of Technology as assuring scientific technological development of Army Air Forces equipment and efficient operation of procurement, supply, maintenance, and service responsibilities assigned to the Army Air Forces. (p. 75) It would be heavily science-and-research oriented. Instruction would be provided in those subjects to prepare officers to serve in the Air Technical Service Command and tactical operating units. Provisions called for Reserve and National Guard officers to attend an associate, condensed course and for the Air Institute of Technology to provide a correspondence course for officers on inactive status.

**ACCESSION NUMBER: AD-A186843**

**Professional Military Education - Officer AFPT 90-XXX-522.** Special report. Randolph AFB, TX: Air Force Occupational Measurement Center, October 1984. 56p.

**Abstract:** This report presents the results of an Air Force occupational survey of the leadership, management, and communicative tasks performed by Air Force officers. This survey was requested by HQ Air University to help validate and revise the curricula of officer precommissioning and postcommissioning professional military education (PME) courses.

**ACCESSION NUMBER: AD-A147387**

Redmond, Kimberly, Joe Sheppard, Marlene Humphrey and Lee Stacy. **CD-ROM Applications in Professional Military Education (PME)**. Final report. September 1991-May 1992. Arlington, VA: Eagle Technology, Inc., October 1992. 99p.

**Abstract:** This effort was conducted to identify the most cost-effective and efficient utilization of Compact Disk-read Only Memory (CD-ROM) within the Marine Corps Professional Military Education (PME) schools at the Marine Corps University (MCU). CD-ROM, Professional Military Education (PME).

**ACCESSION NUMBER: AD-A256662**

Reed, D.D. **Future Technologies Needs Analysis**. Air University Staff Report. 1986. 75p. Paper presented at the Annual Meeting of the Mid-South Educational Research Association (15th, Memphis, TN, November 19-21, 1986).

**Abstract:** This report summarizes the findings of a survey of all permanently assigned personnel at the Air University at Maxwell Air Force Base (Alabama) to determine what future workplace technologies will be needed to support the university's two major programs, Professional Military Education (PME) and Professional Continuing Education (PCE). The objectives of the study were to determine exactly what personnel perceived their needs to be for a local area network; for future technologies for presenting PME and PCE curricula; and for achieving the necessary staff work of support organizations. There were 1,211 respondents who provided information on: (1) their willingness to accept technology advances; (2) potential workload savings by automation; and (3) specific equipment and software requirements. The survey data were also designed to permit future mapping of external and internal data flow at the Air University. The text is supplemented by seven figures and six tables, and four appendices include a copy of the survey questionnaire and analyses of the data for individual questions. A descriptive analysis of future technological needs in a military university based on this study is attached.

**ACCESSION NUMBER: ED290443**

Reed, Ronald D. **Perspective on Commissioning and Education -- Total Quality, Total Force**. Final report. Maxwell AFB, AL: Air War College, April 1993. 60p.

**Abstract:** Internal and external pressures drive leaders, planners, and senior decision makers to evaluate educational programs for efficiency, effectiveness and long-term benefits. This paper focuses on such issues with respect to Department of Defense (DOD) commissioning programs. Meshed with older educational concerns for development and reform, a growing emphasis on Total Quality Management (TQM) offers opportunities and challenges in meeting such pressures and in supporting evaluation. TQM areas of particular importance in tailoring TQM to commissioning programs are customer and product identification, quality definition and measurement, leadership and teamwork in organizational culture, and benchmarking. Data is needed to support decision making and program improvement at all levels. Several metrics of comparative quality are available, with one being

surveys of supervisors for newly commissioned officers. A case is made that better coordination of evaluative data and commissioning programs is needed. Ultimately, this coordination should extend within each service, across the joint services, and through career-long professional military education.

**ACCESSION NUMBER: AD-A283215**

Reely, Robert Harold, Jr. **An Analysis of the Relationships Between Job Satisfaction/Enrichment Factors and Demographic Variables For United States Air Force Professional Military Education Faculty.**

Doctoral thesis. Wright Patterson AFB, OH: Air Force Institute of Technology, August 1976. 131p.

**Abstract:** This study has focused upon an application of job motivation/satisfaction theory to the faculty of the United States Air Force Air University. The study was limited to the three major college faculties within Air University. Two hundred and twenty subjects were measured with the Air University Faculty Motivation Survey. The instrument presented and defined 15 job factors. Scales were included to measure both an individual's satisfaction with and perceived importance of each factor. Six job enrichment factors and selected demographic variables were also measured.

**ACCESSION NUMBER: AD-A031821**

Reoyo, Paul J. **Professional Education: Key to Transformation.** Carlisle Barracks, PA: Army War College, 2002. 40p.

**Abstract:** The Army, as an institution must face up to the new challenges of the 21st century and transform professional education with the same urgency and energy it is applying to develop the Objective Force. The post Cold War expansion of the Army's professional jurisdiction has created a gap between the knowledge that officers receive during their professional military education, and the professional knowledge that they need to effectively complete the missions they are being assigned in today's complex environment. Traditional warfighting proficiency must be combined with these additional skills if our Army is to remain the world's premier fighting force. Technology alone cannot fill the gap or provide the dominance required to win. This paper looks at the strategic environment, and emerging challenges that demand changes in the officer professional military education system. It examines the Army's current approach to officer education, and makes recommendations to bridge the gap between the Army's professional authority and the level of professional knowledge they have to apply to their work.

**ACCESSION NUMBER: AD-A401044**

<http://handle.dtic.mil/100.2/ADA401044>

**A Report of the United States Army Command and Staff College 1984-85 Institutional Self-Study.** Ft. Leavenworth, KS: Army Command and General Staff College, 1985. 602p.

**Abstract:** The primary purpose of this Self-Study Report is to renew and continue the accreditation process that began with the initiation of the Master's of Military Art and Science program in 1964. The Report provides a comprehensive assessment of the College's strengths and concerns, as measured against the North Central Association's requirements, as well as an action plan for success in the future.

**ACCESSION NUMBER: AD-A361905**

<http://handle.dtic.mil/100.2/ADA361905>

**A Review of Education and Training For Officers (RETO). Volume 2. Career Progression.** Washington, DC: Office of the Chief of Staff (Army), June 1978. 638p.

Abstract: Partial Contents: (C). Precommissioning. The Precommissioning Screening System. The ROTC Program. The ROTC Scholarship Program. (D). Officer Education, Training and Military Qualification Standards, Precommissioning through 10 Years AFCS. Military Qualification Standards. Notional Model of MQS I. Notional Model of MQS II, Specialty 11. Notional Model of MQS II, Specialty 35. Notional Model of MQS II, Specialty 81. Notional Model of MQS III, Specialty 11. Notional Model of MQS III, Specialty 35. Notional Model of MQS III, Specialty 81. Professional Military Education Components at MQS I, II and III. The Advanced Course Analysis. Transition to War. (E). Training and Education for Field Grade Officer Development. Preparing Field Grade Officers. Skills and Knowledge Common to All Majors and Lieutenant Colonels. Combined Arms and Services Staff School (CAS3). U.S. Army Command and General Staff College. Expansion for War: USACGSC and CAS3. Specialty/Assignment-- Relevant Training and Education. (F). Senior Officer Education and Training. Senior Service Colleges. Battalion and Brigade Precommand Courses. Continuing Education and Training for General Officers. Transition to War.

**ACCESSION NUMBER: AD-A080159**

**A Review of Education and Training For Officers (RETO). Volume 4. Rank-Independent Issue.** Washington, DC: Office of the Chief of Staff (Army), June 1978. 367p.

Abstracts: Partial Contents: (M) Commitment, (N) Officership—The Army Environment and Its Impact on Officership, (O) Assessment Concept in Support of Officer Education and Training System--Assessment Concept for Mid-Career Development Executive Development Laboratory for Newly Selected Brigadier Generals; (P) Professional Military Education for Army Officers--Future Requirements in Professional Military Education, Graduate Level Education of Army Officers, Foreign Languages and U.S. Army Officers, Professional Ethics, Military History , (Q) Reserve Components--Reserve Components Officer Professional Development, (R) Management of Officers--Promotion by Specialty Floors, Commander Management, OPMS Specialties - DA Proponency and Specialty Primacy, Specialists and Generalists: A Look at the Army Officer Corps; (S) Aviation Program.

**ACCESSION NUMBER: AD-A080161**

Richardson, F.G. **Law of War and the Operational Commander.** Final report. Newport, RI: Naval War College, Dept. of Operations, 8 February 1994. 36p.

Abstract: Every member of the military is bound by oath to discharge his or her duties in accordance with the law of war. This paper examines the influence of the law of war on the operational commander and includes legal planning considerations for campaigns. It does not list all laws of armed conflict or the provisions of applicable conventions concerning warfare. Operational law, based on the principles of military necessity, unnecessary suffering, and proportionality enables the operational commander to plan and execute legal, successful operations. Command criminal responsibility assumes an operational commander does not issue illegal orders or in some way personally directs or supervises a prohibited activity. Selected cases in military history clearly indicate that operational commanders who have adhered to the law of war emerged victorious in their respective campaigns. Analysis of these cases and current law supports the premise that the operational commander must obey the

law of war, and has no authority to violate or selectively enforce the law. To ensure operations are conducted within the spirit and intent of the law of war, training programs need to be instituted at all levels of professional military education.

**ACCESSION NUMBER: AD-A279705**

Rose, M. Richard and Andrew J Dougherty. **Educating the American Military Officer. The System and Its Challenges: An Overview.** Washington, DC: National War College, Strategic Research Group, November 1975. 32p.

**Abstract:** Over the years there has developed within the Department of Defense perhaps the most elaborate and successful system dedicated to the intellectual and professional development of officers of the Armed Forces to be found in any institution in the world. An examination of this process, its components and its genesis, reveals a composite of separate programs developed and adapted over the years to satisfy specific needs. That the programs so developed have been successful in the aggregate cannot be denied. We need only to look at the officer corps of the Armed Forces, as they now exist, to be persuaded of the effectiveness of these programs as instruments for the development of professionalism and expertise. The nation and the Armed Forces have just completed the longest, most divisive and difficult war in our national history. In the course of that war, the overall performance of the Armed Forces, as it reflects officership, was superb. The dedication and professionalism exemplified by the American prisoners-of-war, as representative products of the system, during their long incarceration and their subsequent return to our nation with their honor intact, attests to this quality and substance of these programs.

**ACCESSION NUMBER: AD-A024215**

Roth, Brenda F. **Student Outcomes Assessment of Air Command and Staff College: An Evaluative Study.** Doctoral thesis. Wright-Patterson AFB, OH: Air Force Institute of Technology, April 1997. 244p.

**Abstract:** In the mid-1980s, the assessment movement began to spread throughout academia as colleges and universities created programs to address the issues of accountability and program improvement. A multitude of comprehensive institution-wide assessment programs emerged from the movement which brought about change on many campuses. The purpose of this study was to develop a comprehensive assessment program at an Air Force professional military education institution, Air Command and Staff College (ACSC), based on the perceptions of recent Air Force officer graduates of the program. Graduates (n=395) were asked to rate the quality of program elements (teaching methods and program activities) and to disclose their perceived competence on outcome variables. Based on the data from a 90-item questionnaire titled, 'Student Perceptions of Program Effectiveness Questionnaire,' the researcher analyzed student perceptions on three types of variables--inputs (demographics and student expectations), environment (teaching methods and program activities), and outcomes (program goals). Information from returned questionnaires was collected and analyzed using descriptive (means, standard deviations, and percentages), correlational (cross-tabulations and Pearson 'r's), predictive (multiple regression) statistics, and qualitative analysis. The results of the correlational and predictive analyses show that ACSC graduates generally perceived their competencies on outcome variables and the quality of environmental variables as high. The most important results emerged from the predictive analysis. After controlling for the effects of inputs, which accounted from three percent of the variance in Command and Leadership to nine percent in Critical Thinking outcome Leadership to fifteen percent in Joint Campaign outcome variables.

**ACCESSION NUMBER: AD-A323627**

<http://handle.dtic.mil/100.2/ADA323627>

Rupinski, Timothy E. **Selection Criteria For Professional Military Education.** Final report.

Alexandria, VA: Center for Naval Analyses, Marine Corps Operations Analysis Group,

10 August 1987. 61p.

**Abstract:** The Marine Corps provides Professional Military Education (PME) for its noncommissioned officers. Each level of training is designed to provide the leadership skills necessary for advancement in rank. This research memorandum shows that prior performance, time in grade, length to end of active service, and operational commitments affect the selection of eligible Marines into some of the resident courses.

**CRM-87-148**

**ACCESSION NUMBER: AD-A187693**

Shaw, Chris. **Professional Military Education: An Alternative Approach.** Research report. August 1991-April 1992. Washington, DC: Industrial College of the Armed Forces, April 1992. 32p.

**Abstract:** The national imperatives of our economy reflect directly on military budget austerity and manpower drawdowns, yet the education of officers must not and should not suffer. The history and evolution of PME and a different approach can provide the answers to the where and how the PME system should proceed. What results from this prescribed alternative approach is an educated officer versed in the various levels of war, capable of participating directly in the formulation of national security policy.

**ACCESSION NUMBER: AD-A262081**

Shipley, Claude W. **Combined Logistics Officers Advanced Course (CLOAC): Leader Development For Future Ordnance Strategic Leaders.** Carlisle Barracks, PA: Army War College, 1998. 44p.

**Abstract:** Formal training is one of the methods for development of strategic leaders. The development of strategic Ordnance leaders is rooted initially with an officer first becoming competent as a leader and knowledgeable in their technical skills. The Advanced Course phase of the current Professional Military Education implemented by the Army is for captains. These captains receive training necessary to be successful in company command. The Combined Logistics Officer Advanced Course (CLOAC) for logisticians adds an additional requirement to prepare them for assignments as multi functional staff officers at the battalion/brigade level. Army budget reductions have also an effect upon the CLOAC program. The impact of these reductions is difficult to determine as concurrent to these reductions training methodologies have been implemented for more efficient, but not necessarily more effective training. The short implementation period inhibits a thorough analysis of the program for developing future Strategic logistics leaders.

**ACCESSION NUMBER: AD-A340095**

Siegel, Adam B. **A Brave New Curriculum For a Brave New World?**

Alexandria, VA: Center for Naval Analyses, March 1991. 28p.

**Abstract:** The Naval War College, like all other defense institutions, is reeling from the rapid changes in the security outlook. From the crumbling of the Soviet empire to the crumbling domestic support for military outlays, the U.S. defense establishment faces challenges to many of the basic defense planning assumptions of the past decade. As Capt. John H. Heidt of

the Naval War College commented, the threat is no longer the Russians. The threat is uncertainty. Adjusting to the rapidly changing environment is a challenge that has to be met if the safe future for the nation is to be secured – adapting the education and training of the nation's future military leaders to the changing environment is one means to ensure appropriate defense policies in the future. One is forced to wonder whether the nation's war colleges require brave new curricula for the brave new world of the coming decades.

**ACCESSION NUMBER: AD-A234351**

Smariga, Linda K. **Reactions and Attitudes Displayed by Air Force Officers to the Combat Support Doctrine.** Master's thesis. Wright-Patterson AFB, OH: Air Force Institute of Technology, School of Systems and Logistics, September 1987. 112p.

**Abstract:** The purpose of this study was to determine a group of officers, reactions and attitudes towards AFM 2-15, the Combat Support Doctrine. Specifically, the study attempted to find if (1) The Combat Support Doctrine was understandable and meaningful to these officers; and to determine (2) If the doctrine was not understandable and meaningful to these same officers, was the problem the actual doctrine itself, or was the problem related more to the institution; the Air Force. That is, was the problem related more to the fact that the Air Force does not emphasize the study of doctrine. The data was collected by a survey developed for this study. The research found that the Combat Support Doctrine was understandable to these officers, but that it was not equally as meaningful to these same officers. There was no conclusive evidence that the doctrine itself was at fault, but the research did show that the Air Force does not emphasize the study of doctrine on a regular basis. Doctrine is only presented, usually in a brief format, at commissioning sources, and more in depth at professional military education schools, in residence.

**ACCESSION NUMBER: AD-A186539**

Smith, B.G. **USAF Security Police Officer Leadership: Effectiveness, Agreement, and the Effects of Education and Experience.** Master's thesis. Wright-Patterson AFB, OH: Air Force Institute of Technology, 1984. 97p.

**Abstract:** The effects of education and experience on leadership are disputed. In the USAF both are viewed as methods of creating effective leaders. Professional military education teaches leadership theory while experience is believed to increase an officer's ability to lead. This study asked four questions concerning: (1) the leadership effectiveness of security police officers; (2) the level of agreement between the officers, their subordinates and/or superiors, on the officer's behavior in given leadership situations; (3) the relationship between professional military education and leadership effectiveness; and (4) the relationship between experience and leadership effectiveness.

**ACCESSION NUMBER: AD-A145371**

Smith, Linda L. **Skelton: A Strategy For Air War College.** Research report. Maxwell AFB, AL: Air War College, April 1990. 57p.

**Abstract:** No abstract available.

**ACCESSION NUMBER: AD-A229941**



Smith, Robert E. **Interagency Operations: Coordination Through Education**. Ft. Leavenworth, KS: Army Command and General Staff College, 2000. 52p.

**Abstract:** This monograph examines the possibilities of improving interagency coordination through an established educational system. The national security interests of the United States rely on the efficient and effective application all instruments of power. The Department of State and Department of Defense are typically responsible for the direction, implementation, and enforcement of foreign policy. However, threats to national security in the twenty-first century may require a more multifunctional interagency approach with diverse capabilities. A single organization does not have these required capabilities. Through a collaborative effort of various government agencies and departments, these capabilities are available. The interagency process is the national level system to coordinate the actions of government agencies in national security affairs. Interagency operations require the cooperation of participating organizations. This monograph researched the development of joint military operations to illustrate necessary actions required to achieve this synergistic effort. From the Unified Command Plan of 1947 to a 'unified action' concept of 2001, the military has gained insight into the difficulties of service coordination and cooperation. Significant to this study was the lesson learned concerning education and the development of a joint force. An outcome of the Goldwater-Nichols Act of 1986 as the requirement for the Chairman of the Joint Chiefs of Staff to oversee the educational development of joint specialty officers (JSO) in order to fill joint duty assignments. The joint professional military education (JPME) curriculum balanced service specific and joint educational requirements. JPME provides a common reference for joint duty officers to collectively plan military operations. This monograph concludes that a professional education system can improve interagency coordination through a shared learning experience.

**ACCESSION NUMBER: AD-A394356**

<http://handle.dtic.mil/100.2/ADA394356>

Sullivan, Shannon M. **Bridging the Gap Between Warfighters and Industry: The Professional and Personal Development of the Acquisition Officer**. Maxwell AFB, AL: Air University, School of Advanced Airpower Studies, 1998. 72p.

**Abstract:** This study analyzes the professional and personal development of acquisition officers and their ability to cope with a rapidly changing environment. The paper compares Carl von Clausewitz's elements of genius to the formal and informal learning processes in the Air Force. In the review of formal learning, the major professional military education programs, such as Squadron Officers School, Air Command and Staff College, and Air War College are reviewed. Additionally, the acquisition professional development program is assessed for its contribution to Clausewitzian genius. Experience, self-directed study, and mentoring fall under the rubric of informal learning. The Air Force counseling program and the non-commissioned officer mentoring culture is evaluated. Recent literature on the personal and professional development of employees is also reviewed. Finally, individuals from the warfighter, developer, and industry communities are interviewed for their thoughts on the strengths and weaknesses of the acquisition officer.

**ACCESSION NUMBER: AD-A391828**

<http://handle.dtic.mil/100.2/ADA391838>

Talbert, Gene E., John P. Hourigan, and James L. Hoyt. **An Analysis of the System For Determining and Validating Air Force Professional**

**Education Requirements.** Final report. 13 July 1970-13 February 1971. Santa Monica, CA: Systems Development Corporation, April 1971. 116p.

**Abstract:** The study of the Air Force professional education system describes and examines the procedures used for determining, validating, and meeting requirements for the development of career officers via the formal programs and courses of Air University. A descriptive model is developed which displays the current processing procedures, information flows, and interrelationships among the agencies, programs, and structures which together comprise the educational system and its embedding environment. The findings from an analysis of the current system and from an examination of alternative procedures are presented together with suggested procedural modifications. It is concluded that the system in its present form does function as a system; that benefits from 'ready solutions' to particular problems may be more apparent than real when considered from the overall system's point of view; and that the principal values of the current study may lie in its descriptive rather than its prescriptive aspects. It is suggested that sustained and concentrated efforts on a number of fronts are needed to develop a comprehensive and valid set of prescriptive measures. Principal issues to be resolved and approaches to be considered are discussed.

**AFHRL-TR-71-3**

**ACCESSION NUMBER: AD-738300**

Taylor, Robert L. and Deonn M. Wall. **Air Force Professional Military Education and Executive Leadership and Management Development - A Summary and Annotated Bibliography.** Final report. Colorado Springs, CO: Air Force Academy, January 1980. 84p.

**Abstract:** Professional Military Education (PME) has, historically, been the process employed by a nation's armed services to train and develop officers for future responsibility and the conduct of war. Over the years, substance and pedagogy have changed, but objectives remain the same. The importance of PME cannot be understated as it is the framework for professional development in an officer corps.

**USAFA-TR-80-1**

**ACCESSION NUMBER: AD-A080552**

Toner, S.C. **George Washington, America's First Strategic Leader.** Research report. Carlisle Barracks, PA: Army War College, April 1996. 26p.

**Abstract:** American military officers are educated via a formal professional military development program, for more than twenty years in pursuit of mastery of the strategic art. Much of that developmental program emphasizes the concepts of war and military genius advocated by Carl Von Clausewitz in his nineteenth century classic, *On War*. This study examines the strategic thought and actions of General George Washington in the American Revolution, which preceded Clausewitz's work by more than thirty years. It shows that, despite the lack of any formal military professional education, Washington made skillful use of the ways and means available to him to construct a strategy capable of achieving the desired ends. The author concludes that, whether judged against Clausewitz's concepts or modern definitions of the strategic art, Washington deserves to be recognized as a master of the strategic art and America's first strategic leader.

**ACCESSION NUMBER: AD-A309270**

<http://handle.dtic.mil/100.2/ADA309270>

Trotter, Jesse J., Jr. **International Military Education and Training Program: Building Bridges Toward a New World Order**. Study project. Carlisle Barracks, PA: Army War College, 29 May 1992. 25p.

**Abstract:** The publication of the August, 1991 version of the National-Security Strategy of the United States marked a watershed in the evolution of American defense planning by migrating from a forty year policy of containment to one emphasizing regional interests and threats. As DOD considers competing programs to support this regionally-based strategy, the International Military Education and Training Program (IMETP), which provides professional military education and technical training to foreign military personnel, is offered as a possible solution if the program is strengthened and expanded. This study places the IMETP into proper context with the other, larger components of the U.S. security assistance program, examines the dynamics that are currently affecting the program and proposes possible solutions to allow it to make a greater contribution. The study is based on primarily source materials as well as interviews with current and retired security assistance officials and key Congressional staff personnel.

**ACCESSION NUMBER: AD-A252931**

U.S. General Accounting Office. **Air Force: Status of Recommendations on Officers' Professional Military Education**. Washington, DC: National Security and International Affairs Division, March 1991. 45p. Briefing Report to the Chairman, Panel on Military Education, Committee on Armed Services, House of Representatives.

**Abstract:** We focused on recommendations concerning Phase I professional military education and selected the recommendations for which the schools are either directly responsible or play a significant supporting role in their implementation. We interviewed appropriate officials at both schools and asked them to characterize the status of each recommendation, and examined pertinent supporting documents. In each case where we were told that the schools had implemented or partially implemented a recommendation, we reviewed and analyzed the supporting documentation used in determining their characterization. In addition, we examined their methodology used to produce supporting data. Where additional action was still required, we met with school officials to discuss future plans. We obtained written documents to support those plans whenever possible. In those cases where school officials told us that they had not taken any action in response to a Panel recommendation, we interviewed appropriate officials to obtain their reasons for non-implementation.

**GAO/NSIAD-91-122BR**

**ACCESSION NUMBER: AD-A253626**

U.S. General Accounting Office. **Army: Status of Recommendations on Officers' Professional Military Education**. Washington, DC: National Security and International Affairs Division, 21 March 1991. 48p. Briefing Report to the Chairman, Panel on Military Education, Committee on Armed Services, House of Representatives.

**Abstract:** A primary objective of the Goldwater-Nichols Reorganization Act of 1986 is 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 the ability of DOD to develop joint specialty officers through its professional military education systems. The

Chairman, Joint Chiefs of Staff, established policies, programs, guidelines, and procedures for coordinating, among other things, the joint professional military education of members of the U.S. armed forces. This guidance is contained in the Military Education Policy Document that was issued in May 1990. Military departments are required to incorporate this guidance into their own professional military education systems.

**GAO/NSIAD-91-121BR**

**ACCESSION NUMBER: AD-A253956**

U.S. General Accounting Office. **Department of Defense: Professional Military Education at the Four Intermediate Service Schools.**

Washington, DC: National Security and International Affairs Division June 1991. 35p.

**Abstract:** A primary objective of the Goldwater-Nichols 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 PME systems. The Panel's April 1989 report envisioned that joint education would be an integral part of PME and would be implemented in two phases. Phase I would be taught at the intermediate level service schools attended by officers primarily at the rank of major/lieutenant commander or at the senior schools attended by officers at the rank of lieutenant colonel/commander and colonel/captain ranks. Phase II, taught at the Armed Forces Staff College (AFSC) in Norfolk, Virginia, would complement Phase I and officers would usually attend it after completing Phase I.

**GAO/NSIAD-91-182**

**ACCESSION NUMBER: AD-A253959**

U.S. General Accounting Office. **Department of Defense: Professional Military Education at the Three Senior Service Schools.** Washington, DC: National Security and International Affairs Division, June 1991. 22p. Report to the Chairman, Panel on Military Education, Committee on Armed Services, House of Representatives.

**Abstract:** This report compares, analyzes, and discusses the actions of the three senior service schools. The Panel on Military Education report envisioned that joint education would be an integral part of PME. Phase I would be taught at the intermediate level schools attended by officers primarily at the rank of major/lieutenant commander or at the senior level service schools attended by officers at the rank of lieutenant colonel/commander and colonel/captain ranks. Phase II, taught at the Armed Forces Staff College in Norfolk, Virginia, would complement Phase I. The senior service schools reported that they have taken some positive action on at least 90 percent of the applicable Panel recommendations, but some key and other Panel recommendations concerning faculty and students have not been fully adopted.

**GAO/NSIAD-91-202**

**ACCESSION NUMBER: AD-A253629**

U.S. General Accounting Office. **Marine Corps: Status of Recommendations on Officers' Professional Military Education.**

Washington, DC: The Office, 1991. 34p. Fact sheet for the Chairman, Panel on Military Education, Committee on Armed Services, House of Representatives.

**Abstract:** No abstract available.

**GAO/NSAID-91-88FS**

U.S. General Accounting Office. **Military Education: Curriculum Changes at the Armed Forces Staff College.** Washington, DC: National Security and International Affairs Division, September 1991. 27p. Report to the Chairman, Panel on Military Education, Committee on Armed Services, House of Representatives.

Abstract: No abstract available.

**GAO/NSIAD-91-288**

**ACCESSION NUMBER: AD-A253726**

U.S. General Accounting Office. **Military Education: Implementation of Recommendations at the Armed Forces Staff College.** Washington, DC: National Security and International Affairs Division, October 1991. 32p.

Abstract: The Goldwater-Nichols Department of Defense Reorganization Act of 1986 seeks to strengthen combined and joint operations of the various military services. In fulfilling this objective, the House Armed Services Committee established the Panel on Military Education in 1987 to report its findings and recommendations about DOD's ability to develop joint specialty officers through its professional military education programs. This report discusses Phase II professional military education programs taught at the Joint and Combined Staff Officer School in Norfolk, Virginia. It continues the series of GAO reports on actions taken by DOD to improve its officer education at the service and joint schools.

**GAO/NSAID-92-30**

U.S. General Accounting Office. **Military Education: Implementation of Recommendations at the Industrial College of the Armed Forces.** Washington, DC: National Security and International Affairs Division, July 1992. 49p.

Abstract: In response to a request, the General Accounting Office has examined various issues relating to the professional military education activities at the joint schools of the National Defense University located at Fort McNair in Washington, D.C. This report addresses the Industrial College of the Armed Forces' implementation of 41 recommendations contained in the April 1989 report of the Panel on Military Education. These recommendations were developed to assist the Department of Defense (DOD) in improving its professional military education programs for officers. This report is the last in a series addressing the nature and extent of actions DOD has taken to improve its officer education at the service and joint schools. (See Related GAO Products at the end of this report.) A primary objective of the Goldwater-Nichols 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 Chairman, Joint Chiefs of Staff, established policies, programs, guidelines, and procedures concerning joint professional military education. In May 1990, he issued guidance in the Chairman's Memorandum 344-90, Military Education Policy Document. While Panel recommendations are advisory, military education institutions are required to incorporate the Chairman's guidance into their own education systems. The professional military education system of DOD is composed of eight service schools and three joint schools.

**GAO/NSIAD-92-221**  
**ACCESSION NUMBER: AD-A298395**

U.S. General Accounting Office. **Military Education: Implementation of Recommendations at the National War College.** Washington, DC: National Security and International Affairs Division, June 1992. 41p.

**Abstract:** A main goal of the Goldwater-Nichols Department of Defense Reorganization Act of 1986 was to strengthen joint and combined operations of the military services, in part by training joint specialty officers at professional military schools. Of 41 recommendations made at the National War College in Washington, D.C. 32 have been successfully implemented, including two key recommendations on establishing a professional military education framework and hiring quality faculty. Nine recommendations have been partially implemented, four of which involve letter grades while the others cover areas not fully within the college's control, including (1) student-to-faculty ratios; (2) the completion of a service intermediate school before attendance at a joint school; and (3) officers in professional categories, like doctors and lawyers, who are assigned to joint duty positions after graduation.

**GAO/NSAID-92-202**

U.S. General Accounting Office. **Military Education: Information on Service Academies and Schools.** (Briefing Report). Washington, DC: National Security and International Affairs Division, September 1993. 18p.

**Abstract:** A variety of constraints – physical, financial, and environmental – make it unlikely that military academies, with the exception of the Air Force Academy, will be able to absorb additional professional military education institutions. All three academies are at or over capacity for classroom and dormitory facilities, and both the Army and Navy Academies have very little land on which to build additional facilities. Because the services differ in how they interpret the definition of professional military education as defined in the Military Education policy document, the Joint Chiefs of Staff's guidance for training military service personnel, the Army has ended up with more professional military education schools that could be candidates for consolidation than has the air Force. GAO identified 32 different schools that conduct 60 different courses; during academic year 1992-1993, more than 36,000 students were enrolled at these schools. The cost for providing professional military education in fiscal year 1993 was pegged at about \$123 million. This figure includes salaries for instructors and support staff but does not factor in such expenses as student salaries.

**GAO/NSAID-93-264BR**

U.S. General Accounting Office. **Navy: Status of Recommendations on Officers' Professional Military Education.** Washington, DC: National Security and International Affairs Division, March 1991. 40p. Briefing Report to the Chairman, Panel on Military Education, Committee on Armed Services, House of Representatives.

**Abstract:** We focused on recommendations concerning Phase I professional military education and selected the recommendations for which the Naval War College is either directly responsible or plays a significant supporting role in their implementation. We interviewed appropriate officials at the College, asked them to characterize the status of each recommendation, and examined pertinent supporting documents. In each case where we were told that officials had implemented or partially implemented a recommendation, we reviewed

and analyzed the supporting documentation used in making their characterization. In addition, we examined their methodology used to produce supporting data. Where additional action was still required, we met with College officials to discuss future plans. We obtained documents supporting those plans whenever possible. In the case where officials told us that they had not taken any action in response to a Panel recommendation, we interviewed appropriate officials to obtain their reasons for non-implementation.

**GAO/NSIAD-91-124BR**

**ACCESSION NUMBER: AD-A253627**

U. S. General Accounting Office. Testimony. **Professional Military Education** by Paul L. Jones, Director of Defense Force Management Issues before the Panel on Military Education, House committee on Armed Services.

Washington, DC: National Security and International Affairs Division, 5 February 1991. 13p.

**Abstract:** GAO testified on its review of Phase I joint professional military education at the four intermediate and three senior service schools. Overall, GAO indicated that the seven service schools have responded very favorably to the recommendations of the Panel on Military Education (part of the House Armed Services Committee), with each school taking positive action on at least 90 percent of the recommendations. Although the schools have taken many positive steps to improve the quality of joint professional military education, concerns exist in curriculum., faculty, and student evaluation areas that warrant the Panel's continuing attention. These areas include in-residence Phase I education, the distinction between the intermediate school and the senior service school curricula (at the Naval War College), prescribed levels of non-host faculty and student mixes and student/faculty ratios, and letter grades (at the Army senior school and the Air Force schools).

**GAO/T-NSIAD-91-4**

**ACCESSION NUMBER: AD-A253939**

Vanasse, Margaret M. **Joint Planning, Education, and Execution.** Ft. Leavenworth, KS: Army Command and General Staff College, 2003. 46p.

**Abstract:** After a series of military failures in the early 1980s, Congress passed the Goldwater-Nichols Defense Reorganization Act of 1986 and President Ronald Reagan signed it into law. Two key facets of the legislation were the intent to increase attention to the formulation of strategy and contingency planning, and the implementation of mandatory joint education and training for officers of all services. The legislation helped formalize collaboration between largely autonomous military services. In the sixteen years since the Goldwater-Nichols Act was passed, the Department of Defense has taken steps to implement its provisions. Joint Vision 2020 articulates that the Armed Forces will be fully joint: intellectually, operationally, doctrinally and technologically. This paper examines the current two-phased Joint Professional Military Education system adopted by the Army in response to the requirements of the Goldwater- Nichols Act. It determines what the legislation actually said and how the law has been clarified and modified in the years since it was passed. It briefly discusses joint doctrine and examines three recent military operations, Operations Desert Storm, Allied Force, and Anaconda to show the maturation of that doctrine. The Department of Defense is meeting the letter of the Goldwater- Nichols Act, but has been slower to embrace the intent - to improve the interoperability of the services in joint operations. To improve future joint planning and execution, the Department of Defense must encourage officers to serve in multiple joint duty assignments, continue to improve and incorporate joint doctrine, and make joint education beneficial to the officers who attend and their gaining commands.

**ACCESSION NUMBER: AD-A416157**

<http://handle.dtic.mil/100.2/ADA416157>

Walsh, Daniel J. **Joint Professional Military Education and Its Effect on the Unrestricted Line Naval Officer Career.** Master's thesis. Monterey, CA: Naval Postgraduate School, March 1997. 162p.

Abstract: The results of this thesis show Joint Professional Military Education (JPME) has four primary impacts on the Unrestricted Line (URL) Naval officer career. First, JPME is an effective retention tool. Second, almost all URL officers completing WME do so between the 10 and 22 year points in their career. Third, a URL officer completing any form of JPME prior to the 0-5 promotion board does not have a significantly better chance of promoting to 0-5; whereas a URL officer completing resident JPME prior to the 0-6 promotion board has a significantly better chance of promoting to 0-6 except in the case of nonresident WME, intermediate level Phase 1/11, and the equivalents (Federal Executive Fellowships or Foreign Service Colleges). For these three forms of JPME, the effect on promotion is insignificant at all levels. Fourth, unlike JPME, a URL officer completing any form of graduate education prior to the 0-5 promotion board has a significantly better chance of promoting to 0-5. In contracts, a URL officer completing graduate education after the 0-5 promotion board does not have a significantly better chance of promoting to 0-6.

**ACCESSION NUMBER: AD-A331606**

<http://handle.dtic.mil/100.2/ADA331606>

Watson, Donald W. **Are We Teaching Senior Noncommissioned Officers What They Really Need to Know?** Student report. Maxwell AFB, AL: Air Command and Staff College, April 1988. 24p.

Abstract: The aim of this project is to determine if the SNCO Academy is meeting its purpose. This determination will be made by an analysis of data supplied by the Air University and the Senior NCO Academy. Senior Noncommissioned Officers have been part of the USAF for about 30 years. These Senior NCOs were and are an extension of the NCO corps and they took a portion of officer positions and responsibilities. Are we educating these individuals to adequately carry out their duties. This report concludes there are two major areas where senior NCO Professional Military Education is falling short; Communicative Skills and Leadership and Management.

**ACCESSION NUMBER: AD-A194197**

Weiss, Michael R. **Education and Development of Strategic Planners in the Navy.** Master's thesis. Monterey, CA: Naval Postgraduate School, December 1990. 188p.

Abstract: This thesis examines the graduate level education and professional military education programs available to U.S. Navy officers who are designated as, or seek to become, Strategic Planners. The programs are reviewed and suggestions are given for interweaving education with billets to provide the career path necessary to expose naval officers to the environment in which the modern strategist must operate. The utilization of officers is also investigated through the results of a survey sent to 449 naval officers with both educational and experience-based Strategic Planning subspecialty codes. Their opinions on the preparation they received, plus their recommendations for improvement are provided.

**ACCESSION NUMBER: AD-A247021**



Wendt, Richard J. **Space, Wargames and Displays**. Student report. Maxwell AFB, AL: Air Command and Staff College, April 1987. 112p.

**Abstract:** There is a need to enhance the introduction of space systems into the professional military education (PME) system of the Air Force. This study recommends what to incorporate; how to incorporate it; and in particular, how to display it. Displays can help students understand the three dimensional aspects of space activities. Wargames acquaint the students with both the capabilities and limitations of space systems; and wargames can illustrate how much we depend on space systems for the conduct of war on earth. War in space may be on the horizon, and new simulation tools are needed to study the doctrines and strategies required to meet the challenge. This study analyzes the needs of three different audiences in the PME environment; and recommends an approach for the development of wargames and simulation tools for each with an emphasis on displays.

**ACCESSION NUMBER: AD-A182124**

<http://handle.dtic.mil/100.2/ADA182124>

White, Gregory B. **Artificial Intelligence Concepts and the War Gaming Environment: A Case Study Using the TEMPO War Game**. Master's thesis. Wright-Patterson AFB, OH: Air Force Institute of Technology, School of Engineering, March 1986. 157p.

**Abstract:** With the introduction of computers, war games became increasingly sophisticated yet most current war games are either too slow, not realistic, or use the computer as a referee only and not as a player. An approach is discussed in the context of TEMPO, a force planning war game currently used by the Air Force at its Squadron Officers School. This thesis involved the development of a version of TEMPO in which a computer expert system takes the place of one of the players, and an intelligent computer instruction system that takes the place of the section leader. The system is implemented on a microcomputer allowing its use in professional military education seminar courses.

**ACCESSION NUMBER: AD-A172782**

Wilkerson, Lawrence B. **What Exactly is Jointness?** Washington, DC: Assistance Secretary of Defense (Public Affairs), 1997. 4p.

**Abstract:** The last thirteen of my thirty-plus years as a military officer have been spent in joint duty assignments. For six years I have actually taught the essentials of jointness at the intermediate and senior levels of professional military education (PME), an experience which has provided many opportunities to discuss the nature of jointness with students. What has come out of those discussions is that jointness is understanding broadly what your fellow soldiers, sailors, airmen, and marines bring to the battle and trusting them to do it right and well-and their feeling the same way about you. All frills and lobbying aside, the essence of jointness is understanding and trust. As General Colin Powell stated in the first edition of Joint Pub 1, "joint warfare is team warfare." But what about seamlessness, synergy, joint doctrine, interoperability, and all the other buzzwords? Let's examine some of the more prevalent ones.

**ACCESSION NUMBER: AD-A354187**

<http://handle.dtic.mil/100.2/ADA354187>

Willey, Debra A. **Innovative Problem Solving in USAF Officer PME Curriculum**. Maxwell AFB, AL: Air University, Air Command and Staff College, 2002. 40p.

**Abstract:** Innovative problem solving is a critical cognitive skill that leaders need to tackle the complex and ill-defined problems inherent in leadership and dynamic organizations. In an era of rapid technological and informational innovations, Air Force leaders find themselves in a constantly changing military and world environment. Air Force leaders must be capable of innovative thought and action in order to deal with the ambiguous, complex, and novel problems this changing environment generates. Although creative problem solving is often perceived as a rare talent, it is a cognitive skill and innate ability that can be nurtured, developed, and stimulated through education and training. This research paper examines the following two questions: (1) Are USAF officer professional military education (PME) curricula at in-residence schools offering innovative strategies for solving problems? and (2) Along the PME continuum, is there a difference in what is offered in each school and is it appropriate for the level of the officer's experience? A literature review of the following areas was conducted: the importance of innovative problem solving, problem solving and leadership, the acquisition of problem solving knowledge and skills, and the USAF officer PME curricula. The research concluded that while Air Force PME does a good job of developing innovative problem solving skills at the primary officer levels, not much of an emphasis is placed on fine-tuning or expanding these skills at the middle and senior officer levels. More research is needed to determine whether the curriculum at the middle and senior service schools should be expanded to include innovative problem solving.

**ACCESSION NUMBER: AD-A407136**

<http://handle.dtic.mil/100.2/ADA407136>

Wilsbach, Kenneth S. **United States Air Force Operational Education Training and Organization.** Newport, RI: Naval War College, 1998. 32p.

**Abstract:** The operational competencies of Air Force officers are a result of their education, training and experience. The organization of the service also provides some degree of experience by supplying the officer with leadership opportunities. The paper asserts that changes can be made in these areas to improve the jointness of the service and prepare junior officers for future senior leadership positions. These changes include: more joint curriculum at junior level professional military education courses, exposure to true joint operational training exercises, and reorganization of Air Force units to promote joint interoperability.

**ACCESSION NUMBER: AD-A348345**

<http://handle.dtic.mil/100.2/ADA348345>

Wilson, Isaiah. **Educating the Post-Modern U.S. Army Strategic Planner: Improving the Organizational Construct.** Ft. Leavenworth, KS: Army Command and General Staff College, School of Advanced Military Studies, 2003. 97p.

**Abstract:** The prevailing U.S. Army professional military education (PME) system reflects the legacy of the twentieth century, modern, mechanized age of warfare. The twenty-first century security environment presents a unique set of challenges for U.S. national security and military strategy. The rise of a new information-age of warfare exacerbates the perpetual dichotomy between strategic intent and tactical action in war policy. In this new age, perhaps more than ever before, the distinction between periods of peace and episodes of war has become an arbitrary distinction; war in this age is increasingly just a "continuation of politics and policy by other (all) means." Yet, the persisting PME continues to separate the martial tactical expert (the warfighter) from the extra-martial operational and strategic expert (the war-thinker), even constructing the career development profile of the Army officer corps in this bifurcated manner. Effective war policy through the integration of the full spectrum of national and multinational (coalitional) capabilities is less effectively learned under such an

education and career development system. What the information-age of warfare demands is the education, training, and experienced-based learning of uniformed strategic planners' - experts well versed in the planning, management, and leadership of full spectrum, holistic war policy.

**ACCESSION NUMBER: AD-A419795**

<http://handle.dtic.mil/100.2/ADA419795>

Wilson, James R. **Postgraduate Education and Professional Military Development: Are They Compatible?** Master's thesis. Monterey, CA: Naval Postgraduate School, December 1991. 61p.

**Abstract:** This thesis examines the utilization of graduate education for graduates of the Naval Postgraduate School, Manpower, Personnel, and Training analysis (MPTA) curriculum, from December 1986 through June 1991. The study focuses on four areas: (1) developing a list and rank structure of billets requiring the xx33P code granted upon completion of the education, (2) tracking the careers of the officers following their graduation from the curriculum, (3) examining the career progression paths to find places where timely utilization could be undertaken, and (4) examining the designator composition of the population. The study determined that utilization for the period December 1986 through June 1991 was 22.2%. Assuming that all officers still in the two-tour Department of Defense utilization window were assigned to utilization billets as their next assignment, the utilization rate would rise to 52.5%. This was deemed unacceptable, and the recommendation was to require an eighteen month utilization tour immediately following completion of the curriculum. This would cause the utilization rate for MPTA graduates to rise to 97%.

**ACCESSION NUMBER: AD-A245988**

Woodruff, Steven E. **Analysis of Air Force Acquisition Engineering Officer's Perceptions of the Adequacy of Their Preparation For Management.** Master's thesis. Wright-Patterson AFB, OH: Air Force Institute of Technology, School of Systems and Logistics, March 1994. 114p.

**Abstract:** The purpose of this study was to determine how much time Air Force acquisition engineers spend in performing management functions, how those engineers spend in performing management functions, how those engineers perceive their management training, and which types of training contribute the most to managerial competency. The results from surveys of 215 acquisition engineers assigned to ASC/EN, Wright-Patterson AFB, OH and their supervisors revealed that engineers do indeed spend substantial amounts of time performing management functions. Slightly more than half the engineers reported spending at least 50% of an average workday performing management functions. Over 53% of engineers responding to the survey felt their management training had been either 'excellent' or 'good'. Management skills were rated either 'excellent' or 'good' by 72% of the respondents. In the key area of communication skills, 87% agreed they had the necessary communication skills to be successful in their jobs. The most effective contributors to managerial competency were experience, an aptitude for management, and having a mentor. Items rated least effective in improving management abilities included Professional Military Education courses and the System 100 and System 200 system acquisition classes.

**ACCESSION NUMBER: AD-A277972**

## WEB SITES

### Vision Statements and Doctrine sites

#### **Joint**

*Joint Vision 2020* -- <http://www.dtic.mil/jointvision/jvpub2.htm>  
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Joint Vision Historical Documents --  
<http://www.dtic.mil/jointvision/history.htm>

#### **Air Force**

*Global Engagement* -- <http://www.dtic.mil/jointvision/vusaf.pdf>  
Doctrine Documents -- <https://www.doctrine.af.mil/> .AF ONLY

#### **Army**

*Army Vision 2010* -- <http://www.dtic.mil/jointvision/varmy.pdf>  
Doctrine Manuals -- <http://www.army.mil/usapa/doctrine/>

#### **Marine Corps**

*Marine Corps Strategy 21* -- <http://www.dtic.mil/jointvision/strategy.pdf>  
Doctrine Manuals -- <https://www.doctrine.quantico.usmc.mil>

#### **Navy**

*Forward From The Sea* -- <http://www.dtic.mil/jointvision/b014.pdf>  
Doctrine Publications --  
<http://www.nwdc.navy.mil/http://www.nwdc.navy.mil/>

### Schools

#### **Joint**

National Defense University -- <http://www.ndu.edu/>  
National War College -- <http://www.ndu.edu/nwc/index.htm>  
Information Resources Management College --  
<http://www.ndu.edu/irmc/>  
Industrial College of the Armed Forces -- <http://www.ndu.edu/icaf>  
Joint Forces Staff College -- <http://www.jfsc.ndu.edu/>  
School for National Security Executive Education --  
<http://www.ndu.edu/snsee/index.cfm>

#### **Air Force**

Air University -- <http://www.au.af.mil/>  
Air Command and Staff College -- <http://www.wacsc.maxwell.af.mil/>  
Air War College --  
<http://www.maxwell.af.mil/au/awc/awchome.htm>

Squadron Officer School -- <http://sos.maxwell.af.mil/>  
College for Enlisted Professional Military Education --  
<http://cepme.maxwell.af.mil/>

### **Army**

Army Command and General Staff College --  
<http://cgsc.leavenworth.army.mil/>  
Army War College -- <http://carlisle-www.army.mil/>

### **Marine Corps**

Marine Corps University – <http://www.mcu.usmc.mil/>  
Enlisted PME -- <http://www.mcu.usmc.mil/sncoa/index.cfm>  
Marine Corps War College --  
<http://www.mcu.usmc.mil/mcwar/default.cfm>  
Command and Staff College -- <http://www.mcu.usmc.mil/csc/index.htm>  
School of Advanced Warfighting --  
<http://www.mcu.usmc.mil/csc/sawmsn.htm>  
Expeditionary Warfare School -- <http://www.mcu.usmc.mil/ews/>

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Naval War College -- <http://www.nwc.navy.mil/>  
Senior Enlisted Academy -- <http://wwwnt.cnet.navy.mil/sea/>

## **Professional Reading Sites**

### **Air Force**

Chief of Staff -- <http://www.af.mil/csafreading/>

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Chief of Staff –  
<http://www.army.mil/cmh-pg/reference/CSAList/CSAList.htm>

### **Chairman Joint Chiefs of Staff**

<http://www.au.af.mil/au/awc/awcgate/jcs/reading-list.htm>

### **Joint Forces Staff College Commandant**

[http://www.jfsc.ndu.edu/current\\_students/documents\\_policies/documents/reading\\_list/default.asp](http://www.jfsc.ndu.edu/current_students/documents_policies/documents/reading_list/default.asp)

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<http://jdeis.cornerstoneindustry.com/JSPportlets/eduResearch/users/intro.jsp>

*Joint Leadership Competency Symposium --*  
[http://www.dtic.mil/doctrine/edu\\_leadership.htm](http://www.dtic.mil/doctrine/edu_leadership.htm)

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Pt 2 -- <http://www.dtic.mil/doctrine/education/cplan2.ppt>

Pt 3 -- <http://www.dtic.mil/doctrine/education/cplan3.ppt>

*PAJE: Accreditation of Joint Education --*  
[http://www.dtic.mil/doctrine/education/accreditationschedule2001\\_2.doc](http://www.dtic.mil/doctrine/education/accreditationschedule2001_2.doc)

*Senior NCO Joint Education --*  
<http://www.dtic.mil/doctrine/education/srncostudybrief.ppt>

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<http://merln.ndu.edu/diglib.html>

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*Professional Military Journal Reading Room*

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<http://www.au.af.mil/au/awc/awcgate/awc-pme.htm>